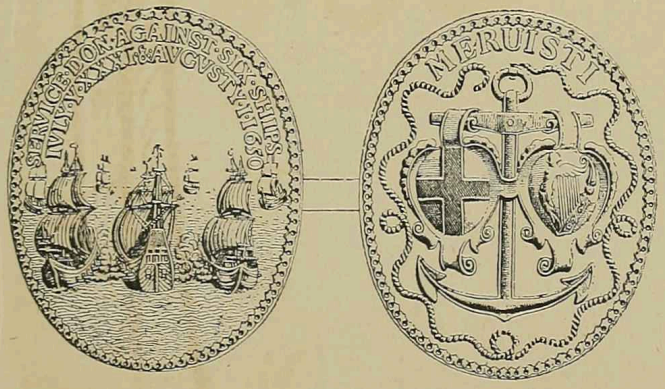
A HISTORY OF THE ADMINISTRATION OF THE ROYAL NAVY AND OF MERCHANT SHIPPING IN RELATION TO THE NAVY ⁘ FROM MDIX TO MDCLX WITH AN INTRODUCTION TREATING OF THE PRECEDING PERIOD

BY M. OPPENHEIM



JOHN LANE THE BODLEY HEAD
LONDON AND NEW YORK
MDCCCXCVI

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A HISTORY OF THE ADMINISTRATION OF THE ROYAL NAVY

VOLUME I

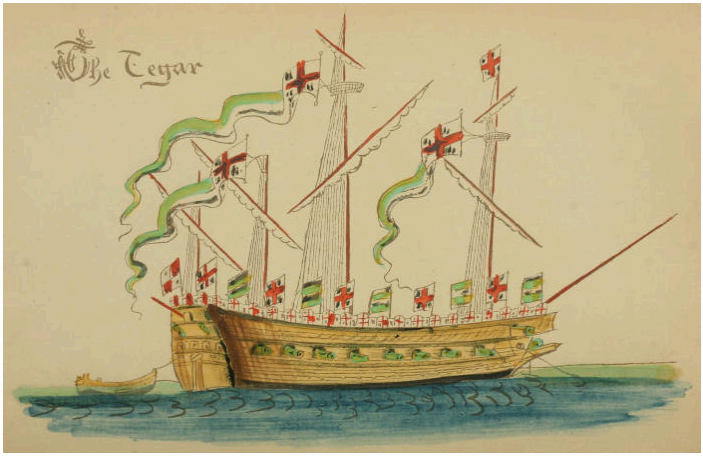
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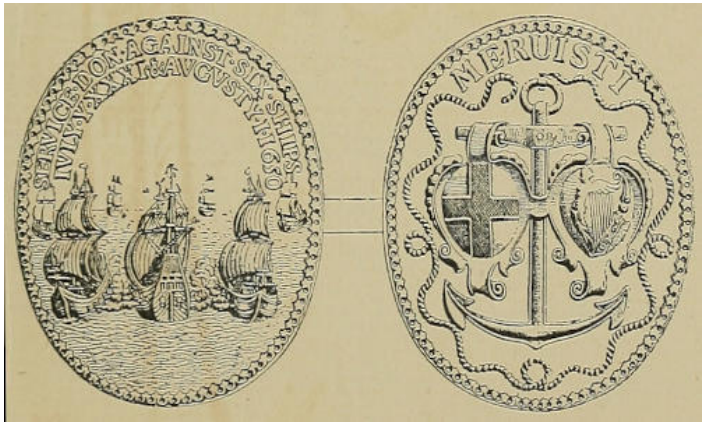
VOL I
MDIX-MDCLX

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PREFACE

Of the following pages the Introduction and the portion dealing with the period 1509-1558 are entirely new. The remainder originally appeared in the *English Historical Review*, but the Elizabethan section has been rewritten and much enlarged in the light of fresh material found since it was first printed, and many additions and alterations have been made to the other papers. Of the four Appendices three are new.

Sixteen years ago the *doyen* of our English naval historians, Professor J. K. Laughton, wrote,

> 'Every one knows that according to the Act of Parliament, it is on the Navy that "under the good providence of God, the wealth, safety, and strength of the kingdom chiefly depend," but there are probably few who have realised the full meaning of that grave sentence.'[1]

Since those words were penned, a more widely diffused interest in naval matters has permeated all classes of society, and there is, happily, a vastly increased perception of what the Navy means for England and the Empire.[2] The greater interest taken in naval progress has caused a new attention to be bestowed on the early history of the Navy, and there is little apology required for the plan—however much may be needed for the execution—of a work dealing with the civil organisation under which the

executive has toiled and fought. Whole libraries have been written about fleets and expeditions, but there has never yet been any systematic history of the organisation that rendered action on a large scale possible, or of the naval administration generally, and although its record does not appear to the writer to be a matter for national pride, it has its importance as a corollary of—and if only as a foil to —that of the Navy proper. This work as a whole, is therefore intended to be a history of the later Royal Navy, and of naval administration, from the accession of Henry VIII until the close of the Napoleonic wars, in all the details connected with the subject except those relating to actual warfare.

The historical evolution of many of the great administrative offices of the state, as they exist now, can be, in most cases, observed through the centuries and the course and causes of their growth traced with sufficient exactness. Originally a delegation of some one or more of the functions of the monarch, they have developed from small and obscure beginnings in the far off past and increased with the growth of the nation. The naval administration of to-day has no such dignity of antiquity. It will be for the readers of these volumes in their entirety to decide whether it has earned that higher honour which comes of loyal service performed with justice to the subordinates dependent on it, and with honesty to the British people who have entrusted it with such important duties.

The Board of Admiralty came into power subsequent to the period at which this volume ends. It dates, properly from 1689, or, at the utmost, reaches back to 1673, but its forerunner, the modern administration which is the subject of the present

volume, sprang full grown into life in 1546 when the outgrown mediæval system ended. The Admiralty Board is in the place, and administers the duties, of the Lord Admiral, but that officer although the titular head of the Navy never had any very active or continuous part in administration, nor was the post itself a very ancient one. James, Duke of York, afterwards James II, was the first Lord Admiral who really took actual charge of domestic naval affairs and the Admiralty succeeded him, and to his powers, thus overshadowing the Navy Board. Between 1546 and 1618, the Navy was governed by the Principal Officers, controlling the various branches of naval work, who constituted the Navy Board; between 1618 and 1689 we have a transitional period when the Navy Officers, Commissioners of the Admiralty, Parliamentary Committees, Lord Admiral, and the King, were all at different times, and occasionally simultaneously, ruling and directing. The Admiralty now more nearly represents in function and composition the old Navy Board, abolished in ignominy in 1832, than the Board of the seventeenth or eighteenth centuries with which, except in the power still retained by the First Lord, it has little in common but name.

Our subject then in this volume, is the Navy Board as the predominant authority between 1546 and 1660. Although a history of the modern administration should in exactness, therefore, begin in 1546, an academic preciseness of date would be obtained at the expense of historical accuracy since Henry VIII remodelled the Navy, before he touched the administration. The year of his accession has therefore been chosen as the starting point. But it should be borne in mind that there is very much less difference between the great and complex

administration of to-day, and the Navy Board or—as it was then sometimes called—the Admiralty, of 24th April 1546, than between the Board of 24th April and what existed the day before. Within the twenty-four hours the old system had been swept away and replaced; its successor has altered in form but not in principle.

The sources of information are sufficiently indicated by the references. The great majority of them being used for the first time, subsequent inquiry may modify or alter some of the conclusions here reached. Unless a date is given in a double form (*e.g.* 20th February 1558-9) it will be understood to be new or present style, so far as the year is concerned. Few attempts have been made to give the modern equivalents of the various sums of money mentioned during so many periods when values were continually fluctuating. With one exception all the MS. collections known to the writer, likely to be of value, have been fully examined, but there are also many papers not available for research in the possession of private owners. The one exception referred to is the collection of Pepys MSS., at Magdalene College, Cambridge. An application to examine these was refused on the ground that a member of the university was working at them. It is to be hoped that this ingenuous adaptation of the principles of Protection to historical investigation will duly stimulate production.

There remains the pleasant duty of thanking those from whom I have received assistance. To Mr S. R. Gardiner, and Professor J. K. Laughton, I am obliged for various suggestions on historical and naval questions; to Professor F. Elgar for information on the difficult subject of tonnage measurement. I have

to thank Mr F. J. Simmons for assistance in the task of index compilation and proof-reading.

As this is the first opportunity I have had of publicly acknowledging my indebtedness to Mr E. Salisbury of the Record Office, I am glad to be now able to express my sincere gratitude to that gentleman for constant and cordially given help in many ways during the five years this book has been in preparation.

September 1896.



INTRODUCTION
THE NAVY BEFORE 1509

The Modern Navy.

The creation of the modern Royal Navy has been variously attributed to Henry VII, to Henry VIII, and to Elizabeth. Whichever sovereign may be considered entitled to the honour, the statement, as applied to either monarch, really means that modification of mediæval conditions, and adoption of improvements in construction and administration, which brought the Navy into the form familiar to us until the introduction of steam and iron. And in that sense no one sovereign can be accredited with its formation. The introduction of portholes in, or perhaps before the reign of Henry VII, differentiated the man-of-war, involved radical alterations in build and armament, and made the future line-of-battle ship possible; the establishment of the Navy Board by Henry VIII, made the organisation of fleets feasible and ensured a certain, if slow, progress because henceforward cumulative and, in the long run, independent of the energy and foresight of any one man under whom, as under Henry V, the Navy might largely advance, to sink back at his death into decay. Under Elizabeth the improvements in building and rigging constituted a step longer than had yet been taken towards the modern type, the Navy Board became an effectively working and flourishing institution, and the wars and voyages of her reign founded the school of successful

seamanship of which was born the confidence, daring and self-reliance still prescriptive in the royal and merchant services.

The origin of the Navy:— William I.

It is not the purpose of this work to deal with the history, of the Navy previous to the accession of Henry VIII, but no real line of demarcation can be drawn in naval more than in other history, and it will be necessary to briefly sketch the conditions generally existing before 1509, and in somewhat more detail, those relating to the fifteenth century.[3] In the widest sense the first Saxon king who possessed galleys of his own may be said to have been the founder of the Royal Navy; in a narrower but truer sense, the Royal Navy as an appanage of imperial power, and an entity of steady growth, really dates from the Norman conquest. The Saxon navy although respectable by way of number, was essentially a coast defence force, mustered temporarily to answer momentary needs, and lacking continuity of existence and purpose. There is but one instance of a Saxon fleet being employed out of the four seas, that which Canute used in the conquest of Norway, and in it the Scandinavian element was probably larger than the Saxon. With the advent of William I, the channel, instead of remaining a boundary, became a means of communication between the divided dominions of one monarch, and a comparatively permanent and reliable naval force, both for military transport and for command of the passage between the insular and continental possessions of the Crown, became a necessity of

royal policy. For nearly two centuries this duty was mainly performed by the men of the Cinque Ports who, in return for certain privileges and exemptions, were bound, at any moment, to place fifty-seven ships at the service of the Crown for fifteen days free of cost, and for as much longer time as the king required them at the customary rate of pay.[4] These claims, practically constituting the Cinque Ports fleet a standing force, were ceaselessly exercised by successive monarchs, and, at first sight, such demands might seem to be destructive of that commercial progress which is the primary basis of the growth or maintenance of shipping. But the methods of warfare in those ages were more profitable than commerce, and the decay of the Ports was not due to poverty caused by the calls made upon their shipping for military purposes. The existence of the Cinque Ports service was indirectly a hindrance to the growth of a crown navy, since it was obviously cheaper for the king to order the Ports to act than to man and equip his own vessels; it was not until ships of larger size and stronger build than those belonging to the Ports were required, that the royal ships came into frequent use.

Results of the Conquest: —Growth of Trade and Shipping.

As well as mobilising the Cinque Ports fleet, the sovereign was able to issue writs to arrest the ships of private owners throughout the kingdom, together with the necessary number of sailors, when rival fleets had to be fought or armies to be transported.

The Normans, descendants of the Vikings, must have been better shipbuilders and better seamen than the Saxons, and the large number of nautical words that can be traced back to Norman French bear witness to improvements in rigging and handling due to them. The Crusades must have reacted on the English marine by bringing under the observation of our seamen the construction of ships belonging to the Mediterranean powers, then far in advance of the North in the art of shipbuilding. And during the century which followed the Conquest, the foreign trade, which is the nursery of shipping, was steadily growing. Under the Angevin kings the whole coast line of France, from Flanders to Bayonne, was, with the exception of Brittany, subject to English rule, and the inter-coast traffic that naturally followed was the greatest stimulus to maritime enterprise this country had yet experienced. The result was seen in the Crusade of 1190, when the fleet of Richard I for the Mediterranean was made up of vessels drawn from the ports of the empire, but many of them doubtless belonging to the continental possessions of the crown; and as John certainly possessed ships of his own, it may be inferred that Richard, and his predecessors also had some. When a general arrest was ordered, foreign ships were seized as well as English, and this practice continued as late as the first years of Elizabeth. Richard I issued, in 1190, regulations for the government of his fleet. These regulations doubtless only methodised customs already existing, and as they dealt with offences against life and property bear the mark of their commercial origin. Offences against discipline must have been punished by military law and military penalties, and required no new code.



Clerk of the Ships.

During the reign of John we meet the first sign of a naval administration in the official action of William of Wrotham, like many of his successors a cleric, and the first known 'Keeper of the king's ships.' This office, possibly in its original form of very much earlier date and only reconstituted or enlarged in function by John, and now represented in descent by the Secretaryship of the Admiralty, is the oldest administrative employment in connection with the Navy. At first called 'Keeper and Governor' of the king's ships, later, 'Clerk of the king's ships,' this official held, sometimes really and sometimes nominally, the control of naval organisation until the formation of the Navy Board in 1546. His duties included all those now performed by a multitude of highly placed Admiralty officials. If a man of energy, experience, and capacity, his name stands foremost in the maintenance of the royal fleets during peace and their preparation for war; if, as frequently happened, a merchant or subordinate official with no especial knowledge, he might become a mere messenger riding from port to port, seeking runaway sailors, or bargaining for small parcels of naval stores. Occasionally, under such circumstances, his authority was further lessened by the appointment of other persons, usually such as held minor personal offices near the king, as keepers of particular ships. This was a method of giving a small pecuniary reward to such a one, together with the perquisites he might be able to procure from the supply of stores and provisions necessary for the vessel and her crew.

In the course of centuries the title changed its form. In the fifteenth and sixteenth centuries the

officer is called ‘clerk of marine causes,’ and ‘clerk of the navy;’ in the seventeenth century, ‘clerk of the acts.’ Although Pepys was not the last clerk of the acts, the functions associated with the office, which were the remains of the larger powers once belonging to the ‘Keeper and Governor,’ were carried up by him to the higher post of Secretary of the Admiralty.

Henry III.

With the reign of Henry III we find the royal ships large enough to become attractive to merchants, who hired them from the king for freight, perhaps at lower rates than could be afforded by private owners. There is hardly a reign, down to and including that of Elizabeth, in which men-of-war were not hired by merchants, and the earlier trading voyages to Italy and the Levant during the last quarter of the fifteenth century were nearly all performed by men-of-war let out for the voyage. The Navy was mainly made up of sailing vessels even before the reign of Henry III, and by that period many of them possessed two masts, each carrying a single sail. The conversion of a merchantman into a fighting-ship was accomplished by fitting it with temporary fore and after castles, which became later the permanent forecastle and poop, the addition of a ‘top castle’ or fighting top, and the provision of proper armament. Doubtless the king’s own ships were more strongly built, and better adapted by internal arrangements for their work, than the hired merchantmen. The supreme government of the Navy in the thirteenth and fourteenth centuries was in the hands of the King’s Council, who ordered, equally, the preparation and fitting of ships and the action of the admirals commanding. These officers, known

during the greater part of the thirteenth century as keepers or governors of the sea, were usually knights or nobles in command of the soldiers. While holding commission they appear to have had jurisdiction in the matter of discipline on board their fleets, but not of law suits or maritime causes until 1360; before that date such causes were dealt with at common law.[5] There were usually two, one having charge of the East, the other of the South Coast, but occasionally, an officer had a particular section placed under his care, such as the coasts of Norfolk and Suffolk. Their period of service was commonly short and often only for a special employment. The maintenance of a fleet was a part of the King's Household expenses; in the Wardrobe Accounts for 1299-1300 are the amounts paid for fifty-four vessels and their crews hired for the conveyance of stores for the Scotch war.

Galleys.

Galleys, although frequently mentioned, were at no time a chief portion of our fleets. Large fleets were mainly composed of impressed merchantmen, and galleys are expensive and useless for trading purposes compared with sailing ships; the natural home of the galley was the landlocked Mediterranean, and even there its utility was limited to the summer months, so that it was still less suitable for Northern latitudes. But the great difficulty was in manning them. Forced labour by captives taken in the continual warfare normal amongst the states on the Mediterranean littoral solved that problem for them, but here the cost of the free oarsman, to whom the drudgery was in any case distasteful, was prohibitive. We shall see that, down to the close of the sixteenth century, attempts

were at various times made to form such a service, but always unsuccessfully, and the supreme moment of the galley service, so far as it ever existed here, was the reign of Edward I.[6] This king steadily increased the strength of the Navy. In 1294 and 1295 galleys were built by him at York, Southampton, Lynn, Newcastle and Ipswich, of which at least two pulled 120 oars apiece. Perhaps the experiment was conclusive for, neither as regards number or size do such ever occur again. Although Edward III had one or two built, most of those he employed were temporarily hired from the Genoese or from Aquitainean ports, and the total number bore a very small proportion to the sailing vessels in his fleets. The records of the first years of Edward II show that the crown possessed at least eleven vessels, all sailing ships, but the circumstances of the reign were not conducive to the growth of a Royal Navy, although there seem to have been ten ships in 1322.

Edward III: —Relative estimation of Army and Navy.

A far-seeing statesmanship in relation to the political value of sea-power has been attributed to Edward III on the strength of the victories of 1340 and 1350, and of two lines of a poem, written nearly a century later, referring to the gold noble of 1344. [7] This view assigns to Edward a knowledge, in the modern sense, of ‘the influence of sea-power on history’ greater than that possessed by such a statesman as Edward I, and a policy in connection with maritime matters of which the results, at anyrate, were directly the opposite of his intentions.

The claim to be lord of the narrow seas was not a new one, and was as much and merely a title of dignity as any other of the sovereign's verbal honours, not following the actual enforcement of ownership but consequent to the fact of the channel lying between England and Normandy.[8] And it was a title also claimed by France. There is no sign in the policy of the early kings of any perception of the value of a navy as a militant instrument like an army, or any sense of the importance of a real continuity in its maintenance and use. Society was based on a military organisation, but there was no place in that organisation for the Navy except as a subsidiary and dependent force. Fleets were called into being to transport soldiery abroad, to keep open communications, or to meet an enemy already at sea, but the real work of conquest was always held to be the duty of the knights and archers they carried from one country to another. There is no understanding shewn of the ceaseless pressure a navy is capable of exercising, and the disbandment of all, or the greater part, of the fleet was usually the first step which followed the disembarkation of troops or a successful fleet action. In an age when the land transit of goods was hampered by innumerable disadvantages, the position of England, dominating the natural way of communication between the prosperous cities of the north and their customers, was one of splendid command had its far-reaching political possibilities been realised. That they did not comprehend a function only understood many generations later cannot be made a subject of censure, but it has a distinct bearing on the question of Edward's superiority in this matter to his predecessors and successors. In the same way as theirs the methods of Edward III were directed to conquests by land, and,

once the troops were transported or an opposing fleet actually in existence was crushed, the Channel was left as bare of protection to merchantmen, and as destitute of any power capable of enforcing the reputed sovereignty of the narrow seas, as it remained down to the days of the Commonwealth. Beyond the fact that in 1340 and 1350 Edward commanded in person, where his predecessors had been represented by deputies, his action in relation to the Royal Navy differs in no respects from theirs. The gold noble of 1344, into which so much meaning has been read, was struck in combination with the people of Flanders for political and trading purposes, and in connection with Edward's intrigues to obtain their financial and military support. It is noteworthy that in December 1339, six months before the battle of Sluys, Flanders, Brabant, and Hainault, agreed that a common coinage should be struck, and this, in all probability, marks the first inception of the noble when Edward realised the purposes to which a common coinage for England and the Low Countries might be made to work. In 1343 the Commons petitioned for a gold coin to run equally in England and Flanders and thus strengthened the king's purpose. But the ship on this coin, the noble, was obviously an afterthought since the florin, the first issue of the same year, called in on account of its unpopularity, bore the royal leopard on the whole and half noble and the royal crest on the quarter one; if therefore the king meant all that is supposed to be implied by the device it occurred to him very suddenly and subsequent to the first, and deliberately thought out, issue.[9] All that the writer of the *Libel of English Policie* says is that, in 1436, the noble proves to him four things. Further reasons, in relation to other passages of the poem, will be

adduced on a later page to show that his work is only one more instance among the many in which individual and unofficial thinkers have been in advance of the statesmanship of their age and whose views, ignored by their contemporaries have become the accepted opinions of a subsequent period.

Edward III: — Commercial policy in relation to shipping.

The commercial policy of Edward III was emphatically not one of protection to English shipping, being a nearer approach to free trade than existed for centuries after his death. During the greater part of his reign the needs in ships for his campaigns were supplied from the accumulations of the reigns of Edward I and Edward II, the second of which was not necessarily disastrous to commerce. But when these were exhausted it was found that a system which had aimed merely at obtaining a highest possible yearly revenue for the purpose of supporting armies had, whether or not in itself, fiscally praiseworthy resulted in the ruin of English shipping. In 1372 and 1373, the Commons complained of the destruction of shipping and the decay of the port towns, and it is collateral evidence of Edward's real lack of insight into the value of a marine—its slow creation and its easy loss—that some of the causes to which they attributed these circumstances were directly due to a reckless indifference to, or ignorance of, the only conditions which could render a merchant marine, subject to conscription, possible.[10] Vessels, they said, were pressed long before they were really wanted, and

until actually taken into the service of the crown, ships were idle and seamen had to be paid and supported at the expense of the owners; the effect of royal ordinances which had driven many shipowners to other occupations, and the decrease in the number of sailors due to these and other causes, formed further articles of remonstrance.[11]

The year which saw the decease of the 'Lord of the Sea,' was marked by the sack of Rye, Lewes, Hastings, Yarmouth, Dartmouth, Plymouth, Folkestone, Portsmouth, and the Isle of Wight, a sufficient commentary on the title, and an adequate illustration of the system which had left absolutely no navy, royal or mercantile, capable of protecting the coasts.

Payment of hired ships.

In 1378 the Commons again attributed the defenceless state of the kingdom not so much to the late king's impressment of ships as to the losses and poverty caused by non-payment, or delay in payment for their use, and lack of compensation for waste of fittings and stores. Every meeting of Parliament was signalised by fresh representations, and that of 1380 obtained a promise that owners should receive 3s 4d a 'ton-tight' for every three months, commencing from the day of arrival at the port of meeting; in 1385 this allowance was reduced to two shillings, and remained at that rate, notwithstanding frequent petitions for a return to the older amount, for at least half a century.[12] It is not known when the payment of 3s 4d a ton was first introduced, nor on what principle it was calculated, but, in 1416, the Commons said that it ran 'from beyond the time of

memory.' The following petition, undated, but probably belonging to one of the early years of Henry IV, shows that it was older than the Edwards, and, incidentally, yields some interesting information:

> 'To the very noble and very wise lords of this present Parliament very humbly supplicate all owners of ships in this kingdom. That whereas in the time of the noble King Edward and his predecessors, whenever any ship was commanded for service that the owner of such a ship took 3s 4d per ton-tight in the three months by way of reward for repair of the ship and its gear, and the fourth part of any prize made at sea, by which reward the shipping of this kingdom was then well maintained and ruled so that at that time, 150 ships of the Tower were available in the kingdom;[13] and since the decease of the noble King Edward, in the time of Richard, late King of England, the said reward was reduced to two shillings the ton-tight, and this very badly paid, so that the owners of such ships show no desire to keep up and maintain their ships, but have them lying useless; and by this cause the shipping of this kingdom is so diminished and deteriorated that there be not in all the kingdom more than 25 ships of the Tower.'[14]

They then beg a return to the old rates. We may gather from this document that, at some time during the reign of Edward III there were one hundred and fifty large fighting ships available, and there is some reason to believe that, both in number and size, the fourteenth and fifteenth century navy has been too

much underrated when compared with that of the sixteenth century. At least one merchantman of the time of Edward III was of three hundred tons, others were of two hundred, and it will be shown that, in the middle of the fifteenth century, the number and tonnage of merchant vessels will compare favourably with any subsequent period up to, and in fact later, than the accession of Elizabeth.

The close of the xiv century:—The French Navy.

While, under Richard II, the guard of the seas was maintained with chequered success by hired ships, the French, under the able rule of Charles V, not only possessed a navy but had founded a dockyard at Rouen completely equipped according to the ideas of the age.[15] Thirteen galleys and two barges are mentioned in this account, with all the tools, fittings, and armament necessary for building, repairing, and equipment, and constituting a complete establishment such as did not exist in England until more than a century later. The accession of Charles VI, and the internal dissensions which culminated in Azincourt, determined an essay not again attempted on the Northern or Western coasts until the ministry of Richelieu.

Richard II and Henry IV.

The first Navigation Act,[16] ‘to increase the Navy of England which is now greatly diminished,’ by making it compulsory for English subjects to export

and import goods in English ships, with a majority of the crews subjects of the English crown, can only be regarded as a suggestion of future legislation. In fact, it was practically annulled by a permissive amendment the following year. More disastrous to merchants than the losses due to warfare were the operations of the pirates who swarmed on the Northern Coasts of Europe during these centuries, and who appear to have become unbearably successful during the reign of Henry IV. This king appears to have cared little for his titular sovereignty of the seas, ignored every petition of Parliament for redress of the especial grievances affecting shipowners, and used such fleets as he got together, as his predecessors had used them, simply as a means of transporting troops to make weak and useless attacks at isolated points. Tunnage and poundage had been first levied by an order of Council in 1347, and year by year following, by agreement with the merchants; from 1373 it became a parliamentary grant of two shillings on the tun of wine, and sixpence in the pound on merchandise, for the protection of the narrow seas and the support of the Navy.[17] The tunnage and poundage now given was, if applied at all to naval purposes, not used with the least success. It was then, in May 1406, together with the fourth part of a subsidy on wools, handed over to a committee of merchants, who undertook the duty of clearing the seas for a period of sixteen months. The arrangement between the king and the committee was quite an amicable one, but in October of the same year Henry withdrew from the agreement, and it is doubtful whether the members of the committee ever received any portion of their outlay.

Growth of

Trade and Shipping.

If the Norman Conquest gave the first great impulse to English over-sea trade, the events of the close of the fourteenth and first half of the fifteenth centuries may be held to mark the second important era in the development of merchant shipping by the opening up of fresh markets. Hitherto the products of the countries of the Baltic had been mainly obtained through the agency of the merchants of the Hansa, who had their chief factory in London, with branches at York, Lynn, and Boston. In the same way English exports found their way to the north only through Hansa merchants and in Hansa ships. For two centuries they had held a monopoly of the purchase and export of the products of the north, by virtue of treaties with, and payments made to, the northern powers, and an unlicensed, but very effective, warfare waged on all ships which ventured to trade through the Sound. But the war against Waldemar III of Denmark, the depredations of the organised pirate republic known as the Victual brothers, followed by the struggle with Eric XIII of Sweden, were times of disorder lasting through more than half a century, from which the Hansa emerged nominally victorious but with the loss of the prestige and vigour that had made its monopoly possible. While it was fighting to uphold its pretensions the Dutch and English had both seized the opportunity of forcing their way into the Baltic, and when, in 1435, the Hansa extorted from its antagonists a triumphant peace the real utility of the privileges thus obtained had passed away for ever.

Coincidently with these events economic changes were taking place at home which, by favouring the

accumulation of capital, had also a direct influence on the demand for shipping. The temporary renewal of possession in the coast line of France was a spur to trade with it in English bottoms. The growth of the towns, the necessity the townsmen experienced for the profitable use of surplus capital, and the slow change, which commenced under Edward III, in the national industry from wool exportation to cloth manufacture, were all elements which found ultimate expression in increased export and import in native shipping.[18] Possibly the most important factor in the change was the commencing manufacture of English cloth, instead of selling the wool to foreign merchants and buying it back from them in the finished state.[19] During the reign of Henry V, English ships were stretching down to Lisbon and the coast of Morocco, and British fishermen were plying their industry off Iceland. Not long afterwards the first English trader entered the Mediterranean, and the numerous entries in the records relating to merchant vessels show the flourishing state of trade. By example, and doubtless by persuasion, Henry himself assisted in the renewal.

Henry V:—The Royal Ships.

Under Henry's rule the crown navy was increased till in magnitude it exceeded the naval power of any previous reign; the character of the vessels, bought or built, shows that they were provided for seagoing purposes rather than the mere escort or transport of troops which had been the object of preceding kings, and which object would have been equally well served by the hired merchantmen that had contented them. The king himself hired at various times many

foreign vessels, but purely for transport purposes.

The following, compiled from the accounts of Catton and Soper, successively keepers of the ships, is a more complete list of Henry's navy than has yet been printed:—[20]

SHIPS	Built	Prize	Tons
Jesus of the Tower			1000
Holigost of the Tower	1414		760
Trinity Royal of the Tower	1416		540
Grace Dieu of the Tower	1418		400
Thomas of the Tower[21]	1420		180
Grande Marie of the Tower		1416	420
Little Marie of the Tower			140
Katrine of the Tower			
Christopher Spayne of the Tower		1417	600
Marie Spayne of the Tower		1417	
Holigost Spayne of the Tower		1417	290
Philip of the Tower			
Little Trinity of the Tower			120
Great Gabriel of the Tower			
Cog John of the Tower			
Red Cog of the Tower			
Margaret of the Tower			
CARRACKS	Built	Prize	Tons
Marie Hampton		1416	500
Marie Sandwich		1416	550
George of the Tower		1416	600
Agase of the Tower		1416	
Peter of the Tower		1417	
Paul of the Tower		1417	
Andrew of the Tower		1417	
BARGES	Built	Prize	Tons
Valentine of the Tower	1418		100

Marie Bretton of the Tower			
BALINGERS	Built	Prize	Tons
Katrine Breton of the Tower		1416	
James of the Tower	1417		
Ane of the Tower	1417		120
Swan of the Tower	1417		20
Nicholas of the Tower	1418		120
George of the Tower			120
Gabriel of the Tower			
Gabriel de Harfleur of the Tower			
Little John of the Tower			
Fawcon of the Tower			80
Roos			30
Cracchere of the Tower			56

It will be noticed that there is no galley in this list; one is referred to in the accounts, but had apparently ceased to exist, her fittings being used for other ships. Oars occur among the equipments, but probably in most cases, for the ‘great boat’ which with a ‘cokk’ was attached to each vessel. Few cannon were carried—if the schedules represent the full armament—the *Holigost* six, the *Thomas* four, the *George* and *Grace Dieu* three each, the *Katrine* and *Andrew* two. The inventories of stores at this date show very little difference from the preceding century in the character of tackle and gear, nor is there any great alteration for some two centuries from 1350. English vessels were, on an average, smaller at this time than either Italian, Spanish, or German. The tomb of Simon of Utrecht, a Hansa admiral who died in 1437, has a sculpture of a three-masted vessel; if any of Henry’s were three-masted they were certainly the first of that class in our service. The statement of Stow, however, that the vessels captured in 1417 ‘were of marvellous

greatnesse, yea, greater than ever were seen in those parts before that time,' is, if patriotic, as absurdly incorrect as some other of his naval information. The payments for hired ships show that vessels of 400 and 450 tons, belonging to Dantzic and other ports, were taken up for the transport of troops and, putting aside the tonnage of some of the English ships, there is no reason to suppose that the North German traders were the largest of their kind. The prizes of 1416 were Spanish and Genoese carracks in French pay, captured by the Duke of Bedford in the action of 15th August off the mouth of the Seine;[22] those of 1417 by the Earl of Huntingdon in that of 25th July.

The tonnage of the English built ships shows that there was now a well marked tendency to increase in size, probably due to Henry's initiative. The usual measurement, in the fifteenth century, of a barge was about sixty or eighty tons, and of a balinger[23] about forty. But a man-of-war balinger might be much larger as in the *Nicholas of the Tower*, the *George*, and the *Ane*. There is very little information as to the conditions under which Henry's ships were built. The *Trinity Royal*, *Grace Dieu*, *Holigost* and *Gabriel* were certainly constructed at Southampton, the two last named under the supervision of William Soper, then merely a merchant of the town, who remained many years unpaid the money advanced by him for that purpose; in April 1417 he was given an annuity of twenty marks a year, doubtless by way of reward.[24] The *Thomas of the Tower* was rebuilt at Deptford in 1420; the *Jesus*, and the *Gabriel Harfleur* were rebuilt at Smalhithe, in Kent, but in years unknown. The hulls of several of the ships were sold or given away before the end of the reign.

At one time the king seems to have commenced building abroad. There is a letter of 25th April 1419 from John Alcetre, his agent at Bayonne, describing the slow progress of the work upon a ship there and the sharp practices of the mayor and his associates who appear to have undertaken the contract. Alcetre anticipated that four or five years would elapse before its completion, and it is quite certain that it was never included in the English navy. The most noteworthy points in the details given, are the lengths over all and of the keel—respectively 186 and 112 feet—so that the fore and aft rakes, together, were 74 feet, just about two-thirds of the keel length.

Henry V:—The Grace Dieu.

The only one of Henry's ships of which the name is still remembered is the *Grace Dieu*, and she was, if not the largest, probably the best equipped ship yet built in England. She was not constructed under the superintendence of either Catton, the official head of the administration, or of Soper, and with two balingers, the *Fawcon* and the *Valentine*, and some other work cost £4917, 15s 3½d.[25] Besides other wood 2591 oaks and 1195 beeches were used among the three vessels and for the various details mentioned, and it is to be remarked that, although the *Grace Dieu* must have represented the latest improvements, she, like the others, appears to have had only one 'great mast' and one 'mesan,'[26] but two bowsprits. These carried no sails and were probably more of the nature of 'bumpkins' than spars. She was supplied with six sails and eleven bonnets, but their position when in use is not

described, and some of them were perhaps spare ones. The order to commence her was placed in Robert Berd's hands in December 1416, when Catton was still keeper and Soper was engaged in naval administration. It would appear to be entirely subversive of discipline and responsibility to distribute the control among three men, each of whom possessed sufficient position and independence to ensure friction, and we can only guess that the motive was pecuniary.

The Administration.

The first keeper of the ships under Henry V was William Catton by Letters Patent of 18th July 1413, who from the third to the eighth year of the reign of Henry IV had been bailiff of Winchelsea, and who subsequently held the bailiffship of Rye conjointly with his naval office. He was succeeded from 3rd February 1420 by the before-mentioned William Soper. Berd's name only occurs in connection with the *Grace Dieu*. The river Hamble, on Southampton water, was then, and down to the close of the century, the favourite roadstead for the royal ships lying up, and was defended at its entrance by a tower of wood which cost £40,[27] a storehouse with a workshop[28] was also built at Southampton, and one existed in London near the Tower. If the vessels were not built in royal yards or by royal workmen we may infer the control of a crown officer from the fact of a pension of fourpence a day having been granted, when broken down in health, to John Hoggekyns, 'master-carpenter of the king's ships,' and builder of the *Grace Dieu*, the first known of the long line of master shipwrights reaching down to the present century.

The fittings of ships do not differ materially from those quoted by Sir N. H. Nicolas under Edward III; we find a ‘bitakyll’[29] covered with lead, and pumps were now in use. Cordage was chiefly from Bridport, but occasionally from Holland, and Oleron canvas was bought abroad. Flags were of St Marie, St Edward, Holy Trinity, St George, the Swan, Antelope, Ostrich Feathers, and the king’s arms. The *Trinity Royal* had a painted wooden leopard with a crown of copper gilt, perhaps as a figure head. The largest anchor of the *Jesus* weighed 2224lb. The balingers, besides being fully rigged, carried sometimes forty or fifty oars, twenty-four feet long apiece, for use in calms or to work to windward. But even a vessel like the *Trinity Royal* had forty oars and a large one called a ‘steering skull,’ to assist the rudder we may suppose. The fore and stern stages were now becoming permanent structures. Two ‘somerhuches’ were built on the *Holigost* and *Trinity Royal*. Somerhuche was the summer-castle or poop of the early sixteenth century, and the cost, £4, 11s 3d, equivalent now to some £70, seems too great for a mere timber staging.[30] Sails were sometimes decorated with the king’s arms or badges, but probably only in the chief ships and for holiday use.

Henry VI: —The Sale of the Navy.

After the death of Henry V one of the first orders of the Council was to direct the sale of the bulk of the Royal Navy.[31] Modern writers who hold that the spirit of the ‘Libel of English Policie’ was that representing the ideas of the time must explain this startling contrast between fact and theory. The truth

is that the ‘Libel’ described, not existing conditions, but those that the writer desired should exist; the whole poem is a lament over past glories and an exhortation to retrieve the maritime position of the country, but the poet did not look at what lay behind a couple of victories at sea and the capture of Calais. [32] After the real triumphs of Henry V and the memories associated with Edward III, the state of things in the Channel doubtless appeared very evil, although they were hardly worse during the reign of Henry VI than was usual, and not nearly so bad as under James I and Charles I. The poem was really an attempt to obtain continuity in naval policy, a thing of which the meaning is, even now, scarcely understood, and which in 1436, when the man-at-arms was the ideal fighting unit, had as little chance of being accepted and carried out as though it had preached religious toleration.

Changed character of the Keeper’s appointment.

By Letters Patent of 5th March 1423, William Soper, merchant of Southampton, a collector of customs and subsidies at that port, and mayor of the town in 1416 and 1424, was again appointed ‘Keeper and Governor’ of the King’s ships, under the control[33] of Nicholas Banastre, comptroller of the customs there; no such clause existed in the patent of 1420. For himself and a clerk Soper was allowed £40 a year, but Banastre was not given any salary. The appointment is noteworthy for more than one reason. It is the first, and apparently the only, instance in which a keeper of the ships acted under

the supervision of another officer little his superior in the official hierarchy, and it, with the previous patent of 1420, marks the commencement of a custom frequent enough afterwards of naming well-to-do merchants to posts in the administrative service of the navy. Besides greater business capacity such a man was useful to the government in that he was expected to advance money, or purchase stores, on his own credit when the crown finance was temporarily strained. There is little doubt that Soper's appointment was of this character, and that his salary, was really by way of interest on money advanced by him for the construction of the *Holigost* and *Gabriel*, and for other purposes, years before. The first named ship was built in 1414, the other perhaps later, but it was not until 1430 that he received the sum which represented the final instalment of their cost.[34] By the will of Henry V the whole of his personal possessions were ordered to be sold and the proceeds handed over to his executors to pay his debts. They received, in 1430, one thousand marks from the sale of the men-of-war, the remainder of the money obtained from this source being retained by Soper in settlement of his claims dating from 1414.

The Navy a personal possession of the King.

The transaction is interesting both as showing that the Council did not consider the men-of-war—if compulsorily put up to auction under the will—of sufficient importance to buy in, and as illustrating the fact that the royal ships were personal possessions of the sovereign in which the nation had

no interest of ownership. Tunnage and poundage had been granted for 'the safe keeping of the sea,' but the application of the money was at the discretion of the king. He might use it to pay hired merchantmen or he might build ships of his own with it, or with the revenue of the crown estates to fulfil the same purpose; in neither case had Parliament any voice in the employment of the money. While calling upon the Cinque Ports to fulfil the conditions of their charters and impressing merchant ships throughout the country, he might keep his own navy idle; there was no national right to profit by its existence. The tunnage and poundage grant did not interfere with the king's title to seize every ship in the kingdom, and was only an attempt to secure payment to owners, and the wages and victualling of the crews; it in no way placed upon him the responsibility of providing ships, the supply of which was ensured by the unrestricted exercise of the prerogative, and that prerogative was not used any less frequently because of the existence of the tunnage and poundage. As years passed on and the power of the trading classes increased, and the need for specialised fighting ships grew greater, they made their ethical right to the use of the navy for ordinary purposes felt in practice and implicitly recognised by the crown. Hence the distinction became less and less marked but the note of possessive separation between the 'King's Navy Royal' and the trading navy which was, legally, also the king's and is so referred to in sixteenth century papers, is to be traced to as late as 1649. Since that date the title 'Royal Navy,' although associated with our proudest national memories is, historically, a misnomer as applied to the navy of the state.

Piracy.

In 1425, Parliament raised tunnage and poundage to three shillings on the tun of wine and one shilling in the pound on merchandise, at which rate it continued. Probably very little of it was applied to the specific purpose for which it was given, the struggle for the crown of France absorbing every available item of revenue for the support of armies; in 1450 one of the articles against the Duke of Suffolk was that he had caused money given for the defence of the realm and safety of the sea to be otherwise employed. There still remains a sufficient number of complaints and petitions to show to what little purpose our maritime forces were used. In 1432, the Commons formally declared that Danish ships had plundered those of Hull, to the amount of £5000, and others to £20,000 in one year, and requested that letters of reprisal might be issued.[35] Such attempts to clear the Channel as the government recognised sometimes bore a suspicious resemblance to piracy legalised by success. In 1435, Wm. Morfote of Winchelsea petitioned for a pardon, having been, as he euphemistically put it, 'in Dover Castle a long time and afterward come oute as wele as he myghte,' and then, 'of his gode hertly intente,' had been at sea with 100 men to attack the king's enemies. He found it difficult to obtain provisions which seems to have been his only motive in asking for a pardon. The answer to the petition, while granting the pardon for 'an esy fyne,' more plainly calls him an escaped prisoner.[36] He was member for Winchelsea in 1428.

Although Parliament was continually complaining of foreign piracy there can be no doubt that English seamen had nothing to learn, in that occupation, from their rivals. 'Your shipping you employ to make war upon the poor merchants and to plunder and rob

them of their merchandise, and you make yourselves plunderers and pirates,' said a contemporary writer.[37] By a statute[38] of Henry V, the breaking of truce and safe conduct was made high treason, and a conservator of safe conducts, who was to be a person of position enjoying not less than £40 in land by the year, was to be appointed in every port. Under Henry VI, safe conducts were freely granted to neutrals to load goods in enemies' ships, and protests were made by the Commons about their number and that they were not enrolled of record in the court of chancery and so led to loss and litigation.

Henry VI: —Merchant Shipping.

Notwithstanding the normal drawbacks of piracy and warfare, the over-sea trade of the kingdom seems to have been steadily expanding. A branch of traffic which employed many vessels, and must have been a valuable school of preparation for the longer voyages of the next generation, was what may be called, the pilgrim transport trade. The shrine of St James of Compostella was then the favourite objective of English external pilgrimage and there are innumerable licenses to shipowners to carry passengers out and home. In 1427-8 twenty-two licenses were granted, and in 1433-4 the number reached 65;[39] in 1445, 2100 persons were carried there and back.[40] Some of the licenses were granted to Soper, who was engaged in the business as well as in ordinary trade to Spain, and it is to be remarked that they were sometimes issued during the winter months—January, February, March,—showing that English seamanship was outgrowing the tradition of summer voyages. In 1449 we have

the first sign of the bounty system on merchant ships of large size which, in the next century, systematised into five shillings a ton for those of 100 tons and upwards. John Taverner of Hull, had built the *Grace Dieu*, and in that year, was allowed certain privileges in connexion with lading the vessel in reward for his enterprise.[41] The document seems to imply that she was a new ship, but in 1444-5, she was exempted from the harbour dues at Calais because drawing too much water to enter the harbour,[42] and is probably referred to in 1442.[43]

There are two most valuable papers still existing which enable us to form some idea of the number and size of the merchantmen available for the service of the crown. The first of June 1439[44] is a list of payments for ships taken up for the transport of troops to Aquitaine, and is unfortunately mutilated in some places. Its contents may be thus classified:—

	Tons 100	Tons 120	Tons 140	Tons 160	Tons 200	Tons 240	Tons 260	To 3(
London			2		1		1	1
Hull		2					1	
Saltash							1	
Plymouth					1			
Exeter					1			
Fowey		1	1	1				
Bideford	1							
Bristol		2						
Penzance		1						
Barnstaple			1	1				
Southampton			1					
Winchelsea	1							
Ipswich			1			1		
Ash				2				

Lynn				1			1	
Boston				1				
Teignmouth[45]		1						
Unknown[46]			1	2		2		

Twenty-two other vessels are of eighty tons, twenty of sixty, and six are under forty tons; in two cases the tonnage is not given, nine more are foreign including two from Bayonne, then an English possession, and ten entries are nearly altogether destroyed.

The next list, of 1451,[47] is also one of vessels impressed for an expedition to Aquitaine:—

	Tons 100	Tons 120	Tons 140	Tons 160	Tons 180	Tons 200	Tons 220	To 2(
London							1	
Bristol								1
Southampton	2					1		1
Dartmouth[48]	2	2	1	1		2	1	
Plymouth		2		2		1		
Lynn						1	1	1
Fowey	1	1				1	1	
Looe	1				1			
Weymouth		1			1			
Penzance								1
Falmouth	1							
Portsmouth	1							
Winchelsea			1					
Ash		1						
Hoke		1						
Calais	1					2		

One vessel of one hundred and forty, one of two hundred, and one of two hundred and twenty tons

belong to places unnamed, and there are twenty-three ships of from fifty to ninety tons.

There are, then, at least thirty-six ships in the 1439, and fifty in the 1451, list of one hundred tons and upwards. It must be remembered that they are not schedules of the total available reserves drawn up during a naval war, with an enemy's fleet at sea, or under the pressure of a threatened invasion, but merely represent the number of vessels required to transport a certain military force, and form only a proportion—whether large or small we know not—of the maritime strength of the country. Certainly the numbers for Bristol did not represent the total resources of that city, and Newcastle and Yarmouth, to name only two flourishing ports, do not occur in either list. Assuming the method of tonnage measurement to have been the same during the fifteenth and sixteenth centuries we have here registers which will compare favourably, both in number and size of vessels, with those of the earlier twenty years of the reign of Elizabeth,[49] and imply a naval force superior in extent to anything existing during the greater part of the sixteenth century. There is contemporary evidence from a French author, one therefore not likely to be more than just to England, as to the flourishing condition of the merchant marine during the reign of Henry VI.[50] The author makes the English herald claim that his countrymen 'are more richly and amply provided at sea, with fine and powerful ships than any other nation of Christendom, so that they are kings of the sea, since none can resist them; and they who are strongest on the sea may call themselves kings.' The answer of the French herald, too long to quote, after admitting that 'you have a great number of fine ships,' is only devoted to showing that France

possesses all the natural advantages which go to the formation of maritime power, and that the French king, 'when he pleases,' would become supreme at sea. Obviously down to the time of the loss of the English conquests in France, and the outbreak of the wars of the Roses, the wave of prosperity which commenced with the century had not altogether spent its force.

Great or small, the progress was, at anyrate, not a bounty-fed one, since shipowners were experiencing the usual difficulties in obtaining payment merely for the use of their vessels. The bill for ships provided in 1450, came to £13,000, nearly one fourth of the yearly revenue of the crown, but the Treasury, exhausted by the ceaseless demands made upon it by the garrisons in France could not pay.[51] The king, therefore, appealed to his creditors and has left it on record that as £13,000 was a sum

> 'Wyche myght not esely be perveyed at that tyme wherefore we comauded oure trusty and welbelovid Richard Greyle of London and others to labour and entrete the seyd maistres, possessores, and maryners for agrement of a lasse sume, the wych maistres, possessores, and maryners by laboar and trete made with hem accordyng to our seid comaundement agreed hem to take and reseve the sume of £6,200 in and for ful contentacyon of their seid dutees; and bycause the seid £6,200 myght not at that tyme esely be ffurnysshed in redy mony we graunted to ye seid maistres and possessores by oure several letters patentes conteynyng diveise sumys of money amountyng to the sume of £2,884 that they, their deputees or attornies shold have to reseyve in theire owne handes

almaner of custumes and subsidies of wolle, wollefell and other merchaundises comyng into dyverse portes.'[52]

This was perhaps all they obtained of the £13,000, and such incidents, of which this was doubtless only one, explain the discontent of the trading classes with the house of Lancaster. Shipowners and merchants might be trusted, in the long run, to take care of their own interests, but the seamen were more helpless, and it may be supposed that if employers had to accept less than a fourth of their dues the men did not fare better if as well. Their protests were sometimes neither tardy nor voiceless. The murder of Bishop Adam de Moleyns at Portsmouth on July 9, 1450, is directly attributed to an attempt to force sailors to accept a smaller amount than they had earned, and the bias towards the house of York, shown by the maritime population generally, may be ascribed to this cause.

Henry VI: —The Royal Ships hired out.

Henry V had not considered it beneath the dignity of the crown to hire out his ships to merchants for voyages to Bordeaux and elsewhere when they were not required for service; the Council of Regency, therefore did not hesitate to follow the same course. In 1423 the *Holigost* was lent to some Lombard merchants for a journey to Zealand and back for £20; and the *Valentine* from Southampton to Calais for £10.[53] As the *Holigost* was of 760 tons a rate of £300, in modern values, or about eight shillings a ton for a voyage probably occupying nearly two

months, cannot be considered excessive, and does not imply any great fear of sea risks, whether from man or the elements.

And sold.

In the meantime, in virtue of the Council order of March 3, 1423, the destruction of a navy progressed merrily. During 1423 the following vessels were sold to merchants of London, Dartmouth, Bristol, Southampton, and Plymouth, and, from the prices, many of them must have been in good condition[54]: —

George (Carrack),	£133	6	8
George (Balinger),	20	0	0
Christopher,	166	13	4
Katrine Breton (Balinger),	20	0	0
Thomas,	133	6	8
Grande Marie,	200	0	0
Holigost (Spayne),	200	0	0
Nicholas,	76	13	4
Swan,	18	0	0
Cracchere,	26	13	4
Fawcon,	50	0	0

Anchors and other stores were sold and, in 1424, the storehouse and forge at Southampton went for £66, 13s 4d; if there were to be no ships there was certainly no reason to keep up any establishment for their repairs. In the same year eight other vessels, mostly described as worn out, followed their sisters. They were sold for very low prices and the description of their state may be exact, although two at least were nearly new, and what we know of administrative methods in later times does not warrant an implicit faith, especially under a Council

of Regency. When a 550 ton ship, like the *Marie Sandwich*, brought only £13, it must be assumed that she was almost worthless even for breaking up, or that the proceedings were not devoid of collusion.

Henry VI:
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Subsequent Naval Administration.

We have no record of the expenditure for the first years of Henry's reign but, from 31st August 1427 to 31st August 1433, the sum of £809, 10s 2d was spent by Soper for naval purposes, being an average of £134, 18s 4d a year.[55] The *Trinity Royal*, *Holigost*, *Grace Dieu*, and *Jesus* were still in existence, but dismantled and unrigged at Bursledon. Apparently there were no officers attached to them, or at Southampton, of sufficient experience to assume responsibility, since Peter Johnson, master mariner of Sandwich, was paid for coming to superintend the removal of the masts of the *Grace Dieu*. The *Trinity Royal* was so far unseaworthy and useless as to be imbedded in the mud of the river Hamble, and fifteen Genoese and other foreign master mariners were employed about dismasting her. There seems at this time to have been some purpose of rebuilding the *Jesus*, because she was taken to a dock lately prepared at Southampton, and, of the whole amount before mentioned, £165, 6s 10d was laid out in unrigging her, towing to Southampton, expenses of dock, etc. As the sails and stores of the vessels sold in 1423-4 were still under Soper's care, a new storehouse, 160 feet long and 14 feet broad, was built at Southampton. That at London had not been closed in 1423, possibly because it may have been

within the precincts of the Tower, and much of the equipment of the four great ships still remaining was kept in it.

During the four years ending with the 31st August 1437, £96, 0s 2½d was received from the Exchequer and £72, 1s 6d from the sale of cordage, etc., belonging to the ships;[56] the expenditure was £143, 6s 5¾d. For the two years ending 31st August 1439, the outlay on the Royal Navy was £8, 9s 7d. The 'Libel of English Policie,' which is now held to have represented the views of the governing statesmen was therefore given to the world when the estimates for the crown navy averaged £4, 4s 6½d a year.

Economy had been further exercised by the discharge of the shipkeepers as superfluous, and possibly one of the results of this careful thrift was the destruction of the *Grace Dieu* by fire, while lying on the mud at Bursledon, during the night of the 7th January 1439.[57] Some loose fittings were saved and 15,400lbs. of iron recovered from the burnt wreck. Soper's next account, from 31st August 1439, ends on 7th April 1442, during which time he received £3, 10s from the Exchequer and £3, 0s 11¾d for 1222lbs. of lead from the ships. The disbursements were £4, 16s 4d, chiefly incurred in breaking up the cabins[58] on the *Trinity Royal* and *Holigost* and taking away the timber; the *Jesus* appears to have been too far perished to experience even this fate.[59]

From 7th April 1442, Soper was succeeded by Richard Clyvedon, a yeoman of the crown[60] by Letters Patent, dated 26th March 1442, but at the smaller fee of one shilling a day which had been received by Soper's predecessors. In all probability Soper's salary was very irregularly, if at all paid, and

an official outlay which averaged some £1, 10s a year, offered few opportunities in the way of perquisites to a prosperous merchant. For five years and ninety days, from 7th April 1442 until 6th July 1447, the receipts were £61, 2s 7d, all from the sale of stores originally belonging to the vessels sold in 1423-4; no expenses of any sort had to be met since the bare hulks of the *Jesus*, *Trinity*, and *Holigost*, still existing were left to take care of themselves.[61] The next and last accounts continue for the following four years and nine months to the 7th April 1452, when they cease. The amount received was £73, 11s 4½d, again altogether from the sale of stores; the expenditure was £16, 12s 10d, mostly referable to the cost of a chain fixed across the Hamble.[62] As only the rotting hulls of the *Trinity* and *Holigost* now remained, it is difficult to estimate its value so far as they were concerned, but for the first time for nearly forty years, there were now fears of French reprisals.

Henry VI: —The Substitutes of the Navy.

It must not, however, be supposed that because the Royal Navy was not kept up, no measures were taken to protect maritime interests. The predecessors of Henry V had employed a combination of royal and impressed ships; Henry V apparently intended to increase the crown navy until it was powerful enough to enable him to rely on it for every purpose but that of transport. Rightly or wrongly the Protector and Council adopted a different system and one which was continued through all the political changes of the reign. Instead of keeping up a royal

force, or of pressing ships and placing them under the crown officers, indentures were entered into now and again with certain persons supposed to be competent to provide under their own command an agreed number of ships and men to keep the sea for a specified time. In favour of this plan it was perhaps argued that it was cheaper than any other, and that it should prove sufficiently effective as the coast of France was either in English occupation or belonged to a neutral or ally in the Duke of Brittany, and that an expensive Royal Navy was unnecessary when a French navy was impossible and only the ordinary rovers of the sea had to be met and destroyed. Against it might be urged that, besides the delay inevitable to the process of collecting merchantmen at a given *rendezvous*, it was the object of the persons undertaking the work to make a profit on the bargain and that they would probably minimise effort, time, and expense, as much as practicable. So far as the scanty evidence enables us to judge it is possible that, until the loss of the French coastline, the plan, had it been carried on under the authoritative supervision of an able and honest crown official, might have worked successfully. Doubtless the economy promised was the final argument because, once the Royal Navy had been suffered to perish, there was never throughout the reign any financial possibility of restoring it. By 1433 the royal expenses were nearly double the revenue; and the Lord Treasurer, Cromwell, told the King, 'nowe daily many warrantis come to me of paiementes ... of moche more than all youre revenus wold come to thowe they wer not assigned afore; whereas hit aperith by your bokes of record which have been showed that they have been assigned nygh for this eleven yeere next folowyng.'[63]

As many of the debts of Henry V for hire of ships and men's wages were still unpaid, the conditions were evidently not favourable to the direct action of the crown either in replacing its own navy or taking ships into pay. An intermediary of recognised position to whom a payment was usually at once made on account, doubtless inspired more confidence in owners and men. Although not the first in point of time, the commission of Sir John Speke by an agreement of 2nd May 1440, is noticeable in that the service was apparently the first in which the men were paid and victualled at a weekly rate, one and sixpence a week wages and the same for victuals.[64] For at least two centuries the rate had been threepence a day, with usually an additional sixpence a week 'reward,' and this reduction of pay seems to imply that there were plenty of men to be obtained. In 1442 the Commons themselves arranged the period—2nd February to 11th November—during which a fleet was to be at sea, and even designated the ships which were to serve, together with the allowances to officers and men.[65] There were to be eight ships, all merchantmen, manned by 1200 men, and each of the eight was to be attended by a barge and balinger having respectively 80 and 40 men apiece. There were also four pinnaces. One of the ships is the *Nicholas of the Tower* of Bristol. 'Of the Tower' was the man-of-war mark, and this is the only one found in the lists of merchantmen of the century. The *Nicholas of the Tower* of Henry V was sold to some purchasers belonging to Dartmouth, but may have passed into Bristol ownership. It was the crew of this vessel, usually described as a man-of-war, who seized and executed the Duke of Suffolk on his passage to Flanders when exiled in 1450.

The seamen's pay, two shillings a month, if not an

error of entry, can only be explained by the expectation of a liberal division of prize-money, one half of which was to be shared among masters, quartermasters, soldiers and sailors. The other half was divided into thirds, of which two went to the owners and one to the captains and under-captains. The victualling was now one and twopence a week. The captains and under-captains were military officers; there was no ship-captain in the modern sense although the master, whose pay was sixpence a day, was his nearest equivalent. The conditions were beginning to slowly change during this century, but hitherto the fighting had been done on board ship by the soldiers embarked for the purpose. The duty of the sailors, whether officers or men, was only to handle the vessel at sea or in action. The fleet does not appear to have put to sea till August, although the undertakers, Sir William Ewe, Miles Stapylton, and John Heron, were receiving money for its preparation in June.[66] In 1445 the charges for the passage of Margaret of Anjou when she came to share the crown do not show the same tendency to lower wages; masters were still paid sixpence a day, but the men received one and ninepence a week and their sixpence 'reward,' and pages (boys) one and three halfpence a week.[67] During the winter of 1444-5 a Cinque Ports squadron was in commission from September to the following April, and this must be almost the last instance of the performance of the ancient service of the ports in a complete manner. Twenty-six vessels were provided—four from Hastings, seven from Winchelsea, four from Rye, Lydd, and Romney, two from Hythe, three from Dover, five from Sandwich, and one from Faversham, numbers which perhaps indicate the relative importance of the towns at this time. The whole cost

of the fleet was only £672, 9s 1½d, while Margaret's journey was considered worth £1810, 9s 7½d.[68] The tonnage of the Cinque Ports vessels is not given, but that they were of no great size may be inferred from the small number of men in each.

In 1449 Alexander Eden and Gervays Clifton, afterwards Treasurer of Calais, were entrusted with the care of the Channel and, although their deeds have left no mark in history, they were considered so satisfactory at the time that, in the following year, Clifton was granted a special reward of four hundred marks for his good service. In 1450 Clifton and Eden were again performing the same duty and, in 1452, Clifton and Sir Edward Hull. Certainly there was now every reason for redoubled vigilance. Between 1449 and 1451 the English Conquests in France had gone like a dream; only Calais was left, and that was considered to be imminently threatened. Notwithstanding loans, mortgages of revenues, and money obtained by pawning the crown jewels, the government owed £372,000, while the receipts from the crown estates were not more than £5000 a year, and the yearly charge of the household alone was £23,000. If we add to these facts a saintly king, and an inefficient government, the first mutterings of the storm of civil war, and a foe, exhausted it is true, but eager for vengeance, we are able to partly picture the extent of the losses in honour and prosperity which made one of the first acts of the Duke of York, when created Protector on 27th March 1454, the appointment of a fresh commission to guard the seas. On the following 3rd April, the tunnage and poundage for three years was assigned to the Earls of Salisbury, Shrewsbury, Wiltshire, Worcester, and Oxford, the Lords Stourton and Fitzwalter, and Sir Robert Vere, for that purpose.[69] That immediate

action might be taken a loan of £1000 was raised in the proportions of London £300, Bristol £150, Southampton £100, Norwich and Yarmouth £100, Ipswich, Colchester and Malden £100, York and Hull £100, New Sarum, Poole and Weymouth £50, Lynn £50, Boston £30, and Newcastle £20, to be repaid out of the tunnage and poundage.[70]

Henry VI: —The Civil War.

In 1455, the first battle of St Albans was fought and there was no further question of naval matters until Edward IV was on the throne. Naval power appears to have had but little influence on the result of the wars of the Roses, nor, except at one moment, is the command of the sea shown to be a factor of any great importance in the struggle. Such as it was the Yorkists possessed it, as owners and seamen both affected the white Rose, but the Lancastrians seem never to have experienced any difficulty in obtaining necessary shipping, when in power on land, during the years of war. In 1459, however, when York fled to Ireland, and Warwick to Calais, the attachment the seamen generally felt for the latter enabled him to hold his own there and in the Channel, which perhaps had no inconsiderable influence on the final issue. The naval weakness of the Lancastrians compelled them, instead of protecting the English coasts off the French ports, to issue commissions to array the *posse comitatus* in the maritime counties to repel invasion, and the sack of Sandwich in 1457, by the Seneschal de Brézé was an outcome of the changed conditions. But Warwick's fight on 29th May 1458, with a fleet of Spanish ships of more than double his strength, and his capture of six of them,

though little better than open piracy, was a sharp reminder that English seamen had not lost the spirit which animated their fathers, and, under the right conditions could still emulate their deeds.[71]

Unless the merchant marine had degenerated very rapidly there must have still been plenty of seagoing ships available in English ports, but the subjoined Treasury warrant perhaps indicates the difficulty the Lancastrians experienced in chartering ships and obtaining men. On 5th April 1460, Henry was once more king and his adversaries in exile, and an order of that date directs the officials of the Exchequer that 'of suche money as is lent unto us by oure trewe subgittes for keping of the see and othire causes ye do paye to Julyan Cope capitaigne of a carake of Venise nowe beinge in the Tamyse £100 for a moneth, and to Julyan Ffeso capitayne of a nother carrake of Jeane[72] being at Sandwich £105 for a moneth the which two carrakes be entretid to doo us service.' This is of course not conclusive because foreign vessels were at times hired by all our kings although English ships were available. But in June 1460 the Lancastrian Duke of Exeter, with a superior force, met Warwick at sea, but did not venture to attack him, being unable to trust his men. If, therefore, the men were not reliable there was good reason for the employment of foreigners.

Henry VI: —Results of the Contract System.

Administering the navy by contract had been tried and found wanting; it had never been resorted to before and was never used again. It had proved

expensive and ineffective. There can be little doubt that had one half the money wasted in spasmodic efforts been devoted to the maintenance of a small but efficient royal force, always ready for action, the results, if less profitable to the intermediaries, would have been better for the nation. But before all and above all, whatever plan was adopted, there was necessary the hand to control and the brain to govern. The military organisation had been systematised for centuries and would go on working more or less easily whatever the personal qualities of the ruler. The Navy was not yet to the same extent an organised and permanent force, and its strength in any reign was still dependent on the initiative of the sovereign. Henry obtained canonisation at the expense of the lives and prosperity of his subjects, of his followers, and of his son. It had been better for them if he had possessed more of the sinful strength of a man and less of the flaccid virtue of a saint.

Henry VI: —Docks, etc.

There is nothing known positively of any improvements in the form or equipments of ships during this reign. There are no inventories in detail between the time of Henry V and the first years of Henry VII. But while in the first quarter of the fifteenth century we find that men-of-war possess, at the most, two masts and two sails, carry three or four guns, and one or two rudimentary bowsprits, at the close of the same century they are three or four masters with topmasts and topsails, bowsprit and spritsail, and conforming to the characteristics and type which remained generally constant for more than two centuries. It is quite certain that no sudden

transition occurred; the changes came slowly with the passing years, but they have left no traces in the records. Whether docks were used in England before the fifteenth century may be doubtful, but the word is in common use in the reign of Henry V, although it did not denote what we now understand by such a structure. Its derivation from the Low Latin *Diga* a ditch, more exactly indicates its character, but the word was employed in more than one sense, and even after the construction of the first dry dock at Portsmouth in 1496, we find in the sixteenth century an arrangement of timber round a ship in the Thames, to protect her from the ice, called a dock. The *Nomenclator Navalis* of 1625 describes a wet dock as 'any creek or place where we may cast in a ship out of the tideway in the ooze, and then when a ship hath made herself (as it were) a place to lie in we say the ship hath docked herself,' a description which much more nearly portrays the dock of the fifteenth century than the dry dock of to-day. The following details of a dock for the *Grace Dieu* in July 1434 are perhaps the fullest to be found, and are taken from Soper's accounts for that year:—[73]

> 'And in money paid Thomas at Hythe, and 29 men labourers, for working about, making and constructing anew[74] of a fence called a hedge, [75] by the advice and ordinance of discreet and wise mariners, that is to say on the Wose,[76] near Brisselden aforesaid for the safe keeping and government of the King's ship, and to the putting out and drying up of the sea water strongly running from the said King's ship because the same is weak: and also that the said King's ship may be kept more safely and easily in its said bed[77] called dok within the said

> enclosure; taking for this work made and built by the said ——[78] by agreement with him made in gross for the King's advantage the said month of July 12th year xxviii^{s} vi^{d}. And in money paid John Osmond, mariner, working about towing and bringing timber and branches with his two boats for the service of the same fence called an hegge[79] and there about the same employed ii^{s}. And in money paid to the said Thomas at Hythe and to 29 other men his fellows for labouring and watching in the said ship of the King's about towing and conducting the same from the same Brisselden where first she was in mooring and in rode to the said enclosure called Dok, and there to the placing, directing and guarding of the said ship of the King's within its bed called Dok, and to the attending on the safe custody and superintendence of the same for three days, working day and night, besides expenses of victualling, taking for this work and occupation for the time aforesaid by agreement with him in that cause made in the King's service in gross the month and year aforesaid x^{s}.'

It may be inferred from this that the ship was brought to a suitable spot at a spring tide, possibly hauled still further aground by mechanical means, and when she had bedded herself, surrounded by timber and brushwood, perhaps puddled with clay. It will be seen[80] that in 1496 a drydock, the first known to have been made in England was constructed at Portsmouth, but we are without knowledge of the intermediate steps, or whether there were no intervening improvements, and the dock at Portsmouth copied in its completeness from

one already existing abroad.

Measurement of Tonnage.

It has been pointed out that the value of the comparison between fifteenth and sixteenth century ships depends greatly on the method of measuring tonnage, and on that subject we have unfortunately but little information. The Bordeaux wine trade was the earliest, and for two centuries one of the most important branches of English maritime traffic; ships were therefore measured by their carrying capacity in Bordeaux cask. The first arithmetical rule for calculating a ship's tonnage was devised in 1582, and that rule made the net or cask tonnage nearly the same as the average cargo. The unit of measurement was therefore the tun of wine in two butts of 252 gallons which in 1626 were estimated to occupy 60 cubic feet of space. The ancient wine gallon occupies 231 cubic inches and a tun measures strictly therefore only $33^{11}/_{16}$ cubic feet, but the reckoning is by butts, and much waste of space must be allowed for in view of the usual shape of a cask. In 1626 certain experiments described on a later page were carried out on the *Adventure* of Ipswich, and it was found that while her burden in Bordeaux cask was 207 tons net, and 276 gross,[81] her tonnage by the Elizabethan rule was again almost exactly the same. If, in the fifteenth century, the shipper allowed 60 cubic feet for two butts of wine, and the allowance of 1626 was doubtless the outcome of long experience, there could have been but little difference between the ship of Henry VI, and indeed of earlier reigns, and that of the period of Elizabeth.

Edward IV: —General Policy.

There is even less material for the naval history of the reigns of Edward IV and Richard III than for that of Henry VI; if, as is probable, a naval administration existed, no records have come down to us. Edward seized the crown on 4th March 1461, but it was not until after the battle of Tewkesbury in 1471 that he could consider himself really and indubitably king. The uncertainty of his position during the intervening ten years must have prevented the systematic organisation of a naval department, but he was not remiss in, so far as was possible, holding the command of the Channel. Doubtless his experience with Warwick at Calais in 1459 had taught him its importance. Not long after Towton, an English fleet under the command of the Earls of Essex and Kent ravaged the coast of Brittany in revenge for the sympathy shown to Margaret by the reigning Duke. In 1462 another fleet was at sea, but we have no details of its action, although it was no doubt fitted for service to anticipate or deal with Margaret's landing at Bamborough in October. An agreement dated 1st February 1462, placed naval affairs under the control of the Earl of Warwick for three years, the Earl's salary being £1000 a year.[82] If Edward's experience in 1459 had instructed him in the significance of the command of Calais and the fleet, he may not have willingly appointed his powerful subject to a position which made the latter practically independent of the crown; it may be, however, that he had little choice, and that Warwick's power in the country, and his popularity with the seamen made his nomination almost a matter of necessity.

Notwithstanding this indenture made with Warwick we find that in July 1463 the Earl of Worcester was in charge of naval matters, and, in August, that nobleman is described as ‘captain and keeper of the sea.’[83] Warwick may have resigned or may have constituted Worcester his deputy. A later paper[84] tells us that Worcester acted by Letters Patent of 30th June 1463. This would not clear Warwick’s term of office but in any case these appointments of Warwick, or of Worcester, or of both, appear to have been the last survivals of the custom of putting the safeguard of the seas out to contract. And the survival was more due to political conditions than to any intention or desire of renewing the old system. The name of Richard Clyvedon, who succeeded Soper as clerk of the ships in 1442, disappears after a few years; as no payments were made even for his salary, it may be assumed that he either died, resigned, or was dismissed, and the post was not filled up. Under the circumstances there was no use for a clerk of the ships as the contractors who engaged to provide ships and men would prefer to employ their own servants to manage the details. In 1465 Piers Bowman is referred to as ‘clerk of our shippes,’ but his patent is not to be found nor any payments by way of salary, and the document in question[85] is the only one in which his occupancy of the office is mentioned. Three years later, in 1468, Sir John Howard, afterwards Duke of Norfolk, was entrusted with the payments due for the passage of Edward’s sister Margaret on her marriage with Charles of Burgundy. Howard possessed ships of his own, and on 27th August 1470, received twenty marks on account of the victualling of two ships which he had equipped ‘to take certaine rovers that lie in the Tamyse mouth

or there aboute, and robbe bothe the kinges subgittes and frendes.' This was little more than a fortnight before Warwick landed at Dartmouth and shows how little Edward feared the Earl, for he made no preparation to intercept his passage, and his care, even in his uncertain position, of the commercial interests of his subjects.[86] All through the second civil war, Warwick retained the command of the Channel, nor does Edward, whether from indifference or inability, appear to have made any attempt to wrest it from him. He relied for assistance chiefly on the Burgundian navy, of which Philip de Comines says that it was so powerful that 'no man durst stir in the narrow seas for fear of it.' By a navy, however, De Comines must be understood as meaning the general shipping strength of the state. Even after Tewkesbury Edward was once more reminded that supremacy on land was only possible to the ruler who controlled the sea. The bastard of Fauconberg,[87] Warwick's subordinate and in command of his fleet, seized the Thames and raised Kent and Essex; had there been any Lancastrian power able to support him Edward's newly regained crown would have been once more in jeopardy.

Edward IV:—The Keeper of the Ships.

By Letters Patent of 12th December 1480, the office of clerk of the ships was once more reconstituted in the person of Thomas Rogers, with a salary of one shilling and sixpence a day for himself and a clerk, and two shillings a day for travelling expenses, when employed on the king's service. In later patents Rogers is described as a citizen and

fishmonger, and as a merchant of London, and as having been purser of a king's ship. He so successfully trimmed his opinions to the varying political currents, as to retain his office during the reigns of Richard III and Henry VII, until his death in 1488.

The Royal Ships.

The re-appointment of a keeper of the ships was the natural corollary of the new formation of a crown navy which was going on slowly throughout the reign. As early as July 1461 the *Margaret* of Orwell, or of Ipswich, is spoken of as 'our great ship,' and was doubtless a merchantman bought by the crown. Without collateral evidence, however, the expression 'our ship' does not always prove crown ownership; the phrase seems to have been often used in writing of ships pressed for special service. The *Margaret's* equipment included 200 bows at eighteenpence apiece, 600 sheaves of arrows at eighteenpence the sheaf, bow strings at five shillings a gross, 200 spears at sixteenpence each and 1000 darts £5. As it also comprised 600 'gunstones'[88] at ten shillings the hundred and 1000 lbs. of powder at fivepence a lb., she must have carried cannon as well as the more primitive weapons.[89] In 1463, a caravel of Salcombe was bought for £80, and the shares of the *John Evangelist* of Dartmouth purchased from the joint owners in that and the following year.[90] In 1468 the *Mary of Grace* was bought from Sir Henry Waver[91] and in July 1470 250 marks were given for a Portuguese ship, the *Garse*, obtained from John de Poinct of Portingale.[92] An order on the Exchequer did not however necessarily mean prompt payment unless money was plentiful, and just a year

later another warrant was made out for John de Poinct as he was still unpaid; not long after there is mention made of the *St Peter*, a Spanish ship bought for £50 which sum had also long been owing.

In 1473 the *Grace Dieu* once more occurs among the names of men-of-war. Marcus Symonson of Causere was paid £62, 8s 2d for pitch, tar, masts, and other necessaries supplied by him for the 'new making of our shippe called the *Grace Dieu*.'[93] Unless she was one of the vessels previously bought rebuilt and renamed, she must have been a new ship but there are no other particulars concerning her. In 1472 there is a grant of an annuity of £20 a year to this Mark Symonson, owner of the *Antony* of Causere, [94] for the good services he had done and would do; this large reward, equal to at least £200 a year now, points to the possibility of his having been captain and owner of the vessel which brought Edward over to Ravenspurn in 1471. Another Spanish ship, the *Carycon* was purchased in 1478 for £100 and in the same year William Combresale, who afterwards succeeded Rogers as clerk of the ships, is referred to as master of the king's ship *Trinity*, another new name. Carycon or Carraquon was simply old French for a large carrack, and the ship, shortly afterwards, became the *Mary of the Tower*.[95] With the *Carycon* and the *Trinity* there is found, 'the king's ship called the *Fawcon*,' and in 1483 Rogers was ordered 'to repaire and make of the newe our shippe the *Mary Ashe*,' possibly the older *Mary of Grace*. The last purchase is at the close of the reign in January 1483, when 100 marks was paid to Roger Kelsale, collector of customs at Southampton for his share in a bark of Southampton lately bought.

Edward IV:

—Naval and Commercial Policy.

It is obvious from this list that Edward had set himself to reverse the practice of the preceding forty years, and had determined to restore the Navy. He must have taken a certain pride in it and in the appearance of the men, since, for the first time, we find a payment on one occasion for ‘jackettes’ for the sailors.[96] His interest in the men did not extend, however, to arresting the tendency to lower wages which were now one shilling and threepence a week, while the victualling was reckoned at one shilling and a halfpenny.[97] He had been granted in 1465, tunnage and poundage for life and therefore always had at command money to be devoted to naval purposes. Nor was he indifferent to the commercial interests of the kingdom. In 1464 a navigation act, the first consented to by the Crown since the reign of Richard II came into force, and although it was allowed to lapse at the end of three years was an earnest of future and more effective legislation. He is said to have himself engaged in trade, and the commercial treaties with Burgundy, Brittany and Castile, show that he understood the sources of national wealth. Some of Edward’s business transactions were with the Italian cities, and that the field of trade was generally enlarging is shown by the appointment in 1484 of a consul at Florence, because ‘certain merchants and others from England intend to frequent foreign parts, and chiefly Italy with their ships and merchandise.’ The old custom of hiring out men-of-war for trading voyages was soon revived and, shortly before Bosworth field, the *Grace Dieu* was lent to two London merchants for a

Mediterranean journey but was finally kept back for the protection of the coasts.

The short and troubled reign of Richard III did not allow that monarch much time for naval development, but the crown service was not allowed to retrogress and some fresh ships were purchased. In January 1485 the *Nicholas* of London was bought from Thos. Grafton, a London merchant, for 100 marks, and the *Governor* from Thos. Grafton and two others for £600.[98] There seems to have been no attempt during the reigns of Richard and his brother, to form any centre for naval equipment and for stores, such as had existed at Southampton and Bursledon under Henry V, and at other places in the preceding centuries. Ships were fitted at Erith, or in the Orwell, or wherever they happened to be lying when required for service.

Henry VII: —The Royal Ships.

In popular belief Henry VII shares with his son and grand-daughter, the credit of founding the modern navy. This view is so far unfounded, that, although its strength did not recede during his reign, and he prepared the way for further progress, he did not increase the force and reorganise the administration as did Henry VIII, nor use it with effect as did Elizabeth. Henry VII still relied on hired merchantmen to form the bulk of his fleets, an assistance his son almost succeeded in renouncing for squadrons of the same strength. In 1590 out of eighteen vessels at sea only two were men-of-war. There are no accounts extant for the whole reign of

the expenditure on the navy, but the amount for the first three years was £1077,[99] and for 1495-8 £2060[100] exclusive of the cost of the two large ships, the *Regent* and *Sovereign*, built by his orders. At any rate these sums represent a much more acute appreciation of the necessity for sea power than that shown by his immediate predecessors.

The following is an attempt, perhaps imperfect, at the navy list of this reign:

Grace Dieu

Mary of the Tower

Governor

Martin Garsya

Sovereign

Regent

Le Prise or *Margaret* of Dieppe

Bonaventure

Fawcon

Trinity

Sweepstake

Mary Fortune

Carvel of Ewe

Of these the *Grace Dieu*, *Mary of the Tower*, *Governor*, *Martin Garsya*, *Fawcon*, and *Trinity* were obtained with the crown, the *Margaret* was captured in 1490. Only the *Regent*, *Sovereign*, *Carvel of Ewe*, *Sweepstake* and *Mary Fortune* were new, the two latter being small vessels built at a charge of £231.[101] The *Carvel of Ewe*,[102] after having been in the

royal service by hire, was bought at some period of the reign. The name of the *Bonaventure* only occurs once as ‘our ship called the *Bonaventure* ... William Nashe, yeoman of our crown hath in his rule and governance,’[103] a reference which appears to point unmistakeably to a royal ship; she may have been the bark of Southampton bought by Edward IV, or one of Richard’s purchases. The *Martin Garsya* was given to Sir Richard Guldeford in December 1485, the *Governor* disappears after 1488, and the *Mary of the Tower* after 1496; the *Fawcon*, *Trinity*, and *Margaret*, after 1503. In 1486 Henry commissioned a trusted officer, Sir Richard Guldeford, Master of the Ordnance, to superintend the construction of a large ship, afterwards called the *Regent*, at Reding on the river Rother, in Kent.[104] An Exchequer warrant of 15th April 1487 directs the Treasurer to pay the money necessary ‘for the building of a ship of which he[105] has the oversight in the county of Kent of 600 tons, like unto a ship called the *Columbe* of France.’ Nothing is now known of the *Columbe*, which Henry had perhaps seen when at Rouen, and which had evidently impressed him. Payments on account of the *Regent* to the amount of £951, 7s 10d can still be traced, but this sum doubtless does not represent the whole cost. While the *Regent* was on the stocks the *Grace Dieu* was delivered to Sir Reginald Bray to be broken up and the material employed in building a new vessel, the *Sovereign*.[106] In neither instance had Rogers, the official head of the administration, anything to do with the construction of these ships. Both Guldeford and Bray were men of rank and credit near the king’s person, and the work may have been assigned to them as a mark of confidence and as a cheap way of conferring some pecuniary advantages on them.

The chronicler Stow says, under the year 1503, 'the same King Henry made a ship named the *Great Harry*, which ship with the furniture cost him much.' Naval historians have successively accepted this statement, but all that can be said is that there is no trace of such a ship in the State Papers. Stow's naval details are frequently more than doubtful. Under 1512 he writes of 'the *Regent* or *Sovereign*' of England; the *Regent* was never called the *Sovereign* which has an individual existence down to 1525, but he may have meant the sovereign, or greatest ship.

Henry VII: —The Clerk of the Ships.

When Rogers died in 1488, he was a man of substance and a landed proprietor in Hertfordshire. He was succeeded by William Comersall or Cumbresale, of whom we know nothing except that he had held executive rank at sea during the reign of Edward IV, as master of the *Trinity*. He appears to have been content with a position of minor importance, and during his term of office payments in connection with the *Regent* and the *Sovereign* were frequently made through other persons. From 19th May 1495, Robert Brygandine was appointed, and while held by this man, practically, although not nominally the last of the mediæval clerks or keepers, the post regained some of its former dignity. Brygandine was a 'yeoman of the crown,' that is to say in the personal service of the sovereign, and, on one occasion, mentions that he had received certain orders from the king *vivâ voce*. In 1490 he had been granted an annuity of £10 a year, besides other favours, and altogether seems to have belonged to a

higher class socially than his predecessors, and was therefore better able to maintain the independence of his office.

General Policy—The Bounty.

Although Henry VII, during a reign of twenty-four years, added only five or six vessels to the navy, it cannot be said that he was indifferent to the maritime strength of the country, or to that of the navy proper. The political conditions did not require fleets at sea as they had done in the fourteenth, and again did in the succeeding century. The objects sought by Louis XI, Charles VIII, and Louis XII did not necessitate strength at sea, at anyrate in the Channel, and when Henry VII did act abroad English ships were only engaged in the unopposed transport of troops. The existence, however, of a Royal Navy did not prevent Perkin Warbeck's attempted landing in Kent, nor impede his sailing about the narrow seas, subsequently, unmolested and apparently at his own pleasure. Nevertheless Henry recognised that, as fleets were then constituted, the naval strength of the crown was, in the end, dependent on that of the country generally, and acted upon that view in a way that was new in English history. He commenced giving the bounty on the construction of large ships which remained customary for a century and a half, and which did much to encourage the production of vessels fit for war service. Perhaps some similar reward may have been given by earlier kings although the instance of Taverner's *Grace Dieu*, previously noticed, is the only one which supports that view. If such rewards had been given they could

have been only occasional but Henry made the encouragement much more frequent and a part of his policy. On the other hand the plan may have been copied from the usage of a foreign power, and if so that power was Spain. We know the reverential admiration Henry felt for the Spanish monarchs and their methods; in 1494, 1495, and 1498 Ferdinand and Isabella issued ordinances which promised large rewards of 60,000 to 100,000 maravedis, to the builders of ships of from 600 to 1000 tons.[107] These were probably not the first of such regulations, and the service they did may well have been forced on Henry's notice when an exile. Certainly the Spanish marine at this time was in a flourishing condition. The fleet of 1496, which carried Dona Juana to Middleburgh consisted of 120 seagoing vessels, and in the same year a royal order directed the preparation of two ships each of 1000 tons, two of 500, two of 400, six of 300, four of 200, and four caravels.[108]

The first warrant for the payment of a bounty is dated in 1488,[109] and orders £26, 13s 4d to be allowed to Nicholas Browne of Bristol on the customs of the first voyage, made by a new ship of 140 tons built by him. This is nearly three shillings and tenpence a ton. The next of 16th May 1491,[110] is again in favour of three Bristol men who have built a 400 ton ship, and, 'we calling to our remembrance the great cost and charge they have sustained about the same ... to encourage them and such others,' allow five shillings a ton on the customs. Although 400 tons was not an unknown tonnage in the merchant marine, it was as yet exceptional, and when the bounty, a century later, was most vigorously worked, its tendency was to induce the

construction of medium ships, somewhat over or under 200 tons, rather than especially large ones. Sir William Fenkyll, an alderman of London, had 100 marks conceded him in the same way as the others, ‘for the encoragyng of othr our true subgetts the rather to apply themself to the makyng of shippes.’[111] By a warrant of 7th January 1502, Robert and William Thorne and Hugh Elyot of Bristol, having bought a French ship of 120 tons and as ‘with the same ship the said merchants offre to doo unto us service at all tymes at our commaundement,’ had £20 allowed them. The sovereign by whose directions these expressions were used was neither ignorant of the importance, nor indifferent to the growth, of the merchant marine although he may have seen no reason for departing from his native prudence in matters of action.

Henry VII: —Hire of English and Foreign Ships.

Henry’s caution seems to have calculated on the possibility of his future dependence on a foreign fleet, and he was anxious to make a good impression among shipowners abroad. There is a curiously worded order in 1486[112] for the payment of three hired Spanish vessels ‘withoute any part deteyning or abbrigging as that they may have cause to make goode reporte of our deling with them in these parties and as they may be encouraged and welewilled to serve us semblably hereafter.’ As a matter of fact the king frequently hired Spaniards while the royal ships were unemployed, and when the services demanded certainly threw no strain on

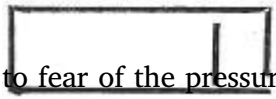
native resources; he may have seen in such a course a minor way of knitting more closely the mercantile and other ties which were connecting Spain and England. These Spanish ships were hired at two shillings a ton per month, a rate which was double that obtained by English owners. Sometimes Henry tried to buy a Spanish vessel, but with little success, for Ferdinand and Isabella were making stringent regulations against the sale abroad of vessels owned by their subjects.

One reason explaining Henry's propensity for foreign ships may perhaps be found in a hint we have of difficulties about the rate of hire of English ones. In 1487 special sums were granted to some English owners, 'to the entent that noe president shall be taken by us for the waging of the same aftre the portage of every tonne.'[113] According to this they desired to be paid a fixed sum and not hired by the ton, perhaps because the crown estimate of a ship's tonnage may have differed considerably from the owner's. If this were so it is the only suggestion we have of dissatisfaction with the normal way of payment, and it was a contention in which the crown soon and finally gained the victory.

Henry VII: — Portsmouth Dock.

If Henry VII built few ships he laid the foundation of a permanent establishment for building and repairs in a way hitherto unknown. We have seen that Henry V had storehouses at London and Southampton, and a workshop in the last named town, and that a dock in the fifteenth century meant only a temporary arrangement by which a ship was

laid ashore at a suitable place. Such primitive appliances were the completest yet attained. Henry proceeded much further, and in June 1495, Brygandine was ordered to superintend the construction of a dry dock at Portsmouth, the first known to have been built in England. If one existed previously no reference to it has survived, and we may suppose that the new departure was the result of foreign superiority in such matters rather than of native enterprise. No foreigner however was employed in the work, and Brygandine, so far as we know, had had no training as an engineer. The undertaking was completed without accident and without any delay caused by unforeseen difficulties. The total cost was £193, 0s 6¾d; it was built of wood except the dockhead, which was 'fortifyed' with stone and gravel, of which 664 tons were used, and although it is not so stated, it may be assumed that the timber walls were backed with stone. During 1495-7 forty-six weeks were spent in the work, operations being suspended between November 1495 and February 1496, and between April of the latter year and July 1497. When the *Sovereign* came out of this dock twenty men were at work for twenty-nine days 'at every tide both day and night weying up of the piles and shorys and digging of ye clay and other rubbish between the gates.' From this it may be conjectured that the gates did not meet in closing, but that the structure was of this form



an arrangement doubtless due to fear of the pressure of the water outside when the one 'ingyn' employed for the purpose had succeeded in emptying the dock. The expression 'as well for ye inner as ye uttermost gate,' also bears out this view.

The dock itself occupied twenty-four weeks, the gates and dockhead twenty-two weeks, the number of men paid each week varying between twenty-eight and sixty. Carpenters received from fourpence to sixpence a day, sawyers fourpence and labourers threepence. Four tons of iron at £3 14s and £4 a ton were used, besides large quantities of nails, spikes and other iron work.[114]

From 1485 a storehouse was hired at Greenwich for the use of the ships lying in the river, at a yearly rental of £5, but down to 1550-60 Portsmouth, in virtue of its dock and the subsidiary establishments which grew up round it, remained the predominant naval port. Few of the townspeople, however, seem to have been able to supply any necessaries, stores having to be sent from London or bought at Southampton; wood was the only thing obtained plentifully in the neighbourhood. When Deptford, Woolwich, and Chatham were founded its one advantage of lying in the Channel did not serve it against the greater facilities they offered in other respects.

Henry VII: — Character of Shipping.

The ships of Henry VII are found to resemble in equipment and fittings those of his successors rather than the mediæval type, but that may be because we have no inventories of the time of Edward IV and the later years of Henry VI. Improvement must have been continuous although there is no trace of the successive steps. The *Regent* and the *Sovereign* were respectively four- and three-masters, with fore and

main topmasts; although the topmasts were separate spars it is probable that they were fixed and that a method of striking them had not yet been introduced. These two ships must have differed much less in appearance from a sailing ship of 1785 than from one of 1385 or even of 1425. They were fitted with a forecastle, poop, and poop royal, with a bowsprit and spritsail, and the fixed and running gear were, generally, much the same as now. As a detailed inventory of the *Henry Grace à Dieu* of not many years later, and varying but little in type, is given in this volume it is not necessary to describe them in detail.[115]

The introduction of portholes is usually attributed to Decharges, a French inventor of Brest and the date given is 1501. They were certainly known long before[116] but their adaptation to the purpose of broadside fire was doubtless one of the improvements of the sixteenth century. Still the date of their general acceptation must be before 1501 and earlier than is generally supposed, since the *Regent* and *Sovereign* have their poops and forecastles pierced for broadsides, and there is no suggestion that there was anything novel in such a plan. It need hardly be pointed out that the presence of a large number of guns along the sides brought about a complete alteration in shipbuilding. Not only had vessels to be more strongly built to meet the greater weight and strain, but the ‘tumble home’ tendency of the topsides was increased to bring the ordnance nearer the keel line.

The *Mary Fortune* and the *Sweepstake* were much smaller vessels but were also three-masters, with a main topmast and sixty and eighty oars respectively for use on board. Vessels of this type, which were

frequently called galleys by those who used them, have been erroneously supposed by later writers to denote the real galley, to which they bore not the least resemblance, or to represent a modified type peculiar to the English service. They were ordinary ships differing in no respect but size from their larger sisters, but small enough to permit the use of sweeps when necessary. The serpentine weighing, without any carriage, about 250 lbs. was the usual ship gun, and the *Regent* carried 151 of these in iron and 29 in brass in 1501.[117] Of course bows and arrows and all the older armament were still carried. The ships' sides were lined with pavesses or wooden shields painted in various colours and glittering with coats of arms and devices. For painting the *Regent* and *Mary Fortune*, and doubtless other ships, vermillion, fine gold, russet, bice,[118] red lead, white lead, brown, Spanish white, verdigris, and aneral[119] were employed.[120] The favourite Tudor colours, white and green, with the cross of St George, flew out in the standards and streamers which were of 'linen cloth' or of say.[121]

Henry VII: —Officers and Men.

The pay of the men was one shilling a week as shipkeeper in harbour, and one shilling and threepence when on active service. Victualling at first cost one shilling and a halfpenny a week, but subsequently rose to one shilling and twopence, and shipwrights, sawyers, labourers, and all others employed about the ships received food as well as pay. The jackets noticed under Edward IV, which perhaps signified some sort of uniform, were still provided. One hundred, at one shilling and

fourpence apiece, were bought for the same number of men sent from Cornwall to Berwick to join the fleet acting in conjunction with Surrey's army against Scotland in 1497.[122] The sea captain was still non-existent, that rank being confined to the leadership of the soldiers on board; the master, the highest executive naval officer, received three shillings and fourpence a week, the purser and boatswain one shilling and eightpence, quartermasters one shilling and sixpence, the steward and cook one shilling and threepence.[123] These were harbour rates; at sea the pay appears to have been much higher. When the *Sovereign* was brought from the Thames to Portsmouth, a voyage which occupied thirty-one days, the master obtained £2 10s, the purser 14s 8d, the quartermasters 10s each, the boatswain 16s 8d, the steward 8s, and the cook 10s.[124]

Of the condition, habits, and manner of thought among the men we know nothing. Ferdinand's ambassador, De Puebla wrote to him that, 'the English sailors are generally savages,' but he was not the last envoy whose delicate diplomatic sense they have outraged by plain speaking. This sensitive gentleman lodged, however, in a house of ill-fame in London from motives of economy.

Henry VII: — Commercial Policy.

In commercial matters Henry followed those methods dictated by the political economy of his age, which seemed likely to increase the trade and shipping of the country. A navigation act of the first year of his reign, and this time meant seriously, forbade the importation of foreign wines in any but

English, Irish, or Welsh owned ships. Three years later it was enacted[125]

> 'That where great minishing and decay hath been of late time of the navy of this realme of England and idleness of the mariners within the same, by the which this noble realm within short space of time, without reformation be had therein shall not be of ability, nor of strength and power to defend itself.'

No wines or Toulouse woad were to be imported except in ships owned by English subjects and, 'most part' manned by native crews. The punishment for disobedience was the forfeiture of one half the cargo to the king, and one half to the informer; under the same penalty exportation of goods in foreign vessels was forbidden if English ships could be obtained. Yet notwithstanding the desponding tone of this preamble, trade was now travelling far afield. The consul at Florence of 1484 had now an associate at Pisa, and a treaty of commerce in 1490 with Denmark shows that we possessed establishments there and in Norway and Sweden, and that the trade was carried on in English bottoms. The king frequently let out his men-of-war on hire for distant voyages, and if merchants found it profitable to take a ship of the size of the *Sovereign* for a voyage to the Levant the Mediterranean trade must have been already of some importance.

Edward IV, by a commercial treaty of 1467 with Burgundy, granted free fishing round the English coasts to the subjects of that power. This was confirmed by the treaties of 1496 and 1499 but withdrawn by that of 1506, called therefore by the

Flemish the *Intercursus Malus*. It is possible that Henry recognised the value of the fishing industry as a nursery of seamen, but more probable that he was impelled by purely political motives.

The New Discoveries.

The discovery of America and the passage round the Cape of Good Hope must have impressed the king intellectually even though his imagination was untouched by the wonders daily opened to the old world, but there is little evidence that he wished England to join directly in the search for new sources of wealth. The half-hearted assistance given to the Cabots, and the licences without assistance granted to Elliot, Ashurst, and others of Bristol, were not aids of a nature to win success in new and doubtful undertakings. This course of action is usually ascribed to Henry's parsimony, but it may well be that he feared to be brought into political antagonism with Spain and Portugal, and that he was dubious of the ability of his subjects to keep up profitable communication between countries separated by vast distances of sea. England possessed comparatively little floating capital, and capital is as essential to colonisation as to smaller businesses. We know that intercourse with the West completely changed the character of the Spanish marine in causing it to be replaced by ships of a larger and more commodious type, a change which alone postulates the waste and subsequent investment of a relatively enormous sum. But Spain, even before the voyage of Columbus, was a much wealthier country than England, and it seems that if any profitable discoveries had been due at this time to English explorers they would soon have been found to have

been made for the benefit of stronger and wealthier powers. Moreover the political risk was not an imaginary one and might have induced the condition of things existing under Elizabeth when the country was much less able to hold its own. There is an illustration of this in the orders given by the Spanish monarchs in 1501 to Alonso de Hojeda to impede the progress of English discoveries on the transatlantic coast.[126]

That Henry had not forgotten the traditions of the past and realised the value of a national marine is shown by his maintenance of the navy, by the formation of a royal dockyard, by his navigation acts, and, above all, by the inauguration of the bounty system on ocean-going ships. In this, as in other things, he moved slowly, but the progress in the end was none the less complete because in the beginning it had not been unduly stimulated by encouragements not warranted by either the needs or capabilities of the country. The crown, instead of being controlled by nobles indifferent to, or despising commerce, was now influenced by the commercial classes and found its profit in aiding their development. These classes were now replacing the capital destroyed in the wars of the fifteenth century, eager for fresh markets, and with no maritime adversary to fear. For the moment English mercantile effort took a direction that did not bring it into conflict with larger interests, but when the natural expansion of trade and shipping brought the country into collision with other powers the struggles of centuries, which had shaped and hardened a skilful and dauntless maritime population, bore their natural fruit in a school of seamen able to use and direct the instruments which the increasing wealth and ambition of the nation placed in their hands.

HENRY VIII
1509-1547

The New Policy and its Causes.

Henry VII had been chiefly occupied in securing the permanence of his dynasty, and although sometimes drawn into action abroad, had avoided any serious entanglement in continental politics. His son's policy was the reverse of this, and his reign presents a series of unsuccessful attempts to make England the centre round which European politics were to revolve. These views necessitated the maintenance and employment of an armed force, and although the army was still considered the effective weapon of offence the growing opinion that the navy was essentially the national arm ensured a proper solicitude being bestowed upon it, although its real predominance was not yet recognised; 'when we would enlarge ourselves let it be that way we can and to which it seems the eternal Providence hath destined us,' was, we are told, the argument of those who were opposed to an invasion of France by land. [127] The use of such reasoning as this shows that the epoch of maritime expansion was not far distant.

But besides deduction from past experience there were other causes working to induce a natural and, it may be said, almost automatic increase in the navy of the crown. In the past centuries 'our ancient adversary' of France had been the only enemy really

within touch, and no systematic attack by sea from France had been practicable for more than a hundred years. But the consolidation of that kingdom, and the accession of Francis I, a monarch by no means indifferent to the supremacy of the sea, one of whose first acts was to order the construction and fortification of the Port of Havre in 1516-17, and who built ships and brought round fleets from the Mediterranean to contest the command of the channel, necessarily compelled a corresponding activity on the English side. Another circumstance enforcing increased naval strength was the union of Brittany with the French crown. This event was regarded by contemporary Englishmen somewhat in the light that we should now look upon the domination of the coastlines of Holland and Belgium by Germany and France. The marriage of Anne of Brittany to Charles VIII, in December 1491, gave France its most valuable arsenals and ports, and the command of a race of fine seamen. Henry VII, perhaps recognising that the subjection of the province could only at most be deferred and not prevented, made but perfunctory efforts, either by war or diplomacy, to hinder it. Hitherto, except for the customary practice of piracy, the Breton ports had been neutral or friendly, and the Breton seamen indifferent to the dynastic or national quarrels of the two great powers. In the future the ports were to be the chief source of danger to English maritime supremacy, and the men the mainstay of the navy which carried on a prolonged and doubtful contest with England for more than a century.

With Spain, notwithstanding isolated ship and fleet actions occasionally occurring, warfare had never been serious or continuous, nor had the political interests of the two countries been of such a nature

as to bring them into conflict. The union, however, under the sway of Charles V, of the Empire, of Spain, and of the Netherlands, altered, in view of the new attitude assumed by Henry VIII, the pre-existing situation, and here again, besides the Imperial troops, Spanish fleets had to be reckoned with. Although those fleets were never in reality so powerful as they appeared to contemporary observers, the necessities of Trans-Atlantic voyages and the practice of ocean navigation had given experience to officers and men and improved the build of the ships, so far at anyrate as size and apparent power were concerned.[128] Accommodation had to be supplied for larger crews and for numerous passengers, but the science of shipbuilding was not sufficiently advanced to meet these requirements except by methods which gave bigness at the expense of seaworthiness. But whatever the actual combatant value of the Spanish navy, or its power of mobilisation at any required moment and place, it was a factor to be considered in the counsels of the Emperor's possible enemies and was another reason for the strengthening of the English navy. That that navy occupied a strategically advantageous position on the line of communication between the peninsular and northern possessions of the Empire was a fact not likely to be forgotten by the advisers of either Henry or Charles.

In the north a comparatively long peace with Scotland, and the distractions caused by the Wars of the Roses, had enabled that power to extend its commerce and obtain a prosperity reflected in the existence of a navy, for the first and only time strong enough to attract the attention of foreign observers. In 1512 James IV had three agents in France

especially retained to arrange a supply of naval stores and ships,[129] and Lord Darcy informed Henry that the king of Scotland, who spent much of his time on board the ships, possessed some sixteen or twenty men-of-war. The *Great Michael* recently built, and perhaps the actual instigation of the *Henry Grace à Dieu*, was one of the wonders of the country and reputed to be the largest and strongest vessel yet launched in northern latitudes. That 'Jack Tarrett, a Frenchman,' was her shipwright pointed to the ever present danger of the old alliance between France and Scotland, a danger much intensified if Scotland was to take a place as a naval power.

Without, therefore, attributing to Henry VIII an exceptional foresight, the conditions were such as to compel an increase in the navy commensurate with the larger aims of the royal policy and the wider duties the execution of such a policy involved. The navy was not relatively larger than it had been under some of the preceding kings, notably Henry V, the main distinction being that under Henry VIII it was slowly tending towards its future position as a principal instrument of offence instead of acting as a mere auxiliary. This, again, was as much, or more, due to the changed circumstances of land warfare as to any definite intention. The English army was still a militia; the troops of France and the Empire were now standing armies, highly trained and veterans in war. For most of the western countries the age of feudal levies was over, but England had not yet clearly acknowledged the new era. The troops sent under the Marquis of Dorset in 1512 to invade Guienne, in conjunction with Ferdinand's Spaniards, returned home *en masse* in defiance of their commander's and of Henry's orders and threats. 'The world was breathless with astonishment at such a

flagrant act of insubordination.'[130] An English army was not yet composed of ragged losels pressed from the gutter, but the ancient feudal tie which knit together knight and retainer was almost destroyed. Armies of this type could not possibly match themselves against the professional continental soldiers. But the country could not have afforded nor would it have permitted a permanent military force, therefore either its claims to exercise a powerful mediatory position were to be forsaken or that peculiar genius for the sea, which had hitherto been of secondary use but which had always been implicitly recognised as the especial heritage of the race, was to replace the mere ability to fight it shared with many other nations. But for the singular skill of the English archer the change would have come long before; improvements in artillery and musketry at last compelled it. The effects were not plainly seen till the reign of Elizabeth, but the militant history of Henry VIII is a series of steps—whether due to a sagacious recognition of the altered situation or to a mechanical compliance with it—towards an increase in the power and use of the Navy, and improvements in its administration, although, as the traditions of centuries are not lightly set aside, armies were still levied to fulfil their ancient *rôle* in France.

There was also another and personal element which doubtless had its influence. Henry was, if not a born sailor, at least something more than a yachtsman. He was continually inquiring about the merits of new ships, and requiring reports on their sailing qualities in a way that implied some technical knowledge, and showed a real interest beyond the political one in sea affairs. He is said to have been himself the designer of a new model. Sometimes he

acted as an amateur master or pilot and dressed the character, of course in cloth of gold. On one occasion when present at the launch of a vessel he wore vest and breeches of cloth of gold, and scarlet hose, with a gold chain and whistle.[131] This was a factor which helped the progress of events, but which could have had little influence had the royal inclination been contrary to the tendency of the time.

Royal Navy List.

The following list of the men-of-war of the reign, has for convenience been thrown into a tabular form, which, however, gives it a fuller and more final appearance than it is intended to claim. The records are not sufficiently complete or detailed to enable the inquirer to be certain in all cases of the exact year of building, rebuilding or purchase, and a further element of uncertainty is introduced by the changes of name which occurred, and continuity of name in what may be supposed to be new ships, but of whose building there is no distinct evidence. The dates printed in heavier type may be taken as exact; the others can only be regarded as likely to be correct, and the tonnage varies at different times in nearly every ship. From the preceding reign came the *Regent*, *Sovereign*, *Mary and John*, (or *Carvel of Ewe*), *Sweepstake* and *Mary Fortune*.

	Built	Bought	Rebuilt	Prize	Tonnage
Sovereign[132]			**1509**		600
Peter Pomegranate[133]	**1509**		1536		450
Mary Rose[134]	**1509**		1536		500

Gabriel Royal[135]		1509			700
Mary James[136]		1509	1524		300
Mary George[137]		1510			300
Lion[138]				**1511**	120
Jennet Pyrwin[139]				**1511**	70
John Baptist[140]		**1512**			400
Great Nicholas[141]		**1512**			400
Anne Gallant[142]		1512			140
Dragon[143]	1512				100
Christ[144]		1512			300
Lizard[145]	**1512**				120
Swallow	**1512**		1524		80
Kateryn Fortileza[146]		**1512**			700
Great Bark[147]	1512				400
Less Bark[148]	1512				160
Kateryn Galley[149]	**1512**				80
Rose Galley[150]	**1512**				
Henry Galley[151]	**1512**				
Lesser Barbara[152]		1512			160
Great Barbara[153]		1513			400

Black Bark[154]		1513			
Henry of Hampton[155]		1513			120
Great Elizabeth[156]		**1514**			900
Henry Grace à Dieu[157]	**1514**		1540		1000
Mary Imperial[158]	1515		1523		120
Mary Gloria[159]		**1517**			300
Kateryn Plesaunce[160]	**1518**				100
Trinity Henry[161]	**1519**				80
Mary and John[162]		1521			
Mawdelyn of Deptford[163]	1522				120
Great Zabra[164]	1522				50
Lesser Zabra[165]	1522				40
Fortune or Hulk[166]	1522				160
Bark of Morlaix[167]				1522	60
Mary Grace[168]				1522	
Bark of Boulogne[169]				1522	80
Primrose[170]	**1523**		1536		160
Minion[171]	**1523**				180

New Bark[172]	**1523**				200
Sweepstake[173]	1523				65
John of Greenwich[174]				1523	50
Mary Guildford[175]	1524				160
Lion[176]	1536				160
Mary Willoby[177]	1536				160
Jennet[178]	1539				200
Mathew[179]		1539			600
Sweepstake[180]	1539				300
Less Galley		1539			400
Great Galley[181]		1539			500
Salamander				**1544**	300
Unicorn[182]				**1544**	240
Pauncye[183]	1544				450
Mary Hambro[184]		1544			400
Jesus of Lubeck[185]		1544			600
Struse of Dawske[186]		1544			400
L'Artique[187]		1544			100
Swallow[188]	1544				240
Dragon[189]	1544				140
Fawcon[190]	1544				100
Galley Subtylle[191]	**1544**				300
Marlion[192]				1545	70
Mary Thomas[193]				1545	100
Mary James[194]				1545	120

Mary Odierne[195]				1545	70
Hind[196]	1545				80
Grand Mistress[197]	1545				450
Anne Gallant[198]	1545				400
Greyhound[199]	1545				200
Saker[200]	1545				60
Brigandine[201]	1545				40
Less Pinnace[202]	1545				60
Hare[203]	1545				30
Roo[204]	1545				80
Morian[205]		1545			400
Galley Blancherd[206]				**1546**	
Christopher[207]		1546			400
George[208]		1546			60
Phœnix		1546			40
Antelope[209]	1546				300
Tiger	1546				200
Bull	1546				200
Hart	1546				300
13 Rowbarges[210]	1546				20

We are accustomed to the general statement that Henry VIII enlarged the navy, but the foregoing list shows a much more extensive increase than is implied by a general expression and, if so far as number is concerned it errs at all, it errs on the side of omission. A little indulgence in admitting names could have extended it considerably. No foreign purchased merchantman has been inserted without the authority of a definite statement, or unless it

appears in lists later than the reign under consideration; but there are foreign ships omitted as only temporarily hired which may really have belonged to the crown. Other vessels which occur in almost indistinguishable fashion among men-of-war have been left out in view of the custom which frequently obtained of describing hired ships as king's ships while they were in the royal service, and in some cases it has been found impossible to satisfactorily trace particular vessels. For instance, during the first half of the reign a 'great galley' of 600 or 800 tons, flits in a most puzzling way through some, but not the most reliable, of the papers. I take it to have been an indefinite designation applied at various times to various ships,[211] but that opinion may be altogether wrong and it may be the actual name of a large vessel which has left no other indication of its existence. Again, the Earl of Southampton, for four years Admiral of England, bequeathed Henry his 'great ship' by his will dated September 1542. The Earl died in 1543, but which is the ship in question, or whether it appears at all in the foregoing list, cannot be determined.

Activity in Construction and Purchase of Ships.

Exclusive of the thirteen rowbarges, there are eighty-five vessels, and of these forty-six were built, twenty-six purchased, and thirteen were prizes. The periods of greatest activity synchronise with war with France 1512-14, war with France and Scotland 1522-5, with the possibility in 1539 of a general alliance on religious grounds against England, and

with war against France and Scotland in 1544-6. But allowing for uncertainty of dates, possibility of omissions, and our almost entire ignorance of the repairs and rebuildings which must have been progressing uninterruptedly, there is no cessation of vigorous action throughout the reign. The existing dockyards could have hardly been equal to the demands on them for repairs alone, and this is doubtless one reason for the large number of ships purchased, a course which was also probably cheaper for the moment. All Henry's foreign purchases seem to have been Italian or Hanseatic. During 1511-14 he hired several Spaniards and tried to buy some, but his desires were vain in face of the strict Spanish navigation laws. In 1513 the Spanish envoy, de Quiros, was instructed to inform the king that the sale of Spanish ships abroad was forbidden under heavy penalties, and that his government could not permit them to be sold even to Henry.[212] In fact we find from another source that the sale of ships was forbidden to foreigners even though they were naturalised Spanish subjects, and as, from October 1502, a bounty of 100 maravedis a ton was given up to 1500 tons it is hardly surprising that their sale to aliens was sternly interdicted.[213] In 1513 Knight wrote to Henry that the whole of a Spaniard's goods had been confiscated for selling a carrack to him. Under these circumstances the king had to buy in the North German ports, and, judging from the small number of years most of them remained in the effective, many must have been built for the purpose of sale to him.

Royal Ships:—Build and Rigging.

The vessel which has the chief place in popular memory is the *Henry Grace à Dieu*, but she probably differed little in size, form, or equipment, from others nearly as large. Her total cost, with the three small barques built with her, was £8708 5s 3d, but out of the 3739 tons of timber used 1987 cost nothing being presented by several peers, private persons, and religious bodies. According to the accounts she was constructed under the supervision of William Bond, but if a nearly contemporary letter may be trusted Brygandine, the clerk of the ships designed and built her.[214] Bond's connection with her may have been merely financial and confined to payments of money. Fifty-six tons of iron, 565 stones of oakum and 1711 lbs of flax were other items. She was a four-master and possibly a two-decker with fore, main and mizen top-gallant sails, but with only two sails on the other masts, and with two tops on each of the three principal masts.[215] All ships but the very smallest had four masts, the two after ones being called, respectively, the main and bonaventure mizens. There was nothing exceptional in the *Henry's* fittings, top-gallant sails being known to have been used in the previous reign, and, as at that time, the topmasts were not arranged for lowering. An equivalent to the ease given a labouring ship by striking the topmasts was obtained by lowering the fore and main yards to the level of the bulwarks. As most of the guns were carried in the poop and forecastle ships must have been 'built loftie' on the Spanish model and presented a squat and ungainly appearance. Vessels were now mostly carvel built, and those clench, or clinker, built, were regarded as too weak to stand the shock of collision when boarding was intended. Speaking of some foreign ships brought into Portsmouth, Suffolk wrote that

some of them were ‘clenchers, both feeble, olde, and out of fashion,’ and therefore not to be taken up for service with the fleet.[216]

Spritsails were now coming into more common use and, with the spanker on the bonaventure mizen or fourth mast and sometimes with another on the main mizen, served the purpose of the later fore-and-aft sails. Vessels were now, although still slowly and clumsily, able to work more closely to windward. There is one entry which runs ‘eight small masts at 6s 8d the pece ymploied in the *Great Bark* and other the Kynges shipps for steddying saills.’[217] It can only be said that there is no mention in the inventories, or any sign in the drawings of ships of this century, of what are now called studding sails.

Royal Ships:—Armament.

An ordinary vessel appears to have been armed along the waist, in her forecastle of two or three tiers, and in her summer castle or poop, also divided into decks. For some of these ships we still have the armament:—[218]

Great Elizabeth[224]		Single Serpentines	Double[219] Serpentines	Slings[220]	Half St Slings
Fo’c’stle	Upper Deck[223]				
	Middle Deck	16			
	Nether Deck	12			
	Waist				
	Stern				2
Poop	Upper Deck	12			2
	Middle Deck	41			
	Nether Deck	3			2

Great Barbara		Falcons	Single Serpentines	Double Serpentines	Slings
Fo'c'stle	Upper Deck		7		
	Middle Deck				
	Nether Deck		7		
	Waist		6		
	Stern				
Poop	Upper Deck	6			
	Middle Deck	2			
	Nether Deck				

Ships like the *Henry*, *Sovereign*, and *Mary Rose* carried also heavier pieces than these, the commencement of the change to fewer but more powerful guns, which progressed rapidly during the middle of the century. The *Mary Rose* had 79 guns (besides six in her tops), of which 33 were serpentines, 26 stone guns, and 10 murderers, but she also had five brass curtalls and five brass falcons. [225] The *Sovereign*, when rebuilt in 1509, was given four whole and three half curtalls of brass, three culverins, two falcons, and eleven heavy iron guns among her 71 guns.[226] The curtall, or curtow, was a heavy gun of some 3000 lbs., hitherto only used as a siege piece on land, and its transference to maritime use marks a revolution in ship armament which deserves attention. The *Mary Rose* and *Sovereign* were in 1509, the two most powerfully armed ships which had yet existed in the English navy, perhaps the most powerfully armed ships afloat anywhere that year, and it is curious to notice that the *Peter Pomegranate* built with them was fitted in the old style, with innumerable serpentines which could have been of little more effect than toy guns, appearing almost as though the contrast was an intentional experiment. At any rate with the heavier

armaments of the *Sovereign* and *Mary Rose*, commences the long struggle between the attack and defence still going on, for hitherto there had been practically no attack so far as a ship's sides were concerned.

The system was extended as the reign progressed, and in 1546, we find comparatively small ships like the *Grand Mistress* carrying two demi cannons and five culverins, the *Swallow* one demi cannon and two demi culverins, out of a total of eight heavy guns; the *Anne Gallant* four culverins, one curtall, and two demi culverins; the *Greyhound* one culverin, one demi culverin, and two cannons petro,[227] besides their other smaller pieces.[228] Even the *Roo* of 80 tons has two demi culverins and three cannons petro. To measure the full extent of the change we must compare these vessels with the *Henry*, of three or four times their tonnage, which in 1514, carried only one bombard, two culverins, six falcons and one curtow, in addition to 126 serpentines and 47 other guns of various but probably light weights, seeing that most of them were used with chambers.

To whom was this innovation due? It commenced with Henry's accession, and if not owing to his direct initiative, he has the merit of recognising its value and persistently putting it into execution. But we know from other non-naval documents that he had some knowledge of artillery and took an active personal interest in such matters, and it may very well be that the improvement was his own. In any case it was one in which England took and kept the lead, and which gave the country an incalculable advantage in the contest with Spain during the close of the century.

Ships:—
Ordnance
Stores.

From other papers we can ascertain with sufficient completeness the character of the weapons and stores for offensive purposes carried on board. There is a state paper of July 1513, coincident with the invasion of France which gives the following details[229]:—

	Soldiers	Sailors	Gunners	Bows	Bowstrings	S
Henry Grace à Dieu[230]	400	260	40	2000	5000	
Gabriel Royal	350	230	20	500	1500	
Mary Rose	200	180	20	350	700	
Sovereign	400	260	40	500	1500	
Kateryn Fortileza	300	210	40	350	700	
Peter Pomegranate	150	130	20	300	600	
Great Nicholas		135	15	250	500	
Mary James	150	85	15	200	500	
Mary and John	100	100		200	500	
Great Bark	150	88	12	200	500	
John Baptist	150	135	15	250	500	
Lizard	60	32	8	80	200	
Jennet	10	44	6	60	150	
Swallow	20	46	4	60	150	
Sweepstake		66	4	60	150	

The reader will remark the small number of gunners allowed. The *Sovereign* had 70 or 80 pieces and the proportion here does not allow even one gunner to a piece on a broadside. Perhaps the soldiers manned the guns, but it is more likely that the seamen were beginning to take a combatant part

instead of confining themselves to working the ship. Bows and arrows still formed an important part of the equipment, but although we have no similar list for shot the amount of powder shows the reliance now placed on artillery and musket fire. Incidentally, among remains of stores, we find '200 harquebus shot,' 900 serpentine shot, 1350 iron 'dyse,' 8 darts for wildfire, to set the sails of an enemy's ship on fire, and two chests of wildfire with quarrels.[233] Also '300 small and grete dyse of iern,' 420 stone and 1000 leaden shot, 120 shot of iron 'with cross bars,' 22 'pecks for to hew gonstones'[234] and 74 arrows of wildfire.[235]

Ships, Galleys and Galleasses.

The well known picture of the embarkation of Henry VIII at Dover, on his way to the interview with Francis I in 1520, represents the *Henry Grace à Dieu* as the chief ship in the fleet. This was inherently improbable as the *Henry* drew too much water to enter either Dover or Calais harbours, but it can be proved to be incorrect from documentary evidence. The squadron consisted of the *Great Bark*, *Less Bark*, *Kateryn Plesaunce*, *Mary and John*, and two rowbarges.[236] The interview was originally proposed for 1519 and a year previously on 22nd May 1518, the *Kateryn Plesaunce* was commenced for the express purpose of carrying the King and Queen across the Channel.[237] She cost £323, 13s 9d, including the victualling and lodging expenses of the men working upon her, and required 80 tons of ballast.[238] In none of the accounts relating to men-of-war are there any details of extrinsic decoration, if it existed, and even in the *Kateryn*, intended for a

royal pleasure trip there is only one charge of ten shillings for painting and gilding the 'collere.' House carpenters were employed for 'the makynge of cabons and embowynge of wyndows,' and although the chief cabin was wainscoted and lighted by 112 feet of glass, the Queen's own cabin was cheaply furnished with a dozen 'joined stools' at tenpence apiece.

The *Kateryn* was sometimes called a bark and sometimes a galley and this leads us to the question of the classification of the royal vessels. If we accept without inquiry that of the list of 5th January 1548, [239] we find ships like the *Anne Gallant*, *Unicorn*, *Salamander*, *Tiger*, *Hart*, *Antelope*, *Lion*, *Dragon*, *Jennet*, *Bull* and *Greyhound*, described as galleys. But in Anthony's list of 1546 the same vessels are called galleasses; obviously therefore the two words did not define particular types as rigidly as they do among naval archæologists to-day, or even as they did towards the end of the sixteenth century. The *Kateryn* galley of 1512 was a three masted vessel with bowsprit and fore and main topmasts, as was also the *Rose* another 'galley' of the early years of the reign.[240] Both were supplied with oars—thirty—as was usual with small vessels long after this date when the name galley had fallen into disuse. Another, the *Sweepstake* (of Henry VII), had a mizen mast,[241] and a sprit mast on the bowsprit,[242] so that it may be assumed that she also was a three-master although elsewhere she is described as 'the king's rowbarge called the *Sweepstake*.'[243]

In 1546 the *Hart*, *Antelope*, *Tiger*, and *Bull* are four-masted flush-decked ships, apparently pierced on a lower gun deck for nine pieces a side; the *Anne Gallant* and *Grand Mistress* four-masters, of 450 tons,

with forecastle and poop, carrying guns on the upper and on a lower deck; the *Greyhound*, *Lion*, *Jennett*, and *Dragon*, are similar well-decked vessels with the addition of great stern and quarter galleries extending nearly the whole length of the poop and nearly one-third of the length of the vessel. The contradictions we have to face can be best exemplified by one example, the *Greyhound*, which in the 1548 list is called a galley, in a 1546 list said to be a copy of Anthony's,[244] a galleass, and in that portion of Anthony's manuscript remaining in the Museum, a ship.[245] This last authority, a series of original drawings, calls only the *Greyhound*, *Lion*, *Jennett*, and *Dragon*, 'ships' and the only point in which they seem to differ from the ordinary type is in the possession of the stern and quarter galleries. If these drawings are accurate, and they so far differ from each other as to lead us to suppose that they were intended to portray individual ships, it is impossible that any one of them can have been impelled by oars, although sweeps may have been occasionally and temporarily used for a particular purpose. They may have been worked from the gun-ports, in which case the *Grand Mistress* could only have used eight a side. The conclusion therefore is that the term galley did not imply an oared vessel of the Mediterranean type, such as we now associate with the word, but was applied first to light ships small enough to use sweeps when necessary, and later to an improved model, possibly built on finer lines than the heavy, slow moving hulks of the beginning of the reign, and expected to bear, to the ponderous 600 or 1000 ton battle ship, the same relation in speed that the real galley bore to a mediæval sailing vessel. A fleet formation of 1545 was of course based on that customary in an army

and we have Van, Battle or main body, and Wing, arranged for. In that year some of the vessels just mentioned were not yet afloat, but the *Salamander*, *Swallow*, *Unicorn*, *Jennett*, *Dragon*, and *Lion* were included in the Battle. The Wing, composed of 'galliasses and ships with ores,' comprised among others, the *Grand Mistress*, *Anne Gallant*, and *Greyhound*. That they should have been classed with 'the ships with ores,' does not show that they were of the same order, but only that they were supposed to be sufficiently handy under sail to act with them.

There was therefore a certain number of ships, large and small, vaguely and uncertainly called galleys, possessing certain modifications on the normal type, and there is some reason to believe that the innovation, whatever may have been the particular change in form or structure, was due to Henry himself. He sometimes appears to have had his own designs carried out; a prize was to be altered 'so as she now shall be made in every point as your Grace devised.'[246] In 1541 Chapuys wrote to the emperor:

> 'The King has likewise sent to Italy for three shipwrights experienced in the art of constructing galleys, but I fancy that he will not make much use of their science as for some time back he has been building ships with oars according to a model of which he himself was the inventor.'[247]

Chapuys must have been referring to the earlier *Rose*, *Kateryn*, and *Swallow* type, and possibly to others not now to be traced; but to the presence of the Italian shipwrights was undoubtedly owing the

launch of the *Galley Subtylle* in 1544. 'Subtylle' was not an especial name, but was applied to a class more lightly built and quicker in movement than the ordinary galley. This was the only real galley built by him since it differed in no respect from the standard Mediterranean pattern, but in 1546 thirteen 'rowbarges' of twenty tons apiece were added to the Navy. These were rowing vessels, and unless intended for scouting or for towing and to give general assistance, it is difficult to see their utility as they were too small to engage with any chance of success. In the result they were sold within a year or two of Henry's death. The sixteenth century galley service, such as it was, was forced on the English government by the action of Francis I in bringing his own and hired galleys round from the Mediterranean. It was always repugnant to the national temperament and soon languished when the exciting cause was removed. Although three or four galleys were carried on the navy list until 1629 the last years in which any served at sea were 1563 and 1586.

These various attempts at evolving a new type, which should combine the best points of the galley and the sailing vessel, show that Henry recognised at least some of the faults of the man-of-war of his day. He failed because the solution was not within the scientific knowledge of his time, and perhaps also because the work of the galley benches must have been abhorrent to the hereditary instincts and traditions of the English sailor. But he was the first English king who gave the Navy some of that forethought and effort at improvement that had hitherto been devoted wholly to the army. His experiments left so little visible trace in the one direction that in 1551 Barbaro could write to the

Seigniory, ‘They do not use galleys by reason of the very great strength of the tides,’[248] but, in another, the drawings of the last ships launched, the four of 1546, one of which, the *Tiger*, is reproduced in the frontispiece—comparatively low in the water, little top-hamper, neat and workmanlike in appearance—show a very great advance on anything before afloat, and indicate a steady progression towards the modern type.

Royal Ships:—Decoration and sailing qualities.

If we are to judge of the decoration of ships by the references to ornament in the naval accounts, we should have to conclude that it was entirely absent. Unquestionably it was to a certain extent present, since its absence would have been contrary to the instincts of humanity and the customs of every nation that has had a navy. But it could not have been as extensive as it afterwards became, nor have taken any very expensive form. The hulls were doubtless painted as in the previous reign, but the bows and stern seem to have been quite devoid of carving or gilding. The tops, which were large enough to hold heavy guns, were ornamented with ‘top-armours’ of red, yellow, green, or white kersies lined with canvas. The *Sovereign* had copper and gilt ornaments on the end of the bowsprit, and gilt crowns for the mast heads had been an embellishment used for centuries. The *Unicorn* and *Salamander* have representative figures on their beakheads,[249] but as they were prizes no deduction can be drawn as to English custom. The English built

ships have no figurehead, but the beakhead sometimes ends in a spur, implying the idea of ramming. This spur, however, points upward and is much too high to have been of any use for that purpose. The ships' sides were still surrounded with pavesses, now only light wooden shields and decorations, but which were survivals of the real shields of knights and men-at-arms in ancient vessels, ranged round the sides of the ship until needed for fighting. A hundred years later the cloth weather protection round the oarsmen of a Mediterranean galley was still called the *pavesade*. These pavesses seem to have sometimes taken the place of bulwarks, not always present. In 1513 Sir Edward Echyngham, captain of a ship then at sea wrote that he had fallen in with three Frenchmen,

> 'Then I comforted my folk and made them to harness, and because I had no rails upon my deck I coiled a cable round about the deck breast high, and likewise in the waist, and so hanged upon the cable mattresses, dagswayns, [250] and such bedding as I had within board.'[251]

The form of expression suggests that the absence of rails was unusual.

Of the rate of sailing attained by these ships and their weatherly qualities we know hardly anything. On 22nd March 1513 Sir Edward Howard wrote to Henry, evidently in answer to a royal command to make a report on the subject, describing the merits of the squadron he had been trying, apparently between the Girdler and the North Foreland.[252] The *Kateryn Fortileza* sails very well; the *Mary Rose* is 'your good

ship, the flower I trow of all ships that ever sailed;' the *Sovereign*, 'the noblest ship of sail is this great ship at this hour that I trow be in Christendom.' Some time, but not long, before 1525 the *Sovereign* was in very bad condition, and her repair was urged because 'the form of which ship is so marvellously goodly that great pity it were she should die.'[253] Her name however does not subsequently occur and she was probably broken up. In 1522 Sir William Fitzwilliam related in a letter to the king that the *Henry* sailed as well or better than any ship in the fleet, that she could weather them all except the *Mary Rose*, and that she did not strain at her anchors when it was blowing hard.[254] It seems rather late in the day for a trial of a vessel afloat in 1514, but some alterations may have been previously made rendering it advisable. Even when ill and near his end Henry evinced the same interest in the seagoing qualities of his ships, since we learn from a letter of 1546 that he had required to be informed whether 'the new shalupe was hable to broke the sees.'

Flags and Signals.

If carving, gilding, and painting were scant on these ships they shone bravely with flags and streamers. Those of the *Peter Pomegranate* were banners of St Katherine, St Edward, and St Peter, six of the arms of England in metal;[255] of a Red Lion; four of the Rose and Pomegranate; two of 'the castle,' and eight streamers of St George.[256] The *Henry Grace à Dieu* was furnished with two streamers for the main mast respectively 40 and 51 yards long, one for the foremast of 36 yards, and one for the mizen of 28 yards; there were also ten banners 3½ yards long, eighteen more 3 yards long, wrought with gold

and silver and fringed with silk, ten flags of St George's Cross, and seven banners of buckram, at a total cost of £67, 2s 8d.[257] Banners mentioned in other papers were, of England, of Cornwall, of a rose of white and green, of a Dragon, of a Greyhound, of the Portcullis, of St George and the Dragon, of St Anne, of 'white and green with the rose of gold crowned,' of 'murrey and blue with half rose and half pomegranate, with a crown of gold,' and of 'blue tewke with three crowns of gold.'[258] White and green were now the recognised Tudor colours, and there is some indication of their use in that sense in the reign of Henry VII; the Greyhound was the badge of that king, the Dragon of his son. The Portcullis referred to the control of the straits of Dover, the Pomegranate to Catherine of Aragon and Spain; the constant recurrence of the Rose as a badge and as a ship's name needs no explanation. The banner with the representation of a saint upon it was a survival of the custom existing in earlier times, by which every ship was dedicated to a saint, under whose protection it was placed and whose name it usually bore.

Besides ornament flags had long served the more prosaic purpose of signalling. Even among merchantmen there seem to have been some recognised signals, as in 1517 the *Mary of Penmark*, driven into Calais by bad weather, hoisted 'a flag in the top,' for a pilot.[259] This signal must therefore have long been common to at least two seafaring peoples. So far as the Royal Navy was concerned, we can only say that a flag 'on the starboard buttock' of the admiral's ship called his captains to a council. [260] But a system of day and night signalling had long been in existence in the Spanish service, and in view of the close connection between the two

countries commercially, and the employment of Spanish ships and seamen by the crown, it would have been extraordinary had it not been known and used here. According to Fernandez de Navarrete[261] a scheme of signals for day and night use was practised in 1430. In 1517 a flag half way up the main mast called the captains to the flagship; sight of land was announced by a flag in the maintop; a strange ship by one half way up the shrouds, and more than one strange sail by two flags placed vertically. A ship requiring assistance fired three guns, and sent a man to wave a flag in her top, while if the admiral's ship showed a flag on her poop, every captain was to send a boat for orders. A code with guns and lights made the corresponding signals during darkness and fog.[262]

Fleet Regulations.

The earliest set of regulations for the government of a fleet in this reign is contained in an undated paper entitled 'A Book of Orders for the War by Se and Land,' prepared by Thomas Audley by command of Henry.[263] The articles relating to sea matters, and dealing with the management of a fleet may be thus summarised:—

1. No Captain shall go to windward of his Admiral. 2. Disobedient captains shall be put ashore. 3. No ship to ride in the wake of another. 4. If the enemy be met the weather-gage is to be obtained; only the Admiral shall engage the enemy's Admiral, and every ship is, as nearly as possible to attack an opponent of equal strength. 5. Boarding not to be undertaken in the smoke, nor until the enemy's

> deck had been cleared with small shot. 6. If a captured ship could not be held the principal officers were to be taken out of her, the vessel 'boulged,' and 'the rest committed to the bottome of the sea for els they will turne upon you to your confusion.' 7. When going into action the Admiral is to wear a flag at his fore and main, and the other ships at the mizen. 8. The Admiral shall not enter an enemy's harbour, nor land men without calling a council.

From the last regulation it would appear that only limited authority was left to the admiral, and it was perhaps due to Sir Edward Howard's actions of 1512 and 1513, the last of which, an attempt to cut out galleys, was a defeat, and cost Howard his life. From the second it seems that little disciplinary power was left in the admiral's hands, and from the seventh that it was not customary to fly the colours at sea. It will be observed, from the methodical way in which the captains were directed to go into action, that the tendency was still strong to handle a fleet as troops and companies were handled ashore.[264]

The next fleet orders show little alteration.[265]

> 1. Every ship shall retain its place in the Van, Battle, and Wing, and every captain take his orders from the commander of his own division. 2. In action the Van shall attack the French Van, Admiral engage Admiral, and every captain a Frenchman of equal size. 3. The Wing shall always be to windward so that it may 'the better beate off the gallies from the great ships.' 4. The watchword at night to be

> ‘God save King Henry,’ when the other shall answer ‘Long to raigne over us.’

This fleet is the first recorded to have been opened into divisions, each section being distinguished by the position of a flag. The Lord Admiral flew the royal arms in the main top and the St George’s cross at the fore, while the other ships of the ‘battaill’ carried the St George at the main. The admiral commanding the Van wore the St George’s cross at the fore and main, and the rest of his command the same flag at the fore. The officer commanding the Wing flew the St George in both mizen tops and those under him in one.

The Lords Admirals.

The hour of the professional seamen had not yet come for either admirals or captains. Like most of Henry’s executive or administrative officers they were taken from among the men he saw daily round him at court. It would be unfair to suppose this the cause that the Navy did little during his reign, for the very existence of a powerful fleet is often reason enough why its services should not be needed. It was not until 1545 that the French made any real attempt to contest the command of the sea. In that year John Dudley, Lord Lisle, afterwards Duke of Northumberland, commanded the English forces, and, in a position where some of Sir Edward Howard’s bull like tactics might have been judicious, he failed to come *aux prises* with his adversary.[266] If we may believe his own confessions he distrusted his powers and recognised his incapacity, but in after years, when the aggrandisement of his family was concerned, he showed no such hesitating modesty.

On one occasion he wrote to Henry admitting his want of experience but expressing a hope that 'the goodness of God' would serve instead.[267] On another, he said, 'I do thynck I shuld have doon his Maiestie better service in some meaner office wherein to be directed and not to be a director.'[268] If honestly felt this frame of mind was hardly calculated to inspirit his subordinates.

Although the office of admiral as a commander of a fleet dates from the thirteenth century it was for long only a temporary appointment, obtaining its chief importance from the character of the person holding it. When several fleets were at sea and the principal command was vested in one person he became for the time, Admiral of England, laying down his title with his command. From the beginning of the fifteenth century this office of 'Great Admiral of England, Ireland and Aquitaine' became a permanent one, carrying with it the control of all the maritime strength of the crown, and being usually bestowed on a relative of the sovereign. The first of such patents is of 23rd Dec. 1406, and bears a resemblance, in the powers and privileges it confers, to the similar ones of the Admiralship of Castile, that can hardly be accidental.[269] But as far as the navy was concerned his duties were purely militant, and there is no trace of his interference in administration.

The 'Great Admiral' also possessed jurisdictive functions, trying, by his deputy, all maritime causes, civil and criminal. The fees and perquisites attached to the exercise of these duties made the post valuable in the fifteenth century, but it does not appear to have ensured any especial political power to its holder during that troubled time.

Frequently it became a mere court title of honour;

the Earl of Oxford was Great Admiral during the whole reign of Henry VII, but his name never occurs in naval affairs. In many instances, during the fifteenth century, the Admiral of England did not command at sea at all, but during the reign of Henry VIII the post became one of actual executive control, and, later, of administrative responsibility. The Lords Admirals of this reign were mostly men who, before or afterwards, held other important State or Household appointments and who had no expert knowledge of their duties. The Earl of Oxford was succeeded by Sir Edward Howard by Letters Patent of 15th August 1512; his brother, Lord Thomas Howard, son of the victor of Flodden, was appointed 4th May 1513; Henry, Duke of Richmond, illegitimate son of the King, 16th July 1525; William Fitzwilliam, Earl of Southampton, 16th August 1536; John, Lord Russell, 18th July 1540; and John Dudley, Lord Lisle, 27th January 1543. That most of these men had no experience whatever of the sea was not considered detrimental to their efficiency.

Royal Ships lost.

There were not many men-of-war lost during Henry's reign, but both absolutely and relatively, seeing the little active service undergone by the Navy, the number is much larger than under Elizabeth. The *Regent* was burnt in action in 1512. In 1513 a ship commanded by Arthur Plantagenet, an illegitimate son of Edward IV, sank after striking on a rock in Bertheaume Bay, near Brest, but we are ignorant whether she was a man-of-war or a hired merchantman, probably, however, the latter. Sometime in or before 1514, a small vessel, name unknown, was wrecked at Rye,[270] but a more

important loss was that of the *Great Elizabeth*, in September 1514, at Sandgate, west of Calais, during the passage of the Princess Mary to France when 400 men were drowned.[271] The *Christ*, freighted to the Mediterranean for trade, was, in 1515, captured by Barbary corsairs and all but thirty of those on board killed. Letters patent were issued, authorising a national subscription for their ransom. The next was that of the *Anne Gallant*, in August 1518, on the coast of Galicia while chartered by some London merchants on a trading voyage.

In 1545 several foreign hired fighting ships were wrecked by stress of weather, but the most remarkable loss of the reign was that of the *Mary Rose* which capsized off Brading on 20th July 1545, when getting under way. Ralegh says that her ports were only sixteen inches above the water line, and attributes the disaster to this circumstance. Beyond the fact that most of Ralegh's observations on maritime matters, where not doubtful or unintelligible, can be shown to be incorrect,[272] there is the great improbability that after at least fifty years' experience of gun-ports they should have been cut so low since she had been rebuilt in or before 1536. Moreover Anthony's drawings show them to have been pierced very much higher in other vessels. A contemporary writer, who obtained his account from an eye-witness, ascribed it to a different cause and makes no mention of the ports.[273]

By the 1st August measures had been taken towards raising her and the persons who had undertaken the work desired,

'Ffyrst ii of the gretest hulkes that may be

> gotten, more the hulk that rydeth withyn the havyn, Item iiii of the gretest hoys withyn the havyn, Item v of the gretest cables that may be had, Item x grete hawsers, Item x new capsteynes with xx^{ti} pulleyes, Item l pulleyes[274] bownde with irone Item v doseyn balast basketts, Item xl lb of talowe, Item xxx Venyzian maryners and one Venyziane carpenter, Item lx Inglysshe maryners to attend upon them, Item a greate quantitie of cordage of all sortes, Item Symonds patrone and maister in the ffoyst doth aggree that all thynges must be had for the purpose aforeseid.'[275]

It appears from this that cables were to be passed through her ports, or made fast to her, and that by means of the hulks she was to be bodily hauled up, a course from which rapid success was anticipated. On the 5th August, her yards and sails had been removed and 'to her mastes there is tyed three cables with other ingens to wey her upp and on every side of her a hulk to sett her uppright.'[276] Two days later the officers at Portsmouth fully expected that she would be weighed within twenty-four hours,[277] but on the 9th

> 'Thitalians which had the doying for the wayeing of the *Mary Roos* have been with my Lord Chamberlayn and me to signifie unto us that after this sourt which they have followed, hithierto, they can by no meanes recover her for they have alredye broken her foremast ... and nowe they desyer to prove another waye which is to dragg her as she lyeth untill she come into shallowe ground and so to set her upright, and to this they axe vi days'

proof.'[278]

The second way proved as fruitless as the first, but we read that 22 tuns of beer were consumed during the work, which must have made it appear an enjoyable summer outing to the men.[279] Up to 30th June 1547, the whole amount expended in the various attempts was £402, 6s 8d[280] and this may have included £57, 11s 5d to Peter Paul, an Italian, for the recovery of some of her guns, which was paid within the time for which the total was made up but appears in other papers.[281] The last reference to the unfortunate ship is another payment of £50 to Peter Paul for recovering ordnance and then, after four years of effort, any further hope was foregone.[282]

Royal Ships hired by Merchants.

During the greater part of his reign, Henry like his predecessors, allowed merchants to charter men-of-war for trading voyages. In 1511, £200 was paid for the *Mary and John* by two merchants who hired her to go to the Baltic, a five months' voyage, but out of this sum the king paid the wages of the crew and supplied flags and doubtless other stores.[283] One reason for putting royal officers and men on board may have been to prevent the ship being used for piratical purposes. In the same year the *Anne Gallant* also went to the Baltic,[284] and from there to Bordeaux before returning to London, and the *Peter Pomegranate* to Zealand; in 1515 Richard Gresham freighted the *Mary George*, and Richard Fermor the *Christ*, to the Mediterranean. For the *Anne Gallant* the crown received £300, and for the crew of the *Peter* 100 'jorgnets' were provided.[285] When the *Anne*

Gallant was wrecked in 1518 the loss seems to have been submitted to arbitration, 'for the copyinge of the byll of the grosse averies of the same *Anne Gallant* and the warde of the arbetrers theruppon made ii^{s},' but there is no trace of the result.[286] In 1524, the *Minion* and *Mary Guildford* were at Bordeaux, and in 1533, two other vessels. After that year there is no further instance known of Henry permitting his ships to be hired by private persons.

Convoys.

Convoys were provided by the government during war time. In 1513, the Royal Navy being fully occupied on service, £55 was paid to the owner of the *Mawdelin* of Hull for escorting a wool fleet to Calais, and there are other similar agreements.[287] In the preceding year there was a guard of the herring fleet afloat, although we have no knowledge of its strength.[288] In 1522 we have the first sign of an attempt to patrol the four seas, four vessels were stationed between the Thames and Rye, four others between Rye and the Channel Islands, and three are assigned to the somewhat unintelligible location of between the Channel Islands and the Tweed.[289] Doubtless it was only a temporary measure, but it is important as showing that it was now understood that the Navy had a more continuous purpose than mere attack or defence in fleets.

Dockyards:
—
Portsmouth.

Portsmouth dockyard, with the storehouses and workshops attached to it, and said to have been situated at that portion of the present yard known as the King's Stairs, was the only one existing in 1509.

The enlargement of the Navy necessitated a corresponding increase in the accommodation for building and repairs, and naturally the first references are to Portsmouth. In the first year of the reign there are payments for 'the breaking up of the dockhead where the *Regent* lay—having put the said ship afloat out of the same dock into the haven of Portsmouth—making a scaffold with great masts for the sure setting on end of her main mast,'[290] and £1175, 14s 2d was expended there on the *Sovereign*.[291] During the first war with France, additions were made to the establishment,[292] and from a later paper we learn that five of these were brewhouses, the Lion, Rose, Dragon, White Hart and Anchor,[293] while some 'reparrynge and tylinge of the houses att the dokke,' was also executed. In other respects the town was cared for, since in 1526, 675 pieces of ordnance were on the walls and in store, and in the same year £20 was spent on repairing the dock.

In 1523, however, the existing dock must have been much enlarged in view of the charges 'for making a dock at Portsmouth for the king's ship royal,' the *Henry Grace à Dieu*.[294] She was brought into the dock with much ceremony,

> 'the same day that the King's Ship Royal the *Henry Grace à Dieu* was had and brought into the dock at Portsmouth of and with gentlemen and yeomen dwelling about the country there which did their diligence and labour there in the helping of the said ship, and also with mariners and other labourers in all to the number by estimation of 1000 persons.'[295]

These assistants consumed during their arduous

labours through the day eight quarters of beef, forty-two dozen loaves of bread and four tuns of beer. The method of construction was still the same as under Henry VII, as there are payments for ‘digging of clay for the stopping up of the same dock head,’ and for breaking up these solid fabrics. The next event connected with the Portsmouth yard was the purchase of nine acres of land, in 1527, at twenty shillings an acre; this ground was surrounded by a ditch and hedge with gates at intervals.[296] The dockyard however gradually sank in consideration during this reign. Woolwich and Deptford soon disputed supremacy with it, and the gradual formation of Chatham yard between 1560 and 1570 completed its decay. Its last year of importance was 1545, when the fleet collected there, and when its approaching neglect was so little anticipated that the chain across the mouth of the harbour was renewed and fresh improvements were contemplated. But from that year until the era of the Commonwealth it almost disappears from naval history.

Dockyards:
—
Woolwich.

Woolwich, commonly but erroneously called the Mother Dock, grew up round the *Henry Grace à Dieu*. The accounts[297] show various amounts expended in the hire of houses and grounds there for purposes associated with the ship, and some of these were converted into permanent purchases. One such occurred in 1518 when the king bought a wharf and houses from Nicholas Partriche, an alderman of London, for £100,[298] but the Longhouse, and perhaps others had been built in 1512. In 1546 the yard was again enlarged by the addition of docks and

land belonging to Sir Edward Boughton, which were obtained by means of an exchange of property; these docks had been leased by the crown for at least seven years previously at £6, 13s 4d a year.[299]

In connection with Woolwich we find a description of the office formalities necessary when a ship was moved from one place to another. In 1518 the *Henry Grace à Dieu* and the *Gabriel Royal* were brought from Barking creek, the first to Erith, and the second to Woolwich, and among the expenses incurred were payments

> 'To John Dende scryvenor in Lombarde Strette for certen wrytyngs and bylls made by hym for the Kyngs lysences to my office, belongynge, that is to seye, for one warraunte made to Master Comely, the Kinges attorney, xii^{d}, and for a letter to rygge the schippes viii^{d}, and for a warraunte to have the schippes owt of Barkyn Creke, viii^{d}, and for ii comyssions made to provide all things concernynge the same schippes, ii^{s}, and for divers copyes of the same xvi^{d}.'[300]

It is doubtful however whether a dry dock existed at Woolwich at this time. In this particular instance there is a payment to John Barton, 'marshman,' for the making 'of the *Gabriel Rialls* docke the sixteenth daye of Marche anno dicto in grett when the seid shipp most be browght apon blokks xxx^{li}'.[301] Seventeen men were at work and this cannot refer to a dry dock which would have required more men and much more money; it seems to have been a graving place in which the vessel was shored upon blocks. But when the *Henry* was being built the

charges include the travelling expenses of men from Southampton and Portsmouth ‘for the makynge of the dokkehede,’ and ‘to break up the dokhede.’

Dockyards:
—Deptford.

The formation of Deptford is usually assigned to 1517, when John Hopton, comptroller of the ships, undertook, for 600 marks, to ‘make and cast a pond’ in a meadow adjoining the storehouse, and to build

> ‘A good hable and suffycient hed for the same pond and also certyn hable sleysis through the which the water may have entre and course into the foresaid ponde as well at spryng tydes as at nepetydes.’[302]

It was to be of sufficient size to take the *Great Galley*, *Mary Rose*, *Great Bark*, *Less Bark*, and *Peter Pomegranate*. There is some evidence that a pond with an inlet communicating with the river, was in existence in the thirteenth century, in which case Hopton only adapted and improved it. The storehouse can be traced back to 1513,[303] but it is possible that the building hired at ‘Greenwich’ in 1485, by Henry VII was really at Deptford, seeing that Deptford Strand was sometimes called West Greenwich; if so its beginnings are older than Portsmouth. Even in 1513 there is a reference to ‘the howse at the dockhede,’ but in 1518, when the *Great Nicholas* was brought to Deptford for repair, there are charges for putting her into the dock, for ‘making the same dockhed,’ ‘for pylinge of the dockhede,’ and for ‘scouring out the dokk at the este ende of the Kyngis storehouse.’ There was also made ‘a myghty

hegge of grete tesarde and tenets[304] along the seid dockside and the retorne of the same;' in the same year a wharf and two sheds were built.[305] The use made of Deptford grew steadily until by the end of the reign it had become the most important yard. In 1546-7 more storehouses had to be hired at a cost of £17, 18s 8d for the year, while £1, 6s 8d covered the extra payments for the same purpose at Woolwich, and no such temporary augmentation was required at Portsmouth.[306]

Dockyards: —Erith.

There seems at one time to have been intention to make Erith a permanent naval station. By Letters Patent of 12th January 1513-4, John Hopton was appointed 'keeper of the new storehouses at Deptford and Erith for supplying the king's ships.' On 18th February £32 was paid to Robert Page of Erith for

> 'The purches of a tenement with an orchard and gardeyn and othir appurtenaunces thereunto belonging, conteigning foure acres of ground, being and sett in the parish of Erith by us of hym bought upon the which ground we have newe edified and bilded a house called a storehouse for the saffe kepyng of our ordynaunce and habillamentes of warre belonging to our shippes.'[307]

In 1521 the fittings, guns, and ground tackle of some of the ships were kept here, and shortly before that the sills of the doors had been raised 'for the keepinge owt of the hye tydis for att every tyde affore ther was ii ffoote depe of water in the seide

storrhowsse.' At this date there were 88 bolts of canvas, 219 cables and hawsers, 27 masts, and 25 guns besides powder, pikes, bows and blocks in the house, which must have been of good size. We do not know the circumstances that led to its disuse, but long before the end of the reign Erith ceases to be mentioned in connection with naval affairs.

If we were to assume that the docks, so frequently spoken of in official papers, were all dry docks, we should have to conclude that there were nearly as many in existence then as now. There can, however, be no doubt that the term was applied indifferently to a complete dock with gates, to a graving place, and even to a temporary protection of timber, fitted round a ship afloat to protect it from the ice. At Erith, in 1512-13 there was 'a new docke' made, in which the *Sovereign* was placed and repaired, the dock and repairs together occupying only eight weeks.[308] But in 1526 the construction of a dock at an estimated cost of £600 was suggested, so that it is certain that one did not exist there previously.[309] In another instance John Barton and twenty-three marshmen were paid for *two* days' work while they 'cast and made a dock for the *Grett Galey* affore the towne of Depfforde Stronde for the suer keepinge of her ther owt of the ysse.'[310] Subsequently certain ships are said to have been brought 'into their dock' after they had been aground for breaming and floated again;[311] in such a case it seems to have meant only a mooring place. At Portsmouth in 1528 a number of labourers were 'working by tide for the making of a dock for the grounding of the *Mary Rose*, *Peter Pomegranate*, and *John Baptist*,' which vessels were 'wound aground by certain devices.'[312] These examples show clearly that the word when found in a sixteenth century paper, must be understood in a

far wider sense than is customary to-day. Nevertheless there are references which seem to imply that there were other docks than those in the government yards. In 1513 men were engaged in 'casting and closing the dockhede with tymber bord and balyste at Ratcliffe,' and another one at Limehouse is also mentioned.[313]

Shipwrights and Workmen.

There was as yet no large resident population of shipwrights and others at the naval centres chosen by the government. For the *Henry Grace à Dieu* workers were brought from districts far afield. Plymouth, Dartmouth, Bere Regis, Exeter, Saltash, Bradford, Bristol, Southampton, Bodmin, Exmouth, Poole, Ipswich, Brightlingsea, Yarmouth, Hull, Beverley, York, and other places furnished contingents. Most of the men came from the south and west, but of single towns Dartmouth and Ipswich supplied the largest numbers. While travelling to and returning from the scene of their employment they received a halfpenny a mile, known as conduct money, for food and lodging, and the agents sent to press them were paid one shilling a day.[314] Probably the call to the royal service was not unpopular as all classes of workmen were boarded and lodged in addition to their wages; under Henry VII they were victualled, but there is no mention of free lodging.

Shipwrights received from twopence to sixpence a day, sawyers, caulkers, and pumpmakers, twopence to fourpence, smiths twopence to sixpence, and labourers from twopence to fivepence. The staff at Portsmouth included a chip-bearer and a chip-

gatherer at sevenpence a day, so that at this time ‘chips’ did not constitute the scandalous perquisite it afterwards became. Of the carpenters working on the *Henry Grace à Dieu*, 141 were supplied with ‘coats’ costing from two to five shillings each, but that was a nearly exceptional expenditure, although 164 were provided for the men building the *Mary Rose* and *Peter Pomegranate*. The cost of victualling averaged twopence halfpenny a day, and they were given bread, beef, beer, ling, cod, hake, herring, pease, and oatmeal. There were cooks to prepare their food and a ‘chamberlyn’ to make the beds which were bought or hired for their use; flockbeds and mattresses cost from 3s 4d to 5s, bolsters 1s and 1s 6d, sheets 2s to 3s, blankets 1s 4d, and coverlets 1s to 2s.[315] Sometimes flock beds and mattresses were temporarily procured for twopence, and feather beds for threepence a week. The beds were made to hold two or three men, and in at least one instance ten men were packed into three beds. By 1545 wages seem to have risen somewhat, since at Deptford and Portsmouth that year the pay and victualling of all classes—carpenters, smiths, labourers, caulkers, and sawyers—came to ninepence a day.

The principal designers and master shipwrights were John Smyth, Robert Holborn, and Richard Bull, who were in 1548 granted pensions on the Exchequer of fourpence a day ‘in consideration of their long and good service, and that they should instruct others in their feats.’[316] James Baker, the only master shipwright whose reputation outlived his generation, is not mentioned among these men, but he is elsewhere spoken of as ‘skilful in ships,’[317] and he possessed a pension, also from the Exchequer, of eightpence a day. In the reign of James I he was still remembered and said to have been the first who

adapted English ships to carry heavy guns, a survival which, whether exactly correct or not, testifies to an exceptional skill in his art. In 1546 Baker got into trouble by being in possession of some forbidden religious books, and it is likely that only his professional ability saved him. Henry ordered that he should be examined, but 'His Maiestie thynketh you shall find him a very simple man, and therefore wold that without putting him in any great fear you should search of him as much as you may.' Evidently the king knew him well, and had doubtless often discussed shipbuilding with him.

The famous Pett family who furnished a succession of celebrated shipbuilders between the reigns of Mary I and Mary II, were not yet prominent. In 1523 a Peter Pett is among the shipwrights, pressed from Essex and Suffolk, who were working at Portsmouth, and there is a yet earlier mention of a payment of £38, 1s 4d to a John Pett for caulking the *Regent* in 1499.[318] A recent writer,[319] in a Pett pedigree, gives Thomas Pett of Harwich as the father of the first well known Peter Pett who died in 1589. It is therefore possible, but scarcely probable, that this was the Peter Pett who was working in 1523 as a boy.

Officers and Men:—Pay and Clothing.

By the treaty of 1511, between Henry and Ferdinand, the former undertook to hold the Channel between the Thames and Ushant with 3000 men, of whom some 1600 were sailors and gunners.[320] For the fleet of 1513, exclusive of the crews of 28 victualling ships, 2880 seamen were required;[321] in

1514, during the month ending with 22nd May, there were 23 king's ships, 21 hired merchantmen, and 15 victuallers in commission manned by 3982 seamen and 447 gunners, exclusive of the soldiers carried as well.[322] When maritime action in force recommenced in 1545, it was estimated that 5000 men would be wanted which 'wilbe some dyffycultie.' Beyond this one expression there is no hint of any trouble having been experienced in procuring these men although the numbers were larger than those which Charles I, a century later, found it almost impossible to obtain. As the proportion allowed theoretically was two men to a ton[323] the ships were much more heavily manned than in the seventeenth century, but in practice the crews do not usually work out at one man to a ton, even including soldiers.

Henry's success was due in a great measure to the fact that the men were punctually paid and fairly well fed, two elementary incentives to loyal service neglected during the two succeeding centuries. In his first war of 1512 he entered into an agreement with the admiral, Sir Edward Howard, by which the latter, being supplied with ships, men, and money, had the whole administration placed in his hands, having to pay wages and find provisions and clothes.[324] In every subsequent expedition the admiral's duties were only executive. The rate of pay was five shillings a month, and at this it remained during nearly the whole reign, but in addition, a certain number of dead shares, or extra pays, the division of which is somewhat obscure, were allotted to each ship. They are first met with during the war with France in 1492, and, at that time, in connection with the pay of the soldiers serving on board the fleet. Subsequently the favour was extended to the

maritime branch, and was perhaps intended to replace the 'reward' of sixpence a week in addition to their pay, which had been enjoyed by the seamen in preceding centuries. But if the dead shares were at any time divided among the sailors they speedily lost the privilege, and early in the reign we find the shares, reckoned at five shillings apiece, reserved for the officers. There are a few apparent exceptions, perhaps due to our ignorance of the exact sixteenth century meaning of the words used. The wages bill of the *Katherine* of London[325] distinctly says that the dead shares are divided between 'master and mariners,' and there are some other similar cases, *e.g.* '168 dead shares to be divided among the mariners.'[326] But in the vast majority of references they are seen to be meant for the officers.

The number of course depended on the size of the ship, and for the *Henry Grace à Dieu* they were thus distributed[327]:—Master —; master's mate, 4; four pilots, 16; four quartermasters, 12; quartermaster's mates, 4; boatswain, 3; boatswain's mate, 1½; cockswain, 1½; cockswain's mate, 1; master carpenter, 3; carpenter's mate, 1½; under-carpenter, 1; two caulkers, 3; purser, 2; three stewards, 3; three cooks, 3; cook's mates, 1½; two yeomen of the stryks, 2; their mates, 1; two yeomen of the ports, 2; their mates, 1. The officers' pay was the same as that of the men, but they received in addition either these dead shares, reckoned at five shillings each, in the proportion shown here, or 'rewards' of so much a month. The *Peter Pomegranate* may be taken as a representative ship, as the *Henry* carried some officers unknown in the smaller vessels. In the *Peter* the master obtained one pound ten shillings a month of twenty-eight days; the master's mate and quartermasters ten shillings; the boatswain twelve

shillings and sixpence; master gunner, carpenter, purser, steward and cook, ten shillings, and gunners six shillings and eightpence. Surgeons were paid ten shillings and thirteen shillings and fourpence, and pilots twenty and thirty shillings a month, but neither were always carried.[328] Within certain limits, however, officers' wages vary considerably, depending on the number of dead shares allotted among them, which, again, was subject to the size of the ship, an indication of the commencing division into rates. But before Henry's death the formula of pay ran 'dead shares and rewards included' for an average, exclusive of captains, of eight shillings a month[329] all round, so that the old system was beginning to be discarded.

For many years of the reign some sort of uniform in the shape of 'coats' or 'jackets' was supplied to the men, but its exact character is nowhere described. When the *Mary Rose* and *Peter Pomegranate* were brought round from Portsmouth to the Thames thirty-five coats in green and white were provided, but as the cost was 6s 8d apiece these could only have been for the officers.[330] Sir Edward Howard, by his agreement in 1512, had to furnish the sailors with them at 1s 8d each, and he appears to have charged for 1616 besides 1812 for the soldiers.[331] Masters and pilots had sometimes coats of damask, every coat containing eight yards.[332] In 1513, we find references to 1244 mariners', gunners', and servitors', jackets,[333] and to 638 coats of white and green cloth, 13 of white and green camlet, 4 of satin, and one of damask.[334] Although indications of uniform for the men have been noticed under Edward IV and Henry VII, the provision was much more liberal when Henry ascended the throne. He had at first an overflowing treasury wherewith to

minister to his love of display and carry out more completely a custom he may also have thought useful from the point of view of health and of making the men proud of the royal service. But the allusions to seamen's clothes are few after the first years. The system appears to have lasted, although perhaps not continuously, until his death, since in 1545 the writer of an estimate of naval charges asks if 1800 seamen are to have coats at two shillings each.[335]

Sick and Wounded Men.

Sick men appear to have been kept in pay if landed for that reason, because when Sir Thomas Wyndham proposed to send such members of his crew ashore, the council preferred that he should keep them on board as they would only be receiving pay uselessly on land and might not come back.[336] Those discharged disabled from wounds sometimes received a gratuity; in 1513, sixty men of the *Mary James* sent home in that condition were given twopence a mile conduct money, the usual rate being a halfpenny a mile, and a gift of £20 among them.[337]

Until 1545, there is no record of exceptional disease in fleets, but in September of that year the plague broke out in the English ships, although as the French were suffering even more and were eventually compelled by it to disband their fleet, it did not adversely affect the result of the operations. In August there were many men sick which was ascribed 'to the great hete and the corrupcion of the victuall by reason of the disorder in the provision and the strayte and warm lying in the shippes.'[338]

On the 28th August Lisle wrote to Paget that there was much illness, 'those that be hole be veray unsightlie havyng not a ragg to hang uppon ther backes.' On 3rd September, Lisle landed at Treport in Normandy, and sacked and burnt the town, and it is not until after that date that the word 'plague' is used and the terrible disease raged virulently. On 4th September there were 12,000 effective men, soldiers and sailors; on the 13th, 8488, so that in little more than a week 3512 'were sick, dead, or dismissed,'[339] By 11th September, Lisle was back at Portsmouth and wrote to the king that the ships were generally infected. Although the fleet was then broken up, it seems to have lingered on in the vessels kept in commission through the winter as there are references to it in the following April.

Captains.

The captains of men-of-war were still usually military officers or courtiers who made no attempt to work the ship. They were for the most part, persons holding appointments in the household, but towards the end of the reign, the new feeling that the sea was as important as the land as a field of national effort had trained officers who were almost professional seamen. These men belonged to the class who would earlier have been content to command soldiers during a voyage, but who were now continuously occupied in commanding ships at sea or in attending to administrative details ashore. Nominally a captain's pay was one shilling and sixpence a day, but there were frequently extra allowances. In 1513, Walter, Lord Ferrers, captain of the *Sovereign* received five shillings and two pence a day 'by way of reward' over and above his one shilling and sixpence,[340] and Sir William Trevilian of the

Gabriel Royal, three shillings and fourpence a day. On the other hand captains who happened to belong to the troop of 'King's Spears' were paid 'out of the King's cofers' and took nothing from the navy expenses.[341] The King's Spears were a troop of Horseguards, fifty in number, formed by Henry shortly after his accession. Each of them was attended by an archer, man-at-arms, and servant, 'they and all their horses being trapped in cloth of gold, silver, or goldsmith's work.' Eventually want of money led to the disbandment of this force.

In 1545 the demand for captains exceeded the supply for the smaller ships, the circumstances perhaps promising neither fame nor prize money. The official total of men-of-war and armed merchantmen under Lisle's command was 104 ships, the strongest fighting fleet as yet sent to sea. About some of these he wrote,

> 'As concernynge the meane[342] shippes I know noon other waye (I meane those that come out of the west parties and such of London, as were victuallers that want capitaignes) but to place them with meane men to be their capitaignes as serving men and yomen that be most mete for the purpose.'[343]

'Meane men'[344] here signifies those of moderate social status, and serving men the confidants or attendants of noblemen, and who were frequently gentlemen themselves.

In 1546 a Spaniard was retained as captain of the *Galley Subtylle* and a Venetian as its patron, or master, but as they were provided with an interpreter the crew must have been English.[345]

This is a further proof of the little experience native officers had of galley work; apparently the English captain of the preceding year had not been found efficient. Whether the crew were seamen or criminals is not quite certain; the term 'forsathos'[346] is used but only in connection with the French prize, the *Galley Blancherd*, which was undoubtedly manned by prisoners, its original crew. In more ways than one this prize seems to have been a source of trouble to its captors. To keep the men in condition constant practice was essential, 'Richard Brooke ... keptt me company as far as Gravesend to kepe the forsados in ure and breth as they must contynewally be otherwyse they wilbe shortly nothing worth.' Most of the captives were Neapolitans, with the habits of their class, and Brooke desired new clothes 'for all the said forsados who he saith are most insufferable without any manner of things to hang upon theym. So that I perceyve the same galley will be some chardge to His Maiestie contynewally, yf His Highnes do keep her styll with her suit of forsadoes as she ys now.'[347] Lisle urged that if the *Blancherd* was restored at the conclusion of the war the prisoners should be granted their liberty. Perhaps he may have thought it advisable to get rid of them on any terms, but the argument he pressed was that such a course would make the French chary, at any future time, of bringing their galleys near English ports or ships if the slaves on board knew that surrender meant freedom.

Ship Discipline.

Yet another diplomatist, Dr William Knight, found 'the ungodly manners of the seamen' not to his liking, and so far as the scanty material permits us to

judge, they appear to have been an unruly and disorderly race. Discipline in the modern sense was of course unknown, and such restraints as existed sat but lightly on both royal and merchant seamen. An undated paper, but which is probably earlier than 1530, discussing the causes of the decay of shipping, describes the men as 'so unruly nowadays that ther ys no merchantman dare enterpryse to take apon hym the orderyng and governing of the said shippes.'[348] Even the government dealt with them gently, and when in 1513, the crew of a man-of-war were discontented with their captain, Sir Weston Browne, the Vice-Admiral was directed, if he could not pacify them, to replace Browne.[349] Sometimes whole crews went ashore, and when the French attacked Dover in 1514, the king's ships in harbour there lay uselessly at their anchors for want of men. One sailor, Edward Foster, was examined at Portsmouth in 1539, before the Mayor and two admiralty officials for saying that 'if his blood and the King's were both in a dish, there would be no difference between them, and that if the Great Turk would give a penny a day more he would serve him.'[350] One would like to know what happened to this matter-of-fact physiologist.

Regulations existed for the maintenance of order on board ship, and were 'set in the mayne mast in parchement to be rid as occasion shall serve.'[351] A murderer was to be tied to the corpse and thrown overboard with it; to draw a weapon on the captain involved the loss of the right hand; the delinquent sleeping on watch[352] for the fourth time was to be tied to the bowsprit with a biscuit, a can of beer, and a knife, and left to starve or cut himself down into the sea; a thief was to be ducked two fathoms under water, towed ashore at the stern of a boat, and

dismissed. Only a boat from the flagship was to board a stranger to make inquiries, as the men 'would pilfer thinges from oure nation as well of the kinges dere frends,' but in a captured ship all plunder, except treasure, between the upper and lower decks was allotted to them. It is interesting, as showing Henry's desire to avoid giving needless offence, to compare this order, about the manner in which strange ships were to be visited, with another issued at the end of the reign. It was still more impressively worded. Neutrals were to be 'gently' examined, and if no enemies' goods found in them not to be harmed. And 'the violation of our pleasure in this behaulf is of such importance as whosoever shalbe found culpable therein, we shall not faile so to look upon him as shall be to his demerits.'[353]

In addition to regulations which, if not new as maritime customs, were new as a code of discipline we find that crews were now assigned stations on board ship, an essential towards smartness in work, but one which so far as we know had no previous existence. The station list—or one of them—of the *Henry Grace à Dieu* has come down to us, and although no similar paper exists for any other ship it cannot be supposed that an improvement in method and working, of which the advantages must at once have made themselves felt, could have failed to have been generally adopted.[354] This list gives:—

> The forecastle 100 men; waist 120
>
> In the second deck for the main lifts, 20
>
> In the said deck for the trin and the dryngs, [355] 20
>
> To the stryks[356] of the mainsail, 8 principal men

To the bonaventure top, 2

The little top upon the fore top, 2

For the boat 40; the cok, 20

Main capstandard[357] and main sheets, 80

In the third deck to the topsail sheets, 40

To the bonaventure and main mizen, 20

To the helm, 4 men

To the main top 12; to the fore top, 6; to the main mizen top, 6

The little top upon the main top, 2

The little top upon the main mizen top, 2

The gellywatte, 10.[358]

Notwithstanding these signs of orderly training the loss of the *Mary Rose* was attributed solely to the insubordination and disorder of those on board. Her captain, Sir George Carew, being hailed when matters looked serious answered that 'he had a sort of knaves whom he could not rule.' But these men had been chosen for the Vice-Admiral's ship as especially good sailors and therefore 'so maligned and disdained one the other that refusing to do that which they should do were careless to do that which was most needful and necessary and so contending in envy perished in frowardness.'[359]

Victualling.

Until very recent times the victualling on board ship was a source of continual anxiety to the authorities, and of grumbling and vexation to the men; and even in the time of Henry VIII it appears to

have given more trouble than any of the other details of administration. There was no victualling department until 1550, and either local men were employed at the ports where supplies were to be collected or others were sent from London to make the purchases. Commissions to provide provisions were given to persons attached to the household, or to highly placed officials with sufficient influence to obtain them. In 1496 John Redynge, clerk of the Spicery, was victualling both the land and sea forces on service.[360] In July 1512, Sir Thomas Knyvet, Master of the Horse, was supplying the fleet and undertaking the responsibility of transport; in October, John Shurly, Cofferer of the Household, and John Heron, Supervisor of the London Customhouse.[361] Between 1544-7 numerous agents were employed and were subject to no central control, unless a reference to the Lord Chamberlain, Lord St John, afterwards Marquis of Winchester, as 'a chief victualler of the army at the seas' may be held to imply his general superintendence.

In 1512 the cost of provisioning each man stood at one shilling and threepence a week. There were some complaints that year, but in 1513 Sir Edward Howard, like many a later admiral, was begging earnestly for stores, 'let provision be made, for it is a well spent penny that saveth the pound.' A captain, William Gonson, finding that he was running short, wrote to the Council that unless he received fresh supplies for his men, 'I cannot keep them in order, for if we lack victuals and wages at anytime as well Spaniards as Englishmen shall murmur.' That also was an experience many later captains were to find commonplace. Most of the victualling difficulties in subsequent reigns were due to want of money or to absolute knavery, but the embarrassments at this

date seem to have been as much caused by lack of organisation due to want of experience in the supply of large fleets longer at sea than formerly. There is, however, a letter of Howard's, belonging to 1512 or 1513, which shows that roguery was already at work: 'they that receved ther proportion for ii monthes flesche cannot bryng about for v weekes for the barelles be full of salt, and when the peecis kepith the noumbre wher they shulde be peny peces they be scante halfpeny peces, and wher ii peces shulde make a messe iii will do but serve.'[362] Short measure was therefore a frequent experience. In April 1513 a convoy reached the fleet off Brest just in time, 'for of ten days before there was no man in all the army that had but one meal a day and one drink.' After Howard's death, when the captains of the fleet returned to Dartmouth, and they were asked why they had come back, 'they all replied for default of victuals not having three days allowance.'[363] The pursers, a class who move through naval history loaded with the maledictions of many generations of seamen, were already condemned. It is doubtless in connection with the return of the fleet that two officials wrote on the same day, 'I fear that the pursers will deserve hanging for this matter,' and 'an outrageous lack on the part of the pursers.'[364] It may have been the experiences of 1512 and 1513 that led to an order in September of the latter year, of which there is no previous example that the vessels named for winter service should be provisioned for two months at the time.[365] They were directed 'to victual at Sandwich from two months to two months during four months.' Although the regulation remained in force, Surrey complained in 1522 that some of his ships had only supplies for eight days instead of two months.[366] In

1545 the French were said to carry two months' stores.[367]

Victualling stores and requisites were obtained by purveyance, and there was not consequently much eagerness displayed to sell to the crown. There is a proclamation of 1522 ordering, under penalty of £5, every one possessing casks to put them out of doors that the King's purveyor might take them at 'a reasonable price,' one, that is to say, to be fixed by him. The prices paid for provisions, are, therefore, no absolute indication of the market rates, but the following are some for this period.[368]

Biscuit	(1512)	3s 6d and 5s a cwt.
Do.	(1554)	7s 6d a cwt.
Salt beef	(1512)	£1, 11s a pipe
Do.	(1544)	£3, 12s a pipe
Beer	(1512)	13s 4d a tun
Do.	(1547)	16s and 21s a tun
Red Herring	(1513)	5s the cade
Do.	(1547)	9s 6d and 11s the cade
White Herring	(1513)	10s a barrel
Do.	(1547)	21s a barrel

By 1545 the rate had run up to eighteenpence a week per man, or perhaps more,[369] and two months' provisions were estimated to occupy 83 tons of space in 100 ton ship with a complement of 200 soldiers and sailors. A pound of biscuit and a gallon of beer a day were allowed to each man, and '200 pieces of flesh' to every hundred men on four days of the week. Beer was the recognised right of the sailor, and the exigencies of warfare had to yield to his prerogative. After Surrey captured Morlaix in 1522, he announced his intention of going on a cruise and of not returning 'as long as we have any beer, though

in return we should drink water.'[370] Evidently it was considered out of the question to remain at sea without beer, and again when Lisle was off the French coast in 1545 he gave pointed expression to the fear that if the victuallers did not arrive 'a good meynye of this fleet may happen to drynck water.' The payments for provisions from September 1542 until the death of Henry in January 1547, amounted to £65,610 10s 4½d,[371] and we can still trace the proceedings of the various agents at Sandwich, Lowestoft, Portsmouth, Yarmouth, and Southampton. 'Necessary money,' an allowance to the pursers for candles, wood, etc., was in operation according to the 'old ordinance' at the rate of twopence a man per month.[372]

The new Administration.

The increase in the navy and the additional work caused by the mobilisation of fleets necessitated an augmentation from the first on the administrative side of the department though no systematic and permanent change was made until the close of the reign. Brygandine remained clerk of the ships till about 1523; in that year he was granted a release—a customary proceeding—for all embezzlements or misdemeanours committed while in office, and this probably means that he resigned then or shortly afterwards.[373] But although he had been the chief administrative officer, he was now by no means the only one even during his term of service, though it is not easy to define the exact duties and responsibilities of his associates. The fleets of 1513-14 carried a 'Treasurer of the Army by Sea,' in the person of Sir Thomas Wyndham,[374] who was also allowed one shilling and fourpence a day for two clerks, and Brygandine had nothing to do with payments made for stores or wages in these ships.

In 1513 John Hopton, a gentleman usher of the chamber was given charge of the fleet conveying troops to Calais,[375] and from that time until his death Hopton was closely connected with naval affairs. In 1514 he was made keeper of the storehouses at Erith and Deptford, with a fee of one shilling a day, and as such received under his charge the fittings of the ships dismantled and laid up that year; it has been noticed that he contracted for the work required for the formation or enlargement of the pond at Deptford in 1517. He was an owner of ships and sold at least one to the king, and, in the

same year, he is called ‘clerk comptroller of the ships.’ His duties must have been mainly clerical and financial, for we have many separate series of payments made by him to Brygandine who seems to have retained the active direction of executive work, and certain passages in the records known as the *Chapter House Books*, seem to imply that they were written under his supervision. Hopton held a definite appointment, but there are others mentioned as employed in purchasing stores, travelling for certain purposes, or in charge of ordnance taken out of the ships, who can only have held temporary and subordinate situations. There were sometimes local clerks of the ships, as at Portsmouth when Thomas Spert was given ‘the rule of all the forsaid ships, maisters, and maryners with the advise of Brygandine.’[376] Here, however, the whole control was really in the hands of the customers of Southampton who were ordered to provide the money requisite, muster the men once a week, and exercise a general oversight. Again, in 1529, Edmund More, of whom nothing is known beyond this single reference, was acting as clerk of the ships at Portsmouth. When there was only one naval centre the clerk of the ships resided there, but after the foundation of Woolwich and Deptford his place was in London, and the local clerk represented the later Commissioner in charge of a dockyard.

Hopton died in or before July 1526,[377] and had been succeeded from 1524 by William Gonson, also a gentleman usher of the king’s chamber, as keeper of the storehouses at Erith and Deptford.[378] Although in 1523 Thomas Jermyn was the recognised Clerk of the Ships,[379] and in 1533 Leonard Thoreton,[380] Gonson, who also commanded ships at sea, soon became the dominant official. He is found equipping

men-of-war, directing their movements and making payments for wages, victualling, and the purchase of necessaries, but notwithstanding the extent of his authority he does not seem to have held any titular rank. In 1538 Sir Thomas Spert was Clerk of the Ships,[381] but appears to have had very little to do unless Gonson happened to be suffering from gout. Spert was followed by Edmund Water, another gentleman usher of the chamber, who held his office by patent, neither Jermyn, Thoreton nor Spert acted under Letters Patent, and in the absence of an enrolled appointment, they were doubtless considered merely acting officials.

Large payments to Gonson can be traced down to 1545. Then for the first time we have the titles of 'Treasurer of the See,' 'Paymaster of the See,' and 'Treasurer of the See Maryne Causes'[382] as describing John Winter, who, however, died in less than a year. It was possibly the loss of William Gonson's practised experience, and dissatisfaction with his successors, which helped to move Henry to make in 1546, the most important change in naval administration that had yet occurred. In one day the naval organisation was revolutionised. By Letters Patent of the 24th April 1546, Sir Thomas Clere was constituted Lieutenant of the Admiralty, with a fee of £100 a year, ten shillings a day for travelling expenses when engaged on the business of his office, £10 a year for boat hire and twentypence a day for two clerks; Robert Legge, 'Treasourer of our maryne causes' with 100 marks a year, six shillings and eightpence a day for travelling expenses, eight pounds a year for boat hire, and sixteenpence a day for two clerks; William Broke, 'Comptroller of all our shippes,' with £50 a year, four shillings a day for travelling expenses, eight pounds for boat hire, and

sixteenpence a day for two clerks; Benjamin Gonson, [383] 'Surveyor of all our shippes,' with £40 a year, the same travelling allowance and boat hire as the comptroller, but only eightpence a day for one clerk; Richard Howlett, Clerk of the Ships, with £33, 6s 8d a year, three shillings and fourpence a day travelling expenses, and six pounds for boat hire. William Holstock and Thomas Morley were granted annuities of one shilling a day without specific duties, but they were both employed in assisting the other officers. All these fees were paid from the Exchequer. By another patent of the same day, the supply of guns, powder, and other ordnance necessaries for the Navy was placed under the direction of Sir William Woodhouse, called 'Master of the Ordnance of the ships,' at a fee of 100 marks a year, six shillings and eightpence a day travelling expenses, eight pounds a year for boat hire, and two shillings and fourpence a day for three clerks. The stores were still kept at the central office in the Tower, and became separate from, if subordinate to, the old Ordnance Office, remaining so until 1589.

It would be of great interest to know exactly the motives moving Henry to the formation of—to use a later name—the Navy Board. Beyond discontent with the administration in 1545, the accessions of 1546 suggest that it was his intention to still further strengthen the Navy, and experience had doubtless shown that the old organisation was too inelastic for more than a limited number of ships acting within a restricted sphere. Hitherto fleets had carried troops, landed them, and returned home; or gone to sea, fought the enemy, and returned home; but now the era of long cruises was commencing, and the transition necessarily involved additional

administrative work with which the clerk of the ships or the comptroller could not alone cope. Another subject of inquiry is the model on which the board was formed. It was not derived from any foreign power, for the organisation was then, and long afterwards, superior to and unlike, anything existing abroad. The similarity of many of the titles and of their corresponding duties suggests that it was copied from the constitution of the Ordnance Office, which Henry had also remoulded to suit the altered conditions of warfare. The Lieutenant of the Admiralty, acting under the Admiral of England, as the Lieutenant of the Ordnance acted under the Master General, was intended to be the most important member of the board. But after the death of Clere's successor, Sir William Woodhouse, the post was not filled up and the Treasurership exercised by an expert official like Benjamin Gonson, or a great seaman like Hawkyns, speedily became the chief administrative office. Another cause of the Treasurer's ascendancy is to be found in the fact that he had to be a man of some capital, able and willing to advance money to the crown. He was to have allowance for all moneys laid out if his books were signed 'by two or three' of the other officers.[384] Originally this may only have been intended to apply to all moneys received from the Exchequer and expended by him, but the yearly accounts show that it soon became a normal condition for the crown to be indebted to him for advances.

Two other officers found their positions altered by the new development. The Lord Admiral had been till now only a combatant officer; from this date he interfered more or less frequently and directly in matters of administration for which he was nominally responsible. But while the members of the

Navy Board were men of weight and reputation his action mainly took the course of agreeing with the advice given him. Under the new arrangement the Clerk of the Ships became a very subordinate officer. More than a century later Pepys claimed that the clerk possessed from former times a consultative and equal voice with the other officers. It would be difficult to disprove it, and it is true that the signature of the clerk appears sometimes—but only sometimes—attached to documents with those of his colleagues. In 1600, however, his duties are distinctly said to be confined to registering the resolutions of the board generally.[385] At especially busy periods he shared the active work of superintendence but ordinarily only the Treasurer, Comptroller, and Surveyor, are found to be exercising authority, and the gradual alteration of his title from Clerk of the Ships to Clerk of the Acts is itself a sign that his functions had become purely secretarial.

Hired Ships.

Besides English vessels, Henry hired Spanish during the earlier years of his reign and Hanseatic during the later ones, England being on much more friendly terms with Spain in 1509 than in 1547. One or two ‘Arragoseys,’ *i.e.* Ragusans were in pay, that republic being a maritime power of some importance in the fifteenth century. The English ships taken up for the crown were mostly employed as victuallers and tenders, and were therefore not required to be large and do not afford any measure of the magnitude of the merchant navy. In April 1513 there were thirty-nine impressed of 2039 tons, and of these the largest was 140 tons; twenty-eight of them were

serving as victuallers, one being usually attached to each of the largest men-of-war.[386] The rate of hire was one shilling a ton per month, for both victuallers and fighting ships, and the wages, victualling, and dead shares were the same as on king's ships; jackets were frequently provided for the crews as for men-of-war's men. Another account gives a list of twenty-two English vessels of 3040 tons, and six Spanish of 1650 tons as having served.[387] The Spaniards were manned by 289 Spanish and 181 English seamen, with 869 English soldiers and a majority of English officers. Henry had to pay a hiring rate of fifteenpence a ton for them, and 7s 1d a month to Spanish seamen, 4s 9d to gromets, and 2s 5d to pages, while the dead shares allotted to the foreigners were at six shillings each instead of the five shillings of the Englishmen. The difference of pay must have caused a great deal of jealousy but the king's attempts to obtain Spaniards at the standard rate had failed.[388] The *Mary of Bilboa* was taken up at fifteenpence-farthing and a half-farthing a month, terms which imply a good deal of higgling.[389] In 1514 there were twenty-one hired fighting ships and fifteen victuallers engaged. The former measured 2770 tons, and included one of 300, one of 240, one of 200, and three of 160 tons.[390]

In 1544 twenty-two foreign ships, now mostly Hanseatic, of 1465 tons were still obtaining fifteenpence a ton, and 379 men in them seven shillings and sixpence a month, while the English pay remained at five shillings, and thirty-five hired English vessels received their one shilling a ton.[391] In the same year the expedition against Scotland required 117 transports of which London furnished 6, Calais 2, Amsterdam 1, Dordrecht 1, Antwerp 4, Hamburg 5, Lubeck 2, Ipswich 31, Yarmouth 31,

Newcastle 6, Hull 6, and Lynn 4.[392] English owners did not show themselves eager to send their ships to join the royal fleet and it was necessary to issue a circular letter in August 1545, to the mayors of the various ports which ran:—

> 'Fforasmuch as I understand that dyvers and many of the adventurers that are appointed for Portsmouth ... do slacke and drawe back from the same being rather gyven to spoyle and robberye than otherwise to serve His Maiestie and making ther excuses for lack of necessaries do showe themselves not wyllynge to serve the kyng's Maiestie according to their diewties'

they were ordered to go to Portsmouth immediately on pain of death.[393] Their disinclination to be shackled by the discipline of a fleet can be understood when we find Lisle writing to Paget that 'nother Spanyard, Portugell, nor Flemynge that cometh from by south but they be spoylid and robbid by our venturers.' The successful privateering of 1544, when 300 French prizes were taken,[394] was assuredly joyously remembered and similar good fortune hoped for. If there is no exaggeration in Stow's account the event is remarkable as the first instance of our sweeping the Channel on an outbreak of war, and signifies the steady growth of a marine able to perform the work.

The Merchant Navy.

The materials for an estimate of the strength of the merchant navy are scanty, but we find in this reign a commencement of the plan largely extended under

Elizabeth, of obtaining returns of the vessels belonging to various ports. Henry, moreover, followed the example of his father in granting a bounty on large ships. In 1520 an allowance of four shillings a ton was ordered on the customs due for the first voyage of the *Bonaventure* of London of 220 tons; in 1522 five shillings a ton on the *Antony* of Bristol, of 400 tons, because she was good for trading purposes and 'also to doo unto us service in warre.'[395] The wording of the warrant rather implies, however, that the *Antony* was a purchase from a foreign owner. In 1521 four shillings a ton was paid on the *John Baptist* of Lynn of 200 tons, and in 1530 five shillings a ton on the *John Evangelist* of Topsham of 110 tons. If there was any rule regulating the apportionment of the bounty it is impossible to define it now. In 1544 there is a payment of five shillings a ton on the *Mary James* of Bristol of 160 tons 'to corage othre our subgetts to like makyng of shippes.'[396] There were doubtless many more similar grants but which were not issued in a form which ensured their survival in the records.

In 1513 Bristol had nine vessels of 100 tons and upwards ready to join the royal fleet. Of these one was of 186 tons, one of 120, one of 130, three of 110 and three of 100 tons.[397] It is significant of the little reliance that can be placed on statements of tonnage that, in another paper, the one of 186 tons is given as of 160, one of 110 as 140 and the one of 120 as of 100. In the case of merchantmen the discrepancies may perhaps be attributed to the fact that it was to the interest of the owner of a hired merchantman to measure his ship at as high a tonnage as possible, as he was paid by the ton, while the navy authorities acting in the interest of the crown desired to rate it as low as they could. In the

case of men-of-war the tonnage, unless they had actually performed a trading voyage and stowed goods, could only have been by estimate, which would explain a difference of 100 or 150 tons in the supposed measurement of a large ship.

In 1528, there were 149 vessels engaged in the Iceland fishery all which, with the exception of 8 from London, belonged to the east coast ports. Yarmouth sent 30, Cley, Blakeney, and Cromer 30, and Dunwich, Walderswick, Southwold, and Covehithe 32. To the herring fishery in the North Sea went 222, of which the Cinque Ports sent 110 and the east coast the remainder. Trading to Scotland were 69 ships of which only 6 sailed from London. [398] This return was used years afterwards to show the prosperous condition of these trades as compared with a later period when the number of vessels employed had greatly fallen off; except that it is endorsed in Cecil's handwriting the date of the comparison is unknown. For 1533, there is a certificate of the ships returned from Iceland that year, 85 in number, of which 6, of from 50 to 100 tons, belonged to London; 10, of from 35 to 95 tons to Lynn; 14, of from 40 to 95 tons to Yarmouth; 7, of from 60 to 150 tons to Orwell haven; and 17, of from 30 to 90 tons to Wells and Blakeney.[399] Unless they were trading vessels, used on occasion for the Iceland fishery, the average tonnage seems very high for North Sea fishing boats of that century. Nearly 700 sail were reputed to enter Calais harbour every year and 'at the least' 340 foreign herring boats also traded there.[400] These figures point to a flourishing local trade round the coasts and in the fisheries, but there are only three returns relating to ships of larger size and they do not give particulars for more than a few ports;—[401]

	Tons 100	Tons 110	Tons 120	Tons 130	Tons 140	Tons 160
Minehead	1					
Burton[402]			1			
Lynn	1					
Cley	1	1				
Yarmouth	6				1	
Lowestoft	1		3			
Aldborough	1					
Hull	1	1	2	1	1	
Newcastle	7			1		1

There were 99 other vessels of from 40 to 100 tons also sailing from these ports; but if the table were complete and included London, Bristol, Southampton, and Dartmouth—to name no others—we should infer a surprisingly large total from the 32 belonging to these towns. Foreign observers, men representing a maritime state like Venice, considered the sea strength of England much greater than would be assumed from the few sources of information we possess. In 1531, the Venetian representative reported that Henry could arm 150 sail;[403] in 1551, Barbaro thought that the crown could fit out 1500 sail of which '100 decked'[404] and in 1554, Soranzo remarked that there were 'great plenty of English sailors who are considered excellent for the navigation of the Atlantic.'[405] These Venetians paid especial attention to the English marine and in no instance do they write of it depreciatingly.

Trade and Voyages.

Commerce does not appear to have progressed in a ratio corresponding to its growth during the close of

the fifteenth century. Trade had been then recovering the position lost through the unsettled political state previously existing, and had benefited under a king who made its expansion the keynote of his policy. Half a century had brought it relatively into line with that of other countries, and thenceforward its increase was no longer a question of regaining a standard already once attained, but of competition with other powers whose trade was marked out on definite lines. This accounts for the comparatively stationary condition of commerce under Henry, and until new factors came into play under different circumstances. According to Hakluyt voyages to the Levant were frequent until 1534 but then fell off.[406] In that year Richard Gonson, son of William Gonson the naval official, undertook a Mediterranean trading voyage, which occupied a year, the usual time allowed for the passage out and home. In the same way English merchants traded with the Canaries and northern ports, but we have no details bearing on the extent of the traffic. William Hawkyns of Plymouth, father of Sir John Hawkyns, made three voyages, of which the last was in 1532, to Brazil and Guinea. From a remark, however, made by Chapuys, in a despatch to the emperor, voyages to Brazil could not have been uncommon.[407]

In 1517 there is said to have been an exploring expedition sent out under the command of Thomas Spert, who had been master of the *Henry Grace à Dieu* and other ships, and who possessed Henry's confidence then and afterwards.[408] He was a yeoman of the crown, and by Letters Patent of 10th November 1514, enjoyed an annuity of £20 a year. In 1527 John Rut, another man-of-war officer, left England in June with two vessels for Newfoundland,

one, the *Mary Guildford*, being a king's ship. Rut returned in her without having effected anything; the other was lost at sea. Two other attempts at discovery are also assigned to this year.[409] In 1536 Hore, with the *Trinity* and the *Minion*, reached Cape Breton Island, and a further voyage was intended in 1541. These enterprises show Henry's desire to extend English commerce, and a further illustration of the fact is to be found in his endeavour in 1541 to obtain permission for some Englishmen to sail in the next Portuguese fleet for India, 'to adventure there for providing this realm with spices.'[410]

Doubtless the religious revolt had for the time an injurious influence on our trade, seeing that Englishmen were regarded as heretics by some of their best customers, and that the whole influence of the Roman Church was employed in Spain, and elsewhere, to the detriment of the country. The reaction born of intellectual freedom, and of the moral and material strength which was its natural product, did not make itself felt till later. Moreover as long as England acknowledged the Roman rule she was bound by the division of the new discoveries made by the Popes, a division which fatally hampered her attempts to share the riches of the golden West. When that dividing line was no longer recognised, and individual enterprise or greed had free play, the conditions which brought her into antagonism with other maritime powers were also those which stimulated the growth of national vigour and self reliance. In that sense the Reformation considered as a liberation from restraining ties, was an important factor in the development of English sea power.

There were two statutes, in 1532 and 1539,

confirming the navigation act of 1490. In 1540 it was enacted that whoever should buy fish at sea from foreign fishermen to sell on shore, should be subjected to a fine of £10, a statute which seems to point to the commencing decay of the native fishing industry. The cable and hawser manufacture, long associated with Bridport, was protected by the parliament of 1529, and Henry is said to have expended immense sums in the endeavour to make Dover a safe harbour.[411] Another act for the preservation of Plymouth, Dartmouth, Teignmouth, Falmouth, and Fowey havens, from the injury caused by the gravel brought down from the tin works, was passed in 1532. In 1513 a license for the formation of a guild, afterwards the Trinity Corporation, was granted for the 'reformation of the navy lately much decayed by the admission of young men without experience, and of Scots, Flemings, and Frenchmen as lodesmen;'[412] in 1536 the Trinity guild of Newcastle was founded.[413] 'Navy' is here used in its original sense, meaning the shipping and seamen of the kingdom generally, and not the 'King's Navy Royal.' During the sixteenth century the Trinity House had no connection with the Royal Navy; during the greater part of the seventeenth century, it had an occasional consultative, but no direct connection. It has never had any actual share in the administration of the Navy, nor that close association with it that, trading on the loss and destruction of its early documents, it has claimed.

Coast Defences.

Allied to the defence of the kingdom by sea was the protection of the seaboard by the forts or castles, on the south and east coasts, some of which still

exist. The initial motive was the threatening political outlook of 1539 when a European coalition against England appeared probable. During the next few years upwards of £74,000, from the spoil of the suppression, was spent for this purpose,[414] and this perhaps does not include £17,498 devoted to the fortifications of Hull. 'A book of payments,' made to the garrisons in 1540, enumerates seventeen of these defences, but more were afterwards built.

Naval Expenditure.

There is, of course, no chronological series of papers relating to the naval expenditure of the reign. Only isolated accounts for those years when active service was undertaken are to be found. The general disbursements for 1513 came to £699,000,[415] and the naval expenses, from 4th March to 31st October, were £23,000, but this seems to have been almost entirely for wages and hire of ships, only £291, 17s 9½d having been spent on repairs, and neither victualling, ordnance stores, nor the cost of preparation being included.[416] Detailed accounts were strictly kept although so few have survived. In one book it is stated that two copies of the accounts were to be made; one to be retained by the person charged with making payments, the other to be kept 'in oure owne custodie for oure more perfytte rememberaunce in that behalf.'[417] The first kept as his acquittance by Sir John Daunce, is now in the Record Office, and bears Henry's signature in numerous places, showing the close personal attention he gave to naval affairs. When William Gonson was acting as paymaster, he received between 21st August 1532 and 25th August 1533, £4169, 10s, from 16th December 1534 to 11th

December 1535 £7093, 17s 9½d, and from 4th April 1536 to 29th June 1537, £3497, 3s 2d.[418] As a whole, on these years, the crown was indebted, beyond the money paid out to Gonson, £1487, 12s 9d, and the expenditure was almost entirely for dockyard work and stores, although there must also have been the cost of ships in commission, not here entered.

During the years of warfare between 1544-7 the amounts expended became very large. Richard Knight, who describes himself as 'servant' of Lord St John, received between 12th February 1544-5 and 30th June 1547, £101,127, and of this £84,000 was devoted to seamen's wages and victualling.[419] Of the total sum £40,000 came from the Exchequer, £20,500 from the Court of Augmentation, £1600 benevolence money in Norfolk, and £8000 from the court of Wards and Liveries. Coincidently many thousands of pounds were paid through William Gonson, John Wynter, and his successor, Robert Legge, and doubtless through other persons. The new system of administration did not at first work altogether successfully as far as bookkeeping was concerned. From the following letter of Lisle's we find that Sir William Paget, a Secretary of State, had written to him making inquiries, and he answers

> 'You write unto me that the Tresawrer of thadmyralltie being called to accompt his reckoning is so illfavoridly mad that there semith a want of £2000 wich you cannot well se what is become of hit.'

and goes on to explain a series of transactions, but both Legge and Wynter appear to have been

performing the duties of Treasurer which may be a reason for the entanglement of figures.[420] It was stated that during 1544-5, the crown had expended £1,300,000,[421] and the naval expenses from September 1542 to the end of the reign are fully detailed in a later paper.[422]

Cordage, timber, and other stores,	£45,230	18	8
Coat and conduct money,	2,415	13	2
Wages of seamen, soldiers, shipwrights, dockyards, etc.,	127,846	10	7
Victualling,	65,610	10	4½
Ordnance and ammunition,	19,276	13	10½
Furniture[423] of ships,	1582	14	7
Hire of docks, storehouses, riding and posting charges,	502	4	6

Piracy and Privateering.

Great stress has been laid on the prevalence of piracy in the sixteenth century as the chief school of English seamanship. Of course it was practised during this reign to an extent that would now be thought monstrous, but it did not attain the proportions of a few years later, nor were English seamen dependent on its development for a knowledge of their art. When religious and political motives impelled them to a guerilla warfare, they became pirates because they were already good seamen, with the training of centuries behind them, and the sea was their natural field of action. The succession of conflicts between France and the Empire induced an internecine maritime war between those powers, in the shape of privateering, which sometimes smouldered but never died out.

Convoys for the Spanish American fleets were instituted in 1522 on account of the depredations of French privateers. The despatches of the Imperial ministers show that France, during the reign of Henry and his immediate successors, was, much more than England, a source of injury to Spanish trade. The success of French privateering, together with the voyages for purposes of discovery and settlement, of Verazzani in 1523, of the brothers Parmentier in 1529, of Jacques Cartier and Roberval in 1534 and 1549, of Villegagnon 1555, of Bois-le-Compte in 1556, of Jean de Ribaut in 1562, and of René de Laudonnière in 1564, a succession of efforts which only closed with the outbreak of the wars of religion, seemed to point to France rather than to England as destined to challenge Spanish maritime supremacy. In 1551 France sent a fleet of 160 sail to Scotland, and it is doubtful whether England could have collected one of equal strength to act at a similar distance.

Englishmen, however, joined in the game to a sufficient extent even now. In 1540 the Emperor was informed that a Spaniard, with gold and amber on board, had been seized by two English ships, and a few such successful and profitable incidents must have acted as a strong incentive to ventures which promised large profits on a moderate outlay. There was very little police of the seas, nor could the guardians themselves be trusted in face of temptation. In 1532 some captains sent out on this service plundered Flemish merchantmen they met. [424] As early as 1515 a commission of Oyer and Terminer was issued to the Earl of Surrey and two others to hear and decide piratical offences[425]; in one case eighteen soldiers serving on a man-of-war stole a boat with the intention of seizing a ship at

sea. The French had, during the first quarter of the century, a reputation for fair play, and Wolsey in 1526, wrote to Henry that 'though many English have been taken at sea by the French, they have always made full restitution,'[426] but when the Scotch began to interfere in the trade, proceedings became embittered by competition. By 1532 the narrow seas were said to be full of Scotch privateers and the customary ransom of prisoners was twenty shillings for a sailor and forty for a master.[427] Both Spaniards and Frenchmen attacked each other in English ports, which, until 1539, were mostly unarmed and plunder was openly sold in the coast towns. That from a Portuguese ship was purchased by the mayor and others of Cork, and in 1537 the owners had been for three years vainly endeavouring to obtain redress.[428]

Ordinary merchantmen, sailing with cargo, took advantage of any favourable chance without necessarily acting on a premeditated plan. One vessel, crossing the Channel, met three Bretons and it then occurred to the owner and master that they had lost £60 by Breton pirates and could obtain no redress. Not to lose the opportunity they captured one and sold the cargo at Penryn.[429] Piracy had not yet taken the savage character with which a few more years were to see it imbued; the theological bitterness was as yet wanting. Cases of bloodshed were very rare, and so far at any rate as Englishmen were concerned, the pirate was also sometimes a respectable tradesman on shore.[430] In 1543 the prisons were said to be full of pirates and the Council adopted the plan of requiring sureties before issuing letters of marque. The port towns flourished, at least some of them, then and long afterwards far more on the traffic with pirates, who visited them and sold

the proceeds of robbery to the inhabitants, than by legitimate trade. Consequently no victim could rely on obtaining assistance even from the civic authorities. A French ship was ransacked in Plymouth Roads in August 1546—peace with France had been signed on 7th June—notwithstanding her captain's appeal for help in the town, which seems to imply that the work was very leisurely and thoroughly done. The Council ordered that unless the goods were recovered and the pirates captured the inhabitants of Plymouth were to be made pecuniarily liable for the damage.[431] The wording of the Council order suggests that the Frenchman was boarded from the town, in which case the refusal of the mayor to interfere is still more significant.

Only one statute relating to piracy was passed by Henry. Before 1535 offenders frequently escaped because, if they did not confess, it was necessary to prove the crime by the evidence of disinterested witnesses and this was usually an impossibility. A fresh act therefore rendered them liable to be tried before a jury under the same conditions as ordinary criminals.[432]

Ordnance, Powder and Shot.

Soon after Henry's accession he gave large orders for ordnance to foreign makers, chiefly at Mechlin, but the guns so obtained seem to have been for land service. There is only one paper which gives us the weight of the ship serpentine as used in 1513, and here it works out at 261¼ lbs. exclusive of the chamber or loading piece which weighed 41 lbs.;[433] the chamber contained the powder only, not the shot.[434] These were made by Cornelius Johnson

'the king's iron gunmaker,' and who was one of the twelve gunners attached to the Tower with a fee of sixpence a day; as king's gunmaker he also received eightpence a day. The sling, one of the heavier ship guns, weighed with its two chambers 8½ cwt. and 27 lbs., and there were also half and quarter slings; but there does not appear to have been any standard weight for these or other guns.[435] The serpentines bought in Flanders, for field use, weighed from 1060 lbs. to 1160 lbs. each. Guns were mounted on two or four-wheeled carriages, or, sometimes, on 'scaffolds' of timber; leaden shot and 'dyse' of iron were used with serpentines and iron shot with curtalls. In one instance 200 iron dice weighed 36 lbs., and they seem to have usually been one and a half inch square. The Artillery Garden at Houndsditch was granted for practice with 'great and small ordinance,' and persons with such English names as Herbert, Walker, and Tyler are noticed as gunfounders early in the reign, although, according to Stow, cast iron guns were not made in England till 1543. Some writers assert that they were used in Spain in the fourteenth century; if so it is probable that they were made here before the date given by Stow.

Serpentine powder cost from £4, 13s 4d to £6, 13s 4d and 'bombdyne' £5 a last; corn powder tenpence a pound.[436] Serpentine was a fine weak powder and probably midway in strength between bombdyne and corn. During 1512-13, 51 lasts, 12 barrels, 12 lbs. were used at sea, and 37 lasts during the succeeding year. For saltpetre we were dependent on importation, and between 1509-12 there are two contracts for quantities costing £3622, at sixpence a pound, with John Cavalcanti and other Italian merchants who were the usual purveyors, but

gunpowder was made at home. Shot, whether of stone or iron, were called gunstones, round shot of iron costing £4, 10s to £5, 10s a ton, and of stone 13s 4d a hundred. Cross bar shot were in common use, *e.g.* 'gun stones of iron with cross bars of iron in them.'[437] There are 'ballez of wyldfyre with hoks of yron,' and 'bolts of wyldfyre' both, like the arrows of wildfire, to set the enemy on fire. 'Tampons' were wads, sometimes of wood, and not the tompions now known: 16,000 were bought for the *Henry Grace à Dieu* at ten and twenty shillings the thousand.[438] From an entry 'for two sheepskins to stop the mouths of the guns,' we may infer that they were stuffed into the muzzles, or tied over them. Sheepskins were also used for gun sponges, and 'cartouche' or cartridge cases were made of canvas.[439]

In 1536 there were only 39 lasts, 11 barrels of powder in the Tower, 33,000 livery arrows,[440] 'decayed,' all the bows in the same condition, and the morrispikes wormeaten.[441] But the construction of the forts round the coastline in 1539-40, and the events that followed, gave an impetus to the demand for war material.

Stores.

In 1546 the Council querulously complained that 'the general rule is whenever the King's Maiestie shuld bye al is dere and skase, and whenever he shuld sel al is plentye and good chepe,' an experience not confined to sovereigns. Stores such as timber, pitch, tar, oakum, ironwork, etc., necessary for building or repairs were mostly obtained from tradesmen at or near the dockyard towns. One reason for the adoption of Portsmouth is perhaps to be found in its nearness to Bere Forest and the New

Forest, but nearly everything but timber, if not to be obtained at Southampton, had to be sent from London. Naval officials, like Gonson, sold necessaries to the crown, while acting as its representatives, and such transactions appear in the accounts as quite legitimate and customary. About 1522 oak timber from Bere was costing one shilling a ton rough and unhewed, one and eightpence seasoned, and three and fourpence ready squared. Ash was one shilling and beech sixpence.[442] Carriage cost twopence a ton per mile, and the work of felling and preparing the wood was performed by the king's shipwrights who were sent into the forests for that purpose. Iron was £4 to £5, 10s a ton, the Spanish being of a better quality than the English and costing the higher price. Cables were used up to seventeen inches in circumference, ordinarily described as Dantzic, but sometimes from Lynn and Bridport, and bought of both English and foreign merchants. The price averaged about £12 a ton. The establishments did not, in 1515, possess any means of weighing cordage delivered, and there is a charge of 3s 4d for scales 'hyrede of a belle ffundere dwellynge at Hondise Diche,' and sent down to Deptford to weigh purchased cables. The following are the prices of miscellaneous requisites:—

Canvas	{ Olron[443]	(1515),	14s 4d and 15s a bolt[444]
	{ do.	(1518),	10s a bolt
	{ Vitery[445]	(1515),	£4, 13s 4d the balet[446]
	{ Poldavys[447]	(1515),	18s a bolt
Hemp		(1523),	9s per cwt.
Lead		(1513),	6s per cwt.
Rosin		(1523),	10s per cwt.

Do.	(1544),	8s per cwt.
Raw Tallow	(1523),	6s per cwt.
Purified Tallow	(1523),	9s per cwt.
Tallow	(1544),	7s and 10s per cwt.
Flax	(1513),	8s per cwt.
Do.	(1523),	10s and 12s per cwt.
Oakum	(1523),	8s to 14s per cwt.
Pitch	(1514),	4s a barrel
Do.	(1523),	6s a barrel
Do.	(1544),	8s a barrel

Henry VIII and the Navy.

It is of course beyond the scope of this work to enter into the vexed question of Henry's merits or demerits as a ruler, in its widest sense. But the arming of his kingdom was an important part of the office of a sixteenth century king, and the views on which it was planned, and the way in which it was carried out, must form a weighty element in the final judgment of his fitness for his post. So far as the Navy is concerned there is little but unqualified praise to be awarded to Henry. That his action was due to a settled policy and not the product of a momentary vanity or desire for display is shown by the fact that it commenced with his accession and was still progressing at his decease. For almost thirty-eight years nearly every year marked some advance in construction or administration, some plan calculated to make the Navy a more effective fighting instrument. So far as numbers went he made it the most powerful navy in the world, remembering the limited radius within which it was called upon to act. He revolutionised its armament and improved its

fighting and sailing qualities, he himself inventing or adapting a type thought fit for the narrow seas. He enlarged the one dockyard he found existing and formed two others in positions so suitable for their purpose that they remained in use as long as the system of wooden ships they were built in connection with. Regulations for the manœuvring of fleets and the discipline of their crews were due to him. He discarded the one mediæval officer of the crown and organised an administration so broadly planned that, in an extended form, it remains in existence to-day. He built forts for the defence of the coasts, a measure that might now be criticised as showing ignorance of the strategical use of a fleet, but a criticism which is inapplicable to the middle of the sixteenth century when the Navy had yet to fight its way not only to supremacy but to equality. It may be said that events pointed to, and almost enforced, the new direction given to national endeavour and the new value attached to the naval arm. Allowing due weight to the altered conditions the fact remains that Henry accepted them and carried out the innovations they involved with an energy and thoroughness akin to genius. The maritime systems of France and Spain, whether in details of shipbuilding or the larger methods of administration, remained unchanging and inelastic, ignoring the mutations of a century remarkable for activity and progress. Spain tried to hold the command of the sea in the sixteenth century with an organisation little altered from that found sufficient in the previous one. Circumstances brought England into conflict with her and not with France, and she had to pay for her blunder of pride or sluggishness with the ruin of her empire.

In these changes history gives no sign of there

being any extraneous influence acting through the king. Ministers might come and go but the work of naval extension, done under his personal supervision and direction, went on methodically and unceasingly. He trod a path that some of his predecessors had indicated but none had entered. The errors he committed were those inevitable to a new scheme, a plan which was not an enlargement but a reconstruction, and in which he was a pioneer. His mistakes were those of the scientific ignorance and feudal spirit of his age; his successes were of a much higher order and informed with the statesmanship of a later time.

EDWARD VI
1547-1553

Changes in the Navy List.

It is usually said that during the reigns of Edward VI and Mary the Navy was neglected. As a generalisation this is incorrect, although it is true that the number of ships fell off and that the results of naval undertakings were not commensurate with the efforts made, or the money expended upon them. But the administration of both reigns will compare favourably with that of long periods of the seventeenth century. Considering the tardy acceptance of new ideas it would have been marvellous had Henry's policy been at once consistently and continuously carried on. The factious struggles which occupied the reign of Edward and the religious difficulties of that of Mary were not conducive to perseverance in any settled design, but at least the Regency did not make it their business to at once sell off the Navy. Moreover many of the disappearances from the Edwardian navy lists are of the purchased vessels of the later years of Henry's reign, and of the small rowbarges he had built from his own design and for a special purpose. The former, we may be certain, had not been constructed with the strength and solidity characterising English ships, and some were perhaps old when bought into the service for which they were momentarily desirable.

The earliest navy list subsequent to Henry's death is of 5th Jan. 1548.[448] This contains 32 large vessels, having an aggregate of 10,600 tons, besides the *Galley Subtylle*, 13 rowbarges of 20 tons each, and 4 barks of 40 tons. Of other ships belonging to the last reign the *French Galley* or *Mermaid* is omitted, but was in the service then and long afterwards, the *Artigo* had been sold by an order of 14th April 1547, and the *Minion* had been given to Sir Thomas Seymour. Comparing this with the next list of 22nd May 1549[449] we find that not only are all the large vessels of 1548 still carried in it but that it is increased by the presence of the *Mary Willoby*, recaptured in 1547, two French prizes of 200 tons each, and 'the three new pinnaces unnamed,' and evidently just built.[450] Eleven ships were cruising in the North Sea and eighteen in the Channel, which does not give the impression of a cessation of activity notwithstanding the intrigues of Somerset, Seymour, and Northumberland, Kett's rising, and similar distractions. During 1548 and 1549 ten of the rowbarges, being doubtless found useless, were sold for £165, 4s.[451] The next list is of 26th August 1552[452]; of the before-named 32 vessels the *Murryan* had been sold in December 1551 for £400, the *Struse* for £200, the *Christopher* and *Unicorn* are ordered to be sold, the *Grand Mistress* is considered worthless, and the *Less Bark*, *Lion*, and *Dragon* are to be rebuilt. The remainder are still serviceable, or require only slight repair, while the names of the *Primrose* and *Bark of Bullen* reappear attached to new ships and the *Mary Willoby* has been rebuilt.[453] A French prize, the *Black Galley*, captured in 1549, is not found in this list, and the *Lion*, a Scotch man-of-war taken by the *Pauncye*, was lost off Harwich. In January 1551 a fleet of twelve vessels was at sea,

and in 1552 at least eight vessels were in commission, so that altogether up to 1552 there was no great reduction in the effective strength or want of energy in its use. There were now three galleys belonging to the crown and they were not favourably regarded. In 1551 a note of the debts incurred in relation to them was required and the crews were to be discharged as the vessels were very expensive and 'serve indede to lytle purpose.'[454] This was followed by a warrant on 30th March for £231, 12s to pay them off, and £55 'to be divided equallie amonge the Forsares nowe disarmed.'

Gillingham.

Edward died on 6th July 1553, therefore it is not strange that there is no later navy list of his reign than that of August 1552. Not only was there no deterioration during his short rule, but two important steps were taken in furtherance of the work of organisation that was Henry's legacy. The commencement of the great Chatham yard, and the formation of the Victualling into a separate and responsible department, were due to the action of the Council. The Medway anchorage was then, and for some years afterwards, called Gillingham, or Jillingham, Water, and the first order for its use is of 8th June 1550, when the Council directed that all the ships laid up were to be, after the discharge of their officers and crews, 'herbarowed' there.[455] On 14th August they further ordered that the men-of-war at Portsmouth were to be brought round to Gillingham, and on 22nd August William Wynter, then 'Surveyor of the Ships,' was sent down to superintend their removal.[456] This of course could have been no sudden determination, but there is no hint of the discussions that must have preceded it.

Considerations that may have favoured the measure were the limited anchorage space afforded by Woolwich and Deptford, and the distance of Portsmouth from the centre of government and the merchants supplying stores, of which nearly all had to be sent from London. Another reason was the ease with which the work of grounding and graving could be carried on in the Medway with its banks of mud and large tidal rise and fall; this, in fact, is the only one given in the Council order of 14th August 1550. Years were yet to elapse before the beginning of the dockyard appears, and the victualling storehouses for the men employed were at Rochester. That there were a large number of men there is shown by the victualling accounts between 28th June 1550 and 29th September 1552. Rochester stands for £6137 of the total, while Woolwich and Deptford cost £8382, Portsmouth £2407, and Dover £646.[457] The Admiralty branch, represented by the Treasurer, spent, up to 24th October 1551 £6600, at Gillingham in wages and necessaries. Portsmouth, however, only slowly lost its comparative pre-eminence although it was now far less important than Deptford; in 1556 there were still more vessels laid up there than at Gillingham, and its victualling charges, the only test remaining, were £2472, against £1526 at Gillingham. The choice of the Medway was followed by an order, on 16th January 1551, to build a bulwark at Sheerness for its defence.[458]

Naval Expenditure.

The only accounts of the Navy Treasurer which have survived for this reign are from 25th December 1546 to 25th December 1547, and from 29th September 1548 to 24th October 1551.[459] During

the first period his expenses were nearly £41,000, of which sea-charges (wages) were £6926, Deptford £18,824, Woolwich £3439, Gillingham £4167, Harwich £1631, Colne £484, and Portsmouth £1211. It will be noticed that there are heavy payments in relation to Gillingham nearly three years before the action of the Council, in 1550. There is no obvious explanation of this; the body of the account does not show what particular work was carried on there but it may have been done by way of experiment. In the second period the Treasurer received £65,809 and spent £66,250. Of this sum sea-charges were £14,400, press and conduct money £2900, Deptford £30,300, Woolwich £2054, Gillingham £6600, and Portsmouth £1157. Edward VI inherited his father's interest in maritime affairs and appears to have been continually at Deptford. There is a charge of £88, 6s 2d for paving 'the street,' presumably the High Street, which was 'so noysome and full of fylth that the Kynges Maiestie myght not pass to and fro to se the buylding of his Highnes shippes.'[460] Deptford, it is seen, was now the leading dockyard, a position it retained for the remainder of the century.

All such improvements as seemed beneficial were adopted that the service might be rendered more efficient. A warrant for £70, 11s was issued to pay for 'bringing over certain Bretons to teach men here the art of making polldavies.' From another document we find that two of these Bretons were attached to Deptford. Lead sheathing was newly applied to English ships in 1553, but had been since 1514 in use in the Spanish marine.[461]

There can be little doubt that Henry VIII had intended the formation of a Victualling Department, and that the Council only executed a set purpose

already fully discussed and resolved upon. To a man with Henry's clear perception of the needs of the growing Navy, and his liking for systematic and responsible management, the haphazard method of a dozen agents acting independently and uncontrolled by any central authority, must have been peculiarly hateful. Edward Baeshe who, until 1547, had been merely one of the many agents employed, was chosen in that year to act with Richard Wattes, the two being appointed 'surveyors of victuals within the city of London,' with power to press workmen, seamen, and ships, and with a general superintendence over their local subordinates. They supplied not only the fleet but the troops acting against Scotland. This was a tentative movement onwards, but by Letters Patent of 28th June 1550, Baeshe alone was appointed 'General Surveyor of the Victuals for the Seas,' with a fee of £50 a year, three shillings and fourpence a day for travelling expenses, and two shillings a day for clerks. Provisions were obtained by exercising the crown prerogative of purveyance, and the money required was received from the Treasurer of the Navy and included in his estimates, although Baeshe also kept separate accounts which were examined and signed by not less than two of the Admiralty officers. Between 1st July 1547, and 29th September 1552, £51,500 passed through his hands and his inferior officers were acting under his directions wheresoever ships were stationed.

Admiralty Officers.

Death and other accidents soon altered the arrangement of the Navy Board as appointed by Henry VIII. Robert Legge, the first Treasurer by

patent, died some time in 1548, and his accounts determined on 29th September. He was succeeded by Benjamin Gonson, although Gonson's Letters Patent bear the date of 8th July 1549. William Wynter, son of John Wynter the first Treasurer, and who was making a name as a seaman, succeeded Gonson as Surveyor by Letters Patent of the same date. William Holstock, formerly an unclassified assistant, became keeper of the storehouses at Deptford by patent of 25th June 1549, at a salary of £26, 13s 4d a year and £6 for boat hire. Sir William Woodhouse, originally Master of the Ordnance of the Navy, succeeded Sir Thomas Clere as Lieutenant of the Admiralty by a patent of 16th December 1552, and on the same day Thomas Windham replaced Woodhouse as Master of the Ordnance of the Navy. From the date of the institution of the Admiralty the post of Lord Admiral, hitherto one of dignity and occasional high command, became an office necessitating work of a more everyday character. Although there is no precise order bearing on the subject it is evident that its holder was at the head of the Board and decided questions referred to him by the inferior officers. Thomas, Lord Seymour of Sudeley, was appointed on 17th February 1547, and was beheaded on 20th March 1549. John Dudley, Earl of Warwick, who, under his earlier title of Lord Lisle had held the post under Henry VIII was again nominated for a short time from 28th October 1549, but from 4th May 1550 Edward, Lord Clynton, became High Admiral.

Piracy and Privateering.

Strangely as it may read, there was for the moment a direct connection between this great office of the crown and piracy, for Lord Seymour was implicated

in several nefarious transactions of the kind. But the government itself, while publicly denouncing pirates and equipping ships to apprehend them, was secretly encouraging acts which were only to be faintly distinguished from open robbery. In August 1548 certain vessels were sent out against the Scots and pirates, but private instructions were given to the captains that, because we were on very doubtful terms with France, they were to seize French ships, 'saying to them that they have been spoyled before by frenchemenne and could have no justice, or pretending that the victualles or thinges of munition found in any such frenche shippes weare sent to ayde the Scottes or such lyk.'[462] It is true that if peace continued all such cargoes were to be restored and the captors' expenses discharged by the government, but in face of such teaching it cannot be a matter for surprise that the generality of owners and captains bettered their instructions and failed to draw the line at the exact point marked for them. One of the articles against Seymour at his trial included accusations that goods taken by pirates were seen in his house and distributed among his friends; that when plunder had been recaptured from the freebooters the captors were sent to prison, and that pirates taken and committed to prison were set free. As a rule the charges made in an indictment of a fallen minister require to be very closely scanned, but for these there is a good deal of corroborative evidence. As early as 20th September 1546, the Council were hearing the complaint of 'oon that sueth against a servant of Sir Thomas Semars for a pyracie.' After his death the Council awarded £40 to a Frenchman in compensation for losses sustained through 'the ministres of Lord Seymour.'[463] There is a distinct statement that when pressed for money

after the death of his wife, the Dowager Queen, he was, among other things, in partnership with many pirates and received half the booty.[464] Although some of the details of the complaints made against him may be inexact there can be no doubt that the charges as a whole were well founded, and it is significant that the Council dealt with the trouble more successfully after his execution.

In view of the proceedings of the government and the Lord Admiral, it is not surprising that piracy advanced in popularity. Ships, either of the Navy or hired, were being continually sent to sea to keep order; sometimes the latter joined in the business themselves[465] and the former often gave but half-hearted service. As many of the company of a man-of-war might, a month before, have been members of a pirate's crew, and perhaps expected at their discharge to again tread a rover's deck, no great ardour was to be expected from them. At times they seem to have been unable even to wait for their discharge. When Tyrrel and Holstock were serving in the Channel, their men, when they boarded foreigners for inquiry, robbed them of property and provisions.[466] The superior officers had to be spurred on to their duty. On one occasion it was necessary to order the Admiral commanding in the Channel to attend to his business, 'and not lye in the haven at Dover idlye as the Navye doth.'[467] When a leader of the fraternity was caught, the haul usually proved expensive and useless, as he was speedily free again; £300 was granted to the captors of Cole, a well-known name about this time, but Cole is soon found to be at work once more. Strangeways who later died in Elizabeth's service at Havre, Thomson, and Thomas and Peter Killigrew were others whose names were too familiar to the Council. English,

Irish, and Scotch pirates swarmed in the narrow seas, a fleet of twenty sail were on the Irish coast, and the Scotch seem to have been particularly active.

These adventurers, whether licensed or unlicensed, were usually gallant enough and thought little about odds. A privateer of 95 tons and 28 officers and men fell in with a fleet of 27 Normans and Bretons returning from Scotland where they had served for six months. Nothing daunted, 'althugh our powr were litle yet as pore men desyrus to do our dewtye,' they closed with one and drove it ashore where they left it 'rolling uppon the terrabile waves,' then drove two others ashore and captured a fourth. The French fleet carried 120 guns and 1100 men.[468] The incident is remarkable as showing the careless indifference, born of centuries of struggle with the sea and the enemies it carried, with which our seamen regarded superior strength, long before the outburst of successful piracy on a large scale, which is supposed to have taught them their peculiar faculty.

The Salute to the Flag.

In other ways the members of the Regency showed themselves desirous of upholding the honour of their country. There is no especial reference during the previous reign to the claim to the salute, but it was now stringently enforced when possible. It was not yielded however without protest, 'the Fleming's men-of-war would have passed our ships without vailing bonnet, which they seeing, shot at them and drove them at length to vail the bonet.'[469] A year later they were more tractable, since the Flemings riding at Dieppe lowered the sail to an English man-of-war

which came into the port.[470] With France the question was less easily settled. When Henry Dudley and the Baron de la Garde were both at sea, the former, having the weaker fleet, desired instructions about the salute. The Council wrote that 'in respect of thamitie and that the sayd Baron is stronger upon the sees sume tymes yelde and sume tymes receyve thonnour.'[471]

Rewards and Peculations.

There was no change in the pay or position of the seamen, but they appear to have been liberally treated. The crew of the *Minion*, 300 in number, were given £100 among them for capturing a Frenchman, probably the *Black Galley*,[472] William Wynter, Surveyor of the Navy, commanded the *Minion* on this occasion, and neither now nor afterwards did the duties of their posts prevent the four principal Officers commanding at sea, sometimes for long periods.

We do not find any mention of embezzlements and thefts during the reign of Henry VIII, not, probably, because they did not occur, but because the Navy papers are comparatively scanty and mostly financial accounts made up in their final form. With Edward VI they begin to appear, and grow rapidly in number subsequently. It was found necessary to pass an act forbidding the Lord Admiral, or any of his officers, to exact payments of money or fish from the Newfoundland or Iceland fishermen under pain of a fine of treble the amount levied.[473] It was said to be a practice of 'within these few years now last past,' but abuses usually have to be of long existence before they attain the honour of an Act of Parliament

for their suppression. A victualling agent, Henry Folk, was committed to the Fleet prison for embezzling money received for navy victualling, 'which he hath not answered againe to the poore men but converted the money otherways and suffered them to remayne unpayed and in exclamacion,' The 'poore men' here referred to are more likely to have been persons from whom provisions had been purchased than seamen. The decline of the fishing industry was attributed, among other causes, to the action of the crown purveyors in seizing quantities of fish at nominal prices.

Merchant Shipping and Trade.

There is no return of merchant shipping for this period, but the bounty of five shillings a ton on new vessels was paid in several cases. Lord Russell, the Lord Privy Seal, received it on the *Anne Russell* of 110 tons and there are other similar warrants. There is, however, a paper calendared under the next reign which gives a list of merchantmen of 100 tons and upwards, 'decayed' between 1544-5 and 1553. It names seventeen belonging to London of 2530 tons, thirteen of Bristol of 2380 tons, and five owned in other ports.[474] This does not necessarily mean that the merchant navy had decreased to the extent of thirty-five such ships but may refer to those worn out by age and service and possibly replaced. Royal ships were still chartered by merchants for trading purposes; £1000 was paid for the *Jesus of Lubeck* and another, for a voyage to the Levant in 1552.[475] Later in the reign two of the navy officers, Gonson and Wynter, were indulging in similar speculation, and obtained the *Mathew* valued at £1208, for which

they were required to give sureties.

A commercial treaty with Sweden was on foot in 1550, but as the King of Denmark was urgently complaining of the English pirates who infested the Sound it was not likely to be of much advantage. The formation of the Russia company in 1553, although it was not incorporated until 1555, marked the inception of the great trading companies which did much, directly and indirectly, to increase both the number of ships and their size. Attention was given to the fishing trade and its growth stimulated by an enactment[476] which made Fridays, Saturdays, and Ember days, fish days, under penalty of ten shillings fine, and ten days' imprisonment for the first, and double for the second and every following offence.

The circumstances under which the Navy was maintained.

All through the reign regard was paid to naval requirements under financial conditions which, during many other periods, would have ensured their relegation to a future time. On the 4th November 1550, the Officers of the Navy appeared before the Council and brought books with them, one relating to the docking and repair of certain ships, a second 'concerning things necessary to be done,' and a third containing an estimate of stores required. The money wanted for these purposes was £2436, and the department was already in debt to the amount of £4800. Two years later the crown owed £132,372 abroad and £108,826 at home, of which only £5000 was due by the Admiralty.[477] The naval expenses

from January 1547 to September 1552 are tabulated as:—[478]

Cordage, timber, etc.,	£51,152	11	5
Coat and conduct money,	5070	1	5
Wages of soldiers, sailors, dockyards, shipwrights, etc.,	78,263	3	8½
Furniture of ships and carriage,	2451	14	10
Riding and posting charges, hire of docks and storehouses,	1609	4	6
Victualling,	64,844	17	3½
Ordnance and ammunition,	10,445	16	8½

These were very large amounts, taken with those of the last years of Henry VIII,[479] for the England of 1552, and we know that the public debt of £241,000 was the result of heavy borrowings at home and abroad. Some progress however was made towards the liquidation of the debt, since it had sunk to £180,000 at the accession of Mary. But as, in this financial situation, the Navy was not allowed to materially retrogress the imputation usually made against the Regency of indifference to its strength is one certainly not justified by facts.

MARY AND PHILIP AND MARY
1553-1558

The Royal Ships.

There is no complete navy list for the reign of Mary therefore the changes that took place in the royal ships can only, in most cases, be ascertained by comparison with earlier and later lists. There is, however, a record of the sale of certain ships in 1555; the *Primrose* for £1000, the *Mary Hambro* £20, the *Grand Mistress* £35, the *Hind* £8, the *Christopher* £15, the *Unicorn* £10, and four of the smallest pinnaces or rowbarges.[480] The prices obtained show that, with the exception of the *Primrose*, they must have been in very bad condition. The *Bark of Bullen* was delivered in 1553 to Jeffrey Coke, on condition of his carrying the Lord Deputy and the royal despatches to and from Ireland when necessary.[481] The *Henry Grace à Dieu* was burnt by accident at Woolwich on 25th August 1553.[482] Comparing the first complete navy list of Elizabeth with the Edwardian of 26th August 1552, we find that, besides the above mentioned vessels, only the *Pauncye*, *Mathew*, and *Less Bark*, are wanting of the larger ships. On the other hand the *Sacrett*, a French prize of 160 tons, a new *Mary Rose* of 500 tons in 1555, the *Philip and Mary* in 1556 of 450 tons, the *Lion* rebuilt in 1557, a new *Bark of Boulogne*, and the *Brigantine* replace these deficiencies. When we read that Henry VIII left a fleet of 53 vessels, and that it

rapidly diminished after his death, it must be remembered that thirteen of them were twenty-ton rowbarges immediately cast off as useless, and that only twenty-eight, excluding the galleys, were of 100 tons and upwards. A navy list of February 1559 names twenty-five of this class, serviceable and unserviceable, and the next, of 24th March 1559, twenty. Accepting the last, as affording the most unfavourable comparison, it does not warrant the severe condemnation of the naval administration of Mary's reign to which we are accustomed. Moreover many of the men-of-war dated from the years 1544-6, and were now approaching the time when they required rebuilding. The long 'life' of wooden as compared with iron ships has become proverbial but did not apply to sixteenth, and hardly to seventeenth century vessels. Doubtless the absence of proper sheathing, and the bad adjustment of weights, which caused excessive straining in a seaway, had much to do with it, but whatever the cause men-of-war are found to need rebuilding within, at the most, every twenty-five years during the Tudor and Stewart reigns.

There is an Elizabethan paper of 1562[483] which, if it can be even partially trusted, shows that the closing months of Mary's reign were characterised by great dockyard activity. The *Hart*, *Antelope*, *Swallow*, *New Bark*, *Jennett*, *Greyhound*, *Phœnix*, and *Sacar* are assigned to 1558 as new ships, that is to say as rebuilt, for in these early documents distinction is seldom drawn between one really new and one merely rebuilt. Mary died on 17th November 1558, and if the year were reckoned by the New Style there would be no question but that they must have been begun during her lifetime and finished at least shortly after her death. But at this time the year

ended on 24th March, and the unknown writer of the paper in the *Cecil MSS.* when he assigns these vessels to 1558 means a period ceasing on 24th March 1559, when Elizabeth had been nearly four-and-a-half months on the throne. It is known that the dockyards were working busily shortly after Elizabeth's accession, but assuming the 1562 writer to be correct in his dates, and as a whole there is some corroborative evidence of his general accuracy, it seems quite impossible that these eight ships could have been rebuilt between 17th November 1558, and 24th March 1559. That being so Mary's government must be allowed the credit of recognising the decline in the effective force and of the measures taken for its renewal.

There is another test that can be applied to the question of the activity or inactivity of the government, and that is the number of ships sent to sea during these years. In 1554 twenty-nine men-of-war, manned by 4034 men, were in commission;[484] during 1555-6 thirty-eight, several of them of course twice or thrice over;[485] in 1557 twenty-four, and in December eight others were in preparation.[486] Yet, again, if we take the squadrons especially sent out pirate catching, we find that during 1555-6 eight vessels were equipped to search for Cole and Stevenson, two well known adventurers, and there are many other references to men-of-war commissioned with the same object. In another way the naval history of this reign is noteworthy. Although it was not unknown for ships to be at sea in winter it was as yet exceptional, but we now find it occurring more frequently during these few years than through the whole reign of Henry VIII. No fewer than eight were cruising during the first four months of 1556;[487] in October 1557, ten;[488] and

ten in February and March of the same year.[489]

Admiralty Officers and Administration.

Lord Clynton was still Lord Admiral at the death of Edward VI. He was then unfortunate enough to be on the wrong side, and his influence with the men seems to have been small, as the crews of six vessels, sent to the Norfolk coast to prevent the flight of Mary, went over to her side. Clynton was replaced by William, Lord Howard of Effingham, from 26th March 1554. The first named, however, regained the Queen's favour by the efficient aid he gave in Wyatt's rising and was reappointed on 10th February 1557; thenceforward he retained the office till his death on 16th January 1585. The only other change among the chief officers was the nomination of William Wynter to be Master of the Ordnance of the Navy from 2nd November 1557;[490] he was already Surveyor and now held both offices for the rest of his life. The salary of the conjoined appointments was £100 a year, with the usual 6s 8d a day travelling expenses, 2s 4d a day for clerks, and £8 a year for boat hire. The management of the Admiralty was, if not exactly reformed, subjected to close scrutiny. In 1556 Lord Howard was ordered 'to repayre himself forthwith on receipte hereof,' without the knowledge of the other officers, and take 'a secret muster' of the men on board the ships, to search the ships for concealed men and victuals, and to arrange for a monthly muster on the cruisers in the narrow seas.[491] Regulations were also established for the supply of stores and provisions and their economical use, and a first attempt was made to check the waste of

ammunition in saluting by an order that it was not to be consumed in 'vayne shot.'[492]

A year later a further alteration followed, which took the form of allowing a fixed yearly sum for ordinary naval expenses, a rule which remained long in force. There may also have been other reasons for some additional changes made. Clynton may not have been entirely trusted, or some suspicion, perhaps, was taking shape concerning the provident or honest conduct of the Officers. The order ran:—

> 'Wheare heretofore the Quenes Maiestie hath ben sundrie tymes troubled with thoften signing of warrantes for money to be defraied about the necessarie chardges of her Highnesses navie and being desierouse to have some other order taken for the easyer conducting of this matter heareaftyr: Dyd this daie upon consultacion had with certayn of my lords of the Counsell for this purpose desyere the Lord Treasurer[493] with thadvise of the Lord Admyrall to take this matter upon hym who agreinge thareunto was content to take the chardge thereof with theis conditions ffollowinge; ffirst, he requyred to have the some of £14,000 by yere to be advaunced half yerely to Benjamyn Gonson Threasarer of Thadmyraltie to be by hym defrayed in such sort as shalbe prescribed by hym the sayed Lord Threasowrer with thadvise of the Lorde Admyrall.'

For which sum the Lord Treasurer will

> 'cause such of her Maiesties shippes as may be made servicable with calkeinge and newe

> trymmynge to be sufficiently renewed and repaired Item to cause such of her Highnes saied shippes as must of necessitie be made of newe to be gone in hand withall and newe made with convenyent speede Item he to see also all her Highnes saied shippes furnysshed with sailles, anchors, cables, and other tackell and apparell sufficientlye Item he to cause the wagis and victuallinge of the shipp keepers and woorkmen in harborough to be paied and dischardged Item he to cause a masse of victual to be alwayes in redynes to serve for 1000 men for a moneth to be sette to the sea upon eny sodeyne Item he to cause the saied shippes from tyme to tyme to be repaired and renewed as occasion shall requiere Item whenn the saied shippes that ar to be renewed shalbe newe made and sufficientlie repaired and the hole navie furnyshed of saylles, anckers, cables, and other tackell then is the saied Lord Treasowrer content to contynue this servis in fourme aforesaied for the some of £10,000 yerely to be advaunced as is aforesaied Item the saied Benjamyn Gonson and Edward Bashe Surveyor of the Victuells of the shippes shall make theare severall accomptes of the defrayment of the saied money and of theare hole doinges herein once in the yere at the least and as often besydes as shall be thowght convenyent by my Lordes of the Counsell.'

Any surplusage was to be carried forward towards the next year's expenses; the division of the money was, by estimation, £2000 for stores, £1000 for rigging, £6000 for harbour wages and victualling, and £5000 for the building and repair of ships.[494]

By 1558 the allowance was reduced to £12,000 a year, but even the proposed minimum of £10,000 was much above anything allowed by Elizabeth during the greater part of her reign. Moreover, the large scheme of rebuilding outlined in this paper indirectly confirms the statement of the writer in the *Cecil MSS.*[495] in assigning numerous new, *i.e.* rebuilt, ships to 1558. Obviously the circumstance of the Queen being overworked was not by itself any reason why the real control should be taken from the Lord Admiral and other Officers and given to the Lord Treasurer. The fact that payment was now to be made in gross to Gonson of so many thousands a year instead of, as formerly, by warrant for each separate matter, will explain the necessity for some new check on the Navy Treasurer, but will not explain the practical supersession of the Lord Admiral. As long as Burleigh was Lord Treasurer he also remained the final authority on naval matters, practically exercising the authority of a First Lord of the Admiralty of the present day. The system of accounts now adopted endured, with some modifications, for nearly a century, and to the order which prescribed the rendering of a full statement once a year we owe the series of *Audit*, or *Pipe Office Accounts*, an invaluable source of information for naval history.

Expenditure and Establishments.

The average of wages all round had risen to 9s 4d a month ‘dead shares and rewards included;’ this, judging from the early years of the next reign, meant 6s 8d a month for the seamen. The custom of providing the men with coats and jackets was dying

out. There are no references to these articles in the naval papers of the reign, but in a semi-official expedition, that of Willoughby and Chancellor in 1553, the instructions direct that the 'liveries in apparel' were only to be worn by the sailors on state occasions. At other times they were to be kept in the care of the supercargoes and ordinary clothes were to be sold to the crews at cost price.[496]

The one return of expenses remaining shows an extremely heavy naval expenditure.[497] Between 1st January 1557 and 31st December 1558 £157,638 was spent, of which victualling took £73,503, Deptford £22,120, Woolwich £4048, Gillingham £408, Portsmouth £7521, and wages of men at sea £43,492. Stores, such as timber, pitch, tar, cordage, etc., absorbed nearly £20,000, included under the dockyard headings. From this account it also appears that Legge when Treasurer, probably therefore in the reign of Henry VIII, had advanced £100 to two Lincolnshire men for seven years in order to assist the creation of another centre of the cordage industry. The experiment was not successful and the item is carried over formally in each successive account until dropped as a bad debt. Victualling storehouses for the government had been built or bought at Ratcliff, Rochester, Gillingham and Portsmouth; ordnance wharves at Woolwich, Portsmouth and Porchester. Portsmouth was momentarily regaining favour, and the Council recommended that ships should be laid up there because the harbour afforded better opportunity for rapid action in the Channel than did the Thames. The chief shipwright was now Peter Pett who was receiving a fee of one shilling a day from the Exchequer in addition to the ordinary payments made to him by the Admiralty.

Disease on Shipboard.

War was declared with France on 7th June 1557, but the operations of 1558 were nullified by an outbreak of disease in the fleet as severe as that of 1545. In 1557 Howard informed the Council that he could not obtain at Dover ‘in a weke so moche victulls as wold victull ii pynnesses,’ and although the complaint is a year earlier the character of the supplies and the hardships it connotes, are very likely the key to the visitation of the following summer. From the 5th to 17th August Clynton lay at St Helens with the fleet, having returned from the capture and destruction of Conquet. On the 18th he put to sea, and on the 20th was near the Channel Islands, when so sudden an outburst occurred ‘that I thinke the lieke was never syne ffor ther wer many ships that halfe the men wer throwen downe sick at once.’[498] After holding a council with his captains, which the masters of his ships also attended, he returned to Portsmouth.

Privateering and Piracy.

Privateering was encouraged by a proclamation of 8th July 1557, permitting any one to fit out vessels against the royal enemies, and allowing possession to be retained of all ships and goods captured ‘withoute making accompte in any courte or place of this realme,’ and without payment of any dues to the Lord Admiral or any other officer. This entire abrogation of control increased the tendency to illegal acts even among the more honest adventurers; while Carews, Killigrews, Tremaines, and the ubiquitous Strangways, and Thomson, industriously

working for themselves, the government had always with them. Thomson was off Scilly in 1556, with three ships, and was taken. When tried only he and four others were condemned and the Council loudly complained of the partiality of the jury, a partiality which better explains the prevalence of piracy during these years than the accepted explanation of the inefficiency of the Navy. The two Killigrews, Thomas and Peter, were, if not the worst, the most successful offenders and in 1556 were sufficiently enriched by their plunder to think of retiring to 'some island' for the winter. They were frequently chased into French ports, but to keep them there was beyond the power of the men-of-war, and the French authorities treated them with a neutrality more than benevolent.

When we find a privateer belonging to the Lord Privy Seal attacking neutral vessels, and man-of-war officers boarding and robbing a Flemish merchantman at Tilbury, it seems wonderful, in view of the excesses such incidents suggest among the majority with no sense of legal responsibility, that commerce could have been carried on at all.

ELIZABETH
1558-1603

The Naval Policy of Elizabeth.

Her subjects were occupied, during the greater portion of Elizabeth's reign, in teaching their Queen the use of a navy, instruction that she was the first English sovereign to put into practice on strategic principles. Yet study of the forty-five years of glorious naval history on which her renown is mainly based, leaves the impression that more might and should have been done with the Navy. That she preferred diplomacy to force would have been a merit had the choice been founded on an ethical detestation of the cruelty of war, instead of an ingenuous belief in her own skill and the obtuseness of her antagonists. Under conditions more favourable to ascendancy at sea than have ever existed for England, before or since, the successes of the Navy itself, as distinguished from the expansion of the commercial marine, were, although relatively great, limited by the hesitation with which the naval arm was employed, the way in which the service was pecuniarily starved, and the settled doctrine underlying her maritime essays that an expedition should be of a character to return a profit on the outlay. And perhaps the severest comment on her government lies in the fact that she was more liberal in her treatment of the Navy, than of any other department of the State. In February 1559 she

possessed twenty-two effective ships of 100 tons and upwards, in March 1603, twenty-nine; practically, therefore, she did little more than replace those worn out by efflux of time, for only two were lost in warfare. If Henry VIII created a navy under the stimulus of a possible necessity it requires little imagination to conceive his course when the time had come, as it never came for him, to put forth every effort in using it for the preservation of England.

When Elizabeth succeeded to the throne, the possession of a fleet and an organised administration, the French royal navy, only a few years before an apparently serious competitor, had ceased to exist; the rivalry of Holland had not yet begun, and it is hardly an exaggeration to say that a Spanish royal navy had never existed, in the sense of an ocean going service organised on a basis enabling it to act vigorously and effectively in any direction.[499] The opportunity had come therefore to a power with maritime ambition, the only one possessing an efficient fleet and naval control, and incited by religious differences and commercial emulation. The altered situation brought to the front a band of men who, in the preceding century, would have been military adventurers in France, but who now, half traders, half pirates, handled their ships with the same strategic and tactical skill their ancestors exercised on land, and who, if they had been allowed a free hand, would have brought Spain down in ruin instead of merely reducing her to a condition of baffled impotence. They were not allowed a free hand. When acting for themselves they had the knowledge that if it suited the royal policy of the moment repudiation of their deeds might mean, if

not loss of life, at least loss of property and reputation. When in command of royal fleets they were kept in touch with the government, hampered by voluminous and contradictory instructions, and, above all, their efforts and successes rendered nugatory by the parsimony which kept the depots always on the brink of exhaustion.

In naval, as in other matters, Elizabeth tried to make her subjects do the work of the crown and therefore she frequently confined her action to taking a share with several ships in a privateering expedition, prepared by private individuals for their own profit. Such expeditions swell the list of ships employed at sea, and privateering as a source of injury to an enemy has its value, but such enterprises when forming the whole effort of the State for a particular year show an insufficient acquaintance with the character of the operations required. Privateers were equipped not with large objects but to secure profits for owners and crews. It sometimes happened that this purpose was at issue with the wider views of the admiral in command, and the voyage became ineffective where a similar number of men-of-war subject to discipline might have done important service. The enormous increase in the merchant marine which, it will be shown, characterised the reign, was in one way disadvantageous since it induced the government to rely more on a *guerre de course* than on the sustained and systematised action of the Royal Navy. Even when a great fleet was sent out the light in which Elizabeth regarded it is instructively shown in a letter to Nottingham, after the Cadiz voyage of 1596, when he had asked for money to pay the men's wages:

> ‘though we have already written you divers letters to prevent the inconvenience which we suspected would follow this journey that it would be rather an action of honour and virtue against the enemy and particular profit by spoil to the army than any way profitable to ourself yet now we do plainly see by the return of our whole fleet that the actions of hope are fully finished without as much as surety of defraying the charge past or that which is to come.[500]

The blow to Spanish power and prestige, or an ‘action of honour and virtue,’ counted for nothing if a fleet did not pay its expenses and make some profit over and above.

It may be asked then in what respect was Elizabeth personally deserving of praise? The answer is that it fell to her to use for the first time an untried weapon —untried in the sense that never before had England relied on it as the right arm of attack or defence. For centuries the defence of the country had depended on the mail-clad horseman and the yeoman archer; from the first days of her accession she recognised that the enemies of England were to be fought at sea, a doctrine which is a commonplace now, but was then being only slowly evolved in minds even yet dazzled by memories of invasions of France. She accepted and proved the truth of the theory on which the policy of Henry VIII was grounded, and, if she failed to carry it out fully, it was perhaps more from ignorance of the might of the weapon in her hand than from want of statesmanship. Notwithstanding her niggardliness, which nearly ruined England in 1588, she expended money—for her lavishly—on the Navy, while the military and other services were remorselessly starved. Sooner or

later the naval authorities obtained at least part of their requirements, in striking contrast to the fortune of other officials who thought, and whose contemporaries probably thought, their needs of equal or more importance. If she did not use the fleet as some of the great seamen who served her would have had her use it, she at anyrate extended its field of action in a manner hitherto unknown, and sealed the direction of future English policy.

The following abstract, compiled from the pay and victualling lists and the State Papers, will show the number of vessels of the Royal Navy in commission each year, that it was used continuously as never before, but also that it was seldom used up to its possible capacity. In every case there were hired merchantmen as well if a fleet was engaged in an over-sea expedition, but unless there was a prospect of plunder the brunt of the work always fell on the men-of-war. As an arbitrary division, for the purpose of the table, first-rates are taken as those above 600 tons; second-rates from 400 to 600 tons; third-rates from 200 to 400 tons; fourth-rates from 100 to 200 tons; fifth-rates from 50 to 100 tons; and sixth-rates under 50 tons. Owing to technical difficulties connected with the lists used it is probably not exactly correct but is sufficiently so to give a just impression:—

	1st	2nd	3rd	4th	5th	6th	Galleys.
1559				2	4		
1560[501]							
1561			1	1	2		1
1562		2	4	1	5		
1563	2	1	9	1	7	4	3
1564			1	2	3		

1565				2			
1566				1	2		
1567		1		1	1		
1568			2	1	1		
1569		3	4	2	2		
1570		3	3	3	2		
1571				2	1		
1572				2	2		
1573		1	1	3	1		
1574				2	1		
1575				2	1		
1576		1	3	2	2		
1577		1	2	2			
1578		2	3	1			
1579		1	3	3	1		
1580		1	6	2	1		
1581			2	5	1		
1582			1	2	1		
1583				2	1	1	
1584				2	1	1	
1585		1	2	4			
1586		3	1	4	1	7	1
1587		3	3	5	3	6	
1588[502]	5	10	5	3	7	3	1
1589		4	2	4	2	4	
1590		8	4	6	2	5	
1591		8	4	2	2	4	
1592		2	4	2	2	3	
1593		1	3	2	2	2	
1594		1	3	1	1	4	
1595		4	4	1	2	3	
1596	4	9	5	3	2	1	
1597	6	11	6	1	2	2	
1598		5	5	2	2	4	
1599	6	10	6	2	2	7	1
1600	2	2	5	1	1	5	

1601	2	11	3	1	2	3	
1602	3	9	5		1	1	

From this it is evident that vessels of from 400 to 600 tons were the favourites; they were handier, better seaboats, and represented the latest improvements in shipbuilding. Of the eleven first-rates on the navy list in 1603, two were Spanish prizes of 1596, four dated from the beginning of the reign, while the remaining five were of 1587 and later years; it was these latter that were used from 1596 onwards. The four earlier ones, built before Hawkyns came into office, were of an old type and seem never to have been commissioned unless the services of the whole Navy were required. The *Victory*, for instance was only at sea in 1563, 1588, and 1589, although she is not entered in the foregoing table under 1589, because lent to the Earl of Cumberland for a private venture. The stress of the work fell therefore on the smaller vessels. The *Bonaventure*, for instance, was at sea every year from 1585 to 1590 inclusive. During the greater part of 1591 she was in dock at Woolwich for repairs, but at Portsmouth in October, and then sent to sea. Again in 1592, 5, 6, 7, and 1599. The *Dreadnought*, launched in 1573, was commissioned during each of the six years 1575-80, and in 1585, 7, 8, and 1590. She was then, for nearly a year, in dry dock, recommencing service in 1594, continuing it in 1595, 6, 7, 9, 1601, 2, and 1603. It must also be noted that many of these years included more than one commission. Excluding the fourth-, fifth-, and sixth-rates, which were serviceable for privateering purpose, but could not take a place in any form of attack requiring ships of force, it will be seen by how very few vessels the naval warfare was really carried

on, and that a succession of serious descents on the Spanish coasts and transatlantic settlements, such as were urged on Elizabeth, would have necessitated very large additions to the Royal Navy.

Shortly after the Queen's accession she possessed, according to one account thirty-five,[503] and according to another thirty-two[504] vessels of all classes and in good and bad condition. Some ships had been under repair before Mary's death,[505] but the dockyards were working with redoubled vigour since Elizabeth's succession. At Deptford, in March, 228 men were at work on five ships; at Woolwich 175 men on eight others, and at Portsmouth 154 men on nine more.[506] Some of these were rebuildings, others could have been but trifling repairs, but the list shows with what energy Elizabeth and her Council applied themselves to the maintenance of the fleet. From that time the yards, with the exception of a few years, were kept fully occupied, and the following is a list of the new ships built at them or otherwise added to the Navy. The dates are New Style:—

	Built	At	By	Rebuilt	Bought
Elizabeth Jonas[507]	1559	Woolwich		1597-8	
Hope[508]	1559			1602-3	
Victory[509]					1560
Primrose[510]					1560
Minion[511]					1560
Galley Speedwell[512]	1559				
Galley Tryright[513]	1559				
Triumph[514]	1561			1595-6	

Aid[515]	1562				
Galley Ellynor[516]					
Post[517]	1563				
Guide[517]	1563				
Makeshift[517]	1563				
Search[517]	1563				
White Bear[518]	1564			1598-9	
Elizabeth Bonaventure[519]				1581	1567
Foresight[520]	1570				
Bull[521]				1570	
Tiger[522]				1570	
Swiftsure[523]	1573	Deptford	Peter Pett	1592	
Dreadnought[524]	1573	do.	Math. Baker	1592	
Achates[525]	1573	do.	Peter Pett		
Handmaid[526]	1573	do.	Math. Baker		
Revenge[527]	1577	do.			
Scout[528]	1577	do.			
Merlin[529]	1579				
Antelope[530]				1581	
Golden Lion[531]				1582	
Brigantine[532]	1583				
Nonpareil[533]		Deptford		1584	
Galley Bonavolia[534]				1584	
Greyhound[535]	1585		Wm. Pett		
Talbot[536]	1585		R. Chapman		
Cygnet[537]	1585		Tho. Bowman		
Makeshift[538]	1586	Limehouse	Wm. Pett		
Spy[539]	1586	do.	do.		
Advice[540]	1586	Woolwich	M. Baker		
Trust[541]	1586				
Sun[542]	1586	Chatham	M. Baker		

Seven Stars[543]	1586				
Tremontana[544]	1586	Deptford	R. Chapman		
Moon[545]	1586	do.	Peter Pett		
Charles[546]	1586	Woolwich	M. Baker		
Vanguard[547]	1586	do.	do.	1599	
Rainbow[548]	1586	Deptford	Peter Pett	1602	
Ark Royal[549]	1587	do.	R. Chapman		
Popinjay[550]	1587				
Nuestra Señora del Rosario[551]					
Mary Rose[552]				1589	
Merhonour[553]	1590		M. Baker		
Garland[554]	1590		R. Chapman		
Defiance[555]	1590		P. & Jos. Pett		
Answer[556]	1590		M. Baker		
Quittance[557]	1590		do.		
Crane[558]	1590		R. Chapman		
Advantage[559]	1590		P. & Jos. Pett		
Lion's Whelp[560]	1590				
Primrose Hoy[561]	1590				
Black Dog[562]					
French Frigott[563]					
Flighte[564]	1592				
Mercury[565]	1592	Deptford	M. Baker		
Eagle[566]					1592
Adventure[567]	1594	Deptford	M. Baker		
Mynikin[568]	1595				
Warspite[569]	1596	Deptford	E. Stevens		
Due Repulse[570]	1596				

St Mathew[571]					
St Andrew[571]					
Lion's Whelp[572]					1601
Superlativa[573]	1601	Deptford			
Advantagia[573]	1601	Woolwich			
George	1601		Adye		
Hoy[574]					
Gallarita[575]	1602	Limehouse			
Volatillia[575]	1602	Deptford			

In number this is an imposing array but exclusive of galleys, prizes, six pre-existing vessels rebuilt, and the numerous small vessels, only twenty-nine men-of-war of 100 tons and upwards were added to the establishment between 1558 and 1603, notwithstanding the amount of work thrown upon the Navy. It has been noticed that the term rebuilding, as used in the official papers, is extremely vague and it is only when the cost per ton can be ascertained that it can be known with certainty whether a ship was renewed or repaired; it is quite possible that, with the exception of the *Philip and Mary*, the rebuilt vessels were in reality only subjected to more or less complete repair. Again, of these twenty-nine only twenty-one were of 300 tons and upwards and suited for distant expeditions; of the twenty-one the *Elizabeth*, *Hope*, *Victory*, *Triumph*, and *White Bear*, were not liked—too big, too expensive, or too unhandy—and were never used unless a fleet of great strength was required. The names of a few ships recur, therefore, year after year as forming the main strength of the squadrons, made up with armed merchantmen, sent out for various

purposes. Had Spain been able to offer any real resistance at sea the destructive results of even victorious action would have soon compelled the replacement of these ships and a large increase in the navy list.

Various Ships.

The *Elizabeth Jonas* varies as to tonnage between 855 and 1000 tons in different papers. The *Victory* oscillates between 694 and 800 tons, the *Triumph* between 955 and 1200, and a smaller vessel, the *Foresight*, is given in three lists, within six years, as of 300, 350, then of 260 tons, and in a fourth list of 1592 as of 450 tons. Before 1582 measurement must have been usually a matter of opinion and comparison; after that year when Baker's rule had come into use there is more uniformity. But such variations entirely vitiate dogmatic comparisons of the strength of opposing ships or squadrons. The *Elizabeth* was, 'in new making' at Woolwich in December 1558,[576] and was therefore commenced before Mary's death. There is a singular story told of the origin of the name.

> 'The shipp called the *Elizabeth Jonas* was so named by her Grace in remembrance of her owne deliverance from the furye of her enemyes from which in one respect she was no lesse myraculously preserved than was the prophet Jonas from the belly of the whale.'[577]

This occurs in a commonplace book kept by Robert Commaundre, Rector of Tarporley, Chester, who died in 1613, and among some other naval information

wholly incorrect. It is a fact that Elizabeth christened the ship herself but Commaundre's version is probably country gossip made to explain the name. If, however, it should be true it throws a more vivid light on Elizabeth's real feeling towards her unhappy sister than is shed by many volumes of State Papers.

The first occurrence of the famous name of the *Victory* in an English navy list is of great interest but unfortunately cannot be dated with certainty. The earliest mention known is of the victualling accounts of the quarter ending with September 1562.[578] On 14th March 1560, the *Great Christopher*, of 800 tons, was bought of Ant. Hickman and Ed. Castlyn, two London merchants. The tonnage corresponds with that assigned to the *Victory* in early papers, and the year corresponds with that assigned to the *Victory* in the State Paper quoted in the table. The name *Great Christopher* is only found down to 1562, when it is immediately succeeded by that of *Victory*; in fact the *Christopher* is named in October and then ceases, to be replaced by the *Victory* in November.[579] Unless we suppose that a new 800-ton ship, one of the two largest in the Navy, disappeared without leaving a trace of the cause it must be assumed that the name was changed, a not unusual occurrence, and if so, the *Victory* is its only possible representative. The name was quite new among English men-of-war; it may have been taken from that of Magellan's celebrated ship.

The *Primrose* and the *Minion* had for some years previously been employed among the hired London merchantmen; from 1560 they appear on the navy lists, which points to their purchase. The *Minion*, in which Hawkyns escaped from San Juan de Ulloa in 1568, was condemned in 1570; the *Primrose* was sold

in 1575, again rejoining the merchant service, to which she still belonged in 1583.[580] The galleys *Tryright* and *Speedwell* disappear after 1579; and the *Bonavolia* from 1599; of the four later galleys the *Gallarita* and *Volatillia* were presented by the city of London. The *Mercury*, another vessel of the galley type was however furnished with masts and sails, and afterwards converted into a pinnace.

Returning to the large ships, the *Aid* was condemned in 1599, the *Elizabeth Bonaventure*, purchased from Walter Jobson for £2230, the *Bull* was broken up in 1594, and the *Revenge* captured by a Spanish fleet in 1591. The *Tiger*, *Scout*, and *Achates*, were cut down into lighters and, in 1603, were supporting Upnor chain. The *Ark Royal*, or *Ark Ralegh*, seems to have been built originally for Sir Walter Ralegh,[581] although constructed in a royal yard and by a government shipwright, who, later, received a pension for this among other services. Some £1200 was spent in 1598 on the repairs of the *St Mathew* and *St Andrew*; they only served under the English flag, however, in the Islands voyage of 1597. Some of the small pinnaces disappear from the lists during these years without assigned cause, but the only two vessels known to have been lost by stress of weather during the reign were the earlier *Greyhound* of Henry VIII, wrecked off Rye in 1562, and the *Lion's Whelp* in 1591.

Table of General Details.

The following table of 1602 furnishes many curious details:—[582]

	Length of keel	Beam	Depth of hold	Rate forward	Rate aft	Burden	Ton and Tonnage
	feet	feet	feet	feet	feet	tons	tons
Elizabeth	100	38	18	36	6	684	855
Triumph	100	40	19	37	6	760	955
White Bear	110	37	18	36	6.6	732	915
Merhonour	110	37	17	37	6.6	691	865
Ark Royal	100	37	15	33.6	6	555	692
Victory	95	35	17	32	5.10	555	694
Repulse	105	37	16			622	777
Garland	95	33	17	32	5.8	532	666
Warspite	90	36	16			518	648
Mary Rose	85	33	17	30.6	5	476	596
Hope	94	33	13	31.6	5.7	416	520
Bonaventure	80	35	16	28	4.10	448	560
Lion	100	32	14	31.6	5.10½	448	560
Nonpareil	85	28	15	29	5	357	446
Defiance	92	32	15	31	5.6	441	552
Vanguard	108	32	13	32	5.8	449	561
Rainbow	100	32	12	33.6	6	384	480
Dreadnought	80	30	15	31	5.4	360	450
Swiftsure	74	30	15	26	4.6	333	416
Antelope	87	28	14	29.6	5.3	341	426
Foresight	78	27	14	27	4.8	294	306
Adventure	88	26	12			274	343
Crane	60	26	13	23	3.10	202	253
Quittance	64	26	13	24	4	219	274
Answer	65	26	13	24	4	219	274
Advantage	60	24	12	22	3.10	172	216

Tremontana	60	22	10			132	165
Charles	63	16	7	15	3	70	80
Moon	50	17	7	15	2.8	59	74
Advice	50	14	6	12	2.6	42	52
Spy	50	14	6	12	2.6	42	52
Sonne	50	13	6	11	2.2	39	48

In consequence of the existence of a formula, to be presently noticed, for calculating tonnage, we have in the preceding table for the first time an attempt at exactness instead of the former round numbers. The keel and other measurements given can only be taken as approximate seeing that they differ in nearly every paper. And some of the other particulars, such as the number of anchors and cables, represent only a theoretical equipment; the inventories show that vessels frequently carried more than the seven anchors and seven cables assigned to the large ones here. On the other hand the strength of the crews rarely reached the proportions in the list, it may safely be said never, if a large fleet was prepared.

The great Portuguese carrack, the *Madre de Dios*, captured in 1592 and regarded as the largest ship afloat, had a keel length of 100 feet, an extreme breath of 46 feet 10 inches, and an extreme length of 165 feet.[583] The keel length of the *Rainbow* being 100 feet, her extreme length was 139 feet 6 inches and she had only 32 feet of beam. Moreover the carrack would be hampered by tiers of cabins built up on her poop and forecastle; a comparison of these proportions will help to explain the better weatherly and sailing qualities of the English ships. If for further illustration we compare the *Elizabeth Jonas* carrying 55 heavy guns,[584] with a 52 gun ship of 1832 we find that the ordnance of the latter weighed 125 tons 4 cwt.; cables (iron and hempen), 56 tons 1

cwt.; anchors 12 tons 10 cwt. 2 qrs.; masts and yards 74 tons 5 cwt.; and fixed and running rigging 51 tons 9 cwt.[585]

This table also explains why galleys, never much in favour, were rapidly falling out of use. In 1588 the *Bonavolia* served for two months as a guardship in the river at a total cost of £1028,[586] that is to say £514 a month. In 1589 there is an estimate, in the handwriting of Hawkyns, for the same galley but 150 'slaves' are now allowed for, and 'there may be for every bank[587] a soldier with his piece if the service require it.' He adds 'there is no dyett spoken of for the slaves for that we are not yett in the experyence.'[588] We cannot now tell whether Hawkyns had his early merchandise of negroes in his mind or whether 'slaves' was the pleasant Elizabethan way of describing criminals and vagrants.[589] The reference however, to ignorance in the matter of diet seems rather to imply that negroes were in question. Doubtless the cost of free oarsmen had been found to be too great. It will be observed that a large cruiser like the *Dreadnought* could be kept at sea throughout the year at a charge of £303 a month while the almost useless galley, only doubtfully available in summer, cost very much more. The galley service was only possible among the Mediterranean states, and then only when, like Venice, they bought surplus human stock by the thousand from the Emperor. The four galleys of 1601-2 were never once engaged in active service, and were probably only used for purposes for which steam tugs are now employed; perhaps also in pageants, men from the royal ships or ordinary watermen being put in them for the particular service.



Types of Ships.

The lines of ships had begun to vary according to the purpose for which they were designed. There had formerly been no difference between merchantmen and men-of-war except that the latter were perhaps more strongly built. But a paper by William Borough, Comptroller of the Navy, now describes three orders: [590]

1. The shortest, broadest, and deepest order.	To have the length by the keel double the breadth amidships and the depth in hold half that breadth.
This order is used in some merchant ships for most profit.	
2. The mean and best proportion for shipping for merchandise, likewise very serviceable for all purposes.	Length of keel two or two and a quarter that of beam. Depth of hold eleven-twentyfourths that of beam.
3. The largest order for galleons or ships for the wars made for the most advantage of sailing.	Length of keel three times the beam. Depth of hold two-fifths of beam.

If the figures in the preceding table are trustworthy it will be seen that the keel length is very seldom three times the breadth although the

later ships show a drift towards that proportion. The short keel, not sufficiently supported in a head sea must have made the vessel pitch tremendously, and one object of the beakhead and great forward rake was to shatter the seas and prevent them breaking on board. Probably these ships were but little worse sailers than the ordinary merchantmen of the beginning of this century, at least before the wind. They could not sail on the wind within at least eight points; fore and aft sails were not yet known, and the top-hamper of lofty sides and built up poop and forecastle levered the vessel off to leeward.

Improvements and Inventions.

Many improvements however were introduced. A method of striking topmasts, ‘a wonderful ease to great ships,’ and a system of sheathing by double planks, having a layer of tar and hair between them, were two of the most important. Both were due to Hawkyns, and the sheathing process remained in use for more than a century after his death. The finest Elizabethan men-of-war, the fastest sailers and best seaboats then afloat were built from his plans; and from the time of his appointment as Treasurer of the Navy dates the change to the relatively low and long type that made the English ships so much more handy than their Spanish antagonists. On Ralegh’s testimony the chain pump, the use of the capstan for weighing the anchor, bonnets and drablers, sprit, studding, top, and top-gallant sails were all new.[591] Ralegh is usually accepted as an authority, but some of these statements are surprisingly inaccurate, considering that he was a shipowner, and had himself been to sea. The bonnet, which laced on to

the foot of the ordinary sail, was in use at least as early as the fourteenth century: the drabler laced on to the bonnet, and if the name was new the thing itself was doubtless old. Top, top-gallant, and sprit sails, can be traced back to the close of the preceding century, and there is no reference to studding sails in the inventories. In view also of the 'main,' 'forecastle,' and 'lift' capstans found on a ship like the *Sovereign* in 1496 it seems incredible that they should not have been earlier applied to weighing the anchor.

The chain pump was brought into use by Hawkyns; a patent log was invented by Humphrey Cole but it does not appear to have superseded the ordinary log line. The lower ports were now some four feet above the water line, and there was a tendency to decrease the deck superstructures. Ralegh is emphatic in his disapproval of deck cabins: 'they are but sluttish dens that breed sickness in peace, serving to cover stealths, and in fight are dangerous to tear men with their splinters.' Nevertheless others thought differently, and in view of the large crew of a man-of-war and crowded narrow quarters some deck accommodation was perhaps absolutely essential. Both poop and forecastle were barricaded and the bulkheads pierced for arrow and musketry fire. In ships 'built loftie' there was a second, and perhaps even a third tier over the poop and forecastle of similarly defended cabins. The waist was partly open on the upper deck, while on the lower deck were again loop-holed bulkheads running transversely, so that if a ship were boarded her assailants found themselves exposed to a galling cross-fire from the defenders.

Gravel ballast only was used and for such crank

vessels a large quantity was necessary. It was seldom changed and becoming soaked with bilgewater, drainings from beer casks, and the general waste of a ship, was a source of injury to the vessel and of danger to the health of the men. The 'cook-room,' a solid structure of bricks and mortar, was built in the hold on this ballast, and in that position, besides making the ship hot and spoiling the stores, was a frequent cause of fire. Moreover ballast and cook-room being practically immovable nothing could be known of the condition of the timber and ironwork below. Sir William Wynter advocated, in 1578, the use of stone ballast and the removal of the cooking galley to the forecastle, but neither proposal was generally adopted.[592] In the squadron commanded by Hawkyns and Frobisher in 1590 the *Mary Rose*, however, Hawkyns' flagship, had her cook-room especially removed from the hold to the forecastle, 'as well for the better stowinge of her victualles as also for better preserving her whole companie in health during that voyadge beinge bounde to the southwardes.' We may therefore take it that the opinion of Hawkyns coincided with that of Wynter on this point. But the alteration in the *Mary Rose* was an isolated occurrence, and even as late as the beginning of the eighteenth century the galley was still sometimes in the hold. The large amount of space occupied by the ballast, cables, ammunition, and other necessaries left but little room for other things, and a ship had only provisions on board for three or four weeks, although theoretically she was expected to carry more. The presence of a fleet of transports was therefore necessary with all naval expeditions.

The attention given to maritime matters bore fruit in other inventions, many of them far in advance of

their time. Centre board boats, paddlewheels, a diving dress, and fireships, were all recommended and perhaps used.[593] Gawen Smith proposed to erect a beacon and refuge, capable of holding twenty or thirty persons, on the Goodwin sands such as was actually tried, unsuccessfully, in the first half of this century.[594]

Cost and Construction of Ships.

There is no detailed statement of the whole cost of a ship complete. Most were built by contract, and payment to the master shipwright responsible appears to be only for the hull, masts and spars. For an early vessel, probably the *Triumph*, there is a fuller account[595] and here the total is £3788, of which the timber cost £1200, spars and ironwork £700, and wages £1888; this does not include sails, fittings, etc. Building by contract seems to have commenced with the accession to office of Hawkyns in 1578. The *Lion* was rebuilt in this manner in 1582 for £1440, the *Nonpareil* for £1600, the *Hope* 'brought into the fourme of a galease' £250,[596] and the *Cygnet*, and *Greyhound* built for £93, 18s 1d and £66, 13s 4d each.[597] The *Victory* was 'altered into the forme of a galleon' for £500, and the *Vanguard* and *Rainbow* built for £2600, apiece.[598] The *Merhonour*, *Garland*, and *Defiance*, cost £5, 2s, £5, 19s 5d, and £6, 7s 4d a ton,[599] and the price was based on the net tonnage. These rates do not however correspond with the amounts in the naval accounts which are £3600 for the *Merhonour*, £3200 for the *Garland*, and £3000 for the *Defiance*.

The earliest details we have of construction are in connection with these three vessels. A committee

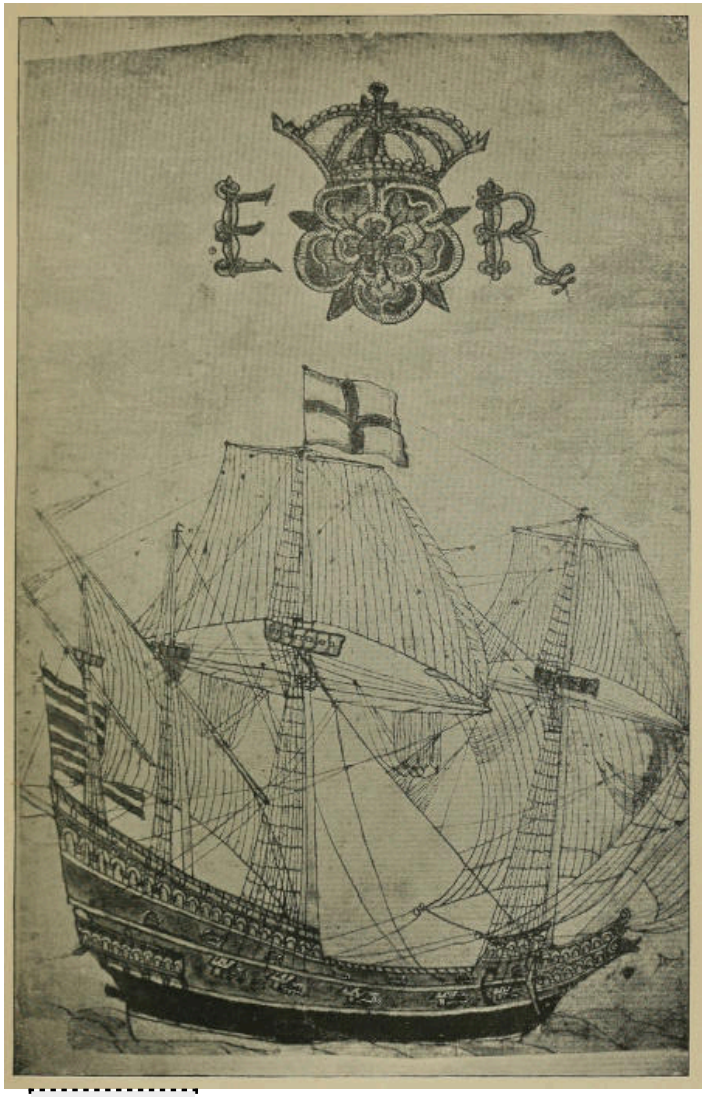
consisting of Howard, Drake, Hawkyns, Wynter, Borough, Ed. Fenton, Rich. Chapman, and Mathew and Christopher Baker, settled the plans.[600] The three were very similar, and it was decided that the one to be built by Peter Pett (the *Defiance*) should have a keel length of 92 feet, a beam of 32 feet, and be 15 feet deep 'under the beame of the maine overloppe.' Eight feet above the keel ten beams were to be placed on which 'to lay a false overloppe so far as neede shall require,' and under the ten beams ten riders were to be set; the riders at the footwales were to have two 'sleepers on every side fore and afte,' and pillars to be sufficiently bolted to them. The pillars supporting the lower deck had been newly adopted,[601] and as riders were put into the *White Bear* twenty years after she was built they also were possibly a recent improvement. The main, or lower deck, of the *Defiance* was to have twelve beams, with side knees and standards, every knee having four bolts and the deck itself was of three-inch plank. The upper deck was of two-and-a-half inch plank, but three inches in the waist; on this deck were the poop and forecastle. From the keel to the second wale four-inch plank was to be used, thence to the 'quickside or waist,' three-inch, and above that two-inch 'rabbated to the railles to be inbowed to goe to the shippes side,' On the orlop deck there were to be cabins for the boatswain, surgeon, gunner, and carpenter; the ship's company were berthed on the main deck.

The *Merhonour*, and *Garland*, differed only in details, therefore these vessels, one of which was the third largest in the Royal Navy, were not even two-deckers in the modern sense. Three-deckers were unknown in the English service and, beyond the existence of a print, diagrammatic in character, in

the British Museum, which is said, on insufficient authority, to represent the *Ark Royal*, there is no ground for supposing that two-deckers were in use. The *Warspite*, of 648 tons, had possibly only one ordnance deck but certainly not more than one-and-a-half; 'having an overloppe and deck before and after, and a half deck abaft the main mast.'[602] She was 'planked between the two lower walles and from the lower walle down to the keele with four-inch plank, and from the second walle upwards to the cheyne walle with three-inch plank, and from the cheyne walles to the railes upwards on the waste with two-inch plank.' The *Warspite* was one of the few shipbuilding failures of the reign. In 1598, although a nearly new ship, she cost £712 for repairs and further sums were spent on her in the succeeding years.

The illustration of an Elizabethan man-of-war, reproduced from a drawing in a Bodleian MS., shows some marked differences from the *Tiger* of Henry VIII. She is probably a vessel of the earlier portion of the reign; perhaps the *Bull* or *Tiger* of 1570. So far as the hull is concerned, there is distinct retrogression in that the keel is relatively shorter to the extreme length, and that the poop is built up to a disproportionate and unseaworthy extent. This last may be explained by the fact that the earlier *Tiger* was not expected to be called upon to serve outside the four seas, while the later ship had a wider cruising scope. The extended field of service called for larger crews, and as the orlop deck was not introduced till late in the reign, the increased accommodation necessary was obtained by the provision of more deck structures. In the matter of heavier masts and spars, possibly finer under water lines, larger sail area, and the multiplication of

appliances for more rapid handling, there was an undoubted advance on the earlier ship.



Decoration of Ships.

Philip's ambassador told him in 1569 that 'they expect to be able to repel any attack by means of their fleet,' and this confidence found natural expression in an inclination to decorate and adorn the weapons on which they relied. At any rate we now find specific payments for these purposes made with a frequency new in naval history. The 'carving of personages in timber,' and painting and colouring of ships in 1563 cost £121, 13s 8d and 'painting and colouring red the great new ship called the *White Bear*'[603] £20. Three 'great personages in wood for the garnishing and setting forth' of the same vessel were £1, 15s each. The upper works of the *Bonaventure* were painted black and white,[604] and the *Lion* in 'timber colour;' as the *White Bear* was red, and the *Revenge* and *Scout*, green and white there was evidently no regulation colour. The *Bonaventure* had a dragon on her beakhead, the royal arms on her stern, and two lions and two dragons in gilt and paint on her galleries. The *Foresight* carried the Queen's arms, a rose and a *fleur de lis*, on her stern, and in 1579 £2, 13s 4d was paid for carving a Saturn and a Salamander for the *Swallow*. Figure heads were usual. The *Nonpareil*, *Adventure*, *Dreadnought* and *Hope*, had a dragon; the *Charles*, *Defiance*, *Rainbow*, *Repulse* and *Garland* a lion; the *Mary Rose*, a unicorn, and the *Swiftsure* a tiger. When the *White Bear* was rebuilt the carvings included,

> 'an image of Jupiter sitting uppon an eagle with the cloudes, before the heade of the shippe xi^{li}; twoe sidebordes for the heade with compartments and badges and fruitages x^{li}; the traynebord[605] with compartments and badges of both sides vii^{li}; xvi brackets going round about the heade at xii^{s} the pece; xxxviii peces of

> spoyle or artillarie round about the shippe at xiv^{s} the pece; the greate pece of Neptune and the Nymphes about him for the uprighte of the Sterne vi^{li} x^{s}.'[606]

The whole cost of carving was here £172, and of painting and gilding £205, 10s, but these appear to have been exceptional amounts. Painting the *Bonaventure* cost £23, 6s 8d, the *Dreadnought* £20, the *Vanguard* £30, and the *Merhonour* £40, and these sums more nearly represented the ordinary expenditure. On the *Elizabeth* however £180 was spent in 1598 for

> 'newe payntinge and guildinge with fine gold her beake heade on both sides with Her Maiesties whole armes and supporters, for payntinge the forecastle, the cubbridge heades[607] on the wast, the outsides from stemme to sterne, for like payntinge and newe guildinge of both the galleries with Her Maiesties armes and supporters on both sides, the sterne newe paynted with divers devices and beastes guilte with fine gold; for newe payntinge the captens cabbon, the somer decke[608] as well overhead as on the sides, the barbycan, the dyninge roome and the studdie.'[609]

The *Rainbow's* lion figure head was gilt and on her sides were 'planets, rainbows, and clouds' with the royal arms on the upper, middle, and lower counter, but the whole charge was only £58, 6s. Cabins were painted and upholstered in the favourite Tudor colour of green and 'Her Maiesties badge' was

painted in green and red. The *White Bear* and the *Elizabeth* are the only two instances in which comparatively large sums are found to be spent in ornament, and it does not appear that there was as yet more than a bent towards general embellishment. The smaller vessels are never mentioned in this connexion. The opinion of a contemporary was that, both for work and appearance,

> ‘our navy is such as wanteth neither goodly, great, nor beautiful ships who of mould are so clean made beneath, of proportion so fine above, of sail so swift, the ports, fights, coines, in them so well devised, with the ordnance so well placed, that none of any other region may seem comparable unto them.’[610]

Tonnage Measurement.

The new method of building by contract, and the large number of merchantmen upon which the bounty was now paid, necessitated a more exact measurement of tonnage than had hitherto obtained. In 1582 a rule was devised which remained in use for nearly half a century and was said to have been due to Mathew Baker, son of the James Baker shipwright to Henry VIII, and himself one of the principal government shipwrights. The writer says: [611]

> ‘By the proportion of breadth, depth, and length of any ship to judge what burden she may be of in merchant’s goods and how much of dead weight of ton and tonnage. The

Ascension of London being in breadth 24 feet, depth 12 feet from that breadth to the hold, and by the keel 54 feet in length doth carry in burden of merchant's goods (in pipes of oil or Bordeaux wine) 160 tons, but to accompt her in dead weight, or her ton and tonnage may be added one third part of the same burden which maketh her tonnage 213⅓. After the same rate these proportions follow:

	Breadth at midship beam	Depth from her breadth	Keel	Burden in cask of oil or wine	Dead weight tonnage
A Ship of	20 ft.	10 ft.	42 ft.	86½	115
A Ship of	21 ”	10½ ”	45 ”	102⁷⁄₁₀	136⅛
Prudence of London	24 ”	12 ”	51½ ”	150½	202⅔
Golden Lion	32 ”	12 or 14 ”	102 ”	403 or 463	537 or 614⅔
Elizabeth Jonas[612]	40 ”	18 ”	100 ”	740	986⅔

To find the burden of any ship proportionately to the *Ascension* before specified multiply the breadth of her by her depth, and the product by her length at the keel, the amounting sum you shall use as your divisor. If 15,552, the solid cubical number for the *Ascension* do give 160 tons, her just burthen, what shall 8400, the solid number of a ship 20 feet broad, 10 feet deep, and 42 feet keel. Work and you shall find $86^{34}/_{81}$ tons of burden while if you add one-third you shall

find your tonnage 114 almost.'

This formula made theory square with fact since the result corresponded with the tuns of Bordeaux wine experience had shown a ship to be able to carry. But strictly, 'burden' and 'ton and tonnage,' as used here do not correspond with our net and gross tonnage, since burden is used in connexion with lighter material occupying more space than a heavy cargo, such as coal, that would be represented by ton and tonnage. The Spanish system of measurement in 1590 was to multiply half the breadth by depth of hold and the result by the length over all.[613] From this 5% was deducted for the entry and run, and the remainder divided by eight, gave the net tonnage; 20% was added to obtain the gross tonnage.[614]

The Seamen.

As early as 1561 the Venetian Resident considered England superior to its neighbours in naval strength,[615] but he may not have included Spain among the neighbours. The Spaniards officially in England kept Philip fully acquainted with the character and equipment of the fleet. He was always apprised of any preparations, and in such detail that we find him told on one occasion that twelve or fourteen ships were of from 400 to 700 tons 'with little top-hamper and very light, which is a great advantage for close quarters, and with much artillery, the heavy pieces being close to the water.'[616] Eight years earlier his ambassador, De Silva, recommended him to have ships built in England instead of continuing the chartering system in vogue in Spain as 'certainly the ships built here are very sound and good.'[617] These intimations probably did not stand alone, but neither

then nor later did they lead to any change in the type affected in the Peninsula. English seamen did not favourably impress the Spaniards. One of Philip's correspondents, in writing to him that four men-of-war had been prepared for sea, added, 'the men in them are poor creatures.'[618] Six months later he was informed that although Elizabeth possessed twenty-two large ships she had only been able to fit eleven for sea, and would find it impossible to equip more, and that 'the men on the fleet although they appear bellicose are really pampered and effeminate different from what they used to be.'[619] The estimate appears the more extraordinary because English seamen were at this time giving daily proof, at the expense of Spanish and other commerce, of the wild energy animating them. As late as 1586, Mendoza wrote that four ships were in commission and others in preparation, but of these latter, only four were seaworthy, 'all the rest being old and rotten.'[620] If Philip was continuously misinformed as to the number of ships available, the difficulties in furnishing them, and the fighting value of the men, it may help to explain the confidence he showed later.

As a matter of fact, there are very few complaints throughout the reign about embarrassments due to want of crews. The semi-piratical expeditions preferred by the government were better liked than would have been a more regular warfare that would have meant harder fighting and fewer chances of plunder. Hatred of Spain and Popery, conjoined with the hoped for pillage of Spanish galleons, formed an inducement that never failed to bring a sufficient number of men together, notwithstanding that, as privateering speculations, most of the voyages were, pecuniarily, failures, although they served their purpose in destroying Spanish commerce and credit.

The proportion of men on board a man-of-war was three to every five tons, of gross tonnage; one-third being soldiers, one-seventh of the remainder, gunners; and the rest seamen. In merchantmen the ratio was one man to every five tons of net tonnage, one-twelfth being gunners and the rest seamen.[621] But in practice the strength of a crew depended on the number of men required and the success of the impress authorities.

The Seamen:—Pay and Rewards.

Until 1585 the wages remained at 6s 8d a month, to which it had been raised in 1546 or very shortly afterwards. In 1585, the sailor's pay was raised to ten shillings a month, through the action of Hawkyns. There must have been some dissatisfaction with the quality of the men hitherto serving, and the breach with Spain doubtless made an improvement necessary. Hawkyns coated the pill for Elizabeth by assuring her that fewer men would be required, of the standard to be attracted by the higher rate, and, 'by this meane her Maiesties shippes wolde be ffurnyshed with able men suche as can make shyfte for themselves, kepe themselves clene withoute vermyne and noysomeness which bredeth sycknes and mortalletye.'[622] Moreover, ships could then carry more stores and continue longer at sea. Hawkyns was one of the few commanders of his age who recognised a claim to consideration in his inferiors, and made some attempt to secure their health and comfort. In 1589 he took care to have his stores 'of an extraordinary price and goodnes to keep men in health'; in 1595 he took out clothes for his

men and a new kind of 'lading victuells, a kind of victuells for sea service devised by Mr Hughe Platte.'[623] Hammocks were introduced in 1597, when a warrant authorises payment for 300 bolts of canvas 'to make hanging cabones or beddes ... for the better preservation of their health.'[624] In 1590, a suggestion, which did not, however, take practical shape till long afterwards, was made for the benefit of the merchant sailor. John Allington, a draper of London, proposed the creation of a special office for the registration of contracts between merchants, owners, and masters of ships. This would have led to something equivalent to the present 'signing on' enforced by the Board of Trade, and would have regulated the position of the seamen and simplified the enforcements of his rights, too often sacrificed to an unscrupulous use of legal forms.[625] Allington, like most of the projectors and schemers of his day, was no philanthropist. He offered to pay £40 a year for permission to establish such an office, and apparently expected to obtain five shillings apiece from 500 or 600 ships a year.

No especial provision was made on board men-of-war for the sick or wounded sailor; if the ship went into action he was placed in the cable tier or laid upon the ballast as being the safest places. If he survived the medical science of his time, and was landed disabled, he was supposed to be passed to his own parish. Sometimes he was permitted to beg. A printed licence from Howard, as Lord Admiral, under date 1590, still exists empowering William Browne, maimed in 1588, to beg for a year in all churches.[626] By 35 c. 4 and 39 c. 21 of Elizabeth relief was afforded to hurt men; these were both repealed by 43 c. 3 which enacted that parishes were to be charged with a weekly sum of not less than twopence or more

than tenpence to provide help, the pension however in no case to exceed ten pounds for a sailor or twenty pounds for an officer. Gratuities were sometimes given. In 1593 Hawkyns was ordered to pay two shillings a week, for twenty weeks, to 29 injured men, and William Storey, having lost a leg, received £1, 13s 4d, apparently in settlement of all claims. [627]

Such gifts, in view of the number we can still trace, were probably more frequent than would be expected from the character of Elizabeth. In 1587 a month's extra pay was awarded to the crews of three pinnaces for their good service in capturing Spanish prizes. For 1588 £5, was divided among 100 men who manned the fireships sent into Calais Roads, £80, among the wounded of the fleet generally, and £7 to sick men in the *Elizabeth*.[628] In 1591 six months' pay was given to the widows of the men killed in the *Revenge*, and in 1594 there is a gift of £61, 19s 6d to Helen Armourer, widow of John Armourer of Newcastle, 'in consideration of his good and faithful services,' although the name is quite strange in naval affairs.[629] Merchant seamen were also remembered in these benefactions. On one occasion forty marks were paid to five men 'having been lately lamentably afflicted in Naples by pryson and other punyshments by thinquisition of Spayne as we are informed and by secret escape savid their lyves.'[630] On another 'in consideration of the valiantnes done in Turkey by our welbeloved subiecte John Ffoxe of Woodbridge in our county of Suffolk, gunner by whose meanes 266 Christians were released out of miserable captivity,' an assuredly nobly earned pension of one shilling a day was conferred upon him.[631] When it cost the Queen nothing directly she was sometimes still more liberal.

To Robert Miller, a master mariner, £200, was allowed out of forfeited goods in consideration of his services and losses at sea; George Harrison received £800, in the same way and for the same reasons. Sometimes seamen's wives, whose husbands were prisoners in Spain, petitioned the Council for help. In one instance the merchants owning the ships were ordered to assist the women; in another their landlords were directed not to press them for rent.

We can know little of the internal economy of a merchantman in those days. The vessels were relatively as crowded, and probably as unhealthy, as men-of-war; the victualling was of the same, and at times even worse quality, seeing that the owners of merchant vessels were expected to buy government provisions if the victualling department found itself overstocked. In 1596 there is a letter directing the Lord Mayor to forbid the city butchers to sell meat to ships until the government stores of salt beef were sold out. This is followed by an order from the Council to the Serjeant of the Admiralty not to allow any outward bound trader to pass down the river unless a certificate of such purchase was produced. [632]

Mortality on Shipboard.

We have no means of estimating the mortality from disease on board merchant ships, but we know that in men-of-war it was very great. 'In the late Queen's time many thousands did miscarry by the corruption as well of drink as of meat,' says a seventeenth century writer;[633] and Sir Richard Hawkyns thought that, in twenty years, 10,000 men died from scorbutic affections. The length of the

voyages now undertaken rendered larger crews necessary; the accommodation was narrow and ill-ventilated, the requirements of sanitation unknown, and the food was usually scanty and bad, so that the sailor was placed under conditions that made him fall an easy victim to disease. In Drake's voyage of 1585-6 out of 2300 men nearly 600 died from disease. In the expedition of 1589, out of 12,000 men employed, nearly one-half perished, mainly from sickness and want of food, and every enterprise, small or great, suffered more or less largely in the same way. Usually the hope of plunder sustained the men through all such trials, and there is only one serious case of the mutiny of a crew because of 'the weakness and feebleness they were fallen into through the spare and bad diet.' But in this instance sympathy with their captain may have had much to do with their action.[634]

The pages of Hakluyt relate much of the suffering endured by our seamen abroad from disease and privation, but there is one historic illustration at home of the miseries borne by the men and the callousness or scanty resources of the authorities. On 10th August 1588 Howard wrote to Burghley:

> 'Sicknes and mortallitie begin wonderfullie to growe amongste us ... the *Elizabeth*, which hath don as well as eaver anie ship did in anie service, hath had a great infectione in her from the beginning soe as of the 500 men which she carried out, by the time she had bin in Plymouth three weeks or a month there were ded of them 200 and above, soe as I was driven to set all the rest of her men ashore, to take out the ballast and to make fires in her of wet broom 3 or 4 daies together, and so hoped

> therebie to have cleansed her of her infectione, and thereuppon got newe men, verie tall and hable as eaver I saw and put them into her; nowe the infectione is broken out in greater extremitie than eaver it did before, and they die and sicken faster than ever they did, soe as I am driven of force to send her to Chatham ... Sir Roger Townsend of all the men he brought out with him hath but one left alive ... it is like enough that the like infectione will growe throughout the most part of the fleet, for they have bin soe long at sea and have so little shift of apparell ... and no money wherewith to buy it.'

On the 22nd August he writes to the Queen that the infection is bad, that men sicken one day and die the next but, in courtly phrase, that 'I doubt not that with good care and God's goodnes which doth ever bles your Maiestie it wyll quenche againe.' But on the same day he tells the Council more plainly, 'the most part of the fleet is grievouslie infected and die dailie ... and the ships themselves be so infectious and so corrupted as it is thought to be a verie plague ... manie of the ships have hardly men enough to waie their anchors.'[635] And as illustrating the infection and its probable cause comes a complaint from him to Walsingham that, although the beer in the fleet has been condemned as unfit for use, it is still served out to the men, and 'nothing doth displease the seamen more than sour beer.'

This sickness is usually said to have been the plague or typhus. But Howard and his captains, who had lived to middle age in a country where the plague was endemic and who must have known its symptoms well, obviously thought 'the infectione'

something different. In the passage quoted above he compares it to the plague and in another letter he writes, 'The mariners who have a conceit (and I think it true and so do all the captains here) that sour drink hath been a great cause of this infection amongst us.'[636] The plague was familiar to them all but this was something they could not easily name. The same arguments apply, although perhaps not so closely, against typhus which in its general form and symptoms was familiar under various names to sixteenth century observers. But 1588 was not a particularly unhealthy year on land and there is no record of any sudden outbreak of epidemic disease either before or after that occurring on the fleet. Moreover though typhus occasionally kills within a few hours it has never been known to kill numbers in the rapid fashion suggested by Howard. It is probable that the complaint was an acute enteritis, caused by the beer, acting on frames enfeebled by bad and insufficient food, and still further weakened by the scorbutic taint to which all classes, but especially seamen, were subject in the middle ages.

On the whole the position of the sailor was now steadily deteriorating. In the fourteenth and fifteenth centuries his pay had been relatively very high, and as he was only called upon to serve round the coasts, or, at furthest, to Bordeaux or the Baltic, his health was not affected by conditions to which he was only exposed for a short time. But towards the end of the sixteenth century the wages, in consequence of the general rise in prices, were relatively less than they had been, and less than those of the artisan classes on shore. In an epoch when the increase in the number of distant voyages set his services in commercial demand he was required to serve in the royal fleets for longer periods than had been before

known. He was exposed to a merciless system of impressment, cheap for the State because he had to indirectly bear the cost. And the length of the cruises, their extension into tropical climates, and the character of the provisions, unsuited to the new conditions, made themselves felt in outbreaks of disease to which his ancestors, assembled chiefly for Channel work, had been strangers. Morally the general tone among the men cannot have been high if we may judge them from a phrase used by the officials sent down to examine into the plunder of the *Madre de Dios* in 1592, 'we hold it loste labor and offence to God to minister oathes unto the generallitie of them.'[637]

Seamen's Clothing.

It will have been noticed that in his letter of 10th August Howard says that the men have no money wherewith to buy clothes; in another he suggests that a thousand marks' worth of apparel should be sent down. But the custom of providing crews with coats or jackets at the expense of the crown had quite ceased, and even if necessaries were supplied to the men they had to pay for them. The supply was usually a private speculation on the part of some Admiralty official. In 1586 Roger Langford, afterwards paymaster of the Navy furnished men with canvas caps, shirts, shoes, etc., a piece of business by which he lost £140. In 1580 the government sent over clothes for the men on the Irish station, the cost of which was to be deducted from their wages. The articles included, 'canvas for breches and dublettes'—'coutten for lyninges, and petticoates,' stockings, caps, shoes, and shirts.[638] Hawkyns with the forethought always characterising

his action as an admiral, took out with him in 1595 ‘calico for 200 suits of apparel,’ 400 shirts, woollen and worsted hose, linen breeches and Monmouth caps.[639] There is a sketch in a contemporary treatise on navigation of a seaman, apparently an officer. He wears a Monmouth, or small Tam o’ Shanter, cap, a small ruff round the neck, a close-fitting vest, and long bell-mouthed trousers.[640] In 1602 there is a payment in the Navy accounts of £54, 19s 8d for clothing for Spanish prisoners. Canvas shirts, cotton waistcoats, caps, hose, and ‘rugge’ for gowns were provided and the articles were doubtless of the same kind and quality as those worn by the men.

Royal Ships Lent.

During the earlier years of her reign the Queen, like her predecessors, frequently allowed her ships to be hired for trading voyages. In 1561 the *Minion*, *Primrose*, *Brigandine* and *Fleur de Lys*, were delivered to Sir William Chester and others for a voyage to Africa. In this case Elizabeth shared the risk. For her ships, and for provisions to the value of £500, she was to receive one-third of the profits. The hirers undertook to ship at least £5000 of goods, pay wages and all other expenses, and each enter into a bond of 1000 marks to carry out the conditions.[641] In 1563 the *Jesus of Lubeck* was lent to Dudley and others, to trade to Guinea and the West Indies, for which they paid £500.[642] She was then, after having been in the Royal Navy nearly twenty years, valued at £2000 for which amounts the hirers had to give their bonds. She returned in 1565, was at Padstow in October, and ‘cannot be brought to Gillingham till spring of next year.’ The adventurers could not have procured

a 600 ton vessel, for two years, for £500 from any owner but the State. And as she had to remain at Padstow during the whole winter it may be inferred that she returned in a very unseaworthy condition, for Elizabethan seamanship was certainly equal to taking a ship up Channel during the winter months. She was hired by Hawkyns in 1568 and was then the first of the only two men-of-war lost to Spain during the entire reign. When a convoy was furnished a full charge was levied for the protection; £558 was received in 1569 from the Merchant Adventurers' Company for men-of-war serving on this duty, and again £586 in 1570.[643] As private owners built more and bigger ships the demand for men-of-war for trading voyages grew less, but the Queen often lent them for privateering ventures in which she was pecuniarily interested, assessing their estimated value as a portion of the money advanced by her and on which she would receive a dividend. Under these circumstances her representatives did not err on the side of moderation when valuing the ships thus temporarily lent. When Drake took the *Bonaventure* and the *Aid* in 1585 they were appraised at £10,000, an obviously extravagant estimate. Nominally Elizabeth advanced £20,000, of which these two ships stood for half; she got her ships back, £2000 for the use of them, and the same dividend on £20,000 as the other persons who had taken shares. Those others lost five shillings in the pound; she must have made a profit.

The Victualling Department.

In consequence of the greater activity of the Royal Navy the victualling department experienced a

corresponding enlargement. In 1560 the buildings at Tower Hill, formerly the Abbey of Grace, and granted in 1542 to Sir Arthur Darcy, were purchased from him for £1200, and £700 expended in repairing them.[644] Other storehouses were hired at Ratcliff and St Katherines, the latter from Anthony Anthony, Surveyor of the Ordnance, who seems to have taken great interest in naval matters, and to whom we are indebted for the coloured drawings of ships previously referred to. For his storehouse he was paid £16 a year; another at Rochester cost £5, 6s 8d a year. By a patent of 24th December 1560, William Holstock was joined with Baeshe as Surveyor of the Victuals; this was surrendered and replaced by another of 30th October, 1563 in which John Elliott took Holstock's place. Neither Holstock nor Elliott had any actual position, the new patents only giving them the chance of succeeding Baeshe. An agreement with him of 13th April 1565, but which did not cancel the title and fees granted to him by his Letters Patent, instituted a considerable reform inasmuch as it did away with purveyance, or forced purchase, at rates fixed by the officers of the crown. Henceforth Baeshe was to be paid fourpence halfpenny a day for each man in harbour and fivepence a day at sea. For this he was to provide, per head, on Sundays, Mondays, Tuesdays and Thursdays, 1 lb of biscuit and 1 gallon of beer, and 2 lbs of salt beef, and on the other three days, besides the biscuit and beer, a quarter of a stockfish,[645] one-eighth of a pound of butter, and one quarter of a pound of cheese. Fourpence a man per month at sea, and eightpence in harbour he was to allow for purser's necessaries, such as wood, candles, etc., and he was to pay the rent of all hired storehouses and the wages of his clerks. He undertook not to use the right of

purveyance unless ordered to victual more than 2000 men suddenly, and agreed to always keep in hand one months provisions for 1000 men. The agreement could be terminated by six months' notice on either side, and until it ceased the crown advanced him £500 without interest to be repaid within six months of the cessation of his contract. He was given the use of all the crown buildings belonging to his department, subject to his keeping them in repair, and was permitted to export 1000 hides in peace time and as many as he should slaughter oxen during war.[646] The weight of purveyance was felt chiefly in the home counties, and Elizabeth may have felt it good policy to do away with a ceaseless source of popular irritation which was really of very little advantage to the crown. From this date payments were made to Baeshe direct from the Exchequer and no longer through the Navy Treasurer. Isolated payments relating to storehouses, of no general interest, recur in the accounts, but the growing importance of Chatham is shown by the removal, in 1570, of buildings at Dover, and their re-erection at Rochester, at a cost of £300.

In 1569 an additional £1000 was advanced to Baeshe without interest, and in 1573, the harbour rate was raised to fivepence halfpenny per man, and the sea rate to sixpence. All this assistance, for probably further sums were lent to him without interest, does not seem to have enabled him to carry on his work without loss. In 1576 he petitioned the Queen to be forgiven the first £500 advanced to him and to be permitted to pay off the balance at £1000 a year. He based his claim to consideration on the fact that he had saved her 1000 marks a year by his contract and had acted without recourse to purveyance, 'no small benefit to the hole realme.' He

had lost £500 a year, for four years, by the embargo on trade with the Low Countries, which prevented his exportation of hides, and £ 240 by the fire at Portsmouth. And:—

> 'finally what my service hath bin from tyme to tyme as well to her most noble ffather, brother, and sister, as to her Maiestie I do referre the same to the report of my Lord Tresorer and my Lord Admirall and yet hitherto I never receyved from her Maiestie any reward for service but only her Maiesties gracious good countenance to my comfort.'[647]

The petition does not appear to have obtained anything beyond a continuance of these unsubstantial favours, but Baeshe struggled on till 6th May 1586 when he gave six months' notice to determine his contract. He then anticipated a loss of £534 on victualling eight or ten ships, 'which I am not able to beare.'[648] He must have been a very old man and anxiety perhaps hastened his death, which occurred in April 1587. In the interval, however, the rate had been raised, from 1st November 1586 to 31st March 1587 to sixpence a day per man in harbour, and sixpence halfpenny at sea, and from 1st April 1587 to 31st October to sixpence halfpenny in harbour and sevenpence at sea, 'on account of the great dearth.' The Armada was already expected, but on 30th June 1587, when the stores were handed over to Baeshe's successor there were only 6020 pieces[649] of beef, and 2300 stockfish in hand.

By Letters Patent of 27th November 1582 James Quarles 'one of the officers of our household'[650] had been granted survivorship to Baeshe, and he

now took his place from 1st July 1587, at the same fees and allowances as had been originally given by the patent of 18th June 1550. The rate was maintained at sixpence halfpenny and sevenpence 'untill it shall please Almightie God to send such plentie as the heigh prises and rates of victuall shalbe diminished'. The quantity and quality of the food provided for the men in 1588 has long been a source of disgrace to Elizabeth and her ministers. An apology for them has been attempted on the ground that the mechanism at work was new and not capable of dealing with large numbers of men, and that the failure was mainly due to the suddenness of the demand. So far as the first statement is concerned it is sufficient to answer that the victualling branch had been organised for nearly forty years, and found no difficulty in arranging for 13,000 men in 1596, and 9200 men in 1597 after timely notice. The last reason may excuse the victualling department but will not relieve the statesman in responsible direction. The government had had long notice of the coming of the Armada, but even as late as March Burghley was occupied with niggling attempts at making 26 days' victuals last for 28 days.[651] In 1565 Baeshe had undertaken to keep always one month's victuals for 1000 men in store, but in June 1587 there was not even so much. The point therefore is that if the ministry had thus early recognised the necessity for a reserve, and that two or three months were requisite for the collection and preparation of provisions for a large force, and if with the knowledge that such provisions were certain to be required, and in spite of the warnings of those best able to judge, they neglected the preparations and continued a supply which was merely from hand to mouth, they must be held guilty of the sufferings

inflicted on the men by their miserable policy. When the moment of trial came Quarles and his superiors did their best, but the accusation against the latter is that had they exercised the foresight supposed to be one of the qualifications for their dignified posts no such sudden and almost ineffective efforts would have been necessary. The spirit in which they or the Queen dealt with the matter is shown by the necessity Howard was under of paying out of his own pocket for the extra comforts obtained for the dying seamen at Plymouth.[652]

How far Elizabeth was herself answerable is a moot point. There is no direct evidence that the delay in obtaining provisions was due to her orders. On the other hand we know that the postponements in equipping the ships, and the hesitating action and inconsistent directions and suggestions that characterised the early months of 1588, were due to her, and there is a strong probability that much of the shame should rest with her rather than with ministers who perhaps had to carry out commands to which they had objected in Council. Moreover very few things, especially those involving expense, were done without the knowledge and approval of Elizabeth. It was a personal government and there is no reason to suppose that this particular branch was beyond her cognisance. With the fatality that has usually dogged English militant endeavour the fleet did not even obtain the benefit, at the right time, of the stores provided. Frequently victuallers were blundering about for weeks looking for it, while the admirals were sending up despairing entreaties for supplies. In April, Drake wrote to the Queen ‘I have not in my lifetime known better men and possessed with gallanter minds than your Majesty’s people are for the most part.’ Whether the cause was

incompetence or a criminal parsimony their fate, after having saved their country, was to perish in misery, unheeded and unhelped except by the officers who had fought with them. In the conceit of Elizabeth and her like they were only ‘the common sort.’

During the forty years that Baeshe had served the crown he had never been charged with dishonesty and he died poor. Quarles however had at once serious malpractices imputed to him as having occurred within his first year of office.[653] His accuser, a subordinate, as usual offered to do his work for 1000 marks a year less, and on examination of the charges it seems likely that some were untrue and that other defaults occurred in consequence of the orders given to him.

From 1589 the rate again fell to fivepence-halfpenny and sixpence, in harbour and at sea; but for 1590 and 1591 Quarles was allowed £2355, on account of the dearth still existing. He had petitioned that he had suffered a loss of £3172, between April 1590 and April 1591, being the difference between the rates paid to him and the cost per head of the victuals.[654] He died in 1595 and was succeeded by Marmaduke Darell, his coadjutor, ‘clerk of our averie.’[655] Till 1600 the rate remained the same although heavy extra allowances were made each year to Darell; then it was raised to sixpence halfpenny and sevenpence. In this year £738 was spent on repairs to Tower Hill where there were separate houses for beef, bacon, ling, etc., ‘the great mansion being the officers lodgings.’ The storehouses and brewhouses at Portsmouth, built by Henry VIII, still existed under the names originally given them and were repaired at a cost of £234.

One ton and a half of gross tonnage, or one of stowage, was allowed on board ship, for one month's provisions for four men, of which the beer occupied half, wood and water a quarter, and solid food the remainder of a ton.[656] There is no reason to suppose that either Baeshe, Quarles, or Darell were either dishonest or incompetent. The terrible outbreaks of disease that occurred during nearly every long voyage were not confined to the English service and were the natural result of salt meat and fish, and beer that could not be prevented from turning sour. They could only do their best with the materials at command but which were not suitable to the larger field in which the services of English sailors were now required.

The Administration.

Benjamin Gonson was Treasurer of the Navy when Elizabeth came to the throne and held the post until his death in 1577. The number of vessels added to the Navy during his term of office shows that he was not inactive, and he was certainly a competent public servant. John Hawkyns[657] was his son-in-law, and the relationship doubtless inspired Hawkyns with the hope of succeeding him, and perhaps enabled him to infuse some of his own spirit into the management of the Navy, while Gonson was still its official head. But mere relationship, although it had its influence would not alone have sufficed, had not Hawkyns already made his name as a seaman and as an able commander. In 1567 he received a grant of the reversion to the office of Clerk of the Ships, a post he could only have looked upon as a stepping-stone, and which he never took up. In 1577, when Gonson was ill, Hawkyns petitioned the Queen, probably,

although it is not specifically mentioned, for the reversion to his post, and drew up a long catalogue of unrecompensed services.[658] Gonson died in the course of a year, a landed proprietor in Essex, and a successful man, but he had told his son-in-law, when the latter was trying to obtain the reversion, that, 'I shall pluck a thorn out of my foot and put it into yours.' Hawkyns lived to realise the truth of the kindly warning. He commenced his duties from 1st January 1577-8, acting under Letters Patent of 18th November 1577, by which he was granted the survivorship to Gonson. For seventeen years, during the most critical period of English history, he was, in real fact, solely responsible for the efficiency of the Navy, and he, more than any other man may be said to have 'organised victory' for the English fleets. His duties included not only the superintendence of the work at the dockyards, but that of building, equipping, and repairing the ships, of keeping them safely moored and in good order, of the supply of good and sufficient stores, and apparently of every administrative detail except those connected with the ordnance, and of victualling and pressing the men. The technical improvements he himself invented or introduced have already been noticed. In the administration he made others, which may or may not have been advantageous, but which touched the interests of subordinates, and which resulted in his having to stand alone and carry on his work impeded by the sullen enmity of his colleagues and his inferiors.

Hawkyns owed his knighthood to Howard rather than the Queen; his reward after 1588 was to be allowed a year wherein to unravel his intricate accounts. In fact few of Elizabeth's officials escaped her left-handed graces. Baeshe died in poverty after

forty years of honest service, and Hawkyns was continually struggling to clear himself from suspicions that were kept hanging over him, but from which he was given no proper opportunity to free himself. Elizabeth's favours and bounties were reserved for court gallants of smoother fibre than were these men. In 1594, shortly before his last unhappy voyage, Hawkyns founded a hospital at Chatham for ten poor mariners and shipwrights. He, with Drake, established the 'Chatham Chest,' for disabled seamen, and it should be remembered to his honour that, in an age when little care was bestowed on inferiors if they had ceased to be of any utility, he never relaxed his efforts until his craft had rescued from Spanish prisons the survivors of those under his command in 1568 whom he had been compelled to leave ashore after escaping from San Juan de Ulloa.

Charges of peculation against persons connected with maritime affairs were rife on all sides. The shipwrights quarrelled among themselves and with Hawkyns, and two of the former, Chapman and Pett, were moreover accused by outsiders of gross overcharges.[659] Captains were said to dismiss pressed men for bribes, to retain wages, and keep back arms;[660] pursers to steal provisions, to make false entries by which they obtained payments for money never advanced to the men, and to remain ashore while their ships were at sea.[661] Pursers, cooks, and boatswains, bought their places: the cooks had the victuals in their care and recouped themselves at the expense of the seamen; boatswains stripped a ship of movable fittings, on her return home, and stole rigging and cordage.[662] According to the evidence of a witness, in the inquiry of 1608, these abuses, if they did not commence, took fresh and vigorous life after the death of Hawkyns. In

1587 he recognised the theft going on and his inability to completely suppress it; 'I thincke it wolde be mete their weare a provost marshyall attendante upon ye Lord Admirall and Offycers of the Navye to doe suche present execucyon aboorde the shippes uppon the offenders as shulde be apoynted.'[663] Accusations were not wanting during Gonson's lifetime but the increased activity of the Navy after his death gave a wider scope both to suspicion and to actual peculation. Hawkyns was not the only one of the Principal Officers whose conduct was impeached, but in virtue of his position the brunt of attack fell upon him. There was hardly one of his duties which at some time or another did not give occasion for a charge of dishonesty.[664]

Hawkyns, if we may judge by the letters remaining in the Record Office, was more frequently in communication with Burghley, explaining his intentions and desires, than with his official chief the Lord Admiral. Either therefore Burghley was satisfied with his conduct—and there is one letter that directly supports this view—or the Lord Treasurer allowed a man whose honesty he doubted to remain in a responsible office without removing him, or adopting any new measure of supervision. The quality of the cordage had been a common cause of complaint and, in 1579, Hawkyns wrote that he had taken measures, of which he doubted not the success, to remedy this and other evils, and that he had a memorandum ready proposing a course to be followed, 'wherebye the offyce wolld not onelye flourysshe but within a few yers be bountyfullye provyded of all maner of provycion without extra charge to her Maiestie.'[665] Subsequent events show that the suggestions he was here about to make were accepted and, as a consequence of his new methods,

the clamour raised against him grew so loud that in January 1583-4 a commission sat to inquire into the condition of the ships and the conduct of the office. Nothing is known of their report but it was evidently not of a character fatal to his reputation. In another letter to Burghley shortly afterwards he attributes his success in carrying out reforms to the aid he had received from the minister's skill,

> ‘in the passinge of theis greate thinges thadversaries of the worke have contynewallye opposyd themselves against me ... and their slawnders hathe gone verye farr ... onlye to be avenged of me and this servis which doth discover the corruption and ignoraunce of the tyme past.’[666]

By 1587 he had begun to share Gonson’s weary disgust of his surroundings, and intimated that the work was too much for any one man and should be done by a commission. Howard’s high opinion of him was expressed freely in his letters during 1588, and shown practically by the knighthood he conferred. Notwithstanding his services, so fully tested in that year, he does not appear to have won the shy confidence of Elizabeth, but that he had succeeded in convincing Burghley is I think clearly proved by the following letter:—[667]

> ‘My bownden dewtie in humble manner rememberyd unto your good lordshipe; I do perseve hir Maiestie ys not well sattysfied concernyng the imploymentes of the great somes of mony that have byne reseaved into thoffice of the navye although your Honour dyd very honourably bothe take payne and care to se the strycte and orderly course that ys used in thoffice and thereupon delyver your mynd playnely to her Maiestie as your lordship found yt for which I shall ever acknowlege myself dewtyfully bownd to honour and serve your lordshipp to the uttermost of my abillytie: and whereas her Highnes pleasure ys to be farther

sattysfied in myne accomptes ther hathe nothyng byne more desyred nor cold be more wellcome or acceptible to me and when yt shalbe hir Maiesties pleasure to nomynate the persons that I shall attend upon I wyll brieffly shew the state of every yeres accompt suffycyently avouched by boockes to the last day of Desember 1588 which is XI yeres.... If any worlldly thynge that I possesse cold free me of this mystrust and importyble care and toyle I wold most wyllyngley depart with yt for as the case stondeth I thynke ther ys no man lyvinge that hathe so carefull so myserable so unfortunate and so dangerous a lyfe; onlye I se your lordship with care and trewthe dothe serche into the trew order the sufficiency and valyditye of the course that ys caryed in the office whiche otherwyse I wold even playnely gyve over my place and submyt myselfe to her Maiesties mercye thogh I lyvid in pryson all the dayes of my lyffe; the matters in thoffice growe infenyte and chargeable beyond all measure and soche as hardly any man can gyve a reason of the innumerable busynesses that dayly grow; yet the mystrust ys more trobelsome and grievous then all the rest for with the answerynge of thone and towle of thother there ys hardly any tyme left to serve God or to sattysfie man. The greater sort that serve in this office be growen so proud obstinate and insolent nothynge can sattysfie them[668] and the commen sort very dysobedyent so as a man that must answere the immoderate desyre of all these were better to chuse to dye than so lyve. The paynfull place that your lordship dothe holde and the imoderate demaunds that comes

> before you havyng with the favour of her Maiestie the hellp of an absolute power to bynd and lose may eselye demonstrate the borden that so meane a man as I am dothe here (which must passe every thynge by petycon and mystrust), to sattysfie the multytude of demaundes that are in this office and although they be many and as well satysfied as in any office in all Ingland yet few are contentyd but go away with grudging and mormoure. It were a great vanytie for me to comend myne owne service neyther do I go abowt to acumyllatte to myself any comendacon for that I thought I performyd my dewtie suffycyentlie but yf the estate of thoffice be consyderyd what yt was when I came into yt and what yt ys now ther wilbe found greate oddes wherein I have traveyled as carefully as I cold and as my creddytt cold obtayne meane to reduce the state of thoffice shipes and there furnyture into good and perfitt ordre; in recompense whereof my onely desyre ys that yt may please hir Maiestie some course may be taken wherein hir Maiestie may be sattysfied that a playne and honest course hathe byne taken and caryed in thoffice and then to dyspose of my place to whome yt shall please hir Highnes and I shalbe reddy to serve hir Maiestie any other way that I shalbe appoynted wherein my skyll or abyllytie will extend and so I humbly take my leve from Deptford the 16th April 1590.'

The writer of this letter was either a master hypocrite so skilful in roguery that he feared neither the investigations of his superiors nor the denunciations of envious and hostile subordinates, or

an honest man who had nothing to dread from inquiry. He had convinced Howard and Burghley, of whom the first was a seaman who had proved his work by the tests of war and storm, and the second no guileless innocent, but a politician grown grey among surroundings of fraud and intrigue. Only the penetrating Elizabeth refused to be deceived.

In 1592 and 1594 he again expressed his wish to resign, but the government had apparently no desire to lose his services.[669] On Clynton's decease Charles, Lord Howard of Effingham became Lord Admiral,[670] and held the office till 1618. His name is indissolubly connected with the maritime glories his support of Hawkyns and his clear judgment as a commander helped to bring about. Howard was the first Lord Admiral who transferred some of the privileges of his office. In 1594 he gave over to the Trinity House the management of buoys and beacons along the coasts and the rights of ballasting in the Thames.[671] This marks the first practical connection the Corporation had with maritime affairs. Hawkyns died at sea on 12th November 1595, and the Treasurership was not immediately filled up. Roger Langford, long an office assistant, and his deputy during his absence, was made 'General Paymaster of the Marine Causes,' but simply worked at the accounts without authority in administrative business.[672] In 1598 Fulke Grevill, afterwards Lord Brooke, was appointed Treasurer with full powers.[673] Grevill is said, by a modern writer, to have possessed 'a dignified indolence of temper,' and 'a refinement in morality which rendered him unfit for the common pursuits of mankind.' These were not qualifications peculiarly fitting him for the rough surroundings of naval affairs in 1598 and the real control passed into the

hands of his colleagues.

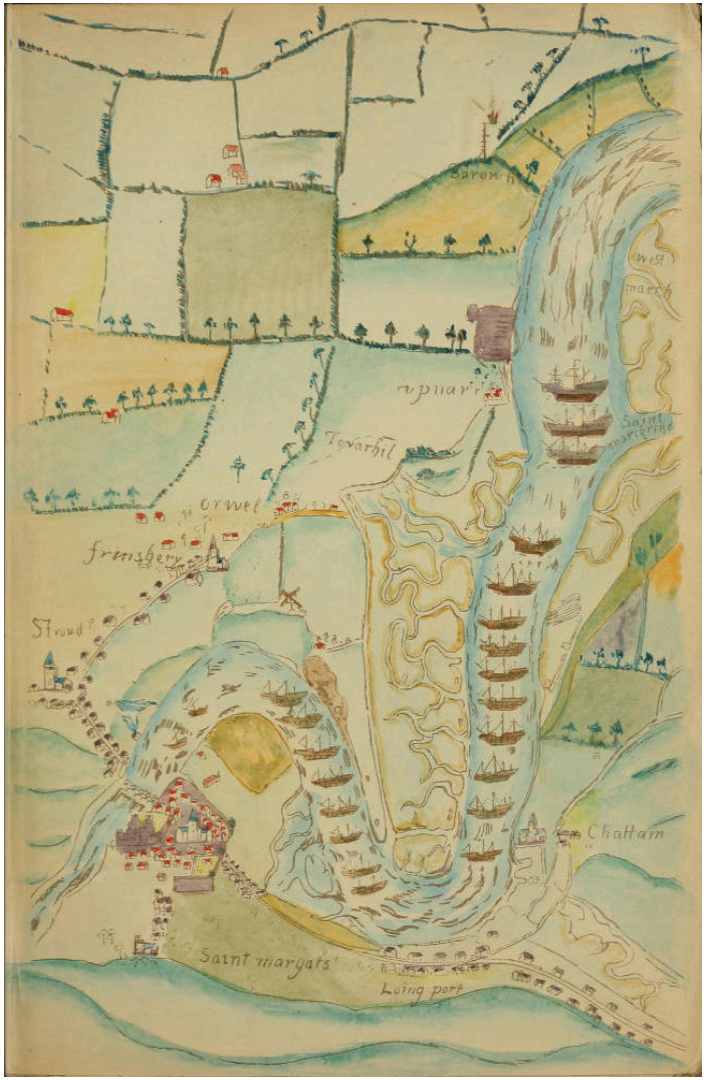
Till his death in 1589 Sir Wm. Wynter, from 1557 Surveyor of the Ships and Master of the Ordnance of the Navy, was, after Hawkyns, the most influential officer. He was succeeded by Sir H. Palmer,[674] who held the post until he became Comptroller in 1598, [675] when he was replaced as Surveyor by John Trevor.[676] After Wynter's death there was no longer a separate ordnance department for the Navy. Richard Howlet, the former Clerk of the Ships, died in 1560, and George Wynter, a brother of Sir William Wynter was appointed.[677] In 1580 George Wynter was succeeded by William Borough,[678] who, in 1588 was followed by Benjamin Gonson, son of the former Treasurer,[679] who, in turn, was succeeded by Peter Buck in 1600. William Holstock became Comptroller from 12th December 1561, in succession to Brooke, and in 1589 William Borough succeeded him until 1598. Nearly all these men commanded ships or squadrons at sea at various times, in addition to their duties as members of the naval board. There is a draft document existing[680] which shows that in January 1564 it was intended to add another officer as 'Chief Pilot of England,' on the model of the 'Pilot Major' of Spain. Stephen Borough was the person chosen, and in consequence of the losses of shipping through the ignorance of pilots and masters no one was to act in such a capacity in vessels of forty tons and upwards, without a certificate of competence from him, under a penalty of two pounds. Masters' mates, boatswains, and quartermasters were to be similarly examined and certified. This plan, however, was not carried into execution.

Dockyards.

Concerning the dockyards the most noteworthy feature is: the rise into importance of the Chatham yard. For 1563 the expenses of Deptford were £19,700, while those of Gillingham, chiefly for the wages and victuals of shipkeepers, were £3700. In 1567 it is first called Chatham, a house rented for the use of the Board, and the cost of Chatham and Gillingham £6300. Next year the ground on which Upnor Castle was to be built was bought for £25, [681] and in 1574 a fort was ordered for Sheerness which replaced the bulwark built in the reign of Edward VI. In 1571 more ground was rented at Chatham, and in 1574 the fairway through St Mary's Creek, by which the anchorage could be taken in flank, was blocked by piles.[682] Deptford, however, was still in considerable use, especially for building and repairs of ships, and in the same year the dock was reconstructed. In 1578 a new pair of gates for the Deptford dock cost £150, and in the following year most, if not all, of the dockyards were fenced round with hedges.[683] Small additions in the shape of wharves and storehouses, were being continually made to Chatham; one of the former, built in 1580, was 378 feet Long, 40 feet broad, and cost five shillings a foot. Various other improvements of the same kind were carried out in connection with Woolwich and Deptford, and as no drydock was constructed at Chatham during this reign, all the building and repairs of the big ships was done at the former places. Portsmouth was hardly used at all. In 1586 a new wharf was made, and sundry small expenses were at various times incurred for keeping the dock in order, but sometimes for years in succession the only expenses relating to it are the salaries of the officers in charge. The yard was nearly destroyed by a fire on 4th August 1576, and was

probably not fully restored. It was, moreover, contemned by the chief officers, who considered it expensive and defenceless.[684] For a few years, from 1601, the Hansa steelyard was handed over to the Admiralty and used for storage purposes.

In early times the Bridport district had supplied most of the cordage used in the English service; in the fifteenth and sixteenth centuries it had mostly come from abroad. In 1573 there was an attempt to secure independence in this respect, and £800 which he was to repay by £100 a year, was advanced to Thomas Allen to build ropehouses at Woolwich.[685] Allen was 'Queen's merchant,' *i.e.*, crown purchaser, for Dantzic cordage. The experiment was probably a failure, since there is no other reference to it, and was not renewed until the next reign.



In addition to the forts at Upnor and Sheerness the ships lying in the Medway required some further protection, as relations with Spain became more critical and rumours of plots to fire the vessels frequent. This was given by means of a chain, an old

and well known form of defence. In a letter to Burghley, of March 1585, Hawkyns suggested the chain with two or four pinnaces stationed by it, and the *Scout* and *Achates* at Sheerness to search everything passing.[686] In October the work was nearly completed; it had been 'tedyous and cumbersome but now stretched over the river in good order yt dothe requyre many lyghters for the bearynge of it which are in hand.'[687] One end was fixed to piles, the other worked round 'two great wheels to draw it up;' it was supported by five lighters, and pinnaces were stationed at each shore end. The Council ordered, as well, that whereas Her Majesty was 'advertysed that some practyce and devyce ys taken in hande to bourne and destroye the navye,' the principal officers were to sleep on board at the anchorage in turn, for a month at the time, and see that the shipkeepers did their duty.

The Elizabethan drawing of the Medway and surrounding district, partly reproduced in this volume, does not show the chain at Upnor and is probably therefore of a date between 1568-85. It is seen that the ships are moored athwart stream in three groups, from Upnor towards Rochester, the larger ones being at Upnor. They must have been moored across stream from considerations of space; and the accuracy of the placing is corroborated by a much later drawing of 1702 which shows vessels in the same position, and by the fact that we know from other sources that the first-rates were nearest Upnor. These latter carried lights at night[688] and the whole were in the especial charge of the principal masters of the Navy of whom, after 1588, there were six and who were allowed three shillings a week for their victualling. The first sign of the dockyard is possibly shown between Chatham Church and St Mary's

creek. The vessels are shown dismantled as would have been actually the case.

Shipwrights.

In 1559 shipwrights' wages were from eightpence to a shilling, and in 1588 from a shilling to seventeenpence a day; they were also provided with free lodging, or lodging money at the rate of a shilling a week, with three meals a day and as much beer 'as shall suffice them,' and, between 25th March and 8th September, an afternoon snack of bread, cheese, and beer.[689] From 1st November to 2nd February, they worked from daylight till dark; for the rest of the year from five o'clock, in the morning till 7 at night, and, on Saturdays till 6 o'clock. They were allowed one hour at noon, and work was started and stopped by bell; anyone ringing it except by order of the master shipwright was fined a day's pay and put into the stocks.[690] The three principal constructors, or master shipwrights were Peter Pett, Mathew Baker, and Richard Chapman. Pett died in 1589 and was succeeded by his son Joseph, and then, in 1600, by his better known younger son Phineas, who had been sent to Cambridge but who did not think it unbecoming his university standing to start in life as a carpenter's mate on a Levant trader. Although Pett has the greater reputation, at least one officer of the Admiralty well qualified to judge—William Borough—considered Baker his superior. John Davis, the explorer, also specially speaks of him as, 'Mr Baker for his skill and surpassing grounded knowledge in the building of ships advantageable to all purpose hath not in any nation his equal.'[691] Baker became master shipwright by Letters Patent of 29th August 1572, and by virtue of the patent, received a fee of one

shilling a day for life from the Exchequer. Peter Pett already held a similar patent, Richard Chapman obtained one in 1587 and Joseph Pett in 1590. Little is known of Chapman beyond the fact that from the ships he built his reputation must have been equal to that of the others, and practically all the important building of the reign was done by these three men.

Ships' Officers and Pay.

There are but few notices of the ships' officers of this period. In all ranks the majority seem to have been disposed to add to their pay by irregular methods. Some of the accusations made against them have been noticed, and on service, whether the prize was a captured town or a small merchantman, discipline was at an end until all, from captains downwards had taken their fill of pillage. At sea captains obeyed or disobeyed, deserted or remained with their admiral, without usually being afterwards called to account for their conduct. In only one case was a captain, William Borough, tried for insubordination in 1587, and as this is the first instance of a court martial the proceedings are here printed in full.[692] If Drake intended to disgrace Borough he failed, for no result followed, and the delinquent, two years later, became Comptroller of the Navy. Until 1582 the old system of paying the officers the wages of a 'common man' per month, and adding to this by a graduated proportion representing the dead shares and rewards, still continued. However when wages were raised in that year the dead shares and rewards were abolished, except as a form of expression, and each officer had a fixed sum per month, according to the rate of his

ship.[693] But sometimes the scale of pay depended not upon the rate, but was 'according to the greatness of his charge,' *i.e.*, on the nature of the work for which the vessel was commissioned.[694] Wages were again raised about 1602,[695] and the two scales of payment are thrown together in the following table:—

	First-rates						Second-rates						Thir		
	1582			1602			1582			1602			1582		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Master	2	1	8	3	2	6	2	0	0	3	0	0	1	16	8
Master's Mate	1	1	8	1	10	0	0	16	8	1	5	0	0	16	8
Boatswain	1	1	8	1	10	0	0	16	8	1	5	0	0	11	8
Boatswain's Mate	0	11	8	0	17	6	0	11	8	0	17	6	0	9	2
Quartermaster	0	16	8	1	5	0	0	11	8	0	17	6	0	11	8
Do. Mate	0	11	8	0	17	6	0	9	2	0	13	9	0	9	2
Purser	0	16	8	1	0	0	0	11	8	0	16	8	0	11	8
Master Carpenter	0	16	8	1	5	0	0	16	8	1	5	0	0	11	8
Carpenter's Mate	0	11	8	0	17	6	0	11	8	0	17	6	0	9	2
Master Gunner	0	10	0	0	15	0	0	10	0	0	15	0	0	10	0
Gunner's Mates	0	7	6	0	11	3	0	7	6	0	11	3	0	7	6
Surgeon	0	15	0	1	0	0	0	15	0	1	0	0	0	15	0
Pilot	1	0	0	1	10	0	1	0	0	1	5	0	0	16	8
Cook	0	11	8	0	17	6	0	11	8	0	17	6	0	11	8
Yeomen of the Tacks and Jeers	0	11	8	0	17	6	0	11	8	0	14	0			
Cockswain	0	11	8	0	17	6	0	11	8	0	17	6	0	9	2
Trumpeter	0	15	0	1	0	0	0	15	0	1	0	0	0	15	0
Steward	0	11	8	0	17	6	0	11	8	0	17	6	0	11	8

Harbour pay was from 40% to 50% below these rates. There is nothing known of the reasons moving the government to the relatively enormous increase of the end of the reign, marked by a liberality contrary to the traditions of nearly half a century. The relative pays would now, in some cases, be considered extraordinary; surgeons and trumpeters are put on the same footing, and sixth-rates of 1602 are given the option between them but are not allowed both. A captain's pay varied between 2s 6d and 6s 8d a day, and he was allowed two servants for every fifty men of his crew, and if he were a knight four men. This really meant that he was licensed to draw pay and rations, or the value in money of rations, for the permitted number of servants whether or no they were actually on board. In 1588 lieutenants at £3, and corporals at 17s 6d a month were carried in some of the ships.

Although in 1564 it had been intended to nominate a pilot major to insure a knowledge of seamanship and navigation in those responsible for the safety of ships, further experience may have brought more efficient men to the front and rendered it unnecessary. There are very few signs that such a step could have been requisite, judging from the accounts of the voyages of these years. Men seem to have handled their ships skilfully in all conditions and under all difficulties, and in navigation landfalls were made with accuracy, landmarks known and recorded, and the Channel soundings as minutely mapped out and acted upon as now. The case was very different with Spanish seamen. From 1508 there had been a great school of cosmography and navigation at Seville, under the superintendence of the Pilot Major of Spain, but it does not appear to have succeeded in turning out competent officers.

The records of the Spanish voyages show how frequently gross errors in navigation occurred, and travellers communicated their impressions to the same effect. One of these, writing in 1573, says,

> 'How can a wise and omnipotent God have placed such a difficult and important art as navigation into such coarse and lubberly hands as those of these pilots. You should see them ask one another, "How many degrees have you got?" One says, "Sixteen," another "About twenty," and another "Thirteen and a half." Then they will say, "What distance do you make it to the land?" One answers, "I make it 40 leagues from land," another "I a hundred and fifty," a third, "I reckoned it this morning to be ninety-two leagues;" and whether it be three or three hundred no one of them agrees with the other or with the actual fact.'[696]

Ordnance and Ship Armament.

In 1558 there were ordnance wharves and storehouses, connected with the Navy at Woolwich, Portsmouth, and Porchester; Gillingham was shortly after added to these. In her youth Elizabeth appears to have been fond of fireworks as the ordnance accounts bear £130, 4s 2d expended, between 1558-64, to amuse her in that way. The report drawn up in 1559[697] tells us that there were 264 brass and 48 iron guns, of all calibres down to falconets, on board the ships, and 48 brass and 8 iron in store. To these could be added upwards of 1000 small pieces, whole, demi, and quarter slings, fowlers, bases,

portpieces, and harquebuses.[698] Eleven thousand rounds of cannon shot, 10,600 of lead, 1500 of stone and 692 cross bar shot, supplied the guns; other weapons were 3000 bows, 6300 sheaves of arrows, 3100 morrispikes, and 3700 bills. The heaviest piece used on shipboard was the culverin of 4500 lbs., throwing a 17⅓ lbs. ball with an extreme range of 2500 paces;[699] the next the demi cannon weighing 4000 lbs., with a 30⅓ lbs. ball and range of 1700 paces; then the demi culverin of 3400 lbs., a 9⅓ lb. ball and 2500 paces, and the cannon petroe, or perier, of 3000 lbs. 24¼ lb. ball and 1600 paces.[700] There were also sakers, minions, and falconets, but culverins and demi culverins were the most useful and became the favourite ship guns. The weights given differ in nearly every list found and were purely academic. A contemporary wrote, 'the founders never cast them so exactly but that they differ two or three cwt. in a piece,' and in a paper of 1564 the average weights of culverins, demi culverins, and cannon periers are respectively 3300 lbs., 2500 lbs., and 2000 lbs.

The equipment of a first-rate like the *Triumph* (450 seamen, 50 gunners, and 200 soldiers) in small arms, was 250 harquebuses, 50 bows, 100 sheaves of arrows, 200 pikes, 200 bills, 100 corselets, and 200 morions.[701] There were 750 lbs. of corn, and 4470 of serpentine, powder on board. The *Victory* had 200 harquebuses, 40 bows, 80 sheaves of arrows, 100 pikes, 180 bills, 80 corselets, and 160 minions; she carried 600 lbs. of corn powder, and 4347 of serpentine. Twenty-four was the number of ships usually taken as the standard to be prepared in the numerous estimates of the equipment necessary for fleets; in 1574 there were 45 demi cannon, 37 cannon periers, 89 culverins, 142 demi culverins,

183 sakers, 56 minions, and 66 falcons on board 24 vessels in June of that year.[702] The first list giving the armament of the ships individually is of 1585 and is as follows:[703]

	Demi Cannon	Cannon Periers	Culverins	Demi Culverins	Sakers	Minions	F
Elizabeth	9	4	14	7	6	2	
Triumph	9	4	14	7	6	2	
White Bear	11	6	17	10	10	4	
Victory	6	4	14	8	2		
Hope	4	2	6	10	4	2	
Mary Rose	4	2	8	6	8		
Nonpareil	4	2	4	6	12	1	
Lion	4	4	6	8	6		
Revenge	2	4	10	6	10		
Bonaventure	4	2	6	8	6	2	
Dreadnought		2	4	10	6		
Swiftsure		2	4	8	8		
Antelope		2	2	6	6	2	
Swallow		2		4	8	2	
Foresight			4	8	8	4	
Aid				2	8	2	
Bull				6	8	2	
Tiger				6	10	2	
Scout					8	2	
Achates					2	4	
Merlin							

This appears to have been the existing or intended provision, ‘according to Sir William Wynters proporcion of 1569,’ The system of heavily arming ships, introduced by Henry VIII, had grown in favour with the lapse of time. From a chance allusion we know that the *Victory’s* waist was ordinarily 20 feet above the water line; she only had a lower gun-deck,

therefore, the lower tier must have been more than the four feet above the water allowed by Ralegh.

In only one paper have we any information as to the distribution of the guns; from a schedule of October 1595, of iron ordnance to be provided for the 'lesser ship now building' (probably the *Warspite*) we are able to note their arrangement and the tendency to limit the varieties in use.[704] But it differs considerably from the armament of the *Warspite* as given in the next table.

For the sides on the lower overloppe,	12	Culverins
For the stern and prow on the lower overloppe,	4	do.
For the capstan deck on the sides,	8	Demi Culverins
For the stem and prow on the sides,	4	do.
For the waist fore and aft,	6	Sakers
For the half deck	2	do.

The next list drawn up two months after Elizabeth's death, gives the armament of the whole Navy.[705] Upnor Castle possessed, in brass, 1 demi cannon, 3 culverins, 1 minion, 3 fawcons and 4 fowlers; in iron, 4 culverins, 5 demi culverins and 1 saker. The ships:

	Demi Cannon	Cannon Periers	Culverins		Demi Culverins		Sakers		Minions	
	Brass	Brass	Brs	Irn	Brs	Irn	Brs	Irn	Brs	Irn
Elizabeth	2	3	18		13		19		1	
Triumph	3	4	19		16		13			
White Bear	6	2	21		16		12			
Merhonour	4		15		16		4			
Ark Royal	4	4	12		12		6			

Garland			16		12	2	2	2		
Due Repulse	3	2	13		14		6			
Warspite	2	2	14		10		4			
Defiance			14		14					
Mary Rose	4		10	1	7	3	4			
Bonaventure	2	2	11		14		4		2	
Nonpareil	3	2	7		8		12			
Lion	4		8		12	2	9			1
Victory[708]										
Rainbow	6		10		7		1			
Hope	4	2	9		12		4			
Vanguard	4		14		16		4		2	
St Mathew	4	4	16		10	6	2	2	3	1
St		2	4	2	7	14	4	4	1	1
Andrew[709]										
Antelope			4		5	8	4	4		
Adventure			4		11		7			
Advantage					6		8		2	
Crane					2	4	2	5	6	
Tremontana							12		7	
Quittance				2	4	2	4	3		4
Answer					2	3	2	4	2	4
Moon							5		6	
Charles							4		2	
Advice							4		2	
Superlativa[710]			1		2		2			
Mercury			1					2		
Merlin									2	
Lion's Whelp							2		7	

Comparing this with the preceding list of 1585 it is noticed that there is a large decrease in cannon and a corresponding increase in culverins, demi culverins and sakers, which strained a ship less, were served more quickly and by fewer men, and permitted a

heavier broadside in the same deck space. They were mounted on four-wheeled carriages and may have been fitted with elevating screws, the latter probably recently introduced as they are mentioned among Bourne's *Inventions*. The length of a cannon carriage was 5½ ft., and of a demi cannon carriage 5 ft., costing respectively £1, 3s 4d and 19s 9d.[711] A ship's anchors and guns had her name painted on them.[712]

William Thomas, master gunner of the *Victory*, drew attention in 1584 to the lack of trained gunners he thought he perceived, nor was he the only person who detected the same deficiency. The Spaniards who were, under the circumstances, perhaps better judges thought differently, and one of their Armada captains relates that the English fired their heavy guns as quickly as the Spaniards did their muskets.[713] The grant of the artillery ground by Henry VIII as a place of practice has already been mentioned, and, in 1575, it is again brought into notice by an order that sufficient powder and shot should be allowed to train 'scollers' there.[714] Until Wynter's death in 1589 the supply of ordnance stores for the Navy remained under his control, and the absence of remark shows that the business progressed smoothly. It then became a part of the ordinary work of the Ordnance Office, and that department did not belie the unsavoury reputation it has always held. By 1591 outcry against it ran high, and in 1598 and 1600 its corrupt and lax administration called forth various projects of reform. The superior departmental officers gave themselves allowances and, through brokers, sold to themselves as representing the crown; the inferior clerks were in league with the gunners in embezzlement.[715] With such

encouragement it is not surprising to find that

> 'the master gunners who do usually indent for the provision of ships and fortified places do commonly return unreasonable waste of all things committed to their charge, which waste grows not by any of Her Majesty's service but by the gunners themselves in selling Her Majesty's powder and shot and other provisions, sometimes before they go to sea and most usually upon their return from the sea.'

Usually the captain shared the proceeds with the gunner and the clerks of the Ordnance department, and the transaction leaves no mark. Occasionally a captain refused and then we have the incident put on record as in the case of the master gunner of the *Defiance*, who, when she returned from sea in 1596 offered his commander £100 for permission to steal half the powder remaining on board.[716] The patentee for iron shot was a prisoner for debt and forced to sublet his contract; sometimes he bought shot sold by the gunners, 'so that Her Majesty buyeth her own goods and payeth double for the same.' When the pursuit of the flying Armada ceased want of ammunition was as much a reason as want of provisions. But if the deposition of John Charlton, who lived in a house adjoining to that of Hamon, a master gunner of the *Ark Royal*, is to be credited, that ship, at any rate, did not lack powder. Charlton informed Howard that he had daily seen much powder taken into Hamon's dwelling. Hamon confessed, but according to Charlton, very incompletely, for, 'where it was set downe but iiii barrels I will aprove that after the fight there came to his house fortie barrels which was to her Maiestie in

that fighte greate hinderance.' It is significant that a labourer in the employ of the Ordnance Office acknowledged that he had been hired to pick a quarrel with Charlton and maim or kill him.[717]

The cost of cast iron ordnance was, between 1565 and 1570, from £10 to £12 a ton; in 1600 it had fallen to £8 and £9 a ton. Brass ordnance was from £40 to £60 a ton. The reputation of our founders stood so high that the Spaniards were prepared to pay £22 a ton for iron guns and to give a pension to the man who could smuggle them over.[718] The exportation of ordnance was strictly prohibited, but an extensive underhand trade went on notwithstanding the efforts of the government. In February 1574 all gunfounders were called upon to give bonds to £2000 apiece not to cast ordnance without licence and not to sell it to foreigners. The seat of the industry was Kent and Sussex and the requirements of the kingdom exclusive of the Royal Navy and of the royal forts, were then estimated at 600 tons a year.[719] There seem to have been only some six or seven founders in the business, and in the following June, the Council ordered that no one should enter into it without permission; that all guns should be sent to the Tower wharf, there to be sold to English subjects who were to give sureties not to sell abroad out of their ships; and that all founders were to send in a yearly return to the Master of the Ordnance of the number of guns sold, and to whom. [720] These orders were repeated in 1588 and 1601, but a founder estimated that 2500 tons of ordnance were cast a year, being three times as much as could be used in England, and it was supposed that, previous to 1592, out of 2000 tons yearly made 1600 were secretly sent abroad.

Although the saltpetre had been obtained from the continent powder had long been made in England as well as bought abroad. In 1562 three persons who had erected powder mills, tendered to supply it on a large scale—200 lasts a year—at £3, 5s a cwt. (of 100 lbs.) for corn powder, and £2, 16s 8d for serpentine powder.[721] This offer does not seem to have been accepted although in 1560 the crown was paying £3, 5s 2d, the cwt. (of 112 lbs.) for serpentine powder, and in 1570, still higher prices. In November 1588 there was 'a reasonable store' of round shot in hand and 55 lasts of powder; 100 tons of shot and 100 lasts of powder were required to make good deficiencies, but in view of the amount remaining in stock only the fatal blundering which has always characterised the departments can explain the constant prayer for supplies that came, vainly, from the fleet.[722] Wynter, whose province it was to attend to naval requirements in these matters, was himself on service from 22nd December 1587 until 15th September 1588, in command of the *Vanguard* and the *Ark Royal*. How the business of his office was carried on in his absence we do not know with certainty, but from some entries in the Privy Council Register for 1588, it would appear to have been handed over to the Ordnance Office. The cost of the powder was here estimated at £100 a last, but in 1589 a tender from George Evelyn, John Evelyn, and Richard Hills, to deliver 80 lasts a year for eleven years at £80 was accepted. In 1603 they, with some other partners, were still acting and furnishing 100 lasts a year. Round shot, from cannon down to fawcon, was obtained at an average of £8 a ton; 'jointed shot,' and cross-bar shot were dear, from 2s 6d to 8s apiece, according to the size of the gun. Stone shot were still used and cost from sixpence to

two shillings each conformable to size.[723]

Naval Expenditure.

The naval expenses, especially during the last fifteen years of her reign, must have seemed appalling to Elizabeth and would have excused her parsimony had she not been so lavish to herself. From the *Audit Office Accounts* we are enabled to give on the next page the amounts for which the Treasurer of the Navy was answerable, but these by no means included all the expenditure of the crown in various expeditions. The total cost of the Cadiz and Islands voyages, for instance, of 1596 and 1597 is given as £172,260 and this is only partly represented below.[724] If the Queen took a share in an adventure the money she advanced was paid from the Exchequer and is not borne on the Navy accounts.

The £12,000 a year allotted to Gonson, under Mary, for the working of the naval establishments during peace was reduced from 1st January 1564 to £6000 a year, of which he was to pay Baeshe £165, 2s a month for harbour victualling.[725] Of course war, or preparation for war, upset all calculations of economy, but the attempt was steadily made to keep the normal, everyday, expenses of the department separate from the exceptional ones, and to reduce the former to as low a sum as practicable. Gonson must have found the £6000 a year impossible, for in 1567 it was raised to £7695, 6s 2d. The economy could have been only nominal, for on the same date as this new order[726] there is a warrant to Gonson for £10,200 extra for stores and ship repairs which would have formerly been included in the £12,000 a

year. By a statement of 1585 the average for these years was £10,946 yearly, when building, repairs, and stores purchased were included.[740] From 1571 commences the division into ordinary and extraordinary, which doubtless had a further saving for its object, although how the process was to work, except as tending towards clearer bookkeeping, is not now manifest.

	Total received	Victualling[727]	Dockyards			
			Chatham	Deptford	Woolwich	Portsmouth
	£	£	£	£	£	£
1559 } 1560 }	106000	43300	5157	26800	1400	2726
1561	19757	3200	2164	19528	866	265
1562[731]						
1563[732]	38790	19208	3701	19707	944	2529
1564	18000	4492	2038	2912	14	268
1565	5318	2149	4350	445	32	294
1566	5178	1843	3612	247	10	77
1567	13129	1999	6257	484	12	66
1568	12062	2718	5843	1854	21	100
1569	17015	7484	2653	343	12	50
1570	15138	7162	3133	985	12	266
1571	8580	2403				
1572	12300	2765				
1573	8934	2686				
1574	14157	2964				
1575	6802	2969				
1576	9957	4449				
1577	12977	3871				
1578	14276	5032				
1579	8400	4918				

1580	5829	11932				
1581	9532	3356				
1582	8388	3230				
1583	6694	2274				
1584	8020	2615	3680			
1585	12934	5786				
1586	25691	8636				
1587	46300	29563				
1588	80666	59221	5387			
1589	52317	15949	3864			
1590	61168	20379	2257			
1591	35626	13198	7046			
1592	29937	11657	7442			
1593	26000	9872				
1594	49000	16241				
1595	59700	14665	12328	5631		
1596	37421	16387				21
1597	64705	28630				40
1598	69000	22100				
1599	67116	32426				
1600	37780	21355				
1601	56500	28866				
1602	62457	40945				

[735]

[736]

[737]

In October 1579 ‘bargains’ were made between the Queen and Hawkyns, and with Pett and Baker.[741] Twenty-five vessels of all classes were named in the agreement and Hawkyns undertook to provide their moorings, to keep spare cables and hawsers on board, and to furnish other cordage necessary for ordinary harbour and sea use, for £1200 a year, the contract being terminable at six months’ notice. He was not to be called upon to account for the £1200 and therefore evidently expected, and was at liberty, to make a profit. The agreement with Pett and Baker was to the effect that they should ground and grave

the ships at least every first, second, or third year, according to size; that they should repair or replace all faulty masts and yards that became defective in harbour, except the lower masts and yards of the sixteen largest vessels; that they were to pay wages, victualling and lodging of the men they employed and provide all materials and tools; they were to supply carpenters' stores to vessels in commission, and pay all carriage and hire of storehouses. For this they were to have £1000 a year. It was these two contracts that brought such a storm of obloquy on Hawkyns. On the one hand, the other officers found the greater part of their occupation gone, and their interference in some of the most important transactions an unwarrantable intermeddling with agreements approved by the government. On the other Hawkyns and the shipwrights expected to make a profit, and circumstances seem to suggest that the way in which Hawkyns insisted on the work being done did not leave Pett and Baker that margin they anticipated. These two men subsequently became his bitter enemies, and in 1588 sent in a report on his management, to which events at that time were daily giving the lie. The effect of the new arrangement was to make Hawkyns supreme in all the branches of administration, and therefore every contractor or middleman, with whose arrangements he interfered, swelled the outcry. The result of the commission of inquiry of January 1584 was not to displace him, but apparently it did abrogate these contracts, and in 1585 a new one was entered into with Hawkyns alone. For £4000 a year he defrayed the repair of ships in harbour, found moorings, paid shipkeepers and the garrison of Upnor, repaired wharves and storehouses, finding in all cases materials, victuals, and lodgings for the workmen.

[742] The object of this and the preceding agreement was to get the ordinary done for £4000 a year, devoting the money saved to the purchase of cordage, masts, etc., which had formerly been extra. Hawkyns maintained that he had performed it successfully; his opponents denied it. It was the last contract, from which they were excluded, that Pett and Baker reported upon. He gave notice to terminate it at Christmas 1587 in consequence of the great increase in naval operations, and no third bargain was engaged in. From 1st January 1589 the amount allowed for the ordinary was raised to £7268[743] which then only restored it to the standard of 1567; in January 1599 it was increased to £11,000 a year.[744]

The year to which the reader will turn with most interest is 1588, and the figures here given, representing the payments of Hawkyns only, deal with the expenditure through him and probably do not represent the whole, even of the naval expenses. A document printed by Murdin[745] makes the naval disbursements, between the beginning of November 1587 and the end of September 1588, exclusive of victualling and the charges borne by London and other ports, reach the much larger sum of £112,000. Powder and shot were used to the value of £10,000, while £20,000 was required to replace stores and put the fleet in seaworthy condition again. Another estimate puts the expenses of the year at £92,370. [746] It gives the cost by fleets: the Lord Admiral's £31,980; Seymour's £12,180; coasters and volunteers £15,970; Frobisher's £840; Drake's £21,890, etc. Finally we have the items stated in a different way[747]: wages £52,557; conduct and discharge money £2272; tonnage (hire of) £6225; other expenses £15,003; extraordinary allowances and

rewards £854. The compensation paid for the eight vessels converted into fireships and sent among the Spaniards during the anxious night of 28-29th July was £5111, 10s, perhaps the cheapest national investment that this country has ever made.[748] Two of them were of 200 tons apiece, in all they measured 1230 tons.

Preparation and Cost of Fleets.

There were in pay during the struggle in the Channel 34 Queen's ships and 163 merchantmen, but all through the year merchantmen had been taken up or discharged, and men-of-war put in and out of commission as the need seemed more or less urgent. There were 8 admirals, 3 vice-admirals, 126 captains, 136 masters, 26 lieutenants, 24 corporals, 2 ensign bearers, 2 secretaries, 13 preachers, and 11,618 soldiers, sailors, and gunners.[749] Other authorities give a larger number of men, in one instance 15,925; and only 95 merchantmen appear in the *Audit Office Accounts* as paid by the Treasurer. In this case the in and out working must have puzzled the authorities considerably, but ordinarily experience had enabled them to calculate with fair accuracy the probable cost of sending a fleet to sea. In October 1580—Drake had returned in September and Mendoza was vapouring—such an estimate was prepared for twenty men-of-war, to be manned by 4030 seamen and gunners, and 1690 soldiers. The press and conduct money of the seamen amounts to £1410, 10s, that of the soldiers and their coat money to £676; sea stores of ships £800, and wages of officers and crews for one month £2669, 6s 8d. The discharge money for both soldiers and sailors is

£1462, and one month's provisions £4004. In all the charges make a total of £11,449 for the first month. As there would be no cost of preparation, nor press, conduct, coat, or discharge money to be reckoned in the following months, the cost for the second and succeeding months would be £6773 each. For another £12,000 twenty-two armed merchantmen, of 5200 tons and 2790 men, could be joined with the men-of-war for three months. The last years in which foreign ships appear to have been 'stayed' by the authority of the crown for service with its fleets were 1560, 1561, and 1569. There is a payment of £300 in 1560 for 'putting the Venetian's hulk and ship that be staied for our service in warre in like order and sorte.'[750] In 1569 another £300 was paid by Gonson to two Ragusan masters whose ships were stayed but do not appear to have been used.[751] Some other foreign vessels are also referred to but their names do not occur in any naval paper.

The expenses of the semi-private, semi-royal, expeditions of various years are not borne on the navy accounts and the references to them in the State Papers are frequently incomplete and contradictory. That of Frobisher, in 1589, cost upwards of £11,000, of Frobisher and Hawkyns in 1590, £17,000,[752] and of Lord Thomas Howard in 1591, £24,000.[753] The outlay attendant on Essex's fleet in 1596 was £78,000,[754] and that of the Drake-Hawkyns venture in 1595, £42,000.[755] Here the Queen provided six men-of-war and, according to one statement,[756] was to have had one-third of the booty, but it is difficult to disentangle the actual facts from the several discrepant versions. The voyage was a disastrous failure financially, treasure to £4907 only being brought home; worse still it cost the lives of Drake and Hawkyns. The lower ranks,

however, did not fare so badly; it was said that £1000 was embezzled from the sale of powder alone, and some of the men, being drunk, 'showed a great store of gold' on their return.

Division of Prize Money.

In the seventeenth century Monson noticed that, notwithstanding the destruction they brought on Spanish commerce nationally, the majority of the Elizabethan adventurers not only made no fortunes but ruined themselves by their enterprises. So far as pecuniary receipts were concerned there were only two really great captures during the Queen's reign. Her share of the *St Philip*, taken by Drake in 1587, was £46,672; Drake's own, £18,235; the Lord Admiral's, £4338; and private adventurers, £44,787. [757] A still richer haul was made in the *Madre de Dios*, taken in 1592, which, by the account of her purser, carried 8500 quintals of pepper, 900 of cloves, 700 of cinnamon, 500 of cochineal, and 450 of other merchandise, besides amber, musk, and precious stones to the value of 400,000 crusados, and some especially fine diamonds.[758] In this case there was only one Queen's ship among the ten entitled to share, and the services rendered by that one were questioned, but Her Majesty demanded the lion's share of the proceeds. If the men were not paid wages the usual arrangement for the division of prize money was that if ships were cruising, and 'thirds' were agreed upon, the spoil was to be divided into three parts, viz., tonnage (*i.e.*, owners), one part, the victuallers the second part, and the men the remaining third. But if ships joined in 'consortship,' their takings were to be first divided ton for ton, and

man for man, then each vessel's proportion was to be joined and divided into shares as before.[759] By the second mode ships belonging to the squadron, but absent from a particular capture, would still share the pillage. The captain took ten shares, the master seven or eight, and most of the remaining officers three to five each; if the cruiser was a privateer the Lord Admiral received a tenth from each of the thirds. For the twelve years 1587-98 Nottingham's tenths amounted to upwards of £18,000.[760] The following computation shows the proportions due on this system of division assuming the value of the carrack's cargo to have been £140,000.[761]

Foresight (Queen's Ship)	Tonnage 450,	£8092	9	8½ }	£23103	10	4½
	Men 170,	7505	10	4 }			
	Victualling as Men,	7505	10	4 }			
Roebuck (Sir W. Ralegh)	Tonnage 350,	6294	3	1½ }	20422	3	10½
	Men 160,	7064	0	4½ }			
	Victualling as Men,	7064	0	4½ }			
Dainty (Sir J. Hawkyns)	Tonnage 300,	5394	19	9½ }	14225	0	2½
	Men 100,	4415	0	2½ }			
	Victualling as Men,	4415	0	2½ }			
Five Ships (Earl of Cumberland)	Tonnage 1235,	22209	7	6½ }	66359	9	9½
	Men 500,	22075	1	1½ }			
	Victualling as Men,	22075	1	1½ }			
Two Ships of London	Tonnage 260,	4675	13	2 }	15889	15	9
	Men 127,	5607	1	3½ }			

Victualling as 5607 men, 3½ }

There was thus a total of 2595 tons. One third of £140,000 is £46,666, 13s 4d and this, divided by 2595, gives a unit of £17, 19s 6d a ton. For the *Foresight* 450 times £17, 19s 6d yields roughly the £8092, 9s 8½d to which her tonnage entitles her; the same formula gives the shares of the other ships, and of the men, substituting in the latter case 1057 for 2595. The Earl of Cumberland, one of the most persistent and one of the most unlucky of the private adventurers of his day got only £36,000, and in the end, after much bickering, Elizabeth took nearly £80,000 of the plunder. There is no doubt that the fleet was in 'consortship,'[762] but it did not suit her interests to allow that form of division. The official belief, and one apparently well founded, was that enormous theft went on, both among officers and men, before the prize was brought into port. Robert Cecil, who had been sent into Devonshire to make inquiries, wrote to his father that, approaching Exeter, he 'cold well smell them almost such has been the spoils of amber and musk among them ... there never was such spoil.' Officers and men pillaged first, the captains took what they could from them, and when the admiral, Sir John Burroughs, came up, he plundered the captains. Among other items the Commissioners found that an emerald cross three inches long, 62 diamonds, and 1400 'very great' pearls had been stolen. It is not known what became of the *Madre de Dios*, but possibly an offer from the mayor and burgesses of Dartmouth to pay £200 and build a hospital for the poor in return 'for y^{e} carrick' may refer to it.[763]

Merchant Shipping

and Trade.

In 1584 Hawkyns wrote to Burghley ‘I ame perswydyd that the substance of this reallme ys treblyd in vallew syns her Maiesties raygne.’ So far as the carrying trade, as exemplified in the increase of merchant ships, was concerned, the statement was more than justified. The legislation that had long been directed in a more or less perfunctory manner to the encouragement of English merchant shipping by protective enactments was enforced more stringently. Such enactments were varied or renewed by the 1st, 5th, 13th, 23rd, 27th and 39th of Elizabeth. The coast fisheries were assisted by permission being granted to export fish in English bottoms, free of custom, subsidy, or poundage,[764] while the internal consumption was increased by the more rigid exaction of the observance of fish days. The coasting trade was confined to English owned ships, and the earlier statutes bearing on exportation or importation in foreign vessels were put into active operation. These measures were not fruitless. For 1576 is a list of fifty-one ships built in the preceding five years and attributed, rightly or wrongly, to the statute ordering abstinence from flesh on Wednesdays.[765] In 1581 the authorities of the Trinity Corporation sent in a certificate showing a large increase in the number of fishing boats, there being in a short time, an addition of 114 on the east and south-east coasts alone between Newcastle and Portsmouth.[766]

The bounty of five shillings a ton, for vessels of 100 tons and upwards, only paid occasionally during preceding reigns is now of common occurrence. The Exchequer warrants name 162 ships on which it was given during the reign, and the series is probably far

from complete. Certain names frequently recur in these entries; the Hawkyns family of Plymouth; Olyff Burre, a coppersmith of Southwark, who obtained the bounty on 790 tons of shipping in two years; the Fenners of Chichester; Philip and Francis Drake; and William Borough. Sometimes seamen were both owners and masters but more frequently the owners are described as merchants. Towards the later years of the century, when the volume of ocean trade had greatly increased, the bounty payments become almost continuous, and then owners had to give surety not to sell their ships to foreigners. Between 1581 and 1594 there had been built—or rather had received the premium—46 such vessels of which 25 belonged to London, 7 to Bristol, 2 to Southampton, 3 to Dartmouth, and 1 each to Hull and Liverpool. [767] The *Galleon Ughtred* of Southampton, built by John Ughtred of Netley, was of 500 tons, and when she was sent to sea under Fenton was valued at £6035, fitted, victualled, and munitioned.[768]

It is perhaps indicative of the results of the years 1587-8-9 that while only 46 such vessels had been built in thirteen years, there were, between 1592 and 1595, 48 large ships of 10,622 tons receiving a sum of £2683, 5s. In one year—1593—London owners were paid on 16 ships of 3248 tons; Dartmouth, as in the preceding century, is ahead of the other southern ports with seven vessels of 1460 tons.[769] From September 1596 to September 1597 the bounty was paid on 57 ships of 11,160 tons; two were of 400 tons, four of 320, two of 310, thirty-two of between 200 and 300 tons, and the general increase in the tonnage of individual ships is another noticeable fact in the growth of the shipping industry.[770]

But probably the bounty was not always paid. At

the foot of a list of merchantmen for the years 1572-9, the owners of which had given bond that they should not be sold to the subjects of a foreign power, the clerk writes: ‘whether all these or how many of them have had any allowance of Her Majesty I cannot tell for that there is no record of the allowance in this court.’[771] The total is 70 ships of 12,630 tons; the largest are, one of Bristol of 600 tons, one of London of 450, and one of Dartmouth of 400 tons. One entry, on 9th July, 1577, is that Francis Drake of Plymouth gives bond for the *Pelican* of 150 tons.[772] Very often the five shillings a ton was not paid but allowed on the customs, as in 1595, when 636 crowns were granted to three London merchants ‘to be allowed on the customs of merchandise brought by the said ships.’ It was of course to the interest of the owner to have his vessel rated at the highest possible tonnage, both for the bounty and for service with the royal fleets. For the latter the hire remained at one shilling a ton till about 1580 when it was raised to two shillings and even then the measuring officers, we are told, usually allowed the Queen to be charged for a third more than the real tonnage.[773]

Besides the stimulus of general trade and the requirements of the crown for ships to serve with the fleets, there was a further encouragement to building in the action of the great chartered associations then in possession of so much of the over sea trade. The Russia Company, chartered in 1555, traded to Russia, Persia, and the Caspian, and, late in the century, commenced the whale fishery; the Turkey, or Levant Company, founded in 1581, to the dominions of the Sultan, the Greek Archipelago, and, indirectly, to the East Indies; the Eastland Company trading through the Sound to Norway, Finland,

Sweden, and Denmark; the Guinea Company to the west coast of Africa, and the Merchant Adventurers along the northern coast of continental Europe. Many of the largest ocean-going ships either belonged to, or were hired by, these corporations, and owners who had entered into the prevalent spirit of shipbuilding felt that they had a right to have their vessels hired by the companies. Olyff Burre, the speculative owner before mentioned, petitioned the Council in 1579 to the effect that he had obtained a living for forty years 'cheefely by the maynteyninge of shippinge and the navygacon,' that he now had a number of vessels unemployed, and that he trusted they would order the Spanish Company to hire his ships.[774] In 1581 the Levant Company possessed fourteen ships varying in size from 200 to 350 tons; they complain, in a petition, that the new import duties levied by the Venetians are destroying their trade, and that their ships are too big to be employed in any other work.[775] In the five years 1583-7 this company employed nineteen vessels and 787 men in twenty-seven voyages, and paid £11,359 in customs. In 1600 they owned thirteen of 2610 tons and hired seventeen of 2650 tons. Their agent at Constantinople cost £1000 a year, besides presents to the Turks, and in 1591 they calculated that, first and last, they had been compelled to spend £40,000 in maintaining agents, consuls, etc.[776] The profits made by these companies were sometimes enormous and their risks were fewer than those of individual owners, for their large, well-armed and manned ships were less exposed to the dangers of navigation and piracy, the latter a factor to be always reckoned with.

Notwithstanding piracy, warfare, and the risks of navigation in little known seas, the returns show a

steady increase in the size and number of English vessels. The necessities of distant trading explain the increase in size both in view of a relatively smaller cost of working and a larger number of partners interested in the cargo, and the results of successful maritime war were shown in a carrying trade which it may almost be held to have founded. But an extension of commerce was sometimes thrust unwillingly on the English merchants. Some of them petitioned in 1571 that the trade with Portugal was of more value than that with the East Indies, and that an agreement should be come to with the King of Portugal by which Englishmen would undertake not to trade with the East if a free opening were given by that monarch in his European dominions. They said that the traffic to the East Indies 'often attempted hath taken small effect,' that in fifteen years no merchants had made any profit, 'except such as being spoiled there have made great gain by the recompense here.'[777] They did not foresee the future subjects of spoliation, but although trade was progressing it moved onwards tentatively and with hesitation; and but for the cessation of trade with Portugal the formation of the East India Company might have been long deferred.

If a merchantman escaped the ordinary risks of the sea as they were understood in the sixteenth century, risks that included much more than is comprised in the expression to-day, the owner's troubles were by no means over. Commerce with the East could only be carried on by constant bribery; if he traded to Spain he had to reckon with the suspicious bigotry of Church and State, and when returned to England he had to deal with the more selfish dishonesty of custom-house officials, and sometimes of persons of higher rank. Three victims of Spanish procedure

petition Burghley:—

> 'In this moste wofull manner sheweth unto your Honour your suppliantes John Tyndall and Robert Frampton of Bristowe and William Ellize of Alperton ... late marchants and the Quenes Maiesties naturall subjectes late in case right good to live and nowe in state most miserable. That where your said suppliantes did trade into Spayne in the way of marchandise—soe it is Right Honourable that besydes longe and miserable imprisonment besydes the intollerable torment of the Strappadoe there susteyned by the authoritie of the Inquisition of Spayne your said suppliantes are there spoyled of all their goodes to the vallew of ^{li}2228 10^{s} 6^{d}, to their utter undoing.'[778]

Their ship was seized and they were tortured because a Cato in English was found on board—Spain and England being at peace. They go on to ask that they may have restitution out of Spanish goods in England. In 1588, of the crew of a Scotch ship just arrived at St Lucar, 'accused to be protestantes and fleshe eaters on dayes prohibite,' three were burnt and the rest sent to the galleys, upon accusation, without any trial.[779] As the knowledge of these and other stories spread, one does not wonder at the massacres of Smerwick and Connaught; it is only a matter for surprise that any Spanish prisoner received quarter.

It was a usual clause in a charter-party that a merchantman should carry ordnance and small arms. In the peaceful Bordeaux fleet of 1593, the three largest vessels carried from 17 to 21 guns, and all the

others have from 3 to 16 pieces of various sizes. Owners whose vessels had escaped the perils of the voyage had to be prepared for trickery at home. Accusations of dishonesty were general against the officers of the customs; 'they alter their books leaving out and putting in what pleases them'; the wages of the waiters were £12, 16s a year, but some of them kept large establishments, the officers were said to attend about two-and-a-half hours daily, and the chief ones seldom came at all. These latter, says the writer, appointed clerks who grew rich the same way, and these again took under clerks who made a living out of the merchants; the chief posts were sold at high prices, while, in the country, the Queen was defrauded of half the customs.'[780] Another person, writing to Robert Cecil in 1594, says 'there has been transported out of Rye within twelve months not less than £10,000 of prohibited wares. The customs officers not only connive but help.'[781] Other examples might be cited to show that there had not been much improvement in these years, although the service had been reorganised in 1586 when the Customer, Sir Thos. Smith, who farmed some of the imposts, had been compelled to disgorge a portion of his profits. The revenue from the customs was £24,000 in 1586, in 1590 £50,000, and £127,000 in 1603. If the merchant escaped the extortions of the custom house he might find that persons of the highest rank did not disdain to avail themselves of the organised chicane of the law. In 1586 Leicester sent a cargo to Barbary, and in the return lading, the factor thought it safer, on account of pirates and other enemies, to mark all his employers' goods with Leicester's mark. On the arrival of the ship Elizabeth's favourite claimed the whole cargo and, the law being on his side, the owners were compelled

to compound with him for their own property.[782]

Returns of Merchant Ships and Seamen.

There are more detailed lists of merchant ships for the period under review than for any other reign. By these lists, equivalent to a return of vessels now built to Admiralty requirements, the government knew, from time to time, how many ships could be relied on as fighting auxiliaries and how many could be used as tenders and transports. They also enabled the Council to judge whether the measures taken for the protection and encouragement of native shipping were successful. The first of these returns is for March 1560 and is incomplete since there is no entry for such a port as Bristol, and Somerset and the Welsh counties are also omitted:—[783]

	Tons 100	Tons 120	Tons 140	Tons 160	Tons 180	Tons 200	Tons 260	To 3(
London	1	2	6	4	3	2	1	
Saltash			1					
Fowey	1							
Northam	1	1	1					
Plymouth	2	1		1				
Salcombe	1							
Dartmouth		1	3			1		
Cockington	1							
Kingswear		2	1	1				
Southampton			1					
Christchurch		1						
Sandwich			1					
Brightlingsea	1		1					
Walderswick	2							

Southwold	1		1					
Cley			1			1		
Wells			2					
Grimsby	1							
Scarborough			1					
Hull	4	1	1					
Newcastle	12		1					
Chester	1		1					

Here there are seventy-six ships and although some towns, such as Southampton, may not have their full complement given, there was probably no other port, with the exception of Bristol, possessing vessels of 100 tons or upwards. During the early years of the reign the country was impoverished and the people little inclined to effort. Mary left the crown deeply indebted and, concurrently with an increase of national expenditure, there was, for the moment, a general decline of commerce, and a shifting of the centres of commercial distribution, especially felt by some of the older seaports. Yarmouth petitioned in 1559 for relief from payment of the tenths and fifteenths on account of loss of trade; their harbour had cost them £1000 a year and was not yet finished, the town walls £100 a year, and the relief of their poor yet another hundred.[784] In 1565 Yarmouth had 553 householders; 7 seagoing ships, of which the largest was 140 tons; 25 smaller ones, and 81 fishing boats together with 400 seamen.[785] Doubtless the burgesses did not minimise their calamities but similar complaints came in from all quarters. Hythe had, from 80 vessels and fishing boats sunk to 8; Winchilsea, ‘there is at this present none, and the town greatly decayed.’[786] Between 1558 and 1565 Dartmouth owners had lost four and sold eleven ships, and seemingly had no intention of

replacing fifteen others worn out by service. The complaints of Chester are chronic in the same sense; its merchants had lost £22,000 in seven years from piracies and shipwrecks; and Hull in a shorter period had lost £23,000 from the same causes.

The next list, of 1568,[787] gives seventy-three vessels of 100 tons or more but from this many important places, such as London, Bristol, Hull, and others are wanting so that it may be assumed that a marked improvement had already commenced. There are many isolated certificates of ships belonging to various ports scattered through the State Papers, and from one of them we find that 'Hawkyns of Plymouth' possessed, in 1570, thirteen of 2040 tons; one of them was of 500 and another of 350 tons. There is a certificate of vessels trading between September 1571 and September 1572,[788] which gives eighty-six of 100 tons and upwards, including forty-nine of 6870 tons belonging to London, but this is not a complete list of ships owned in the various ports, but only of those that had been engaged in trade. For February 1577 there is a full return which yields the following results:—[789]

	Ton 100	Ton 110	Ton 120	Ton 130	Ton 140	Ton 150	Ton 160	Ton 180	Ton 200
London	10	6	7	4	4	1	3		4
Bristol	1		1		2	1	1		1
Chester	1								
Newport	2								
Chepstow	1								
Barnstaple	1								
Fowey	1		1				1		
Looe	1								
Plymouth	2	1	1	1	1				

Dartmouth	1		1				1		
Exmouth	3			1					
Weymouth	1								
Poole	2								
Southampton & Portsmouth	1	1	1						
Dover	1								
Harwich and Ipswich	7		2		1	1			
Woodbridge	1								
Orford and Aldborough	3	1			5				
Walderswick	1								
Yarmouth	4			1					
Lynn	2								
Hull	3	1	3			2			1
Newcastle	6	1	3		2		1		1

The total is 135 and the report says that there are 656 more between 40 and 100 tons besides ‘an infinite number’ of small barks. Yet this return can hardly be complete as it does not correspond, in many instances, with the tonnage measurements of a list of March 1576 which is a schedule of such vessels built since 1571.[790] This list is of value as showing the rapid progress now being made in the construction of comparatively large vessels, a progress which could only be the result of a demand caused by increasing trade:—

	Tons 100	Tons 120	Tons 130	Tons 140	Tons 150	Tons 160	Tons 170	Ton 180
London		3	3	3	1		1	
Lee			2	1				
Exmouth	1			1				
Kingsbridge		1						
Bristol		1				1		
Plymouth				1				
Hull			1		1			

Newcastle			2	1				
Southwold							1	
Cley		2						
Yarmouth	2					1		
Orwell					1			
Chester				1				
Ipswich		2				1		
Looe						1		
Fowey								
Aldborough				2				
Harwich		1						
Wells				1		1		

In the year ending with Easter 1581 there were 413 English ships, of 20 tons and upwards ‘coming from ports beyond seas’ and discharging in London, but no doubt many of the smaller of these, making short voyages, were reckoned more than once.[791]

The authorities encouraged merchants and shipowners not only by legislation but with that personal interest to which the human heart responds more promptly than to legal enactments however profitable the latter may promise to be. When the Levant Company was founded its promoters were called before the Council, thanked and praised for building ships of suitable tonnage for the trade, and urged to go forward ‘for the kingdom’s sake.’ The Levant Company returned at first 300% profit to its shareholders but in the sixteenth century ‘the kingdom’s sake’ was a factor, always more or less present, in the action of the merchant class, nor was the commendation of the lords of the Council considered a matter of small importance. In a national as well as in a private sense it was fortunate that most of these chartered Companies were originally successful. The next certificate is of 1582

and gives:—

	Ton 100	Ton 110	Ton 120	Ton 130	Ton 140	Ton 150	Ton 160	Ton 180	Ton 200
London	10	5	11	7	14	1	6	3	2
Harwich	6				1				
Lee	2								
Cley	2								
Wiveton	4								
Blakeney	1								
Lynn	1				1				
Yarmouth	3								1
Wells	2						1		
Aldborough	4		3		1	1	3	1	2
Ipswich	8								
Southampton	3				1				1
Bristol	2		2			1	1		1
Hull	2	2	1	2	2			1	
Newcastle	1			2	6	3	1	2	1
Poole	2		2	1	1				
Topsham									
Southwold					1		1		
Orford					1				
Fowey			3						
Exmouth			1						
Kenton		1	1						
Cockington				2					
Northam	1								
Weymouth			1		1	1			

The number of vessels of 100 tons and upwards is therefore 177, a very respectable increase from 1577, allowing for wrecks and other sources of loss. Besides the 70 vessels between 80 and 100 tons there are 1383 measuring from 20 to 80 tons. Another return,

a year later, is made out on the same system as regards division of tonnage, but by counties; it will be observed that the results do not altogether coincide:—[792]

	100 tons and upwards	Between 80 and 100 tons	Between 60 and 80 tons		
London	62	25	44	Dorsetshire	
Essex	9	40	145	Bristol	
Norfolk	16	80	145	Isle of Wight	
Suffolk	27	14	60	Southampton	
Cornwall	3	2	65	Kent	
Yorkshire	11	8	36	Cinque Ports	
North Parts	17	1	121	Cumberland	
Lincolnshire	5		20	Gloucestershire	
Sussex			65	Lancaster and Ch	
Devonshire	7	3	109		

There is a certificate, said to be of 1588,[793] but it bears too close a resemblance to the *Harleian MS.* to be considered trustworthy. The 1582 list and the *Harleian MS.* differ somewhat but they are sufficiently alike in classification and totals to show that they belong to nearly the same period; the *Cottonian MS.* is the same in form and almost exactly the same in results, and must be wrongly dated. There is no other list of ships belonging to this reign, but there are occasional references which show that the subject was not neglected. For February 1589 there is a note of large merchantmen at sea during that month; thirteen of 2940 tons are ‘in the Straights,’ five in ‘Barbaria’ and three bound there, five for Bordeaux, eleven for Middleburgh, and six at sea ‘adventuring.’[794] The total tonnage is 7220.

Evidently the government was kept well informed of the position of the trading vessels it might possibly require for transport or warfare. Notwithstanding the various encouragements to native owners the foreign carrying trade was by no means destroyed for, in the year ending September 1596, no fewer than 646 ‘strangers’ ships’ came to London.[795] In Jan. 1597 there were 197 vessels entered inwards at London; two were from Stade, two from Tripoli, one from Venice, six from Spain, twenty-six from Bordeaux, ten from Dantzic, three from Hamburg, one from Scotland, and most of the others from the Low Countries.[796]

With the certificates of ships there was sometimes a return of the men available to man them. It has been noticed that there was seldom much difficulty in obtaining crews, and the table below points to a growth of the maritime population commensurate with the increase of shipping:—

	1560[797]	1565-6[798]	1570[799]	1582[800]
Cornwall	1703		1064	1918
Devon	1268	1264[801]		2165
Dorset	255	347	318	645
Hampshire	296	167	342	470
Sussex	400		321	513
Cinque Ports	396	1024		952
Essex	565	1549	385	693
Suffolk	415	1161	1156	1282
Norfolk	178	975	1112	1670
Lincolnshire	229	234		449
Kent				243
Yorkshire	542		505	878
Cheshire[802]	135			324
Gloucestershire	203			220

Pembrokeshire	392			
Northumberland	37			851
Somerset			63	512
London and River of Thames			2286	[803]
Cumberland				212

The certificate from which the last column is taken shows that in 1582 there were 1488 masters, 11,515 seamen, 2299 fishermen, and 957 London watermen available for service. A fleet of 24 Queen's ships required about 3700 seamen; an auxiliary fleet of 24 armed merchantmen about 3000, so that except when exposed to the strain of a year like 1588 the resources of the country in men were fully equal to any demand likely to be made upon them.

Piracy and Privateering.

During the reign of Elizabeth piracy appears to have almost attained the dignity of a recognised profession, and some notice of its extent is necessary to enable us to recognise the difficulties amid which commerce was extending. In 1563 there were some 400 known pirates in the four seas; and men of good family, who subsequently acquired official rank in the royal service—Champernounes, Killigrews, Careys, Horseys, and Oglanders—had made their earliest bids for fortune as Channel rovers. Occasionally, when an important personage was inconvenienced, a spasmodic effort was made and dire punishment followed. In 1573, the Earl of Worcester, while travelling to France as the bearer of a christening present from Elizabeth to the infant daughter of Charles IX, was attacked between Dover and Boulogne and, although he saved the gold salver he was entrusted with, eleven or twelve of his attendants were killed and wounded and property stolen to the value of £500. This led to steps that resulted in the capture of some hundreds of pirates, but only three were hanged. On the whole, Elizabeth made fewer efforts to deal with the evil than either her sister or brother did; sometimes ships were sent to sea for the purpose but there were no continuous endeavours such as they made. And although pirates were frequently taken few were executed, and their aiders and abettors on shore, a class that included merchants, country squires, and government officials, were always let off with a fine. In truth the English rover was more than half patriot; if he injured English commerce he did infinitely more hurt

to that of France and Spain, and he only differed in degree from the semi-trading, semi-marauding expeditions on a large scale, in which the Queen herself took a share, and for which she lent her ships.

At first Elizabeth sent out even fewer ships than her predecessors had commissioned to clear the Channel; she tried, as usual, to make those principally interested do the work of the crown. Commissions were granted to merchants to equip vessels to catch pirates, their reward taking the form of a permission to recoup themselves out of captured cargo. But even if pirate plunder was recaptured the owners were little better off as the men were commonly serving 'for the spoyle onely without any wagies allowed them by hir Hignes,' and the spoil seldom covered their wages. In 1574 both Hull and Bristol were authorised to equip ships at their own expense to deal with the scourge, and as late as 1600 petitioners were cynically informed that Royal ships could not be spared for convoy duty and that the merchants interested should get together ten or twelve vessels 'by voluntary contributions from subjects.'[804] Proclamation followed proclamation without effect and it was not until 1577 that a really serious attempt was made to crush the freebooters; Palmer and Holstock were sent to sea with a squadron, and searching inquiries were instituted to ascertain the persons who dealt with them ashore and helped them. Southampton was a flourishing centre; not only did the mayor release captured men, but there were brokers in the town who made a business of negotiation between owners and pirates for the return of ships and merchandise taken by the latter.[805] Among the persons fined for dealing with pirates we find the mayor of Dartmouth, the lieutenant of Portsmouth, the deputy searcher of the

customs there; the deputy of the Vice-Admiral of Bristol trading with them and taking bills from them, [806] the sheriff of Glamorganshire, and Wm. Wynter, a relative of the Surveyor of the Navy. Wm. Hawkyns, brother of the Navy Treasurer, and Rich. Grenville, the famous captain of the *Revenge*, were both up before the Council for piracy.[807] A well-known pirate, Atkinson, escaped from Exeter gaol, it was supposed with the connivance of the mayor; the mayor accused the sergeant of the Admiralty, and the evidence seems to show that they were both involved. Sometimes a pirate cargo must have been very valuable; one was made up of 434 'elephants' teeth,' cochineal, wine, and 'Spanish aquavitæ.' If in need of supplies the pirate captain could always reckon on sympathy and assistance ashore, and Cardiff was a recognised headquarters where necessaries could be obtained. If caught by weather and in distress he could usually rely on local help. One vessel, being driven ashore, was deserted by her crew, a proceeding which, if due to fear, was unnecessarily hasty. A local magnate, Sir Rich. Rogers, got assistance, refloated the vessel, and restored her to the captain, accepting a tun of wine and a chest of sugar in acknowledgment.[808] Yet the government dealt tenderly with these men. Of the many names of pirate captains continually recurring in the Elizabethan papers there is not one known to have been executed although some were captured.

In 1584 it was said that 'wee and the French are most infamous for our outrageous, common, and daily piracies,' and naturally the State Papers are full of petitions for redress and compensation, and with commissions of inquiry issued to the various local authorities. Claim and counterclaim from Englishman, Scotchman, Frenchman, Dane, and

Hamburger, follow in endless confusion. In 1586 a correspondent wrote to Burghley ...

> 'being at St Malo last month he heard that sixteen of their ships had been rifled or taken by Englishmen ... and that their hatred of the English was such that our merchants dared not walk about in public ... men in authority to recover their unthriftiness sell their lands, buy ships, and command the captain and company not to return without assurance of a very great sum.'[809]

On the other hand, Bristol, in 1574, had formally complained of St Malo in that 'by common consent' they had set forth seven vessels to prey upon Bristol commerce. The court of Admiralty had granted Bristol merchants permission to seize St Malo ships and goods, which perhaps explains the letter to Burghley just quoted.[810] In 1584 the French ambassador stated that in the preceding two years English pirates had plundered Frenchmen of merchandise to the value of 200,000 crowns; the only answer given was the general statement that Englishmen had lost more by French pirates. There is a list, 47 pages long, of piracies committed by the English on Portuguese subjects alone.

Between 1564 and 1586 Englishmen had spoiled the Scotch—who were said to 'take it unkindly'—of goods valued at £20,717, and restitution had been made to the amount of £3483. But between 1581-5, the Scotch had plundered the English to the sum of £9268, and had restored only £140; from this proportion it may be concluded that the Scot was more successful than the Frenchman in adapting

himself to the fashionable pursuit of the time.[811] Nor were the injured persons exposed only to the loss of their property. A Bayonne ship was captured by a Bristol privateer in 1591 and the owners came to England to obtain redress, but after vainly expending 500 crowns they were, 'fain to leave off their suit and return to France and save their lives.' But the Englishman did not fare better in France. In 1572 the *Pelican* of London, belonging to alderman Wm. Bond and others, was seized by French pirates, the master and crew, twenty-three in number, murdered, and goods valued at £4000 taken with her. The thieves and the receivers were both well known and the owners commenced a suit in the parliament of Brittany; but after fruitlessly expending £1000 prefer to 'leave all in the hands of God rather than prosecute any more suits in France.'[812] Frequently there was little disguise about ownership. In 1580 three Hamburg merchants petition that their ships were despoiled by 'one called the *Henry Seckforde* whereof is owner, Henry Seckforde, Esq., one of the gentlemen of your Majesty's privy chamber.'[813] If business at sea was languishing, the pirate did not disdain to vary his methods; some Dunkirkers planned, and nearly succeeded in carrying out, the abduction of Sir John Spencer, known as 'rich Spencer' on his way to his country house at Islington.

Occasionally, but very rarely, the pirate changed his allegiance. Nicholas Franklin deposes:—[814]

> 'A year ago was with Captain Elliott when they took a flyboat of which captain Elliot made a man-of-war: they went to Helford in Cornwall and brought in a Dieppe prize.... John Killigrew, captain of the castle there, warned

> them to be off as he was expecting the *Crane* one of the Queen's ships; thereupon Elliott gave him nine bolts of Holland cloth and a chest and they sailed to Cork ... thence back to the Channel and took four Scotch and Irish ships, thence to the Isles of Bayonne.'[815]

Here they met some Spaniards, and his crew wanted to fight, but Elliot and his officers drew their swords and forced the men to surrender. Elliot was given the command of a Spanish galleon and, from another paper, it appears that he was afterwards the cause of some Englishmen being racked.

If letters of marque were given they only faintly veiled the real character of the proceedings. In 1586 letters of reprisal were granted to Diggory Piper in the *Sweepstakes* of London, an appropriate name for a privateer. He was authorised to attack Spanish and Portuguese ships; he commenced with some Flemings, continued with two French traders, and finished with a Dane having goods worth £3000 on board.[816] In view of the fact that at various times letters of reprisal to the amount of £140,000 were issued to only a few places,[817] the amount of unlicensed robbery done under cover of such letters can be imperfectly imagined. Sometimes the proceedings were straightforward enough and, as an illustration of their manner of dealing with Spanish ships and the privateersman's contempt for odds, a relation of one of these encounters is given subsequently.[818]

Stores.

In 1579 the stores, such as canvas, cordage, masts, anchors, etc., at Deptford and on board the ships

were valued at £8000, and it was only considered necessary to replenish the stock up to £14,000.[819] For some time whatever was used in any given year was replaced the following year; thus stores to £1662, 11s 8d and £831, 11s 1d were used in 1580 and 1581, and were ordered to be made good in 1581 and 1582. The heavy expenses caused by the war upset this arrangement, and in 1589 we find a payment of £8921, 8s 8d for the balance, still owing, of stores bought in 1587. In 1602 there were at Deptford, 551 cables and hawsers, 26 bolts of canvas, 45 masts and 660 spars, 31,220 ft. of timber, 36 barrels of pitch and tar, besides compasses, flags, etc. Chatham had only 10 cables but 54 bolts of canvas, 124 masts and 1076 spars; Woolwich had timber only.[820] Masts were obtained from the Baltic and varied in length from twelve to thirty-four yards, the latter size being twenty-eight hands in circumference at the partners, and eighteen and two-thirds at the top end. Anything under six hands at the partners was accounted a spar.[821] In 1588 masts of twenty-nine and thirty yards were £26, and £31. In the year of Elizabeth's accession Dantzic cordage cost £13, 6s 8d a ton. Subsequently cables were chiefly purchased from the Russia Company and went up in price until in 1597 Russian cordage 'of perfect good stuff' was costing £23, 10s a ton.[822] For the heaviest anchors the rule was to give a half inch in the circumference of the cable for every foot of beam; a ship with thirty-eight feet of beam would therefore have some cables nineteen inches in circumference. The length was 100 fathoms, and the weight of one fourteen inches round was 34 cwt. 3 qrs. 14 lbs. in white, and 43 cwt. 35 lbs. tarred. A large number of cables, cablettes and hawsers were carried. Although in the preceding table on p. 124

the *Merhonour*, like the other big ships, is allowed seven cables, there were ordered for her in 1589, two of 18 inches circumference weighing five tons; four of 17 inches weighing nine tons; two of 16 inches weighing four tons; and one of 12 inches weighing one ton and a quarter.[823]

Until about 1585 the custom of the principal Officers themselves to sell the Queen minor stores, such as canvas, tar, etc., if it excited comment or suspicion, does not seem to have been stopped; from Burghley's notes on the subject it appears from that time to have been no longer allowed.[824] Nevertheless in 1589 Hawkyns and Borough were accused of still selling to the crown through third persons, but the force of the charge is vitiated by the usual proposal of the informer, that he should act as an inspector of canvas, of course with a salary.[825] The heaviest anchor made was of 30 cwt., but they were usually much smaller; the *Merhonour* had one of 25 cwt., four of 22 cwt., three of 20 cwt., and one of 12 cwt.[826] The price of these was £1 10s per cwt. as against £1 2s in the beginning of the reign. The following is an abstract of the prices of other stores but there were many different qualities in each article which explains large variations in the price:—

Canvas	{ Polldavy	(1558)	40s a bolt
	{ English Midrenex	(1569)	28s a bolt
	{ British[827] do.	(1569)	33s 4d a bolt
	{ British do.	(1581)	28s a bolt
	{ English do.	(1581)	30s a bolt
	{ Ipswich canvas	(1590)	29s a bolt
	{ Compass and straight }	(1567)	8s and 9s a ton

	{ Oak and elm}		
	{ Oak	(1587)	18s a load
	{ Elm	(1594)	18s a load
	{ Oak knee	(1594)	20s a load
	{ do.	(1598)	22s to 27s a load
	Spanish Iron	(1567)	£13 a ton
	English do.	do.	£10 a ton
	Spanish do.	(1572)	£14 a ton
	Rosin	(1567)	£8 a ton
	do.	(1590)	£8 a ton
	Tar	(1567)	£4 and £5 a last[828]
	do.	(1592)	£6 a last
	do.	(1598)	£8 a last
	Train oil	(1567)	£11, 10s & £14 a ton
	do.	(1587)	£20 a ton
	do.	(1590)	£17 a ton
Tree-nails	{ 12 inch	(1571)	1s per 100
	{ 36 inch	(1571)	3s per 100
	{ 36 inch	(1590)	4s 6d per 100

Flags, etc.

Men on deck were sheltered by waistcloths of canvas above the bulwarks which were painted in oil colours; the *Merhonour* required 542 yards. Sometimes the waistcloths were used for the forecastle and poop while the waist itself was protected by nettings.[829] Men-of-war alone seem to have been entitled to wear a flag at the main, ‘the earl’s ship after the taking of the carrack very undutifully bore his flag in the main top which no subject’s ship ought to presume to do.’ The St

George's cross was generally used; the flag shown on the ensign staff of the Elizabethan man-of-war is of green and white, the Tudor colours, and is one that was in common use during the sixteenth century. In 1592 the Levant Company was permitted to use 'the armes of Englande with the redd crosse in white over the same as heretofore they used.'[830] Representations of saints on flags had ceased but other emblems were still in use; falcons, lions, the royal arms, and 'her Maiesties badges in silver and gold,' are mentioned. We have 'sarcenets of divers colours' for ensigns, red and blue say for banners, red say for streamers, and red and white cloth for flags. [831] The Cadiz fleet of 1596 had four large flags, one white, one orange tawney, one blue, and one crimson, 'which were appointed to be so made for the distinguishing of the four squadrons of the flete.'[832] This appears to have been the earliest distinction of squadrons by flags, afterwards shown by the red, white, and blue. The salute to the flag was upheld under circumstances where it might have been more diplomatic to escape the necessity of claiming it. When Anne of Austria was expected to travel by sea to Spain to marry Philip, De Guaras wrote, 'although it is quite incredible it is generally affirmed that when our fleet passes, the English fleet will force it to salute. This absurdity sounds like a joke but it is asserted by persons of weight who assure us that the admiral bears orders to do all manner of wonderful things if our fleet does not salute.' It is said, however, that they had to salute.

It speaks sufficiently for the courage of the Elizabethan sailor that during the whole of the reign only two English men-of-war were captured by Spain, and then only after desperate fighting against overwhelming superiority of force.[833] It speaks

equally well for his seamanship afloat and the skill and good workmanship of shipwrights ashore that, with the exception of the small *Lion's Whelp*, no dockyard built ship was lost by stress of weather, by fire, or by running aground. During the same years, and sometimes during the same gales, that the English ships weathered successfully, whole Spanish fleets foundered at sea.

JAMES I
1603-1625

The Condition of the Navy.

On 24th March 1603 the weapon forged by Henry VIII, and wielded by Elizabeth, fell into the feeble hand of James Stewart. Elizabeth left England supreme at sea; the Royal Navy bequeathed by the Queen to her successor was by far the finest fleet of men-of-war then afloat, for it was not until the close of the sixteenth century that Spain and Holland commenced to build ships for purely fighting purposes.[834] The men who manned it were renowned for hardihood, daring, and smart seamanship; and its organisation as controlled by the great seamen of her reign was more efficient and smoother in its working than any other of the departments of state.[835] Even in 1558 the days were in reality long past when Spanish fleets were to be feared, and when the Bay of Biscay could be proudly called ‘the Spanish Sea’; but it was due to Elizabeth’s sagacity that the weapon which was to slay the Goliath threatening European civilisation was at once recognised and unhesitatingly used. Until 1558 the supremacy even of the Channel, often hardly contested, had been only occasionally gained. Elizabeth was the first of English sovereigns throughout the whole of whose reign the national flag flew supreme and triumphant in the English

Channel. That she was aided by the legacy of a fleet, by the helplessness of France, by changing economic conditions at home, by the revolt of the United Provinces abroad, and possibly by the wisdom of far-seeing advisers, may have made her task easier, but these things do not detract from the praise due to her discernment. The student, perhaps too often reasoning with a knowledge of results, may sometimes feel anger with Elizabeth but hardly contempt. James arouses no qualification of emotion. He commenced his reign with a fleet 'fit to go anywhere and do anything;' he allowed it to crumble away while spending on it more money during peace than Elizabeth did during war; he chose the most unfit men to manage it at home and command it abroad, and the results of his weak and purposeless rule were seen in the shameful fiasco of 1625 and the degradation of English prestige. Had not Buckingham reorganised the Admiralty in 1618 there would shortly have been no Navy to rouse the jealousy of foreign powers. The Regency of 1423 deliberately destroyed the Navy either from ignorance or from motives now unknown; James followed the same course with the best intentions and could doubtless have justified all his actions in choice Latinity. It will be seen that he took an even keener personal interest in the Navy than did Elizabeth, but the lack of controlling capacity so disastrously shown in other affairs was equally fatal to naval administration. The naval records of his reign are but a sorry collection of relations of frauds, embezzlements, commissions of inquiry, and feeble palliatives.

The first wish of the new monarch was to obtain peace with Spain, a desire for which modern historians have unanimously praised him, although it may be at least a matter for debate whether the

continuance of war until Spain was bled to death would not have been ethically justifiable, politically expedient, and commercially profitable. On 23rd June 1603, a proclamation was issued recalling all vessels which had been sent out with hostile intent, and thus ending the lucrative privateering speculations which, when undertaken on a small scale, had so long provided occupation and profit for English sailors and merchants. The last important prize taken by the Queen's ships was the *St Valentine*, a Portuguese carrack captured by Sir R. Leveson in 1602, and its cargo was sold in 1604 for upwards of £26,000.[836]

Shipbuilding.

The improvements in construction that marked the close of the sixteenth century have already been noticed and first, among these may be placed the increase in length and decrease in height above water attributed to Sir John Hawkyns. But the greater demand for faster and more seaworthy ships had not produced models satisfactory to the more critical experts of this generation. Shipbuilding was not yet a science and seemed in some respects to have even retrograded from the standard of the last years of Henry VIII. The subsequent tendency to overload ships, however small, with towering poop and forecastle structures, although it can be explained by the necessity for providing increased accommodation, can scarcely be considered an improvement on the earlier type. Captain George Waymouth, who appears to have been considered an authority on the theory and practice of shipbuilding and navigation, and who was several times called to report independently on the workmanship displayed on the royal ships, was very severe on his

professional contemporaries, and writes that he

> 'Yet could never see two ships builded of the like proportion by the best and most skilful shipwrights though they have many times undertaken the same ... because they trust rather to their judgment than their art, and to their eye than their scale and compass.'[837]

He says that they are too high out of the water, crank, and cannot carry their canvas or work their guns in a seaway; that they will not steer, and sometimes 'their sides are not of equal proportion the one to the other,' Waymouth, among other improvements, suggested a turret on the upper deck, moving on swivel and armed with 'murtherers.' In another paper he says that 'the shipwrights of England and Christendom build ships only by uncertain and traditional precepts and by deceiving aim of their eye,' and the resulting vessels, 'cannot bear sail nor steer readily ... for want of art in proportioning of the mould and fitting of the masts and tackling.'[838]

It must, however, be borne in mind that for at least a quarter of a century English men-of-war had outsailed their antagonists, had weathered gales and fought actions, just as successfully as though they had been built on the most scientific modern principles. Waymouth himself was not successful as a commander at sea; perhaps he knew too much. But he was not alone in his criticisms. Ralegh, in his 'Observations on the Navy,' addressed to Prince Henry, says that there are six principal things required in a man-of-war, viz.: that she should be strongly built, swift, stout-sided, carry out her guns

in all weathers, lie-to in a gale easily, and stay well. None of these things did the King's ships do satisfactorily and 'it were also behoofeful that his Majesty's ships were not so overpestered and clogged with great ordnance ... so that much of it serves to no better use but only to labour and overcharge the ship's sides.' As a practical illustration of the shipwrights' loose methods of calculation it may be mentioned that when the *Prince Royal*, the largest vessel of the reign, was built, Phineas Pett and Bright estimated that 775 loads of timber would be required, whereas 1627 loads were actually used, and the general increase in her cost by this error of judgment was £5908.[839] These laments did not lead to any great improvements in construction. Only a few of the vessels were in any way sheathed; in 1624 Dutch men-of-war could, literally, sail round English ones,[840] and their crankness was only imperfectly remedied by furring or girdling,[841] a method says the writer of the *Nomenclator Navalis*,[842] which is 'a loss to owners and disgrace to builders and deserves punishment.... In all the world there is not so many furred as in England.' That the advance was slow may be judged from the fact that in 1635 the *Merhonour* of 1589, and rebuilt in 1613, was still regarded as one of the fastest sailers in the Navy. The desire for more scientific construction and the growing importance of the shipbuilding industry may however be inferred from the incorporation of the Shipwrights' Company in 1605. The association had existed as a fraternity from, at least, the fifteenth century, and was now of sufficient consequence to obtain a charter.

The Seamen.

An onlooker[843] said that the English were 'good sailors and better pirates.' Whatever their quality as seamen, or however doubtful their maritime morality, no greater care was taken now to preserve their health or improve their morals than had formerly been the case. It is true that the first article in every commission laid stress on the performance of divine service at least twice a day, while the singing of psalms at a change of watch was an old custom, but such humanising details as the punctual payment of wages,[844] a supply of eatable provisions, hospitals for the sick, and suitable clothes, had not yet recommended themselves to the authorities as modes either of obtaining men or of keeping them in the service. Ralegh writes, 'They go with as great a grudging to serve in his Majesty's ships as if it were to be slaves in the galleys.' James I made no use of the Navy beyond fitting out the Algiers expedition of 1620, and commissioning a few ships, year by year, to serve in the narrow seas; but for these few vessels it was found equally difficult to obtain men and to retain them when caught, now that the incitements of Spanish prizes were wanting, while the mortality afloat was equal to that of the worst days of Elizabeth. The only occasion when a large number of men were required was for the fleet preparing in 1625, before the death of James, and then the Navy Commissioners wrote to Buckingham that 'the pressed men run away as fast as we send them down.'[845] Captain Christian of the *Bonaventure*, almost a new ship, serving on the east coast, in 1623, wrote of 'the weak, and I may truly say miserable state of this ship ... of 160 men there are but 70 persons of all sorts that at present is either fit or able to do the least labour in the ship.'[846] There was also a great infection and mortality on

board the *Garland*. Captain Christian complains too of the quality of the men pressed; ‘of all the whole company when they are at the best there are not twenty helmsmen and but three that can heave a lead.’

These instances belong to the end of the reign but matters had not changed: they had only continued. In 1608 it was said that ‘the navy is for the greatest part manned with aged, impotent, vagrant, lewd, and disorderly companions; it is become a ragged regiment of common rogues.’[847] In the Algiers fleet one ship put ashore ninety-two sick men at Malaga at one time. A hospital ship, the *Goodwill*, accompanied this fleet but she was afterwards ‘commanded for other purposes’ and the invalids thrust ashore on the cold charity to be found in a Spanish port. But of course statistics of sickness and death are everywhere rarely referred to in comparison with salutes, state visits, and other affairs of personal dignity.

Although the sailor was not properly fed and paid even if he behaved well, he suffered sufficiently severe penalties for bad conduct. Flogging was so common that ‘some sailors do believe in good earnest that they shall never have a fair wind until the poor boys be duly ... whipped every Monday morning.’ Ducking, keelhauling, tongue-scraping, and tying up with weights hung round the neck ’till heart and back be ready to break’ were common punishments. ‘These will tame the most rude and savage people in the world,’ says Monson. If these punishments were older than Elizabeth they were semi-illegal customs and if connived at were not publicly recognised. They were now part of ordinary discipline and mark the downward progress of the

sailor in self-respect and social estimation. They were easier and cheaper to apply than good government but they bore their Nemesis in the next reign. The old custom of lashing to the bowsprit a sailor who had four times slept on watch, and letting him drown or starve still existed.[848] Small wonder that the men 'abhorred'[849] the employment of the crown, and that in 1625 the shipkeepers at Chatham included weavers, barbers, tailors, bakers, shoemakers, etc., 'most of whom had never been to sea.'[850]

The Administration:—The Navy Officers.

The disorganisation of a service commonly presses most hardly on its weakest members; those of higher rank have usually sufficient influence to preserve their rights or, if unscrupulous, to help themselves to unlicensed gains in the general scramble. Nottingham was still at the head of the Navy as Lord Admiral, a post he retained till 1618. Englishmen will always remember him with respect as the commander of 1588, but a perusal of the various papers relating to the naval administration of this period compels one to conclude that while always ready to do his duty *en grand seigneur*, to command fleets, and to accept responsibility and decide when referred to, he took but a fingertip interest in those details of which successful organisation consists, while his implicit confidence in his subordinates was a disastrous weakness. Moreover he was now growing very old and had doubtless lost much of his former clearness of mental vision. During the lifetime of Hawkyns and under the keen supervision of the

Queen and her ministers this neglect mattered little, but from 1596 onwards the conduct of the Navy Office degenerated rapidly. Langford had possessed no authority and Grevill, if weak, had not been Navy Treasurer long enough to do much good or harm, although signs were not wanting during the closing years of Elizabeth's life that the able control that had made the Navy so terrible to England's foes was relaxing. But the appointment in 1604[851] of Sir Robert Mansell was most unfortunate. Mansell, who was an indifferent seaman and an incapable and dishonest administrator, and whose only claim to the place was his relationship to, and favour with, Nottingham, remained in office until 1618, and the greater portion of this section is practically a record of his unfitness for his important charge.

Under a different Treasurer the other officers might have performed their duty sufficiently well. As it was they fell in with the prevailing spirit. Trevor remained Surveyor until 1611 when he was replaced by Sir Richard Bingley and in the same year Sir Guildford Slingsby succeeded Palmer. In the victualling branch Marmaduke Darell, now a knight, surrendered his former patent and received a fresh one, on 16th August 1603, directed to him and Sir Thomas Bludder. As the fee still remained at its original £50 a year the profit came out of the provisions and was unwillingly provided by the men. In 1612 this patent was in turn surrendered and replaced by one of 31st January appointing Sir Allen Apsley in conjunction with Darell. By this new patent all the storehouses and other buildings at Tower Hill, the dockyards, and elsewhere were henceforth attached to the department; hitherto they had been held by the crown and only lent at pleasure. Marmaduke Darell died in 1622, and a new patent of

8th January 1623 nominated his son Sampson Darell to act with Apsley. There was no change in the victualling rate until 1623, when it reached sevenpence halfpenny and eightpence, for harbour and sea rates respectively.

In 1617, shortly before they were superseded, the functions of the officers were thus defined. The Comptroller's duties were to check the accounts of the Treasurer, and Surveyor of victualling, to inspect stores and storekeepers' books. The Surveyor to inspect ship, wharves, houses, chain, and ships on return from sea, and draw out indents for ships' stores. The Clerk to keep minutes of resolutions and attend the yearly general survey. The Treasurer's duties were financial and involved a general superintendence.[852]

Mansell's delinquencies can be best treated separately, but both he and Nottingham dealt liberally with officers employed at sea or ashore. Nottingham himself obtained in 1609 and 1611 two pensions from James I, during the supremacy of the Howard faction with the king, amounting together to £2700 a year; and it is characteristic of James that the larger of these pensions, of £1700 a year, was granted when the commission of 1608 was sitting and when its disclosures must have been well known. As though all ranks knew what was coming the festivities commenced with the death of Elizabeth. High festival was held on the ships and the pursers petitioned for an allowance of £200, being the cost of general entertainment given by the captains for a month to all who came on board.[853] When Mansell went to sea, he gave himself, as rear-admiral, thirty shillings a day, although Sir Fulke Grevill, when discharging the same office in 1599, received only

sixteen and eightpence a day. Admirals were appointed for the north, south, east, and west coasts, for the narrow seas, and for Ireland, all at liberal rates of pay. In one year, when only seven ships were in commission, there were three admirals and four vice-admirals serving, 'so that the navy was like an army of generals and colonels.'[854] In 1602, with twenty-six vessels at sea the pay of the superior officers was less than during any one of the four or five years before the storm burst on Mansell and Nottingham in 1618. Again, 'we find ... that these admirals and vice-admirals with their twenty shillings and ten shillings per diem, together with the allowance of their retinue and other advantages, are ... so contented on land that they cannot brook the seas and get captains under them as substitutes in their absence.'[855]

Lavish travelling expenses were allowed, and even some of the inferior officers were generously permitted to benefit by the stream of wealth circulating among the higher officials. Worn out ships were put in commission both to use up stores and to provide appointments for the dependants of those in place; the only result being that they lay in harbour as a 'safe sanctuary for loose persons.' The cost of piloting the thirteen ships which took the Princess Elizabeth over to Flushing was £208, and thereon it is remarked that the whole piloting charges for 286 ships during the last five years of Elizabeth did not amount to more. The Comptroller of the Navy, when he went from London to Chatham, charged £9, 9s 11d for travelling expenses, and the Surveyor required £19, 16s for the same journey, 'it being the duty of his place,' the Commissioners indignantly annotate, while even a deputy took £8 or

£10 when he went. Mansell himself was almost sublime; he afterwards claimed £10,000 for travelling expenses during his term of office.[856] New posts were freely created and equally freely paid. Besides the various admirals who did nothing, there were a captain-general and two vice-admirals of the narrow seas, a storekeeper at Woolwich at £54, 'while the store not worth forty shillings,' and a surveyor of tonnage whose duty it was to survey merchant ships of 100 tons and upwards claiming the bounty, and who was accused on all sides of embezzling half the sums paid by the crown to the merchants.

The Administration:—Sir Robert Mansell.

When Mansell resigned, he sent in to the Commissioners of 1618, only an uncertified abstract of his payments for the preceding five years. The Commissioners remarked that 'they being noways vouched or subscribed by the officers we can give no satisfaction of the state of his accounts, being only his own assertions,'[857] and the criticism fairly generalises Mansell's system of financial control even where not tainted with absolute fraud. Notwithstanding his defiance of the abortive order for inquiry issued in 1613, and his consequent temporary imprisonment, he was sufficiently in favour three years later to receive a present of £10,000 from the king on the occasion of his marriage.[858] Proved dishonesty or incapacity barred no one from the favour of James I, provided the culprit was sufficiently good-looking or had

influential friends; and although the evidence laid before the Commission of 1608 and the Commissioners' report thereon should have amply sufficed to send Mansell to the Tower, his ascendancy with Nottingham enabled him to continue in office for a further ten years. Shortly after his appointment he and Sir John Trevor, the Surveyor of the Navy took steps to provide all the requisite stores themselves, thus making large gains on the articles sold by them to the king, and in direct contempt of the rules made by Burleigh twenty years before. Not only was timber ordered three or four times over for the same purpose,[859] but on that item alone Mansell was accused of making a fraudulent profit of £5000 in some four years, and, in conjunction with Sir John Trevor, of obtaining upwards of £7000 in the same time by the differences between the prices paid for pitch, tar, masts, etc., and those charged to the crown.[860] He, Pett, and Trevor, were joint owners of a ship built of government materials and furnished with government stores, which was hired to the king as a transport to go to Spain when Nottingham went there as ambassador in 1605, and for which the State paid, but 'the same ship was at that time employed in a merchant's voyage and so entered in the custom-house books.'[861]

Hawkyns had introduced the practice of paying over money at once to merchants supplying the various requisites for the Navy on deduction of threepence in the pound, an allowance they were well pleased to make in view of the prompt payment, while he had to wait long for his accounts to be settled. Mansell still deducted the threepence but did not pay. He stopped sixpence a month from the seamen's wages for the Chatham Chest, but 'falls

presently into raging passions and pangs when they call for it.'[862] But Mansell was by no means the only one of the superior officers who helped himself out of this fund. Charges of embezzlement, in its crudest form, were made against him in that he certified for more wages than were actually paid—£1000 in one year alone—and that he retained the proceeds of such government stores as were sold. [863] It must be remembered that these accusations were not anonymous attacks, such as were made against Hawkyns, but charges deliberately formulated by a court of inquiry which he never dared to face. It may be truer to say that he was indifferent; it is possible that a portion of his ill-earned fortune went in purchasing immunity. And it is an argument in favour of this view that his dismissal from office did not destroy his influence at court. He was chosen to command the expensive and resultless Algiers expedition of 1620-21, and his subsequent disgrace was due to causes independent of his failure as a seaman or his dishonesty as an administrator.

The Administration:—Abuses and Remedies.

Norreys, writing to Sir John Coke about the Navy in 1603, says 'To say truth the whole body is so corrupted as there is no sound part almost from the head to the foot; the great ones feed on the less and enforce them to steal both for themselves and their commanders.'[864] Abuses unknown during the lifetime of Hawkyns had sprung into existence shortly after his death, although they might have

been then easily checked had Grevill been succeeded by one determined to destroy them. Delay in paying off ships, to the discontent of the men and extra expense of the government, combinations between captains, pursers, and victuallers to return false musters, and the practice of selling appointments to minor posts were all, according to reliable evidence begun about 1597 or 1598.[865] We know that theft was prevalent enough under Elizabeth, but it occurred in the shape of peddling offences, committed by the delinquents at their peril, that the authorities did their best to crush, instead of an organised system in which the latter took the lion's share. Under James 'the chief Officers bear themselves insolently, depending on powerful friends at court;' and 'the shipwrights and others are ordered, commanded, and countermanded in their work by chief Officers who know nothing about it, so that the meanest merchantman is better rigged and canvassed than the royal ships.' The insolence and ignorance here described speak of conditions very different from those that had obtained under the iron hand of Elizabeth. In 1608 the scandal caused by these and other circumstances was so great as to compel inquiry, whether the determining cause was the contrivance of Sir Robert Cotton or of others. A commission was issued to the Earls of Nottingham and Northampton, Lord Zouch, Sir Ed. Wotton, Sir Julius Cæsar, Cotton, and others, of whom only Nottingham was an experienced seaman, and he never attended their meetings.[866] The sittings of the commission extended from May 1608 until June 1609; they commenced with an 'elegant' speech from the Earl of Northampton, a voluminous report was compiled, and the only punishment the culprits experienced was that of suffering 'an oration' from

James, in which he trusted that the guilty persons would behave better in future, and with that patient and saintly hope the proceedings ended. How some of his hearers must have longed for one hour of the dead Queen.

Among the malpractices examined into at some length by the commissioners was the sale and purchase of places, already referred to. Hugh Lidyard was made clerk of the checque at Woolwich by Sir John Trevor, for which he was to pay Trevor £20 yearly and a hogshead of wine; another witness deposed that 'of late years the general way of preferment is by money and few that he knoweth ... come freely to their places.' Pursers paid from £70 to £120 for their posts, boatswains £20, and cooks £30. Robert Hooker gave Edward Masters, of Nottingham's household, £130 for the pursership of the *Repulse*, this he sold for the same amount and bought that of the *Quittance* for £100. His profit he made by victualling the men for sixpence a day, and he admitted that at least ten more men were carried on the books than were on board. Naturally, as promotion went by length of purse,

> 'the officers put in and keep in whom they list though they be never so unfit, and put out whom they list though never so fit, and woe be to him that taketh exception to any man though he be never so unruly ... it breaketh the hearts of them that are worthy.'

It was equally natural that men who had paid heavily for their employments were unscrupulous in recouping themselves. 'The captains being for the most part poor gentlemen did mend their fortunes by

combining with the pursers,' who were in league with the victuallers to send in returns of more men than were on board the ships. Boatswains and gunners sold their stores, shipwrights stole timber, and captains sheltered and took bribes from pirates, or turned their vessels into merchantmen to enable owners of goods to evade payment of customs. The Surveyors of victualling were accused of overcharging and of frauds to at least £4000, in four years.

The Reorganisation of 1618.

James had every reason to sharply check the waste going on, for the crown debt, which was only £400,000 at his accession, had mounted to £1,000,000 in 1608, while the deficit in revenue was £70,000 a year.[867] But 'an oration' in broad Scotch from the lips of the conceited pedant staggering under the weight of the Tudor crown did not prove an effective method of reform. The old knaveries continued even as though James had not made a speech. In 1613 Cotton attempted, through the intervention of Northampton and Rochester, to obtain another inquiry; but his efforts failed through the influence of Nottingham and the intrigues of Mansell. In 1618 the naval administration was worse than ever, and other departments were equally corrupt; 'the household was one mass of peculation, and extravagance.'[868] Even now Sir Lionel Cranfield, who was the moving spirit in the endeavour to purify the public service, might have failed had not Buckingham himself desired to occupy the post of Lord Admiral. Nottingham at last retired with a gratuity of £3000 and another pension of

£1000 a year. Mansell was succeeded, from the 10th May 1618, by Sir William Russell, a merchant, who paid him for his place and who was wealthy enough to advance subsequently £30,000 towards fitting out the Cadiz expedition of 1625.[869] It is probable that, from his lack of technical knowledge, Russell's direction, if more honest than Mansell's, would have been as unsuccessful had he been entrusted with control, but his duties were financial only and confined to the keeping of accounts. The other officers were 'sequestered from their posts' and their business entrusted to a board of Navy Commissioners, appointed for five years and responsible to the Lord Admiral. Of the Commissioners, Sir John Coke was the leading spirit and received £300 a year; one was in charge of Chatham, with a salary of £200 a year; another, William Burrell, a shipbuilder, was placed at Deptford to supervise all building and repairs, for which he received £300 a year; and Thomas Norreys acted as Surveyor with £200 a year.[870] Immediate benefit was obtained from the reform; the fleet and dockyards were kept in repair, theft was checked, and two new ships a year were built in five consecutive years, all for less money than Mansell had squandered in doing nothing efficiently. Buckingham appears, also, to have not only given his subordinates a loyal support but to have been honestly anxious to obtain the best men for the service, and to render officers and sailors contented. The chronic emptiness, however, of the treasury, for which he was largely answerable, made his endeavours in this last direction of less avail.

The Navy Commissioners.

The new Commissioners,[871] on entering office, sent in a report of the state of affairs they found existing in the various naval departments;[872] all the frauds of 1608 were still flourishing, with some new ones due to the lapse of time. Places were still sold, and at such high prices that the buyers 'profess openly that they cannot live unless they may steal'; the cost of the Navy had of late been some £53,000 a year, 'that could not keep it from decay.' For building a new ship in place of the *Bonaventure* £5700 had been allowed but, although £1700 had been paid on account of it, no new vessel had been commenced, and though this same ship 'was broken up above seven years past yet the King hath paid £63 yearly for keeping her.' Further, 'the *Advantage* was burnt about five years since and yet keepeth at the charge of £104, 9s 5d; the *Charles* was disposed of in Scotland two years since and costeth £60, 16s 10d for keeping.' For repairing the *Merhonour*, *Defiance*, *Vanguard*, and *Dreadnought*, £23,500 had been paid

> 'for which eight new ships might have been built as the accounts of the East India Company do prove; yet all this while the King's ships decayed and if the *Merhonour* were repaired she was left so imperfect that before her finishing she begins again to decay.'

In nine years £108,000 had been charged for cordage, and the Commissioners express their intention of reducing the expenditure on this item by two-thirds.

At a later date some of the Commissioners themselves did not escape suspicion. In 1623 Sir John Coke, still the leading member, wrote to

Conway that all went well until the Algiers voyage, but that he then suspected that some of his colleagues were selling their own wares to the government. They, of course, denied the allegation when Coke was frank enough to openly tax them with it, but 'ever since I carried a watchful eye over them and employed fit persons to discover their dealings.'[873] A man like Coke was probably not popular even among those with whom he was associated, still less with the gang whose deceits and illicit gains he had greatly helped to terminate. We may read something of the temper and feelings of the discarded Navy Officers in his appeal for protection against Sir Guilford Slingsby, a year later, who had threatened that, unless he was restored to office by Lady day, Coke should not outlive that date.[874] Slingsby was reappointed Comptroller by Charles I and then again gave evidence of his peculiar qualifications for the exercise of authority over others. But there is no doubt that the administration of the Commissioners was pure enough compared with that of Mansell. Their failures were due to causes they were unable to deal with, such as want of money and the bad treatment of the men. So far as the latter were concerned the Commissioners did not —and probably had no power to—reverse the disposition to employ landsmen of influence as captains who were out of sympathy with their men and had no care for their feelings or interests. It was in this and the succeeding reign that there grew up that bitter hatred and contempt for gentlemen captains, to which seamen so often gave expression for a century afterwards, and of which traces are to be found in the present century.

At the close of their first five years of office the Commissioners sent in a report of the work done by

them.[875] They said that whereas they found in 1618 twenty-three serviceable and ten unserviceable ships, of altogether 15,670 tons, four decayed galleys and four hoys, costing £53,000 a year, they have now thirty-five serviceable vessels of 19,339 tons, besides the hoys and galleys, and the expense has been little more than £30,000 a year, including the charges for building ten new ships.

Naval Expenditure.

This last amount does not coincide with those given in the table below, from the *Pipe Office Accounts*, but that may be from the inclusion in the latter of extraneous expenses, such as the Algiers expedition, considered by the Commissioners to be outside the range of their comparison:—[876]

	Amount received	Victualling	Sea Charges	Total spent	Stores	Ordin
1603	£42619	£32920	£13247	£42271		
1604	24000	12469	6248	24002	£9616	£6
1605	29000	16042	9760	28672	7312	
1606	22100	10156		18984		
1607	21000	9452	2896	25200	11000	5
1608	38424	12103	6859	36554		
1609	42400	10200		43396		
1610	36607	10432		36358		
1611	42300	8670	3428	40153	25520	8
1612	34200	8672	3934	33930		8
1613	50355	19625	8816	56987[877]	25000	10
1614	48463	15275	7996	56848		
1615	45643	15387	7764	57968	16295	8
1616	40515	12886	7800	41269	15268	4
1617	31213	13716		25548		

1618		10465	5165	27489	8000	
1619	31606	6324		32610	2355	5
1620	38300	14680	2960[878]	35872	5936	
1621	54264	23369	2945[879]	51000		10
1622	52385	11143	7765	45450		13011[
1623	59200	23414	24066	62000[881]		
1624	26529	6430	3079	31125		

Seamen's wages remained unchanged till the end of the reign when the rate reached fourteen shillings a month, and the pay of the officers was raised in 1618. Not only was it difficult to keep the men on board the ships, but the expensive and wasteful system of impressment made the eventual outlay even heavier. In 1624 an estimate was drawn up of the expenses for fitting out a fleet of twelve men-of-war: 3000 men were required, of which number the river was to supply 800 at press and conduct money of 2s 6d a man, the remaining 2200 being obtained from 'remote places' at a cost of eight shillings a man. At their discharge one shilling and seven shillings a man conduct money respectively, for the river and country districts would again have to be paid. The total estimate for twelve men-of-war for five months, and fifty merchantmen for six months, was, £94,874, a sum which shows the great increase in prices since the days of Elizabeth, and partly explains the rise in the yearly expenditure.[882]

Piracy.

Piracy, though still a school for seamanship, was no longer the flourishing business it had been under Elizabeth; the trade, to use a modern phrase, was 'cut up.' Spanish commerce was almost destroyed in northern latitudes, and the Dutch was well able to protect itself, while new competitors were found in

the Mediterranean rovers who hovered round the English coasts and even stretched out into the North Atlantic, and in the fast sailing Dunkirk privateers who swarmed in the Channel. In 1605 Hannibal Vivian wrote from the west country, 'let it not offend you that I inform you from time to time of the piracies and depredations daily committed on this coast.' However repugnant piracy may have been to some of the officials it commended itself still to many natives of the western counties. Out of one pirate crew, thirty-five in number, seventeen belonged to Dartmouth and Kingswear, and the mayor and others of Plymouth were accused of buying the stolen goods and favouring the escape of the men. The government appeared helpless; if they sent ships to sea the captains 'pretend to pursue, and when well away in some distant port write up that a leak had been sprung, obtain warrants to repair in port, and so remain for the captain's benefit.' Sometimes they even took the pirates' goods on board and sheltered the criminals themselves. If any of the corsairs were caught the general opinion among them that they were only liable 'to a little lazy imprisonment,' was usually justified by results. Ireland was said to be 'the nursery and storehouse of pirates,'[883] for, besides providing its own quota of sea-rovers it offered the hospitality of its ports to those vessels belonging to the Barbary corsairs that required repair.[884]

In 1616 the weakness of the Crown was shown by a warrant being granted to two London merchants to prepare a ship to go pirate hunting with permission to retain for themselves three-fourths of the goods seized.[885] About this time there was a fleet of thirty Turkish ships in the Atlantic, and another Salleeman had recently been captured in the Thames;[886]

between 1609 and 1616 the Algerines had captured 466 British ships and reduced their crews to slavery, [887] and in the latter year Sir Francis Cottington wrote to Buckingham that their strength and boldness exceeded all previous experience. Mansell's voyage of 1620-21 cost at least £34,000, and probably much more, but 'such was the misgovernment of those ships,'[888] that within a few weeks of his return an Algerine fleet was at work again in the narrow seas. The inhabitants of Swanage seem to have been especially nervous since they petition for a block-house, 'the Turks being grown exceedingly audacious.' Matters grew even worse towards the close of the reign. Some Weymouth merchants desired to fit out ships of their own to deal with the incubus terrorising commerce, but permission was refused, mainly because it was injurious to the Lord Admiral's profits and 'dishonourable to the King.' Others, however, of the Weymouth tradesmen dealt with the robbers, and the local Admiralty officers were supposed to connive at the traffic.[889]

The Lizard light was objected to because 'it will conduct pirates,' and to most people it will read strangely now that it was forbidden at the instance of the Trinity Corporation. The Newfoundland Company, in asking for assistance, said that since 1612 damage to the amount of £40,000 had been committed by the marauders, and that over 1000 men had been forced or persuaded to join them.[890] One of the freebooters was admiral of a large pirate fleet. In 1624 the Navy Commissioners were desired to certify how many men-of-war would be required to clear the southern and western coasts, just as they had often enough before been required to certify; the process seldom proceeded further.



The Merchant Marine.

That ‘merchantmen dare hardly sail’ was scarcely a condition of things conducive to commercial enterprise. Piracy was becoming a more serious drawback than formerly because ships were bigger and more costly, the network of commerce more sensitive and complex, and losses could no longer be recouped by successful privateering on a small scale. Little can be said of the merchant shipping of these years, as the returns of available ships, so frequently occurring among the Elizabethan papers, are entirely absent for this period. But all the notices of trade met with, are invariably characterised by lamentation. The Dutch were said to be obtaining the carrying trade owing to the greater cheapness with which their vessels were built and worked, the difference in their favour being as much as one-third of the English owner’s demand for freight. In 1620 it was stated that the number of London-owned ships had fallen to one-half of that of former years, and, as accounting for part of the decrease, we have a certificate for 1618 of vessels belonging to the river but lately sold for want of employment.[891] The list in question shows an enormous depreciation in value, since none of them could have been very old: —

	Tons	Guns	Cost	Sold for
			£	£
Neptune	500	30	5000	1500
Paragon	280	24	3200	1000
Martha	250	20	2400	500
Industry	350	26	4500	2000

Clement and Job	300	24	3600	1000

The building price here almost certainly does not include the cost of ordnance, while it is probable that the sale price does, and it will be noticed that these merchantmen are nearly as strongly armed as men-of-war. Complaints came from all quarters: the Muscovy Company had employment for only two instead of seventeen ships, as in former days, and the Norway trade was ‘in pawn to the Dutch’; the Levant Company found its trade destroyed by piracy, and still more by the competition of the Dutch, who now sent one hundred ships a year to the Mediterranean. The greater portion of the Newcastle coal traffic was carried on in foreign bottoms; there were some twenty vessels trading to Spain and Portugal, and fifty or sixty to the North German ports, but in both cases the Dutch trade was now far greater than ours; and the fisheries in English waters were entirely in the hands of the Hollanders who were reputed to make a profit of £1,000,000 a year from that which under a stronger sovereign would have been held for England. The Newfoundland and Iceland fisheries, which employed 150 and 120 sail respectively, were still chiefly in English hands, but the Greenland, to which fifteen sail were sent, had to face the ubiquitous Dutch competitor.[892]

During this reign the most flourishing association was the East India Company, although its profits were not so large as were those of its Dutch rival. [893] In twenty years it had despatched eighty-six ships, of which eleven had been seized by the Dutch, and fourteen had been wrecked or worn out, and the estimation in which it was held is shown by its being more heavily assessed towards the expenses of the Algiers expedition than was any other company. This

association attempted, in 1613, to start iron and shipbuilding works near Cork, but was forced, by the hostility of the natives, to discontinue the enterprise. The largest merchantman built during the reign of James, the *Trade's Increase* of 1100 tons, was constructed for the East India Company. With a smaller ship, the *Peppercorn* of 250 tons, it was launched in January 1610, and there are some curious notes by the captain of the *Peppercorn* describing the event.[894] On Saturday, 30th December the king came down to name the two ships, but every attempt to launch them failed, and continued efforts on the Sunday, 'God made fruitless that day.' On 1st Jan. the *Peppercorn* was launched, and it was only then found that the dockhead was too narrow to let the *Trade's Increase* pass. On the Wednesday, however, she was got clear and the captain of the *Peppercorn* complains that 'on this ship was all the Company's pride set; she was altogether regarded, tended and followed while the other, the *Peppercorn* was left in manner desolate.' The *Trades Increase* was wrecked in 1613 on her first voyage. The hire of merchantmen taken up for government service was still two shillings a month per ton; and the bounty of five shillings a ton on new and suitable vessels ceased in 1624, only to be renewed early in the next reign for similar ships.

Merchants, generally, were liable to the exactions and dishonesty of the officials of the Customs department as much as in the previous reign. But by this time the two formerly antagonistic interests seem to have come to a working arrangement. We are told that merchants and the farmers of the customs were now in partnership, and that goods were cleared on payment of little or no duty. The importation or exportation of prohibited wares was

only a matter of terms; and, altogether, the king was frequently defrauded of 75% of the customs.[895] The collection of light dues was placed in the hands of the customs' farmers, and, when a licence to build a lighthouse at Dungeness was granted to Sir Edward Howard in 1615, they had to receive the one penny a ton payable from all ships passing it. At Winterton there was also another light, and the receipts were £1000, of which, £350 went in expenses.[896] As the Trinity House claimed the control of the coast lights as a part of its privileges, there was a good deal of litigation on the subject during the reign.

The Navy List.

In the following list[897] certain vessels, the *Defiance*, *Dreadnought*, *Merhonour*, and *Repulse* have been admitted as rebuilt and new, although it is quite possible that, notwithstanding the large sums spent upon them, they were only more or less badly repaired.

	Built	Rebuilt	Burden	Ton and Tonnage	Guns	Keel	F
						ft.	
Nonsuch[898]		1603		636	38	88	
Assurance[899]		1603		600	38	95	
Speedwell[900]		1607		400			
Anne Royal[901]		1608		800	44	103	
Lion's Whelp		1608		90			
Red Lion[902]		1609		650	38	91	
Due Repulse		1610		700	40	97	

Prince Royal	1610			1200	55	115	
Phœnix	1612			250	20	70	
Primrose		1612					
Merhonour[903]		1612		800	44	104	
Dreadnought		1612		450	32	84	
Defiance		1612		700	40	97	
Vanguard		1615		650	40	102	
Seven Stars	1615			140	14	60	
Convertine[904]	1616			500	34		
Desire	1616			80	6	66	
Rainbow[905]		1618		650	40	102	
Antelope		1618		450	34	92	
Happy Entrance	1619		437	582	32	96	
Constant Reformation	1619		564	752	42	106	
Victory	1620		656	875	42	108	
Garland	1620		512	683	34	93	
Swiftsure	1621		650	887	42	106	3
Bonaventure	1621		506	675	34	98	
St George	1622		671	895	42	110	
St Andrew	1622		671	895	42	110	
Triumph	1623		692	922	42	110	
Mary Rose	1623		288	394	26	83	

Two other third-rates, the *Mercury* and *Spy*, were built in 1620 by Phineas Pett—who went as captain of one of them—for some London merchants to go with the Algiers fleet. By a warrant of August 1622 they were ordered to be taken into the Navy, but their names do not appear in any list of James or Charles.

Of the nineteen vessels added to the Navy during Mansell's term of office two were commenced before his appointment, one was bought, two of the five new ones were mere pinnaces, and of the remainder most were very expensive repairs rather than

rebuildings.

The New Ships.

In 1603 James had resolved to have three ships built, but the *Nonsuch* and *Assurance*, both ordered before his accession, were the only quasi new ones. Although no real accessions were made for some years James took sufficient pride in his fleet to be eager to show it to visitors; in 1606 he ordered all the available vessels 'to be rigged and put in warlike order' preparatory to a visit from himself and the King of Denmark, which took place in August. In 1610 the Prince of Brunswick came to see the Navy. In 1608 the *Ark Royal*, Nottingham's flagship in 1588, was rebuilt, and her name which should have lived in popular memory with that of the *Golden Hind*, changed to the *Anne Royal*, in honour of the commonplace Queen. She was rechristened by Sir Oliver Cromwell. The *Swiftsure*, rebuilt and renamed the *Speedwell*, is noteworthy as being the first important English man-of-war lost by misadventure at sea since the *Mary Rose* foundered in 1545. She went ashore near Flushing in November 1624, a mischance that her captain—Chudleigh—attributed to a drunken pilot.[906] He, at any rate, lost all control over his crew, whose discipline seems to have been quite unequal to the sudden strain of an unexpected accident. Of Mansell's rebuildings the most striking points are the amounts spent—nearly £60,000 can be traced in the *Pipe Office Accounts*—and the time taken, ships being usually two, three, or four years in hand.

It was probably due to the express desire of James that on 20th October, 1608 the keel was laid of the

Prince Royal of 1200 tons, the largest ship yet designed for the Navy. Under the new rules of measurement in force in 1632, she was certified as of 1035 net, and 1330 gross tonnage. Her construction was assigned to Phineas Pett, and many intrigues, reaching even the Court, centred round her. The other shipwrights were both jealous and critical, and openly expressed their disapprobation both of the material used and the manner in which it was employed. In 1609, Baker, now an old man of seventy-nine years, but still in active employment, William Bright, Edward Stevens, and some other shipwrights, with Waymouth as an unofficial expert, were ordered to report on the execution of the work. Pett did not like Waymouth, whom he describes in his autobiography as 'great kilcow Waymouth,' and 'a great braggadocio, a vain and idle fellow.' Baker, and perhaps some of the others must have been chosen on the governmental principle of setting personal enemies to inspect each other's performances, seeing that he had not long before stated on oath that he thought both the Petts 'simple' and quite unfit to be entrusted with the production of a large ship.[907] Pett naturally had little love for Baker, although he had years before attempted to be friendly with the veteran, begging him not to so easily credit malicious reports, and ascribing all his knowledge of his art, 'if I have any,' to the elder man.[908] But the system that made it to each man's pecuniary interest to obtain as many ships as possible to build and repair, and to exert all his personal influence to that end, converted the dockyards into nests of intrigue.

Pett was protected by Nottingham and Mansell, and 'he is reported to be their right hand and they cannot do without him,' said Bright, another of Pett's

competitors, and who was therefore chosen to sit in judgment upon him. Nottingham, Suffolk and Worcester were then appointed to make further inquiry, and their report being satisfactory, and therefore displeasing to Northampton, the latter desired another investigation, which the King acceded to by naming a day when he would examine the vessel and hear the conflicting evidence himself. He and Prince Henry came to Woolwich on 8th May 1609, and after a long day of scrutiny and discussion, Pett emerged triumphant from the ordeal. Time, however, was on the side of the objectors. The *Prince Royal* was never subjected to any serious work, but in 1621 the Commissioners wrote to Buckingham that she was then only fit for show, that she cost in the first instance, £20,000, and would require another £6000 to make her fit for service, and that she was built of decaying timber and green unseasoned stuff.[909] These were the very points on which Baker and his fellows had insisted, and on which they had been defeated in 1609. She attracted universal attention when building. The King, the Prince of Wales, Princess Elizabeth, and the French ambassador came several times to visit her when approaching completion, and 'nobles, gentry, and citizens from all parts of the country round,' resorted to Woolwich. An attempt to launch her was made on the 24th September 1610, the whole of the Royal family being present, but, as in the case of the *Trades Increase*, the dockhead was too narrow to permit her to pass. A second essay was more successful.

The *Prince Royal* was the first three-decker built for the English Navy.[910] She was gorgeously decorated, according to the taste of the time, with carvings and 'curious paintings, the like of which was never in any ship before.' She was double-planked, 'a charge

which was not formerly thought upon, and all the butt-heads were double bolted with iron bolts.'[911] There is one payment of £868 for her painting and gilding, work done by Robert Peake and Paul Isackson, the latter of whom belonged to a family for several generations employed in decorating men-of-war. The four upper strakes were ornamented with gilt and painted badges, arms and 'mask heads,' and the Prince's cabin was 'very curiously wrought with divers histories.' Carving cost £441, and included fourteen 'great lions' heads for the round ports.'[912]

The Commissioners' Improvements.

It was possibly the result of Cotton's abortive effort in 1613 to procure a further inquiry into the administration, that several of the old ships were rebuilt about that time, but, as the Commissioners subsequently remarked, at prices that would have more than provided new ones in their stead. It was not until the Navy Commission took control in 1618 that the systematic production of new ships was commenced. It will be seen from the preceding list that from that date they carried out for five years their expressed intention of adding two ships a year to the Navy. They also made certain recommendations, to be kept in view by themselves and their successors, that embodied improvements, perhaps the result of the trenchant criticisms of the beginning of the reign.[913]

The fleet was to average thirty seagoing ships, and building was to be confined to Deptford, where two vessels could be worked upon simultaneously. The length of keel was to be treble the breadth, 'but not to draw above sixteen feet because deeper ships are

seldom good sailors,' besides, 'they must be somewhat snug-built, without double galleries and too lofty upperworks, which overcharge many ships and make them loom fair but not work well at sea.' It is no reproach to the Commissioners, who could but act on the best professional advice obtainable, to have to remark that their ships were nearly as crank as their predecessors, and all required to be furred or girdled to make them at all trustworthy in a seaway; and at a later date, even the smaller stern galleries given them excited much adverse criticism.

They continue,

> 'For strengthening the ship we subscribe to the new manner of building—1st, making three orlops, whereof the lowest being placed two feet under water, strengtheneth the ship though her sides be shot through; 2nd, to carry this orlop end to end; 3rd, the second or main deck to be sufficiently high to work guns in all weathers.'

From this it is evident that the orlop deck as built in the *Merhonour*, *Garland*, and *Defiance* of 1589 did not run the whole length of the ship, and that if the 'new manner' is to be accepted literally, even the *Prince Royal* was not a two-decker. Cooking galleys were to be placed in the forecastle, as the weights carried at each end with a comparatively empty midship section caused 'hogging,' besides wasting valuable stowage space and producing other inconveniences. Wynter had recommended this forty years before, but the new regulation remained inoperative for some time longer. The lower ports were now to be at least four and a half feet above the

water line. Most of the Commissioners' ships were built with three decks, but with smaller and lower superstructures on the upper deck than had been previously customary. Bad as they were they seem to have been steadier than their predecessors.

An undated State Paper, calendared under 1627, but which from its arguments in favour of a third deck—a question finally closed long before 1627—more probably belongs to this period, gives us some particulars of the internal arrangements of a man-of-war. The lowest deck was to carry the bread and other store-rooms, the cables and officers' cabins, besides a certain number of the crew who were also to be berthed upon it. The second deck was to be laid five and a half or six feet above this, and in a ship like the *Lion* was to be pierced for nine ports a side, and four chase-ports fore and aft. The ports were to be at least two feet three inches square, 'and that there be built between every two ports hanging cabins to fold up to the decks for the lodging of men.' Otherwise this deck was to be kept clear instead of being hampered by the cables stowed upon it in two-decked ships. Readers desirous of technical details relating to the position and dimensions of floor, timbers, riders, butts, carlings, clamps, foot and chain waling, standing and running rigging, etc., will find much exact information in the State Papers of the next reign dealing with the surveys taken of most of the new and old ships in 1626 and 1627.

The Commissioners ordered that the *Elizabeth* and *Triumph* should be sold; £600 is entered in the accounts as received for their hulls in 1618, although as late as 1615, £537 had been spent in repairing them. The *Mercury* had been sold in Ireland in 1611,

the *Foresight* condemned in 1604, the *Quittance* and *Tremontana* were to be broken up, and the hulls of the *Garland* and *Mary Rose* were to be used for a wharf in conjunction with a proposed new dock at Chatham. The *Bonaventure*, *Charles*, and *Advantage* had long ceased to exist, and the *St Andrew* and *St Matthew* had been given to Sir John Leigh in 1604 as being then no longer servicable. The *Victory* is said to have been rebuilt into the *Prince Royal*, but the connection is not altogether clear. In one paper[914] of 1610, there is a distinct, and apparently conclusive statement, occurring twice over, 'The *Victory* now named the *Prince Royal*.' On the other hand Cotton, in his report of 1608,[915] writes, in discussing the waste and embezzlement of material,

> 'Thus did the *Victory* for the transportation, dockinge, and breaking uppe stand the King in fower or five hundred poundes and yet noe one parte of her serviceable to any use about the buildinge of a new as was pretended for a coulour. To conclude, though we set her at the rate of 200li yet it had been better absolutely for the King to have given her away to the poor than to have bin put to the charge of bringing her from Chattam to Wollich noe other use having bin made of her than to furnish Phinees Pette (that was the only author of her preservation) with fewell for the dyette of those carpenters which he victualled.'

This also appears conclusive. A possible explanation lies in the fact that, the *Victory* having ceased to exist, the *Prince Royal* may have been laid down in that name, and afterwards changed to the later appellation.

The four galleys were a source of constant expense, one or the other being in continual need of repair, rebuilding, or shed protection from the weather. They were never used, and in 1629, having 'been long laid aside as useless vessels' were ordered to be sold. The new *Antelope* and *Rainbow* of 1618 were not claimed by the Commissioners as among the vessels of which they should have the credit although they were both completed after their entry into office. The *Happy Entrance* and *Constant Reformation* were launched in the presence of the King at Deptford, and were named by him with intent to commemorate Buckingham's accession to his post and the good effects to be expected from it. In 1624 no new vessels were built and the last Navy list of James I is as follows:—[916]

First rank	Second rank	Third rank	Fourth rank
Prince	*Repulse*	*Dreadnought*	*Phœnix*
Bear	*Warspite*	*Antelope*	*Seven Stars*
Merhonour	*Victory*	*Speedwell*	*Charles*
Anne Royal	*Assurance*	*Adventure*	*Desire*
	Nonsuch	*Convertine*	
	Defiance	*Happy Entrance*	
	Lion	*Bonaventure*	
	Vanguard	*Garland*	
	Rainbow	*Mary Rose*	
	Constant Reformation		
	Swiftsure		
	St George		
	St Andrew		
	Triumph		

There were also the four galleys and some hoys; eleven of the vessels were noted as needing more or less substantial repairs and most of the old ones were broken-backed. The ten new ships cost £6 a ton for the larger and £5, 6s 8d for the smaller ones, against £16 a ton under Mansell's improvident management, but these prices were for the hulls and spars alone. [917] According to the *Pipe Office Accounts* the cost of the *Happy Entrance* and *Constant Reformation* was £8850; of the *Victory* and *Garland* £7640, which included masts and spars, carving and painting; of the *Swiftsure* and *Bonaventure* £9969, and here an additional £1169 was paid for sails, anchors, and fittings; of the *St George* and *St Andrew* £9632, and £1306 more for fittings down to boats and flags; and £8106 for the *Triumph* and *Mary Rose*. Taking them from Deptford to Chatham varied between £73 and £418, doubtless depending on the number of men employed and the time occupied. Burrell's contracts for 1619 were at £7, 10s and £8 a ton, and the £5, 6s 8d and £6 quoted above were only due to the fact that the ten ships measured 1899 tons more than was expected which reduced the average.[918] He apparently had to bear the loss; no alteration was made in the way of calculating tonnage during the reign.

There is little to be said about any improvements in rigging or canvas during this period. Fore and aft sails are still absent; studding sails and booms are spoken of in the *Nomenclator Navalis*,[919] but are not alluded to in any naval document. It may be of interest to quote from the same manuscript the rules governing the proportions of masts and yards.

Mainmast	three times four-fifths of the beam.
Foremast	four-fifths of mainmast.

Bowsprit	do. do.
Mizenmast	one-half of mainmast.
Topmasts	half the length of lower masts.
Main yard	five-sixths of length of keel.
Fore yard	four-fifths of mainyard.
Top yard	three-sevenths of mainyard.
Cross-jack yard	four-fifths of mainyard.
Spritsail yard	do. do.

Shipwrights.

Baker, Pett, and Burrell were the three chief shipwrights of the reign; Ed. Stevens, John Adye, Wm. Bright, Clay, Hen. Goddard, and Maryott were less known men. Baker died on 31st August 1613 at the age of eighty-three. As a boy and man he had seen the rise of the modern Navy, and had himself largely helped by his skill to produce the type of ship that was found sufficient for that age. That during the whole of his long life he appears, so far as existing records show, to have quarrelled with, or spoken ill of, equals, inferiors, and superiors may be charitably attributed rather to the unfortunate conditions governing a shipwright's position than to any natural bent of character. The writings or utterances of other shipwrights, that have come down to us, show them to have been in no way superior to Baker in these respects. The ships built by him represented sound and honest work. He died in harness while in charge of the repairs of the *Merhonour* which had been built under his superintendence twenty-four years previously, and he was long remembered as 'the famous artist of his time.'

Pett had been favoured by Nottingham and Mansell but does not appear to have experienced the

same partiality from the Commissioners. They chiefly employed Burrell, who had previously been master shipwright to the East India Company, but during the next reign Pett came again into favour, and was made a principal Officer and Commissioner for the Navy shortly after Burrell's death in 1630. The master shipwrights received two shillings a day and lodging money, but all these men had extra allowances, partly dating from the last reign. Baker had a pension of £40 a year, besides his Exchequer fee and payments from the Navy Treasurer. Bright had one shilling and eightpence a day which had been originally given to Richard Chapman for building the *Ark Royal*, and had been continued in whole or part to him. Pett's Exchequer fee had been retained in the family since it was first granted in the second year of Mary's reign.[920] Probably the orthodox scale of wages would not alone have retained these men in the royal service and the pensions were used to make their posts more valuable.

Dockyards.

Deptford was still the principal yard, but Chatham was rapidly coming into greater importance; Portsmouth is hardly mentioned. In 1610 the dry dock at Deptford was enlarged and a paling made round the yard,[921] and in the same year there is a charge of £34, 19s for tools to make cordage at Woolwich. By 1612 cordage was being made there at £28 a ton, and in 1614 the ropehouse was extended at a cost of £368, and 305 tons of cordage made there in the year.[922] It was, however, still far from supplying the needs of the Navy since in 1617 cordage to £10,400 was bought. A Dutchman, Harman Branson, superintended the rope factory, at

a salary of £50 a year. In 1619 the wooden fence at Deptford was replaced by a brick wall; the only reference to Portsmouth is for the cost, in 1623, of 'filling up the great dock there, and ramming the mouth of the said dock with rock stones for the better preserving of the yard against the violence of the sea.'[923] This was the end of the earliest dry dock in England. A dock had been frequently urged for Chatham, but it was not until the Commissioners came into power that the matter was seriously taken up. They at once devoted their attention to the Medway, for which one reason may have been the great cost attendant on the removal, backwards and forwards, of ships between Chatham and Deptford. It has been mentioned that the hulls of the *Garland* and *Mary Rose* were used to support a dock wharf at Chatham; they were joined there by an old antagonist, the *Nuestra Señora del Rosario*. A sum of £61, 1s 3d was paid to

> 'Thomas Wood, shipwright, and sundry other ... employed in digging out the old Spanish ship at Chatham, near the galley dock, clearing her of all the stubb ballast and other trash within board, making her swim, and removing near unto the mast dock where she was laid, and sunk for the defence and preservation of the wharf.'[924]

The old Spaniard, however, was not even yet at rest. In 1622 occurs the concise entry, 'The hull of the ship called Don Pedroe broken up and taken away.' The men of the seventeenth century were not emotional and saw no reason in a useless trophy. They did, in 1624, have a new wharf 'made at Sir Francis Drake's ship,' but there were fees attached to

the preservation of that.

In 1619 and 1620, two mast docks were made at Chatham, each 120 feet long, 60 feet broad, and five 'flowers' deep, and six acres of ground were enclosed with them.[925] A further great extension followed in the shape of a lease from Sir Robert Jackson of 70 or 80 acres of land, called 'Lordslands,' on a term of 100 years at £14 a year. Part of this was used for a new dock, part for a ropehouse now put up, and part for brick and lime kilns, etc.[926] The dock cost £2342, and a path, 137 rods long, was made to it from Chatham church.[927] From a new road having been necessary it would seem to have been quite apart from any previously existing buildings. In 1623 another dock was building under the direction of the shipwrights, and the lease of a house on Chatham Hill, for the use of the Officers, bought from the Dean and Chapter of Rochester.[928] In 1614 the principal Officers were lodged at Winchester House as there is a charge of £138, 8s 6d for its repair for their use, and a rent of £70 a year was paid; stores were also kept there.

The chain, placed by Hawkyns across the Medway at Upnor, is not again referred to until 1606, when it was partly repaired and partly renewed. But some time before 1623 it must have become worn out, as in that year it was replaced by a boom made of sixteen masts and forty-three cwt. of iron with cordage proportionate, at a cost of £238, 10s 5d; the hulls of two ships and two pinnaces were also devoted to the strengthening of the barricade. At the same time the water-way through St Mary's creek was again blocked at a cost of upwards of £400.[929] This boom must have been very light, and its history was short and unfortunate, for in 1624 it was broken

by ice and carried out to sea. It must have been quickly replaced since, from an incidental reference it existed in 1625, and in 1635 two small vessels, the *Seven Stars* and the *Moon*, were moored at each shore end for its protection. In the latter year it was said to be causing deposits of gravel and closing the fairway, and opinions oscillated between a new boom and an iron chain.

The dockyards shared the disorganisation of the other departments; notwithstanding the exposures of 1608 ten years later the storehouses at Deptford were said to be 'full of rotten wood and bad cordage,' the scales were light by one pound in the cwt., and while bad materials were knowingly received, the good were sold to boatswains and other ships' officers at low prices. In 1624 Chatham yard remained uninclosed so that strangers came and took away timber, nails, or any portable article. In 1604 the stores at Deptford included 210 masts, 322 loads of timber, 41,000 feet of plank, 171 cables, 499 hawsers, 15 serviceable and 28 unserviceable anchors, 24 compasses, 40 bolts of canvas, 24,000 tree-nails, and many other articles down to 'a decayed pitch pot,' and it is likely that they were larger in number and better in quality at this date than at any time during the succeeding fifteen or sixteen years.[930] The value of Deptford yard was estimated at £5000, and it was at one time proposed to remove the whole plant to Chatham.[931]

So far as the staff were concerned the 'ordinary' of a dockyard included shipkeepers and inferior officers attached to ships lying up, Upnor Castle (for Chatham), clerical work, rents, watchmen, clerks, storekeepers, and the superior officers; the 'extraordinary,' shipwrights, carpenters, joiners,

pumpmakers, sawyers, sailmakers, and bricklayers. In 1622 wages, per day, were: shipwrights 1s 2d to 2s; caulkers 7d to 2s; carpenters 1s 3d to 1s 10d; pumpmakers 1s 6d to 2s; joiners 1s 4d to 1s 8d; sailmakers 1s 8d; sawyers 1s 2d to 1s 4d; bricklayers 10d to 1s 6d; and labourers 8d or 9d.[932] All these men, except the labourers, had lodging money, varying from 5s 4d in the case of the master shipwrights to so small a sum as twopence, and probably as an allowance by the week.

Ordnance and Ship Armament.

The armament of ships was still very heavy for their tonnage and accounted in some measure for their rolling proclivities and the impossibility of obtaining a comparatively steady gun platform. Sometimes it was necessary to dismount some of the guns,

> 'The *Dreadnought* carries 36, yet four of them for seven years have been buried in her ballast, as some are also in the *Answer* and other ships.'[933]

This stowage of the guns strained the vessel dangerously and caused leaks, and, as gravel ballast was still employed, an injury was a very serious matter from the difficulty in reaching the damaged part. The following gives the number of guns carried by some of the ships, and their weights:—[934]

Cannon Periers	Demi Cannon	Culverins	Demi Culverins	Sakers	Fawcons	P

Prince Royal	2	6	12	18	13	
White Bear	2	6	12	18	9	
Merhonour	2	6	12	12	8	
Anne Royal	2	5	12	13	8	
Victory	2	2	16	12	4	2
Swiftsure	2	2	16	12	4	2
Constant Reformation	2	2	16	12	4	2
St George	2	2	16	12	4	2
St Andrew	2	2	16	12	4	2
Triumph	2	2	16	12	4	2
Defiance	2	2	14	12	4	2
Repulse	2	2	14	12	4	2

Comparison of the rebuilt ships with the armament they carried under Elizabeth is vitiated by the fact that we do not know whether they were again of the same size. If, as is possible, they were bigger there seems to have been a tendency to reduce the weight of ordnance—there is also an inclination towards greater uniformity.

The price of ordnance was from £12 to £15 a ton, and the manufacture was still retained in a few hands, its exportation without licence being strictly forbidden. In 1619 orders were issued that casting was to be confined to Sussex and Kent, that guns were to be landed at or shipped from the Tower wharf only, and that East Smithfield was to be the one market place for their sale or purchase. These were practically the Elizabethan regulations, now perhaps fallen into neglect, renewed. Guns could be proved only in Ratcliff fields, and all pieces were to have on them at least two letters of the founder's name, with the year and the weight of the gun. The founders had still to give bond for £1000 as a surety against illegal exportation, and once a year to send

in a report of the number and description of the guns cast and to whom they had been sold.[935] These precautions were not unneeded, but did not prevent the secret sale to foreign buyers any more than similar restrictions had availed during the reign of Elizabeth. The royal forts themselves were turned into marts for these and other unlawful transactions. Upnor Castle is described as 'a staple of stolen goods, a den of thieves, a vent for the transport of ordnance.' The person holding the post of 'King's Gun-founder,' and therefore licensed purveyor of government ordnance, was accused of transgressing largely.[936] The method was to require payment beforehand, the purchaser taking the risk of seizure; the guns were then shipped under cover of a warrant authorising them to be sent to London, but once at sea they went to the Continent instead of the river.

Salutes and Flags.

A few stone shot were still carried and the price of iron shot varied between £10 and £13 a ton,[937] and its expenditure in saluting was liberal. It was only about this time that gunners were directed to fire blank charges in these marks of respect, an order that was long disregarded. Attempts were made to check the too lavish use of munition for salutes, the amount of which depended mainly on the goodwill of the officers and the stores of the ship. Gunners were ordered not to shoot without the captain's permission, and they were forbidden to fire at 'drinkings and feastings.' They were further directed to 'salute no passengers with more than one piece, or three at the most, except the person be of quality and the occasion very great, and that for volleys of honour no bullets be spent,' and the captain was not

to fail to lock up the powder room if he went ashore. These regulations were not very effective. In 1628 the fleet lying at Plymouth 'shot away £100 of powder in one day in drinking healths.'[938] Another writer says that salutes should be 'always of an odd number but of no particular number.' An even number signified the death of the captain, master, or master gunner at sea during the voyage. Of a kindred nature to the love of display by noise was that of display by flags. The *Prince Royal* was supplied with eight flags, five ancients, and fifty-seven pennants; these however were of some use in the primitive attempts at signalling, which, however, do not appear to have advanced in complexity beyond the point reached a century before. Night signalling had progressed to a greater extent. Two lights from the flagship, answered by one from the others, was the order to shorten sail; three lights astern, placed vertically, to make sail; a 'waving' light on the poop, to lie to; and a ship in distress was expected to hang out 'many' lights in the shrouds.[939] An order of 13th April 1606 authorised all ships to wear a flag containing the St George's and St Andrew's crosses in the main top; at the fore top the flags of their respective countries were worn.

Men-of-war Crews and Discipline.

One great alteration was made in this reign in the manning of men-of-war. It had always been customary to place soldiers, in the proportion of one-third of the total complement, on board vessels equipped for service. This practice no longer obtained; in 1619 the Commissioners wrote:—

> 'Indeed till the year '88 soldiers and mariners were then usually divided but that and later experience hath taught us instead of freshwater soldiers (as they call them) to employ only seamen.'[940]

This marks the completion of the change from the days when the sailors were not called upon to be more than spectators of the actual fighting. The crew as a whole was not reduced, ships being heavily armed and the spars of a man-of-war being equal to those of a merchantman of much greater tonnage.

We have now the 'station list' of the *Speedwell* of thirty guns which gives the following division of duties in action: eighteen gunners and forty-eight men for the battery, fifty small arms men, fifty to work the ship and man the tops, four in the powder room, four carpenters below, three trumpeters, three surgeons and mate, four stewards, three cooks, and three boys. Complaint, however, was more than once made that nearly one-third of a crew were officers or non-combatants. It will be noticed from this list that the vessel was only prepared to man one broadside at the time—in this resembling much later practice—and that the arrangements implied plenty of sea room and a stand-off fight. At this time English seamen shrank from boarding; memories of the enormous Spanish galleons with their overpoweringly strong crews, and the tactics that had defeated them, were too fresh in the mind of the English sailor to permit him to have that confidence in his ship and himself that he subsequently obtained. It has already been noticed that when this ship, the *Speedwell*, was lost there was an utter absence of subordination among the crew, but this lack of discipline appears to have been more or less

present at all times. In 1625, when we were at war with Spain, the *Happy Entrance*, *Garland*, and *Nonsuch* were left lying in the Downs, with no officers and only a few men on board, because it was Christmas time and everyone was on shore merrymaking.[941] At an earlier date Coke said that ships rode in the Downs or put into port while the captains went to London, or hardly ever came on board, and the men ran away.[942]

The Results of the Reign.

Fortunately the services of the Royal Navy were never needed in earnest during the reign of James. How it would have broken down under the direction of Mansell may be inferred from the steady decrease in the number of seaworthy ships, and the increasing disorganisation of every department, during each year of his retention of office. The administration of the Commissioners was both competent and honest, but the grievous results of Mansell's treasurership were too plainly shown during the earlier years of the next reign, when fleets were once more sent to sea. Ships might be replaced and open peculation checked, but the deeper wounds of spirit and discipline caused by fourteen years of license among the higher officials, and fourteen years of heartless chicanery suffered by those more lowly placed were not so readily healed, and bore their fruits for long afterwards in the habitual dishonesty of officials and workmen, in the disloyalty and half-heartedness of the seamen, and later, in the shameless knaveries that disgraced the Navy office at the close of the century, many of which had their origin under Mansell's rule. The Commissioners were hampered in

their efforts by want of money, an embarrassment from which Mansell suffered little.

Nor can the King be absolved from the responsibility of permitting Mansell's misdeeds. He knew at least as early as 1608 of the iniquities daily occurring in every branch of the service, but he contented himself with making 'an oration.' He was ready enough to act as an amateur arbiter on technical details, to superintend launches, to visit the ships, and to give them euphuistic names, but that portion of his kingly office which involved protecting the helpless and punishing the guilty was sufficiently satisfied by 'an oration.' And had not Buckingham desired to be Lord Admiral, we have no reason to suppose that James I would have seen any cause for interference merely on behalf of seamen who were starved and robbed, or of the English people whose chief defence was being destroyed, and whose money went to enrich a ring of thieves. So far had the traditions of Plantagenet and Tudor kingliness degenerated into Stewart 'kingcraft.'

CHARLES I
1625-1649
PART I—THE SEAMEN

The life of Charles, Lord Howard of Effingham and Earl of Nottingham, commander of the English fleet in 1588, and for thirty-three years Lord Admiral of England, may be regarded as the link between the mediæval and the modern navy. Born in 1536, and dying in 1624, his era connects the cogs and crayers, carracks and balingers of the Plantagenets, then hardly out of use, with the established Royal Navy of James I, a fleet divided into rates; controlled on present principles, and differing but little in essentials from that existing up to the introduction of armour and machine guns. His period of authority included the struggle which shaped isolated maritime essays into an organised navy, and fashioned a school of seamanship of which the traditions have never since been lost. Although we cannot point to any important measure known to be directly due to his initiative, his influence, during at any rate the earlier half of his time of office, must, judging by results, have been always exercised towards the selection of capable men for command, towards the adoption of any promising invention or improvement, and towards the encouragement and welfare of the seamen on whom the stress of work and danger must fall, and for whom he always showed a humane sympathy. At the time of trial he proved himself equal to his responsibilities; and that he was so well served by his subordinates of all

grades implies a confidence and respect on their part not given merely to a peer and an officer of the crown, but to one in whose skill, care, and kindliness, experience had already taught men of all ranks to confide. Then, as now, only an able leader had good officers and willing men. He clung too long to office, and his old age was sullied by an eagerness for money amounting almost to avarice, and by the unwavering support given to one as unworthy of it as Mansell; no allegation, however, was ever made against his own honesty, either of act or purpose, and for the rest his years are his best excuse. He has a right to be judged by his season of vigorous manhood, when acting with the other sea heroes of the age of Elizabeth, among whom he holds an honourable place.

The new Political Conditions.

The reign of James I may be looked upon as a maritime truce, during which old antagonisms remained latent while new ones were springing into life. The contest with Spain was practically terminated, that power having been vanquished not so much by English superiority of seamanship as by the national decay due to causes patent to all students of history. But now other and more dangerous rivals were to be faced in France and the United Provinces, both wealthier than England, the former temporarily strong in a centralised monarchy of which the resources were to be wielded by Richelieu, and in an army reorganised and a navy created by him, the latter spiritually strong from the same sources as had stirred English thought, with traditions of mercantile supremacy reaching back to

the dawn of European commerce, and proud of a successful contest with the greatest of European states. Moreover the fresh strife was to be waged under less favourable conditions than heretofore. Against Spain England occupied a position of strategical advantage; her fleets concentrated at any western port could strike at either the mother country or at the straggling, disconnected colonies of the new world. Against France and the Low Countries she was between hammer and anvil, her own harbours continually threatened, her commerce exposed to constant attack, and her fleets quite insufficient in strength for their new duties. Nor had the interval of peace been utilised in view of the approaching conflict, although it cannot be said that warnings were wanting. The royal ships were fewer in number and of little greater strength than at the death of Elizabeth; few improvements had been effected in their construction, while seamanship had greatly deteriorated, owing to the decay of the fishing industry, the lack of enterprise and long voyages, and the bad treatment of the men. England was still greatly dependent on Russia for cordage and other naval necessaries, an administrative weakness of which Spain had endeavoured to take advantage in 1597 by negotiating with the rulers of Russia and Poland for a cessation of such exports to England and Holland,[943] but a weakness which might have formidable results with enemies planted on the line of communication. The Dutch had taken the lesson to heart, for, since that year, they had made their own cordage.[944]

England, France, and Holland.

An examination of the comparative wealth and state revenues of the three countries would show the relative position of England to be still less favourable. Although the commerce of this country had increased during the reign of James, the royal revenue, except that drawn from the customs, had remained nearly stationary, while the administration was more extravagant than that of Elizabeth, and the salaries of officials and the prices of materials and labour were higher, owing to the influx of the precious metals. The wars of France and the Netherlands had indirectly given room for expansion to English commercial and speculative activity; but, in the one case, the reign of Henry IV, and, in the other, the truce with Spain had enabled both countries to meet their rival on more equal terms. The same causes operated throughout the reign of Charles, for it may be held that the place of England as a naval power in 1642 was even relatively lower than in 1625; and this without reference to the question of good or bad government, for any attempt to maintain a maritime supremacy comparative to the last years of the sixteenth century would have entailed national bankruptcy. That strength was a temporary and, in a sense, artificial condition, attributable not to the actual power or resources of the country, but to the momentary cessation of the compression of mercantile rivalry and competition, to the stimulus due to the increase of circulating coin, and in a lesser degree, to the wave of moral exaltation then moving the Teutonic races.[945] Indeed, it may be said in favour of the ship-money writs that but for the fleets they enabled Charles to send to sea, and so present a semblance of power, the strife with France and Holland might have been precipitated by nearly half a century. That they had

some such intimidating influence was shown by the care taken by the French fleets, also cruising, to avoid meeting them, and the efforts of the French court to evade the question of the dominion of the narrow seas.

It was fortunate for England that the troubles of the Fronde coincided with the first Dutch war, for had the strength of France been then thrown into the balance against fleets and dockyards still organised on a Tudor scale, which had undergone little expansion during two reigns, the maritime glory of this country might have had an early end. Even if Charles had not quarrelled with his parliaments, no grants of theirs could have kept pace with the rapid growth of French prosperity; in 1609, after paying off an enormous amount of crown debts, the yearly revenue was 20,000,000 livres,[946] and in 1645 it was £3,560,000.[947] The ordinary revenue of the English crown in 1610 was £461,000, in 1623 £539,000, in 1635 £618,000,[948] and for the five years from 1637 to 1641 it averaged £895,000 a year, exclusive of ship money.[949] It has been difficult to obtain any statistics for the United Provinces, but, as the trade and commercial marine on which they relied were greater than those of England, it is obvious that a contest with France alone would have overwhelmingly strained our resources during the reign of Charles I, and that an alliance of the two states would, in all probability, have been most disastrous to us. M. Lefèvre Pontalis indeed, in the first chapter of his 'Vie de Jean de Witt,' states exactly that the Dutch merchant marine comprised 10,000 sail and 168,000 men; but, as he gives no authority and may be referring to any one of the first seventy-five years of the seventeenth century, the information in that form is valueless for

purposes of comparison.[950]

The Cadiz Fleet of 1625

The accession of Charles led to a more active prosecution of the war with Spain, signalised by the Cadiz expedition of 1625, and the administrative incidents of this voyage enable us to measure the decadence of seamanship and the utter collapse of the official executive during the twenty years of peace. Efforts had been made to get the fleet away during the summer, but owing to want of money, stores, and men, it did not sail till 8th October, too late in the season to do effective service. Disease raged among the soldiers and sailors assembled at Plymouth, and not a boat went ashore but some of its men deserted. Of 2000 recruits sent first to Holland and then to Plymouth only 1500 arrived at the sea-port, of whom 500 were ill;[951] and the few professional sea captains there, who saw the unpromising material in men and supplies being collected, continually warned the Council and Buckingham of the results to be expected from the quality of the men and provisions and the want of clothing.[952] When the expedition finally sailed, its equipment appears to have been rather that of a defeated and disheartened fleet returning home after long service than of a long planned and prepared enterprise. The ships were leaky and their gear defective; the *St George* was fitted with sails which were used by the *Triumph* in 1588, while her shrouds were ‘the old *Garland’s* and all starke rattan.’ The *Lion* was in such bad condition that she had to be left behind. The cordage supplied was rotten but ‘fairly tard ovar.’ An officer writes: ‘There was great wrong

done ... by pretending the ships were fit to go to sea.'[953] Even before they left port the casks were so faulty that beer came up in the ships' pumps, so that by November they were reduced to beverage of cider 'that stinks worse than carrion, and have no other drink.' A few days after leaving Plymouth it was already thought necessary to put five men on four men's allowance, and by December they were on half rations which 'stinks so as no dog of Paris Garden would eat it.' Men ill fed and ill clothed, sent across the Bay in early winter, easily broke down, and when they arrived off Cadiz, after a twenty-one days' voyage, and before even seeing the enemy, one-fourth of the men on six of the men-of-war were on the sick list.[954] The *Convertine* had only fifteen men in a watch. In November 'the sickness is so great that there are not seamen enough to keep the watches,'[955] and a month later there were not ten men fit for duty on board the *St George*.[956]

Sir Edward Cecil, Viscount Wimbledon, the commander-in-chief, was a soldier of only average capacity accustomed to the methodical Dutch military discipline, and he was aghast at the ways of his officers, who, besides being ignorant of their work, shared with their men what plunder there was. Many of the captains were landsmen who depended on their subordinates to handle their vessels, and these men, unaccustomed to large ships and to sailing in comparatively close order, were constantly in difficulties. If the subordinates were good seamen, they were mostly contemptuous of their commanders. Sir Thos. Love, captain of the *Anne Royal*, issued orders to the whole fleet without Cecil's knowledge; the master of the *Reformation* flatly refused to obey his captain's commands. It does not seem to have occurred to Cecil or his advisers that

any sailing orders were necessary during the voyage out, and the result of independent management was that collisions were frequently occurring; beakheads, galleries, and bowsprits were carried away, and 'the confusion was such that some had their starboard when other had their larboard tacks on board.'[957] Sometimes the ships chased each other, under the impression that they were enemies, although the differences between the English and Spanish schools of shipbuilding were almost as great as those to be observed in a cruiser of the middle of this century and a merchantman of the same time. Two transports with 300 soldiers on board, perhaps thinking that they had better prospects of success by themselves than with Cecil, deserted and turned pirates.[958]

The flagship was the *Anne Royal*, Nottingham's *Ark Royal* of 1588, of which he lovingly said that she was 'the odd ship of the world for all conditions.' She was handy enough for the Elizabethan seamen who built her and knew how to work a ship at sea, but she did not win favour in the eyes of Cecil and his officers, who complained that they could not make her lie to and that she rolled too much for their dainty stomachs. Nottingham's opinion of them might have been even more scathing than theirs of the *Anne Royal*. More justly Cecil expressed his astonishment at the amount of theft which prevailed. He could not prevent his captains pillaging the cargoes of prizes, 'a thing of such custom at sea that I cannot see how it will be remedied.' The men he considers the worst ever seen; 'they are so out of order and command and so stupefied that punish them or beat them they will scarce stir.'[959] Sick and starving it was not their fault if they were dull and inefficient, but neither Cecil nor those next him in rank were the men to rouse English sailors to those efforts which,

when well led, they can be moved to make under circumstances of surpassing distress.

Perhaps this Cadiz expedition indicates the low water mark of English seamanship. There have been many previous and subsequent occasions when fleets were sent to sea equally ill found and ill provided, but never, before or since, have we such accounts of utter incapacity in the mere everyday work of a sailor's duties. The shameful picture of that confused mass of ships crowded together helplessly, without order or plan, colliding with each other, chasing or deserting at their own will, the officers losing spars and sails from ignorance of the elementary principles of their art, is the indictment against the government of James I which had allowed the seamanship of Elizabeth to die out in this generation. It was the first time that the new system of the commissionership had been tried by conditions of active service, and on the side of stores and provisions, for which they were mainly responsible, the breakdown was as complete as on the side of navigation. Assuming their honesty, which was probable, but of which some of their contemporaries hint doubts, they were mostly merchants or court officials, unacquainted with naval matters, and evidently unable to adapt the routine peace control to which they were accustomed to the wider requirements of war time. As even the normal method of inspection was almost nominal, depending mainly on subordinate officials of little character, capacity, or responsibility, such stores as were now bought, under the pressure of immediate necessity, usually proved expensive and bad. Among the higher officials the impression given by the State Papers, now and afterwards, is that their chief desire was to get money sent to them on some pretext—purchase of clothes or arms, payment of wages, etc.—and that

they could then trust to their own ingenuity to account for its expenditure, possibly for the benefit of the service, certainly for their own. Not even a nominal system of inspection existed in the victualling department. The two contractors, Apsley and Darrell, appear, when the Commissioners had once given their orders, to have sent what provisions they pleased on board the ships, quite independently of any supervision or of any way of calling them to account, for supplies infinitely more deadly to our men than the steel and lead of the enemy.[960]

The Disorganisation:—The Return of the Fleet.

Naval historians have usually considered the condition of the seaman, a mere pawn in the game, as of little account compared with graphic descriptions of sea fights and the tactics of opposing fleets. He had, however, not only existence but memories, and an examination of his treatment under the government of Charles I, will systematise scattered references, and may go far to explain why the Royal Navy ‘went solid’ for the Parliament in 1642. We have seen that there was little demand for his services during the reign of James I, though the few men employed had reason to be mutinous and discontented under their scanty fare and uncertain wages. With Charles on the throne the seagoing population was called away from the fisheries and trading voyages to man the royal fleets, although the attitude of Parliament caused smaller resources to be available to support their cost. The sailor, being a despised and inarticulate quantity, soon felt the

result. When the ships of the Cadiz fleet straggled ignominiously home in midwinter, some to Kinsale, some to Milford, Falmouth, Plymouth, and other western ports, a cry for help went up from the captains and officials concerned. The *Anne Royal* with 130 dead and 160 sick, had scarcely fifteen men in a watch; a vessel at Milford had not sufficient to man her long boat, and the dried fish remaining was 'so corrupt and bad that the very savour thereof is contagious.'[961] Pennington, who was usually more intelligible than grammatical, wrote from Plymouth that 'the greatest part of the seamen being sick or dead, so that few of them have sufficient sound men to bring their ships about,'[962] and 'a miserable infection among them, and they die very fast.' St Leger told Conway that it would not be possible to move the men till they had recovered some strength, 'they stink as they go, and the poor rags they have are rotten, and ready to fall off,' and that many of the officers were in nearly as bad case as their men.[963] But the government had expended all its available means in the preparation, such as it was, of the expedition, and could neither pay the men off nor provide them with clothes, victuals, or medical aid. Moreover, the attention of Buckingham was fixed rather on the equipment of another fleet than on the plight of the men, a condition which he doubtless regarded as one they should accept naturally, and a detail unworthy of *la haute politique* in which he and his master intrepidly considered themselves such proficients. Pennington had orders to collect forty sail at Plymouth, but as yet had only four ships.[964] There were no stores, no surgeons, and no drugs, he reported; and everything on board the returned vessels would have to be replaced, even the hammocks being 'infected and loathsome;' the

mayor of the town would not permit the sick men to be put ashore, so that contagion spread among the few healthy remaining. He hints that there is little hope of getting fresh men to go when they had their probable fate before their eyes. All the remedy the Council seemed to find was to order the Commissioners to prepare estimates for fleets of various strengths, while the *Anne Royal* and four other ships were lying in the Downs with 'their companies almost grown desperate,' the men dying daily and the survivors mutinous. In March, Pennington, who was an honest, straightforward man and a good seaman, and who wrote to Buckingham in an independent and even reproving way, which reflects some credit on both of them in that servile age, says that he has twenty-nine ships, but neither victuals, clothes, nor men; that those sent down run away as fast as they are pressed. 'I wish you were a spectator a little, to hear their cries and exclamations; here die eight or ten daily,' and, if something is not done 'you will break my heart.'[965] Under James the men considered that the galleys were better than the royal service; thus early in the reign of his son they had come to the conclusion that hanging was preferable.[966]

But Buckingham was quite superior to all such particulars. Complaints had been made to him that merchantmen were chased into the Downs by Dunkirkers, while the men-of-war lying there did not even weigh anchor. He sharply censured Palmer, who was in command, but Palmer's reply was a variation of the old legal defence; they had not been chased, and if they had been he was without victuals or necessaries enabling him to move.[967] As the captain of one of his ships wrote to Nicholas that he had no sails, and that he could not obtain their

delivery without cash payment, the second portion of his statement was probably true. The greatest stress, however, fell upon Pennington at Plymouth. It need hardly be said that there was not yet a dockyard there; but there was not even a government storehouse, the lack of which mattered less as there were no stores, such provisions as were procured being urgently needed for the daily requirements of the crews. In April Pennington heard that there was £2000 coming down, but he was already indebted £2500 for which he had pledged his own credit, and his estate ran risk of foreclosure unless the mortgage was cleared.[968] He adds: 'I pray you to consider what these poor souls have endured for the space of these thirteen or fourteen months by sickness, badness of victuals, and nakedness.'

Official routine worked, in some respects, smoothly enough. If some of the officers and men—like those of the *St Peter*, a prize in the royal service—petitioned Buckingham direct, begging for their discharge, saying that they could get neither pay nor food, and would have perished from want if they had not been supplied by their friends, they were referred to the Commissioners, who suavely remarked: 'there are many other ships in the same predicament.'[969] If others applied direct to the Commissioners, they were told to go to those who hired them, as the Navy Board would 'neither meddle nor make' with them, 'which answer of theirs I find strange,' says Pennington.[970] One day the crew of the *Swiftsure* mutinied and went ashore, intending to desert in a body. He went after them and persuaded them to return, but 'their cases are so lamentable that they are not much to be blamed for when men have endured misery at sea and cannot be relieved at home in their own country, what a misery of

miseries is it!'[971] Not all the officers of rank were as kindly as Pennington; Sir John Watts could only see in the clamour of ragged and starving men 'insolent misdemeanours.' At Harwich the mutineers vowed that they would no longer shiver on board, but would lie in the best beds in the town, all the elysium the poor fellows aspired to. It almost seemed as though the naval service was disintegrating and that such organisation as it had attained, was to be broken up, since the shipwrights and labourers at the dockyards were also unpaid, although they did not find it so difficult to obtain credit. Pennington was now almost despairing, and said that having kept the men together by promises as long as he could, only immediate payment would prevent them deserting *en masse*, and 'it would grieve any man's heart to hear their lamentations, to see their wants and nakedness, and not to be able to help them.'[972] There is a curious resemblance between these words and those used nearly forty years before by Nottingham in describing the condition of the men who had saved England from the Armada, and who were likewise left to starve and die, their work being done. But any comparison is, within certain limits, in favour of Charles and Buckingham. Elizabeth had money, but all through her life held that men were cheaper than gold. In 1626 the sailors were the first victims of the quarrel between King and Parliament, a struggle in which, and in its legacy of foreign wars, they bore a heavy share of the burden, and from which even to-day they have reaped less benefit than any other class of the community.

The original estimate for the Cadiz fleet was under £300,000, but in 1631 it was calculated that altogether, for the land and sea forces, it had amounted to half a million,[973] and as the

government found it impossible to procure this or any serviceable sum they resorted to the expedient of nominally raising wages all round.[974] The seaman's monthly pay, ten shillings during the reign of James, had been temporarily raised to fourteen for the attack on Cadiz; in future it was to be permanently fifteen shillings, subject to a deduction of sixpence for the Chatham chest, fourpence for a preacher, and twopence for a surgeon, and as the scale remained in force till the civil war, and was eventually paid with comparative punctuality, the full list for all ranks, per month may be appended here:[975]

	£	s	d		£	s	d
Captain[976]	4	14	4	to	14	0	0
Lieutenant[977]	3	0	0	”	3	10	0
Master	2	6	8	”	3	13	9
Pilot	1	10	0	”	2	5	0
Master's mate	1	10	0	”	2	5	0
Boatswain	1	3	4	”	2	5	0
Boatswain's mate	1	0	8	”	1	6	3
Purser	1	3	4	”	2	0	0
Surgeon	1	10	0				
Surgeon's mate	1	0	0				
Quartermaster	1	0	0	”	1	10	0
Quartermaster's mate	0	17	6	”	1	5	0
Yeomen of { jeers, sheets, tacks, halliards }	1	1	0	”	1	5	0
Carpenter	1	1	0	”	1	17	6
Carpenter's mate	0	18	8	”	1	5	0
Corporal[978]	0	18	8	”	1	10	4
Gunner	1	3	4	”	2	0	0
Gunner's mate	0	18	8	”	1	2	6
Cook	1	0	0	”	1	5	0

Master Trumpeter	1	5	0	”	1	8	0
Other trumpeters	1	3	4				
Drummer	1	0	0				
Fifer	1	0	0				
Armourer	1	1	0				
Gunmaker	1	1	0				
Seaman	0	15	0				
Gromet	0	11	3				
Boy	0	7	6				

The purpose in appointing lieutenants was

> ‘to breed young gentlemen for the sea service.... The reason why there are not now so many able sea-captains as there is use of is because there hath not been formerly allowance for lieutenants, whereby gentlemen of worth and quality might be encouraged to go to sea. And if peace had held a little longer the old sea captains would have been worn out, as that the state must have relied wholly on mechanick men that have been bred up from swabbers, and ... to make many of them would cause sea service in time to be despised by gentlemen of worth, who will refuse to serve at sea under such captains.’[979]

According to this view the original naval lieutenant was equivalent to the modern midshipman, in which case his pay seems very high, unless it is to be explained by the tendency to favour social position. The midshipman, introduced somewhat later, was at first only an able seaman with special duties. The foregoing extract is in itself a vivid illustration of the reasons for the loathing, yearly growing in intensity, the seamen, or

'mechanick men,' had for their courtier captains.

The Disorganisation: —Poverty of the Crown.

As at the time the crown was making these liberal promises it had not sufficient money to fit out two ships required for special service on the Barbary coast, and as vessels were being kept in nominal employment because even a few hundred pounds could not be raised wherewith to pay off their crews, it is not surprising that the men showed no renewed eagerness to die lingeringly for their country, and that the proclamation of April needed a corollary in the shape of another threatening deserters with the penalty of death. This was issued on 18th June, and a week later the crew of the *Lion* at Portsmouth, 400 or 500 strong, left the ship with the intention of marching up to London. The officers read the last proclamation to them and promised to write about their grievances; but the men, quite unappalled, replied that 'their wives and children were starving and they perishing on board.'[980] Wives and children were neglected factors in the dynastic combinations of Charles and Buckingham, and husbands and fathers might consider themselves amply rewarded if their efforts enabled the King to restore the Palatinate to his nephew. The Commissioners complained despondingly that they were unable to progress with the new fleet while the back wages were unpaid, and 'the continual clamour ... doth much distract and discourage us.'[981] The *Swiftsure* at Portsmouth had only 150 instead of 250 men, of whom 50 were raw boys, and all the other

ships there were but half manned. Palmer, commanding in the Downs, had never suffered such extremity even in war time, he said, and his men flatly refused to work unless they were fed, a really justifiable form of strike. At this date there were six men-of-war and ten armed merchantmen at Portsmouth, but, says Gyffard, the men 'run away as fast as they are sent ... all things so out of order as that I cannot see almost any possibility for the whole fleet to go to sea in a long time.'[982] The intensity of Captain Gyffard's feelings somewhat obscured his clearness of expression.

The lessons of the previous year appear to have taught nothing; the victuallers were still sending in provisions of the old bad quality, and the beef sent to Portsmouth weighed only 2 lbs. the piece, instead of the 4 lbs. for which the crown was charged. The Chatham shipwrights threatened to cease work unless they were paid, and Pennington, now at Portsmouth, wrote that after all the preparations, extending over some months, there were no hammocks and not even cans or platters to eat and drink from. All these requests and complaints poured in nearly daily on Buckingham who should have been an organising genius to deal with the complex disorder, instead of merely a man of some talent and much optimism, also troubled by a refractory Parliament, perverse continental powers scornful of his ingenuous diplomacy, and the varied responsibilities of all the other departments of the government. In September the Commissioners pointed out to him that a debt of £4000 a month was being incurred for want of £14,000 to pay off the men, who were now reduced to stealing their daily food; those in the river were so disorderly that the Board could not meet without danger, as the sailors

threatened to break the doors down on them, and the shipwrights from Chatham had besieged them for twenty days.[983]

By this time, however, as the result of requiring the coast towns to provide ships, forced loans, and other measures, Willoughby was at sea with a fleet, but one which was a third weaker in strength than had been intended. Before reaching Falmouth he found twenty tuns of 'stinking beer' on his own ship, and the rest of the squadron was as ill off. The men were 'poor and mean' physically, and deficient in number, the stores generally bad and insufficient, there being only enough provisions to go to the Straits of Gibraltar and back again, and the excursion being useless, because too late in the year, when all the enemies' fleets had returned home.[984] The complaint of want of men was met by an order that he should take on board 500 soldiers to help in working the ships; in two vessels intended for him two-thirds of the men had run away, being too glad to escape at the cost of forfeiting five months' wages due to them, and the Commissioners proposed to fill their places 'by forcing men to work with threatenings, having no money to pay them.'[985] The artless belief of their kind in the efficacy of threats once more placed them in a foolish position. The crew of the *Happy Entrance* refused to sail, saying that they would rather be hanged ashore than starve at sea,[986] but even the relentless egotism of Charles was not equal to hanging them.

It may be said for the Commissioners that their situation was not a happy one, seeing that they were continually ordered to perform impossibilities. When they were told to provide fresh ships and men, they retorted that they were already keeping twelve

vessels in pay for want of money to discharge the crews, the wages bill alone running at the rate of £1782 a month.[987] Other men sent away with tickets, which could not be paid when presented, congregated round their house whenever they met for business, shouting and threatening and causing them actual personal fear. There was £20,000 owing to the victuallers, and they, in December, refused any further supplies until they had some money, the result being that, at Portsmouth, 'the common seamen grew insolent for want of victuals,' wrote Sir John Watts, who, in his own person, only suffered from the insolence of a well-lined belly. Sir Allen Apsley, the chief victualling contractor, justified himself to the council and pointed out the serious consequences to be feared:[988]

> 'By the late mutinous carriage of those few sailors of but one of H.M. ships the *Reformation*, the humours of the rest of the fleet may be conjectured.... What disorder, then, may be feared if twenty times that number, having no promise of speedy payment, no victuals, fresh or salt, nor ground for the officers to persuade or control—for alas! say they, when men have no money nor clothes to wear (much less to pawn), nor victuals to eat, what would you have them do? Starve? This is likely to be the condition of the ships now in the Downs and those at Portsmouth, having not two days' victuals if equally divided ... not having any victuals at all but from hand to mouth upon the credit of my deputies who are able to trust no longer, so as this great disorder may be seen bearing very near even to the point of extremity.'

About 2200 men were in this plight, and matters must indeed have been bad when it was no longer to the Victualler's profit to supply the carrion beef and fetid beer useless for any other purpose than to feed seamen. Punishment and promises were becoming equally useless. An officer at Portsmouth had to confess that punishing his men only made them more rebellious, and they revenged themselves by cutting his ship's cable, in hopes that she might drift ashore; like Apsley, he remarked that they were only victualled from hand to mouth, but adds, 'with refuse and old stuff.'[989] Charles was going to recover the Palatinate by means of his fleet, but Pennington's opinion of the armed merchantmen which made up the bulk of the royal force was not high. He considered that two men-of-war could beat the fifteen he had with him, as their ordnance was mostly useless and they had not ammunition for more than a two hours' fight.[990] Nor, from incidental references, can the discipline on these auxiliary ships have been such as to promise success. In 1625 they had to be forced under fire at Cadiz by threats; in 1628, at Rochelle, they fired vigorously, but well out of any useful or hazardous range. In this year the captain of one of them killed, injured, and maltreated his men, while he and five gentlemen volunteers consumed sixteen men's allowance of food every day; and in January 1627, when some of them lying in Stokes Bay were ordered westward, they mutinied and would only sail for the Downs.

The Disorganisation:—The Remedies.

In despair the Council resorted to the expedient of

a special commission[991] to inquire into the state of the Navy, nineteen in number and including eight seamen, perhaps in the hope of gaining time, but probably from sheer prescription of routine. While the naval organisation was crumbling, they took careful measurements of the dimensions of each ship, and anxiously examined whether Burrell had used his own or government barges for the conveyance of stores. When they inquired at what cost ships were built, the answer came in a petition from the Chatham shipwrights that they had been twelve months,

> 'without one penny pay, neither having any allowance for meat or drink, by which many of them having pawned all they can, others turned out of doors for non-payment of rent, which with the cries of their wives and children for food and necessaries doth utterly dishearten them.'[992]

John Wells, storekeeper to the Navy, had 7½ years' pay owing to him, and it may be inferred that, unless he was more honest than his fellows, the crown, if it did not pay him directly, had to do so indirectly. The Treasurer of the Navy, like the Victualler, had refused to make any more advances on his own credit, but when the Chatham men marched up to London in a body, he promised to settle their claims, a promise which was not fulfilled. Then the special commissioners had to deal with the crews of the *Lion*, *Vanguard*, and *Reformation*. The men of the *Vanguard* told them that they were in want of food, clothing, firing, and lodging, 'being forced to lie on the cold decks.'[993] The sailors, like the shipwrights,

came to London in the hope of obtaining some relief, but with even less success. Their ragged misery was an outrage on the curled and scented decorum of the court, and Charles perhaps feared that they might not confine themselves to mere vociferation, and, heroic as he looks on canvas, had no liking for the part of a Richard Plantagenet in face of a threatening mob. He confined himself to ordering the Lord Mayor to guard the gates and prevent them coming near the court, and Apsley, in his other capacity as lieutenant of the Tower, was directed to 'repress the insolencies of mariners' by 'shot or other offensive ways.'[994] Probably death from Apsley's 'shot' was, even if as certain, a less painful fate than that from his victuals. As for Charles, we may suppose that the lesson in kingly honour, justice, and responsibility was not thrown away on those of his seamen who lived till 1642.

Notwithstanding the financial straits of the government large schemes relating to the increase of the number of ships and the construction of new docks were being continually planned. In naval as in other affairs Buckingham's vision was fixed on the future, careless of the present. Such money and supplies as were obtained did not go far towards relieving the necessities of the sailors. In May, Mervyn found that his own crew came unpleasantly ''twixt the wind and his nobility,' for, 'by reason of want of clothing, they are become so loathsome and so nastily sick as to be not only unfit to labour but to live.'[995] Among the State Papers, undated but assigned to this year, occurs the first instance of a round robin yet noticed; the men signing it refuse to weigh anchor until provisioned.[996]

The

Disorganisation: —Its Continuance.

Despite all these drawbacks Buckingham had contrived to get together the Rhé fleet of 1627, by various means, although the pecuniary receipts were not nearly adequate to the requirements. Some 3800 seamen were employed, and when they came home were worse off than ever, and the monotonous sequence of complaints was continued with greater intensity. The crew of the *Assurance* deserted in a body; the sailors at Plymouth were stealing the soldiers' arms and selling them to obtain bread,[997] and wages were running on at the rate of £5000 a month, because there was no money wherewith to pay off the men.[998] By December 500 sailors of the returned fleet had died at Plymouth, and both there and at Portsmouth the townspeople refused to have the sick men billeted ashore, for at Plymouth they professed to have never shaken off the infectious fever spread by the men of the Cadiz fleet. If we had any statistics at all of the death and disease on board the fleets of 1625-8, the figures would probably be ghastly in the terrible mental and physical suffering they would represent. In this century the 'wailing-place' on the quays of Amsterdam, where the friends and relatives of Dutch sailors bid them farewell, was well known, but in another sense, and too often for a longer farewell, every royal ship was a wailing-place for English wives and mothers. Nicholas, as Buckingham's secretary, sometimes had franker communications than were sent to his master. Mervyn wrote to him that the king would shortly have more ships than men, there being commonly twenty or thirty fresh cases of sickness every day, and

> 'the more than miserable condition of the men, who have neither shoes, stockings, nor rags to cover their nakedness ... all the ships are so infectious that I fear if we hold the sea one month we shall not bring men enough home to moor the ships. You may think I make it worse, but I vow to God that I cannot deliver it in words.... The poor men bear all as patiently as they can.... I much wonder that so little care be taken to preserve men that are so hardly bred. I have used my best cunning to make the *Vanguard* wholesome. I have caused her to be washed all over, fore and aft, every second day; to be perfumed with tar burnt and frankincense; to be aired 'twixt decks with pans of charcoal; to be twice a week washed with vinegar.... Yet if to-day we get together 200 men within four days afterwards we have not one hundred.'[999]

Watts, at Portsmouth, who, in the intervals of solicitation of money for himself and preferment for his son, wrote abusively of men who asked at least food and clothing in midwinter, was a man after Charles's own heart, for he also had arranged with the governor of the town to use 'shot,' if necessary, when the seamen came showing their tattered clothes and making 'scandalous speeches.'[1000] Mervyn, in the letter to Nicholas quoted above, admits that he has overdrawn his pay, but asks for another advance, and doubtless officers who had friends at court, or who could afford to bribe, had little difficulty in obtaining their salaries. Nicholas, for instance, who subsequently developed into a knight and secretary of state, had an itching palm on occasion. On the other hand, even in later years,

when the pressure was not so great, if the paymaster or pursers advanced any portion of the wages already due to the mere sailor, a discount of 20 per cent. was deducted for the favour. The merchant was also competing with the royal service, owners paying 30s a month; therefore the need for men caused boys and weakly adults to be pressed, and during the winter the mortality among them was great.[1001] In January 1628 Mervyn reported from Plymouth that there were no hammocks, and

> 'the men lodge on the bare decks ... their condition miserable beyond relation; many are so naked and exposed to the weather in doing their duties that their toes and feet miserably rot and fall away piecemeal, being mortified with extreme cold.'[1002]

A few days later he said that things were worse than ever, that the vessels were full of sick men, they being refused ashore.[1003] Notwithstanding the refusal to have them ashore their diseases spread so rapidly on land that both Plymouth and Portsmouth were 'like to perish.'

A striking feature in this wretched story is the want of sympathy shown by nearly all the officials, high or low. These extracts are taken principally from the letters of those officers who felt for their men and endeavoured to obtain some alleviation of their distress, but many of the despatches contain only dry formal details or, as in the instances of Watts and Sir James Bagg—Eliot's defamer and, from his absorptive capacity in relation to government money, known as the Bottomless Bagg—are filled with cowardly gibes and threats directed at men who

could not obtain even their daily bread from the crown. It has long been held a point of honour with officers to share the dangers and hardships of those under their command, but in those years the superiors to whom the men looked for guidance and support left them to suffer alone, 'the infection so strong that few of the captains or officers durst lie on board.'[1004] The sailors in the river were somewhat better off. Perhaps their proximity to the court, and potentialities of active protest, stirred the most sensitive portion of Charles's conscience, and arrangements were made to billet them on the riverside parishes, at the rate of 3s 6d a man per week, till money could be provided to pay them. This was a plan which relieved the crown at the expense of the householder; nor does it appear to have been very successful, since a proclamation was issued on 17th February to repress the disorderliness of such billeted mariners and warning them not to presume to address the Commissioners. In March the pressed men at Plymouth armed themselves, seized the Guildhall, and there prepared to stand a siege.[1005] The issue is not stated, but although mutinies were continually happening they usually had little result, for if the men got away from the ship or town the endeavour to reach their homes would have been almost hopeless. They were only frantic outbursts of desperation by isolated bodies of a class which has always lacked the gift of facile expression, and has never learnt to combine. An official describes plainly the causes of these mutinies, and his paper is worth quoting in full:[1006]

> '1st. They say they are used like dogs, forced to keep aboard without being suffered to come ashore to refresh themselves. 2nd. That they

> have not means to put clothes on their backs to defend themselves from cold or to keep them in health, much less to relieve their poor wives and children. 3rd. That when they happen to fall sick they have not any allowance of fresh victuals to comfort them, or medicines to help recover them. 4th. That some of their sick fellows being put ashore in houses erected for them are suffered to perish for want of being looked unto, their toes and feet rotting from their bodies, and so smelling that none are able to come into the room where they are. 5th. That some provisions put aboard them is neither fit nor wholesome for men to live on. 6th. That therefore they had as lief be hanged as dealt with as they are.'

Gorges suggests that some of these complaints are frivolous and some untrue, and recommends the remedy, dear to the official soul, of a commission. The commission of 1626 had hardly ceased sitting, and how far the complaints were frivolous and untrue, can be judged by the evidence brought forward here.

Murder of Buckingham.

In April, 1628, Denbigh sailed to relieve Rochelle, and returned without having effected his purpose. Preparations then went on apace for the great fleet Buckingham proposed to command himself in August. The difficulty in obtaining provisions, and their quality, may be inferred from a petition of Sir Allen Apsley's addressed directly to the king. He says that he has sold and mortgaged all his property, and that he and his friends had pledged their credit to

the extent of £100,000.[1007] These were unpromising conditions under which to engage to supply a fleet which was intended to be as large as that of 1625, and as the crown could not suddenly replace the mechanism organised by the Victualler and his deputies, it was practically dependent on his efforts. It was probably due to the poverty of Sir Allen Apsley that in this fleet water was, for the first time, taken from a home port as what may be called a primary store.[1008] Hitherto, although water had been taken for cooking purposes, beer, as has been shown, had always been the recognised drink on ship board. In June the ships were being collected at Portsmouth, but with the usual troubles. There were two mutinies. 'God be thanked, they are quieted,' writes Coke, but the men 'have no shift of clothes. Some have no shirts, and others but one for the whole year.' There were few surgeons, and those few 'haunt the taverns every day.'[1009] In one party of 150 pressed men sent down in July there were to be found saddlers, ploughmen, and other mechanics; some were old and weak and the majority useless. Pettifogging tricks were employed to trap the men. In one instance Buckingham ordered that certain vessels were not to be paid off till the *Swiftsure* and other ships were ready, and that then Peter White was to be present to at once press the crews for further service.[1010] Fire ships were required, but Coke found that they could not be had without £350 in cash, as no one would trust the Crown.[1011]

Buckingham himself did not intend to share the hardships of the beings of coarser clay under his command. A transport was fitted to serve as a kitchen and store ship for him, and the bill for his supplies came to £1056, 4s. It included such items as cards and dice, £2; wine, etc., £164; eight bullocks

and a cow, £59; eighty sheep, £60; fifteen goats, £10; ten young porklings, £5; two sows with pig, £3; 980 head of poultry, £63, 1s.; 2000 eggs, £2, 10s; and pickled oysters, lemons, damask tapestry, and turkey carpets.[1012] Then came Felton's knife, and we may hope that some of the sailors made an unwonted feast on the more perishable articles of this liberal collection. In any case, Buckingham's murder was an unmixed good for them, although had he spared to the men some of that energy and care he gave, at least with good intention, to the improvement of the *matériel* of the navy, the verdict might have been different. But in his neglect of their rights or welfare he was not below the standard of his age, in which the feudal feeling remained without its sense of reciprocal obligation, and in which only a very few were impelled by conscience to more than the defence of their own rights.

Its Results.

One result of the shuffling of the political pack which followed Buckingham's death was the appointment of Weston as Lord Treasurer. Weston, Mr Gardiner tells us, was neither honest, nor amiable, nor popular, but he was at any rate determined to re-introduce some order into the finances, and the sailors were among the first to reap the benefit. When the Rochelle fleet, which had sailed under Lindsey, returned, the men were as surprised as they were delighted to find that they were to be paid. 'The seamen are much joyed with the Lord Treasurer's care to pay them so suddenly.'[1013] All the same the civic authorities of Plymouth desired that the ships should be paid off somewhere else. They wrote to the Council that when the Cadiz expedition came back, 1600 of the

townspeople died of diseases contracted from the soldiers and sailors, that many also perished after the return of the Rhé fleet, and that they heard that this Rochelle one was also very sickly, and if so, 'it will utterly disable this place.'[1014] Either there was a relaxation of Weston's alacrity in paying, or mutinous habits had become too natural to be suddenly discarded, as in November the crews of three of the largest of the men-of-war were robbing openly, for want of victuals, they said. Nevertheless we do not hear of many difficulties in connexion with the Rochelle fleet, and the work of payment may be assumed to have progressed with unexpected smoothness.

After Buckingham.

With the cessation of ambitious enterprises the demand for the services of the maritime population became less, although the smaller number of men employed were treated no better than when the government had the excuse, such as it was, of large expenditure. In 1629, Mervyn, commanding in the narrow seas, wrote to the Lords of Admiralty: 'Foul winter weather, naked bodies, and empty bellies make the men voice the King's service worse than a galley slavery.'[1015] It should be remarked that although hammocks were provided for over-sea service in the proportion of one for every two men, they were not yet furnished to ships stationed in home waters, a want which must have affected the health and contentment of the seamen even when they were properly fed. Again, Mervyn protests:—

'I have written the state of six ships here in the Downs, two of which, the *Dreadnought* and

> 3rd whelp, have neither meat nor drink. The 10th whelp hath drunk water these three days. The shore affords soldiers relief or hope, the sea neither. Now with what confidence can punishment be inflicted on men who mutiny in these wants?... These neglects be the cause that mariners fly to the service of foreign nations to avoid his majesty's.... His majesty will lose the honour of his seas, the love and loyalty of his sailors, and his royal navy will droop.'[1016]

They were prophetic words, and as another illustration of the methods which were to secure the sailors' love and loyalty we find in October, among the notes of business to be considered by the Lords of the Admiralty, 'poor men's petitions presented above six months, and never read.' Mutiny had become merely a form of protest, and captains looked forward to it as only a sign of dissatisfaction. One of them writes to Nicholas that his crew are in 'an uproar' about their offensive beer, and that if he finds no fresh supply at Plymouth he is sure of a mutiny;[1017] another commander was forced to pawn his spare sails and anchors to buy food for his men.[1018] Apsley died in 1630, leaving his affairs deeply involved, the crown still owing him large sums. His coadjutor, and then sole successor, Sir Sampson Darell, did not fare better at the hands of the government, although his requirements were so much less. In June 1632 he informed Nicholas that he would be unable to continue victualling unless he was paid, having raised all the money he could on his own estate.[1019] If he received anything on account it was evidently not enough to insure permanent improvement, since a year later we hear that the cruisers are 'tied by the teeth' in the Downs

for want of provisions.[1020] During these years the debts incurred from the early expeditions of the reign were being slowly discharged, and the scantiness of the available resources for fresh efforts is shown by the way Pennington complains that six or seven weeks of preparation were needed to collect three months' victuals for four ships.[1021]

From the absence of references in the State Papers to the non-payment of wages it would seem as though they were now paid with comparative regularity, but the expressions of disgust at the quality of the provisions are as continuous and vigorous as before. Besides methods of cheating in the quantities served out, for which the victuallers and pursers were answerable, 'the brewers'—of course with the connivance of the victuallers—'have gotten the art to sophisticate beer with broom instead of hops, and ashes instead of malt, and (to make it look the more lively) to pickle it with salt water, so that while it is new it shall seem to be worthy of praise, but in one month wax worse than stinking water.'[1022] The same writer says that the English were the unhealthiest of all ships, in consequence of the practical application of the proverb that 'nothing will poison a sailor.' Then he laments that English mariners, formerly renowned for patience and endurance, were now physically weak, impatient, and mutinous—and blames the sailor for the change.

The Ship-money Fleets.

The first systematic issue of ship-money writs was in October 1634, and in the summer of 1635, the resulting fleet was at sea. As usual the provisions

were an unfailing source of indignation, and Lindsey, who was in command, told the Lords Commissioners that much of the beef was so tainted that when it was moved 'the scent all over the ship is enough to breed contagion.' The crews were made up with watermen and landsmen ignorant of their work, and many were weak and sickly; three men-of-war and several of the hired merchantmen were quite disabled by the sickness on board them.[1023] A special matter of complaint was the large number of volunteers and their servants who went for a harmless summer cruise on Lindsey's ships. That they were useless and in the way was of less importance than that officers were aggrieved by finding their cabins taken from them to house these people in comfort, and that the seamen were irritated by seeing the idlers given the first choice of food, having to wait for their own till the visitors were served.[1024] If the greater part of the beef was fetid, and the officers and volunteers had right of selection, what could have been left for the men?

Apparently the sailors had as little liking as ever for the royal service, since, in 1636, the old difficulties were renewed in obtaining seamen for the second ship-money fleet under Northumberland. In April the men were said to be continually running away; in June out of 250 men turned over from the *Anne Royal* to the *St Andrew* 220 deserted.[1025] When Northumberland returned in the autumn, typhus was rife in his squadron, and Mervyn reported that the men 'in this weather fall sick for want of clothing, most of them barefoot and scarcely rags to hide their skins.'[1026] Northumberland, not content with merely commanding in state, attacked the shortcomings of the naval administration furiously when he came ashore. Many of his

strictures relate to subjects to be noticed, subsequently, but concerning the men he said that they were incapable both bodily and in their knowledge of seamanship; that out of 260 men in the *James* not more than twenty could steer, that in the *Unicorn* there was hardly a seaman besides the officers, that nearly one-third of the *Entrance's* crew had never been to sea, and that of 150 men in the last-named ship only twelve could take the helm. [1027] The provisions, he said, were bad and meagre, and the men defrauded of a fourth or fifth of their allowance. Moreover sick men must either be kept on board 'or turned ashore in danger of starving, not to be received into any house, so as some have been seen to die upon the strand for lack of relief.'

Such was the tender care monarchy by divine right, with its paraphernalia of Commissioners and Lords of the Admiralty, vouchsafed to that class of its subjects which happened to be voiceless and helpless. But if the coming struggle between divine right and capitalist right was to render the sailor's assistance valuable, and temporarily improve his position, the experience of succeeding generations was to show that to him it made little difference whether life and health were sacrificed under the stately forms of monarchical procedure, or by the more obviously sordid processes of mercantile traffic. There was no 'glorious revolution' for men whose welfare depended on a legislature influenced by merchants and shipowners, and ignoble with the soulless ethics of the eighteenth century.

Victualling.

According to official documents the victualler, Sir Sampson Darell, must have died not long after

Apsley, as his accounts for five years are passed by his executrix.[1028] The absence of professional control did not probably cause any extra mismanagement; at any rate no murmurs are heard on that score. It is impossible to say now whether Apsley was a victim, or only received his deserts, in having claims for £69,436 in 1626 and £94,985 in 1627 rejected because his books were signed by only three instead of four Commissioners and on account of insufficient particulars. As they were not finally refused until 1637 his representatives were allowed plenty of time to prove their case. In February 1637 John Crane, 'chief clerk of our kitchen,' was made Surveyor of marine victuals, his appointment dating from 20th Nov. 1635. The allowance of drink and solid food was the same as in the last century, and sugar, rice, and oatmeal were medical luxuries theoretically provided for sick men in the 1636 fleet, on the equipment of which Northumberland expressed such trenchant criticisms. Crane undertook the victualling at the rate of eightpence halfpenny a man per day at sea, and sevenpence halfpenny in harbour, but in March 1638 he gave the necessary year's notice to terminate his contract.[1029] He found that during 1636 and 1637 he had lost a penny three farthings a month on each man, and owing to the general rise in prices, anticipated a further loss of as much as 3s 4¾d a head, per month, in 1638. He entreated an immediate release from his bargain, or he would be ruined, and he had thirteen children. In all these memorials one invariably finds that the petitioner possesses an enormous family.

In 1637 the Earl of Northumberland was again at sea in what Sir Thomas Roe expected would be 'one turn to the west in an honourable procession,' and the Earl himself wrote, 'No man was ever more

desirous of a charge than I am to be quit of mine.'[1030] He was, however, the first competent admiral among the nobility that Charles had been able to find. From the absence of any accounts of mutiny and disorder we may take it that either the men were better treated this year or that the superior officers were tired of complaining. In 1638 Northumberland was ill, and all the work the ship-money fleet did was to convoy two powder-laden vessels through the ships blockading Dunkirk.[1031]

Discipline.

We have seen that men like Pennington and Mervyn had not the heart to punish for insubordination under the circumstances of privation which made their crews seditious and disobedient, and the normal discipline on a man-of-war was, in all likelihood, sufficiently lax. Some of the regulations, however, if they were carried out, were strict enough, although they will compare favourably with the bloodthirsty articles of war of the succeeding century, and they show some difference from previous customs. Prayer was said twice daily, before dinner and after the psalm sung at setting the evening watch, and any one absent was liable to twenty-four hours in irons. Swearing was punished by three knocks on the forehead with a boatswain's whistle, and smoking anywhere but on the upper deck, 'and that sparingly,' by the bilboes. The thief was tied up to the capstan, 'and every man in the ship shall give him five lashes with a three-stringed whip on his bare back.' This is, I think, the first mention of any form of cat. The habitual thief was, after flogging, dragged ashore astern of a boat and ignominiously dismissed with the loss of his wages. For brawling and fighting the offender was ducked

three times from the yardarm, and similarly towed ashore and discharged; while for striking an officer he was to be tried for his life by twelve men, but whether shipmates or civilians is not said.[1032] If a man slept on watch three buckets of water were to be poured upon his head and into his sleeves, and any one except 'gentlemen or officers' playing cards or dice incurred four hours of manacles. It is suggestive to read that 'no man persume to strike in the ship but such officers as are authorised.'[1033]

There was no specially prepared fleet in 1639, but in October Pennington was in command of a few ships in the Downs, watching the opposed Dutch and Spanish fleets also lying there. Both he and Northumberland had pressed the King, but in vain, for instructions as to his course of action in certain contingencies. At last directions were given him that in the event of fighting between them he was to assist the side which appeared to be gaining the day, a manner of procedure which Charles doubtless thought was dexterous diplomacy, but which most students of the international history of his time will consider as ignominious as it was futile. The Dutch attacked the Spaniards as they were taking in 500 barrels of gunpowder, supplied with the connivance of the English government[1034]—again Charles's trading instincts were too strong—drove a score of their vessels ashore, and scattered the remainder. Unfortunately Pennington, instead of also attacking the Spaniards, fired into the Dutch, who did not reply.[1035]

The Seamen and the Civil War.

During 1640 and 1641 Charles was fully occupied with his Scotch and parliamentary difficulties, and naval business was again falling into disorder. In July 1641 Northumberland tells Pennington that he does not see how the insubordination the latter reports is to be remedied, as there is no money with which to pay wages.[1036] In October Sir William Russell, one of the Treasurers of the Navy, had been a long time out of town, and the other, Sir Henry Vane (the younger), 'seeing there is no money in the office, never comes near us.' Perhaps it was not altogether displeasing to the parliamentary leaders that, in view of the arbitrament towards which King and Parliament were tending, the seamen should be rendered discontented and rebellious. In January 1642, 2000 sailors offered their services and protection to Parliament, and when, in July, the King appointed Pennington, and Parliament Warwick, to the command of the fleet, the men in the Downs, apparently without any hesitation, followed Warwick, although the former must have had with them the influence of a trusted and favourite officer. In several instances the crews of ships on outlying stations forced their captains to submit, or put their royalist officers ashore and themselves took charge. It is difficult to speak with absolute certainty, but an examination of the data available leads to the conclusion that only one small vessel, the *Providence*, adhered to the royal cause.

We need not conclude that this unanimity implied any deep feeling about the general misgovernment of Charles or the important constitutional questions at issue. The sailor, contrary to the impression apparently prevailing among feminine novelists, is usually an extremely matter-of-fact individual, with the greater portion of his attention fixed on the

subjects of his pay and food. All he could associate with the crown were memories of starvation and beggary, of putrid victuals fraught with disease, and wages delayed, in payment of which, when he at last received them, he found a large proportion stick to the hands of minor officials. The Parliament paid him liberally and punctually, and he, on his side, served it honestly and well. For him was not necessary—perhaps he was not capable of feeling—the curious psychical exaltation of the 'New Model,' but in a steady, unimaginative way, without much enthusiasm but without a sign of hesitation, he kept his faith and did more to destroy royalist hopes than historians, with few exceptions, have supposed. Under the administration of the Navy Committee there were no recurrences of the confusion and unruliness which had before existed, and until the Rainsborow mutiny of 1648, speedily repented, the seamen showed no symptom, for six years, of discontent or of regret for the part they had chosen.

Parliament and the Seamen.

Without feeling an indignation which would have been in advance of their age at the hardships and dishonesty of which the sailor had been the victim, the position of the parliamentary chiefs compelled them to treat him with a discreet consideration. He was fed decently; wages were raised to nineteen shillings a month, and were given in full from the date of his joining his ship, instead of from that of its sailing; and an attempt was made to raise a sufficient number of men without impressment, the officers responsible being only directed 'to use their best persuasion.'[1037] Seamen, however, had been too

long accustomed to compulsion to enter into the principles of voluntaryism, and an act allowing pressing and punishing contumacy with three months' imprisonment, must have been received by them as something they could understand.[1038] The utter absence of difficulties or remonstrances during the years of the civil war shows how smoothly the naval administration worked, and Parliament appeared to place even more reliance on the sailors than on their officers, since on 18th Oct. 1644, Warwick issued a proclamation ordering that 'none shall obey the commands of their superior officers ... if the same commands be tending towards disloyalty towards the Parliament.' This was a dangerous power to place in the hands of the men, unless it was felt that their discipline and fidelity could be depended upon.

The late Mrs Everett Green speaks of 'the inherent loyalty of the sailors to their King,'[1039] making this remark in connection with, and as explanatory of, the difficulty experienced by the Council of State in obtaining men in 1653. I must confess that, notwithstanding the weight justly attaching to her opinions, I am quite unable to see during these years any sign of this loyalty. Under the government of Charles they had been compelled to serve by force, and had lost no opportunity of venting their anger and discontent; when the occasion came they eagerly and unanimously fought against the sovereign to whom they were supposed to be inherently loyal, without one instance of desertion or dissatisfaction of sufficient mark to be noticed in the State Papers. When a mutiny did at last occur it was due to circumstances connected not with the rights of the King, but with the narrower personal jealousies of naval command; it happened when the fighting was

done, and, in all probability, would not have happened at all under the stress of conflict. During the Commonwealth they continued to serve the state under conditions of great strain and trial, which might well have tried men of greater foresight and self-control than seamen, without, with perhaps one exception, more than slight and unimportant outbursts of insubordination of a character which, allowing for the looser discipline of that time, occur to-day in all large standing forces. Whatever, at any time, their momentary irritation against the Parliament, it never took the form of loyalty to Charles II. It may be suggested that a more likely explanation of the difficulties of 1653 lies in the fact that the estimates required 16,000 men against the 3000 or 4000 sufficient for the fleets of Charles I. [1040] At the most liberal computation the returns of 1628,[1041] do not give, allowing for omissions, more than 18,000 men available for the royal and merchant marine; at least double that number would have been necessary to supply easily the demands of the two services in 1653. In no case under the Commonwealth did the men show that despairing recklessness of consequences which characterised their outbreaks between 1625 and 1642. More significant still is the fact that the savage fighting of the first Dutch war, against the most formidable maritime antagonist we have ever faced, was performed in a fashion very different from the perfunctory and half-hearted service rendered to Charles I. And it is a further curious illustration of their hereditary loyalty that while they endured much hardship and privation rather than serve either under Rupert or Tromp against the Commonwealth, we are told by Pepys that they manned the Dutch ships by hundreds—perhaps thousands—during the

wars of Charles II.

If, on the other hand, we are to really believe that ‘inherent loyalty’ was continuously latent in the English sailor, what words are fitting for the selfish and reckless indifference to the simplest human rights which tortured him into twenty years of consistent rebellion? On sea as on land Charles’s misdeeds followed him home. In his days of power he had been deaf to the appeals of men who perished that he might attempt to be great, and to the cries of their suffering wives and children. In 1642 the sailors were deaf to his commands. What might—in all human probability would—have been the result after Edgehill if, during the winter of 1642-3, he had been able to blockade the Thames?

Merchant Seamen.

Private shipowners have always paid higher wages than the crown, and for several centuries the latter offered no compensatory advantages. From various chance allusions the rates of merchant seamen’s wages during this period are found to vary between 22s and 30s a month. The stores provided for them could not have been worse than those of a man-of-war; but they had special difficulties, peculiar to the merchant service, to expect when in private employment. In 1628 among their grievances they complained that they were liable to make good any damage done to cargo, even after it had left the ship, until it was safely stored in the merchant’s warehouse.[1042] In 1634 they petitioned, in view of the dulness of trade, that exportation of merchandise in foreign bottoms should be prohibited,[1043] but a year later a more important matter occupied their

attention. All engagements were made by verbal contract, and it often happened at the end of the voyage that the owner disputed the terms, when the sailor was left helpless, having no proof to bring forward.[1044] Moreover, if, as frequently occurred, he was pressed out of a homeward bound vessel, his position was still more hopeless, while if he died at sea there was small chance of his family obtaining anything. In 1638 it was intended to form a Trinity House fund, on the plan of the Chatham Chest, for the benefit of merchant seamen and officers; one shilling a month was to be deducted for this purpose, from the wages of officers, and fourpence from the pay of the men, except those belonging to coasters, who were to give sixpence.[1045] The matter progressed so far that there was a proclamation issued in accordance with these views,[1046] but the scheme did not come into operation till 1694. In that year it was enforced in connection with Greenwich Hospital at the rate of sixpence a man; in 1747 this was raised to one shilling and so continued until 1834. The whole story belongs to a later volume, but the merchant sailor never received the least benefit from the levy extorted from his scanty earnings, and at a moderate computation was robbed of at least £2,500,000 during that period. But he helped to endow many fat sinecures and to thus support the Constitution.

If from one case referred to a court of law we may infer others, the form and amount of punishment on a trader was left to the discretion of the captain. On a Virginia ship an insubordinate boy was hung up by his wrists with 2 cwt. tied to his feet, with what results we are not told. The boy’s complaint came before Sir H. Martin, judge of the Admiralty court, who refused any redress, because of the necessary

'maintenance of sea discipline.'[1047] But notwithstanding hard fare, hard usage, and sometimes doubtful wages, the position of the sailor on a merchantman was infinitely preferable to his fate when compelled to exchange it for a man-of-war. We meet with no instances of mutiny on merchant ships until they are hired by the crown, and the traditional hardihood and courage of the English seaman were always evinced when he was free of the crushing burden of the royal service. Sir Kenelm Digby, when commanding a squadron in the Mediterranean in 1628, noticed that while foreigners invariably ran from him, the English, without knowing his nationality, always stopped and prepared to fight 'were they never so little or contemptible vessels.'[1048]

The number available.

With proper organisation there were sufficient men available at the beginning of the reign to have manned both the royal and merchant marine, as will be seen from the following returns made in 1628, but it is probable that the numbers did not increase much during subsequent years:—[1049]

	Seamen	Fishermen
London	3422	302
Kent	181	231
Cinque Ports	699	193
Essex	309	357
Suffolk	804	326
Norfolk	600	436
Lincoln	66	126
Devon	453	86

Northumberland	33	260
Cumberland	72	
South Cornwall	731	393
North ”	154	88
South Wales	753	
Southampton and Isle of Wight	321	209
Dorset	958	86
Bristol	823	

There were 2426 watermen in London, also liable to impressment. Of the seamen two-thirds were at sea, one-third at home, their favourite abiding place being Ratcliff. Yorkshire, North Wales, Chester, and some parts of Sussex are omitted, and the figures for Northumberland cannot include the Newcastle coal traffic, which in 1626 employed 300 colliers;[1050] it may be, however, that their crews are reckoned in the London total.

In various ways, during the war time, Parliament showed its satisfaction with the work done by officers and men, and occasionally rewarded them by extra gratuities of a month’s pay, or presents of wine. Doubtless these donations were also in the nature of bribes on the part of a power without much historic prestige compared with its opponent, and depending for existence on the goodwill of men who served with a closer regard to pay than to sentiment; but that the parliamentary authorities considered their relations with the Navy fairly secure is shown by the fact that in 1645 they ventured to place the service under martial law.[1051] In 1647 wages, per month, were raised for officers, according to rates, as follows [1052]

	£	*s*	*d*		£	*s*	*d*
Captain	7	0	0	to	21	0	0

Lieutenant	3	10	0	”	4	4	0
Master	3	18	8	”	7	0	0
Master’s mate	2	2	0	”	3	5	4
Pilot	2	2	0	”	3	5	4
Carpenter	1	15	0	”	3	3	0
Boatswain	1	17	4	”	3	10	0
Gunner	1	15	0	”	3	3	0

The Chatham Chest.

The Chatham Chest, founded by Hawkyns and others in 1590, for the relief and support of injured or disabled sailors, was not of so much use to them during these years as it should have been. The original contribution was sixpence a month from able, and fourpence from ordinary, seamen, with threepence from boys. In 1619 the gunners joined the fund, and from 1626 all, whether able and ordinary, seamen or gunners, were to pay sixpence. [1053] The sixpences were unfailingly deducted from their wages, but the distribution was more irregular. Every formality was employed for the safe custody of the money, and in 1625 an iron chest with five locks was ordered for this purpose, the keys to be kept by five representative officers of different grades, who could only open it when together, and who were to be changed every twelve months. As an illustration of the value of these precautions the Treasurer of the Navy, Russell, the very next year took £2600, out of the Chest with which to pay wages, subsequently excusing himself by the ‘great clamours’ then being made and the poverty of the state. He did not commence to return this money till 1631, and in 1636 £500 of it was still owing. Sir Sackville Crowe, when Treasurer between July 1627 and December

1629, took out £3000, and this sum, with the accruing interest, is regularly carried forward as a good asset till 1644, when there is a gap of ten years in the accounts, and in 1654 it no longer appears. From the character of the man it is very unlikely that he ever paid. In 1632 a commission of inquiry issued, but if any report was ever made it has not come down to us. In January 1636 the Chest had £542 in hand and possessed Chislett farm producing £160 a year,[1054] but it was said that its narrow resources were further depleted by money having 'been bestowed on men that never were at sea.'

Sir John Wolstenholme and others were directed, in December 1635, to inquire into the administration, and their report was sent in by April 1637.[1055] The yearly receipts from land were now £205; since 1617, when there was £3145 in hand, £2580 had been received in rents and £12,600 from the sixpences. Out of this £3766 had been expended in purchasing land and £10,621 in relieving seamen; £159 remained in the Chest, and £3780 was owing to it. Of the £3780 some of the items went back to Elizabethan days, and Roger Langford, Sir Peter Buck, some of the master shipwrights, and two ladies were among the debtors. Between 1621 and 1625, inclusive, there was paid £1722 in gratuities and pensions, and between 1625 and 1629, £1372;[1056] as the first series were mostly peace, and the second war years, the men were either very successful in avoiding injury between 1625 and 1629 or, as is more likely, were defrauded of the benefits they could rightly claim. The result of the commission was that fresh rules, signed by Windebank, were shortly afterwards made, directing the Treasurer of the Navy to pay over the sixpences within one month of their deduction from wages, to make up the

accounts yearly and ‘publish them to all the governors,’ that no pension was to exceed £6, 8s 4d a year, although an additional gratuity might be given, and that the keepers of the keys were to be changed yearly.[1057] As the last regulation was only a repetition of the one made in 1625, it is to be presumed that it had been previously ignored.

Neither now nor afterwards, neither in official papers nor in the sheaves of ephemeral publications which enlightened this and the succeeding century, does it seem, with one exception, to have entered into the minds of those who ruled or those who tried to teach that the cost of providing for the wants or age of men disabled by service should in justice fall upon the country they had spent their youth and health in protecting, instead of on an accident fund maintained from their own meagre earnings. The one government which in this, as in other matters, had a higher perception of its duties was that of Cromwell, and even here only in a limited sense. The host of pamphleteers who in the succeeding reigns lamented the condition of the royal and merchant marine, or aired their universal panaceas for its ills, only rang the changes on further methods for the exploitation of the seaman to the private profit of the shipowner and the general profit of the state. For him to carry the burden of empire was to be its own reward.

The only consecutive accounts preserved for this reign are contained in two volumes kept in the Museum at Greenwich.[1058] They extend from 14th April 1637 to 23rd April 1644, and, in round figures, give the following results:—

	Owing to chest	Received	Expended	Received from Pensioners land	No. of [10
	£	£	£	£	
1637-8	3768	1545	1361	248	62
1638-9	6215	1609	1215		59
1639-40	5600	1849	1364		59
1640-1	5200	2371	2019		35
1641-2	4800	2761	2635	479	55
1642-3	4400	2108	1738		60
1643-4[1060]	4400	1238	958		61
1644[1061]	4400	845	483	321[1062]	

We do not know on what principle donations were allowed, but, besides being slow and uncertain, gratuities were frequently dispensed by favour rather than by merit. In 1637 a man hurt in 1628 received £2, and Apslyn, a shipwright, had £5, 3s 4d, being compensation for the loss of his apprentice's services during 62 days, a sort of loss certainly never intended to be indemnified by the founders of the Chest. The majority of the men on the pension list, had £5 or £6 each, but most of the payments to injured men were of a donative character not involving any further responsibility. Medical charges relating to the dockyards were also met from the Chest, a Chatham surgeon being paid £43, 1s 4d in 1638 for attending to shipwrights injured while working on the *Sovereign of the Seas*. The next year has a somewhat belated entry of £3 to Wm. Adam, barber-surgeon, 'for sundry hurts and bruises received in Queen Elizabeth's service,' and again we find £33, 11s 4d paid to a Woolwich medical man for care of shipwrights injured in rebuilding the *Prince*; in 1640 surgeons were attached to the dockyards whose salaries of £40 a year were paid from the

Chest money. The compensation for a bruise ranged from £1 to £2. Sometimes widows were granted burial money and a further small sum for ‘present relief,’ but never, apparently, pensions. A normally recurring item is a gift of £4, 10s a year to the almshouse founded by Hawkyns at Chatham, and with equal regularity there is an annual outlay of some £5 for the governors’ dinners.

However open to criticism may have been the administration of the Chatham Chest at this time, it was undoubtedly in a condition of ideal purity compared with the depths of organised infamy to which it sank during the eighteenth century.

The Rainsborow Mutiny.

The reign of Charles I commenced with mutinies; it ended in 1648 with another which deserves examination, since upon it some writers have based an inference of general unfaithfulness to the Parliament, while in reality, whatever conclusions may be deduced, that, so far as the bulk of the men were concerned, is not one of them. From the days of Elizabeth, when they were accustomed to be led by captains who were seamen by vocation and sometimes by descent, often of their own class, and who understood them and their wants, the men had shown an intense dislike to the landsmen who by a change of system in later years had been placed over them, who obtained their posts mainly by rank or influence, were ignorant of maritime matters, and were associated with a succession of disasters and years of abject misery. Manwayring, writing in the reign of James I, says that volunteers usually returned knowing as little as when they sailed, since

the professional seamen hated them, and gentlemen generally, and would give no instruction. Another seaman attributed the disasters of the early years of the reign to the appointment of landsmen as captains and officers.[1063] The experiences of more recent years were not likely to have lessened that feeling.

During the war, therefore, the fleet had been commanded chiefly by admirals and captains who were trained seamen of no exceptional social position, but, judging from subsequent events, there must have been a sufficient leaven of landsmen in places of trust to keep alive the old prejudices. When, therefore, Wm. Batten, an experienced officer of many years' standing, who was vice-admiral and commanding in the Channel, and who had done good service to the state, was displaced in 1647, and his responsible charge given to Colonel Rainsborow, who began actual control in January 1648, there was doubtless some murmuring, although no evidence of it has survived. Nothing occurred during the winter, and in May 1648 there were forty-one ships in commission, of which only three were commanded by military officers; but the appointment of Rainsborow may have been regarded, as it actually proved to be, as the commencement of a return to the old system. Moreover the Navy, generally, was presbyterian in feeling, while Rainsborow was a fanatical Independent and, judging from one of the accusations brought against him, does not appear to have exercised his authority with tact or discretion. In addition to this a certain amount of ill-feeling existed between the army and the Navy, the latter not being inclined to coerce the Parliament to the extent desired by the army, and Batten, in the 'Declaration' which explained his reasons for desertion, dwelt on the efforts of the army leaders 'to

flood the ships with soldiers.' If the accusation was true, it would be a certain way, in the state of feeling between the two services, to give fresh life to the latent antagonism existing. We have no details of the workings of discontent which led up to action any more than we have of the secret cabals which preceded the Spithead mutiny of 1797, but in each case the outbreak was equally sudden. Towards the end of May the crews in the Downs put Rainsborow ashore, giving as their reasons:—

> 1st. The parliament of late grant commissions to the sea commanders in their own names, leaving out the King. 2nd. Several land-men made sea commanders. 3rd. The insufferable pride, ignorance, and insolency of Col. Rainsborow, the late vice-admiral, alienated the hearts of the seamen.[1064]

Rainsborow had made his mark as a soldier, but he was not a stranger to the sea, for he had commanded a man-of-war in 1643. It is noticeable that no complaints are made about their treatment by the government, about their pay or victuals, and succeeding events showed how little the great majority of the fleet were in sympathy with the grandiloquent threats of the ringleaders on the King's behalf. Warwick was at once sent to resume the command of the fleet and adjust the differences existing. Whitelocke says that the men 'sent for the Earl of Warwick' and that 'the Derby House Committee, to follow the humour of the revolters,' directed Warwick to go, so that at this stage it is evident that having rid themselves of Rainsborow, they looked to Warwick rather than to Charles. We do not know what measures the earl took, but, in the

last days of June, the crews of nine ships,[1065] perhaps terrified at finding they received such slight support from the others and fearing punishment, possibly also influenced by Batten, went over with him to the Prince of Wales in Holland. That so long an interval elapsed between the commencement of the revolt and their desertion shows how little the latter was at first contemplated.

It has been recently said: 'While the army was so formidable the navy scarcely existed. The sailors generally were for the King. Many had revolted and carried their ships across to Charles II in Holland, while in the crews that remained disaffection prevailed dangerously.' It would be difficult to mass more inaccuracies in so many words. There were forty-one fighting-ships actually at sea, a larger number than had been collected since the days of Elizabeth, and immeasurably superior as a fighting machine to anything which had existed since 1588. The 'many' which had revolted were nine, and of these three were small pinnaces of an aggregate of 210 tons and 180 men; of the others, one was a second and the rest third and fourth-rates. If 'disaffection prevailed dangerously,' it is strange that not only did none of the remaining ships join the revolters, but they were known to be ready to fight them, and Batten on one occasion avoided an action on account of 'the very notable resistance' to be expected.[1066] Instead of being disaffected, Warwick found that on board his own ship they prepared for fighting 'with the greatest alacrity that ever I saw ... which, as the captains informed me, was likewise the general temper of the rest of the fleet.' Finally the sailors in the Downs, who 'generally were for the King' and were actuated by 'inherent loyalty,' concurred in December in the Army Remonstrance,

requiring that Charles I, ‘the capital and grand author of our troubles,’ should be brought to justice for the ‘treason, blood, and mischief’ he had caused. The after story of the revolted ships is just as instructive on the point of their disaffection to the Parliament. No sooner had they reached Holland than the men commenced to desert. By November five vessels had been brought back to England, and the ill-will manifested on the others was so pronounced that it was necessary to place strong bodies of cavaliers on board to keep the seamen in subjection.[1067]

The outburst would have been serious had it been general. It was confined to a small section of the naval force, was due to dissensions relating to men rather than principles, and gives small countenance to the view that the Navy repented the part it had taken. The loyalty of the majority and the speedy penitence of the minority were the best tests of the temper in which the Parliament was judged by those who upheld it afloat; and if the disaffected minority loved Rainsborow and his employers little they showed that they liked Charles Stuart less.

CHARLES I
1625-1649
PART II—ROYAL AND MERCHANT SHIPPING

The Royal Ships in 1625.

When Charles I inherited the crown, his fleet consisted of 4 first, 14 second, 8 third, and 4 fourth rates;[1068] of these 1 first, 7 second, 6 third, and the 4 fourth rates were comparatively new ships, the oldest being the *Prince*, launched in 1610. The others were originally Elizabethan, had been repaired, rebuilt or patched up more or less effectively at various times, and of them the *Lion* of 1582 was the most ancient. The recent accessions were, for reasons previously noticed, more commodious and better seaboats than their predecessors, but the King had yet to learn that the mere possession of a naval framework in the shape of hulls, spars and guns was of little use without efficient crews, and adequate knowledge and honest effort on the part of the subordinate officials on whom fell the responsibility of preparation and equipment. Whether due to a desire to save the royal ships as much as possible, to want of men to man them properly, or to their generally inefficient state, the expeditions of 1625-7-8 included a very large proportion of armed merchantmen. In 1625 there were twelve men-of-war and seventy-three merchantmen;[1069] in 1627

fourteen of the former, of which three were small pinnaces and eighty-two of the latter[1070]; and in 1628 the second Rochelle fleet, which Lindsey commanded, was made up of twenty-nine King's ships and thirty-one merchantmen.[1071] But under Lindsey, ten of the royal ships were of the class known as 'whelps,' just built, and measuring 180 tons each, and ten were pinnaces of 50 tons or under, so that only nine vessels of the real fighting line were with him. We shall see that the owners of merchantmen, who could neither escape the calls made on their ships nor get paid for their services, by no means valued the honour thus thrust upon them.

Charles, like his father, felt a keen interest in the Navy. In the case of James I it was prized more as an imposing appurtenance of his regal dignity than from any statesmanlike appreciation of its importance; in that of his son the evidence goes to show that, while vanity was sometimes a ruling motive,[1072] he was also fully alive to the weight a powerful fleet gave to English diplomacy. The State Papers show that he exercised a constant personal supervision in naval affairs, sometimes overruling the opinions of his officials in technical details of which he could have possessed no special knowledge. No new vessels were built during the first years of the reign. Theoretically, with the assistance of the hired merchantmen available, the Royal Navy was sufficient for the duties it was called upon to perform. Practically, it was found that even those that were seaworthy were too slow under sail, as were also the merchantmen, to deal with the plague of Dunkirk privateers and Moorish pirates, who swarmed in the narrow seas, and who almost blockaded the coasts except for large and heavily-armed ships.

A chief article of accusation brought by the Parliament against Buckingham was that he had neglected his duty in taking few or no measures against these enemies, but if all the charges made against him had as little foundation, his reputation would be higher than it now stands. The Channel squadron had been increased, two special expeditions had been sent out after them, and any prizes likely to prove fast sailers had been taken into the Royal service for the purpose of being so employed, but as the Turks and Dunkirkers, built for speed, could sail at least twice as fast as the English, it was only under exceptional circumstances that one was sometimes captured. In 1624 the Captain of one of the Commissioners' new and improved ships indignantly reported that some Dutch men-of-war he met had deliberately and contemptuously sailed round him. This was square rig *versus* square rig. Remembering that the Turks undoubtedly were lateen-rigged, that the Dunkirkers probably used some modification of it, and that this is still the most effective spread of canvas known for light vessels of moderate tonnage, we need not wonder that the lumbering English third and fourth rates, built for close action, could never get near them. During the Rhé voyage sixty English ships chased some Dunkirkers, but only one pinnace could overtake them, and that of course could not venture to attack. [1073] But there were also other causes. In 1634 Pennington wrote to the Admiralty that he had just met a fleet of seventeen Dutch ships,

> 'all tallowed and clean from the ground, which is a course that they duly observe every two months, or three at the most ... which is the only cause which makes them go and work

> better than ours; whereas our ships are grounded and graved two or three months before they come out, and never tallowed, so that they are foul again before we get to sea with them, and then they are kept out for eight or ten months, whereby they are so overgrown with barnacles and weeds under water that it is impossible that they should either go well or work yarely ... all men-of-war, of what nation soever, whether Turk or Christian, keep this course of cleansing their ships once in two or three months but us.'[1074]

Therefore the first additions to the navy were small, fast-sailing vessels, built or bought with this object, and the master shipwrights were several times called upon to furnish designs of ships especially adapted for chasing the privateers. Their first suggestion, in December 1625, was for a cruiser whose length, over all, would have been nearly four-and-a-half times her breadth, and this is noticeable as a marked step in the tendency now existing to increase the proportion between length and beam.[1075] Again, in March 1627[1076] they proposed 'a nimble and forcible ship of 339 tons to meet the Dunkirkers;' but in this case the length was rather less than four times the beam, and eventually pecuniary necessities compelled the government to be content with vessels of a smaller model, called 'whelps,' contrived for sweeps as well as sails, and whose length was nearly two-and-a-half times the breadth. In merchantmen the keel was still only about two and a half times the beam.[1077] Although English ships were slow, they were strong. Nathaniel Butler, a naval captain, attributed their sluggishness as compared with the Dutch to their being 'so full of

timber ... we building ours for seventy years, they theirs for seven;' and Northumberland, in 1636, described some of them as 'so clogged with timber' that there was no room for stores.[1078] Modern builders would probably ascribe their want of speed to faulty lines rather than to excess of material; but if it was a defect it was one of which we reaped the full benefit in the first war with Holland, when the Dutch ships, splendidly as they were fought, were riven and sunk by the more solid and more heavily armed English men-of-war long before their crews were beaten.

The Navy List.

The following vessels were added to the Navy during the reign of Charles, including such prizes as were taken into the service and remained in it until useless:—[1079]

	Prize	Built	Rebuilt	Keel in ft.	Beam in ft.	Depth in ft.[1080]	Draught in ft.
St Claude[1081]	1625						
St Denis	1625			104	32.5	11.9	
St Mary[1082]	1626						
St Anne[1082]	1626						
Espérance[1083]	1626						
Henrietta[1084]		1626		52	15	6.6	
Maria[1084]		1626		52	15	6.6	
Spy[1085]		1626					
10 Lion's Whelps[1086]		1627		62	25	9	
Fortune[1087]	1627						

St Esprit[1088]	1627						
Vanguard			1630	112	36.4	13.10	
Charles		1632		105	33.7	16.3	1
Henrietta Maria		1632		106	35.9	15.8	
James		1633		110	37.6	16.2	1
Unicorn		1633		107	36.4	15.1	1
Leopard		1634		95	33	12.4	1
Swallow		1634		96	32.2	11.7	1
Swan[1089]	1636						
Nicodemus[1089]	1636			63	19	9.6	
Roebuck		1636		57	18.1	6.8	
Greyhound		1636		60	20.3	7.8	
Expedition		1637		90	26	9.8	
Providence		1637		90	26	9.9	
Sovereign		1637		127	46.6	19.4	
Lion			1640	108	35.4	15.6	1
Prince			1641	115	43	18	
Crescent[1090]							
Lily[1090]							
Satisfaction		1646					
Adventure		1646		94	27	9.11	
Nonsuch		1646		98	28.4	14.2	
Assurance		1646		89	26.1	11	
Constant Warwick[1091]		1646		90	28	12	1
Phœnix		1647		96	28.6	14.3	
Dragon		1647		96	30	12	
Tiger		1647		99	29.4	12	1
Elizabeth		1647		101.6	29.8	14.10	
Old Warwick	1646						
Falcon[1092]							
Hart[1092]							
Dove[1092]							
Truelove[1092]							

Concord[1092] *Dolphin*[1092] *Fellowship*[1092] *Globe*[1092] *Hector*[1092]							

The *James*, *Assurance*, *Elizabeth*, *Tiger*, *Nonsuch*, *Swallow*, and *Henrietta Maria*, were built at Deptford, the first four by Peter Pett, who also built the *Constant Warwick* at Ratcliff. The *Sovereign*, *Prince*, *Leopard*, *Greyhound*, *Unicorn*, *Roebuck*, *Adventure*, *Phœnix*, and *Charles*, at Woolwich; the *Henrietta Maria*, *Vanguard*, *Lion*, and *Dragon*, at Chatham. Phineas Pett, who built the *Sovereign* and rebuilt the *Prince*, was a son, by a second marriage, of the Peter Pett, master shipwright in the reign of Elizabeth; his son, Peter Pett, junior, built the *Nonsuch*, *Adventure* and *Phœnix*. The Peter Pett of Deptford was a grandson of the Elizabethan Pett.

The Ten Whelps.

The first two pinnaces constructed, the *Henrietta* and the *Maria*, were, it is expressly stated,[1093] to be ‘carvel built,’ a distinction which implies that hitherto such small vessels had been clinch or ‘clinker built;’ we have seen that large ones were mostly carvel, or flush planked, in the reign of Henry VIII.[1094] We do not hear that they proved satisfactory in either speed or power, and next year the contract for the ten whelps was divided among nine shipwrights, some of them private builders, at £3 5s a ton.[1095] They were to be able to use sweeps, and were square rigged, with three masts, two decks and a round house, as miniature copies of the large ships; like those also they were too heavily

sparred and ordnanced. Of heavy guns each was intended to carry four culverins, four demi-culverins, and two brass sakers, but subsequently two demi-cannon were added, and the strain of this armament proved too great for both their sailing and seagoing qualities. Their demi-cannon were mostly stored in hold at sea, instead of being on deck.[1096] They were afterwards said to have been built in haste, 'of mean, sappy timber, for particular service,'[1097] and to be weakly constructed, costing relatively large sums to maintain in serviceable condition; they were used a good deal for winter service in the four seas, and only one of them lived into the days of the Commonwealth. Two were lost returning from Rochelle; and by 1631 the sixth and seventh whelps had disappeared from the lists, the seventh by the simple process of sending the gunner into the magazine with a naked light while she was in action with a Dunkirker. The fifth was lost in July 1637, and her experience of straining till she took in water through her closed ports, and opened her seams, was probably that undergone by most of those that foundered.[1098] The fourth whelp was handed over 'for a design to be practised on by a Dutchman's project,' and she passes out of the Navy list.[1099] These whelps were the first representatives, in intention, although not in form, of the regular sloop and gunboat class afterwards so largely used for minor police purposes.

During the years of foreign warfare it was found easier to turn suitable prizes into men-of-war than to arrive at the money necessary for new ships, but from 1632 until the commencement of domestic trouble it will be seen that vessels were added in regular succession. It will be observed in the preceding list of ships that a keel length of three

times the beam was, roughly, the ratio in favour during the middle of the reign, while on reference to the Elizabethan Navy list, the proportion in the majority is seen to be one of about two and a half times the breadth. Whether the alteration was due to theoretical calculation or to study of the lines of foreign ships we have no means of deciding, but the increase in length is still more pronounced in the vessels launched in 1646 and 1647, their keels being sometimes nearly three and a half times their beam. According to Pepys this last improvement was due to Pett's observation of a French ship lying in the river, in which case the French designers had already obtained that superiority in the art of shipbuilding which they held until speed became a matter of engine power.

The new Ships.

The cost of the *Charles* and *Henrietta Maria* was £10,849, and of launching and taking them from Woolwich to Chatham, £1222; that of the *James* and *Unicorn* came to £12,632,[1100] the increased totals as compared with the *St George* and *St Andrew*, of the previous reign, being attributed to sounder workmanship and higher prices for labour and materials. A further sum of £4076, was paid on the *James* and *Unicorn* for 'rigging, launching, furnishing, and transporting' them from Woolwich and Deptford to Chatham, work which included 65 tons of cordage at £35 a ton, 214 cwt. of anchors at £2 per cwt., suits of sails at £225 a suit, waistcloths and top armours of red cloth for both £132,[1101] and trumpeters and pipes at their launch, £15.[1102] The King and Queen were present at the launch of these vessels, and £14, 5s 4d was spent in sweetmeats for them and their

attendants. Pennington wrote to the Lords of the Admiralty that the *Vanguard* and the *Henrietta Maria* were both good ships, although the latter was 'extraordinarily housed in aloft;' privately, to Nicholas, he said that there had been 'great abuse both in materials and workmanship.'[1103] When he had to try the *Unicorn* he in that instance gave his unfavourable report directly to the Admiralty. On joining at Tilbury he found her so crank that she could carry no sail. Three shipwrights on board—Ed. Boate, who built her, Pett, and Austin—persuaded him to take in another hundred tons of ballast, and the extra weight brought her so low that the gun-deck ports had to be caulked up, as 'in a reasonable gale of wind' she would lay them under water. Pennington was still unwilling to venture out with the ship, 'but in regard to the poor man's disgrace that built her,' he gave her a trial at sea, and decides that she 'is dangerous and unserviceable,' cannot work her guns, and will not live in a gale.[1104]

Under these circumstances the authorities naturally desired to be informed by the Trinity House experts and the masters of the Shipwrights' Company why they had given a certificate approving the *Unicorn*. They answered that they thought she would be a failure, 'but rather than disgrace any workman they put their hands, hoping the ship might prove well.'[1105] The defence sounds weakly benevolent, but that they were either too ignorant themselves to judge, or that the ganglionic plexus of fraud uniting most officials made them unwilling to venture on such a dangerous novelty as an honest opinion, is much more likely than that they were actuated by goodwill towards each other, a feeling they always successfully suppressed where hostile criticism could be safely hazarded. 'The bruits of this

disaster have spread far and wide,' wrote Edisbury, and many opinions were obtained as to the best course to take, the discussion ending in girdling her, a method which increased her stiffness at the expense of her speed. The *Unicorn's* ports were intended to be 5 feet above the water line, but they proved to be but 3 feet 7 inches from it. 'The King's ships are not built as they should be, nor like merchant ships,' Pennington complained.[1106]

The *Roebuck* and *Greyhound* of 1636 were built from the waste of the *Sovereign*, then on the stocks, and the *Providence* and *Expedition* in 1637 were finished in time to join Rainsborow before Sallee, vessels of lighter draught than those he had with him, but of some force, being required. The other accessions of 1636, the *Swan* and *Nicodemus* were both Dunkirk prizes, and added to the Navy as being the fastest vessels afloat. Pennington recommended that the *Swan* should be used as a model by English builders, and the *Nicodemus* was said to run away from everything, 'as a greyhound does from a little dog.'

Shipwrights' Errors.

Noticing the general discrepancies between designs and results in shipbuilding, Charles II remarked a generation later of Christopher Pett, when he turned out a successful ship, 'I am sure it must be God put him in the way, for no art of his own could ever have done it.' An observer of this date, Kenrick Edisbury, who succeeded Sir Thos. Aylesbury as Surveyor of the Navy, perhaps better qualified to judge, attributed part of the apparent error rather to self-interest. 'I never yet knew,' he writes to Nicholas,

'any ship built by day-work but the shipwrights have made them of greater burden than their warrants mentioned, as you may discern by this new ship now in building at Deptford, which I am persuaded will prove 200 tons greater than was appointed.'[1107] Edisbury was referring to either the *Leopard* or the *Swallow*, and there is an instructive paper relating to these two vessels which shows the lack of exactness, whether due to ignorance or intention. It gives the measurements as ordered by the King—the shipwrights intrusted with the work received their instructions from him personally[1108]—and as they actually were.[1109]

	Leopard	*Swallow*	'Dimensions given by his majestie'
	Feet	Feet	Feet
Keel	95	96	93
Beam inside the plank	33	32.2	31
Depth from upper edge of keel to diameter of breadth	12.4	11.7½	
Depth of keel	1.7	1.8	
Rake of stem	30.6	28.4	27
Rake of stern post	4.3	4.8	4
The flat of the floor	13	13	13
Midship draught	12.9	12.3	11.6
Distance of lower edge of port from greatest breadth	5	4.10½	5.6
Distance between ports	8.6 and 9	8	8

From deck to lower edge of ports	2.1	2.1	2.2
Breadth of ports	2.4	2.4	2.4
Depth of ports	2.2	2.2	2.4
From the diameter of breadth to the top of the waist	13.6	12.7	
Between decks	6.6	6.7	6.8
Gross tonnage	515	478	384

Report on the Ships.

In January 1626-7 we have a report on the qualities of the new ships added since 1618, and built under Burrell's superintendence while he was the Commissioners' principal subordinate. The *Constant Reformation* is said to be strongly built and seaworthy, but cannot work her lower tier in a moderate sea; the *Victory* weakly built and crank, as is also the *Garland* which is a slow sailer as well. The *Swiftsure*, *Bonaventure*, and *Mary Rose* are all condemned as badly built, crank, or slow under sail. The *St George*, *St Andrew*, and *Triumph* are awarded faint praise. It must, however, be remembered that this survey was made by Burrell's professional competitors, of whose envy and jealousy there is incidental evidence yet remaining, and that at least five of these vessels, after years of sailing and fighting round half the world, are to be found still fit for service in the Navy lists of Charles II. The Commissioners claimed that, with the exception of the earlier *Bonaventure*, theirs were the first additions to the Navy that could carry out their guns 'in all fighting weathers.'

The

Sovereign of the Seas.

It is unnecessary to describe the *Sovereign of the Seas*, accounts of which, based on Thos. Heywood's well-known tract,[1110] have been several times given in various works. Some details, however, not known to Heywood, may be given here. The suggestion must have been under discussion for some time, but the first mention of her is in August 1634, when the masters of the Trinity House, apparently without being asked for it, volunteered an opinion that such a ship was an impossible dream.[1111] Their dogmatic statement that a three-decker was a thing 'beyond the art or wit of man to construct,' has already been quoted, but they further insisted that, if built, there was no port, 'the Isle of Wight only' excepted, in which she could ride, and no ground tackle which would hold her. No notice seems to have been taken of their long and poetically expressed effusion, and in January 1635 an estimate was called for of a vessel of 1500 tons, ('the king with his own hand hath set down the burden;'), and in March, Phineas Pett was ordered to prepare a model of 'the ship royal,' and was told that 'you principally are appointed by his majesty for the building of the same.'[1112] A month later Pennington, Mansell, Phineas Pett, and John Wells[1113] met, and agreed on dimensions, which were substantially those afterwards adopted, and the gross tonnage was to be by depth 1466 tons, by draught 1661 tons, and by beam 1836 tons; but no explanation is given of the way in which these figures are arrived at.[1114] Pett's estimate of the cost was £13,680;[1115] perhaps he really did not know, perhaps he did not wish to frighten Charles, but the amount eventually spent on her, exclusive of guns,

was £40,833 8s 1½d.[1116] Comparing this sum with the £5500 to £6500 which was the average cost of a forty-gun ship, there must have been, even allowing for the much larger proportion spent in decoration of various kinds, great extravagance in some respects.

Before commencing work Pett desired that the principal officers, who, he said, had always shown themselves adverse, should neither provide materials nor make any payments without his signed order. 'Already I find certain extraordinary unnecessary charges of new building of dwelling-houses bestowed and employed in Woolwich yard, which I doubt not will be brought upon the charge of the ship.'[1117] As this was occurring while the trees which were to form her frame were yet in leaf in Chopwell and Brancepeth woods, it gives us an interesting glimpse into the habits of the chief Officers of the Navy, and the estimation in which they were held by one who was brought into daily contact with them. The keel was laid at Woolwich, in the presence of Charles, on 16th January 1636, and she was launched in October 1637. Pett had recommended that the launching should be deferred till the spring, since the vessel would grow foul lying in the river through the winter, and would then require redocking. Pett's proposal was annotated by the king, 'I am not of your opinion.'[1118] Charles had a dull optimism, unshaken by any number of blunders, in the value of a royal opinion, whether applied to subjects of general policy or to such a technical matter as the rate at which a ship's hull was likely to grow foul. [1119]

The wages bill on the *Sovereign* amounted to £20,948, and joining, painting, and carving to £6691; but in the case of this ship the large sum spent in decoration has in popular imagination, as

expressed in pictures and descriptions, implied an equivalent expenditure on other ships which did not really occur. Where details are given of the cost of men-of-war, or of their repairs, the money spent on ornamental carving and painting bears a very small proportion to the total; and it is quite likely that the conventional representations of sixteenth and earlier seventeenth century vessels are altogether wrong in this respect, and that men-of-war of these times, at any rate those of the second, third, and fourth ranks, were little more bedecked than modern merchantmen. The manner in which the adornments of the *Prince* and *Sovereign* are described and dwelt upon as out of the common points to the probability that other ships possessed few of these external attractions. The *Elizabeth* and *Triumph*, the *Ark Royal* and *Merhonour* were as relatively important in their day as the *Prince* and *Sovereign*, but, with the exceptions already noticed under the reign of Elizabeth, allusion to any special ornamentation is in their case exceptional, still less, then, would the smaller vessels be much beautified by gold, colours, and carving. Decoration, perhaps, became much more general and expensive after the Restoration; but John Holland attributed the increased expenditure on it that began about now to the absence of control over the master shipwrights, who were permitted to do much as they liked and would not be outdone by each other.

The *Sovereign* being afloat, the next proceeding was to arm her, and for this purpose 102 brass guns were required, costing, by estimation, £24,753, 8s 8d.[1120] They were thus divided:—

	Number		Length each	Weight each	Total	
			Ft.	Cwt.	Tons	Cwt.
Lower tier —						
Luffs, quarters, and sides	20	cannon drakes[1121]	9	45 }		
Stern chasers	4	demi-cannon drakes	12½	53 }		
Fore chasers	2	” ”	11½	48 }	64	16
Bows abaft the chase	2	” ”	10	44 }		
Middle tier —						
Luffs, quarters, and sides	24	culverin drakes	8½	28 }		
Fore chase	2	culverins	11½	48 }	45	4
After chase	4	”	11½	48 }		
Upper tier —						
Sides	24	demi-culverin drakes	8½	18 }		
Fore chase	2	demi-culverins	10	30 }	27	12
After chase		” ”	10	30 }		

Forecastle	8	demi-culverin drakes	9	20	8	0
Half-deck	6	” ”	9	20	6	0
Quarter-deck	2	” ”	5½	8		16
Bulkhead abaft the forecastle	2	culverin drakes	5½	11	1	2

The first estimate was for 90 guns, and here again we read, ‘His majesty has since altered his resolution both in respect of the number and nature of pieces.’ If Pett originally designed the ship for 90 lighter guns, and Charles raised the number and weight by a stroke of the pen to 102, trying to ignore, in the plenitude of his royal power, such things as metacentres and centres of gravity, it is not surprising that she proved topheavy at sea. It was one of those cases in which ignorance is bliss, but, without reading modern scientific knowledge into the past, we know he had professional advisers at hand whose empirical skill was sufficient to enable them to warn him of the folly of such a change. The guns were engraved—at a cost of £3 each—with the rose and crown, sceptre and trident, and anchor and cable. In a compartment under the rose and crown was the inscription, *Carolus Edgari sceptrum stabilivit aquarum*, ‘being a scutcheon and motto appointed by his majesty.’[1122] In January 1640 occurs an estimate for a sister ship to the *Sovereign*; but of this, of course, nothing more was ever heard.[1123]

We have no station list for the *Sovereign*, as for the *Henry Grace à Dieu* but, as a part of ordinary discipline, divisions or quarters seem to have been usual. There is a station list of this period for a vessel of 40 guns and 250 men which may be considered

typical.[1124] The heavy guns required 136 men, and 50 more formed the small arms company. The boatswain and his mate had 40 under their command to work the ship under the orders of the master and his mate, who were attended by 2 men. The carpenter and his mates had 6 men, the cook, steward, and surgeon, each 2 for assistants, and 4 men were told off to steer, and 4 to remain with the trumpeters. Finally the captain and lieutenant had 2 men in attendance. The heaviest guns were allowed 5 men each; and the number varied down to 5 men between two of the smaller guns.

Of the eight vessels of 1646 and 1647 there is nothing to say beyond once more noticing the marked increase in the ratio between length and beam. There is not to be found, among the Commonwealth papers, any mention in praise or dispraise of their weatherly and fighting qualities, and from this silence we may infer that they were found to be, in essentials, all that was expected.

Probably a sixteenth or seventeenth century ship was not a particularly picturesque object. Instead of the graceful, beautifully proportioned hulls, spars, and sails of to-day, the reader must imagine a short, squat, hull, round-bowed and square-sterned, enormously high and broad in comparison with its length, and the sides falling in towards each other till the upper deck was perhaps only two-thirds of the width on the water line. The stern was the highest part of the ship, and the bows the lowest, so that she looked as though she was always premeditating a plunge forward, and the longitudinal curve of the sides was broken by huge channels opposite each mast to which were fastened the shrouds. Above, the stumpy masts and spars must have looked

ridiculously out of proportion to the ponderous hull, although they were in reality usually too heavy in relation to the badly designed and placed weights below. As for the gilt and painting, a week of rough weather would have converted the original tawdry splendour into a forlorn slatternliness.

The remaining Elizabethan Ships.

Most of the remaining Elizabethan ships passed out of the service. The hull of the *Bear* was sold in 1629 for £315, the *Answer* and *Crane* for £101, and towards the end of the reign, the *Dreadnought*, *Due Repulse*, *Adventure*, and *Assurance* were broken up. In 1635 Charles, again exemplifying the very real interference, if not control, he exercised in naval matters, ordered, against the recommendations of the Principal Officers, that the *Warspite* should be cut down into a lighter for harbour service at Portsmouth. But the most serious loss in this class was that of the *Anne Royal*, which in April 1636, when fitted as Northumberland's flagship, was bilged on her own anchor when bringing to in the river. The disaster was attributed to the pilot and master giving contradictory orders, and when she was lying on her broadside and full of water her officers made matters worse by cutting holes in the upper side to recover their belongings.[1125] Of course nine members of the Trinity House at once certified that it was impossible to raise the *Anne*, just as a year before they had petitioned against the Foreland lights as 'useless and unnecessary,'[1126] and just as on every point referred to them they showed a persistence in being stultified by events,

extraordinary even in a corporation. Two townsmen of Great Yarmouth offered to float the ship for £2000; the Principal Officers thought they could do it for £1450, and eventually they did raise her, but with the customary variation in official calculations, at a charge of £5355.[1127] She was taken to the East India Company's dock at Blackwall, and there, being found to be too severely damaged for repair, broken up.

Of the later ships, the *Phœnix* and *Nonsuch* were sold; the *Reformation*, *Antelope*, *Swallow*, and *Convertine* were carried off by the mutineers of 1648 and lost to the English Navy, and most of the prizes of the earlier years were subsequently given to private individuals or to commercial associations. The King had no fleet after 1642, and seized upon any expedient likely to give him one. In November 1643 he granted a commission to Jeronimo Cæsar de Caverle as Vice-admiral, De Caverle contracting to obtain, man, and fit out five ships for £2000 a month, to be paid out of any prizes he might take from the supporters of the Parliament.[1128] This, like Rupert's commission, was a premium on piracy.

The French Navy.

Not the least interesting of the papers of this reign are those which show what a close watch was kept on the growth of the nascent French navy. In 1625 Louis was compelled to borrow vessels from Charles, but in 1626 Richelieu bought up or confiscated local or opposing rights and constituted himself head of the navy, assisted by a *conseil de marine*. That which must have been the nucleus of his fleet, the purchase of four vessels built for him in the Low Countries, is

duly reported to our King.[1129] Again in 1627 there are several notices of fresh purchases from the Dutch, and in September Mervyn was ordered to intercept and destroy them on their passage to France.[1130] By this time the French had thirty-three ships before Rochelle, but eighteen of them were under 200 tons each, and probably most were hired merchantmen.[1131] In 1630 ten 'dragones' were being built at Havre in imitation of the whelps, and a correspondent, writing from Bordeaux, says that there are 'so many good ships of the King of France's navy that unless I had been an eye-witness thereof I should not have believed it possible.'[1132] There were forty ships 'of good force' there. In 1631 Charles appears to have obtained a detailed list of the then existing French marine, thus classified:—[1133]

	900 tons	700 tons	600 tons	500 tons & 40 guns	450 tons & 36 guns	400 tons & 34 guns	300 tons & 28 guns	250 tons & 23 guns	20 to 8 1 gu
Brest	1	2	3	6		2	1		
Bordeaux				3	3	1			
Blaye				1		1			
Brouage						1	2	1	
St. Malo				1		1	1		
At sea				1			1		

There were also two of 1400 and 700 tons, respectively, building. It must be confessed that this force, created within five years and manned by Breton and Norman seamen, was calculated to give pause to the rulers of the painfully maintained English Navy. Still more significant was the fact that

only twelve were Dutch-built; Richelieu had soon freed France from dependence on foreign artisans. The proportion of guns on French vessels was smaller than that on English vessels of corresponding tonnage, an excess of metal having been characteristic of our equipment until the eighteenth century. In 1639 their strength had so far increased that they had forty sail and ten fireships in the Channel, and there was also a powerful Dutch fleet, so that Pennington was directed to stop any suitable merchantmen and add them to his squadron.

A navy, however, which was not the result of natural growth, but depended on the energy and will of one man, was predestined to decay. The French marine, as Professor Laughton has pointed out, really began with Colbert, and in 1661, when he took office, it was reduced to less than 20 seaworthy vessels, against some 150 carried on the English Navy list. The rivalry still existing between the two nations commenced very early. As soon as the *Sovereign* was built, a similar ship was considered a necessity for France, but for some reason it was not until 1657 that their first three-decker was launched. [1134]

Tonnage Measurement.

Closely connected with shipping was the question of tonnage, and the discussion which raged between 1626-8 on the methods of calculating it would require a volume for its full elucidation. The existing rule was recognised as imperfect, but the science of the time was not able to formulate anything satisfactory in its place, for exact measurement has been a matter only of the present century. The following paper, printed in full, may be regarded as

representing the various views existing, and will at any rate show how little dependence can be placed on any positive statement of a ship's tonnage.[1135]

There are three ways of measuring ships now in use:—

Mr Baker's Old Way—The old way, which was established in Queen Elizabeth's time, and never questioned all King James his time, is this: The length of the keel, leaving out the false post, if there be any. Multiply by the greatest breadth within the plank, and that product by the depth taken from the breadth to the upper edge of the keel produceth a solid number which divided by 100 gives the contents in tons, into which add one third part for tonnage, so have you the tons and tonnage.

The *Adventure* of Ipswich

	ft.			
Length	63·6	1802	7737	
Breadth	26·2	1417	8037	Within y^e^ plank.
Depth	11	1041	3927	To y^e^ upper edge of kee
Divisor	100	70		
Tons	182,80	1261	9701	
One third for tonnage[1136]	60,93			
	243,73	tons and tonnage.		

It is credibly averred by Sir H. Mervyn and Sir H. Palmer that the old way of measuring was to take the breadth without y^e^ plank and the depth from the breadth to the lower edge of the keel. And this was Baker's way of measuring.

Second Way—The second way is assumed by the shipwrights of the river to be the old way,

but it is not, which makes the ship to be 28 in the hundred greater than the former, and is this: The length of the keel taken as before, or ought to be. The breadth from outside the plank to outside. The depth or draught of water from the breadth to the bottom of the keel all multiplied together and divided by 94 (say they) give the content in tons, into which add one third for tonnage.

	ft.			
Length	63.6	1802	7737	
Breadth	26.8	1426	230	Without y^{e} timber and p
Depth	12.3	1088	1361	To y^{e} lower edge of keel
Divisor	94	8026	8721	
Tons	220,71			
One third for tonnage	73,57			
	294,28	tons and tonnage.		

If you divide this by 100 (which is said to be here done by 94) it is y^{e} true old way, called Baker's way.

Third Way—The third way was proposed by Mr Gunter, Mr Pett, Mr Stevens, Mr Lyddiard, and myself, who were required by warrant from my lord Duke of Buckingham and the commissioners for the navy (then being) to measure the *Adventure* of Ipswich, the greatest bilged ship in the river, and from her dimensions to frame a rule that in our best judgments might be indifferently applicable to all kinds of frames. This we performed and yielded our reasons for it, which, to avoid the abuse of furred sides and deep keels and standing strakes, which increaseth the burden but not the hold, was thus: the length by the

keel as the first; the depth in hold from the breadth to the seeling;[1137] the mean breadth within that seeling at half that depth multiplied together, and the product divided by 65, gives the tons, into which add one third part for tonnage.

	ft.			
Length	63.6	1802	7737	
Mean breadth	22	1342	4227	Within the seeling.
Depth	9.8	985	4265	To the seeling.
Divisor	65	8187	866	
Tons	207,83	2317	7095	
One third for tonnage	69,27			
	277,10			This increaseth 12 per
	[1138]			100 above the old rule.

There is a fourth way, devised by the shipwrights and Trinity masters, but exploded for the great excess which makes the ship 30 in the hundred greater than the first, and it is thus: length of the keel as at first, middle breadth beneath the greatest, viz. the breadth at the wrunghead, depth to the outside of the plank, all multiplied together and divided by 70.

	ft.			
Length	63.6	1372	5438	
Middle breadth	23.7	1051	1525	Without (*i.e.* outside) tim
Depth	11.3	1802	7737	Without the plank.
Divisor	70	8154	9019	
Tons	240,68	1381	3719	
One third for tonnage	80,22			
	320,90			

Although this document is quoted at length as showing the opposing views, the controversy began in May 1626, when Wells, Stevens, and others sent in an interesting paper,[1139] which is the one referred to in their 'third way' of the preceding, too long to transcribe fully, but from which some extracts may be given. The main question was whether the depth and breadth should be taken from within or without board. In the second case the King paid for more tonnage in a hired ship, especially if she was furred or girdled, than he actually obtained, but the first was held to be a direct incentive to owners to build flimsily. The *Adventure* of Ipswich was all through the subject of experiment. They say:—

> We consider the ship may be considered three ways—the first in cask, and so two butts or four hogsheads make a ton; the second in feet, and so forty feet of timber make a ton, the third in weight and so twenty hundred weight make a ton.... The first seems most rational to us.... We therefore first prescribe the hold of the ship to be the cavity of the vessel contained between the lines of her greatest breadth and depth withinboard ... supposing the lower edge of the (deck) beams to be pitched at the breadth.... We next consider what quantity of cask may be stowed in this hold first by drawing the bends and the form of the cask in each several bend; but this way being subject to error we sought the true contents thereof arithmetically, allowing 4½ feet to the length of a butt, and 2 ft. 8 in. to the depth of the first tier, but 2 ft. 4 in. for the rest of the tiers. This whole body we reduce into feet, and divide the product thereof by sixty, because we find by

> calculation that a ton of cask stowed to the best advantage will take up as much room as sixty feet solid, and by these means we produce the whole contents of the *Adventure's* hold to be 207 tons.

They then proceed to frame the rule they used in the 'third way' of the paper of 1627, and notice that practically the *Adventure* takes a cargo of about 276 tons of coal, but that this brings her midship port within a foot of the water line and renders her unfit for any service. In June the masters of the Trinity House commented on the preceding statement,[1140] and began by declaring that 'truly to find the contents of the cavity of the hold in cask is not possible.' They strongly maintained that vessels should be measured from without board, seeing that a furred ship could carry more than if unfurred, ignoring the fact that one object of the proposed new rule was to insure more accurate designing and building by throwing the loss on the owner. 'The old rule,' they said, 'is less true for lately built ships, which have great floors, but true for old ships with small floors.'[1141] Their protest evoked a derisive reply from the government shipwrights, from which it is unnecessary to quote.[1142] Finally an order was issued, 26th May 1628, that all the King's ships and those hired by him should be measured by taking 'the length of the keel, leaving out the false post, the greatest breadth within the plank, the depth from that breadth to the upper edge of the keel,' multiplying these and dividing by one hundred.[1143]

The result of the change was to make vessels apparently smaller, but whether nearer to, or further from, what we should now consider their real tonnage we have no means of deciding conclusively.

The comparative measurements of two ships by the old and the new rules may serve as example of the others:—[1144]

	Keel		Beam		Depth		Gross tonnage	
	Old rule ft.	New rule ft.	Old rule[1145] ft.	New rule[1146] ft.	Old rule ft.	New rule ft.	Old rule	New rule
Henrietta Maria	106	106	36.5	35.9	16.6	15.8	848	793
Charles	106	106[1147]	36.3	35.7	16.6	16.3	848	810

The Merchant Marine.

The extensive use made of hired ships between 1625 and 1628 led to several lists being drawn up of the available merchant marine. Before, however, dealing with these, there is another source from which information may be gained. The Trinity House certificates, from May 1625 to March 1638, of new ships requiring ordnance, and which were necessarily sent to London to be armed, have fortunately been preserved.[1148] These certificates probably include every new vessel of any considerable size, and in most cases mention the tonnage and place of construction, and from them, therefore, we can draw fairly reliable conclusions concerning the relative importance of the shipping centres where they were built, and the strength of the merchant navy. In these thirteen years some 380 ships come under notice, inclusive of fifteen prizes and twenty-two bought, mostly from the Dutch, but whether new or old is not stated. The following table gives the number each year:—

1625, 5
1626, 124
1627, 23
1628, 5
1629, 55
1630, 37
1631, 18
1632, 11
1633, 12
1634, 12
1635, 24
1636, 25
1637, 24
1638, 5 (three months)

The sudden increase of 1626 is probably attributable to the number of vessels taken up for the royal service, and to the proclamation of 26th April of that year, by which the bounty of 5s a ton on craft of over 100 tons, and suited for warfare, was renewed. The subsequent falling off, besides being a natural reaction, may have been also due to the difficulty owners experienced in obtaining payment for their ships when hired by the King. An analysis of the places mentioned yields, when the port of origin is given, the results tabulated below. The expression 'River of Thames' comprises those from various ports, but mostly, perhaps Newcastle colliers sent up for their ordnance; it may also include those from such a place as Bristol, for which one new ship cannot be a complete return. Ships of under 300 tons are not classified, and in some instances the tonnage is not given in the certificate:—

	Total No.	Tons

		500	450	400	350	300
London						
Limehouse	20		1	2	3	6
Wapping	21				1	2
Horseleydown	14			1	2	1
Ratcliff	19			1	3	3
Deptford	2	1		1		
Shadwell	1					
Blackwall	1					
Ipswich	48			1		7
Yarmouth	26			1		1
Aldborough	12					2
Hull	25					
Woodbridge	12			1	2	3
Colchester	7					
River of Thames	102					
Bristol	1					1
Harwich	2				1	
Dartmouth	3					
Dover	2					1
Southampton	2					
Shoreham	14					5
Plymouth	1					
Weymouth	3					1
Blakeney	1					
Exeter	2					

In July 1626, Buckingham was directed to procure returns of the number and size of the ships belonging to the port towns, and the resulting list, so far as the reports have survived, is as follows:—[1149]

	No.	Largest in tons	100 tons or upwards
Portsmouth	5	80	

Gosport	11	40	
Isle of Wight	10	70	
Padstow	3	40	
Chester	21	50	
Boston	12	80	
Yarmouth	97	320(2)	26
Dartmouth and Tor Bay	65	270	15
Fowey	2	50	
Sandwich	30	240	12
Lynn	67	160	15
Wells	26	80	
Burnham	10	50	
Blakeney	14	100	1
Plymouth	40	120	7
Stonehouse	6	120	1
Saltash and vicinity	24	200	4
Salcombe	11	50	
E. and W. Looe	28	40	
Penryn	7	180	3
Bristol	32	250	16

The principal point which the reader of this list will notice is the small extent of change in the maritime relation of these places which had occurred since the days of Elizabeth. In her time Dartmouth, including Totnes, was the leading southern port, and, although Plymouth and adjoining towns now run it close, it is hardly yet second. And so far as the scanty materials for comparison allow us to judge, it does not appear that the relation between the other ports had altered to any important degree, although the aggregate of ships belonging to them is much greater. Notwithstanding the obvious omissions in this roll, it includes 100 vessels of 100 tons and upwards, against 177 in 1588 for the whole of England.

In February 1628 there was a survey of such ships

in the Thames as were fit for the royal service.[1150] There were seven East Indiamen[1151] of 4200 tons and 218 guns, the largest being one of 900, one of 800, and two of 700 tons; besides thirty-four other merchantmen of 7850 tons and 610 guns, and twenty-two Newcastle colliers of from 200 to 250 tons each. The largest of the merchantmen were one of 500 and two of 450 tons. A year later, in February and March 1629, there was another survey of London and other ports, but only of ships of 100 tons and upwards, and there were now in the river eight East Indiamen of 5700 tons, one being of 1000 tons, and forty-seven other merchantmen of 12,150 tons, and 906 guns; there were also twenty-nine merchantmen of 7060 tons and 556 guns at sea, thirty Newcastle vessels belonging to London owners, and eighteen other ships of not more than 120 tons each and unarmed.[1152] The following list of the remaining towns will complement that of 1626, on which it shows some variations[1153]:—

	100 tons and upwards	Largest
South Cornwall	6	200
Plymouth	8	160
Dartmouth	15	200
Weymouth	1	110
Poole	1	150
Southampton	1	100
Sandwich	6	200
Dover	7	260
Malden	2	160
Colchester	9	240
Woodbridge	17	300
Harwich	11	140
Ipswich	63	300

Aldborough	14	300
Lynn	5	120
Yarmouth	26	200
Bristol	30	250
South Wales	1	250

Including London there were, then, in 1629, more than 350 ships of over 100 tons, while Newcastle is only partly, and Yorkshire, Somerset, Chester, and Sussex are not at all mentioned; but the writer of the copy of 1634 remarks that in the five years that had elapsed since the survey was made, ninety-five more such vessels had been built.

The Ports.

All the fleets set forth by Charles contained a large proportion of colliers, as their cost was supposed to be but one-third of that of merchantmen. The growing importance of the coal trade is shown by the shipment of 143,000 chaldrons (equal to nearly 200,000 tons) of coal from Newcastle in 1626.[1154] On the other hand, leaving piracy aside for the moment, the chances of war and tempest played havoc with the commercial prosperity of not a few of the coast towns. In 1626 Bristol lost fifty ships by wreck and capture. When, in 1627, these ports were required to provide vessels for the King, most of them pleaded inability from these causes and losses by pirates. By the embargo in France and Spain Poole had lost £8500, and had to maintain 400 widows and children; Exeter, from the same cause, had lost £80,000 and ‘in many parishes there is not one man of ability to a hundred poor people.’ Barnstaple and Totnes replied that the crown owed them money for billeted soldiers, and that until payment was made they were powerless. Norwich was ‘in a desolate and

distressed condition,' as was also Harwich; and Aldborough in three years had lost thirteen ships, and had three hundred widows and children to keep. The port of Boston was choked up, and its big ships all sold. Dartmouth, Penryn, and Lyme Regis professed to be nearly ruined by the embargo laid on their ships and goods in France and Spain, while most of their remaining merchantmen were unemployed and they had many poor to support. Plymouth was ordered to supply two vessels of 200 tons each; they said they were in a distressed and miserable state, that since 1624 they had lost by pirates and embargo £44,000, that the crown owed £6000 in the town, and that the plague was causing 'infinite misery.'[1155] Weymouth and Melcombe, called upon to provide the same number as Plymouth, answered that their losses by embargo came to £6000, besides the expense of supporting many poor women and children; Colchester had suffered from the plague for ten months and possessed no 200-ton ship, and King's Lynn had lost twenty-five ships to the Dunkirkers, while their port cost them £350 a year.[1156] Yarmouth, in two years, had lost by Dunkirkers 'and sundry other casualties at sea' £25,000; their port cost them £600 a year, their haven and piers £1000 a year, and there was a municipal debt of £2200 on which they paid £140 per annum interest.[1157]

Against these sorrows we must set the fact that the returns show that these ruined ports were able to steadily build and increase, year by year, the number of their large ships, and in at least one instance—that of Dartmouth—while the townspeople said that they possessed no 200-ton vessel, the papers of 1626-7 show that they had one of 270 and two of 200 tons.[1158] The losses by wreck seem at one time to have

been exceptionally heavy; between 1625 and 1628 393 ships, valued at some hundreds of thousands of pounds, perished at sea, the Eastland Company losing £100,000 in eighteen months.[1159] But probably neither the municipal authorities nor the government held themselves compelled to strict truthfulness in making out a case. As in most generations, owners appear to have overbuilt at the first sign of prosperous trade; in 1633 the Trinity House petitioned for an enforcement of the navigation laws, as shipping to the extent of 6000 tons was lying idle in the Thames.[1160] When in employment, captains did not neglect any chance of trade. In 1638 the master of a Mediterranean trader took a Turk, and sold fifteen men of its crew in a Spanish port; on his return he offered 'the duty payable to his majesty,' a tenth of the proceeds.[1161] The rule of requiring the shipowner to give a bond, before his vessel went to sea, that it should not be sold abroad had been strictly enforced since 1625; in fact before sale to a foreign subject could be effected the Lords of the Admiralty, the Officers of the Navy, and the judge of the Admiralty Court, had all to give their approval.

Payment of Hired Ships.

It has been noticed that several of the towns put forward the crown debts incurred on behalf of the military and naval forces as an excuse for their want of means when asked for ships in 1627. Private owners who may have been encouraged to build by the renewal of the bounty and the demand for hired ships soon found that as regards payment they were as badly off as the towns in their corporate capacity.

They may not have expected very prompt settlement, but, by August 1627, the owners of ships taken up for the Cadiz voyage of 1625 were beginning to petition somewhat impatiently. Ipswich, for instance, had sent twenty-four vessels and had not yet received anything. In December these and other owners petitioned again, mentioning that 100 ships had been lost during the year, and declining the offer of crown lands in liquidation of their demands. They gave as the reason of their refusal the subdivision of ownership in a vessel among many members, and that they did not understand land, adding, 'To be two years, and many of us three years, without pay deserveth consideration, many of us undone and many more will be.'[1162] By February 1628 it was noticed that ships were being purposely built with less than the regulation space between decks, so that they should be unfit for the service of the crown; [1163] and later in the year masters of transports were asking double the ordinary rates, and were even then so unwilling to serve that threats of impressment had to be used. In March 1629 one unhappy man complains that he has had a vessel hired for four years, that he has received in that time a bill[1164] for £200 which has been for three years dishonoured, and that he goes about in daily fear of arrest himself. It was not until the receipts from the ship-money writs brought relief to the treasury that these debts were paid off. Under the government of Charles the hire of ships remained at 2s a ton per month, but after 1642 the Parliament adopted a different system, that of paying £3, 15s 6d a month per man, the owner sending his vessel armed and completely provided for sea; but the state accepted responsibility in the event of loss.

Inventions

connected with Shipping.

The demand for shipping naturally gave an impetus to the spirit of invention in connection with maritime matters. In July 1625 Letters Patent were granted to Wm. Beale for a cement intended to preserve the hulls of ships from barnacles, the first of a long series of such contrivances.[1165] In 1626 some one, unnamed, proposed attempting to propel boats under water,[1166] and in 1630 David Ramseye, who may have been the David Ramsey of 1618, a similar inventor, designed 'to make boats, ships, and barges go against wind and tide.'[1167] Again, in 1632, Thos. Grent offered 'an instrument' for moving becalmed ships, which he called the 'Wind's Majesty'; John Bulmer and Christopher van Berg invented methods of raising sunken vessels and their cargoes, and in 1637 and 1640 other patents were taken out for appliances to move vessels against wind and tide.[1168] In none of these cases was any specification enrolled. In 1630 Stephen Gibbs was granted the exclusive use, for fourteen years, of the means devised by him for clearing silted havens and draining marsh lands.[1169] Perhaps the most useful device was one which does not seem to have been patented. In July 1634 Edisbury wrote to Nicholas, 'There is now an invention found out to moor ships in the river with iron chains.'[1170] If this was the beginning of the substitution of iron for cordage in the various conditions where one could replace the other, it was the commencement of a change which vastly extended the possibilities of seamanship.

Piracy.

More deadly foes to the merchant than the chances of war and storm were the Turkish and Dunkirk pirates, who held command of the Channel, and for whom these were halcyon years until, in the next generation, the Commonwealth navy swept the seas. For reasons already touched upon, neither the ships nor the men in the royal service were capable of dealing with these freebooters, and the appeals for protection, which began within a week of the King's accession, continued until the strengthened parliamentary naval force was able to secure the coasts.

At first the Turks—all Mediterranean pirates were inclusively described as Turks—were the most prominent enemy. In August 1625 they were reported to have twenty sail on the southern coast, and according to the Mayor of Poole, threatened that within two years they would not leave the King sufficient seamen to man his ships. As the Mayor of Plymouth said that during that year they had captured 1000 sailors, and within the ten days before his letter, twenty-seven ships and 200 men, there was some force in the threat.[1171] A year later some of the Navy Commissioners, then at Plymouth, wrote to the Council that the successes of the Turks were 'the shame of our nation. The pitiful lamentations that are made by wives and children ... is so grievous that we know if your lordships heard it as we do, we are assured that it would move the same passion and grief in your noble hearts as it does in us.'[1172] Their culminating success was the seizure and sack of Baltimore, a thriving village port on the Munster coast. There they landed on the night of 30th June 1631, and, besides material spoil, bore off 237 English subjects, men, women and children into

slavery. There were not many vessels in commission that year, but there was an inspection by the King at Chatham and Portsmouth, for which the cost of preparation was £1275, an amount which expended in another way could have saved these victims.

When any of the Turks were caught, fear of reprisals compelled the government to treat them tenderly; some prisoners were tried in June, but private instructions were given that they were not to be put to death,[1173] and shortly afterwards the relatives of 2000 men, captives in Sallee, petitioned for some redress, which explains the leniency of the executive.[1174] Nor was this petition neglected, since, by a Council order of October, guns were to be exported to Barbary to ransom English prisoners. It was a poor way of upholding the honour of England, but since the cruisers could not clear the Channel, and there was no fleet to spare for a Mediterranean expedition, it was the only one open.

While the Turks operated in the south, the Dunkirkers, who, in addition to their other misdeeds, supplied the former with provisions and stores, practically blockaded the east coast. The Newcastle townspeople wrote that they were destroying the coal trade, and at Ipswich trade had altogether ceased, fifty-eight ships being laid up for fear of them, and shipping to the value of £4000 having been taken in one year.[1175] In August 1626, when the inhabitants of the coast of Suffolk were asked for a ‘voluntary gift,’ they answered ‘with loud cries, that their vessels were fired or taken in their havens before their eyes.’ At Lynn 1000 men, having 3000 women and children dependent upon them, were out of employment, and here the pirate crews landed and plundered and burnt houses near the shore. The

inhabitants of the Cinque Ports petition against the ‘force and fury’ of the Dunkirkers, and complain that they are ‘miserably oppressed by them and dare not go about our voyages to Scarborough and Yarmouth, or fish in the North Sea.’[1176]

There were many English sailors among the privateer crews, and the local knowledge of these men was invaluable in enabling the ships to lie off the mouths of the harbours or to chase close inshore. Duties of two and five shillings a chaldron were levied, from February 1628, on all coal laden at Newcastle or Sunderland, destined respectively for English or foreign ports, to pay for a guard on the eastern coast, which was an audacious mode of taxing a particular industry for general protection, seeing that the tunnage and poundage was especially allotted to naval purposes. The money thus obtained was probably not applied to naval preparation at all, or, if it were it had small result, since, exactly a year afterwards, the London fishmongers protested that nothing could pass between Yarmouth and the river, and that the city would soon be deprived of fish. Coincidently with this the Yarmouth people stated that they were accustomed to send 300 fishing boats to sea, but that the Dunkirkers were so numerous that they could not go out.[1177] Even when the first ship-money fleet was cruising in 1635, coasters and Dover packet boats were stopped and pillaged while the royal fleet was riding in the Downs. Again, in September 1636, while Northumberland’s vessels were mostly in the North Sea forcing the Dutch fishermen to take licences, the shipowners of the western ports petitioned that the Channel was so full of Turks that they dared not send anything to sea, that seamen refused to sail or fishermen to fish.[1178]

Then in 1637 there is a sudden change. In July Nicholas was told, 'The coast has been free all this summer, and is from all Turks and pirates,'[1179] the explanation being that, in March, Rainsborow had sailed on the too long deferred punitive expedition and was still before Sallee. About this time a Protestant clergyman, who was four years a captive at Algiers, wrote, 'During my abode there ... their armadoes kept an account of 1700 sail of Christian ships they had taken. The Lord stir up the hearts of Christian princes to root out that nest of pirates.'[1180] One Christian prince had at last been moved to an elementary sense of duty, and the expedition of 1637, whereby 300 or 400 Englishmen were rescued from hopeless slavery, was, in design and execution, the solitary success of Charles's naval administration.[1181] But its effect was only temporary, and the last notice in 1640, before the Parliament took matters in hand, is a letter from the Mayor of Exeter to the Council, stating that sixty sail of Turks were on the coast, and that they had landed near Penzance and carried off men, women, and children.[1182]

CHARLES I
1625-1649
PART III—THE ADMINISTRATION

The Commissioners.

The system, inaugurated in 1618, of governing the Navy by Commissioners, acting under the Lord Admiral, remained in force until February 1628, when the four Principal Officers resumed control under Buckingham. Although the Commissioners' direction was of course, both in ability and honesty, immeasurably superior to that of Mansell, they cannot be said to have risen to any great excellence of administration. In October 1627 Charles, in writing to the Duke, apologised for the slowness with which supplies were furnished, 'the cause whereof is ... the slow proceedings of the Commissioners of the Navy (which all Commissions are liable to).'[1183] If King and minister were both of this opinion, it would account for the supersession which so soon followed. After Buckingham's murder the post of Lord Admiral was put into commission, and the new Lords of the Admiralty[1184] were even more reliant on the capacity of the Principal Officers than had been their predecessors; but they appear to have been also suspicious and distrustful of them.

Buckingham.

Of Buckingham it may be said that, had he possessed less power, he would have made a better

chief. In the ten years he held office[1185] he practically doubled the effective of the Navy, for the Commissioners could have done little without his aid. So far as the emptiness of the treasury would allow he enlarged and repaired docks and storehouses, and, if he did not discover, he was one of the first to appreciate the true naval importance of Portsmouth. He provided for the home manufacture of cordage by inducing Dutchmen to settle here and teach Englishmen their art; and he increased in number, and made permanent, the ropehouses attached to English dockyards. He reintroduced lieutenants and corporals on board ship, and was the first administrator who began systematic naval and gunnery instruction in the service. It is difficult to apportion the credit for the reforms which followed 1618 between the Commissioners and Buckingham. Nicholas[1186] gives it to Buckingham; but Nicholas was his private secretary, and we know that the Duke had no grasp of detail. On the other hand he wrote in praise of Buckingham after the Duke's death, when he had nothing more to hope from him, and it is certain that the Commissioners could not have stood for twenty-four hours against the vested interests they attacked without Buckingham's consistent support. Unfortunately for his memory he must be judged, not as head of the Navy, but as the all-powerful minister, and in that sense history has pronounced its verdict.

The Principal Officers.

Since 1618 the duties of the Treasurer of the Navy had become, and remained in the future, almost entirely financial. His salary was increased, from

1630, by the grant of the poundage of threepence on all payments made by him, including wages, instead of, as before, only on those to merchants supplying stores; as well as a house at Deptford and other advantages, and in 1634 his fixed fee was raised from £270, 13s 4d to £645, 13s 4d.[1187] He even received the poundage on the salaries of the other three Officers, and they were continually petitioning for an advance in their rate of pay, which had remained unaltered since their posts were created by Henry VIII. It is suggestive to find that, among their reasons for the requested increase, they mention that before the reforms of 1618 they had an allowance of £60 a year from the Treasurer and Victualler for passing their accounts;[1188] and the Surveyor and Comptroller estimated the total annual value of their perquisites before that date at £384 and £430 respectively. This included the allowance from the Treasurer and Victualler, commissions given by officers on appointment, and dividends divided among them from the sale of old stores.[1189]

In 1637 they appear to have been promised that if they could obtain their augmentation without going to the royal coffers for it they were welcome to whatever they could get. Accordingly they point out that in this year they had prevented fraudulent overcharge on the part of owners of hired merchantmen to the extent of £1874, and they therefore desired to divide the whole of this sum. [1190] What advantage this would be to the crown they omitted to say. They were exceptionally unlucky, seeing that most officials had only to petition in order to receive. In one case £20 a year was taken off the salaries of the masters attendant, but, when these complained, they had each £40 a year added and with less work. Their ill fortune was,

perhaps, due to the disfavour with which the Lords of the Admiralty seem to have usually viewed them, and it was not until the era of the Long Parliament, when, from motives of fear, all wages were raised, that they shared in the general increase.

None of these Officers was of any historic interest. For two and a half years, between 1627[1191] and 1629, Sir Sackville Crowe was Treasurer, but he, to put as favourable a construction as possible on what happened, got his accounts into confusion to the extent of £1500.[1192] Before and after Crowe, Sir Wm. Russell was sole Treasurer[1193] till 1639,[1194] then for two years with the younger Vane,[1195] and again in 1642 by himself till August, after which Vane alone was reappointed. Russell was a mere man of affairs, who confined himself to his accounts, and seems never to have ventured an opinion on anything outside them. Sir Thos. Aylesbury was the first Surveyor of the Navy in 1628, and he, when he resigned, was succeeded by Kenrick Edisbury,[1196] perhaps the most observant and energetic of the chief Officers, who held the post till his death in 1638, when he was succeeded by Wm. Batten,[1197] who was appointed ‘during pleasure,’ instead of by patent for life, as in preceding cases.[1198] Sir Guildford Slingsby had been Comptroller of the Navy under Mansell, and was again given the same office in February 1628 by Charles. The main incidents of his second tenure which have come down to us relate to his assaults on his inferiors, and his quarrels with his brother Officers. Immediately after his appointment, John Wells, the storekeeper of the Navy, petitioned that, although the other officers had allotted him lodgings in the Navy Office, Slingsby, to accommodate his family and servants, ‘hath violently taken his lodgings from him.’[1199] In 1629 his

colleagues complained to the Lords Commissioners that he had felled with a pocket pistol, and otherwise maltreated, the man in charge of the Navy Office, and kept him out of the house, notwithstanding their wish to reinstate him.[1200] Slingsby died in 1632, and Sir H. Palmer succeeded him. The most notable event in Palmer's official career was his excuse for selling government cordage and pocketing the proceeds—'because his predecessors had done the like.' He subsequently amended this defence by saying that he had spent the money on naval necessaries.[1201] Denis Fleming and Thos. Barlow[1202] were successively Clerks of the Navy; and Edward Nicholas, who had been Buckingham's secretary, became secretary to the Commissioners of the Admiralty.

Till 1628 William Burrell was in charge of all shipbuilding and repairs, and in 1629 Burrell and Phineas Pett were made assistants to the Principal Officers. Burrell died in 1630, and from January 1631 Pett became himself a Principal Officer, being three months junior to Sir Kenelm Digby, who had been appointed in the previous October. Neither Digby nor Pett had any defined duties, and in Digby's case the position seems to have been almost entirely honorary, although at one time he was treating with Mervyn for the latter's command in the Channel. Mervyn asked £5000, his arrears of pay, to his rights in which Digby would presumably succeed, and the £3000 he had given for his admiralship of the narrow seas.[1203] It would be a matter of some interest to know to whom that £3000 was paid, but there had been obviously no secrecy in the transaction.

After Buckingham's death the Lords

Commissioners met twice a week, sometimes at Wallingford House and sometimes in the Council Chamber at Whitehall. In March 1638 the child Duke of York was made Lord Admiral for life,[1204] and Algernon Percy, 10th Earl of Northumberland, his acting substitute during the King's pleasure;[1205] the Navy therefore, ceased to be governed by commission from that date. In 1628 the Principal Officers met at St Martin's Lane, but in March 1630 some rooms were taken for them in a house in Mincing Lane at a rental of £30 a year.[1206] Thenceforward expenses incurred in relation to that house appear in many of the accounts. It cost £150 for furnishing, twelve months' beer there £13, 8s, [1207] yearly water rate £1, 6s 8d, but only 3s 6d for Christmas gratuities.

Although in 1628 the four Officers had been reinstated in a portion of their former authority, they by no means escaped the control of, and occasionally severe censure from, the Lords of the Admiralty. Sometimes my Lords considered that their sympathies ran rather with their subordinates than with the King's interests, and, as most of them had been suspended for acts similar to those they were called upon to condemn in minor officials, the charge was not unfounded.[1208] In the fleet of 1637 embezzlement of stores by the boatswains had been very general. There was nothing unusual in this, but the resolve of the Lords Commissioners to punish the guilty persons appeared to strike the Principal Officers as both unusual and unfair. Their pleas on behalf of these men provoked the Commissioners to write, 'We observe that you are more apt to intercede for those that are most faulty than to certify what you find against other boatswains ... it is time by due punishment to break up this custom of the

boatswains' exorbitant wasting of his majesty's stores, the continuance whereof so long with impunity hath, it seems, made the Officers think it almost lawful.'[1209] On another occasion they were told, 'If you were as careful of his majesty's service as you are to cast all such unfitting troubles on us, you would gain much more reputation and esteem to yourselves';[1210] and, once again, reference was made to their 'supine negligence.' While they were exposed to these snubs from their superiors, one of their inferiors certainly, and others probably, expressed opinions of them with the same frankness. They complained to the Lords that Francis Brooke, storekeeper at Portsmouth, 'used many base words of ourselves, calling us loggerheads.' Perhaps the Admiralty agreed with him; at any rate it is not found that Brooke was reprimanded, so that the only consolation left to them was their salaries.

Observers who acquitted the Principal Officers of intentional fraud accused them of incompetence. They were said not to know where their respective duties began or ended, but the conditions under which they worked were not favourable to success in management. Each one kept his books at his own residence, and neither sufficient time nor assistance was allowed for the various duties of inspection or bookkeeping which fell to him. Moreover they were compelled to purchase stores from persons holding patents for the sale of special articles such as iron, canvas, etc., a necessity sufficient to account for any depth of badness in the supply.

Frauds and Thefts.

Whether the confusion was due to neglect or

overwork, the effect on the lower ranks of naval employés was the same. From the first year of the reign we have a continuous record of carelessness and fraud, which neither Commissioners nor Lords Commissioners seem to have been able to stamp out. In 1625, on board the ships at sea, pursers charged on the full number of men supposed to be mustered, and shared the profits made on those absent with their captains, while gunners and boatswains each kept from two to five servants who were rated as seamen, but who were boys and landsmen, and whose wages were retained by the officers. When the vessels were laid up the shipkeepers were usually drunk or absent. Captain Joshua Downing one night rowed down the Medway, and 'might have gone on board all ships but three and done any mischief,' and 'in these twenty years last past all the navy hath not bred five able sailors nor two able gunners.'[1211] Of 330 shipkeepers, in 1634, only 42 were 'the King's own men'; the rest were hired servants or apprentices, their pay being received by the ship, or dockyard, officers who hired them.[1212] In 1638 matters were as bad. John Holland, then paymaster of the Navy, wrote that the shipkeepers and apprentice servants of the officers were coachmen, tailors, gardeners, etc., and that the apprentices were dismissed at the end of their term as ignorant as when they joined.[1213] Robberies were frequent. 'Generally the watchman is the thief and the shipkeeper the cabin-breaker;' but the ship and dockyard officers dared not prosecute, because such a course would have called attention to their own delinquencies.[1214] Downing's experience did not evoke much attention, since, in the following year, it was reported from Chatham, 'There are divers that are upon the king's majesty's charges both for

victuals and wages, but give no attendance nor do no service; neither can we take any muster of any man but just at dinner time, for no longer than they are tied by the teeth are they to be kept on board,'[1215] this being in the full stress of war time.

When captains were turning their men-of-war into cargo boats, to enable merchants to defraud the customs,[1216] we need not be surprised that their inferior officers allowed themselves license in theft, and the references to carpenters, gunners, boatswains, and pursers, about the illicit sale of ships' stores are innumerable. That fortunes were made from 'chips' taken out of the dock yards is well known. 'The infinite abuse and prejudice the king has in all or most of his yards under colour of chips is intolerable;'[1217] again, 'a great quantity of wood is carried away by workmen when they go to breakfast, at dinner time, and at night under colour of chips; they cut up good timber and call it chips;'[1218] and in some yards the shipwrights built huts in which to store their plunder. In one case a lighter containing 8000 tree-nails, said to be made from chips, but more probably stolen from Deptford yard, was seized, and the destined receiver was found to be one of the government shipwrights who also owned a private shipbuilding yard. Some of the dockyard workmen converted the storehouses into lodgings for themselves and their families, and this abuse continued until the parliamentary Navy Committee made a clean sweep of them.[1219]

Of all the subordinate officials, the pursers, as in later times, were the most acquisitive, having the greatest opportunities. Most places in the Navy were for sale, but theirs were considered so profitable that they were eagerly sought. In 1626 Nicholas was

informed that a person, lately mayor of Rochester, would give him £100 for the appointment to the *Anne Royal*, or £60 for either of two others. As the ex-mayor could only sell again, the eventual holder must have anticipated a handsome income. One article on which he would make it was the beer; the brewer delivered this by beer measure, but the purser served it out by wine measure, pocketing the value of the difference.[1220] Sometimes he was a pluralist. One man was cook of the *Bear* and purser of the *George*, and executed both places by deputy. Of course pursers like the others, sold their stores ashore. But one of their particular sources of profit was the men's clothes. In 1623 wearing apparel was first ordered to be provided for the men, and to be sold to them at cost price, subject to a commission of one shilling in the pound for the purser. In 1628 it was being sold, when obtained, at £1, 7s a suit, to be deducted from the wages, but, as occurred with other naval requisites, the contractors frequently refused to furnish supplies without prepayment. By 1636 the commissions had increased. The merchant had to pay two shillings in the pound for entering the clothes on board; the paymaster and purser took each a further shilling on all articles sold, and of course the unfortunate sailor had to meet all these extra and illegal perquisites, the result being that 'the men had rather starve than buy them.' The original purpose of the supply was 'to avoyde nastie beastlyness by contynuall wearinge of one suite of clothes, and therebie boddilie diseases and unwholesome ill smells in every ship.' The whole of the clothes served out during the earlier years of the reign was not a quantity likely to have much improved the unpleasantly suggestive conditions of this passage.

In 1641 Northumberland, as Lord Admiral, took

the business in hand, and issued stringent regulations which forbade the sailor to purchase more than fifty shillings' worth of clothing a year, at fixed prices, and reduced the commission to sixpence in the pound, which was to be paid to the purser by the vendor.[1221] When, as rarely happened, a purser was honest, he seems to have been assaulted and persecuted by his captain, and his position on board rendered unbearable. Perhaps the key to the situation is to be found in their petition of 1639, when many of the pursers asked for increased pay, saying, 'We know not how to subsist in our places without the continuance of what has ever been tolerated, or else the grant of a competent salary.'[1222] Corroborating this plea we have Holland's opinion that wages were too low, 'most of them being for want thereof necessitated ... either to live knaves or die beggars, and sometimes both.' It was however a sign of the times that when in 1640, Thomas Smith, Northumberland's secretary, took £40 for an appointment, he found himself exposed to the taunts of his equals and had to defend himself by asserting that he never bargained, but 'what men voluntarily give me my conscience assures me that I may take as mere gratuities.' It was still no crime but was reaching the stage which precedes legal condemnation. There is no trace of the sale of places during the Commonwealth, but the custom was reintroduced with the other fashions of the Restoration.

Captains.

Neither in their sense of honour nor in the extent of their professional knowledge did the Navy captains of this generation favourably impress their superiors. In August 1630 Mervyn, who was

commanding in the Channel, wrote to Nicholas that he had captains who knew neither how to command nor how to obey; and a month later he requested that John Mennes should be given a ship, so that he might at least have one captain who had 'passed his a b c.' Men of such calibre usually owed their position to, and obtained other advantages from, court influence and family connections. Of one man who received £3000 as his 3 per cent. commission on carrying treasure to Dunkirk we read, 'You may see what a brother or friend in the bedchamber doth.' Another captain, his men said, was 'fearful in oaths,' plundered merchantmen, and threatened to kill any one who complained of him; his crew refused to sail, because 'for his blasphemous swearing they feared the ship would sink under them.' Others were questioned for beating officers and men, but in no case does any punishment appear to have followed. Another form of fraud which came into existence now, and lasted till the present century, was the forging and uttering of seamen's tickets. The tickets were practically promises to pay wages due, and in the state of the royal treasury were only saleable at a heavy discount. Not only did the captains and pursers forge tickets in the names of men who had never existed, but civilians carried on a brisk trade in such articles, and, when Crowe was Navy Treasurer, they were 'such good merchandise that a penniless wag made out a ticket for Ball, a dog ... and sold it with a letter of attorney to a man who lodged seamen.'[1223]

Changes during the Civil War.

When the civil war commenced most of the non-

combatant servants of the Admiralty remained, like the officers and men, in the service of the Parliament, which took control by means of committees, whose members were constantly being changed. Subordinate to the Parliamentary Navy Committee was a board called the Commissioners of Navy and Customs, whose work was chiefly financial; and the functions of the Principal Officers, except the Treasurer's, were performed by another body known as the Commissioners of the Navy. The Earl of Warwick was the parliamentary Lord Admiral, appointed in July 1642, in place of Northumberland; he resigned in April 1645, to be again appointed on 29th May 1648, when the news of the Rainsborow outbreak was received. The Navy Commissioners, during the earlier years of the war, were captains R. Cranley, John Norris, Roger Tweedy, Wm. Batten, and Phineas Pett. Batten is still styled Surveyor, but the old division of work was broken up, and the official papers do not show that a Commissioner was continuously confined to particular duties. In 1645 Batten was sent on active service, and, in 1646, Thomas Smith, probably Northumberland's ex-secretary, and Peter Pett, were added to the other Commissioners. The two Petts were the Phineas Pett who built the *Sovereign of the Seas* and Peter Pett his nephew.

In one matter the Parliament found itself better off than the previous administration, for the question of timber had for years been a difficulty, the royal forests having deteriorated from various causes. Now, in spite of increased requirements, it was obtained more easily by the process of seizing the timber on delinquents' estates. In 1632 a report was made on the condition of the forests, when that of Dean was said to be 'wasted and ruined,' the New

Forest was ‘so decayed’ that there were not 2000 serviceable trees in it; there were not more in Waltham Forest and hardly 400 in East Bere.[1224] Much of this wreck was due to lavish grants made by James and Charles to private individuals; a further cause was the open theft which went on, sufficient wood to build ships being sometimes taken away without any attempt at concealment. Still, in 1633, there were 166,000 trees left in the Forest of Dean of an average value of twenty shillings a tree.[1225]

Ordnance Powder and Shot.

John Browne, who held the appointment of ‘King’s gunfounder’ under James I, continued in that office during the whole of this reign. The price of ordnance in 1625 was from £13 to £14 a ton, and did not afterwards materially vary. Many complaints were made about the excessive solidity and weight of naval guns, which caused much of the straining and rolling at sea, and they were so unnecessarily strong that when sold abroad the new owners rebored them for larger shot. In 1626 Browne was granted a reward of £200 for casting lighter guns which had withstood a double proof; but, notwithstanding this encouragement, he, like every one else dealing with the crown, suffered in his purse. By June 1628 upwards of £11,000 was due to him; and Evelyn, the powder contractor, had £2400 owing to him, and had refused to furnish anything more for three months past. Coke thereupon suggested to Buckingham that Evelyn should be compelled to resume his supplies, ‘but till the ceasing of Parliament holds it best not to urge him too much,’ which throws an interesting side light on general

history.[1226] Notwithstanding these straits, and the requirements of his fleets, Charles did not neglect his glorious heritage in the crown jewels which were pawned to the Dutch, and Burlamacchi was directed to sell 4000 tons of ordnance abroad and redeem the treasures. As an appropriate part of the transaction Browne found himself obliged to export in Dutch vessels, as they were provided with convoy.

In 1632 there were in store 81 brass and 147 iron pieces, presumably the reserve behind those in the ships and forts, and 207,000 round and 3000 cross-bar shot.[1227] Stone shot are no longer mentioned. The allowance for a second-rate was three lasts of powder, six cwt. of match, 970 round, 100 cross-bar, 70 double cross-bar shot, and 2000 rounds for small arms.[1228] The musket trade had been gained from us by Holland since the preceding reign, and now Sweden was underselling English founders of big guns; in 1634 Browne, in petitioning the King for payment, said that he had paid £1200 for a license to export ordnance, but that the Swedes were now selling at half-price. This Swedish manufacture was really worked by Dutch capitalists, and within twenty years the price of English ordnance in the Low Countries had fallen from £36 to £14 a ton. For the proper equipment of the fleet, exclusive of castles and forts, 96 lasts of powder were required in 1635, but in that year only 94 were in store for all purposes; between 1628 and 1635 there had been no powder in Southsea Castle, and doubtless many less important positions were equally ill-furnished. Perhaps the crown could not supply the forts, because too busy in private trade, the sale of gunpowder to merchants and others being a royal monopoly. A handsome profit was made on it, the cost being 7½d per lb. and the selling price 1s 6d. In

1637 the year's gains on this article came to £14,786.[1229]

The Ordnance Office still retained that evil pre-eminence in sloth and incapacity it had already earned and has never since lost, and its situation in 1638 was that of

> the surveyor sick, the clerk restrained of his liberty, one of his clerks absent, the clerk of the deliveries out of town and his clerk absent, the master gunner dead, the yeoman of the ordnance never present, nor any of the gunners attendant, and the stores for ordnance empty.[1230]

Outcries, such as we have been also used to hear in this generation, against their delays in serving the ships with guns and ammunition, were loud and continuous, and, in 1639, it was proposed to return to the original arrangement made by Henry VIII, and allow the naval authorities to supply themselves with these necessaries. It is an illustration of the meditative and weighty caution with which official wisdom can be trusted to move onward from change to change that it was not until a few years ago that the alteration suggested in 1639 was made. Finally we read that 'the accountant nor other officers keep no books, and the ancient officers and clerks are adverse to all new propositions which meet their inveterate frauds and defects.'[1231] The parliamentary leaders seem at first to have doubted how far Browne was to be trusted, since on 30th Dec. 1645 it was ordered that his works, which had been managed by deputies, should be given back to him.

Salutes.

Besides producing dangerous international friction, the matter of saluting was a cover for theft and an excuse for waste at home. The Lord Admiral seems to have been the only person whose reception was according to distinct forms, and for him the royal standard was to fly at the main, yards to be manned, and on his approach within musket shot of the ship the trumpets were to cease, and 'all who carry whistles are to whistle his welcome three times, and in the intervals the crew to cheer.'[1232] Butler notices the fondness of the English for making a noise as a mark of deference, and the expenditure of powder in this way was described as the 'main excuse of gunners' frauds,' and as causing the waste of at least a thousand barrels of powder a year. Every one stood closely on his honour in the matter of salutes, and in 1631 Pennington was fired on from Pendennis Castle for not striking his flag. No occurrence was of too little consequence to be thus signalised. In one gunner's accounts we find: One faucon when the master's wife went ashore.... One minion the master commanded to be shot off to a ship his father was in.... We shot two faucons in healths and three when Master Newton went ashore.' Of another gunner it was remarked: 'He cannot write, yet presents the account here enclosed, in which you see the King's powder spent in salutations of ketches and oyster boats.... I shall shortly send far greater and fouler examples of powder purloined by the last.'[1233]

The hired merchantmen in the royal pay had as much self-respect on this question as men-of-war, and saluted towns on entering and leaving harbour, the captain's brother, and 'the captain's friends for their farewell' in orthodox service fashion. The large ones had, in some respects, the advantage of the

smaller men-of-war, since the captain of one of the latter, in accounting for his consumption of ammunition, said that ordinary traders ‘scorned to strike to a whelp,’ and he had to force them to their duty. The result of all this firing was that in the two and a half years, ending on 30th June 1627, out of 653 lasts of powder issued to the various forts, there had been 300 used in saluting.[1234] Nor were these proceedings devoid of danger, since the repeated orders that guns should be fired with blank charges were still disregarded, and there are several instances mentioned of persons on shore being struck from vessels saluting at sea. The admirals were equally sensitive about their dignity, and when Lindsey commanded the fleet of 1635, the question of his flags appeared to weigh most on his mind. On 1st May he complained that he had not enough flags and was not furnished with a standard; the next day he repeats his wants, adding that he would like a kitchen ship, and a week afterwards he thinks himself ‘a little maimed,’ still lacking the standard. In April 1647 the Navy Committee called attention to the great expense caused by the constant saluting, and ordered that it should entirely cease among men-of-war except at their first meeting with each other, or with an admiral. A merchantman’s salute might be answered in the proportion of one for every three, or three for every five, shots fired by the trader. If these regulations were obeyed it was only temporarily.

Among foreign powers the Dutch were the chief victims to the requirements of maritime decorum, here complicated by the dispute about the dominion of the narrow seas. In July 1626 the captain of Deal Castle fired at a Dutchman which came into the roads with colours flying, and made the master pay ten shillings, the cost of the shot. In his report of the

affair he says, ‘The rather did I it because I have heard it imputed that we have lost the jurisdiction of the narrow seas.’ Six years later a man-of-war having been sent to Calais to fetch the body of Sir Isaac Wake, her captain had the audacity to force the French to strike their colours to him.[1235]

When Lindsey went to sea in 1635, his instructions ran that his ‘principal care’ was to make foreign fleets perform their ‘duty and homage,’ and if they refused, to make them answer for their ‘high contempt.’[1236] Remembering the state of Lindsey’s fleet, not only in the absence of the standard that he deplored so sadly, but in more urgent essentials, such as men, provisions and stores, it was perhaps fortunate that Richelieu evaded the trial, and that the Dutch were content—for the time—to salute all day long if Charles so pleased. Northumberland, the next year, was told to insist on foreign ships yielding homage in Calais and other harbours, if out of range of the forts.[1237] Wiser than his master, if he did more than look into the French ports, he did nothing to provoke a collision. Moreover Northumberland may have felt that he was hardly in a situation to enforce compliance. Lindsey mentioned in his journal that, in two days, eleven ships lost masts and topmasts, with only ‘strong winds’ blowing, but had not thought the circumstance deserved comment, although his vice-admiral, the old Elizabethan seaman, Sir William Monson, was not so reticent. Northumberland’s fleet was equally ill found, and on his return he charged the Principal Officers with giving him ships leaky and out of repair, fitted with defective masts and yards and bad cordage. Some, he said, were too old to be worth repairing, and the new ones required girdling to make them fit for sea.[1238] What the Earl thought of his men and stores has been

already related.

However, English captains continued to carry matters with a high hand, and in 1637, Stradling meeting a Dutch squadron which did not salute with sufficient promptness, reported: 'The captain of the rear-admiral I have taken out of his ship and sent to Plymouth.' As time wore on the Dutch, seeing that Charles had enough to occupy his attention at home, became more independent, and in 1639 they were searching English ships and taking Spaniards out of them, a change from their former submissive attitude. Parliament, however, carried on the claim to the salute. In 1647 a fleet of Swedes, 15 in number, passing down Channel refused to lower their topsails to Captain Owen in the *Henrietta Maria*. Owen kept up a running fight until Batten came up, and the Swedish fleet was taken into Portsmouth.

Prize Money.

A precarious source of crown revenue was that obtained from the prize tenths. In the two years ending with May 1626, seventy-three vessels had been taken and proceeded against in the Admiralty Court, and Bristol paid £7604 between 1628 and 1631. It was not until the civil war that the crew of a ship belonging to the state had any fixed proportion of the proceeds, but by a Council order of October 1626 'a competent reward' was to be given to the captors. On the other side seventy-seven vessels, of 100 tons and upwards, were taken by the enemy between 1625 and 1628, so that the balance of profit was hardly with us. In another paper we are told, the, presumably net, proceeds from Spanish prizes between July 1626 and August 1639 came to

£38,158, 8s.[1239]

In October 1642 the Parliament announced that henceforth one-third of the value of a prize was to be divided among officers and crew, in addition to wages. Its effect was undoubted since from February 1643 to April 1649 prize goods were sold for £123,200, and this must represent an enormously higher original value.[1240] But out of this sum officers and men only got £14,465, while the two collectors, Thomas Smith and John Hall took £4989, Warwick £5985, and the expenses of storage, lading and unlading, etc., were £17,000. The delay and deductions in the payment of the thirds were among the chief causes of the trouble the Commonwealth experienced with the seamen in its earlier years, and in this account we see quite extraneous charges borne upon it. The Treasurer of the Navy took £30,000 from it, Augier, the parliamentary agent in Paris, £610, the secretary and usher of the committee of foreign affairs their salaries, and it had to meet various other items which would now go under the head of secret service money. The Dutch system of rewards for captures was in working order long before ours, and was liberal enough in amount. Privateers were allowed, beyond the value of the ship and goods taken, a state reward of from 8000 to 30,000 guilders, the latter sum being given for any vessel of more than 100 lasts burden.[1241] If the enemy was sunk at sea instead of being brought into port, only half these sums were paid.

Naval Expenditure.

The following table, compiled from the *Audit Office Declared Accounts* for the several years, gives the

ordinary and extraordinary expenditure in round figures, as well as that of ship money, of which £1,028,702 was demanded by writ, and £716,528 was paid over to the Navy Treasurer.[1242] The estimates for the ordinary and extraordinary are for routine, naval, and dockyard work and the Channel squadron, and do not include the cost of the expeditions of the first three years or of any of the later fleets. The amounts in the last column but one are those actually paid by Sir William Russell out of tunnage and poundage, anticipated revenue, and other sources. For instance, in 1625 he spent £170,000, of which he received £119,000 from the exchequer, £40,000 from tenths, fifteenths, and subsidies, and 'from the French king's agent' towards fitting out of *Vanguard* £4800.[1243] The last column gives the sums paid out of the ship-money receipts for the corresponding fleets; no doubt much of the balance went to clear off old debts, to pay for ship building, as in the case of the *Sovereign*, and other purposes:—

	Estimates for ordinary and extraordinary navy and victualling	Dockyard expenditure, ordinary and extraordinary				Corda
		Chatham	Woolwich	Deptford	Portsmouth	
	£	£	£	£	£	£
1625	28,000					
1626	28,700					
1627[1244]	40,500	8445	1522	1714	370	
1628	40,800	5860	704	3171	359	
1629	47,000					
1630	34,700	4977	185	2141	1460	480
1631	34,200					
1632	27,900	6700	97	1025	1591	445

1633	28,600	7453	100	1233	1834	414
1634	31,300					
1635	31,200					
1636	15,500	5050	625	3029	3000	326
1637	14,200					
1638	20,300					
1639	38,100					
1640	38,800					
1641	38,500					
1642	28,700					
13th May 1645 to 31st Dec. 1646						
1647						
1st Jan 1648 to 12th May 1649		22,000	3414	2247	5189	

The disbursements during the civil war years by no means represented the whole of the naval expenses, there being always hundreds of thousands of pounds owing. The authorities, however, took care that the executive branches should be comparatively punctually paid, owners of hired ships and purveyors of stores being the principal sufferers by delay. There is another paper[1245] which gives the amounts for the years wanting in the official returns, and is perhaps more reliable than them in that it includes the total expenses, both in money paid and liabilities incurred. In view of the general belief that this country was vastly weaker in ships than Holland at the outbreak of the first Dutch war of 1652, the strength of the parliamentary fleets deserves especial notice:—

	Men-of-war	Armed Merchantmen	Cost of Men-of-war			Cost of Merchantmen		
			£	s	d	£	s	d
1642	19[1247]	23	122,988	16	3	74,342	8	0
1643, S.	36[1248]	32	133,760	3	0	74,881	11	6
1643, W.	20[1249]							
1644, S.	36	23	106,349	10	4	49,088	15	0
1644, W.	18							
1645, S.	34	25	93,161	3	9	43,947	4	6
1645, W.	29							
1646, S.	45	20	138,194	6	4	42,931	8	0
1646, W.	26							
1647, S.	43	16	124,395	12	0	44,743	8	0
1647, W.	29							

Vane acted under an ‘ordinance of both houses of 8th August 1642, concerning subsidy of tunnage and poundage,’ and simply continued the forms and system used by his predecessors.[1252]

Dockyards: — Portsmouth.

Among the dockyards the most noticeable change is the steady increase in the use made of Portsmouth, while Woolwich was almost discarded, part of it being leased in 1633 to the East India Company at £100 a year.[1253] The rent was to be expended in building a wall round the yard, and in the repair of buildings.[1254] It had long been pointed out that it frequently cost a fleet as much time and trouble to get round from the Thames to Portsmouth as from that place to the Mediterranean, and under Buckingham’s administration it came into favour as a

rendezvous for the ships prepared for service. Very soon after the destruction of the old dock the advisability of replacing it, came under discussion, and in 1627 the Duke caused estimates to be prepared for the construction of a double dock, but his death deferred the question.[1255] In 1630 Pett, Sir Thos. Aylesbury and others were sent down to report on its capabilities, and they recommended that the men-of-war should ride in Fareham creek, at the head of the harbour, about a mile and a half from Porchester, and two miles from the then dockyard, a proposal which was adopted. They did not advise the making of a dry dock, thinking the rise and fall of the tide too little, and 'there is no use of any there;'[1256] but personal interests were also in the way, the comfort and pecuniary advantages of the shipwrights being bound up with the Thames and Medway yards.

From this date, however, a few ships were always stationed at Portsmouth, but it was not until January 1638 that a master shipwright was ordered to reside there permanently; before that time the shipwrights had taken the duty in turns, and the absence of a dry dock, although several times intended to have been commenced, was still causing inconvenience and expense. Russell complained that 'his Majesty cannot have a pennyworth of work there done under twopence, in respect the King's yard and the ships be so far asunder for transporting materials.' The dockyard consisted chiefly of storehouses, and orders had been given that all private houses near them were to be tiled instead of thatched, the former having been once already burnt down during the reign of Elizabeth.[1257] It is difficult to say what extent of ground belonged to the crown at this time. No additions are known to have been made to the

land since the purchases of Henry VIII but between 1630 and 1640 various new buildings were erected.

Another cause of hesitation in the adoption of Portsmouth as a permanent naval station was the diverse opinions expressed as to the existence of the *Teredo navalis* in the harbour. This maritime pest, which begins to be especially noticed during Elizabeth's reign, played havoc with ships mostly unsheathed, and whose sheathing, when it did exist, was ill adapted to resist its ravages. In 1630 the chief shipwrights reported that 'no worm destructive to ships is bred in Portsmouth harbour;' five years later some of the same men turned round with, 'We positively conclude that there is a worm in that harbour.' The decision was still postponed till, in September 1645, a number of shipwrights were sent down, and it thenceforward rapidly grew in naval importance, although the dry dock, so often ordered, was not commenced till 1656.

Dockyards: —Chatham.

Chatham was now the first of English dockyards, and in 1634 contained the seventy or eighty acres, held on the lease of 1618, which was now lost. In March 1627 Coke, at the request of the King of Denmark, sent a Dane named Andersen there with a letter of recommendation to the officials, desiring them to explain to him their methods of work. The request was complimentary, but Andersen could hardly have been very favourably impressed by all he saw and heard. The dockyard service was as much disorganised as the rest of the administration; the *Assurance* had recently been repaired only by the expedient of selling fifty-four guns to pay the

expenses,[1258] and £7740 was owing to the shipwrights and shipkeepers there, nearly eighteen months' wages being over-due.[1259] They had of course freely petitioned, but 'a letter to persuade the workmen to go on cheerfully' had quieted them for the time. One explanation of their patience may be found in the existence of a rule under which persons in the naval departments could not be proceeded against legally until permission was given by the authorities. Just before Andersen's visit work had been at a standstill for want of materials to the value of £400, which the government could not obtain on credit, and in April the workmen still had fifteen months' pay due. Both the Commissioners and Principal Officers confessed their inability in face of these difficulties, since, if the men were discharged, they came clamouring and threatening daily for their wages, and if kept on there were not sufficient stores for them to work with.[1260] Matters did not improve, and in 1629 Edisbury pointed out that, in addition to all this, great waste and theft existed, many families living in the dockyards, and cabins and other parts of the ships being daily ransacked, and the materials stolen or used for fire wood, 'every one almost being director of his own work for want of some able, understanding man to regulate the inferiors, as it was while the Commissioners had the government.'[1261] This handsome testimonial to the merits of the Commissioners, lately relieved, may be considered impartial, for the interests of Edisbury, then paymaster, but shortly to be himself a Principal Officer, were bound up with those of the Officers.

Another writer tells us that the master shipwrights rated their subordinates according to favour, and that they themselves were sometimes absent for one or two months at the time at their own private yards.

[1262] In thirteen years' experience he had never known any inferior suffer for delinquency, 'although he had been convicted of divers stealths.' At the most they were suspended, and then restored, and the entries in the State Papers bear out Holland's assertions. He also tells us that Fridays, being the Rochester market days, were kept as a general holiday in the dockyard; the expenditure on ornamental carving and painting had become four times as great as formerly, because the amount was left to the master shipwrights who refused to be outdone by each other; if work was done by contract, a bill was usually sent in for 'overworkes' which exceeded the original contract amount, and, as result, the shipwrights' houses were 'fitter for knights than men of their quality,' These houses had back doors opening into the dockyard—for obvious purposes, the writer hints.

The almost incredible financial straits of the treasury may be measured by the fact that some storehouses in Chatham yard having been damaged by a storm in January 1630 the money necessary for the repairs—only £20—had to be obtained by selling old cordage.[1263] Large sums, however, were at various times expended on maintaining, improving, and enlarging the yards. In 1629 there was spent £2197 on Portsmouth, Deptford, and Chatham;[1264] and in 1634 there was a further estimate of £2445, for the same places for additions subsequently carried out, one of them being a brick wall round part of the yard at Chatham. The barricade across the Medway at Upnor, although it had been allowed to become almost useless, was still nominally maintained. It must have been an expensive defence, since the estimate in 1635 for another, made like the earlier ones of masts, came to £2305, besides

involving a yearly outlay of £624 to keep it in good order. An iron chain weighing twenty-eight tons, and held by eleven anchors, was recommended in its place, as costing only £1500.[1265] It is not known whether either plan was carried out. The Long Parliament further enlarged the dockyards, and cared for the shipwrights spiritually as well as physically. In 1644 they ordered that a lecture should be delivered at Deptford every Wednesday morning on 'saving truths,' and the time thus occupied was not to be deducted from the men's pay.

Stores.

In 1637 the stores at Woolwich, Deptford, Chatham, Portsmouth, and on board the ships in harbour comprised 1446 tons of cables and cordage, 221 tons of anchors, 79 lasts of tar, sails made up to the value of £4500, canvas not made up to £5000, 167 compasses, 2236 hammocks, 520 masts, 1200 spars, 3694 loads of timber, and 332,000 tree-nails.[1266] This was in the full flush of the ship-money receipts, yet both cordage and timber are far below the minimum considered necessary by either Principal Officers or Commissioners. As in later years ships lying up were dismantled, and in 1631 the Lords of the Admiralty ordered that, instead of sails and rigging being kept in a confused heap at Chatham, a room, with the ship's name painted on the door, should be provided for the belongings of each vessel. In 1637 Hildebrand Pruson died, he and his father having been sailmakers to the Navy for sixty years. Edisbury then tried, but in vain, to persuade the Lords Commissioners to have the sails made at Chatham and save a fifth of their cost. So far from undertaking fresh responsibilities they desired to transfer some of those they already bore. They

were at the time negotiating with Russell about an offer he had made to provide the squadron for the narrow seas by contract at £3 a man per month, that rate to cover all expenses except those of repairs to the vessels.[1267] They were to be nine months out of the twelve at sea, and doubtless Russell saw his way to a profit, but the proposal was not carried into effect. There were few naval improvements introduced under Charles. Deck ring-bolts for the lashing of ordnance were first supplied in 1628;[1268] staysails came into use early in the reign, one of the whelps having two in 1633, and in 1639 there were forty in store at Portsmouth, but they seem to have been only fitted to the smaller classes of ships. In 1633 studding sails are included among the stores at Chatham.

Flags.

However badly off fleets might be in material necessaries, they should have been well furnished with the æsthetic refreshment of flags, judging from the number in store. In 1626 £1280 was spent in providing them, and in January 1627 there were 415 of various kinds to be had at Chatham alone, and however low in the future might fall the reserves of powder every care was taken that the men should not lack this solace. A proclamation was issued on 5th May 1634 commanding that English and Scotch merchantmen were no longer to fly the Union flag of St George's and St Andrew's crosses, but to each keep to its own national cross, men-of-war alone flying the Union.[1269] The parliamentary committees were just as fond of flags, for in the sixteen months ending with November 1646 they spent £1178 on these articles, while sailors' hammocks for the same period cost of £777. For 1647 their bill for flags was £567,

and for hammocks £307. In February 1649 the parliament ordered that men-of-war should carry a St George's cross on a white ground, similar to the present admiral's flag, which, although the St George's cross had been in general use for many centuries, may be considered to be the beginning of the present naval ensign in its special form.[1270]

Prices.

The following prices were paid for naval necessaries at various dates:—

Cordage	(1625),	£26, 13s 4d a ton.
”	(1629),	£32 a ton.
”	(1631),	£30 ”
”	(1640),	” ”
Tar	(1631),	£8, 10s a last.
”	(1635),	£10, a last.
Rosin	(1631),	£13, a ton.
Train oil	(1631),	£20 a ton.
Crooked and straight timber	(1631),	£1, 10s a load.
Knee timber	(1631),	£2, 10s a load.
Elm ”	”	£1 6s ”
” ”	(1640),	£1, 12s ”
” plank	(1626),	£1, 18s ”
Oak ”	”	£2, 2s ”
” ”	(1640),	£3, 11s ”
French canvas	(1635),	£22 a bale.
Ipswich ”	(1626),	£1, 6s a bolt.
” ”	(1635),	£1, 10s a bolt.
Powder	(1627),	£5 a barrel.
”	(1646),	£4, 10s a barrel.

Round shot	(1627),	£11 a ton.
Musket shot	(1627),	£14 a ton.
Hammocks	(1625),	2s each.
”	(1642),	2s 7d each.
Anchors	(1626),	£1, 10s to £2 per cwt.
”	(1631),	£2 per cwt.
”	(1640),	£1, 13s per cwt.
Beer	(1635),	28s to 34s the tun.
”	(1646),	38s the tun.
Beef in 4-lb. pieces	(1635),	9d and 10d the piece.
Pork in 2-lb. pieces	(1635),	5d and 6d the piece.
Codfish	(1635),	£4, 3s the cwt.
Biscuit	”	13s and 14s the cwt.
Seamen’s clothes	(1628):— [1271]	

Shirts, 3s 4d each; caps, 2s each; cotton breeches, 2s 8d each; stockings, 1s 4d a pair; canvas suits, 6s each; cotton waistcoats, 3s each.

THE COMMONWEALTH
1649-1660

The Events of the Interregnum.

Among the many social and political developments which characterised the era of the Commonwealth the most interesting, to the naval student, is the sudden expansion of our maritime power and the extension of its field of action. There was no previous experience to justify our rulers in supposing that the drain in men and money necessary to the support of a great navy—equal to that of the combined powers of Europe—could be borne by a state already exhausted by civil war; and it may well be that, although the sequence of events showed the maintenance of such a force not to be beyond the national capacity, the strain on the national resources between 1649 and 1660 was a large factor in creating the popular discontent which welcomed the return of the Stewarts.

Under Charles I the pecuniary resources of the crown were unequal to the construction of ships during war time, while the launch of one, or at the most two, a year in the time of peace was thought to be sufficient cause for legitimate pride and congratulation: under the Commonwealth they were ordered by tens at the time, and in one year—1654—twenty-two new men-of-war left the slips, besides the hired merchantmen in pay and the numerous prizes

fitted out for naval service. Under Charles the preparation of a single fleet for a peaceful summer cruise in the narrow seas necessitated a previous year of preparation, while the coasts were supposed to be sufficiently protected by the occasional presence of a few small vessels: under the Commonwealth, besides a powerful reserve kept in the Downs ready for immediate action, besides the numerous cruisers patrolling the coasts, we find for the first time that Mediterranean station which has played so great a part in English history occupied in force, a moderately strong West Indian squadron, and the small beginning of the North American station. The rulers of the Commonwealth only did, so far as home waters were concerned, what Charles vaguely desired to do with the Navy; but the wildest dreams of Charles never pictured the permanent Mediterranean and West Indian fleets.

It usually happens in statesmanship that administrative or executive development on any particular line is due rather to circumstances than intention, and the history of the republican Navy is an illustration of this rule. At the close of the civil war it was proposed to reduce the naval establishments, and measures were being already taken to that effect when the Rainsborow mutiny occurred. The escape of Rupert from Kinsale with the fleet, of which three of the revolted ships formed the nucleus, together with the encouragement his presence at sea gave to individual privateering, necessitated an immediate and large increase in the Navy, which then had to protect the trade routes as well as chase or blockade him. Rupert's career made it obvious that the area of the civil war had widened, and that henceforth it would be the duty of the Navy to deal with the enemies of the republic at the

circumference of the circle, its internal foes being helpless without aid from abroad. How little those in power anticipated the changes a few years were to effect in our maritime strength, and how doubtfully they regarded the means available to contend even with Rupert, they themselves frankly tell us. In June 1649 they congratulated themselves that they had a fleet at sea such as they scarcely hoped for or their enemies expected, but 'how the Commonwealth will be able to continue the same in successive years is not easy to evidence.'[1272] But the episode of Rupert was followed by the more expensive Dutch and Spanish wars, both of which required the existence of large fleets at sea and an ample reserve, and their sequel in the prolonged visits of Blake and his successor, Stokes, to the Mediterranean, from which we may date the reappearance of England as a European power.

The crucial difficulty of finance, which had wrecked the designs of Charles I, presented fewer obstacles to Parliament and the Protector. By means of the monthly assessments, delinquents' compositions, sale of lands, excise, and other methods, the sum of £95,000,000 is declared to have been raised between 1642 and 1660.[1273] This gives an average of upwards of five and a quarter millions a year, against far less than a million a year raised by Charles, and, even allowing for the cost of the army and the debts incurred during the civil war, enables us to understand the comparative ease with which the heavy naval expenses were met at first by the government, and why outbreaks of discontent on the part of the men were few, and at once easily appeased by the payment of wages which had been allowed to become too long over-due. The financial system of the Commonwealth was reckless and

improvident, inasmuch as it largely consisted in living on capital by the alienation of private or corporate property which, if confiscated, should have been held to the profit of the state; but probably no system of taxation alone could have met the demands of the army and Navy during those years. Not only the naval but every other branch of the administration was overwhelmed with debt in 1660.

The Dutch War.

By far the most important event of the interregnum was the Dutch War, since our success in that struggle shaped the future course of English commercial development and, in its results, caused English fleets to be henceforward influential factors in continental politics. Although the conditions were, in reality, not at all unequal, an attack made on the richest and greatest maritime power in the world by a nearly bankrupt state which, with the exception of the passable success of 1596, had failed in every important naval enterprise undertaken since 1588, and which in that year had only succeeded—so far as the fruits of victory were concerned—by the chance of wind and wave and the aid of the very nation now assailed, must have seemed to many contemporaries a more than hazardous venture. When success seemed to be definitely inclining towards this country, the *Weekly Intelligencer* of 7th June 1653 soberly remarked that ‘our generals ... were the first who have made it known that the Dutch are to be overcome by sea.’ The relative position of England and the United Provinces was very similar to that of England and France at present or recently—on the one hand a country with a great commerce and a great navy, but a navy which, in the nature of things,

could only bear a percentage relation to the vast pecuniary interests it was required to protect and the extent of sea it was called upon to traverse; on the other a power which, with far less at stake commercially, had for years been expending on its naval establishments a sum which must have equalled or exceeded the total value of its merchant marine,[1274] whose fleets had been yearly increased, and whose seamen had been freshly trained by ten years of warfare. How ruinous the war was to Dutch commerce may be measured from the fact that between 27th July 1652 and 8th March 1653 Dutch prize goods were sold, probably much below the normal market values, for £208,655, 3s 11d.[1275] For Holland then, as would be the case for England now, it was not sufficient to merely hold her own, for anything short of absolute maritime supremacy is ruin to a nation whose existence depends on an unlimited carrying trade and the unchecked export and import of material. The Dutch did not hold their own, but their flag was by no means driven off the seas, and the Dutch navy certainly not incapable of further action, when the miseries undergone by a teeming population brought the republic to its knees in 1654.

Many circumstances and conditions coincided in weakening the position of the United Provinces. Their share in the thirty years' war, being almost entirely confined to land operations, had resulted in attention being devoted to the army at the expense of the navy, which had seen little real service since the conclusion of the truce with Spain in 1609. The country was distressed by the economies rendered necessary by the heavy public debts, and was yet suffering from the results of a great commercial crisis experienced in 1646-7.[1276] While in England

faction was, for the time, crushed, in Holland the attempts of the stadtholder William II in 1650 and 1651 to seize supreme power had given rise to personal and political animosities which had outlived their author, and which are said to have had a disastrous influence on the way some of the higher Dutch officers did their duty. But it was on the side of the *personnel* and administrative systems of the two countries that a comparison is so favourable to England. The naval organisation of the Dutch republic was directed by five distinct admiralty boards, each exercising separate control, preparing its own ships, appointing its own officers, and depending for co-ordinate action on the limited, and frequently disputed, authority of the states-general. As might have been expected, this system failed even to curb the Dunkirkers, from whom the Dutch suffered nearly as much as did the English[1277].

Never, on the other hand, so far as administration was concerned, had England been better prepared for war. Instead of officials who, as in the preceding half-century, owed their posts to court influence, to purchase, or to seniority, the work was in the hands of men chosen for business aptitude and who, in most instances, had given proof of higher qualifications on the field of battle or in parliamentary committees. Of the latter class was the Admiralty Committee; but the Navy Commissioners, and especially those Commissioners in charge of the dockyards, on whom fell most of the duty of organisation, were officers who had been taught by actual warfare. Prompt, capable, honest, and energetic, sparing themselves neither in purse nor person, and frequently bringing religious fervour as a spur to their daily service, they conveyed to war on another element the same thoroughness and zeal

which had made them victorious on land.

Victory in the civil war had only been gained when a weak and hesitating commercialism, scared at its own audacity, and longing for a settlement that would secure its own liberties at whatever sacrifices of the hopes and consciences of others, had been steel-edged by Puritan vigour. The men of that stern mental and moral creed were now in authority throughout the kingdom and wielding its resources. Pitted against a nation of lower ideals, sleekly prosperous, whose national genius had for years tended more and more to take the one groove of trade, unwrought and unpurified by the searchings of soul that all thinking Englishmen must have gone through in those years, all the spiritual elements of success were on the side of England.

Never, before or since, were the combatant branches of the Navy so well supported. As a rule our seamen have had to beat the enemy afloat in spite of the Admiralty ashore, but here they had every assistance that foresight and earnestness could give. As a result of the political troubles of 1650 and 1651 many of the oldest and most experienced of the Dutch captains had been dismissed as adherents of the house of Orange, and their places filled by men of whose cowardice and incapacity bitter complaints were made by their admirals. The English captains were officers practised by years of sea experience, or soldiers who brought their traditions of hard fighting to bear in a fresh field. The United Provinces had perhaps four times as many seamen as a reserve to draw upon; but, ill paid and ill fed,[1278] devoted to peaceful pursuits, and frequently discontented with the mercantile oligarchy governing them, the men, although once in action they fought well, did not

give that almost enthusiastic service which characterised the Englishmen.

The news sheets of 1652-3 usually take the goodwill of the men for granted, and this silence is itself significant; but occasionally actual references are made, and these references, even if inventions, may be taken as indicative of the spirit with which the men were reputed to be imbued. They had for the Dutch that hatred their fathers felt for Spaniards, and, for the first time for many years, they found themselves well treated[1279]—comparatively punctually paid, properly clothed, well fed, cared for when sick or wounded, and promised advantages in the shape of prize money never previously allowed. What wonder they served the Commonwealth, during its earlier years, as the crown had never been served since the days of Elizabeth?

In number of ships England, even at the outbreak of the war, was not so ill-matched as has been supposed. 'You never had such a fleet as in the Long Parliament,' said Haselrig on one occasion,[1280] and political necessities had as yet prevented any decrease in the strength maintained up to 1648. During 1649-51 the magazines were kept well supplied and forty-one new ships were added to the Navy list, practically doubling its effective; besides these were the hired merchantmen in pay, or recently discharged, and manned by trained crews accustomed to work together. According to some accounts the Dutch navy had been allowed to fall to so low a number as fifty men-of-war, and, although merchantmen were taken into the service, their crews, hurriedly got together and new to their surroundings, were no match, so far as skill went, for their opponents. Throughout the war the Dutch,

although they possessed many more ships, never succeeded in sending to sea any materially larger fleets than ours. Fifteen hundred prizes are said to have been taken from them during the war, a number at least double the whole ocean-going merchant marine of England.[1281] If they possessed more vessels a far larger proportion of them were unfit for battle, and if ours were slower under sail they were more solidly built and more heavily armed, advantages which told in days when tactics were elementary, and when, for the first time for a century, English seamen tried to fight yardarm to yardarm.[1282] Yet another circumstance was most fortunate for England; for a greater part of the year the prevailing winds gave us the weather-gage and the choice of attack. Dutch merchant fleets returning from the westward had to run the gauntlet of the south coast, and some of the most desperate actions of the war were fought on account of—and hampered by—considerations for the safety of these convoys. If they took the long and dangerous route round Scotland, they were still liable to capture when almost within sight of home. It will be seen, if these views are correct, that almost the sole advantage held by the United Provinces was one of finance, and that, although it might have caused political difficulties or revolt under a monarchy, had no immediate influence in a country held down by a victorious army.

Prize Money.

Charles I fell, throughout his reign, into the error of supposing that, if ships and guns were provided, devotion to his person would ensure loyalty and spontaneous service on the part of the men. He

found, in 1642, that seamen are not sentimental, and that their sense of duty drew them towards the best paymasters. That perception of their own best interests, which had impelled the Long Parliament throughout the civil war to treat the seamen liberally, had still stronger reasons for existence in the years following 1648 when the maintenance, possibly of the republic, certainly of peace at home, depended on the action of the fleet. Throughout the history of the Navy any improvement in the position of the man-of-war's man is found to bear a direct relation to the momentary needs of the governing classes, and in 1649 the necessity of dealing with Rupert at once woke the tender conscience of the Council to some further improvements that might be made in his condition. Gibson, who was all through the war, says that 'from the year 1641 the bread and beer was of the best for fineness and goodness;' but fresh orders were issued by the Council of State to find out and prosecute any agents supplying victuals of bad quality. Hitherto Lent had been strictly kept, being pecuniarily advantageous to the crown as well as spiritually profitable to the men, although physically 'of much discontent to them;' in future its observance was to cease, as was also the abatement of food on Fridays, 'being begotten by the covetous desires of the contractors for victuals, though coloured with specious pretence of abstinence and religion.'[1283]

Besides raising their pay the Council also desired that 'all just satisfaction be given to seamen, and that they reap all the benefit of the act passed for their encouragement in distribution of prize goods,' and expressed themselves as anxious to appoint persons acceptable to the men as commissioners of prize goods.[1284] The act referred to, passed in February

1649, amplified and fixed authoritatively the merely parliamentary resolution of October 1642, which gave the men, beyond their wages, one-third of the value of a prize. Directed especially at Rupert's squadron and Stewart privateers, the new act gave the officers and men of a state's or hired ship one-half the value of a man-of-war captured; the other half went to a fund for the relief of sick and wounded and the wives and children of those killed, while if the enemy was destroyed they were to be paid at the rate of from £12 to £20 a gun, according to the size of the pieces it had on board. The net proceeds, after condemnation in the Admiralty Court and sale of goods, of a merchantman taken by a man-of-war were to be divided into three parts, of which one went to the officers and men, one to the fund for sick and wounded, and one to the state. If the merchantman were prize to a hired ship in the state's service, two-thirds went, as before, to the crew and the sick fund, but the remaining third was divided into two parts, of which one was taken by the owners of the ship, and the other by the state. The tenths which had formerly been a perquisite of the Lord Admiral were now to be devoted to rewards and medals; and owners of English ships recaptured from an enemy had to pay one-eighth of the value of vessel and cargo as salvage.

Doubtless both Parliament and the executive intended to work this enactment loyally, but the needs of the treasury overcame their good intentions, and the delay in the distribution of prize money was a chronic source of discontent. Therefore from 1st January 1653 a new scheme came into operation, which gave ten shillings a ton for every ton the prize, whether merchantman or man-of-war, measured, and £6, 13s 4d for every gun she carried; for every man-

of-war destroyed, £10 a gun; and the Lord Admiral's tenths were to be devoted to the sick and wounded and the relief of widows and orphans.[1285] These distributions were to be made by the collectors of prize goods three days after payment of wages, a regulation which must have savoured of irony to those who were waiting, sometimes years, for wages. For the moment, however, the sailor was considered in every possible way, and, in May, Blake and his colleagues were ordered always to exchange prisoners if possible, 'as it will tend much to the satisfaction of the seamen when they see that care is had of them.'[1286] Matters progressed smoothly enough till the Dutch war strained our finance desperately, and from 1648 till May 1653 there are but two instances of insubordination to be found.[1287]

When the Dutch war broke out the want of men was greater than the want of ships, and it was decided to press all seamen between fifteen and fifty years of age, a ticket being given to each man with his three halfpence a mile conduct money, specifying his physical appearance, and which he was called upon to present at the port where he joined his ship.[1288] Attempts were made to keep crews in the service by carrying forward thirty shillings of each man's wages when he was paid off; but this, wrote the Navy Commissioners, caused 'so much clamour and discontent that we are scarce able to stay in the office.'[1289] Under James and Charles the men had been glad to get any pay at all, and they probably strongly objected to any proceeding which was by way of a return to old customs. Eventually, however, the government did this and more, for a couple of years later it was customary to keep three months' pay in hand if the men were turned over to another

ship.

The Articles of War.

A long step in advance towards the future discipline of the Navy was made in 1652, when, on 25th December, the House of Commons enacted the first articles of war to which the service had ever been subjected, and which were grounded on some regulations for the government of Warwick's fleet passed by the House in March 1648-9.[1290] These articles have escaped the notice of writers upon naval law, who begin their history of the subject with those passed in 1661; these latter, however, were only based upon those previously existing, which are the groundwork of all subsequent modifications and additions experience has shown to be necessary down to the present day. They were thirty-nine in number, and, so far as paper penalties were concerned, were rigorous enough. No punishment was adjudged for the infraction of the first article relating to the due performance of divine service; and the thirty-ninth is only a vague reference to offences not mentioned in the preceding articles, and which were punishable according to the 'laws and customs of the sea.' Of the remaining thirty-seven thirteen carried the infliction of death unconditionally, and twelve that of death or lesser punishment, according to sentence of court-martial, or court of war, as it was then called.

The parliamentary bark seems to have been much more ferocious than its bite since, in all the numerous courts-martial mentioned in the State Papers and elsewhere, there is no instance to be found in which the death sentence was carried out,

and very few in which it was pronounced. Moreover precautions were taken against the exercise of tyranny by inferior officers, inasmuch as the promulgation of the code was accompanied by an order that the accused was only to be tried for serious offences in the presence of a flag officer, and that no finding involving life or limb was to be carried out without the approval of the Generals or the senior officer in command; and as trifling charges were to be heard before the captain and seven officers of the ship in which the offence was committed the offender had a fair chance of an impartial trial. Very soon after the Restoration this regulation fell into abeyance and prisoners obtained justice—too often Jeddart—at the hands of the captain alone. Only one case of a really severe sentence on foremast men is to be found. In December 1653, in the middle of the war, six seamen of the *Portland* were found guilty of inciting to mutiny and were sentenced to death. This was commuted, so far as three were concerned, to thirty lashes apiece, and for the other three to stand one hour with their right hands nailed to the mainmast of the flagship with halters round their necks.[1291] There is no record of the infliction of such severe punishment by any other court-martial.

As might be expected in a mercantile community the thirty-fifth article, relating to convoy duty, was the longest and most explicit. Under Henry VIII, and later, convoy money had been a legal charge; recently it had become difficult to obtain convoy protection at all, and when given owners and captains had been exposed to vexatious and illegal demands. Now, any man-of-war captains not performing such duty thoroughly and efficiently, and defending ‘the ships and goods in their convoy

without either diverting to other parts and occasions, or refusing or neglecting to fight in their defence if they be set upon or assailed, or running away cowardly, and submitting those in their convoy to peril and hazard,' were to make good to the owners any pecuniary loss so caused. As, in the case of a valuable cargo and a penniless naval captain, such a sentence might be equivalent to escaping scot-free, death was also added as a possible punishment. Any captain or officer demanding or receiving a gratuity was to be cashiered. From 19th October 1649 the House had resolved that convoy should henceforth be provided without charge, and in 1650 the east coast fishermen were gratefully acknowledging the benefits resulting. Matters, however, did not progress altogether smoothly. Sometimes merchantmen were independent, and when the government provided men-of-war for the Mediterranean, would not 'stay half a day' to obtain their protection.[1292] But when the owners belonging to Poole, Weymouth, Dartmouth, and Plymouth united, nine months later, in begging for a stronger guard than usual to Newfoundland the Council recommended them to defer sending a fleet till next year, as a convoy could not be spared.[1293] From other papers the truth seems to have been that, although a vessel or two could have been found for the work, the Council desired to obtain for national purposes the men who would have manned the merchantmen.

The option of sailing with or without convoy was not always left to the discretion of owners. In February 1653 the Council sent orders to some of the eastern ports that no vessel was to sail without protection, for which preparations were being made; but in July the owners of three ships destined for the Mediterranean petitioned for leave to send them

without the escort, which had been twice promised during sixteen months of delay, and of which there was still no sign. Criticism must take into account the fact that these things were happening during the strain of a great war and that under ordinary circumstances, or when merely at war with Spain, there was no want of promptness in the action of the authorities. On 25th February 1656 Hull petitions for a convoy, and on the 29th it is ordered; Newcastle on 10th February 1657 obtains an order the same day. In January 1660 twenty-five ships were on convoy duty, one being sent down to St Helena to meet the returning East Indiamen (this had been for some years customary), two to the Canaries, and four to the Mediterranean.

Wages.

The articles of war seem in this generation to have troubled the sailors but little, since, in nearly every instance, we find officers the prisoners before the court. A court-martial would not enable the Treasurer to pay wages and prize money too long over-due, or silence men of whom one, who knew them well, said that they were ‘an unruly and untamed generation,’ and that he found ‘no hope to satisfy them without their full pay.’[1294] But there are signs that, notwithstanding delays in payment, the men gave heartier obedience to the Commonwealth than they had given to the crown under similar circumstances. On one occasion 180 men were sent down to join the *Fairfax*, but, not finding their raw shipmates already on board to their liking, announced that they would not go to sea ‘to do those men and boys’ work for them.’ But instead of attempting to desert they betook themselves to other ships.[1295] Three months afterwards the Navy

Commissioners received the welcome news that the men were coming in ‘cheerfully and in great numbers since the publication of the late encouragement to them,’[1296] and from some places they were coming up as volunteers. From Dover and Deal came the information that the new arrangements were ‘much liked,’ and that the greater number of the men were willing to serve.[1297] Commissioner Peter Pett reported from Chatham that he found ‘the seamen in general to be very tractable and complying, and begin to attend to their duties handsomely.’

So far as wages were concerned, the encouragement spoken of related to the increased pay which took effect from 1st Jan. 1653. During the civil war the rate had been 19s a month; in the fleets sent against Rupert it had been raised to 25s for that particular service, and it was now to be 24s for able seamen (‘fit for helm and lead, top and yard’), 19s for ordinary, and 14s 3d for gromets,[1298] and 9s 6d for boys. Each man’s capacity was to be marked on his wages ticket when paid off, the first sign of the present discharge note. As a further inducement, by an order of 29th Jan. 1653, 20 men in first-, 16 in second-, 12 in third-, 8 in fourth-, 6 in fifth-, and 4 in sixth-rates were to be rated as midshipmen, with pay from £1, 10s to £2, 5s a month, according to the class of ship, and from 14th Dec. 1655 no one was to be so rated unless able to undertake an officer’s duties, if necessary.[1299] Of course the increase by the government caused a corresponding rise in merchant seamen’s wages; and at Ipswich, soon afterwards, the latter were so hard to come by as to be obtaining master’s pay.

Soldiers on

board Ship.

It was estimated, although the number proved to be insufficient, that 16,000 men would be required in 1653, and many of these were untrained landsmen and boys, almost useless at sea. The remaining thousands needed were drawn from the ranks of the army. It has been suggested that soldiers were sent on board to keep the sailors in subjection, but, beyond the quite adequate explanation of a war demanding a larger number of men than the maritime population had ever before been called upon to supply, there is not the slightest trace of ill-feeling between soldiers and sailors such as would have inevitably occurred had the latter understood it as an attempt at intimidation. The expressed purpose was ‘to perform as far as they are able, all service as seamen, and to be ordered in like capacity as the rest;’ evidently they were expected to help in deck work and where no especial training was requisite. Altogether some 3000 or 4000 soldiers were sent on board the fleet; and it is significant of the different discipline, or the different spirit, animating the army and the Navy, that, although the new comers suffered the same vexations as the seamen in relation to postponed pay and prize money, in addition to the hardships peculiar to the sudden change in situation and duties, they do not appear to have troubled the executive with a single complaint beyond one meek remonstrance about the absence of hammocks.[1300]

Causes of Discontent.

The seamen appear to have decided that their duties began and ended on salt water. Captain Taylor, at Chatham, informed the Admiralty

Commissioners that ships might be sent to sea in half the time and at one-third of the cost if the men could only be persuaded to help in their preparation; but ‘not one will help to get out ballast, or take it in, or do almost anything tending towards dispatch.’ Instead of working they haunted the beershops, which have always been the curse of their class. Bourne, the Commissioner at Harwich, had ‘the beginning of an ugly mutiny,’ attributable to drink; but Bourne eventually succeeded in putting down the alehouses at Harwich. At Plymouth vested interests were too strong for Hatsell, the agent there:—

> The men come tippling ashore, and then march away in their mad fits.... The abominable strong drink brewed in this town is of more prejudice to the state and to the poor men than the heads of all the brewers and alehouse keepers here are worth.... The government here protest they cannot remedy it, as the brewers have grown so rich they contend with them at law.... This strong drink is from 26s to 28s a hogshead, and stronger than sack, and when a sailor has drunk one bowl of it it makes him half out of his wits.[1301]

Such a letter explains many of the so-called mutinies.

The system of payment, again, exposed the men to every temptation, since a ship might be a year or two at sea and no wages were given or expected until she was ordered in for repairs or laid up, the result being that when money was extraordinarily scarce cruisers were kept unnecessarily in commission to postpone the settling day. Money was sometimes borrowed when a squadron returned to port, and of £32,000

obtained in this manner in 1657, £10,200 was still owing in 1659.[1302] There are numerous expostulations from officers about their long overdue pay, but, read by themselves, these lamentations are sometimes apt to leave a wrong impression. Edward Larkin, for instance, gunner of the *Mayflower*, petitions in 1655 for two and a half years of his 'dearly earned wages,' of which he has only received six months; his wife and family are turned out of doors, his goods seized, and he himself arrested for debt. This, taken alone, appears to be a pathetic indictment of the ways of the administration, but here the corrective is supplied by another paper which is an account of stores embezzled by the said Edward Larkin.

There was more difficulty, so far as willingness was concerned, in manning the fleets during the war with Spain than during the Dutch war. The men feared tropical climates, and 'are so afraid of being sent to the West Indies that they say they would as soon be hanged.' Moreover as the years went by the Commonwealth did not pay more promptly. There is no sign, so far as their debates go, that Parliament, in improving the position of the men, had ever been moved by other than purely selfish motives, and it may have been felt that less now depended on the attitude of the Navy, or that there was less likelihood, under any provocation, of a serious outbreak. Slight ones frequently occurred and were invariably attributed, by the officers on the spot, to the non-payment of wages or prize-money, and were as invariably appeased when these claims were settled. Sometimes discontent was rather an excuse than a cause; when the crew of the *Ruby* refused to sail, alleging that they had no clothes and that the ship was defective, they were easily persuaded back

to duty when withdrawn from the influence of their landladies, who ‘have been the greatest instruments to hinder their going on board.’ In the matter of prize money officers of high rank fared little better in dealing with the commissioners of prize goods. There are two letters on this subject addressed in August 1654 to the commissioners. The first is mild in tone; the second, signed by sixteen captains in the Downs, curtly points out that their prize money for the three last actions with the Dutch is still due and that unless it is immediately paid they will appeal to the Protector.[1303] If captains were compelled to combine and threaten we may imagine how the sailors raged vainly against official penury or inertia. [1304]

Poverty occasionally caused the prize money gained by one section of the naval force to be applied to the payment of wages due to another; in October 1655 Blake’s men were partly paid this way, and, vaguely, the deficiency thus made ‘to be supplied some other way.’ There are hints that the Admiralty Court itself was not above suspicion. Captain Kendal, of the *Success*, wrote, in April 1654, that sixteen months previously he had taken a Dutch ship, still uncondemned; ‘but I suppose the bribes do appear very large in the Admiralty Court,’ and, ‘I fear there hath been much corruption in the Admiralty Court.’

It is but fair, however, to the prize commissioners to notice that the difficulties of the position were not altogether due to themselves. In 1654 they wrote to the Admiralty Court stating that they had sold ships and goods to the value of £70,000, but could not keep the proceeds, because compelled to meet the sums charged upon them by the Council of State, notwithstanding the decrees of the Court ordering

them to hold the money. Being uneasy about their position they desired security or indemnity.[1305] Another source of abuse was the custom by which crews were allowed to plunder a prize, on or above the gun deck, of all articles except arms, ammunition, and ship's stores. English merchantmen recaptured from an enemy sometimes experienced more loss from the rescuer than from the original captor. The owners of the *Sarah*, recaptured by the *Falmouth*, found that while the enemy had done five pounds of damage the Englishmen had helped themselves to the value of £500, and five or six other ships were similarly treated.[1306]

The Protests.

While the majority of the men made protest against their wrongs in the useless and prejudicial form of riots, there seem to have been a thinking minority who were able to apply to their own situation the principles for which they had fought, and which had sent Charles to the block and Cromwell to Whitehall. These men drew up a petition to the Protector, which, before being forwarded, was considered, on 17th October 1654, by a council of two admirals and twenty-three commanding officers, held on board the *Swiftsure* in the Downs, at which it was decided that it was lawful for them to petition and that the grievances stated were real, except the one relating to foreign service.[1307] It was a sign of the times that admirals and captains should have acknowledged such a right in the 'common sailor,' and that they did not think themselves warranted in striking out the portion of which they disapproved; they decided that it should be 'so far owned by us' as to be presented to the

Generals. The petition was as much a remonstrance as a prayer, and, after claiming that they had done the country good service and borne with hardship, sickness, and bad food for its sake, went on to remind the Protector that Parliament had declared its intention of enlarging the liberties of the people, 'which we were in great hopes of.' Their hopes have scarcely yet, so far as regards seamen, been realised, but it is expressive of the vast progress the events of a few years had caused in the political education and self-respect of a class hitherto proverbially debased and unreflecting, that constitutional declarations and logical applications of the principles their rulers suited to themselves should have begun to replace the hopeless, unhelpful turbulence of the last generation.

They seem to have objected to foreign service mainly because their families were left without support for a longer period than usual, and bitterly complained that, in accordance with a Council order of 6th Dec. 1652, they were not permitted to go on shore, nor visitors allowed to come on board, when in the Downs, and presumably other places, keeping them 'under a degree of thraldom and bondage.' This regulation was then new to them, but it remained in existence long enough to be one of the injustices the mutineers of 1797 desired to have redressed. The conclusion arrived at was a prayer that

> they may be relieved in those grievances and may reap some fruits of all their bloodshed and hardships, and that they may not be imprested to serve, they humbly apprehending it to be inconsistent with the principles of Freedom and Liberty to force men to serve in military employments, either by sea or land; and that

> your petitioners may be as free as the Dutch seamen, against whom they have been such instruments in the Lord's hands for the good of their country; but that if the Commonwealth have occasion to employ any of your petitioners they may be hired as the Dutch are, and that they, or their lawful attorney, may be paid every six months at the furthest, and that such other encouragement to their relations may be assured in case they are slain in the service as shall be agreeable to justice, etc., as their necessity calls for, and that all other liberties and privileges due to your petitioners as freemen of England may be granted and secured.

The Council of State must have felt that the world was indeed moving when English seamen called themselves freemen, demanded the rights of freemen, and no longer admitted prescription as sufficient reason for the continuance of their wrongs. The fact that there is no reference, printed or manuscript, to this petition does not, of course, prove that it was not considered and replied to, but it is certain that if any promises were made not the slightest practical result followed them. There is a paper assigned to this date which may have had an indirect connection with the affair.[1308] It is a report from the Admiralty to the Protector and Council dilating on the state of the naval administration and the difficulties with which they had to deal. Every sentence of their long narrative has reference to the want of money, and may be abstracted into the one particular that while £8000 a week was allowed to the Admiralty the victualling and stores absorbed more than this amount, leaving nothing for wages

and other expenses.

Notwithstanding these embarrassments favourite captains and handy ships seem to have had no difficulty in obtaining crews. Referring to the *Speaker* and the *Hind*, an official writes: 'Men have been on board seven or eight days in hopes of being entered, which I have refused to do, having had very much trouble to reduce them to their complement.'[1309] The *Sapphire*, when commanded by Heaton, was another vessel in which men were eager to serve, and to such purpose that out of 84 prizes brought into Plymouth between August 1652 and December 1655 twenty were taken by her.[1310]

Confusion after Cromwell's Death.

The death of Cromwell, and the intrigues which followed that event, intensified the disorder existing in naval affairs, but even before September 1658 the strong hand which had kept some sort of order seems to have been losing its grip. In July the Commissioners of the Admiralty told the Council that 'the credit of your Navy is so greatly impaired that, having occasion to buy some necessary provisions, as tallow and the like, your ministers can obtain none but for ready money,' and they complained that out of the customs and excise, nominally set apart for the Navy, half was diverted to the army, £2000 a week to the Protector, and judges' and other salaries taken from it.[1311] The navy debt on 1st July was returned at £573,474, and of this £286,000 was due for wages, so that we can understand why some crews had been for two and three years unpaid. Yet the succession of Richard Cromwell was well received by

the fleet in the Downs, and the officers and crews of vessels on outlying stations, such as the *Paradox* at Milford and *Assurance* at Scarborough, hastened to announce their satisfaction. When Montagu wrote to Stokes, commanding in the Mediterranean, for signatures to an address promising fidelity to Richard, only one officer of that squadron, Captain Saunders, of the *Torrington*, manifested any hesitation about signing it.[1312]

In their address to the new Protector the officers of the fleet, in expressing their affection for the memory of Oliver, speak of 'the indulgence he showed to us who served him in his fleet'; but, unless they were alluding to the higher scale of pay and the arrangements, to be presently noticed, made for the care of the sick and wounded, one or both of which may or may not have been owing to his initiative, it is difficult to divine what indulgences they had to be especially grateful to him for.[1313] By June 1659 there was owing for wages £371,930,[1314] and it may be imagined that if the men, whom it was important to conciliate, remained unpaid, merchants supplying stores, victualling agents, and dockyard workmen fared still worse. In September the crew of the *Marmaduke* solicited some redress; they said they were abused by their officers, cheated of their victuals and pinch-gut money,[1315] and had to go begging about the streets, 'scoffed and jeered at by other nations.' On 1st February 1660 the wages debt was £354,000, some ships having been four years unpaid,[1316] and these figures, the correlatives of which existed in every other branch of the administration, form the best explanation of the equanimity with which the Restoration was viewed by the seamen and others who may have seen in the return of Charles II their only chance of payment.

Care for the Sick and Wounded.

Under the Commonwealth occurs the earliest attempt to afford the men some of that attention to which, when ill or wounded, they were entitled. The arrangements made in 1649 and 1652, although sufficient for ordinary needs, were inadequate to the necessities of the Dutch war; and the State was compelled to supplement the existing resources for the relief of disabled men, and to provide additional aid for widows and orphans. After the action of 28th and 29th September 1652 the Council ordered the lord mayor to provide space for the wounded in the London hospitals, and on 18th October £500 was assigned to the mayor of Dover to meet the expense of the injured landed there. On 15th December the Admiralty Committee passed a formal resolution that every care was to be taken of the sick and wounded, both at sea and on shore, and that the London hospitals were to receive some, and the most suitable port towns the others. Every ship was to be allowed medical comforts—rice, oatmeal, and sugar—at the rate of £5 per 100 men, every six months, and, for the first time, men invalided ashore were continued in pay till death or recovery. A special hospital was to be provided at Deal, and from 1st January 1653 half the space in all English hospitals, as they became empty, to be reserved for the seamen.[1317]

In February and March 1653, Portsmouth, Deal and Dover were full of wounded men; surgeons were sent down to these towns, and seven shillings a week granted for the support of each man. Judging from the returns, the death-rate among the injured was

not so high as might have been expected, if the conditions existing at Portsmouth also obtained elsewhere. There the sick were mostly in private or beer houses, which were said to be small and stifling, besides exposing their occupants to the temptation of drink; of the town itself the governor, Nath. Whetham, had nothing good to say, dwelling on 'the filthy nastiness of this place,' unpaved, undrained, and enduring an epidemic of small-pox.[1318] The town must have been continually full of suffering men, since for two months alone of 1654 the cost of the sick and hurt there was £2300, of which £580 went to the surgeons and £325 to the nurses.[1319]

Knowing that they would be repaid any outlay, the civic authorities of the coast towns were attentive to the wants of the invalids, and, for a time, the government spent liberally in this direction. In August 1653 there were 1600 men at Aldborough, Ipswich, and adjacent villages, whose charges amounted to some thousands of pounds, cleared in due course, while smaller sums of £958, £400, and £1366 were sent, on account, to Dover, Weymouth, and Harwich; at Yarmouth between 3rd August 1653 and 6th February 1655 £2851 was expended in the town for the same purpose. In some respects the sick men were better off than their able-bodied fellows. Monk and Deane reproached the Admiralty Commissioners for paying the former their wages, but not the latter, and 'we think it neither in reason nor conscience to employ men who must perish for want of clothes lost in the service, and whose families are starving, and yet their pay is due, their tickets signed, and their captains satisfied they will not run away.'[1320]

Hitherto all the duty of superintendence had been

thrown on the Navy Commissioners, but, in view of their protests that they were overwhelmed by their own more special work, a new department was created from 29th September 1653, consisting of four commissioners at £150 a year each and fifteen subordinate officers, who divided £1090 a year between them. They took the title of 'Commissioners of sick and wounded at Little Britain,' where their office was situated, were to supervise the distribution of invalided men, provide surgeons and medicines, and control the authorities of the towns. They had also to take charge of prisoners, see that the convalescent returned to their ships, and were authorised to grant gratuities up to £10 and pensions up to £6, 13s 4d.

Pensions.

A pension or gratuity might be augmented by appeal to the Admiralty Committee, although we may be certain that such a petition was rarely successful, but the corresponding gifts to officers' widows were on a much more liberal scale. To seven captains' widows sums ranging from £400 to £1000 were granted in April 1653, and it seems a somewhat uneven ascent from the seaman's widow at £10 to the captain's at £1000. So far as applicants of inferior rank were concerned, the Commissioners must have had their time fully occupied if they investigated every case as closely as that of Susan Cane. They held that £5 was enough for her, as she had not lived with her husband, led a loose life, and possessed more than ordinary skill in making stockings. The institution of a new benefaction caused new rogueries, and soon some of the office clerks were levying commissions on the donations given to these women and were in partnership with people who

made real or false claims on their behalf.[1321] In the two years ending with May 1656 some £12,000 had been disbursed on behalf of men sent on shore ill or injured;[1322] but it is apparent that, although the Commonwealth procedure compared very favourably with the indifference which preceded it, the tender anxiety the government displayed for the sailor's welfare, when it had urgent need of him, languished after the Dutch war and died away with the Spanish one. Later, in the year 1656, the bailiffs of Yarmouth wrote to the Admiralty Commissioners that the Commissioners at Little Britain were now careless about paying for the men sent on shore, leaving it to the bailiffs to spend the town money and get it back how or when they could. The squadron before Mardike was considered very unhealthy, there being usually about ten per cent. sick, and when these were sent home they were simply laid on the ballast and shot about by the pitching and rolling of the ship;[1323] and another paper mentions the 'noisome smells' produced by the condition of these men. Fleets must, however, have been much healthier than in earlier times, since on 24th March 1659 the number of sick in nearly 3000 men under Montagu was only nineteen, and but seventy-two in 2803 under Goodson.[1324]

In 1656 independent charities relating to the sick and maimed existed in the shape of the Chatham Chest, Ely Place, the Savoy Hospital, and the Commissioners, and it was then suggested that they should be amalgamated, both on account of economy and the prevention of fraud, but this was never done. For several years the Treasurer of the Navy paid £735 a week for the support of pensioners, but in what proportion this was divided among the foregoing charities is uncertain.

The Chatham Chest.

Of these institutions the only one of which we have any details is the Chatham Chest. For the three years 1653-5 the accounts stand:—[1325]

	Revenue[1326]	Revenue from Lands[1327]			Expenditure		
	£	£	*s*	*d*	£	*s*	*d*
1653	5653	433	6	8	10,065	0	0
1654	4000[1328]	433	6	8	4531	18	10
1655	4000[1328]	433	6	8	4500	0	0[1329]

There was thus an excess of outlay over receipts, for these three years, of more than £4000, and Edward Hayward, then in charge, asks for assistance from the central authority. He probably obtained it, as on another occasion, Hutchinson was ordered to lend the Chest £3000.[1330] In March 1656 a report was drawn up which made the income from land £382, 10s a year, and recommended the removal of the Chest to London to save expense and the inconveniences experienced by the men. From this report we learn that officers' widows were entitled to pensions from it, but not those of the men.[1331] In June 1657 there were 800 or 900 pensioners, but half the arrears were unpaid; a year later the situation was worse and the delay had reduced the men 'to such extreme misery that I fear many of them have perished of late,' the writer, Pett, having been forced to leave Chatham to escape these outcries. Pett adds, 'If Rochester Cathedral were given to the governors to be improved ... it might go towards paying the arrears.'

There are two references in the Commonwealth papers which suggest that Hayward did not escape suspicion then of having appropriated Chest money to his own use, but in the inquiry into its management, begun in 1662, the weight of scrutiny fell upon Pett. Hayward said that he had lost all the books relating to the years 1648-55, although he afterwards produced some of them. From the interrogatories addressed to Pett we may infer that he and captain John Taylor, who was jointly responsible with him, amicably passed each other's accounts; that the accuracy of these accounts was attested by only some of the officers who should have signed them; that the same travelling expenses were entered three or four times over; that he and Taylor had taken large sums from the Chest as salary, no commissioner having ever before charged for his management; and that such items occurred as £52, 13s 4d for the governor's dinners, etc., at one meeting, £10 a year salary to a 'mathematician,' and £9 to Taylor 'for relief for a fall.'[1332]

The Victualling.

The quality of the food supplied to the men and the honesty of the victualling agents both steadily deteriorated during the Commonwealth. Complaints began to be frequent about 1650, and a fresh contract was then entered into with Colonel Pride and others to undertake the duty at eightpence per head at sea, and sevenpence in harbour, the government bearing the cost of transport to fleets on service.[1333] The lax system in force was not, however, calculated to act as a deterrent; in May 1650 a victualling office clerk, who had embezzled £137, gave security for it, and was suspended, but,

inferentially, only until the money was refunded. It may be said that, generally, the object of the Navy authorities, in cases of fraud and embezzlement by clerks or officers, was not so much to punish as to obtain restitution. Possibly they found it to be the most effective form of punishment. During 1652 the pressure caused by the necessity of supplying an unprecedentedly large number of men produced more disorders in this branch of the service, and in June the contractors were called before the Council, told that their explanations were unsatisfactory, and heard the Admiralty Commissioners directed to continually watch and inspect the victuals furnished.

The story of the victualling arrangements during these eleven years brings out the most striking point of difference between the Commonwealth administration and those which were antecedent to it, in the fact that matters affecting the health and comfort of seamen were not ignored as in previous periods. This, we know, was greatly due to political necessity, but the letters remaining, written by officials of all ranks, show that a conscientious recognition of justice due to the sailors, and of responsibility for their welfare, widely existed. This sentiment is much more clearly marked among captains, admirals, and commissioners than among the ruling politicians, although members of the government were doubtless not unaffected by the prevailing spirit; the financial straits of the country, however, first cramped, and then destroyed, reforms which otherwise might have become permanent.

In 1652 new buildings for the Victualling department were built in several ports; and from February 1650 the slaughterhouse at Deptford, standing on ‘the poore’s ground’ and originally

devoted to the service of Greenwich Palace, was taken for that of the state.[1334] In 1653 the rate rose to ninepence a head, and it may be roughly calculated that the Victuallers were called upon to provide at least some 7,500,000 lbs. of bread, 7,500,000 lbs. of beef and pork, and 10,000 butts of beer, besides cheese, butter, fish, and other necessaries. The mechanism at their command was little superior to that used by their predecessors under Charles I, and English agriculture could hardly yet have recovered from the effects of the civil war. The victualling contracts between September 1651 and December 1652 came to £332,000,[1335] a sum representing a drain on the food resources of the country difficult to meet, not so much, perhaps, in quantity as in suddenness, although since 1648 there had been an unbroken series of years of dearth. Remembering commissariat experiences of our own, happening under much more favourable conditions within living memory, the wonder is, not that there should have been complaints, but that there should have been comparatively so few under circumstances, which might almost have excused absolute failure. Pride and his associates were condemned because they were judged by a higher standard than had previously existed, but under Charles I their management would have been praised as highly successful.

When complaints came in they were not officially pigeon-holed but at once inquired into, and, so far as lay with the Admiralty Committee, the wants relieved. On 17th May 1653, a captain reported that he had no medical extras; on the 19th the Navy Commissioners were ordered to examine into this and remedy it; on 16th June the Generals of the fleet wrote about the badness of the provisions, and on

the 20th the Navy Commissioners were directed to take the Victuallers to task. The beer was the most frequent subject of protest, and the difficulty was met by sending water in its place, to the extent of 500 tuns at a time, the men being allowed twopence a day to reconcile them to the change. At least one brewer laid the blame on the prices paid him, and frankly said he could give nothing better for the money. Beer and other provisions, 'decayed and unfit for use,' were licensed for export free of customs, perhaps in the hope that such stores would go to Holland. In October 1654 Pride and his colleagues gave notice of their intention to resign their contract, and, after some debate, it was decided to constitute the Victualling a department under the immediate care of the Navy Commissioners, captain Thos. Alderne being made its head, with a salary of £500 a year.[1336] Alderne died 10th April 1657, and was succeeded by three of the Navy Commissioners, majors Robt. Thompson, Neh. Bourne, and Fr. Willoughby, who were thenceforward styled 'Commissioners of Navy and Victualling,' and who received an additional £250 a year each for their services.[1337]

Alderne and his successors may or may not have been competent, but they had little chance of doing well under the financial embarrassments amid which they worked; they considered themselves fortunate in being able to continue supplies, of whatever quality, from hand to mouth. In June 1655 bakers and brewers were petitioning the Admiralty Committee, that although in January they had been promised monthly cash payments, not one penny had yet been paid them. The whole of one long despatch of Blake's[1338] is made up of complaints about the provisions sent out, and censure of the officials at

home. We, who have wider knowledge than Blake could then have, now know that the defaults were due to the situation rather than to the men. Orders might be given in London, but the local contractors were either not properly controlled, or, more probably, were defiant, knowing that the Admiralty could hardly go on provisioning the fleets without the credit they gave it. If the seamen protested to those individuals they obtained scant consideration. Some of the *Tiger's* crew went ashore at Harwich to show the victualling agent their bread and beer which, their captain agreed, was not fit for food. The agent sent for the baker and brewer, and the former told the men that they were 'mutinous rogues,' that it was good enough for their betters, and next time should be worse. In another port the local agent told the purser of the *Maidstone*, whose men had shown provisions absolutely putrid, and to whom he had promised improvement when they were before him, that the more they complained the worse they should have. This coming to the ears of the men, some of the *Maidstone's* crew went ashore and wrecked his house.

As the end of the Commonwealth approached matters became as bad as they could well be. At Plymouth, in January 1660, the victualler reported that he had been obtaining stores hitherto on his own credit, but would do so no longer; that there were six ships in port with starving crews, and another six expected, and that the only way open to him was to turn the men ashore to shift for themselves.[1339] In February the Navy Commissioners warned their chiefs that, unless money was provided within a week, there would be a failure of provisions everywhere, and that having done their utmost by persuasion they must be

acquitted of blame. Judging from the number of their letters still existing, the Navy Commissioners must, about this time, have been pressing the Admiralty Committee for money nearly every day, either for wages or stores; it was not their fault if any one remained unpaid. Warrants authorising revictualling were posted freely, but, as captain Heaton wrote from Plymouth, nothing was said about the money, without which they were of no use. Heaton describes graphically the cruel poverty to which some of the townspeople there, who had trusted the government, were reduced:—

> One cries, 'For God's sake spare me £20 to keep me out of prison;' another begs for money to buy his family meat to eat, and to-day I saw a poor women beg of Mr Addis ten shillings of her due, to buy her four poor children bread, as for alms. Not long since a baker with sad complaints prevailed with Mr Addis for £23, and was as glad of it as though the money had been a free gift.'[1340]

While this letter was travelling up to London two others, of the same date, were coming from Hull. One, from the captain of the *Bryer* to the Admiralty Committee, says that he has already written nine times to them, and that his officers are compelled to buy their own food, and his men to forage for themselves on shore; the other, from the victualling agent at Hull, acknowledges the receipt of their warrant to furnish the *Bryer* and *Forester*, but, before acting on it, desires to know how he is to be paid. Truly the pious hope of captain Harman, of the *Kentish*, that Lawson would 'be an instrument of

bringing the victualling to its former splendour,' was one not likely to lack fulfilment for want of occasion.

Medals and Rewards.

It had long been customary to give medals and chains to distinguished officers, but Parliament, for the first time, extended this form of distinction to the men. The first reference is a somewhat doubtful one, being an order of the House of 15th Nov. 1649, for medals for 'several mariners' who had done good service the previous year, but who may possibly have been officers. About the second, however, there is no question. In 1650 captain Wyard, of the *Adventure*, a hired merchantman, fought a gallant action off Harwich against greatly superior force, and he, his officers, and crew were awarded medals of different values, ranging from the one of £50 intended for himself down to others worth 5s for the men, each 'with the service against five ships engraved on one side and the arms of the Commonwealth on the other.'[1341] There were at least 20,000 men employed during 1652-4, but the whole number of medals for the war was only 169; of these 79 were small ones, and may have been intended for the seamen, although, as they were all of gold, it is unlikely. Nine of the larger ones were with chains, the smaller weighed 18dwt. 11gr. each, and the total cost was £2060. One alone had 'the service done in the *Triumph* expressed on it.'[1342] Blake and Monk had chains worth £300 a piece given them, and Penn one of the value of £100. The government was never unduly liberal in dealing with naval men. Major Fr. White, for bringing the news of Dunbar to London, was given £300; capt. Young, for following the Spanish fleet for a week in 1657, and then seeking

Blake with the information which enabled him to destroy it at Santa Cruz, was granted £100.

Seamen's Clothing.

The sale of clothes to the men was not confined to any one vendor, and scandals in this department, if they existed, do not appear to have attracted the attention of the authorities till 1655. Then an order was issued from the Navy Office that, 'upon the consideration of the several abuses done by those that serve the state's ships with clothes, by exorbitant prices and bad goods, to the prejudice of the poor seamen,' the clothiers were not to send any on board ship without the permission of the Navy Commissioners.[1343] Two months later prices were fixed as follows[1344]:—

	s	*d*	
Canvas jackets	1	10	each
" drawers	1	8	"
Cotton waistcoats	2	2	each
" drawers	2	0	"
Shirts	2	9	each
Shoes	2	4	a pair
Linen stockings	0	10	"
Cotton "	0	10	"

This outfit, if a complete one, does not seem all that could be desired for winter service in the Channel, although it is a nearer approach to a uniform than existed much later. The Commissioners were careful to repudiate any responsibility for the clothes,[1345] though, as we see, they interfered when they considered it necessary, and allowed a sum, usually £2, to each man if his kit had been lost in action or

by shipwreck.

The Navy List.

Compared with the accessions of previous reigns the following list of new vessels is startling in its magnitude, and the cost of building and maintenance is another item which helps to account for the chronic difficulties besetting the Treasurer of the Navy[1346]:—

Prize	Built	At	By	N tonr
1 *Fairfax*	1649	Deptford		
2 *Guinea*(B) [1347]	1649			
3 *Jermyn**	1649			
4 *President*[1348]	1649	Deptford	P. Pett, sr.	
5 *Speaker*	1649	Blackwall	H. Johnson	
6 *Old Success*	1649			
7 *Tiger's Whelp**	1649			
8 *Advice*	1650	Woodbridge	P. Pett, jr.	
9 *Amity*(B)	1650			
10 *Assistance*	1650	Deptford	H. Johnson	
11 *Concord*(B)	1650			
12 *Centurion*	1650	Ratcliff	P. Pett, sr.	
13 *Dover*	1650	Rotherhithe	Castle	
14 *Eagle*	1650			
15 *Elizabeth Prize**	1650			
16 *Foresight*	1650	Deptford	Shish	
17 *Great Charity*	1650			
18 *Pelican*	1650		Taylor	
19 *Marigold*	1650			

20	*Portsmouth*	1650	Portsmouth	Eastwood
21	*Mary Prize**	1650		
22	*Reserve*	1650	Woodbridge	P. Pett, jr.
23	*Antelope*	1651		
24	*Bryer**	1651		
25	*Convertine*	1651		
26	*Discovery*(B)	1651		
27	*Fortune*	1651		
28	*Gilliflower*(B) [1349]	1651		
29	*Laurel*	1651	Portsmouth	
30	*Martin Prize**	1651		
31	*Mayflower*(B)	1651		
32	*Mermaid*	1651	Limehouse	Graves
33	*Nightingale*	1651	Horseleydown	Shish
34	*Peacock*	1651		
35	*Pearl*	1651	Ratcliff	P. Pett, sr.
36	*Old President*	1651		
37	*Little President*	1651		
38	*Primrose*	1651		Taylor
39	*Sapphire*	1651	Ratcliff	P. Pett, sr.
40	*Tresco**	1651		
41	*Worcester*[1350]	1651	Woolwich	Russell
42	*Adam and Eve*	1652		
43	*Advantage*	1652		
44	*Arms of Holland*	1652		
45	*Convert*	1652		
46	*Crow*	1652		
47	*Deptford*	1652		
48	*Diamond*	1652	Deptford	P. Pett sr.
49	*Dolphin*	1652		
50	*Drake*	1652	Deptford	P. Pett
51	*Duchess*	1652		

52	*Endeavour*	1652		
53	*Falmouth*	1652		
54	*Gift Major*	1652		
55	*Golden Falcon*	1652		
56	*Golden Lion*	1652		
57	*Heartsease*	1652		
58	*Hound*	1652		
59	*Hope*	1652		
60	*Hopewell*(B)	1652		
61	*Horseleydown*	1652		
62	*Hunter*	1652		
63	*Kentish*	1652	Deptford	Johnson
64	*Marmaduke*(B)	1652		
65	*Martin*	1652	Portsmouth	Tippetts
66	*Merlin*	1652	Chatham	Taylor
67	*Middleburgh*	1652		
68	*Oak*	1652		
69	*Paul*	1652		
70	*Peter*	1652		
71	*Plover*	1652		
72	*Princess Maria*	1652		
73	*Raven*	1652		
74	*Recovery*	1652		
75	*Ruby*	1652	Deptford	P. Pett, sr.
76	*Sampson*	1652		
77	*Sophia*	1652		
78	*Stork*	1652		
79	*Sun*	1652		
80	*Sussex*	1652		
81	*Swan*	1652		
82	*Violet*	1652		
83	*Waterhound*	1652		
84	*Welcome*	1652		
85	*Weymouth**	1652		

86	*Wildman*	1652		
87	*Augustine*	1653		
88	*Bear*	1653		
89	*Black Raven*	1653		
90	*Bristol*[1351]	1653	Portsmouth	Tippetts
91	*Cardiff*	1653		
92	*Church*	1653		
93	*Elias*	1653		
94	*Essex*	1653	Deptford	Ph. Pett
95	*Fairfax*[1352]	1653	Chatham	Taylor
96	*Falcon Flyboat*	1653		
97	*Fortune*	1653		
98	*Golden Cock*	1653		
99	*Hare*	1653		
100	*Half moon*	1653		
101	*Hampshire*	1653	Deptford	Ph. Pett
102	*Hector*	1653		
103	*John Baptist*	1653		
104	*Katherine*	1653		
105	*King David*	1653		
106	*Little Charity*	1653		
107	*Lizard**	1653		
108	*Mathias*	1653		
109	*Marigold Hoy*	1653	Portsmouth	Tippetts
110	*Newcastle*	1653	Ratcliff	Ph. Pett
111	*Orange Tree*	1653		
112	*Ostrich*	1653		
113	*Paradox**	1653		
114	*Pelican Prize*	1653		
115	*Plover*	1653		
116	*Plymouth*	1653	Woolwich	Ch. Pett
117	*Portland*	1653	Wapping	Taylor
118	*Redhart**	1653		
119	*Renown*	1653		
120	*Rosebush*	1653		

121	*Satisfaction*	1653		
122	*Sparrow*	1653		
123	*Swiftsure*[1353]	1653	Woolwich	Ch. Pett
124	*Tulip*	1653		
125	*Westergate*	1653		
126	*Wren*	1653		
127	*Yarmouth*	1653	Yarmouth	Edgar
128	*Adviser*	1654		
129	*Basing*	1654	Walderswick	Shish
130	*Cat**	1654		
131	*Colchester*	1654	Yarmouth	Edgar
132	*Fagons*[1354]	1654	Wivenhoe	Page
133	*Gainsborough*	1654	Wapping	Taylor
134	*Gloucester*	1654	Limehouse	Graves
135	*Grantham*	1654	Lidney	Furzer
136	*Indian*	1654		
137	*Islip*	1654		
138	*Jersey*	1654	Maldon	Starling
139	*Langport*	1654	Horseleydown	Bright
140	*Lyme*	1654	Portsmouth	Tippetts
141	*Maidstone*	1654	Woodbridge	Munday
142	*Marston Moor*	1654	Blackwall	Johnson
143	*Nantwich*	1654	Bristol	Bailey
144	*Newbury*	1654	Limehouse	Graves
145	*Nonsuch Ketch*(B)	1654		
146	*Preston*	1654	Woodbridge	Cary
147	*Seahorse*	1654		
148	*Selby*	1654	Wapping	Taylor
149	*Sorlings**[1355]	1654		
150	*Taunton*	1654	Ratcliff	Castle
151	*Torrington*	1654	”	Ph. Pett
152	*Tredagh*	1654	”	”
153	*Winsby*	1654	Yarmouth	Edgar
154	*Bridgewater*	1655	Deptford	Chamberlain

155	*Cornelian**	1655			
156	*Dartmouth*	1655	Portsmouth	Tippetts	
157	*Eaglet*	1655	Horseleydown	Huggins	
158	*Fame**	1655			
159	*Hawk*	1655	Woolwich	Cooper	
160	*Hind*	1655	Waveney	Page	
161	*Naseby*	1655	Woolwich	Ch. Pett	1
162	*Norwich*	1655	Chatham	Ph. Pett	
163	*Pembroke*	1655	Woolwich	Raven	
164	*Portsmouth shallop*	1655			
165	*Redhorse Pink*	1655			
166	*Roe*	1655	Waveney	Page	
167	*Wexford**	1655			
168	*Accada*(B)	1656			
169	*Beaver**	1656			
170	*Blackmoor*[1356]	1656	Chatham	Taylor	
171	*Bramble*	1656			
172	*Cheriton*	1656	Deptford	Challis	
173	*Chestnut*[1356]	1656	Portsmouth	Tippetts	
174	*Dunbar*	1656	Deptford	Challis	1
175	*Elias*[1357]	1656			
176	*Griffin**	1656			
177	*Harp*	1656	Dublin		
178	*Hunter**	1656			
179	*Jesu Maria*	1656			
180	*Kinsale**	1656			
181	*Lark**	1656			
182	*London*	1656	Chatham	Taylor	1
183	*Oxford*	1656	Deptford	Challis	
184	*Raven**	1656			
185	*Vulture**	1656			
186	*Wakefield*	1656	Portsmouth	Tippetts	
187	*Wolf**	1656			
188	*Cygnet*	1657	Chatham	Taylor	

189	*Forester*	1657	Lidney	Furzer	
190	*Greyhound**	1657			
191	*Hart*	1657	Woolwich	Ch. Pett	
192	*Lily*	1657	Deptford	Challis	
193	*Parrot*	1657	Chatham	Taylor	
194	*Rose*	1657	Woolwich	Ch. Pett	
195	*Swallow*	1657	Deptford	Challis	
196	*Bradford*	1658	Chatham	Taylor	
197	*Cagway**	1658			
198	*Coventry**	1658			
199	*Fox**	1658			
200	*Francis**	1658			
201	*Gift Minor**	1658			
202	*Lichfield**	1658			
203	*Maria**	1658			
204	*Richard*	1658	Woolwich	Ch. Pett	1
205	*Leopard*	1659	Deptford	Shish	
206	*Monk*	1659	Portsmouth	Tippetts	
207	*Towing Galley*	1659	Chatham	Taylor	

	Length of keel	Beam	Depth of hold	Draught	Guns	Remarks
	Ft.	Ft.	Ft.	Ft.		
1	116	35.8	14.6	17.6	64	Burnt at Chatham, March 1653.
2	90	28	14		30	
3						Disappears before 1653.
4	102.9	29.6	12.6	15.6	42	
5	116	34.9	14.6	17	64	
6					34	

7						Sold before Nov. 1658.
8	100	31.2	12.3	15.7	40	
9	85	28	14		30	
10	102	31	13	15	40	
11					26	Sold, Aug. 1659.
12	104	31	13	16	40	
13	100	31.8	13	16	40	
14					12	Hulk at Chatham in 1660.
15						Disappears before 1653.
16	102	31	13	14.6	40	
17	106	28.6	11.10	14	38	
18	100	20.8	15.4		38	Burnt at Portsmouth, Feb. 1656.
19					30	Sold, 1658.
20	99	28.4	14.2	15	38	
21					36	Sold, June 1657.
22	100	31.1	12.4	15.6	40	
23	120	36	16		56	Wrecked on coast of Jutland, 30th Sept. 1652.
24					18	
25					40	
26					20	Burnt at Jamaica, 1655.

27						Captured by Dutch, Aug. 1652.
28					32	Sold, June 1657.
29	103	30.1	15		38	Lost on Newarp Sands, 1657.
30						Sold before Sept. 1653.
31					20	Sold, 1658.
32	86	25.2	10	12	22	
33	86	25.2	10	12	22	
34						Sold before Nov. 1658.
35	86	25	10	12	22	
36						Sold, Aug. 1655.
37					12	Sold, 1657.
38	86	25.2	10	12	22	Wrecked on the Seven Stones, 1656.
39	100	28.10	11.9	13.6	38	
40						Wrecked, 1651.
41	112	32.6	14	16	48	
42					20	Sold, June 1657.
43					26	Sold, August 1655.
44					32	Blew up in West Indies, July 1656.

45					26	Sold, 1659.
46					36	Sold, 1656.
47					4	Sold, 1659.
48	105.6	31.3	3	16	40	
49					30	Disappears before 1658.
50	85	18	7	9	14	
51					24	Sold, 1654.
52					36	Sold, 1656.
53					20	Sold, 1659.
54	90.8	30.8	11.6	13.6	26	
55					28	Sold, 1658.
56						Sold, 1653.
57					36	Sold, 1656.
58					36	
59					26	Sold, 1657.
60					20	Sold, 1656.
61					4	Sold, 1655.
62						Lost in action of July 1653.
63	107	32.6	13	15	40	
64					32	
65	64	19.4	7		14	
66	75	18	7.8	9	14	
67					32	Sold before Nov. 1658.
68						Lost in action of July 1653.
69	84	26	9.6	10.6	22	
70					32	Sold, 1653.
71					26	Sunk in action of Feb. 1653.

72					36	Wrecked on the Goodwins, 1658.
73					36	Recaptured by Dutch, April 1654.
74					26	Sold, 1655.
75	105.6	31.6	13	16	40	
76					32	Sold, 1658.
77					26	
78						Hulk at Deptford in 1660.
79					12	Sold, 1654.
80					46	Blew up at Ports
81					22	Sold, 1654.
82	98	28	11	12.6	44	Hulk at Woolwich in 1660.
83					32	Sold, 1656.
84					36	
85					14	
86					16	Sold, 1657.
87	100	26	14	14	26	
88	106	26.6	14.6	14.6	36	
89					38	Sold, 1654.
90	104	31.1	13	15.8	44	
91					18	Sold before Nov. 1658.
92					30	Hulk at Harwich in 1660.
93	101	27.6	11	14.6	36	
94	115	33	13.8	17	48	
95	120	35.2	14.6	16.6	52	

96					24	Sold, 1658.
97					26	Sold, 1654.
98					24	Sold, 1656.
99					12	Wrecked, 1655.
100					30	Sold, 1659.
101	101.9	29.9	13	14.10	38	
102					30	
103					12	Sold, 1656.
104					36	Sold before Nov. 1658.
105					12	Sold, 1654.
106					30	Sold, 1656.
107					16	
108					38	
109	32	14	7	7		
110	108.6	33.1	13.3	16	44	
111					26	Sold, 1655.
112						Hulk at Portsmouth in 1660.
113					12	
114					34	Sold, 1655.
115					26	Sold, 1657.
116	116	34.8	14.6	17	54	
117	105	32.11	12.10	16	44	
118					6	Sold, 1654.
119					20	Sold, 1654.
120					34	
121					26	
122					12	Sold, 1659.
123	116	37.4	14.10	18	60	
124					32	Sold, 1657.
125	86	24.6	11.6	13	34	
126					12	Sold, 1657.
127	105	33	13.3	17	44	

128					8	Taken by a privateer in 1655.
129	80	24.6	10	12	22	
130					8	Retaken by a privateer in 1656.
131	83	25.6	10	12	24	
132	82	24.8	10	12	22	
133	100.10	31.10	13	15	40	
134	117	34.10	14.6	18	50	
135	80	25 10	11.6	28		
136					44	Sold, 1659.
137					22	Wrecked near Inverlochy, 24th July 1655.
138	102.10	32.2	13.2	15.6	40	
139	116	35.7	14.4	17	50	
140	117	35.2	14.4	18	52	
141	102	31.8	13	16	40	
142	116	34.6	14.2	17	52	
143	86.8	26.4	10.4	12.6	28	
144	117	35	14.5	17.6	52	
145	27	15.6	6		8	Taken by a privateer, March 1659; recaptured by a cruiser in the following April.
146	101	30	13	16	40	

147					26	Sold, 1655.
148	85.6	25.8	10	12	22	
149					28	
150	100.6	31.8	13	16	40	
151	116.8	34.6	14.2	17	52	
152	117.3	35.2	14.5	17	50	
153	104	33.2	13	17	44	
154	116.9	34.7	14.2	17	52	
155					12	
156	80	25	10	12	22	
157					8	
158					10	
159	42	16	8		8	
160	42	16	8		8	
161	131	42	18	11	80	
162	81	25	10.6	12	22	
163	81	25	11.6	12	22	
164					4	Retaken by a privateer, July 1655.
165					10	Sold, 1658.
166					8	
167					14	
168					10	Wrecked, 1659.
169					6	Sold before Nov. 1658.
170	47	19	10		12	
171					14	
172	76	24	10	11	20	
173	47	19	10		12	
174	123	46	17.2	21	64	
175						Used as hulk at Plymouth in 1660.

176					12	
177					8	
178					6	
179						Used as hulk at Portsmouth in 1660.
180					10	
181					10	
182	123.6	41	16.6	18	64	
183	72	24	10	11	22	
184					6	Sold before Nov. 1658.
185					12	
186	74	23.6	9.9	11.6	26	
187					16	
188					6	
189					22	
190	60	26.6	11.6		20	
191	50	14.6	5.6	5	6	
192				5	6	
193				5	6	
194	50	14	5.6	5	6	
195				5	6	
196	85	25.6	10	12	28	
197					8	
198					20	
199	72	23	8.6	10	14	
200					10	
201					12	
202					20	
203					12	
204	124	41	18	20	70	
205	109	33.9	15.8	17	44	
206	108	35	13.11	16	52	
207					1	

Thus 207 new vessels were added to the Navy during these eleven years, of which 121 were on the active list in 1660; besides 22 others still remaining of the old Royal Navy and 17 more, originally of the same era, which had been used but had been sold, wrecked, or lost in action between 1649 and 1660. We are told that 'the principal thing the Long Parliament aimed at was to outsail the Dunkirkers,'[1359] and the large number of light vessels of twenty-two guns, or under, shows how earnestly they set themselves to this task. In a few cases the names of old ships were altered—the *Charles* to *Liberty*, the *Henrietta Maria* to *Paragon*, the *Prince* to *Resolution*, and the *St Andrew* and *St George* lost their saintship. The *Sovereign* is, once or twice, called the *Commonwealth*, but here the proposed change of name never became an actual one.

Alterations and Improvements.

In October 1651 the Council of State were considering ‘some encouragement to be given to Messrs Pett for their success in contriving and building of frigates.’ The improvements consisted, we may be certain, in moulding the under-water section on finer lines, and probably in reducing the height of the hull above water and lengthening the keel by lessening the rake, fore and aft, and so diminishing the undue proportion the length ‘over all’ bore to the keel. Such alterations would have tended to abate the pitching, from which these old ships must have suffered terribly, to have given them a steadier gun platform, and to make them more weatherly, although from the journal of the *Gainsborough* it appears that she, at any rate, was nearly unable to beat to windward.[1360] At first the new frigates, of whatever class, were built without forecastles, but experience led to the conclusion that they were advisable in the larger ships, it being found necessary sometimes to run them up at sea, and eventually only fifth- and sixth-rates were still built without them. But this was an advance on the old system, which had constructed the smallest vessels on exactly the same plan as the largest. Beyond Pett’s improvements, which really belong to the period of Charles I rather than to that of the Commonwealth, there was little progress in matters relating to sails and the better adjustment of weights. Fore and aft sails are still rarely mentioned, and then only in connection with small vessels, and there is no record of the introduction of any mechanical appliances calculated to lighten or quicken the physical work

necessary in handling a ship. The sail area was still small for the tonnage, nor, in view of the crankness of the ships, did it appear possible to increase it. The *Sovereign*, cut down in 1652, and then of 100 guns and 2072 gross tonnage,[1361] carried 5513 yards of canvas in a complete suit of sails;[1362] in 1844 the regulation equipment for a second-rate of 84 guns and 2279 tons (the *Thunderer*), was 12,947 yards. Of course the line-of-battle ship of 1844 would be in reality a much bigger vessel than the *Sovereign*, but the excess in length and breadth would not alone explain the ability to bear more than double the extent of canvas.

As had been customary for at least 150 years, each ship possessed three boats—long boat, pinnace, and skiff—which were respectively 35 feet, 29 feet, and 20 feet long in those belonging to second-rates, and 33 feet, 28 feet, and 20 feet in third-rates. In no list of equipments or stores are davits mentioned. The long boat was apparently still towed astern; it invariably was in 1625, since the Cadiz fleet of that year lost every long boat in crossing the Bay of Biscay. How the other boats were now hoisted to the ship is uncertain.[1363]

Shipbuilding.

Early in the Commonwealth administration John Holland, one of the Navy Commissioners, recommended that the service shipwrights should not be allowed to keep private yards, seeing that if they were dishonest there was no way of tracing government timber, or other materials, used for their own purposes, a reason which does not say much for government methods of supervision. But the state yards were obviously inadequate to the demands

suddenly made upon their capacity, and recourse was necessary to the yards belonging to government shipwrights and to private builders. In 1650 and 1651 the *Pelican*, *Primrose*, *Pearl*, *Nightingale*, and *Mermaid* were bought in this way, the first at £6, 10s, the others at £5, 8s a ton.[1364] Vessels built in private yards were subjected to continual inspection at the hands of the government surveyors, and, in many cases, the materials were supplied by the Navy Commissioners, who only desired such prices for them 'as shall be moderate and fit between man and man.'

During 1651-53 Parliament was continually ordering new frigates to be commenced, and the master shipwrights who possessed building slips seem to have tried to get the work placed in their own yards rather than in the government ones. In April 1652, when two new vessels were to be commenced, Peter Pett and Taylor recommended that they should be given out to contract, as there was not enough timber in the government stores. Whatever may have been the knowledge or sense of duty possessed by some of their subordinates, the Commonwealth Navy Commissioners were the wrong men upon whom to try *finesse*, more appropriate to the preceding or following administrations. All that Pett and Taylor obtained by their move was an intimation that they, at all events, would not be allowed to compete, and this was followed by an urgent recommendation to the Admiralty Committee that, as there was in reality plenty of timber available, the two men should be ordered to proceed with the work at once in the state's yards.[1365] On other occasions the London shipwrights combined to put pressure on the Admiralty by refusing to tender below certain rates, and Edmond Edgar, of Great

Yarmouth, based a claim to consideration on the fact that he had cut in and broken down the combination. [1366] There are several petitions, like this one of Edgar's, from shipbuilders, for compensation on account of vessels turned out from their yards larger than had been specified in the original contracts, and thereby exposing them to loss. As the Admiralty tried to be just rather than generous in dealing with contractors, we may suppose that the miscalculations, like those which occurred under Charles I, were due really to ignorance rather than to a not very hopeful attempt to obtain larger profits by deliberately ignoring instructions. Country builders, moreover, sometimes worked under difficulties they could scarcely have anticipated when tendering. Bailey, who built two ships at Bristol, desired the government to authorise him to pay his men more than two shillings a day, and thus free him from the liability to ten days' imprisonment and a £10 fine incurred, according to the city ordinances, by those who paid more. [1367]

Decoration.

In accordance with the tendency of the time the decoration of ships was reduced to a minimum. Until 1655 the use of gilding appears to have ceased, special orders being in some cases given that vessels under repair were not to have any gold used upon them, and the cost of carved work in fifth-rates was fixed at £45, an amount which was not passed without serious questioning. In 1655 this severe simplicity was, to a certain extent, relaxed, since, in August, Richard Isaacson undertook the gilding and painting of two second-rates at £120 each. So far as the outside was concerned, the figurehead, arms on stern, and two figures on the stern gallery were to be

gilt; the hull, elsewhere, was to be painted black, picked out in gold where carved.[1368] The Navy Commissioners held that the decoration ought not to cost more than £80, being unnecessary and 'like feathers in fantastic caps.' Figure heads were sometimes exuberant in style. The *Naseby's* consisted of Oliver on horseback, 'trampling upon six nations.'

Relation between Tonnage and Guns.

The following table gives the equipment in offensive weapons and stores for typical vessels of each rate; the scale was not implicitly adhered to, but it is the first sign of an attempt to establish a permanent relation between guns and tonnage such as became afterwards almost invariable. The paper belongs to 1655, but it is not likely that any material alteration occurred before 1660.[1369] The first establishment of third-rates was 140, of fourth-rates 130, and of fifth-rates 100 men; these were subsequently raised to 160, 150, and 110 men respectively:—

Vessels		Cannon Drakes	Demi-cannon	Culverins	Demi-culverins	Sakers	R S
1st-rates[1370]	*Sovereign* *Resolution* *Naseby*	19	9	8	30	5	2
2nd-rates	*Triumph* *Victory* *Dunbar* *Speaker*		6	0	24	4	1

	Marston Moor *Fairfax*						
4th-rates	*Bristol* *Portland* *Dover*			24	6	8	
5th-rates	*Pearl* *Mermaid* *Fagons*				18	4	
6th-rates	*Cat* *Hare* *Martin*					8	

The Fleets.

Of the large number of prizes passed into the service many had not been built as men-of-war, and, as soon as the immediate need had ceased, were sold, if only for the momentary relief the money thus obtained gave the harassed treasury. In one year, ending with October 1654, nine were sold for £6181. Notwithstanding the enormous increase in the strength of the Navy the Commissioners found it hardly equal to the provision of the over-sea fleets, now required, and the fifty or sixty cruisers in the four seas which replaced the half-dozen small vessels formerly considered sufficient, and which number, relatively large as it was, did not succeed in entirely crushing the enterprise of the Dunkirk and Stewart privateers. The recollection of what commerce had suffered from piracy must have remained very lively, and, at the close of the civil war, strong summer and winter ‘guards’ were still maintained; in October 1651 there were thirty-six vessels cruising in home waters.[1371] During the Dutch war every available

ship was needed with the fleets, and the Channel was sometimes so devoid of protection that two prizes, taken off the Land's End in December 1653, were brought up Channel to Flushing without, during the six days occupied in the voyage, and of which one was spent in lying to off Dungeness, meeting a single English man-of-war.

When peace was made with Holland the protective cordon round the coasts was renewed, and increased rather than decreased in strength during the last years of the Commonwealth. To illustrate the way in which the ships were employed one station list for May 1659 may be quoted.[1372] In the Downs, 12, of 232 guns; watching Ostend, 3, of 70 guns; off the mouth of the Thames, 2, of 12 guns; between the Naze and Yarmouth, 2, of 34 guns; off Lynn Deeps, 2, of 20 guns; between Yarmouth Roads and Tynemouth Bar, 3, of 66 guns; on Scotch coast, 2, of 52 guns; with the mackerel boats, 2, of 24 guns; with the North Sea boats, 1, of — guns; in mouth of Channel, 4, of 76 guns; between Portland and Alderney, 2, of 26 guns; on Irish coast, 3, of 50 guns; on convoy service, 8, of — guns; and 6 others have not their duties specified. The large increase in the effective of the Navy diminished the necessity for hired merchantmen, and the need became less as the Dutch prizes were refitted for service. The caste feeling which divides the professional from the amateur fighter was beginning to be strongly marked among officers who had gone through the experiences of the civil war, and who by a succession of events had been retained in the service of the state instead of being returned to mercantile pursuits, as had been the case formerly on the cessation of warfare. Both these causes helped to do away with the use of hired merchantmen, although at one time

thirty or forty were in pay. Blake desired that not more than two-fifths of the fleets should consist of hired ships, that they should carry at least twenty-six guns, and be commanded and officered by approved men. The proportion does not appear to have risen to this figure even before prizes became plentiful, and so eager was the government to adapt suitable prizes that it did not always wait for legal condemnation, and sometimes found itself compelled to make terms with the injured owners when the ship had been used and sold out of the service. After long efforts the owners of the *Golden Falcon*, captured in 1652, obtained, in March 1659, a decree of the Admiralty Court in their favour; but the vessel had been sold a year before, and the Navy Commissioners were ordered to pay her appraised value when taken. Nor is this a solitary instance.[1373]

Merchant Shipping.

In 1652 there was a survey of merchant shipping throughout the kingdom, but the resulting reports have not survived. In December 1653 there appear to have been only sixty-three merchantmen, of 200 tons and upwards, in the Thames suitable for service; but the size of these does not show much advance on the tonnage of the previous generation; one was of 600, four of 500, two of 450, five of 400, twenty-five of from 300 to 400, and the remainder under 300 tons.[1374] According to one (royalist) writer both the merchant navy and trade decreased under the Commonwealth; but the customs receipts directly contradict the latter and inferentially negative the former portion of his statement.[1375] Store ships and transports were paid for at the rate of £3, 15s 6d a month per man, the owners sending them completely

ready for sea. If a ship was meant to go into action the state took the risk of loss, paid and provisioned the men, and supplied powder, shot, and any guns necessary beyond the normal number. When stores were sent out as part of an ordinary trader's cargo, the cost of freight was, to the Straits of Gibraltar, from 40s to 44s a ton; to Alicante, 50s to 54s; to Leghorn, 60s to 64s; and to Jamaica, £4.[1376]

Privateering.

Private enterprise turned naturally towards letters of marque as a lucrative, if hazardous, speculation. In July 1652 letters were restricted to owners able to send out vessels of not less than 200 tons and 20 guns, but it was soon found out that this limitation was almost prohibitive. Such privateers were further placed under the direct control of the admirals, and compelled to keep them and the Council informed of their proceedings.[1377] Afterwards letters of marque were more charily issued, since it was found that they were competing for men against the regular service, much to the disadvantage of the latter, the looser discipline and larger chance of prize money of the privateer being much more to the sailor's liking. Frequently ordinary trading ships sailed with letters of marque among their papers on the chance of some profitable opportunity occurring; but from 1st August 1655 all such commissions were, without exception, revoked, in consequence of the difficulty their possessors seemed often to find in distinguishing between the ships of enemies and those belonging to friendly states. Thenceforward, although still at war with Spain, Englishmen acting under them were to find themselves in the position, and liable to the punishment, of pirates.

Caroline
Ships lost
or sold.

Besides the losses of the Commonwealth Navy in the ships, from 1649 onwards, noted in connection with their names in the preceding list, the following vessels of the old Navy were lost or sold; as well as various prizes dating from the civil war, and merchantmen bought during the same period, not here entered:—

Bonaventure, lost in action.

Charles, wrecked.

Crescent, broken up.

Defiance, sold.

Garland, lost in action.

Greyhound, lost in action.

Happy Entrance, burnt at Chatham.

Henrietta, sold.

Henrietta Maria, burnt in West Indies.

Leopard, lost in action.

Mary Rose, wrecked.

Merhonour, sold.

Nicodemus, ”

Roebuck, ”

1st Whelp, ”

2nd Whelp, ”

10th Whelp, ”

The *Bonaventure*, *Garland*, and *Leopard* were lost to

the Dutch, but the two former were burnt and sunk when fighting under the Dutch flag in July 1653. The *Merhonour*, *Defiance*, and *2nd Whelp*, all three long laid up as useless, were handed over to Taylor in 1650, at a valuation of £700, in part payment of his shipbuilding bill; the *1st Whelp* was used for some time as a hulk at Deptford, and the *10th Whelp* remained in commission till 1654. The *Greyhound* was blown up in action with two privateers, in 1656, by her captain, Geo. Wager, when she was boarded and practically taken by 100 of the enemy, who went up with her.[1378] The *Henrietta Maria* and *Happy Entrance* were burnt by accident in 1655 and 1658; the *Mary Rose* was wrecked off the coast of Flanders in 1650, and the *Charles* off Harwich in the same year.

Whenever ships were lost on the British coasts the authorities did their best to recover the stores, and, in the case of the *Charles*, men were still engaged in 1660 patiently fishing for her guns. At first Bulmer, a man whose name has been mentioned under Charles I as an inventor in connection with maritime matters, was employed, but it was not until May 1657, after seven years of search, that he triumphantly announced that he had discovered her exact position. He was succeeded by Robert Willis, described as a diver, who was more fortunate in that he did at last recover at least two brass guns, for which he was allowed 20s a cwt. As the Admiralty had been for eight years at the expense of a hired hoy and the wages of the men occupied in work, it might have been cheaper to have allowed the guns to remain under water. The methods used are not alluded to, but, as the diving-bell was described by Bacon in the beginning of the century, it must have been a well-known appliance; and Bourne had described a diving

dress on the modern principle in 1578.

One other man-of-war, the *Phœnix*, belonging to Badiley's squadron, was captured on 7th September 1652 by the Dutch off Leghorn, and gallantly retaken in November by eighty-two volunteers, under captain Owen Cox, who boarded her at daybreak while at anchor amidst the enemy's fleet. Cox did not disdain to eke out the lion's with the fox's skin, since, in the afternoon, he hired 'a bumboat or two with good wine to go aboard and sell it cheap;' the Dutch were consequently keeping a careless watch, but fighting continued below for two hours after the ship was under way. Cox further promised £10 to each man with him, but this was still unpaid in June 1653, and he then tells the Council of State that the men 'persecute him to fulfil his engagement'; and Badiley wrote that 'since their exploit they are very turbulent and disorderly.' Cox was granted £500 for his good service;[1379] he was killed in the action of July 1653, while still in command of the *Phœnix*.

Piracy.

Complaints of piracy, in the strict sense, are very few during this period, and there is not a single reference to the presence of a Turk in the narrow seas. In face of the Commonwealth Navy there were no more of such incidents as the sack of Baltimore. The French, Dutch, and Spanish privateers, who kept our men-of-war continually on the alert, and occasionally overpowered a smaller one, sailed under some sort of commission, either from their own states or the Stewarts, and did not, therefore, possess that freedom from responsibility which in warfare soon degenerates into savagery. The owners of the *Constant Cavalier*, for instance, cruising under a

commission from the nominal Charles II, had to give a bond for £1000 not to injure his allies or his loyal subjects.[1380] That the Dunkirkers and others found privateering by no means so easy a road to fortune as it had been in the days of Charles I is sufficiently shown by the number of their captured ships taken into the national service, besides the loss of many more not considered suitable for that purpose. Their best opportunity was during the Dutch war, when the cruisers were mostly withdrawn to strengthen the fleets: but even then the government usually managed to provide convoys for the coasting trade. English, Scotch, or Irish seamen taken in a privateer were summarily transported to the plantations.[1381]

In 1656 for some reason, probably the effort to keep the fleets on foreign service at their full strength, the guard round the coasts seems to have been temporarily relaxed, and the result was that 'the Ostenders and Dunkirkers begin to grow numerous.' On the east coast they were so successful for the moment that, dreaming hopefully that the old times were about to return, they desired some of their released prisoners to 'tell the Protector that while he is fetching gold from the West Indies they will fetch his coals from Newcastle.'[1382] Oliver was not a safe subject for threats, and their spoon was certainly not long enough to enable them to enjoy in comfort the meal they proposed sharing with him; at any rate very shortly afterwards the war was carried into the enemy's country by the blockade of Ostend and Dunkirk, and there are no more lamentations about the number of them at sea, or the mischief they were doing, until the very eve of the Restoration.



Administration: —The Committees.

The administrative direction of the Navy was, at the beginning of the Commonwealth, placed in the hands of (i.) the Admiralty Committee of the Council of State,[1383] (ii.) the Committee of Merchants of Navy and Customs, and (iii.) the Commissioners of the Navy. The second Committee took no practical part in the administration, was early requested to leave the management to the Navy Commissioners, 'as formerly,'[1384] and was dissolved in 1654. Warwick's second appointment as Lord Admiral was cancelled by a parliamentary ordinance of 23rd Feb. 1649, and the first Admiralty Committee of the Council of State took over his duties from that date for the one year for which the Council of State was only itself existent. This Committee was renewed yearly until the Protectorate, when 'Commissioners of the Admiralty and Navy' were nominated by act of Parliament, and the control of the Ordnance department was also given them.[1385] Their number varied but was seldom less than twelve or fifteen; they met at first at Whitehall once a week, during the Dutch war once a day, and, from January 1655, occupied Derby House at a rental of £100 a year. Following the fall of Richard Cromwell an act was passed, 21st May 1659,[1386] nominally vesting authority in 'Commissioners for carrying on the affairs of the Admiralty and Navy,' but power really remained in the hands of Parliament to which the Commissioners had to submit the names of even the captains they appointed.

The Administration: —The Navy

Commissioners.

The brunt of administrative work and responsibility fell, however, on the Navy Commissioners, who, so far as may be judged from the letters and papers relating to them and their work, laboured with an attention to the minutest details of their daily duties, a personal eagerness to ensure perfection, and a broad sense of their ethical relation towards the seamen and workmen, of whom they were at once the employers and protectors, with a success the Admiralty never attained before and has never equalled since. The earliest Commissioners were John Holland, Thos. Smith, Peter Pett, Robt. Thompson, and Col. Wm. Willoughby;[1387] the last-named died in 1651, and was replaced by Robt. Moulton, who himself died the next year. In 1653, Col. Fr. Willoughby, Ed. Hopkins, and major Neh. Bourne, who, besides being a soldier had also commanded the *Speaker*, were added to the first four. In 1654 Geo. Payler replaced Holland, and from then there was no change till 1657, when Nathan Wright succeeded Hopkins. All the Navy Commissioners, except Holland, had £250 a year, a sum for which they gave better value than did the members of the Admiralty Committee for their £400 a year; but for 1653 each was granted an extra £150 in consideration of the excessive and continuous toil of that year.

From the first they adopted a tone towards the Admiralty Committee which would hardly have been endurable but that it was excused by an obvious honesty, and justified by superior knowledge. Early in 1649 they recommended that the rope-makers at Woolwich should have their wages increased by twopence a day, but their letter was returned by the

Admiralty Committee, probably with a reprimand. This was not to be borne in silence, so ‘we have cause to resent that we are so misunderstood as to be inhibited by you to do our duty.’ If the Committee has not itself power to make the order it can move Parliament, ‘who will not see men want, especially as in the sweat of these men’s brows consists not only their particular living but also that of the republic.... What interpretation soever may be made of our actions by those that have the supervision of them we shall not fail to represent the grievances of those under our charge when they represent them to us.’[1388] On 22nd May 1649 the admirals and captains at sea were ordered to address the Commissioners direct on all administrative details, thus leaving only matters of the highest importance to be dealt with by the Admiralty Committee. In some ways the relative position of superiors and inferiors seems to have been reversed, for, on one occasion, we find the Committee writing to the Commissioners about a course of action the former had decided on, that, ‘as you disapprove’ of such procedure, it was not to be adopted; and it frequently happened that the Council of State communicated directly with the Navy Commissioners, ignoring the intermediate Admiralty Committee.

During the Dutch war a Commissioner was stationed in charge of each of the principal yards—Pett at Chatham, Willoughby at Portsmouth, and Bourne at Harwich, which last place, in consequence of the operations on the North Sea and off the Dutch coast, had suddenly sprung into importance. Monk wrote concerning Bourne: ‘It is strange that twenty ships should be so long fitting out from Chatham, Woolwich, and Deptford, where there are so many docks ... when there have been twenty-two or more

fitted out from Harwich in half the time by Major Bourne.'[1389] There is a consensus of evidence as to the way in which Bourne threw his heart into his work, and the success he obtained under difficulties due to the want of docks and materials at Harwich and an insufficient number of men. Notwithstanding Monk's depreciatory reference to Chatham, Pett was very well satisfied with his operations there. A few months before he had reported to the Admiralty Committee that he had graved nine ships in one spring tide, without injury to ship or man; 'truly it makes me stand amazed at the goodness of God in such unparalleled successes.'

Besides their superintendence of the building, repairing, and fitting out of ships, the purchase and distribution of stores, the control of the dockyards, and all the diverse minutiæ of administration in war time, the Commissioners were called upon to maintain the not very rigid discipline of the service. Hitherto all ranks had been allowed to do much as they pleased when ships were in port, but henceforth no captain was to leave his command for more than six hours without the express permission of either the Admiralty or Navy Commissioners, and during any such absence the lieutenant, or the master, was to remain on board; for the first disobedience the penalty was a fine of one month's pay, for the second three months', and for the third to be cashiered. Similar rules applied to all the officers; and men absent without leave forfeited a month's pay. The clerks of the check[1390] were to 'take an exact account' how officers and others performed their duties, and once a week report to the Navy Commissioners, a regulation which, if loyally obeyed, must have made the clerks popular. The clerks of the check attached to the dockyards were to

similarly watch the clerks on shipboard, and, in turn, report on them once a week to the Commissioners. [1391] This system was akin to that of the sixteenth-century Spanish navy, in which the duties were so arranged that each officer was a spy on another; admirable in theory, it did not suit English idiosyncrasies, and these reports never took any practical shape.

From 2nd June 1649, the Navy Commissioners had occupied rooms in the victualling office at Tower Hill, but in 1653 they found the annoyance caused by the proximity of the victuallers' slaughterhouses there to be unbearable. It was not, however, till the next year that Sir John Wolstenholme's house in Seething Lane was purchased for them for £2400, and became the Navy Office for a long period;[1392] the Treasurer's, now a quite distinct office, was in Leadenhall Street, and its lease was renewed in February 1657 for eight years at a rental of £49, 6s 8d a year and a £700 fine. The next request of the Commissioners was that their number might be increased, as half the members of the Board were constantly away in charge of dockyards, and for this they 'desire timely remedy or dismissal from our employment.' It has been noticed that three new men, of whom certainly two—Bourne and Willoughby—were, in their sphere, amongst the ablest administrators who have ever served the state, were in consequence added in 1653. Besides the Commissioners, Thomas White at Dover, captain Hen. Hatsell at Plymouth, major Richard Elton at Hull, and major William Burton at Yarmouth, acting as Admiralty agents, had nearly as much work and responsibility, and executed it as ably, as their more highly placed colleagues.

In 1655 the salaries of subordinates at the Admiralty amounted to £1740, the secretary, Robert Blackborne, receiving £250. The first secretary of the Admiralty Committee, Robert Coytmore, had £150 a year, of which £50 was regarded as an extra given on condition that neither he nor his clerk received fees —a stipulation probably due to a lively recollection of the habits of Nicholas and his successor, Thomas Smith. The Navy Commissioners had no secretary, and until September 1653 each Commissioner was allowed only one clerk, at £30 a year—scanty assistance, considering the amount of work thrown into their hands. From September the number was doubled, and two purveyors were appointed to assist them in purchasing stores. The total annual cost of the Admiralty, the Navy Office, and the chief officers of the four dockyards was £11,179, 9s 10d.[1393]

If we may trust a later writer, the sums spent on the Navy Office, which bore only a trifling proportion to the naval expenses, sometimes reaching a million and a quarter, were not misapplied. Henry Maydman, who was a purser under the Commonwealth, and Mayor of Portsmouth in 1710, wrote long afterwards:—

> In all the wars we had in the time of King Charles's exile the Navy Office was so ordered that a man might have despatched any affair almost at one board ... and with the greatest ease imaginable, and cheapness too. For their public business was carried on with all imaginable application, and it was a crime for any one to absent himself from his post.[1394]

So far as the intentions and efforts of the Navy

Commissioners were concerned this was doubtless true, but it is to be feared that the State Papers do not support the implication that money matters were settled with the same ease as those relating to the routine of daily management, although that, of course, was an imperfection for which they were not accountable, and over which they had no control. To the full extent of their power they watched not only over the public interests, but also over those of the men who, for the first time, seem to have looked up to officials of their position as friends and helpers. Some of the appeals they listened to are embodied in a letter to the Admiralty Committee.[1395]

> We have complaints daily made unto us by poor seamen pressed out of merchant ships into the state's service that they are grossly abused by their masters and owners in pretending leakage, damage, or not delivery of their goods, whereby they keep their pay from them, meanly taking advantage of the poor men's forcing away by the state's press masters and not having time to get their rights, are by this means defrauded of their wages. We look upon it as a very great oppression and have therefore thought good to acquaint your honours therewith.

Shortly afterwards they had to write on behalf of merchants who had trusted them[1396]:—

> It is not pleasing to us to fill your ears with complaints, yet we judge it our duty, while entrusted with so great a share of the naval affairs, to again remind you of the emptiness of

> all the stores.... We have not been wanting in obtaining supplies by means of fair promises, and now we are hardly thought and spoken of by those who cannot obtain their money.

In one instance the 'fair promises' resolved themselves into a bill for £400 on account, which, said the recipient, 'has hitherto done me no more good than an old almanac.' It has been remarked that the position of all who were in the service of the state became more difficult as time passed, and money became scarcer and scarcer towards 1660. When, in 1658, the Navy Commissioners were obliged to pay—or promise—prices from 30 to 50 per cent. above the market standard, it may be supposed that their situation had its own discomforts.[1397] Besides guarding the material interests, they had to review the moral conduct, of their subordinates, and they were evidently shocked to be compelled to report to the Admiralty Commissioners that captain Phineas Pett, clerk of the check at Chatham, was the father of an illegitimate child. On another occasion Willoughby was inquiring whether a boatswain possessed two wives.

After the resignation of Richard Cromwell Parliament interposed more directly in naval affairs, and the Commissioners exercised less authority; on one occasion the agent at Chester, who went on board a man-of-war to muster the men, was refused an opportunity to perform his duty, and told, in answer to his threats, that 'the power of the Navy Commissioners was not as formerly.' A fact so plainly put must have been generally recognised, and accounts for the comparative disappearance of the Commissioners from the papers of the last year of the Commonwealth.

The Administration:—The Navy Treasurer.

From 1st January 1651, Richard Hutchinson replaced Vane as Treasurer of the Navy under circumstances noticed on a previous page. He began with a salary of £1000 a year, in lieu of all former fees and perquisites, and the appearance of his name in the State Papers is almost invariably associated with requests for higher pay, or melancholy wails about the amount of work thrown upon him by the wars in which we were engaged. For 1653 he was allowed an extra £1000;[1398] not satisfied with this he petitioned again in December, and so successfully that, by an order of the Council, he was to be given, in 1654, £2500, and a further £1000 for every £100,000 disbursed in excess of £1,300,000.[1399] That this man, who was merely a glorified clerk, who was never required to act on his own initiative, and whose work demanded neither energy, foresight, nor talent, should have received over £2500 a year, while the Navy Commissioners, to whose organising genius was mainly due the rapid and complete equipment which enabled the English fleets to be of sufficient strength at the point of contact, were rewarded with £250 a year, and a gratuity of £150 for one twelvemonth, is one of those incidents which interest the impartial student of forms of government. From January 1655 his pay was fixed at £1500 a year, with £100 commission on every £100,000 issued above £700,000; a year later he tried to get this commission doubled, and to have it allowed on his first three years of office, 'I having much larger promises at the time.'[1400] A remark like this, the ease with which he obtained his almost

annual increments, and the fact that he was appointed in spite of Vane's opposition, taken together, lead one to suspect that he must have had some potent influence behind him.

The Commonwealth Captains.

Among officers, captains were the class who gave most trouble throughout these years, the number tried for, or accused of, various delinquencies yielding a much higher percentage of the total employed than that afforded by the men, or by officers of any other rank. This was, perhaps, largely due to the rapid promotion necessitated by the sudden increase of the Navy, commanders being chosen mainly for professional capacity, and, if considered politically safe, few questions were asked about their religious or moral qualifications. Many, again, had risen from the forecastle, and possibly brought with them reminiscences of the habits existing in the Caroline Navy: others had been privateer captains, an occupation which did not tend to make their moral sense more delicate. Professional honour was not yet a living force, and, in some orders issued by Monk to the captains of a detached squadron, the threat of loss of wages as a punishment for disobedience came after, and was obviously intended as a more impressive deterrent than, the disgrace of being cashiered.[1401]

With one offence, however—cowardice—very few were charged; after 1642 few men wanting physical courage were likely to force their way to the front. George Wager, who chose to blow up the *Greyhound* rather than strike the English flag, had been a boatswain; Amos Bear, a boatswain's boy; Robert

Clay, a carpenter; Heaton, a trumpeter's mate; Badiley, Sansum, and Goodson, cabin boys; and doubtless close inquiry would reveal many more examples. Four days before the execution of Charles the Navy Commissioners wrote to Portsmouth, and presumably to other naval stations, 'to entreat' those in charge to take care that all officers appointed were well affected to the Parliament, and authorising them to suspend any suspected ones on their own responsibility.[1402] But the government was not unforgiving; two of Rupert's captains, Goulden and Marshall, commanded state's ships,[1403] and officers who had deserted in the mutiny of 1648 were received back into the service of the Commonwealth. The following list, in all probability by no means complete, will show the large number of captains whose conduct came under observation, and the character of their misdemeanours:—

Name	Accused of	Result
John Taylor Anth. Young Edm. Chapman	Neglect of duty in action of Nov. 1652	Ordered to enter into recognisances to come up for judgment if called upon.[1404]
B. Blake		
Thos. Marriott	Embezzlement, 1652	Not known
John Mead	” 1653	”

John Best	Drunkenness and cowardice, 1653	”[1405]
Wm. Gregory	Embezzlement, 1653	”
Jon. Taylor	Signing false tickets, 1653	”
Thos. Harris	Neglect of duty, 1653	Cashiered
Jas. Cadman	Killing one of his crew, 1653	Suspended for 12 mon
——	Neglect of convoy duty, 1653	Not known[1406]
Jas. Peacock	Embezzlement, 1653	”
Sam. Dickinson	” 1654	”
Val. Tatnell	” 1654	”
J. Clarke	” 1655	Cashiered
——	” 1655	Wages suspended
Robt. Nixon	Cruelty, 1655	Not known
J. Seaman	Drunkenness, 1655	”
Fr. Parke	Theft from prizes, 1655	”[1407]
Alex. Farley	Drunkenness and embezzlement 1656	”

J. Jefferies	Embezzlement, 1656	Fined £60[1408]
Thos. Sparling	” 1656	” £160
J. Lightfoot	Fraud and violence, 1656	Not known[1409]
J. Smith	Embezzlement and drunkenness, 1656	”
Rich. Penhallow	Making out false tickets, 1656	Amount to be deducted from his wages
Jas. Cadman	Embezzlement, 1656	Fined[1410]
W. Hannam	Cowardice, cruelty, and incapacity, 1656	Not known
John Best	Drunkenness, 1656	”
Robt. Nixon	Cruelty and embezzlement, 1657	”[1411]
Hen. Powell	Embezzlement, 1657	Severely admonished
——	Drunkenness and blasphemy, 1657	Not known
J. Vasey	Drunkenness, 1658	Charge withdrawn[1412]

— Davis	Selling prize goods, 1658	To refund
Robt. Saunders	Came home without leave, 1658	Cashiered
Thos. Whetstone	Drunkenness and theft, 1658	Not known
Rowland Bevan	Embezzlement and carrying cargo, 1658	”
——	Carrying cargo, 1659	”
Pet. Foote.	” 1659	”[1413]
Robt. Kirby	Drunkenness and theft, 1659	”
——	Carrying cargo, false tickets, 1660	”

It is curious to find that, in 1657, two ex-captains, Mellage and Baker, were in prison as Quakers. In cases of embezzlement the sentence of a court-martial, where ascertainable, appears to have been usually confined to fining the accused the value of the stores stolen, or stopping the amount from his wages. The custom was commencing of trying commanders, who lost their ships by misadventure, before a court-martial, instead of accepting their explanations, or holding an informal investigation at Whitehall, as had previously been done; and once a captain was sent before a court because his ship went

ashore, although she came off without damage.[1414] This must be almost the first occurrence of that form of inquiry. Log books were now compulsory, and were sent up to the Navy Commissioners on the return of the ship; by an order of 2nd Feb. 1653 an advocate, who conducted prosecutions in courts-martial, was attached to the fleets. It will be noticed how often drunkenness is an article in the foregoing charges, and this weakness seems to have been common in all ranks, from captains down to ships' boys. Among these naval papers there are very few indications of the existence of Puritan fervour or even of ordinary religious feeling; the great mass of men and officers aimed at pay and prize money, gave strenuous service when the former was punctual and the latter plentiful, and became heedless and indifferent when they failed. Sailors have been always much more interested in their material prosperity in this world than the prospects of their future welfare in the next. Nor does the rule of the saints appear to have spiritualised the proverbial hard swearing of the service.

Inception of Class Feeling.

It is, however, from this period that dates that sense of solidarity among officers and men which is at once the sign and consequence of an organised and continuous service. Hitherto the permanent executive force in peace time had consisted of a few subordinate officers and some 200 or 300 shipkeepers, many of whom were not even seamen. When a fleet was prepared, the ships were commanded by captains for whom sea service was only an episode, and officered and manned by men

who came from, and were immediately sent back to, the merchant service on the completion of their cruise. But between 1642 and 1660 every available English sailor must have passed a large portion of those years on the state's ships; and the captains and officers were kept in nearly continuous employment, with the result of the formation of a class feeling, and the growth of especial manners and habits, characteristic of men working under conditions which removed them from frequent contact with their fellows. The numerous notices in Restoration literature of the particular appearance, modes of expression, and bearing, stamping the man-of-war officer—references never before made—show how rapidly the new circumstances had produced their effect.

The other Officers.

When captains showed themselves so ready to steal it might have been expected that officers of lower rank would follow, and even improve upon, the pattern set them, but this did not prove to be the case. Although, of course, there are many flagrant cases recorded, the number of officers charged with fraud or theft is not only relatively less, considering the much larger aggregate employed, than under Charles I, but also absolutely smaller for any equal series of years. Experience, gained during the civil war, had led to closer inspection and the introduction of safeguards which made theft neither so easy nor so free from risk, and further precautions were taken under the Commonwealth. Embezzlement by a captain could not be prevented, it could only be punished: but the regulations which made it easy for him might make it difficult for his gunner or

boatswain. The first step, taken in 1649, was to raise the wages of those officers who were in charge of stores, a measure recommended long before by Holland and every other reformer. In 1651 the Navy Commissioners were directed to consider how the frauds, still numerous among officers, might be best dealt with, and this was probably the cause of an order the next year that sureties should be required from pursers, boatswains, and others for the honest performance of their duties.[1415] These sureties were usually entered into by two persons, and were sometimes as high as £600.

That some such method was necessary, at least with the pursers, is evident from the following catalogue of their 'chief' abuses, drawn up by the Navy Commissioners in 1651:[1416] (1) They forge their captains' signatures; (2) make false entries of men; (3) falsify the time men have served; (4) sign receipts for a full delivery of stores and compound with the victualling agents for the portion not received; (5) do not send in their accounts for one voyage till they are again sailing; (6) charge the men with clothes not sold to them; and (7) execute their places by deputy while they stop on shore. The principal reforms suggested by the Commissioners were that bonds should be required, that stewards should be employed for the victualling, that pursers should in future sail as clerks of the check, with limited powers, and that all their papers should be countersigned by the captain. These measures were all adopted, but a further recommendation that a pillory should be erected near the Navy Office for their especial use was not, apparently, acted upon. When one purser openly declared that he cared not how the seamen starved if he could 'make £500 or £600 a year out of their bellies,' it was full time to

apply to his kind the treatment exercised by governments on such dangerous idealists as constitutional reformers.

The Commissioners had set themselves a hard task in the inculcation of honesty, for that sentiment which still regards lightly cheats on a government was strongly against them. When Dover was searched, in 1653, large quantities of stolen cordage, sold from the ships, were discovered, and Bourne found that ‘these embezzlements are so common that the people declare that they think it no wrong to the state.’ Still in the long run they were more successful than their predecessors had been, and the trials for embezzlement became fewer after 1653. Their treatment of the pursers had the best results, judging from the small number of those officers who came up for judgment; these gentlemen did not at all like the new rules and at first mostly refused to sail as clerks of the check. For reasons unknown, unless it was that they had become more trustworthy and that the new system was in some respects cumbrous, the clerks were abolished in 1655 and the pursers reinstated in their old powers, pecuniary guarantees in the shape of the bonds still being required from them.[1417] It must have been a very new and unpleasant experience to some of these men, who many of them remembered the free hand they were allowed before 1640, to find themselves before a court-martial for acts they had come to look upon as natural to their places. One steward attempted to evade an accusation of embezzlement by declaring that the rats had eaten his books; he might have improved his defence by producing some of the victuallers’ ‘salt horse,’ and showing that his books, being tenderer and more nutritious, were more likely to tempt the rats. In the trial of another we have some account of

the mode of proceeding. The prisoner, Joshua Hunt, was tried under the twenty-eighth article of war before Lawson and twelve commanding officers, and was himself sworn and examined. By the twenty-eighth article the character of the penalty is left to the decision of the court, and Hunt was given the option of making restitution or of undergoing punishment. In making his report, Monk remarked that the prisoner had only been found out in that which most stewards did, and that he would be sent up to London to give his friends or sureties the opportunity of making amends; if they failed to do this he was to be returned to the fleet for corporal punishment at the decision of a further court-martial. [1418] This form of sentence was very frequent, and gunners, boatswains, and stewards were ordinarily fined the value of the stores stolen, and committed to prison until it was paid.

The wide discretion left to the courts-martial led to great inequality in the sentences, especially when an example could be made without losing the stores or their money value. A carpenter was tried for theft; he confessed to the intention, and partly to the act, but returned the articles before arrest. He was, however, ordered to be taken from ship to ship in the Downs, with a paper describing his offence affixed to his breast, the paper being read at each ship's side, to be thrice ducked from the yardarm, and to be cashiered. Obviously it was more profitable and less dangerous not to stop halfway in theft. In 1653 is found a rather remarkable sentence: Wm. Haycock, carpenter's mate of the *Hound*, was, for 'drunkenness, swearing, and uncleanness,' ordered, among other things, ten lashes at the side of *each* flagship. Haycock has the distinction of being the first recorded victim of the form of punishment which afterwards developed into

the devilish torture known as ‘flogging round the fleet.’ It became comparatively common during the reign of Charles II.

At Chatham, in 1655 the authorities appear to have discovered and broken up a gang of receivers, of whom one had an estate of £5000 obtained from thefts from the ships and yards. A hoyman, Dunning, confessed to having conveyed 500 barrels of powder from the men-of-war at Chatham and Deptford within four years. When pressed for particulars, he exclaimed, ‘Alas! shall I undo a thousand families? Shall I undo so many? I did not think you would put me upon it to do so!’ Finding that this appeal, instead of silencing, only whetted his examiners’ curiosity, he had at last to name eighteen ships whose gunners had given him powder to remove. [1419] The Admiralty employed detectives of their own to find out thefts, but on more than one occasion these men turned thieves themselves. The aforesaid Dunning bought a cable from one of them; another was found ‘to have unduly abused his trust,’ but a third was granted £15 for proving the larcenies of captain Cadman. Sometimes, when the amount was small, the Admiralty, instead of bringing offenders to trial, deducted the estimated value of their embezzlements from wages;[1420] evidently punishment was very uncertain in extent, but the practical impunity of former times could no longer be reckoned on.

In some few instances the Admiralty had to deal with difficulties of another nature among the officers. Richard Knowlman, a gunner, and described as a Quaker, wrote to the Commissioners that he had served by sea and land from 1641, and was still willing to continue in any other capacity, since ‘I

would be free to act against all deceit ... for I see most men, especially those in the navy and of most rank and quality, are corrupted.' Knowlman could not have expressed less respect for the average official had he enjoyed access to the State Papers, but on the whole his was one of the very rare eras when such doubts were unjust. Another master gunner had, for two months, refused to fire a gun, 'lest blood might be spilt,' and a third insisted on preaching to the crew of the *Fame*, who by no means appreciated his amateur ministrations. In three instances chaplains are found accused of drunkenness, but their presence on board ship was not invariable, and their influence appears to have been very slight. One was tried for forging Monk's signature.

The Commissioners' Success.

The habits of half a century were not to be at once overthrown, but after 1655 references to thefts became far fewer; and the Navy Commissioners could congratulate themselves on having done much to extinguish customs which had gone far to destroy the vitality of the former Royal Navy. The want of trust, that long experience had shown to be justifiable in gunners, carpenters, and boatswains, who had been, and were still to a certain extent, treated as officers, may have been one reason why lieutenants were now always attached to ships, except fifth- and sixth-rates. Another may probably be found in the growing demand for scientific seamanship, an accomplishment the former class had little opportunity of acquiring. Whatever the cause, the effect was to thrust the gunners and their

compeers lower down in the social scale, to lose them that respect on shipboard they had hitherto possessed, to lessen their authority, and so quicken the downward movement. We are told that, a generation later, it was as usual to strike them as to strike the men, and that they had to ‘fawn like spaniels’ on the lieutenants to retain favour or position. The lieutenants must have been found much more satisfactory; in the whole series of papers relating to this period there is no instance of one being tried by court-martial, and only one in which such an officer got into any trouble. His captain put him in irons, but the reason is not given. Lieutenants were occasionally appointed to the naval service in the reign of Elizabeth, but the Dutch war may be taken as the period where their position became permanent. In June 1652, Sir Wm. Penn, then vice-admiral, writing to Cromwell, gave expression to the unanimous desire of his colleagues that such a rank should be allowed in all ships carrying 150 men.

Another difficulty the Commissioners had to contend with was the forging of seamen’s tickets, an old form of crime which grew in extent with the employment of so many more men. The Navy Commissioners, in advance of their time, recognised that the only legal penalty, death, was too severe, and practically prevented any punishment.[1421] The Navy department was not the only one which suffered from these forgers, who were all more or less connected with each other; in the same year forgeries of public faith bills to the amount of £115,000 were discovered. Some of these men were in league with clerks in the Navy and prize offices, and obtained the necessary papers and information from them. At a later date one of the gang confessed, when in prison, that the total of the public faith bill

and other forgeries was nearly £500,000.[1422] In 1656 a new plan was tried: 'to prevent the many frauds and deceits formerly practised,' the Commissioners were ordered to send the Treasurer, daily or weekly, an abstract of all the bills or tickets they signed authorising payment of money. Subsequently the Admiralty Commissioners obtained power to themselves commit offenders to prison. Nicholas Harnaman, for instance, was sent to Bridewell with hard labour 'till further order,' for counterfeiting tickets.[1423]

Officers' Pay.

Officers' pay was raised in March 1649, and again in 1653, after which latter date there was no alteration.[1424] It then stood per month at:—

	1st Rate			2nd Rate			3rd Rate			4th Rate			5t
	£	s	d	£	s	d	£	s	d	£	s	d	£
Captain	21	0	0	16	16	0	14	0	0	10	0	0	8
Lieutenant	4	4	0	4	4	0	3	10	0	3	10	0	
Master	7	0	0	6	6	0	4	13	8	4	6	2	3
Master's mate or pilot	3	6	0	3	0	0	2	16	2	2	7	10	2
Midshipman	2	5	0	2	0	0	1	17	6	1	13	9	1
Boatswain	4	0	0	3	10	0	3	0	0	2	10	0	2
Boatswain's mate	1	15	0	1	15	0	1	12	0	1	10	0	1
Quartermaster	1	15	0	1	15	0	1	12	0	1	10	0	1
Quartermaster's mate	1	10	0	0	10	0	1	8	0	1	8	0	1
Carpenter	4	0	0	3	10	0	3	0	0	2	10	0	2
Carpenter's mate	2	0	0	2	0	0	1	16	0	1	14	0	1
Gunner	4	0	0	3	1	0	3	0	0	2	10	0	2

Gunner's mate	1	15	0	1	15	0	1	12	0	1	10	0	1
Surgeon	2	10	0	2	10	0	2	10	0	2	10	0	2
Corporal	1	15	0	1	12	0	1	10	0	1	10	0	1
Purser	4	0	0	3	10	0	3	0	0	2	10	0	2
Master Trumpeter[1430]	1	10	0	1	8	0	1	5	0	1	5	0	1
Cook	1	5	0	1	5	0	1	5	0	1	5	0	1

Guns and Ordnance Stores.

When Parliament began the rapid construction of new ships some of its members may have had misgivings about getting the crews to man them, but few probably anticipated the future difficulties in procuring the guns wherewith to arm them. Geo. Browne, for so many years the royal gunfounder, was still almost the only maker, and his works were unequal to the increased demands.[1427] In March and April 1652, when war appeared certain, 335 guns were immediately required to equip only part of the Navy,[1428] but the authorities were already reduced to such straits as to be compelled to send searchers about London to try to find ordnance.[1429] A month later some of the inland strongholds were disarmed, and 84 brass and 544 iron guns thus obtained; the sale of ordnance taken in prizes was strictly prohibited, and, in the course of the year, guns were hired at ten and twelve shillings each a month. In December the ordnance officials announced that 1500 iron pieces, weighing 2230 tons, at £26 a ton, were required, the same number of carriages at from 21s to 31s 3d each, 117,000 round and double-headed shot, 5000 hand grenades at 2s 6d each, 12,000 barrels of corn powder at £4 10s a barrel, and 150 tons of breechings and tackle at £50 a ton.[1430] To meet these wants they had in

store only 121 guns and 34,000 rounds.[1431] In February 1653 the contracts were made for these guns, but, very soon after they were entered into, the officials saw that the deliveries would be at ‘a vast distance from our pressing occasions,’ for not only was the Tower empty but the ports were also destitute of munition, and, at Portsmouth, they were in April ‘at a stand’ for powder and shot.

All that Browne and Foley could promise was to deliver 140 guns in October, 190 in February 1654, 254 in June, 230 in October, and 86 in June 1655; but, as 500 were still to be sent in on old contracts, their engagements could hardly be relied on. Fifty tons of shot and 5000 hand grenades they promised for June, 50 tons in September, and 100 more by March 1654. In the meantime ships intended to serve as armed merchantmen were actually waiting uselessly for 117 guns, which the Ordnance department could not procure anywhere.[1432] The immediate outlook for powder was no better, since there was instant demand for 2780 barrels and only 500 in store, while the contractors were only bound to supply 660 barrels a month. Here, however, the further prospect was more favourable, as there were many powder-makers at work and the government could purchase quantities at Hamburg.

The staff of the Ordnance office was very much larger, proportionately, than that of the Admiralty. It employed, at yearly salaries, a surveyor, £194; clerk, £215; storekeeper, £216; clerk of the delivery, £166; master gunner of England, £121; keeper of the small gun office, £66; messenger, £60; two furbishers, £12 each; and twenty labourers at £21 each.[1433] Its management had mended considerably since 1640, but the improvement did not avail to save its

independence in 1653 when it became a department of the Admiralty. In February 1654 matters were so far better that there were 2359 barrels of powder and 38,000 round and other shot in hand, but still no guns in reserve. There are no complaints about the quality of the powder supplied during the Dutch war, but, in 1655 and 1656, accusations against the makers, who were said to 'use some sleight to make it Tower-proof on delivery, but it does not long continue good nor abide change of weather,' became numerous. All that the authorities could do was to call upon the manufacturers to make it good, or, if they preferred, take it back with a licence to export it abroad; 6827 out of 15,098 barrels recently furnished were defective, and, by an order of 2nd April 1656, the Council gave the contractors the choice between these courses and being committed to prison. The makers, however, had something to say on their side. Like most other naval purveyors they had not been paid, and even to get any money on account were sometimes compelled, under threats of still longer postponement, to repair Hamburg powder at 17s a barrel when the real price should have been £2, naturally with unsatisfactory results. Some attributed all the mischief to the Hamburg importations, but most of them seem to have gone into the business without any expert knowledge, simply with a view of profiting by the sudden demand for war material.[1434]

The form of reparation exacted was manifestly unfair: instead of each maker being required to substitute good for whatever bad powder he had sent in they were called upon to replace it in proportion to their contracts. Thus Josias Devey was made liable for 461 barrels instead of the 141 which were faulty in the number he had supplied, and apparently he

would have fared just as badly if his powder had been excellent down to the last pound.[1435] As some of the manufacturers had delivered 50 per cent., or more, of inferior quality, the probable explanation of this not very honourable proceeding is to be found in the fear of the Council that the worst culprits would be pecuniarily unable to make amends if assessed at their full liability. Wapping seems to have been a manufacturing district, since, in July 1657, there was an explosion of powder mills, or stores, there which injured many people and damaged 846 houses to the extent of £10,000.

The Dockyards.

The enlargements and improvements of the dockyards were not as considerable as might have been expected in view of the increased number of ships, and the space required for their accommodation. These requirements were partly met by the greater use made of Plymouth, and making Dover and Harwich stations where ships might obtain provisions and minor repairs. Harwich, largely used for a few years in the middle of the sixteenth century, had been found of some service during the civil war, but the movements of the fleets in the North Sea, and off the coast of Holland, brought both it and Dover into prominence. The latter port was not utilised till 1653, and was never very freely used, although the quarterly accounts sometimes reached £700 or £800; both it and Portsmouth were supplied with stores from Deptford. Bourne, from the date of his appointment as Navy Commissioner, took up his residence at Harwich, and remained there till March 1658. Monk's testimony to his ability and success has already been quoted,

although he had none of the appliances available in the older yards. But in 1657 ground was rented from the corporation, for a permanent government yard and wharf, on a ninety-nine year lease at £5 a year.[1436] Plymouth was employed mainly for victualling the ships on the western Channel station, as Dover was for those eastwards, and, to a certain extent, for repairs, although its exposed roadstead was no favourite with captains whose vessels were fit to put to sea. Blake evidently did not like it; 'the unsafeness and hazard of this road, which to us is worse than a prison, is enough to scare us hence.'

One way of gauging the relative importance of the dockyards is to compare the stores in hand at a given date. We are enabled to do this for February and June 1659, as follows:—[1437]

	Chatham	Woolwich	Deptford	Portsmouth
Anchors	108		129	62
Masts	356	724	269	498
Cables	106	29	272	70
Loads of timber[1438]	1500	322	416	508
Tree-nails	80,000	122,000	93,000	
Compasses		180	144[1440]	
Hemp	100 tons	75 tons		63½ tons
Noyals canvas			23,000 yds.	10,600 yds.
Vittery "	1800 ells		25,000 ells	
Ipswich "			272 bolts[1441]	
English "	240 bolts			7650 yds.
Tar and pitch	30 lasts			99 barrels
Hammocks	900	1200	700	2020

Owing to want of money the magazines were very low at this date, but the relation shown here would

doubtless always exist. Harwich and Plymouth can refit ships which have suffered in spars, fittings, or canvas; Chatham, Woolwich, and Deptford build or repair, while Portsmouth is equipped for all purposes. Hitherto all masts had been obtained from the Baltic, but in 1652 the government tried the experiment of sending two vessels to New England for them, and the results were so satisfactory that henceforth a proportion of masts from the colonies is found in all the lists of dockyard stores. The English canvas is elsewhere described as west country canvas, and was principally made in Somersetshire; its manufacture was due to Geo. Pley, afterwards government agent at Weymouth and governor of Portland, who successfully urged its use upon the Admiralty. It cost 1s 7d or 1s 8d a yard, and was dearer than French canvas, but considered better. [1442]

In 1653 there was a double dry dock at Chatham, Woolwich, and Deptford respectively,[1443] and one at Blackwall, probably in the East India Company's yard; these were the only docks directly belonging to, or available by, the state. No addition appears to have been made to Chatham yard except the purchase of a wharf and storehouse adjoining the old dock in 1656.[1444] In October 1653 a contractor from Chatham was either repairing an old, or constructing a new, dock at Deptford;[1445] and in 1657 some wharves were built there along the waterside.[1446] A new dry dock was ordered for Woolwich in 1653[1447] and completed the next year;[1448] storehouses were built in 1656;[1449] and two years later a lease was taken from John Rymill, butcher, of London, of one acre of land, known as Chimney Marsh, on the east side of Ham Creek, 'next to the state's yard,' for ten years, at £4 a year.[1450]

The sizes of the yards may, perhaps, be inferred from the number of watchmen attached to each—Chatham, 32; Deptford, 18; Woolwich, 16; and Portsmouth, 13.

Dockyards:
—
Portsmouth.

Portsmouth, if the smallest of the chief yards, became under the Commonwealth one of the busiest and most important. In June 1649 one of five new frigates was ordered to be laid down there; this vessel, the *Portsmouth*, was duly launched in 1650, and, with the doubtful exception of the *Jennett*, in 'new making' at Portsmouth in 1559, was the first man-of-war of the modern Royal Navy built at that place since the *Mary Rose* and *Peter Pomegranate* of 1509 were first floated in the harbour.[1451] The dry dock so often recommended and ordered under Charles I was, however, not yet existent. It was urged that one-third of the Navy ought to be permanently stationed at the port, but in 1652 the Commissioner in charge complained that there was not room for the stores required for the few ships usually there. From a survey of 1653 we obtain, so far as names go, a statement of the number of buildings in the dockyard; they are upper and lower storehouses, upper and lower hemp houses, block loft, old rope-maker's house, office and nail loft, canvas room, hammock room, kettle room, iron loft, tar house, oil house, sail loft, and top-makers' and boat-makers' house.[1452]

Less than twenty years earlier Russell had found that work done at Portsmouth was 100 per cent. dearer than at the other yards, but Willoughby had

altered that, and now boasted that he could build 20 per cent. cheaper than elsewhere, although all the skilled artisans required in naval work had to be sent down, there seeming to be as yet no population attached to or living on the dockyard. He desired that five and a half acres of adjoining ground should be purchased, a rope yard erected, and the whole yard surrounded by a brick wall 73 perches in length.[1453] Therefore in 1653 and 1654 the Navy Commissioners were directed to take a lease of an acre and a half of the ground recommended, to set up a rope-yard, and to build the wall.[1454] In December 1655 Willoughby put before the Commissioners the difficulty in carrying on the ordinary work, 'we wanting the benefit of a dock,' and at this time the staff, recently reduced in strength, numbered 180 men. In the following April Bourne and captain John Taylor, a shipwright of Chatham, were sent down to consult with Willoughby as to the best position for a dry dock which was to be 'forthwith made.'[1455] On their report an order issued in August that one of sufficient capacity to take third-rates was to occupy the situation of the existing graving dock, and that it was not to cost more than £3200, of which the town, presumably in the hope of attracting trade and inhabitants, was willing to contribute £500.[1456] In November Taylor was instructed to go to Portsmouth and superintend its construction, but he energetically protested that he knew nothing about dock-building and would, under such circumstances, only make himself ridiculous. It was therefore put in the hands of Nicholas Poirson, who signed the contract on 24th November, by which he undertook to complete it by the following 20th July, for £2100, the government providing the materials and the corporation £500 of

this sum.[1457]

Shipwrights and Workmen.

There were still a sufficient number of abuses in connection with the dockyards, but the flagrant thefts customary under Charles I had been largely diminished. Members of the Pett family occupied responsible positions in the three home yards, and either they used their power to ill purpose, or their favour with the authorities was no passport to the love of their subordinates. In 1651 there was what would now be advertised as a great scandal at Chatham; all the chief officers, and many of the workmen, were accusing each other of misdeeds in a way which necessitated a governmental commission of inquiry, empowered to take evidence on oath. The light in which the Petts were regarded is shown by a remark made by one man to another that he dared not speak, 'for fear of being undone by the kindred ... they were all so knit together that the devil himself could not discover them except one impeached the other.' The result of the inquiry was a resolution that all the accused, on both sides, should retain their places, a decision more likely to be due to the impossibility of displacing experienced officers when war was imminent than to any inability to form an opinion.

The yearly salary of the master shipwright at Chatham was £103, 8s 4d, Deptford the same, and Woolwich £70. The building programme of the government naturally tempted these men to add to their salaries the profits to be made by having private yards for the construction of men-of-war. Holland pointed out that this led to the shipwright's

absence from the state's yard, to the exchange of good government workmen for bad of his own, and that usually a frigate turned out from a shipwright's yard cost the country twice as much as one from a dockyard.[1458] Holland commented on another evil, the existence of beerhouses in the dockyards, 'necessary at first, now one of the greatest abuses in the Navy.' At least one 'searcher' was employed to prevent theft from the dockyards; but, judging from the small number of such cases reported, the precautions taken or the higher standard induced in the men, had greatly altered former conditions for the better. In one instance, however, the want of honesty shown by two men was attributed—it is painful to have to confess here—to their habit of reading 'histrye books.' The wages of shipwrights and caulkers were raised in April 1650 from 1s 10d to 2s 1d a day, and again in 1652 to 2s 2d; they appear to have been punctually paid to a later date than the seamen, but in 1656, when they also were beginning to suffer from the emptiness of the treasury and their wages to fall into arrear, the Council, with the dry humour of officialism, ordered 'an exact and punctual inspection and examination' quarterly of their accounts. By 1658 they had, mostly, twelve months' wages owing, but their murmurs were not nearly so loud as those of the seamen. Frequently during 1659 they were working half-time or less, for want of materials. In March 1660 there were not 100 yards of canvas remaining at either Woolwich or Deptford, the contractors would not supply more without ready money; and we may assume that other necessaries were equally lacking.[1459] During part of 1659 there was only one forge going at Portsmouth, John Timbrell, the anchor-smith, having received no money for two

years, and having been compelled to dismiss his men, being unable to procure iron on credit. Timbrell was mayor of the town in 1662, so that the Restoration apparently relieved him of his troubles.

In September 1658 the *Happy Entrance* was destroyed by fire at Chatham, a mishap attributed to carelessness on the part of the men at work on her, and the absence of supervision of the superior officials. This caused the promulgation of an order the following month that no member of the superior dockyard staff should absent himself without leave from the Commissioner, and he only by permission of the Admiralty or Navy Commissioners, with a general penalty of dismissal for disobedience.[1460] This order was to be framed and hung up in each yard. White's invention of 1634 of iron mooring chains, noticed previously, was now taken up by the government, and some were laid down at Chatham, Deptford, and Woolwich for ships to ride at, two to a chain. Mooring places for the use of merchantmen were granted to White, Bourne and others at a rental of £5 a year.[1461] The dockyard chains weighed 2 cwt. 2 qrs. 14 lbs. to a fathom, cost fivepence a pound, and were guaranteed for two years.[1462] In 1658 a boom was ordered to be placed across the Medway at Upnor, but there is reason to believe that the order was not carried out.

Dean Forest.

Among the Commonwealth experiments was that of using the wood and iron ore of Dean Forest for the manufacture of iron for the supply of the dockyards and private purchasers. As a ton of iron could be made there for £3, 10s, and a ton of shot for £4, and

sold respectively at £7 and £9, the enterprise was more profitable than most government undertakings.[1463] In 1656 the stock in hand was valued at £9446, which stood as net gain, all expenses being cleared;[1464] but, as Major Wade, who was in charge, thought that one or two hundred tons of iron thrown upon the market 'would surfeit the whole country,' it was rather a book profit than an actual one. However, from September 1654 to March 1659 Dean Forest supplied the Navy with 701 tons of shot and 88 tons of iron fittings; and from Sept. 1656 to April 1660 with 2300 tons of timber and 123,000 tree-nails,[1465] the saving thus effected being alone a sufficient justification of the new department. The plentiful yield of timber suggested the advisability of building frigates on the spot, and the *Grantham* was launched at Lidney in 1654; she was followed by the *Forester*, and then the *Princess* remained long in hand, since Furzer, the master shipwright, was receiving only £2 a week of the £15 necessary to meet expenses. In October 1659 he wrote to the Navy Commissioners that instead of attending to his duties he was forced to be away two or three days in the week trying to borrow money.

Naval Expenditure.

The following table, drawn up from the *Audit Office Declared Accounts*, shows the general expenditure for this period in round figures:—

	Amounts received and paid by Treasurer	Already owing	Victualling	Deptford[1466]	Woolwich	C
	£	£	£	£	£	
1649[1467]				[1468]		

1650						
1651	446,000	129,000	51,000	10,163	7776	1
1652	629,000	238,000	88,000	10,900	8381	2
1653[1469]	1,445,000	335,000	269,000	12,600	12,500	2
1654	1,117,000	450,000	230,000	11,700	13,500	2
1655	587,000	466,000	70,000	8700	7600	2
1656	791,000	473,000[1470]		8000	7000	2
1657	746,000	506,000		9000	10,300	1
1658[1472]	} 1,442,000	714,000		11,800	18,000	2
1660						
1660	1,056,000[1473]					

The Commonwealth began its naval administration hampered by a debt of £233,000, and it will be seen that, with the exception of 1650, during which year the arrears were partly paid off, it steadily grew in amount. But comparing the national revenue, which had also to support a standing army, with the sums devoted to the Navy, the wonder seems to be that the debt was not larger. For the financial year ending 29th September 1657 the total public income was £1,050,000, and of this £809,000 was assigned to naval purposes; for 1658 £951,000, of which the Navy took £624,000.[1474] The receipts for 1659 were put at £1,517,000,[1475] and the Navy estimates at £848,000[1476].

The strain began to be most seriously felt from 1653, when, in September, the Navy Commissioners warned their chiefs that £1,115,000 was required before 31st December, without including the cost of the vessels on the stocks or that of the winter fleet; no provision, they said, had been made for this and ‘we find it necessary to lay before you the daily clamours we undergo for want thereof.’[1477] In October 1654 the Admiralty Commissioners apprised the Protector that the credit of the Government was

so greatly impaired that stores could not be obtained except for ready money; yet £1,117,000 in cash passed through the Treasurer's hands in this year. This sum was procured from many sources—excise, £262,000; treasurer-at-wars, £424,000; customs, £162,000; 'profits arising by probate of wills,' £1163; commissioners for Dutch prizes, £2029; commissioners for prize goods, £44,000; treasurer at Drury House, £16,000;[1478] Col. Barkstead,[1479] £44,000; from the exchequer, £131,000; and defalcations and sale of stores, £31,000. Notwithstanding these receipts the Admiralty Commissioners wrote in April 1655 to the Council that they had only been able to pay seamen's wages, that all other debts remained unpaid, and that the yards were exhausted of stores.[1480] Straitened as they were, the Council, two months later, were not deterred from ordering 2000 Bibles for the soldiers in the West Indies, although the fact that the commissioners of the treasury had to 'consider' how they could be paid for seems to imply that Bibles were no more to be obtained on credit than cordage. On at least one occasion Oliver appears to have himself advanced £10,000 to the Navy Office.[1481]

The debt increased, but the revenue did not show the same elasticity; all that the Admiralty Commissioners could do, themselves almost daily invoked by the Navy Commissioners, was to carry on the appeal to the Council, 'finding every day a sad increase of the just complaints of several persons for money long since due.' This was in 1658, but in March of the following year they wrote bitterly to the Council that, while such large debts were contracted and they were struggling with difficulties, it made them 'exceeding unhappy' to see that even their assignments on the customs were not handed

over to them in full.[1482] In May 1659, among other items, £330,000 was owing for seamen's and £43,000 for dockyard wages, and the £735 a week paid by the Navy Treasurer to the Savoy and Ely House hospitals was six months over-due.[1483] In September the army commissioners were directed to hand over £60,000 for naval purposes, although the soldiers' pay was months in arrear. When the Commonwealth accounts close on 7th July 1660 the debt was £1,056,000.[1484] For this large sum every year from 1640 furnished its quota, thus detailed:—1640-9, £10,200; 1650, £71,000; 1651, £25,000; 1652, £16,000; 1653, £11,000; 1654, £5000; 1655, £50,000; 1656, £229,000; 1657, £218,000; 1660, £421,000. That the earlier amounts were not merely book debts carried forward for want of claimants is shown by the existence of a petition, of April 1658, begging for the settlement of a bill for freight incurred between 1643 and 1651.[1485] These liabilities, belonging to only one branch of the public service, help to explain why many classes of society, not actively royalist, may have welcomed a restoration which promised a settlement of debts and a more stable financial system.

Flags and The Salute.

When the St George's cross was made the national flag in February 1648-9, it was also ordered that an escutcheon should be carried on the stern of each man-of-war, containing a red cross in one compartment and a harp in another. In 1653 the three Generals at sea used, besides their standards, a pendant of red, white, or blue, at the main, and their vice- and rear-admirals their respective colours at the fore and mizen. From 18th May 1658 the standard of

the General of the fleet was to bear the arms of England, Scotland, and Ireland, ‘with his Highnes’ escutcheon of pretence according to the great seal of England.’ The jack flag for admirals was to consist of the arms of England and Scotland united, ‘according to the ancient form,’ with the harp added, ‘according to a model now shown.’[1486] All saluting, whether from ships or forts, was strictly forbidden in 1652, except in honour of ambassadors; but the salute to the flag from foreigners was firmly upheld under all circumstances. By the treaty of 5th April 1654, the Dutch formally acknowledged the English right to the salute in the ‘British seas.’ In 1657 Opdam, with thirty Dutch sail, passing Dover struck his flag and saluted the castle; shortly afterwards he met the *Dragon* and the *Colchester*, whose captains ordered him again to strike. He refused, saying that he was not expected to pay this mark of respect to every ship he met, whereupon they replied that if he did not they would engage him till they sank alongside. Then ‘he struck in a great rage,’ and kept his flag down till out of sight of the Englishmen. Man-of-war captains sometimes displayed the same feeling of pride in their position at the expense of English ships. In 1654 a Virginiaman was run down and sunk in the Channel by the *Ruby*. In the subsequent inquiry the master of the merchantman held that the *Ruby* should have gone astern of his vessel, to which her captain retorted by asking, ‘How many men-of-war have you known go under a merchantman’s stern?’

Prices.

The prices of naval stores varied greatly, according to the confidence felt in the treasury and conditions of peace or war; the following are the rates for some

of the principal articles:—

IRON ORDNANCE
1650, £20 a ton
1653, £26 ”

CANVAS
Noyals, 1652, £15 to £17 a bale[1487]
Noyals, 1654, £19, 7s a bale
Vitery, 1654, 1s a yard
Vitery, 1655, 1s 4d an ell
Ipswich, 1654, £1, 12s a bolt
Ipswich, 1655, £1, 7s 9d a bolt

HEMP
1653, £32 a ton (English)
1655, £38, 10s a ton (Riga)
1657, £44 a ton (Riga)
1658, £46 a ton (Riga)
1658, £33 a ton (English)
1658, £38 a ton (Russia)

ANCHORS
1656, £34 a ton
” £37 ”

POWDER
1650, £3, 16s a barrel
1652, £4 ”
1653, £4, 10s ”

PLANK
1653, £2, 18s a load
1655, £3, 7s ”
1657, £3, 5s ” (oak)
1659, £3, 15s ” ”

SMALL ARMS
Snaphaunces, 1658, 11s 6d each
Matchlocks, 1658, 10s 6d each
Carbines, 1658, 11s each
Pistols, 1658, 14s a pair

BLACK ROSIN
1655, £10, 10s a ton
1657, £10 a ton (Mar.)
1657, £9, 5s " (Aug.)

COMPASS TIMBER
1656, £2, 5s a load
1658, £3 "

CORDAGE
1649, £30 a ton
1656, £44 "
1657, £48 "
1658, £44 "

SHOT
1652, £11, 10s a ton
1653, £14 a ton

TAR
1654, £1, 15s a barrel
1655, £10, 12s a last
1656, £12 a last
1657, £12, 10s a last
1658, £13 a last

PITCH
1654, £1, 16s a barrel
1655, £15, 5s a last

BEER
1654, £1, 15s a tun
1659, £2, 5s "

SPRUTIA[1488] DEALS
1656, 12s 6d each
1659, 14s "

ORDINARY DEALS
1657, £4, 3s per 100 of six score

WHALE OIL
1659, £26, 15s a ton

ENGLISH TALLOW
1658, £2, 3s per cwt.

LIGNUM VITÆ for blocks
1656, £6, 15s a ton

Examples of that incongruity of expression usually associated with Puritan fervour are not frequent among the Navy papers, but they do occasionally occur. On one occasion Lawson writes, 'All that look towards Zion should hold Christian communion—we have all the guns aboard.' Major Robert Sedgwick, starting for the West Indies, asks the Navy Commissioners, after official details, for 'your prayers that we may be sent out with a blessing and be a blessing where we go.' Major Sedgwick's duties were to kill Spaniards, plunder their property, and annex their territory. These men were too grimly earnest in the work they set their hands to do to trouble themselves about fine phrases. They lacked humour, and the court of Charles II was, we are taught, very witty; but when, in 1667, the roar of foreign guns was, for the only time in English history, heard in London, even that majority which always loves a royal jest must have begun to appreciate the distinction underlying Stewart wit and Puritan dulness.

APPENDIX A
CHAPTER HOUSE BOOK Vol. XIII

Here ensuyth An Inventorie or boke of All such Stuff, tacle, apparell, Ordynaunce, Artillarie and habillamentes for the warre as Remayned in our soveraigne lord the kynges shippes the xxvij day of July the vjth yere[1489] of his reign, By a vewe taken by Sir Henry Wyat, Sir Andrewe Wyndsore, knightes, George Dalyson, and Thomas Tamworth, commissioners in that behalf appoynted, Whuch Stuff, tacle, apparell, Ordynaunce, Artillaries, and habillamentes for the warre Was delyvered into the charge and kepyng of severall persons hereaftyr particlerly named to our seid soveraigne lord the kynges use by Indentures thereof made and also billes signed with the handes of the seid commissioners in the custodie of the seid persones remaynyng, That is to Sey

The kynges Shippe called the *Henry Grace de Dewe*:—Stuff, Tacle, and apparell of the seid shippe delyvered by the seid Commissioners into the charge of John Hopton by Indenture, that is to sey

ffyrst the foremast of the seid shippe	j
Shrowdes to the same	xvj
Dedemens hyes[1490] to the same	xvj
Tacles to the foremast	iiij
Doble polles[1491] with Shyvers[1492] of Brasse	iiij

Single polles with Shyvers of Brasse	iij
Single polles with a colk[1493] of Brasse	j
Swyfters to the foremast	vj
Doble polles with colkes of Brasse	iij
polles whuth Shyvers of wode	iij
polles with v colkes of Brasse and oone of wode	vj
Garnettes to the foremast with iiij poles[1494]	ij
Garnet with ij polles and shyvers of Brasse	j
Garnet with a shever of Brasse and another of tymbre	j
Trusses to the foremast	ij
Drynges[1495] to the same	j
Doble polles for the trusses with colkes of brasse	ij
Single poles of tymbre	ij
Drynges with a doble pole with a colk of brasse and oone single pole of wode	j
halyers to the foremast	ij
Shyvers of Brasse to the brest[1496] of the forecastell	iij
Ramehedes with ij shevers of Brasse	j
Shetes to the foresayle	ij
pollies with shevers of Brasse to the same	ij
lyftes to the foresayle	ij
Doble polies with shyvers of Brasse to the same	ij
Single polies with colkes of Brasse	ij
Shetes to the toppe Sayle	ij

Single polies with woden pynnes to the same	ij
Tackes to the foresayle	ij
Stodynges[1497] to the foreyerd	ij
pollies to the same with woden pynnes	ij
cranelynnes to the foremast	j
Single poles with shyver of Brasse	j
Bowelynnes to the foreyerd with the poleis and dedemanes hies and oone doble pole with a shever of brasse	j
Stayes to the foreyerd with iiij dedemens heies	ij
Sprete sayle yerdes	ij
halyers to the same	ij
Single poleis with shyvers of Brasse to the same	ij
lyftes to the Sprete Sayle with iij single polies and woden pynnes	j
Grapilles[1498] with the cheyne hangyng apon the bowspret with a pole havyng a colk of brasse	j
knyghtes[1499] longyng to the lyftes of the foresayle with ij shevers of brasse	ij
The fore topmast	j
Shrowdes to the same	xij
halyers with a doble polie and a colk of brasse ij single poleis with woden pynnes	ij
Bowlynes to the foretop Sayle yerd with pawes[1500] and dedemens hyes to the same	ij

Brasses[1501] for the foretop sayle yerd ij Single poles with pynnes of wode	ij
lyftes to the foretopsayle yerd with iiij poleis with wooden pynnes	ij
Shetes to the foretopsayle with ij woden poles	ij
Steyes to the foretopmast	j
Sayle yerdes to the foretop	j
Toppe Galant apon the foretopmast	j
mastes to the same	j
Shrowdes to the same	viij
halyers with ij single poles with woden pynnes	ij
Brasses to the same with ij single poleis and wodepynnes and dedemens hyes to the same	ij
Bowlynes to the topgalant yerd the power and dedemens hies to the same	ij
lyftes to the foretopgalant yerd with iiij single polies with woden pynnes	ij
Shetes with ij single poles with woden pynnes	ij
Stayes to the foretopgalant mast	j
Shevers of Brasse for the cattes in the forecastell	iiij
Davettes[1502] with iiij shevers of Brasse	ij
Smale davettes with oone shever of Brasse	j
The mayne mast[1503]	j

Shrowdes with cheynes of yron and dedemenes hies to the same	xl
Bote tacles of sterebord syde with iiij doble poles and viii single poleis with xvj shyvers of Brasse[1504]	iiij
Swifters on the same syde with vij doble poleis and vii single polees with colkes of Brasse and ij poles of tymbes[1505] pynnes	viij
Garnettes with ij single poles with shivers of Brasse	j
Garnettes with ij single polies with colkes of Brasse	j
Garnettes with oone single pole with a shever of Brasse and an other pole with a colk of Brasse	j
Stodynges with a single polie with a Shever of Brasse	j
Bote tacles oon ladbord syde with iiij doble polies and viij single polies with xvj Shevers of Brasse	iiij
Bretayn tacles[1506] with ij single polies and Shevers of Brasse to the same	j
Swyfters with vij doble polies with colkes of Brasse and viij single poles with colkes of Brasse	viij

Garnettes whereof oone with ij single polies and ij shevers of Brasse an other with ij single poleis with ij colkes of Brasse and an other with a shever of Brasse	iij
Stodynges with a shever of Brasse	j
tymber polies for the Shuts[1507]	ij
The mayne yerde with the mayne parell	j
Single poleis with a shever of Brasse to wynde up the mayne parell	j
Trusses with iiij doble polleis and iiij single polies with xij shevers of Brasse	iij
Drynges with ij doble polies and iiij shevers of Brasse	ij
Single poleis of tymbre to the same	ij
Tyes	j payer
Whele Ropes[1508]	j
Geers with vj single poleis whereof iiij with shevers of Brasse and ij of tymbre	iij
knyghtes belonging to the same with iij Shevers of Brasse	iij
Single poles for the topsayle	iiij
Shutes with iiij shevers of Brasse	ij
knyghtes with ij shevers of Brasse	ij
The mayne yerd	j
lyftes with ij doble poleis and ij single with vj Shevers of Brasse to the same	ij
Knyghtes with ij Shevers of Brasse	ij
Shutes	ij

Tackes	ij
bowlynes with Brydelles and Dedemens hies	ij
poleis to the mayne Bowlyne with ij Shevers of Brasse	j
mayne Stayes with viij dedemens hies	iiij
Brasses with ij single poles and colkes of Brasse	ij
The mayne top	j
The mayne top mast and a coler of yron	j
Shrowdes to the same with dedemens hies	xiiij
The mayne top Sayle yerd	j
Tyes	j
halyers with a doble and a single polie with ij shevers of Brasse	j
Brases with iiij poles	ij
lyftes with iiij polies and colkes of Brasse	ij
Cranelynnes with a single pole and a colk of Brasse	j
Steyes to the mayne top mast	j
bowlynes with dedemens hies	ij
The top Galant apon the mayne topmast	j
mastes for the same	j
Rynges of yron for the same	j
Shrowdes to the same with dedemens hies	x
Sayle yerdes to the same	j
Stayes to the same	j
Bowlynes	ij
Brases with ij poles to the same	ij
Shutes	ij

Grabulles with cheynes to the same	ij
poleys apon the mayne yerd for the grabulles	ij
Spare knyghtes standyng by the mast with ij shevers of Brasse	ij
The mayne meson mast	j
Shrowdes with xj doble poles and xj single poles, a doble and single polee with colkes of Brasse	xij
Swyftyers with vj doble poles and vj single poles with colkes of Brasse	vj
Tacles with ij doble poles of tymbre	ij
Single poles oone of tymbre the other with a colk of Brasse	ij
Steyes	j
Shutes	j
Single poles oon of tre[1509] the other with a colke of Brasse for the same Shutes	ij
cranelynes with a single polie and a colk of Brasse	j
Brases with ij single poles	ij
Teyes[1510]	ij
halyers	ij
The Rame hede	j
knyghtes with iij Shevers of Brasse	j
The yerd to the meson Sayle	j
lyftes with iij poles and dedemens hies	j
Trusses with a double and a single polie with colkes of Brasse	j

Toppe	j
Topmast to the same	j
Rynges of yron	j
Shrowdes with dedemens hies	x
The Sayle yerd	j
Tyes	j
poles to the same	ij
lyftes with iij poles and dedemens hies	j
The top Galant of the mayne meson	j
The mast to the same	j
Shrowdes to the same	vj
lyftes with iij poleis and dedemens hies	j
The Sayle yerd	j
Tyes to the same	j
halyers	j
The boneaventure mast	j
Shrowdes with x Doble poles and x syngle poleis	x
Sayle yerdes	j
Tyes	j
halyers with a doble pole	ij
knyghtes with iiij Shevers of Brasse	j
Shutes with ij poleis to the same	j
The boneaventure top	j
mastes to the same	j
Sayle yerdes	j
Shrowdes	viij
Steyes	j
In the storehouse of the Shipp viij single pendaunt polies with shevers of Brasse	viij

Smale single garnet poleis with shevers of Brasse		j
Doble lyft poleis with shevers of Brasse		iiij
Doble poleanker[1511] poleis with shevers of Brasse		iiii
Snach polleis with gret Shevers of Brasse		iiij
Single poleis with Shevers of Wode		xiiij
Doble poleis with Shevers of Wode		ij
Doble poleis with a colk of Brasse		j
Single poleis with a colk of Brasse		j
pottes called piche pottes		j
ketilles to melt in pyche		j
boyes for ankers		x
boy Ropes		x
Shevers of Brasse without poleis		iij
leddern[1512] bokettes		xij dossen
love[1513] hokes		iiij
lynch[1514] hokes		iij
Copper ketill not sett in furnes weying by estimacon ccc[1515]		j
CABLES AND CABLETTES OF		
xiij ynch compas	j	
xvij ynch compas	ij	
xv ynch compas	ij	
ix ynch compas	j	
viij ynch compas	j	
		vij
HAWSERS OF		
iiij ynch compas	iiij	
vj ynch compas	iij	

vj ynch di compas[1516]	j
v ynch compas	j
viij ynch compas	j
iiij ynch compas	j
iij ynch compas	j
v ynch compas	j
iiij ynch compas	vij
iij ynch compas	j
iij ynch di compas	j
	xxij
Smale lyne	ij peces
Bygger lyne for lanyers[1517]	ij peces
Brayle Ropes with iij poles to the same	j
Grete doble Blockes ether of them ij Shyvers of Brasse	ij
Single blokes with ij Shevers of Brasse	ij
long Ores for the Grete bote	lx
Tarre	ij barelles
Ores for the Cocke bote	xxiij
Standart Staves[1518]	lix
Stremers	viij
lytle flagges	c
Top Armours	vii
Targettes	xx dossen
large fflagges	lx
To the mayne Sayle Acorse and ij bonettes doble[1519]	j mayne sayle
mayne topsayles	j
Topgalant Sayle	j
The meson Sayle	j
The boneaventure Sayle	j

The foresayle Acorse and a bonet doble and bonet single an other corse and iij bonettes single in all		ij foresayles
The fore topsayle		j
The foretopgalant Sayle		j
The Bowspret Seyle		j
The mayne Sayle for the gret Bote, a corse and ij bonettes single		j sayll
The foreseyle acorse and ij bonettes single		j
Top Seyle		j
The meson Seyle		j
The boneaventure Sayle		j
An old corse of a hulk Sayle		j
ANKERS CALLED		
Sterbord bowers	ij	
ladbord bowers	ij	
Destrelles[1520] of Sterbord	ij	
Destrelles on ladbord	ij	
Shot[1521] ankers	j	
Caggers[1522]	j	
Spare ankers	ix	
		xix
Trene[1523] platters		iiij dossen
Trene cuppes		v dossen
Tankerdes		iij dossen
lantrons[1524]		vj
grete lantrons		j
middellantrons		ij
Copper ketilles in furnes		iij
lede in oone pece by estimacon		D[1525]
Grete belles in the seid Ship of Brasse		j

The grete botes mayne mast	j
Shrowdes to the same	xiiij
polles to the same	xxviij
Tacles oone with a doble pole and colkes of Brasse the other with a single pole and a Shever of tymbre	ij
Single poles with a shever of Brasse	j
mayne yerdis and the parell	j
Trusses with ij poleis and Shevers of tymbre	j
Tyes	j
halyers with a doble pole and Shever of Brasse	j
Single poleis on of them with a Shever of brasse and other of tymbre	ij
Shutes	ij
Tackes	ij
bowlynes with a pole and Shever of tymbre	ij
lyftes with ij Single poleis	ij
Topsayle Shotes with ij single poleis	ij
yerde Ropes	ij
The meyne Stey with ij doble poleis	j
The toppe	j
The topmast	j
Shrowdes to the same	vj
Sayle yerdes	j
Tyes	j
parell to the sayle yerd	j
Bowlynes	ij
lyftes	ij

Cranelynes	j
Brases	ij
The foremast	j
Shrowdes to the same	vj
The Sayle yerd	j
The parell	j
Teyes	j
Syngle halyers with a polie to the same	j
Shetes	vj
tackes	j
lyftes with ij poleys	ij
Steyes	j
bowlynes with a polie	j
Single Trusses with a polie	j
Bowspretes	j
mayne meson mast	j
Shrowdes to the same	vj
The Sayle yerd	j
the parell to the same	j
The Tye	j
Single halyers with a pole	j
Trusses with ij poles	j
lyftes with iij poles	j
Brases with ij poles	ij
Steys with ij Smale poles	j
The boneaventure mast	j
Shrowdes to the same	iiij
Tyes	j
Single halyers with oone pole	j
The sayle yerd	j
The parell to the same	j
Ankers for the said bote	iij
Cablettes of v ynch compas	ij
Cocke bote	j
mastes to the same	j

Sayle yerdes	j
Shevers of Brasse	ij
Ores to the same	xij
bote hokes	j
The skyff otherwise called Jolywatt	j
mastes to the same	j
Sayles	j
Ores to the same	vj
Shevers of Brasse	j
Shevers of Brasse called a Wyndyng Shever for the Rame hede	j
hawsers of v ynch compas	j
hawsers of vj ynch di compas	di hawser[1526]
hawsers of v ynch compas	iij
Cables of ix ynch compas	j
hawsers of vj ynch compas	di hawser
Soundyng ledes	vj

Ordynaunce Artillarie and habillamentes for warr delyvered to the charge and custodie of Thomas Spert, master, and William Bonython, purser of the seid shipp by Indenture as aforeseid, that is to sey

Serpentynes of yron with miches[1527] boltes and forelockes	cxxij
Chambers to the same	ccxliiij
Stone gonnes of yron Apon trotill wheles and all other Apparell	iiij
Chambers to the same	iiij
Serpentynes of Brasse apon wheles shod with yron	iij
Serpentynes of Brasse apon wheles unshodd	j

Grete peces of yron of oon makyng and bygnes	xij
Chambers to the same	xxiiij
Grete yron gonnes of oone sort that come owt of fflaunders with myches bolts and forelockes	iiij
Chambers to the same	viij
Grete Spanysh peces of yron of oone sorte	ij
Chambers to the same	iiij
Stone gonnes apon Trotill wheles with miches boltes and forelockes to the same	xviij
Chambers to the same	xxxiiij
Smale vice peces of Brasse apon shodd wheles of Symondes makyng	j
long vice peces of Brasse of the same makyng	iij
ffawcons of Brasse apon Trotill wheles	vj
a fayre pece of Brasse of Arragows makyng	j
A Slyng of yron Apon Trotill wheles	j
Chambers to the same with other apparell	j
grete Stone gonnes of yron	ij
chambers to the same	iiij
Grete culverynes of Brasse apon unshodd wheles of Symondes makyng	ij
Grete bumberdes of Brasse apon trotill wheles of herberd[1528] makyng	iiij j

Grete curtalles of Brasse apon iiij wheles and of the same makyng[1529]	j
hakebusshes of yron hole	clxxxxiij
hakbusshes of yron broken	vjj
Shott of yron of Dyverse Sortes	Dclx shott
Stone Shott of Dyverse Sortes in the balist of the ship A grete nomber not told	
In the Grete Bote of the seid ship Remaynyng fyrst	
Serpentynes of yron with myches boltes and forelockes	viij
Chambers to the same	xxv
Serpentynes of Brasse apon shodd wheles	j
ffawcons of Brasse apon Shodd wheles	ij
In the Storehouse of the shipp	
Bowes of Ewe	cxxiiij
chestes for the same	ij
hole chestes of Arrowes	iij
Billys	cxliiij
moryspykes	lxxx
Backes and Brestes of Almyne Ryvettes of ether	cc
Splentes[1530]	clxxxxviii payer
Salettes[1531]	cc
Standardes of mayle	cc
chargyng ladylles for Gonnes with staves	vj
staves withowt ladelles	viij
Spare miches for Gonnes	xiiij
Spare boltes	ij
Javelyns	ix dossen
Dartes	lvij dossen

hamers for Gonnes	xiiij
Crowes of yron	iiij
Stokepykes of yron	xiiij
lynch pynnes	iiij

APPENDIX B
THE MUTINY OF THE *GOLDEN LION*

On the 19th April 1587, Drake with the *Bonaventure*, *Lion*, *Dreadnought*, *Rainbow*, and *Spy*, of the Queen's, and some twenty armed merchantmen attacked Cadiz, with results disastrous to Spain. Borough was vice-admiral and in command of the *Lion*. The fleet left Cadiz harbour on 21st April, and on the 30th Borough addressed a long and vigorously worded letter to Drake[1532] protesting that the councils of war called were only nominal consultations where the admiral declared his will, or else merely entertained his visitors who departed 'without any consultacyon or counsell holden.' Drake's answer was to supersede him. All we know further is that on 27th May the *Lion's* company put their new captain, Marchant, on the *Spy*, and sailed away for England with Borough who afterwards declared that he was in daily fear of his life, and therefore had no great reason to try and stop their action. If Borough did not incite them to mutiny the men of the *Lion* must have been for some time full of discontent and ready to desert. The chase of the Bark of Lyme, which took them from under the guns of the rest of the fleet, gave them their opportunity. On 30th May, Drake constituted a court-martial on the *Bonaventure*, of himself and the other superior officers, at which most of the mutineers were condemned to death in their absence. The account of this inquiry gives a vivid picture of the modes of thought among the men, and their ideas of their

rights and duties.

Although time has settled the historical perspective in which we view Drake and Borough, it must be said for the latter that, in 1587, the admiral was only to him, one of half-a-dozen great seamen with whom Borough, and doubtless his contemporaries, thought he could claim equality. He was an experienced commander and one of the four Principal Officers of the Navy; he was, here, second in command to Drake, and it was contrary to all the traditions of the service that the admiral should undertake any enterprise without the advice and consent of his captains. In this matter Drake was one of the first expedition leaders to strike out a line of his own, and Borough, tenacious of custom and what he considered his rights, at once came into collision with him. It was long before Drake's principle of accepting sole responsibility was generally followed. In a private note of farewell to Burghley in 1596, and perhaps with this incident in his mind, Howard, when leaving for the Cadiz voyage wrote,

> 'I have no meaning to ronne any rash or unadvysed course nor to settell any thyng for Her Maiesties servyce upon my own jugment but to yeald to those that shall show best reson.'[1533]

After their return an inquiry was held at which the vice-admiral was charged with neglect of duty at Cadiz.[1534] No actual result followed, but Borough came off with the honours of war since he was not disgraced, and remained one of the chief Officers of the Navy. Burghley appears to have been on his side, and Borough wrote subsequently an effusive letter

thanking him ardently for his support.[1535] From one passage in this letter in which he says that he had hoped that after the inquiry his innocence would be proclaimed, but that 'I have suppressed my greefe in respect of the comandment and charge given me,' it may be inferred that the finding was actually favourable to Borough but not made public, perhaps from a desire not to offend Drake. One other point is worth noticing: if the crew of the *Lion* voiced the general feeling among English seamen, Drake was certainly not loved by them.

ADD. MSS., 12,505, f., 241.[1536]

A generall courte holden for the service of her Ma^tie^ abourde the *Elizabeth Bonaventure* the xxxth day of Maye before Sir Ffrauncis Drake, knighte, generall of Her Ma^ties^ fleete; Thomas Fennard, Vice-Admirall; Anthony Plotte, Leivetenant-generall; John Marchant, serjant-major, and the reste of the captaines and masters of the fleete as followeth,

The generall, att this courte, called in question and judiciallye demaunded of Captayne Merchaunt howe he colde discharge himselfe to answere the departure of Her Ma^ties^ shippe the *Golden Lyon* which he latelye gave him in charge?

Captayne Marchaunt protestinge, with all earnest affeccon, his innocencye alledged and declared,—That there was a great Mutynie growen amonge the Company of the *Lyon* the 27 of this month; as sone as we had given over the chase undertaken, understandinge that she was the Barke of Lyme,[1537] when I requyred the Master that we mighte lye close by the

wynde to recover our generall, the Master answered, 'Well, Captaine, we will.' But presentely one of the quartermasters came and delivered me a lettere in the behalfe of the whole company as followeth:—

'Captayne Marchaunt, Captayne of the *Golden Lyon* appoynted by Sir Ffrauncis Drake, generall of this fleete,—Wee, the Quenes, and yours at this tyme desyre that, as you are a man and beare the name of a captayne over us, so to weighe of us like men, and lett us not be spoyled for wante of foode, for our allowaunce is so smale we are not able to lyve any longer of it; for when as three or foure were wonte to take a charge in hande, nowe tenne at the leaste, by reason of our weake victuallinge and filthie drinck, is scarce able to discharge it, and yet growe rather weaker and weaker; which suerly if it be not loked into, will growe to greate dishonour on your parte, and to a lastinge shame on our sydes, by reason of the moste worthie and the moste honorable challendge of our generall at Caste Calleys[1538] in daringe the kinges deputie, or the kinge himselfe if he were in place, or the proudest champyon he had to come fourthe and chaunge a Bullett with him; but none durste once adventure to come forthe unto him, but the Cowardlike knightes sayde they were not readye for him: a moste worthye enterprise, deservinge lastinge fame to come to the gates of his Courte, yea the strongest holde of his lande, and dare him fourthe. Our hartes were then so boldened and our stomackes so coragiouslye bente, that if theye had byn Tenne to one we rather wished to fighte than to goo to dynner.

But nowe, most unfortunate and unluckie chaunce fallen amongest us by weakeninge of our Lymes, and feblenes of our bodyes, we are not able to abyde the force of them as nowe, and thoughe they be but one to one, the more is our greife; for what is a piece of Beefe of halfe a pounde amonge foure men to dynner or halfe a drye Stockfishe for foure dayes in the weeke, and nothing elles to helpe withall—Yea, wee have helpe, a litle Beveredge[1539] worse than the pompe water. Wee were preste by her Ma^ties^ presse to have her allowaunce, and not to be thus dealt withall, you make no men of us, but beastes. And therefore wee are not determyned to goe any further, but as we broughte the *Lyon*, with our Master's helpe, fourth, so wee will carye her home agayne by the helpe of God, for as the wynde is faire and home we will. And thus Captayne Marchaunt thinke of us as you will and lett us have more victualles to bringe us home, for as longe as it please God this wynde to blowe we will not alter our corse, but home straighte and so thinck of us as you please.

The Quenes men and yours homewardes to our powers.'

And there withall came the Master unto me sayinge, That there was not a man that wolde sett his handes to the saylles.

Noe Master, quoth I, what is it you can not comaunde them to doe, beinge Master of the shippe! Strike the sayles, but it colde not be don for the yeardes weare alonge[1540] before hande, and the Toppes and Shrowdes manned,

and the Master sayde they wolde doe nothinge for him.

To appease this Mutanie I came amonge them myselfe saying, My masters, what soden Mutaine is this amonge you? colde not this have byn spoken of when we were neare the generall, yf any thinge had byn amys there yt had byn redressed; I wolde wishe you take a better corse then this for yt will not be answered. Wherewith for the whole company spake one Crowe, that they wolde not loose the wynde which was fayre and further theye wolde not goe.

I showed them also that for theire victualles there was in the shippe by the confession of the Pursur sufficient for 30 dayes, assuringe them also on my life that as sone as they came to the generall they sholde have a monthes victuall put abourde them presentlye.[1541] But theye cryed alowde they wolde all home, excepte some xii or xvi gentlemen and officers.

To perswade them the rather to staye I said moreover unto them, My Masters, I will nowe imparte unto you a matter which I thoughte to have secreyted untill another tyme, That there is an Island of greate ritches promysed to be delivered to our generall without the losse of one man, I praye you therefore staye and talke with him, and he will laye you downe such reason as shalbe to the contentacon of you all. Whereat one Cornelius one of the gunners said, Well, Captayne, at your requeste we will staye till nighte to speake with the generall, for the which I thanked them all hartylie; howbeit they

presentely layde theire heades togither agayne and came with one voyce sayinge, the wynde is good, we will not staye, we will awaye, all! all! all! When I sawe the Mutaine so farre growen I requested Mr Boroughes that he wolde worke a meane with them to cause them staye, untill they cam to the generall that they might acknowledge him and departe in good order from him. They answered presentely that they wolde not staye for the generall for they knewe what order he wolde take with them.

In the moste of their mutanie I saide unto them, What! is there no honest man will acknowledge their generall, and therewith willed as many as wolde so doe to holde up their hands, which aboute xii or xvi gentlemen and officers did; the reste cryed, home! home!

Then I said, My masters, this plate[1542] hath byn layde before now by the principalles, not by the common sorte which will not be answered. Why, quoth Mr Boroughes, howe speake you that, meane you me? I answered, I wolde I knewe it were you, then wolde I sone tell you of it, but I am suer it is don by the principalles.

Whereupon I requested then I mighte be sett aborde the Quenes pinnis. They tolde me, Noe, that they colde carye me as safe into England as Sir Ffrauncis Drake colde. I answered I wolde never be caryed into England by such a company of unhonest persons as theye were.

Then I requested Mr Borughes that he wolde deale with the Company that I mighte departe for I knewe he might do it. My masters, said he, what unreasonable men are you, will you

neither staye for the admyrall nor lett the man departe! Lett him departe for shame or elles staye for the admyrall, doe one of the two. Then said Crowe, well Captayne, if you saye the worde you shall goe; with that theye were contente.

Then once more I requested Mr Borughes as he was a gentleman and tendred the accon[1543] that he wolde deale once more with the company, for I knewe he might doe it, and promysed as I was a Christian that there sholde not one here of theire heddes perishe, Soe as theye wolde staye and speake with the generall.

He retorned to me agayne this answere, Captaine Marchaunt I have talked with them and theire answere is this, They have had many promises and little performance, therefore they will staye noe longer.

When I sawe them so bent I called to Captaine Clifforde who was in the Quenes pynnis desyringe him to take me in and bringe me to the generall, for that I wolde not be caried into England by a company of such unruly persons.

He cryed unto me that he wolde have me in or elles come abourde for me himself, but theye manned theire Boate and sett me aboarde, which, when one of those in the toppe perceaved, he cryed with an othe, What! will you let him goe! Yf he fetche up the Admyrall before nighte he will overtake us and then you shall see what worke he will make with us.

In the middest of the mutinie I callid the Pursur unto me and demaunded of him for

what cause the company had stinckinge beveredge to drincke, as there were in the shippe 15 tounes of beare, sayinge, that if theye had any such theye sholde have it in thende and drincke the beare as longe as it lasted. Whereupon the company with one voyce cryed, Yea, Captaine, God save your life, yt is your will we knowe that we sholde have it; but we have it not.

The daye before theis matters brake forthe I ymparted my mynde to Mr Borughes, tellinge him that scince the generall is bounde for the Ilandes the next fayre daye that cometh, I will goe abourde him and geve him to understand in what case we stande for victualles that we maye be the better provyded whatsoever befall. Nay, said he, the pursur hath byn with him and he understandeth it alreadye for that wilbe a meane yf he be not mynded to goe for the Ilandes to make him goe thither. And therefore if he will runn into the Indies lett him run, he knoweth alreadye what we want, never goe to him at all for any thinge. Then, I said, when the Pursur was with him he was so busie as he cold not have any leasure and therefore willed him to resorte unto him at another tyme. He[1544] answered as he did at the firste. The same tyme that the *Raynebowe* had her mayne sayle taken from the yearde by weather the Captaine of her desired me to beare up with the generall to give him to understand of his distres. Then quoth Mr Boroughes, The generall seeth in what case he is and beareth all the sayle he can and stayeth not for him, let us staye by him and helpe him. But his desyre is, quothe I, that the generall sholde knowe it presentlye and that his

foremast is spent. Thereto Mr Boroughes answered, The Captaine is a foole and he knoweth not what belongeth to it so well as I doe.

Captaine Clifford sayth and testifieth that a such tyme as he came nere the *Golden Lyon* to take in Captaine Marchaunte he callid to the master of the same shippe, wishinge him to have care of himselfe, to bringe backe the shippe to the generall and to appease the companye, for that he knewe he was a man colde doe much amonge them, addinge further that he was not able to answere it at his cominge home. He answered he colde not doe withall and the company were resolved to goe home. The master of the same pinnisse spake unto him in like manner, or a greate deale more.

Then Captaine Clifforde called to the company and tolde them that if theye wente awaye with her Maiesties Shippe some of them wolde be hanged, upon which wordes Captayne Marchaunt hard them call Capteine Clifforde, Arrant villane.

Upon dewe consideracon whereof the generall sayde:—Althoughe I am not dobtefull what to doe in this case, or yet want any aucthoritie, but myselfe have from Her Maiestie sufficient Jurisdiccon to correcte and punnishe with all severitie as to me in discretion shalbe meete, Accordinge to the Qualitie of the offences, all those sceditious persons which

sholl be in the whole fleete, yet for the confidence I have in your discretions, as also to wytnes our agreament in Judgement in all matters, I praye you lett me heare your severall opynions touching this facte which hath byn declared in your hearinge this daye; In my judgement it was as fowle and untollerable a mutanye as ever I have knowne. Captyne Marchant hath discharged his dutie faythefull as a true servitor unto her Maiestie; all the rest of that shippe, exceptinge only those 12 or 16 which helde up theire handes to wytnes theire wyllingnes to retorne to our company have deserved a shamfull deathe in that theye have forsaken her Maiesties standerd and conyssyon and forsaken her Maiesties Shippes Royal beinge distressed, and as much as in them lyeth hindreth the service in hande for the honor and saffetye of her Maiesties realmes and domynyons. And therefore my fiynall and diffinityve sentence is this—That the master of the said Shippe, the boteswaine, and Mr Boroughe, and Crowe, the pryncipall contryvers and workers of this mutanie, shall, assone as I come by them, wheresoever I find them within my power, abyde the paynes of Death; yf not theye shall remayne as deade men in lawe. All the rest shall remayne also at her Maiesties mercye as accessaryes to this treacherous defection. And thoughe it shall please her Majestie to looke upon them with mercye, yett my sentence is theye shall all come to the Corte gate with halters aboute theire neckes for an example of all such offendours. The whole Councell approved this sentence as iuste and necessarye for avoydinge the like hereafter,

which elles muste needes growe to the utter dissolucon of all her Maiesties service for the sea hereafter.

God save the Quene.

The next paper (f. 243, et seq.), is endorsed

'The voluntary confession of William Bigatt, Master of the *Lion*, under Captain Wm. Burrowes, June 1587.'

Bigatt, of course, desired to clear himself and Borough; but the paper is of interest from the side-lights it throws on naval customs and discipline. Modern punctuation has been inserted where necessary.

The xxvii of Maye 1587 beinge Satterdaye assone as yt was dayelighte wee sawe a sayle a heade of us, which was north northeaste from us as farr as wee coulde well see her; unto the which we gave chase by the comaundement of our captaine, captaine Marchaunte, for that wee thought her to be a Spanierd or Portingall, the winde beinge at weste southweste, our generall with those shipps which were with hime beinge then in sighte of us, and not then farr from us; but the generall kepinge nearer the winde then wee did, for that wee followed chase after the sayle which we sawe as aforesayd, wee lost the sight of the generall with the reste of those that were with him, then beinge abowte eighte of the clocke in the morninge, then beinge with us in companie the *Spie* of her Maiesties, both of us still followinge the chase. And abowte eleven

of the clock before none, beinge then but three houres after wee had lost sight of the generall, wee sett up the sayle and spake with him, yt was one of our owne companie, a Barke of Lyme, but shee departed from us a five dayes before with others for to come home for England.

As sone as wee had spoken with this Barke I called unto the companye as yt is the use of sea menn for to doe, and willed them to take in our sprett sayle but they awnswered me not that I hearde anie thinge att all at that time; but I thinkinge that it had bin doun according as I willed them which was that they should gett yt in. A little while after I came forewardes againe to the mayne maste, and asked, What? is your sprett seyle in? but none awnswered, neither that yt was in, nor that it was not in, and John Terrye, beinge one of our quartermasters, walkinge afore the maste, I called unto him and willed that the Sprett Sayle shoulde be got in that wee might kepe our loofe;[1545] he awnswered me that the companie said theye would not take yt in. No! said I, what is the cawse? Whoe be they that saye they will not? He awnswered, they all in generall saye soe; I demaunded, Whie will they not? he awnswered that the captaine, captaine Marchaunt, knew the cawse, and that the cawse whie was delivered him in writinge. Then I went unto the captaine, he, with his lieftenaunte Mr Nicholls, beinge then readinge the letter which was delivered the captaine; I also seinge parte of the bill read, wente forwarde againe to the maste and called unto them and willed them that they should gett in theire sprett sayle and haile afte

our shoowtes[1546] that wee might goe unto our generall and the reste of the fflete, but none of them would goe abowte to doe yt by anie sayinge that I coulde saye unto them. Then I wente unto the captaine, captaine Marchaunte, and toulde him that I had willed the companie to gett in the Sprett Sayle and hale after our showttes, but I could gett none of them to doe yt by anie meanes; he himself then goinge forwarde to the mayne maste, demaunded, whie they did not as the master comaunded them, and, as yt will be proved he comaunded them in her maiesties name to doe yt. The moste parte of them awnswered hime that they would not, but that they would goe for England, for the winde is nowe good, and that they would not goe backe againe and be starved for wante of victualls; the captaine awnsweringe them againe sayd, Contente yourselves, what victualls soever are in the shipp you shall have yt, and therefore holde yourselves contente untill wee mete with our generall. They said againe, they have had manye faire woordes, but nothing performed in dedes. Then I myself, perswaded them that theye would contente themselves and that they woulde hale afte the showttes, that wee might tarrye and not goe home, but that the generall shoulde knowe of theire goinge, and not for to goe awaye in that sorte, not makinge him acqueinted of the departure of the shipp, and soe likewise did captaine Marchaunte requeste them that if theye woulde nedes goe that they would stay but untill nighte to see yf wee coulde possible mete with the generall, yf not that then they might doe as they thought good;

and Mr Burrowes did likewise intreate with them that they, would staye and not goe awaye in that order; then Cornelius the Gonner intreated with the reste of the Gonners and parte of the companie to tarrie untill nighte to see yf wee could mete with the generall, and with mutch adoe had almoste gott them to staye. And then I willed them to hale afte our showttes, and willed hime to putt the healme to Lee, and keep his Loofe, but yt was not donn as I willed them; then I wente afte to see yf the helme were a Lee as I willed hime to putt yt, and looked downe at the Skuttle, and there I sawe one bearinge the helme on the contrarye syde which was on the weather syde which was one Crowe. Then I called unto him and willed him to putt on the Lee, but he would not doe yt by anie meanes; then I called unto him againe and asked him, Whie doest thou not as I bidd thee, you wilbe Master belike, will you! said I unto him, whoe awnswered me, Yea, that I will, and Captaine to for a tyme, untill there be other order taken! so that neither the helme was putt alee not yet I coulde gett the showttes haled afte.

Then I wente and certified the Captaine what awnswer was made me by Crowe: and then saide the companie we will not staye to speake with the generall; the cawse was asked by me whie the would not staye, (of Cornelius the gonner because he did saye unto the captaine that he would perswade them to tarrye untill nighte to speake with the General), then Cornelius awnswered that they said theye would not staye for feare that the generall would take them owte of the *Lyon*, and shifte

them into other shipps, and then use suche punishemente unto them as he thought good, and therefore they would not tarrie but go home for England, for they would rather truste to the Quenes mercye then unto the curteseye of the generall, and that they would awnswer yt at home that they had donn. When Captaine Marchaunte sawe that by no perswasioun they would alter there mynds he was verye angrye, and said that this was no newe matter begonn, but that yt bin begoon to have bin practised before this tyme by somme of the beste and not of the worste. Then I replied againe and said that I, for my part, am ignoraunte and never knewe of the matter before this tyme, nether did I ever knowe whoe did beginn yt, and therefore Sir I praye you doe not chardge me with anie suche thinge, ffor tryall whereof I called the companie and certified them of the woorde that Captaine Marchaunte spake, and they generallie (I meane those men that were at this broyle) confessed and saide that as God shoulde iudge them that neither I nor Mr Burrowes was ever consentinge unto the matter, but that yt was theire owne doinge and that theye would awnswer yt.

Then Captaine Marchaunt and I fell to perswadinge them again to tarrie but by no meanes they woulde at our requeste yelde unto yt; then the captaine tolde them that he would not goe for England but that he would rather leape into the sea then goe home. Then John Tippett standinge by the mayne maste drewe oute his kniffe and cutt the halliardes of the mayne Toppsayle that yt might comme downe but theye had slonge the yarde alofte soe that

the sayle coulde not comme downe. Then Captaine Marchaunte prayed them that yf by noe meanes theye would staye for the Generall untill nighte that theye would sett him aboorde of the *Spie* her Maiesties pinnase who was all this while with us, and with mutche adoe gott them at the laste to doe yt, and I myself did offer the captaine to goe with hime aboord the generall but he was not willinge that I shoulde, and yett I offered to goe with hime twise.

And Captaine Clefforde, captaine of the *Spie* sawe all this broyle in our shipp; he called unto me and said, Master, have a care of your creditt; I awnswered him againe, Alack sir! I am but one mann, I have donn as muche as I can to perswade them but by noe intreatye can make them to tarrie. Then Captaine Clefforthe called unto them and saide, Take hede what you doe for you wilbe hanged all of you! Then one of our gouners standing uppon our poope awnswered Captaine Clefforthe againe, and saide, Cutt hose! cutt hose! where were you when the *Samaritane* was aground uppon the rock? And one of our quartermasters did saye, I thancke you Sir for your sharpe judgmente, yt is a harde fought feeld were none escapethe! And when our captaine was in the boate at shipp sterne Mr Burrowes fell to perswadinge them againe to staye untill nighte but theye would not in anie case staye. Then our captaine, captaine Marchaunte went aboord of the *Spie* and soe she went awaye from us, and wee laye by the Lee for our boate; and in the meane tyme, whyle the boate was awaye, I said unto them, Sirs, what have you donn, you have donn you knowe not what, you care not, but I

knowe that I and Mr Burrowes shalbe brought to be in all the faulte; yf you would have donn thus and goe awaye in this order, whie did you not tell neither the captaine nor me the other daye when as we spake with the Generall, that wee might have given him to understand that you woulde goe for England, that he might have provided more victualls for you yf that you shoulde staye, and not thus to goe awaye? But noe perswasiouns woulde serve but home they would and soe they haled abowte the sayles and homewards theye came. And this was not the doinge of one or twoe of them but the consente of them in generall, or the moste parte of them, as well souldiers as maryners excepte those that were sicke at that tyme; and this is the trewithe and nothinge but the trewithe as yt shalbe proved.

APPENDIX C
SIR JOHN HAWKYNS

The question whether Hawkyns was dishonest is not in one sense of much importance, since it is admitted that he was skilful as a seaman, and efficient as an administrator. In another sense the good or ill fame of a national worthy is of the highest importance as interwoven with national history, and therefore a factor in the memories which make for the self-respect of a nation. As in the *Dictionary of National Biography*, a work which will be the standard authority for posterity, Hawkyns is considered to have been guilty, it is fitting that, in a study of Elizabethan naval administration, the charges should be examined somewhat minutely. His memory has suffered from his reputed introduction of the slave trade into English commerce, and from the cumulative effects of accusations brought against him, which have been accepted without investigation of their nature or of the character of the accusers. His reputation has also suffered from the indiscriminate praise lavished upon him by ill-advised panegyrists. In view of his environment it must be admitted there is a strong *prima facie* probability that he or any other Elizabethan official was a thief; 'the spacious times of Great Elizabeth' included much more than literary excellence, colonising genius, and naval success. Sufficient evidence has been given in this work to show the low standard existing among all ranks of naval officials, and more, relating to other classes of society, could

be extracted from the State Papers. The court was proverbially corrupt, and a recent writer[1547] gives striking illustrations of the lax morality characterising all grades of the Elizabethan social system.

It was said that Hawkyns neither built nor repaired the ships according to his contract, that he used old cables and rotten oakum, that he blackmailed shipwrights and workmen, and that he was in partnership with a private builder, in whose yard he built ships for himself with government timber, and fitted them out with government stores. If these things were true the whole naval administration must have been in a state in which the least strain would have brought it down in ruin, but the more serious allegations are sufficiently disproved[1548] by the fact that when the fate of England depended on the condition of the fleet, it was found, in the hour of need, to be absolutely efficient in all the many details for which Hawkyns was responsible. If, however, we are to suppose that he confined his malpractices to matters not likely to injure the *matériel* of the Navy, it can only be remarked that they can have been but very small in extent, and that fraudulent officials are not usually so considerately and judiciously patriotic. In considering what may or may not have been true, it is only fair to Hawkyns to emphasise the fact that these anonymous indictments —and many of those urged against him were anonymous—were levelled against nearly every person holding an administrative position in the service of the crown; delation, whether religious, political, or social, was a recognised occupation requiring no capital, offering the possibility of large rewards, and welcome to the government and the Queen. Hawkyns, when he was appointed, made a

clean sweep of many naval abuses of long standing, and had certainly made enemies in Sir William Wynter[1549] and others, with whom at least one informer,[1550] who also had personal reasons for disliking the Treasurer, appears to have been on very friendly terms.

Hawkyns not only received no help from his brother Officers, but had to contend with their open or secret hostility.[1551] Wynter was the person to whom everyone who had a grievance against Hawkyns, went for help and advice; and if we may judge of Wynter's hopes and intentions by his capacity for treachery he must have been a dangerous antagonist. In 1585, he wrote to Burghley, of Hawkyns and his work, 'As I desier compfort in Gods handes there is nothinge in it but cunninge and crafte to maynteine his pride and ambision and for the better fillinge of his purse ... he careth not to whom he speaketh nor what he sayeth, blushe he will not.'[1552] But in 1587, he wrote,[1553] 'Wee are thorowlye perswaded in our conscience that he hath for the time since he took that bargaine[1554] expended a farre greater somme in carpentrie uppon her Majesties shippes then he hath had eny wage allowance for;' the moorings, shipkeepers', and clerks' wages, 'have byn payde and sufficientlye done by him.' As a commentary on this last letter, we have a statement of the same year, not it is true, by Wynter, but by Wynter's servant, that the friendship now shown was only a pretence, and that 'You knowe howe many wayes my master hath sought against him and could never prevaile and therefore he closeth with him to catch him at a suer advantage.'[1555] As Surveyor Wynter was a brother Officer of equal rank, and nearly equal power, with whom Hawkyns had to work. But putting aside any

criticism of the code of honour here shown, it may fairly be asked why should Wynter have displayed this eagerness to ruin Hawkyns, at all costs and by any means. There could be only one of two reasons; either an honest desire to save the Queen and state from deceit and robbery, or a selfish desire to regain the position and perquisites of which the reforms initiated by Hawkyns, and the latter's masterful personality had deprived him. I do not think that any student of Elizabethan history will hesitate as to which reason moved him. As for Borough, he wrote to Burghley, in 1584, that Hawkyns deserved hanging; but that did not prevent his joining Wynter in the letter of 1587, doubtless with the same intentions.[1556] In another paper of 1587, and endorsed by Burghley as being by Thos. Allen, the writer, after a long arraignment, kindly offers to undertake Hawkyns' duties.[1557] It is an extremely important fact that most of these men obviously hoped to gain some personal advantages by displacing him. Allen was 'Queen's merchant,' or purchaser of Dantzic cordage and, according to another informer, had been so friendly with Hawkyns as to receive a bribe of £60 from him out of the first contract of 1579.[1558] He eventually quarrelled with the other Officers he was now supporting, and in 1592, complained of them to Burghley. The internal history of the Navy Office at this period is a perfect maze of intrigue, and there was not one of these men who, at some time, was not doing his best to supplant others with whom before and afterwards he was, or became, friendly, perhaps to quarrel again in due course. No doubt the appointment of Hawkyns was regarded as a piece of family jobbery, and, as a fact, was very likely more due to influence than merit. By both seniority and

reputation Wynter had, in 1578, a much better claim to such an important post.

That Hawkyns used his official position to obtain discounts, commission on contracts, and other such emoluments, is quite possible; such things are not unknown even now, are distinct from deliberate embezzlement, and would hardly be condemned by public opinion in the sixteenth century. It can hardly be made an article of accusation against him that he became a wealthy man, even if there were much left after the expenses were paid of his last unlucky voyage. The yearly fee of the Treasurer was not large —£220, 18s 4d, out of which he had to pay his travelling expenses when on the Queen's service— and it was expected and permitted, in both his contracts, that he should keep any outstanding balance as profit, provided the work was properly done; and there was nothing in the ethics of his position, as then understood, debarring him from shipping and other mercantile transactions. The best proof that both Elizabeth and Burghley were satisfied that his gains were not too great lies in the fact that both contracts were determined at his own request, and that, notwithstanding his supposed peculations, their knowledge of them, and the efforts made to remove him, he held his post till the day of his death. He is accused of being in partnership with Richard Chapman, the master shipwright. Chapman appears to have had a private yard, but there is no warrant for the precise statement beyond the words of another anonymous writer that he 'used Richard Chapman's yard.'[1559] There is no guide to the year or years in which he is said to have had work done by Chapman. This man did not become a crown shipwright till about 1582, and it may very well be that Hawkyns employed him before he was taken

into the service of the crown. Another reflection is that in these transactions with Chapman there must have been witnesses, in the shape of workmen and others, not one of whom was ever brought forward. In all these papers we are only given the statements of the writers; there is never a suggestion of corroborative evidence. The anonymous writer just quoted says, among many other things, that the ships are in such bad condition that 'they are brought to their last end and dangerous state.' This was in October 1587, and the events of the next year proved that to be a peculiarly unfortunate assertion. This particular delator was ignorant of that necessity for verisimilitude which is one of the first requirements of his business. He charges Hawkyns with illicit profits on the remains of victuals returned from sea, not apparently knowing that the Navy Treasurer had as little connection with, and as little control over, the victualling as over Westminster Abbey. Again, he goes on to say, 'the shipwrights are his instruments to serve his purpose and cloak for his dissembling,' and thereupon it is to be observed that some of these writers represent him as sharing dishonest gain with the shipwrights, while others pathetically deplore the shipwrights' hard fate in being subjected to his terrorism; some represent him as quarrelling with the men with whom others maintain he was secretly in league for underhand purposes. We know, however, that Hawkyns possessed vessels of his own and the circumstance that he had them repaired in a private yard, when he might have used the government slips is really a strong point in his favour, although used by his enemies as the basis of truth on which to build up the liberal superstructure of 'unjust and deceitful dealings.'

It is said that, although there was no formal

inquiry made into the truth of the allegations against Hawkyns, Burghley satisfied himself that they were not unfounded, and drew up a set of stringent regulations intended to prevent their recurrence, noting on the rough draft, 'Remembrance of abuses past, John Hawkyns was half in the bargain with Peter Pett and Mathew Baker.' Nothing exists but this rough draft[1560] which includes notes relating to the other Officers as well as to Hawkyns, to shipwrights, and a memorandum on the increased scale of wages recently come into operation. There is no evidence that any inquiry was held, other than which took shape in the explanations Hawkyns offered in his numerous letters to Burghley still existing. Moreover if these regulations were issued with an especial reference to Hawkyns it is to be noticed that it would be his duty as the chief administrative Officer of the Navy to enforce them and apply them to himself. Was Burghley usually so confiding?

In January 1587-8 Pett and Baker were called upon to report on the second contract and how far it had been accomplished.[1561] Their report was unfavourable, but it will be remembered that, by this second 'bargain,' Hawkyns had undertaken, at a cheaper rate, the work they did under the first one, and reduced them from an independent to a subordinate position.[1562] Their feeling in the matter is shown by the way they dealt with the third article, on the repair of ships, which Hawkyns had taken out of their hands. They remarked that it was done better before—that is when they were doing it —'for before the master shipwrights did direct but now they are to be directed.' This was the grievance. Not only were they both displaced competitors, but Baker had long been connected with the Wynter faction; and Pett and Hawkyns had, in 1587, fallen

‘at variance upon accomptes.’ In 1585 Pett had joined Hawkyns in condemning Baker; now his interests brought him into line with Baker.[1563] Burghley cannot have believed that, in 1587 at any rate, Hawkyns was in confederacy with these two men, or it is hardly likely that they would immediately afterwards have been chosen to sit in judgment upon him, especially as Burghley must have known that Pett was a new, and Baker an old enemy. Further, there is a curious similarity between Burghley’s note and a passage in Allen’s attack before referred to,—‘Mathew Baker sayeth that when Peter Pett and he did the repayringe of her Maties Shippes Hawkyns would needes be hallfe with them.’ The resemblance between Burghley and Allen suggests the possibility that the former paraphrased his note from the latter without independent inquiry; but, in any case, it may be pointed out that it is an indirect report of what Baker said, that according to this account Baker permitted himself to be blackmailed although he had for years been at enmity with Hawkyns, and that he concealed his woes from all his superiors until he poured them into the sympathetic ear of Mr Allen. There was nothing to prevent his petitioning Burghley as everyone else did; and it is still more strange that, so far as we know, he was never called up and examined on this statement made to Allen. The two lines in Burghley’s handwriting comprise in truth the only evidence of any weight against Hawkyns, but they are mysterious as they stand for they imply that he put himself in the power of avowed enemies, and we are left quite ignorant of the proofs—if there were any—on which they are based, or how far Burghley subsequently modified his opinion. That he did so modify it, or perhaps altogether change it, is, I think, proved by

the letter quoted *supra* p. 147. There is significance in the fact that, so far as rivals and inferiors were concerned, these attacks practically ceased after 1588; it must have become known that Burghley no longer received them trustingly.

The supervision Elizabeth exercised over his accounts, the ‘mystrust’ of which he complained, has been attributed to the good reason she had for doubting his integrity. That Elizabeth haggled over his accounts proves nothing by itself, for it would be difficult to name any one of her officials whose figures were not subjected to the same suspicions and distrustful scrutiny. But it has yet to be shown that his contemporaries, other than the subordinates whose perquisites he had extinguished, and the rivals whom he had displaced, doubted his integrity. Sir Robert Mansell is quoted as saying that Hawkyns combined ‘malice in dissimulation, rudeness in behaviour, and was covetous in the last degree.’ Hawkyns may have been rude—he was not so successful at court as Mansell, though he was more successful at sea. But, without going into Mansell’s value, as a witness—and he, on evidence of a very different order, has been shown to have stolen hugely as Treasurer—it will be noticed that, although moved by evident animus, he makes no accusation of dishonesty. Again, Sir Robert Cotton in his report (1608) on the then abuses of naval administration has, in referring to previous conditions, occasion to mention Hawkyns frequently, and invariably takes the period of his control as a standard during which the business of the Navy was well and honestly done. Monson’s opinion is important as that of an undoubtedly competent and trustworthy observer, and one of unstained repute as

a commander. He commenced his naval career in 1588, so that it was in part contemporaneous. He desires, when criticising the Navy Office of the reign of Charles I, to 'bring it to the state of Hawkyn's and Burrough's time who were perfect and honest men in their places, the one Treasurer and the other Comptroller.'[1564] There is matter for further consideration in the circumstance that all the men who depose against Hawkyns—Peter Pett, Baker, Wynter, Mansell, Sir Peter Buck, the writers in the State Papers and the *Lansdowne MSS.*—are persons of tarnished honesty, or interested motives, and at least four of them known to have been his personal enemies; while on the other side we have Cotton, Monson, Nottingham, and—after 1588—Burghley, witnesses of very different force. In the absence of a verdict proceeding from a judicial inquiry, their evidence must be allowed more weight than that made up of the stabs of anonymous slanderers, jealous rivals, and envious subordinates.

Hawkyns was doubtless a rough, masterful man, readier with the iron hand than with the velvet glove, more popular with the seamen whose ranks he had left than with the officials whose ranks he had joined. He was not a great man, but his services to England were great, and entitle him to kindly consideration at the hands of all Englishmen. But, before branding his memory with the stain of systematic fraud, it is well to examine closely the doubtful shreds and tatters of scandal on the strength of which he is to be condemned, or—worse still—offered the contemptuous charity of condonation.

APPENDIX D
A PRIVATEER OF 1592

The two prizes taken by the *Amity* were the *St Francisco* of 130, and the *St Peter* of 150 tons, laden with 112 tons of quicksilver, and 28 tons of Bulls, 1,458,000 in number, for 'lyvinge bodyes' and 'dead bodyes,' which were to be sold in New Spain at two reals apiece. The ships also carried some wine, and the freightage paid to the owners was 40 ducats a ton. The armament of the *St Peter* is not given, but was probably little more than that of the *St Francisco* which carried[1565] three iron guns, two copper pieces of 20 quintals[1566] each, and one of 14 quintals. There were 90 round, and 40 chain shot for these guns with nine quintals of powder. Twenty muskets, and other arms of offence and defence, were also carried. Her crew numbered 28 men and two boys and she was licensed to take twenty passengers; if therefore 126 living persons were found in the two ships after the action, the *St Peter* must have furnished a much larger proportion or there must have been, as was common enough, a number of unlicensed passengers.[1567] If a loss of two killed and three wounded, in an action lasting five hours and with two antagonists, was an ordinary one, fighting at sea cannot be considered, in view of the normal mortality from disease on shore in the sixteenth century, to have added materially to the risks of life.

According to Malyne[1568] these Bulls were laded by Sixtus V. When they came to England Dr Lopez,

the Queen's physician, who was afterwards executed on a charge of being concerned in a plot to murder her, obtained them by purchase or as a gift. He and a partner started them again for the West Indies but the Pope's agent stopped their sale, alleging that they had lost their virtue by having been in heretic possession. The factor representing Lopez, not to be outdone, said that they had been miraculously saved, but the speculation was a failure.

LANSDOWNE MSS., 70-23

The ordre and mannour of the takinge of the twoo Shippes laden with Quicksilver and the Pope's bulles bound for the West Indas by the *Amitie* of London, Master, Thomas Whytte.

The 26th of July 1592 beinge in 36 degrees[1569] or thereaboutes, about 4 of the clocke in the morninge, wee had sight of the said Shippes beinge distaunte ffrom us about 3 or 4 leagues; by 7 of the cloke we ffeatched them up and were within goonn shotte whose boldnes (havinge the kinges armes dysplaide) did make us conceave them rather to be ships of warr then laden with merchandize. And as yt dothe appeare by some of theire owne Speeches they made full accompte to have taken us, and was Question amongst them whyther they should carrye us to St Lucar or Lishebonn. Wee wayfed eche other amaine,[1570] they havinge placed themselves in warlyke ordre, thone a cabolles lenght before thoother, we begonne the fight in the which we continued so faste as we were able to chardge and dyschardge the space of fyve houres, being never a cabells lenght dystaunte eyther of us the one from the other,

in which tyme wee receaved divers shottes both in the hull of our ship, mastes and sayles, to the number of xxxii greate shotte which we told after the ffighte, besydes fyve hundreed muskett shotte and harquebuye acroke[1571] at the least. And for that wee perceaved they were stoute, we thought good to boorde the byskaine[1572] which was a heade the other, where lyinge aboord aboute an houre plyinge our ordenaunce and small shotte with the which we stowed[1573] all his men; now they in the flybotte makinge accompte that wee had entreed our menn, bare Roome[1574] with us, meaninge to have laide us aboorde, and so to have entrapped us betwene them both, which we perceavinge, made redy ordenaunce and fytted us, so as wee quitted ourselves of him, and he boorded his ffelowe, by which meanes they both fell from us. Then presently we kepte our looffe,[1575] hoysed our topsayles, and weathered them, and came hard aboord the flibotte with our ordenaunce prepared, and gave her our whole broadeside with the which wee slewe divers of theire menn, so as wee might perceave the bloud to Runne out at the Scoopers; after that wee caste aboute, and new chardged all our ordenaunce and came upon them againe and wylled them Amaine, or else wee would synke them, whereupon the one would have yelded which was shotte betweene wind and watter, but the other called him traytour; unto whom we mad answere that if he wold not yeld presently also we would synke him first. And thereupon he undrestaundinge our determinacon, presently put out a whyt fflagg and yelded, howbeyt they refused to

stryke theire owne Sayles, for that they were sworne never to stryke to any Englishmann. Wee then commaunded the captaines and masters to come aboorde of us which they dyd and after examinacon and stowinge them, wee sent aboord them, strooke theire sayles and manned theire shipps, findinge in them bothe one hundreed and twenty and six soules lyvinge, and eight deade, besides those which they themselves had caste overboorde, so yt pleased God to geve us the victorye, being but 42 menn and a boye, of the which ther were two killed and three wounded, ffor which good succeasse wee geve the onely prayse to Allmightye God.

FOOTNOTES

[1] *United Service Magazine*, October 1880.

[2] But that the public have yet much to learn was shown by the ignorant complacency, ludicrous if it were not so dangerous, with which the mobilisation of six ships and six destroyers was received in January, after twelve days of official and some weeks of unofficial preparation.

[3] The history of the early navy till 1423, will be found treated minutely by Sir N. H. Nicolas in the *History of the Royal Navy*, Lond. 1847, a work of great research. Here, down to that date, points left somewhat obscure by Nicolas, or upon which more than one view is possible, are shortly touched upon.

[4] According to some writers, the organisation of the Cinque Ports dates from before the Conquest; it was not, however, until after that event that their services became of national importance.

[5] R. G. Marsden, *Select pleas of the Court of Admiralty*, Selden Soc. 1894.

[6] The mention of the word galley in the records is, taken by itself, often misleading. Frequently it meant a small, but fully rigged, sailing vessel, supplied with sweeps for occasional use. Sometimes it appears to have been applied to a sailing ship of particular build, and on one occasion the *Mary Rose*, a ‘capital ship’ of Henry VIII, is called ‘the great galley,’ showing how loosely the word was

used.

[7]

> ‘For foure things our Noble sheweth to
> me
> King, Ship, and Swerd, and power of
> the See.’

Libel of English Policie, supposed to be by De Moleyns, Bishop of Chichester, and written in 1436 or 1437.

[8] That his subjects at one time called him the ‘King of the Sea,’ shows how the fact of his having been the first English king to command a naval battle impressed popular imagination; towards the end of the reign the phrase must have sounded bitter in the ears of the inhabitants of the coast towns.

[9] King and sword were not new on coins, and the ship was usual enough on the seals of the port towns; in them, as doubtless in the noble, it referred to mercantile traffic.

[10] ‘The shifty, untrustworthy statecraft of an unprincipled, light-hearted king, living for his own ends, and recking not of what came after him.’ (Stubbs, *Const. Hist.* ii, 510).

[11] *Rot. Parl.* ii, 311, 319.

[12] The expression ‘ton-tight’ is somewhat obscure, but probably meant complete or measured tons. (Cf. Holloway, *Dict. of Provincialisms*, s.v. *tight*, and Halliwell’s *Dictionary* s.v. *thite*.) In Latin papers it is rendered by such a form as ships ‘ponderis 80 doliorum;’ in 1430 it is described as ‘le tonage autrement appelle tounetight,’ (*Exchequer Warrants for Issues*, 9 Feb). It was not necessarily restricted to ship measurement since, in 1496, stone and gravel for dock

building were being purchased by the ton-tight. It is therefore possible that it referred to weight as distinguished from the cubic space occupied by a tun of wine, the original standard of tonnage capacity.

[13] At various times, from the thirteenth to the first quarter of the sixteenth century, the phrases, 'of Westminster,' 'of the Tower,' and 'of Greenwich,' were successively equivalent to the later 'H.M.S.' The meaning, here, is that there were 150 vessels fit for use as men-of-war.

[14] *Ancient Petitions*, 5477 (R.O.) 'A tsnobles et tssages seigneurs diceste present parlement supplient tres humblement toutz les possessoures des niefs dedens ceste roialme q come en le temps du noble Roi Edward et ces predecessours q a chescun fois qaunt ascun nief furent ordeigne de faire ascun viage q le possessour de tiel nief prendrent del ton-tight 40d en le quart par regard damender la nief a lappaill dicell et la quart part del prise par eux fait sur la mer par quelle regard la naveie diceste roialme alors fust bien mayntene et governe si q a icelle temps furent tondez prestz dens la roialme 150 niefs del Toure et puis la deces du noble roi Edward en le temps de Richard nadgaiez roi Dengleterre le dit regard eston demenise jesqs 11s le ton-tight et cci estee tsmalement paie si q les possessours des tielx niefs mount ils null volunte de sustener et mayntener lour niefs mais ils onct lesses giser desolat pur quel cause la navie diceste roialme est ency dimennise et empeire q ne soienct en tout la roialme outre 25 niefs del Tour.'

[15] *Le Compte du Clos des Galées*, 1382-4. Soc. de l'histoire de Normandie, Mèlanges, Ser. II, Rouen 1893.

[16] 5 Rich. II, c. 3.

[17] In view of the difficulty owners of impressed ships experienced in obtaining payment it may be suggested that it was possibly due to the influence of that class that it was bestowed for a specifically named purpose; if so, the hope of obtaining prompter settlement was not realised.

[18] For proofs that notwithstanding wars, taxation, feudal rights, and every other drawback, the towns, as a whole, were steadily growing in wealth, see Mrs J. R. Green's, *Town Life in the Fifteenth Century*.

[19] There was a contemptuous Continental saying, 'We buy the foxskins from the English for a groat, and resell them the foxes' tails for a guilder,' which is expressive enough.

[20] *Exch. Accts.* (Q.R.), Bdle. 49, No. 29, and *Roll of Foreign Accounts*, No. 8. The tonnage of the *Grace Dieu* is only mentioned twice, and, in one of those two mentions, is given as 1400. This must be a mistake on the part of the Treasury clerk. The 1000 tons of the *Jesus of the Tower* seems very suspicious, but as in nearly every instance, the tonnage is only once given there is no opportunity for collation.

[21] Rebuilt.

[22] With the exception of the *Agase* taken in Southampton water; a French fleet having visited the English coast in May, before the Duke was ready for sea.

[23] Spanish, *ballenere*, long low vessels for oars and sails introduced in the fourteenth century by the Biscayan builders (Fernandez Duro, *La Marina de Castilla* p. 158.)

[24] *Rot. Pat.*

[25] *Roll of Foreign Accounts*, No. 8.

[26] Foremast. French, *mât de misaine*.

[27] *Exch. Accts.* (Q.R.), Bdle. 49, No. 29. 'Turris ligni vocat Bulwerk ... super introitu portus de Hamell per salva custodia naves.'

[28] 'Unius fabrice.'

[29] Binnacle.

[30] *Somerhuche* is derived from old English *Somer*, a bedstead, and old French *huche*; it was originally, therefore, a sleeping place.

[31] *Acts of the Privy Council*, 3rd Mar. 1423. Nicolas says (Introduction, vol. v, cxxxvi), that the whole of the navy was ordered to be sold, but the wording of the entry does not support this authoritative statement. The later records prove clearly that they were not all sold; but whether because no such wholesale clearance had been intended, or from want of purchasers, there is no conclusive evidence to show.

[32]

> Where bene our shippes?
> Where bene our swerdes become?
> Our enemies bid for the shippe sette a
> shepe,
> Allas oure reule halteth, hit is benome;
> Who dare wel say that lordeshippe
> should take kepe?
> I will asaye thoughe mine herte ginne
> to wepe,
> To doe thys werke yf wee wole ever
> the (thrive)
> For very shame to kepe aboute the
> see.'

If Adam de Moleyns was the author his death by violence at the hands of seamen, in 1450, had an especially tragic unfitness.

[33] 'Per contrarotulacionem.'

[34] *Exch. War. for Issues*, 26th Jan. 1430.

[35] *Rot. Parl.* iv, 402.

[36] *Ibid.* iv, 489.

[37] *Debate of Heralds*, p. 49 Lond, 1870.

[38] 2 Henry V, c. 6.

[39] *Rot. Franc.* sub annos.

[40] *Fœdera* xi, 77.

[41] *Fœdera* xi, 258.

[42] *Rot. Franc.* 12 Mar. 1444-5.

[43] *Rot. Parl.* v, 59.

[44] *Exch. Accts.* (Q.R.), Bdle. 53, No. 23.

[45] 'Tenggemouth.'

[46] Port of origin not given.

[47] *Exch. Accts.* (Q.R.), Bdle. 54, No. 14.

[48] The large ship is the *Trinity*; there was a *Christopher* of Dartmouth in 1440 also of 400 tons.

[49] Considering that the lists of Elizabeth's reign are much more nearly complete.

[50] *The Debate between the Heralds of France and England.* Lond. 1870. Assigned to 1458-61, and supposed to have been written by Charles, Duke of Orléans, for twenty-five years a prisoner here and therefore qualified by opportunity to form an opinion.

[51] Bishop Stubbs (*Const. Hist.* iii, 268) says 'The French administration of the Duke of Bedford was maintained in great measure by taxing the French, rather than by raising supplies from England.' This may be true of the civil administration but there are innumerable warrants for the whole reign

directed to the English Exchequer for the Payment of English and French captains who undertook to provide bands of men-at-arms or archers.

[52] *Roll of Foreign Accounts*, No. xiv.

[53] *Roll of Foreign Accounts*, No. x.

[54] *Ibid.*

[55] *Ibid.* No. x.

[56] *Roll of Foreign Accounts*, No. x.

[57] *Ibid.* No. xi.

[58] 'Cabanes,' deck structures.

[59] *Roll of Foreign Accounts*, No. xi.

[60] 'Valecto de corone.' In 1455 there were twenty-three attached to the household. The title implied the premiership of that class of society.

[61] *Roll of Foreign Accounts*, No. xii.

[62] *Ibid.* No. xiii.

[63] *Rot. Parl.* iv, 439.

[64] *Roll of Foreign Accounts*, No. xi.

[65] *Rot. Parl.* v, 59.

[66] *Exch. War. for Issues*, 27th June, 1442.

[67] *Roll of Foreign Accounts*, No. xiii.

[68] *Ibid.*

[69] *Exch. War. for Issues*, 28th May 1454. The Rolls of Parliament only name the first four Earls and Lord Stourton.

[70] *Rot. Parl.* v, 244.

[71] 'And as men sayne ther was not so gret a batayle upon the sea this xl wyntyr.' (*Paston Letters*, i, 429, Ed. Gairdner.)

[72] Genoa.

[73] *Exch. Accts.* (Q.R.), Bdle. 53, No. 5.

[74] 'De novo.'

[75] 'Sepis vocatæ hegge.'

[76] Mud.

[77] 'Sede.'

[78] Blank in MS.

[79] *Sic.*

[80] *Infra*, p. 39.

[81] Or 270 tons burden, and 276 ton and tonnage, that is 207 tons in cask, or 276 tons of dead weight cargo.

[82] *Exch. War. for Issues.*

[83] *Ibid.*, 4th Aug. 1463.

[84] *Ibid.*, 7th Feb. 1467.

[85] *Ibid.*, 6th Apr. 1465.

[86] But the Duke of Burgundy had prepared a fleet to intercept Warwick; at the critical moment it was dispersed by a storm. (*Grafton's Chronicle*, p. 686.)

[87] Thomas Nevill, illegitimate son of Lord Fauconberg.

[88] Iron or stone shot.

[89] *Exch. War. for Issues*, 20th July 1461.

[90] *Ibid.*, 5th July 1463.

[91] *Ibid.*, 14th Dec.

[92] *Ibid.*, 18th July.

[93] *Ibid.*, 27th Ap. 1473.

[94] Elsewhere she is called a King's ship, *Fœdera*, xx, 139.

[95] *Exch. War. for Issues*, 16th Aug. 1480. The then largest ship of the French navy, burnt

by accident at Havre 6th July 1545, was called the *Carraquon*.

[96] *Exch. War. for Issues*, 8th June 1468.

[97] *Ibid.*, 17th July 1480, and Devon, *Issues of Exchequer*, p. 500.

[98] *Ibid.*, 31st January.

[99] *Chapter House Books*, vol. 7.

[100] *Aug. Office Bk.*, No. 316.

[101] *Aug. Office Bk.*, No. 316, f. 147.

[102] Eu, on the Norman coast.

[103] *Exch. War. for Issues*, 2nd Dec. 1493.

[104] Smalhithe, the town for Reding creek, was then tidal and had long been a shipbuilding port. Men-of-war were built there as late as 1545.

[105] Sir Rich. Guldeford.

[106] *Chapt. House Books*, vol. vii, f. 35.

[107] 60,000 marvedis = 160 ducats of account, that is ducats of 375 maravedis each. The coined ducat was of 365 marvedis or ten reals twenty-five maravedis, estimated as equivalent to forty-five reals and forty-eight maravedis now (Shaw, *Hist. of Currency*). The real of 1492 contained 51.23 grains of silver (Del Mar, *Money and Civilisation*, p. 93). A century later the Spanish or Portuguese ducat passed for 5s 6d English (Arber, *An English Garner*, iii, 184).

[108] Fernandez Duro, *Viajes Regios por Mar*, pp. 36, 63. It is doubtful however whether any of these ships belonged to the crown or, in fact, whether there was any Spanish Royal Navy, exclusive of the galley service, before the commencement of the seventeenth century.

[109] *Exch. War. for Issues*, 29th Nov.

[110] *Exch. War. for Issues.*

[111] *Ibid.*, 19th Jan. 1496.

[112] *Ibid.*, 7th Apr.

[113] *Exch. War. for Issues*, 7th Mar.

[114] *Aug. Office Bk.*, No. 316, ff. 49-64.

[115] Appendix A.

[116] Cf. Jal, *Glossaire Nautique*, s.v. *Sabord* and *Porte*.

[117] *Aug. Office Bk.*, No. 317, f. 15.

[118] Blue and green.

[119] Ashen colour.

[120] *Aug. Office Bk.*, No. 317, f. 24.

[121] A woollen cloth.

[122] *Tellers' Rolls*, No. 63.

[123] *Aug. Office Bk.*, No. 316, f. 72.

[124] *Ibid.*, f. 70.

[125] 4 Hen. VII, cap. 10.

[126] H. Harrisse, *John Cabot, the Discoverer of North America, and Sebastian his Son*. Lond. 1896, p. 138.

[127] Herbert, *Life of Henry VIII*, p. 125, ed. 1870.

[128] When Charles V sailed from Flushing to Spain in 1517 we read that the operation of lowering a boat took two hours, (Fernandez Duro, *Viajes Regios por Mar*, p. 94). The fleet was made up of 52 vessels drawn from Holland, Zealand and Spain, but this can scarcely refer to the Dutch vessels.

[129] *Royal MSS.* 13, B ii, 56.

[130] Brewer, *Reign of Henry VIII*, i, 21.

[131] *State Papers Ven.*, Oct. 1515, and *Letters and Papers of the reign of Henry VIII*, 6th Nov. 1515. Among his jewels was 'a chayne of golde of threefolde with a whistell and a pece of a unycornes home at it inclosed in gold,' (*Cott. MSS. App.* xxviii, f. 29). The whistle was the badge of the sea officer.

[132] *Exch. War. for Issues*, 29th Jan. 1510 and *Letters and Papers*, i, 3422, viii.

[133] *Ibid.* The pomegranate was a part of the arms of the city of Granada. The capture of Granada and the destruction of the Moorish kingdom had resounded through Christendom, and after Katherine of Aragon's arrival in England the pomegranate was frequently used as a badge.

[134] *Ibid.* The name referred to Mary Tudor, sister of Henry VIII.

[135] *Roy. MSS.* 14, B xxii A. Doubtless the 'carrack of Jene called the *Mary Loret*,' of *Stowe MSS.* 146, f. 29, and the '*Gabriel Royal* or Carrack of Genoa,' of *Letters and Papers*, 15th Dec. 1512. In the absence of other evidence the authoritative dates given in the *Royal MS.* must be accepted, but there is no trace in other papers of the existence between 1509-12, of some of the vessels assigned by it to 1509, and some of the dates can be shown to be wrong.

[136] *Roy. MSS.* 14 B xxii A. Perhaps the *James* of Hull, for which £260 was paid in July 1512 (*Kings Book of Payments*). Rebuilt about 1524, (*Chapter House Book*, vol. vi).

[137] *Roy. MSS.* 14, B xxii A. In March 1512 Sir Ed. Howard was paid £666, 13s 4d for the *Mary Howard*, bought of him (*King's Book of Payments*), and probably the same vessel.

[138] Captured from Barton, the Scotch

privateer.

[139] *Ibid.*

[140] *Roy. MSS.* 14, B xxii A. The *John Hopton*, or 'John Hopton's Ship' of 1512. In Jan. 1513 he received £1000 'for his great ship bought by the king' (*King's Book of Payments*).

[141] Bought from Wm. Gonson and others, (*Letters and Papers*, 24th Apr., 1513).

[142] Certainly a king's ship, but whether bought or built only probable by collation.

[143] *Ibid.*

[144] *Ibid.* First called the *Christ* of Lynn.

[145] First mention of *Lizard* and *Swallow*, *Letters and Papers*, 15th Dec. 1512. Described as new ships, 22nd Mar. 1513 (*Cott. MSS. Calig.* D. vi, 101).

[146] *Letters and Papers*, 15th Dec. 1512. A Genoese carrack.

[147] First mentioned *Letters and Papers*, 15th Dec. 1512.

[148] *Ibid.*

[149] *Ibid.*

[150] *Ibid.*

[151] *Ibid.* The *Kateryn*, *Rose*, and *Henry* are described as new in *Letters and Papers*, 27th March 1513.

[152] *Letters and Papers*, 15th Dec., 1512, and July 1513, and *Fœdera* xiii, 326.

[153] 'The *Great Barbara*, before called the *Mawdelyn*.' First mentioned July, 1513.

[154] Elsewhere 'the *Marc Fflorentyne*, otherwise called the *Black Bark Christopher*.'

[155] Probably 'the carrack of Hampton'

bought in March 1513 for 6000 ducats from Fernando de la Sala (*King's Book of Payments*).

[156] The *Salvator* of Lubeck, bought for £2333, 6s 8d, *Letters and Papers*, 8th Aug. and 25th Oct. 1514; *Exch. Var.* 244/6.

[157] Commenced 4th Dec. 1512; 'hallowed' at Erith 13th June 1514 (*King's Book of Payments*).

[158] Probably the 'new galley' of *Letters and Papers*, 6th Nov. 1515, and replaced or rebuilt, *Roy. MSS.* 14, B xxii A.

[159] Bought of John Hopton for £500 (*King's Book of Payments*).

[160] *Chapter House Book*, vol. xi, f. 72.

[161] *Roy. MSS.* 14, B xxii A.

[162] 'The *Great Mary and John*, the Spaniard Ship,' (Q.R. *Anc. Misc. Navy* 616c, 6), or 'the great Spaniard that the emperor gave the king' (*Letters and Papers*, iii, 3214). The earlier *Mary and John* had disappeared by this time.

[163] *Roy. MSS.* 14, B xxii A.

[164] *Ibid.* Zabra was used both in Italian and Spanish for pinnace.

[165] *Ibid.*

[166] *Ibid.*

[167] *Ibid.*

[168] First mentioned *Letters and Papers* July 1524, also *Aug. Office Book*, No. 317, but probably the *Mary* of Homflete, a prize, and taken into the service.

[169] According to *Roy. MSS.* 14, B xxii A, dating from 1511, but the name does not occur in the State Papers before 1522.

[170] *Roy. MSS.* 14, B xxii A.

[171] *Cott. MSS. Vesp.* C. ii, and *Letters and Papers*, 12 Apr. 1523. Rebuilt as a 300 ton ship about 1536 (*Letters and Papers*, x, 1231).

[172] *Letters and Papers*, 3rd June 1523 and *Q.R. Misc. Navy* 867/5, 2nd Feb. 1524.

[173] *Ibid.*

[174] Occurs in several men-of-war lists from 1523; assigned by *Roy. MSS.* 14, B xxii A to 1513, in all probability an error.

[175] *Roy. MSS.* 14, B xxii A. Doubtless named in compliment to the Guildford or Guldeford family, persons of importance during the first two Tudor reigns. Both the first and second wives of Sir Henry Guldeford, Comptroller of the Household to Henry VIII, were named Mary.

[176] First mentioned *Letters and Papers*, x, 1231.

[177] This vessel occurs in a list calendared under 1522 (*Letters and Papers*, iii, 2014), but the date assigned is wrong by at least twenty-five years. She was built in or before 1536, captured by the Scotch, and described as English in a Scotch fleet, (*Ibid.* xi, 631); recaptured by Lord Clynton in Sept. 1547, and resumed her place in the English navy (Holinshed, p. 989).

[178] First mentioned *Letters and Papers*, 31st Dec. 1539.

[179] Or *Mathew Gonson*; first mentioned 10th June 1539.

[180] First mentioned 10th June 1539; an entirely different vessel from the preceding of the same name.

[181] Or *Less Bark* and *Great Bark*. They

were Hamburg ships (*Letters and Papers*, 15th Nov. 1544), and are first mentioned 10th June 1539.

[182] The *Salamander* and *Unicorn* were captured at Leith in May 1544, (Holinshed, p. 962). The *Salamander* (a Salamander was the badge of Francis I) had been presented to James V of Scotland by the French king when the former married Madeline of France.

[183] Or *Pansy*. First mentioned *Letters and Papers*, 18th Apr. 1544.

[184] First mentioned *Letters and Papers*, 15th Nov. 1544. A Hamburg ship.

[185] *Ibid.*

[186] *Ibid.* Of Dantzic.

[187] *Ibid.*, or *L'Artigo*. Qy. from the French *artichaut*, in military terminology, a spiked fence.

[188] First mentioned *Letters and Papers*, 18th Apr. 1544.

[189] *Ibid.*

[190] First mentioned *Letters and Papers*, 15th Nov. 1544.

[191] Probably the true year as there is a payment (*Pipe Office Declared Accounts*, 2193), to five Venetians for fitting her, as being more experienced in galley work. According to *Add. MSS.* 22047, she was of 200 tons.

[192] Or *Merlion*; a prize of 1544 or 1545 (*Letters and Papers*, 19th Apr. 1545).

[193] *Ibid.*

[194] *Ibid.*

[195] *Ibid.*

[196] First mentioned *Letters and Papers*, 3rd

Aug. 1545. Probably the ‘great shallop’ in building (*Letters and Papers*) 19th Apr. that year.

[197] *Ibid.* Probably the ‘great galleon’ building at Smalhithe on 19th April. There was a *Grand Mistress* in the French navy at this time.

[198] *Ibid.* Probably the ‘second galleon’ building at Smalhithe on 19th April.

[199] *Ibid.* Probably the ‘new gallyot’ building at Deptford 19th April.

[200] *Ibid.* Probably the ‘middle shallop’ building at Deptford 19th April. Saker was the name of a piece of ordnance or of the peregrine hawk.

[201] *Ibid.* Probably the ‘small shallop’ building at Dover on 19th April.

[202] *Ibid.* Probably the ‘less Spanish pinnace’ of 19th April.

[203] *Ibid.*

[204] *Ibid.* Captured by the French 2nd Sept. 1547 (Stow p. 594).

[205] *Ibid.* Of Dantzic.

[206] Captured from the French 18th May (Stow).

[207] First mentioned *Letters and Papers*, Mar. 1546. Of Bremen.

[208] The *Phœnix* and the *George* are first mentioned as royal ships in Anthony’s list of 1546; probably merchantmen of those names in the list of 10th Aug. 1545, and bought into the service.

[209] The *Antelope*, *Tiger*, *Bull* and *Hart* first occur in Anthony’s list of the navy in 1546; in that year (*Letters and Papers*, Mar. 1546,

uncalendared) there were 'the four new ships a making at Deptford 1000 tons,' with which tonnage these correspond.

[210] Twenty tons each.

[211] As in the case of the *Mary Rose*, (*King's Book of Payments*).

[212] *State Papers, Spain*, ii, 144.

[213] Fernandez Duro, *Disquisiciones Nauticas*, Lib. V, 11, 354. The Spanish ship ton, or 'tonelada de arqueo,' was rather smaller than the English; 'esta tonelada de arqueo es un espacio de 8 codos cúbicos cada codo tiene 33 dedos ó pulgadas de 48 que tiene la vara de Castilla,' (*Ibid.* p. 161, quoting Veitia). This works out at 53.44 cubic feet against the 60 cubic feet allowed in the fifteenth and sixteenth century English ships. The measurement by tonelada was Sevillean, or South Spanish; the Biscayan builders calculated by the tonel, ten of which equalled twelve toneladas (Fernandez de Navarrete, *Coleccion de Viages* II, 86).

[214] Lodge, *Illustrations of British History*, i, 14.

[215] See Appendix A.

[216] *State Papers*, (1830), 6th Aug. 1545.

[217] *Chapter House Bks.* vol. vi.

[218] *Ibid.* vol. xiii. It should be stated that these figures are from an inventory of stores and fittings remaining on board the ships in 1515, and do not necessarily represent the full equipment. They may, however, be taken to indicate its distribution.

[219] It has been mentioned that the weight of the serpentine was about 250 lbs.; double serpentines were presumably heavier.

Serpentines and other small pieces were fitted with one or two removable chambers for loading.

[220] All that is known of slings is that they were ‘bigge peces of ship ordenance,’ (*Letters and Papers*, uncalendared, 1542). ‘Bigge’ must be understood relatively as they were fired with chambers.

[221] The French *Pierrier*, used for stone shot.

[222] Murderers, half a century later, were small swivel guns, but at this date perhaps larger. These two are described as ‘two grete murderers of brasse.’

[223] According to another paper (*Letters and Papers*, i, 5721) the upper forecastle deck carried eight serpentines and eight smaller guns.

[224] She also had six serpentines and a stone gun in the main and mizen tops. In the fifteenth century darts were flung from the tops; now most large vessels carried guns in them.

[225] *Letters and Papers*, i, 5721.

[226] *Ibid.* and *Chapt. House Bks.*, vol. xiii. Eighty-four guns according to the latter.

[227] Low Latin *petra*, stone shot; the name subsequently defined a particular weight or shape, and remained in use although iron shot were fired from what was still called a stone cannon.

[228] *Add. MSS.* 22047, and *State Papers of Henry VIII*, (ed. 1830), xvii, 736, (old numbering).

[229] *Letters and Papers* i, 4379. The soldiers, sailors, and gunners are from *Letters*

and Papers i, 3977, of April 1513. The soldiers were obtained and forwarded by various persons responsible, *e.g.*, the 350 of the *Gabriel Royal* were made up of 100, being the retinue or immediate followers of Sir Thomas Courtenay and Sir William Cornwall, her captains, 100 from the Bishop of Exeter, 100 from Lord Arundel, and 50 from Lord Stourton.

[230] To defend archers in the field. This is the only instance, so far as is yet known, in which ships carried them as part of their equipment, and here probably it was only in connection with the invasion of France.

[231] Armour.

[232] It should be noticed that when these schedules were drawn up, the *Henry* was not yet launched, the figures therefore were purely conjectural and not requisites shown by experience to be necessary.

[233] *Letters and Papers*, i, 5276; the *Peter Pomegranate*. Quarrels or quarreaux were used with crossbows.

[234] Stone shot.

[235] *Letters and Papers*, i, 5721. The *Sovereign*, *Great Nicholas* and *Kateryn Fortileza*.

[236] *Chapter House Bks.*, vol. ii, f. 102.

[237] *Ibid.*, f. 72.

[238] *Ibid.*, ff. 80, 88.

[239] *Archæologia*, vi, 218.

[240] *Chapter House Bks.*, vol. xiii.

[241] *Letters and Papers*, i, 4376, f. 213.

[242] *Chapter House Bks.*, vol. xii, f. 510.

[243] *Ibid.*, f. 306.

[244] Quoted by Derrick, *Memoirs of the Royal Navy*, p. 303.

[245] *Add MSS.* 22047. The other vessels drawn he calls galleasses.

[246] *Letters and Papers*, 17th April 1523.

[247] *State Papers, Spain*, 16th July.

[248] *State Papers, Venetian, Report of England.* Also Soranzo's *Report* of 1554, 'They do not use galleys.'

[249] *Add. MSS.* 22047.

[250] Bed and table covers.

[251] *Cott. MSS.*, Calig. D. vi, f. 107.

[252] *Ibid.* 101.

[253] *Cott. MSS.* Otho, E. ix. f. 64.

[254] *Letters and Papers*, 4th June.

[255] Heraldically in gold and silver.

[256] *Letters and Papers*, 28th July 1514. Banners were square or nearly square, somewhat resembling the Royal Standard of to-day. Standards were long, narrow, and split at the end. Streamers were still longer and narrower, now represented by pennants, (N. H. Nicolas, *Excerpta Historica*, p. 50).

[257] *Letters and Papers*, 10th April 1514.

[258] *Ibid.* i, 5721; *Chapter House Bks.*, vol. xiii; and *Stowe. MSS.* 146, f. 114.

[259] *Letters and Papers*, ii, 3549.

[260] *Harl. MSS.* 309, f. 10.

[261] *Coleccion de Viages*, i, 412.

[262] Fernandez Duro, *Viajes Regios por Mar*, p. 128.

[263] *Harl. MSS.* 309. Audley, afterwards

Lord Chancellor and Lord Audley of Walden was Speaker in 1529 and knighted. In this paper he is called simply Thos. Audley so that it may be presumed to be earlier than 1532, the year of knighthood.

[264] Cf. Le Fleming MSS. p. 8, 12th *Report Hist. MSS. Com. App.* Part vii.

[265] *State Papers*, (ed. 1830) 10th Aug. 1545.

[266] Cf. *State Papers*, (ed. 1830), letters of 15th, 16th, and 18th Aug. 1545. He seems to have been completely outmanœuvred.

[267] *Ibid.*, 12th Aug., 1545.

[268] *Ibid.*, 17th Sept. 1545.

[269] Cf. Duro, *La Marina de Castilla*, App. No. 26. Patent of Don Alonso Enriquez. For purposes of reference it may be well to append a list of the Admirals of England during the fifteenth century: John Beaufort, Earl of Somerset, 23rd Dec. 1406; Edmund Holland, Earl of Kent, 8th May 1407; Thomas Beaufort, 1st Sept. 1408; John, Duke of Bedford, 26th July 1426; John Holland, Duke of Exeter, 2nd Oct. 1435; William de la Pole, Duke of Suffolk, 1447 (acting); Henry Holland, Duke of Exeter, 29th July 1450; Richard Neville, Earl of Warwick, 1462; William Neville, Earl of Kent, 30th July 1462; Richard, Duke of Gloucester, 12th Oct. 1462; Richard Neville, Earl of Warwick, 2nd Jan. 1471 (defeated and killed at Barnet and his appointment not recognised by the Yorkists); John Howard, Duke of Norfolk, 25th July 1483; and John de Vere, Earl of Oxford, 21st Sept. 1485.

[270] *Chapter House Books*, vol. v, f. 153.

[271] Stow, p. 497, and *Chronicle of Calais*, Cam. Soc. p. 16.

[272] *Infra.* p. 127.

[273] *Infra.* p. 80.

[274] Blocks.

[275] *State Papers*, (ed. 1830) 1 Aug. 1545, Brandon to Paget.

[276] *Ibid.*, Lisle to Paget.

[277] *Ibid.*, 7th Aug., Suffolk to Paget.

[278] *Ibid.*, 9th Aug., Lisle to Paget.

[279] *Pipe Office Declared Accounts*, 2477.

[280] *Ibid.*, 2587. But £559, 8s 7d, according to *State Papers, Dom. Ed. VI*, xv, 11.

[281] *Pipe Office Decld. Accts.*, 2588, and *Acts of the Privy Council*, 17th May 1547.

[282] *Acts of the Privy Council*, 3rd Aug., 1549.

[283] *Chapter House Bks.*, vol. i, ff. 23, 28.

[284] 'Estland or parties of Spruse.'

[285] *Chapter House Book*, vol. 1, ff. 30, 33, 46. The character of jorgnet is doubtful; cf. Planché *Cyclopædia of Costume*, s.v. *Jornet*.

[286] *Chapter House Book*, vol. xi, f. 107.

[287] *Letters and Papers*, i, 4225 and Q.R. *Anc. Misc. Navy*, 616, c.

[288] *Letters and Papers*, i, 3445, 'when divers of the French ships of war lay there.'

[289] *Ibid.*, iii, 2296.

[290] *Ibid.*, i, 3422—i.

[291] *Exch. War. for Issues*, 29th Jan., 1510.

[292] Leland, *Itinerary*.

[293] *Letters and Papers*, 18th Jan. 1525.

[294] *Chapter House Books*, vol. vi.

[295] *Ibid.*, f. 40.

[296] *Letters and Papers*, 28th Feb., 1527, and *Aug. Office Book*, No. 317, (second part), f. 22.

[297] *Chapter House Books*, vol. v, f. 133.

[298] *Rot. Claus.* 10, Henry VIII, m. 6, and *Lansd. MSS.* 16, f. 120.

[299] *Acts of the Privy Council*, 15th Jan. and 14th Mar. 1546.

[300] *Chapter House Books*, vol. xi, f. 107.

[301] *Ibid.*, f. 44. The principal men employed about dock construction are always called 'marshmen,' probably persons with special experience of work in swampy ground, and 'inning,' from the Romney Marsh district.

[302] *Add. Charters* (B.M.), 6289.

[303] *Letters and Papers*, i. 4387, (3rd Aug).

[304] Stakes and brushwood.

[305] *Chapter House Books*, vol. xi, ff. 9, 14.

[306] *Pipe Office Accounts*, 2588.

[307] *Q.R. Misc. Navy*, 867/5. According to a modern writer (C. J. Smith, *Erith* Lond. 1872, p. 61), the storehouse 'stood a little eastward of the point where the road from the railway station meets West Street at right angles. A considerable portion remains.'

[308] *Chapter House Books*, vol. xii, f. 115.

[309] *Roy. MSS.*, 14 B xii D.

[310] *Chapter House Books*, vol. xi, f. 3.

[311] *Ibid.*, f. 65.

[312] *Aug. Office Book*, No. 317, (second part), ff. 27, 29.

[313] *Chapter House Books*, vol. xii, ff. 71,

365.

[314] *Chapter House Books*, vol. vi, ff. 53, 57.

[315] *Ibid.*, ff. 61-3.

[316] *Acts of the Privy Council*, 22nd April 1548.

[317] *Ibid.*, 21st August 1545.

[318] *Tellers' Rolls*, No. 64.

[319] N. Dews, *History of Deptford.*

[320] *Cott. MSS.* Vesp. C. vi, 375.

[321] *Letters and Papers*, i, 3977.

[322] *Ibid.*, i, 5112.

[323] *Letters and Papers*, 19th April 1545, (uncalendared).

[324] *Fœdera*, xiii, 326, 8th April 1512.

[325] *Letters and Papers*, i, 5017.

[326] *Ibid.*, 25th April 1544, (uncalendared).

[327] *Exch. Accts.* (Q.R.), Bdle. 57, No. 2.

[328] The Spanish West Indian fleets were not ordered to have an apothecary and medicines on board till 1556, (*Real Cedulas* 29th July and 9th September 1556).

[329] *Letters and Papers*, 9th March, 1545-6, (uncalendared), and *State papers*, (ed. 1830) 12th August 1545.

[330] *Letters and Papers*, i, 3422—ii.

[331] *Roy. MSS.* 7 F xiv-75.

[332] *Cott. MSS.*, Galba B iii-137.

[333] *Chapter House Books*, vol. ii, f. 3.

[334] *Ibid.*, vol. iii, f. 4.

[335] *Letters and Papers*, 28th May 1545,

(uncalendared).

[336] *Ibid.*, i, 5762.

[337] *Letters and Papers*, i, 4475.

[338] *State Papers*, (ed. 1830), 2nd August 1545, Lisle to King. The summer of 1545 was unusually hot. Lisle then described symptoms which point to dysentery and scurvy, (*Ibid.*, 1st August).

[339] *Ibid.*, 15th September 1545, Lisle to Council. Only three men were killed in what little fighting there was at Treport.

[340] *Aug. Office Book*, No. 315, f. 1.

[341] *Chapter House Books*, vol. ii, f. 17.

[342] The least important.

[343] *State Papers* (ed. 1830), 7th Aug. 1545, Lisle to Paget.

[344] Old French, *meien*.

[345] *Acts of the Privy Council*, 14th April 1546.

[346] Spanish, *forsado*.

[347] *State Papers* (ed. 1830), 15th July 1546, Lisle to Paget.

[348] *Roy. MSS.* 14 B xxxiii.

[349] *Letters and Papers*, i, 5762, Council to Wyndham.

[350] *Ibid.*, 14th Sept. 1539.

[351] *Harl. MSS.*, 309. f. 10. These rules were based on the ordinances issued by Richard I, themselves grounded on customs reaching back to the dawn of Mediterranean navigation.

[352] Probably on ‘look out’ is meant, still the most serious offence of which a sailor can

be guilty.

[353] *State Papers* (ed. 1830), March 1546.

[354] *Exch. Accts.* (Q.R.), Bdle. 57, No. 2.

[355] Trin from the old English *tryndelle* or *trendelle*, a wheel; dryngs are halliards. Both trin and dryngs were used in connection with the mainsail.

[356] Ropes.

[357] Capstan, Spanish, *cabrestante*.

[358] Great boat, cockboat, and jollyboat.

[359] Hooker's *Life of Sir Peter Carew*, pp. 34-5.

[360] *Tellers' Rolls*, No. 63.

[361] *Exch. War. for Issues*, 12th July, 1512, and *Letters and Papers*, i, 3445.

[362] Ellis, *Original Letters*, I, 147, Series III.

[363] *Cott. MSS.* Calig. D. vi, 104-7.

[364] *Letters and Papers*, 21st May, 1513. Fox and Dawtrey to Wolsey.

[365] *Ibid.*, i, 4474.

[366] *Ibid.*, iii, 2337. Surrey to King.

[367] *State Papers* (ed. 1830) 20th Aug., 1545.

[368] *Letters and Papers*, i, 3445, 5747, and 27th March, 1513. *Chapter House Books*, vol. vi. *Pipe Office Declared Accounts*, 2193. Prices varied a great deal, being much higher at Portsmouth for instance than at Yarmouth.

[369] *Letters and Papers* 19th April 1545 (uncalendared) and *State Papers* (ed. 1830) 12th Aug., 1545.

[370] *Letters and Papers* iii, 2362. Surrey to Wolsey.

[371] *State Papers, Dom., Ed. VI*, xv, 11.

[372] *Letters and Papers*, 9th March 1545-6 (uncalendared) and Q.R. *Anc. Misc. Navy*, 616 d., 2.

[373] *Rot. Pat.* 14th of Henry VIII, Pt. II, m. 26. 'Embezzlement,' in these pardons, had not the particular meaning attached to the word now. They were meant to protect the holder against accusations he might not, from lapse of time, have sufficient evidence to refute.

[374] *Aug. Off. Bk.* No. 315, f. 3.

[375] *Letters and Papers*, 26th May 1513.

[376] *Cott. MSS.*, App. xviii, f. 10. Undated, but before 1529, when Spert was knighted.

[377] *Letters and Papers*, iv, 2362.

[378] *Ibid.*, 25th Sept. 1524.

[379] *Ibid.*, 2nd March 1526, and *Aug. Office Book*, No. 317 Part ii, f. 1.

[380] *Letters and Papers*, 14th July 1533.

[381] *Arundel MSS.*, 97. On Spert's monument in the chancel of St Dunstan's Stepney, he is called 'comptroller of the navy.' The designation was not in use until long after his death, in September 1541, and the monument itself is a seventeenth century one.

[382] *State Papers* (ed. 1830), 8th Jan. 1544-5, and xvi, 441 (old numbering).

[383] Son of Wm. Gonson.

[384] *Letters Patent*, 24th April.

[385] *Add. MSS.* 9297, f. 13.

[386] *Letters and Papers*, i. 3977, 3978. Eight were from Topsham, and eight from Dartmouth.

[387] *Ibid.*, i, 4533, 31st October 1513.

[388] *Ibid.*, 15th May 1513. Dawtrey to Wolsey.

[389] *Ibid.*, 18th July 1513.

[390] *Letters and Papers*, i, 5112.

[391] *Ibid.*, 25th April 1544 (uncalendared).

[392] *State Papers* (ed. 1830), 18th April 1544.

[393] *Ibid.*, xvii, 552 (old numbering).

[394] Stow, p. 588. War was declared on 3rd August, 1544.

[395] *Exch. War. for Issues*, 17th July 1522.

[396] *Ibid.*, 7th Feb. 1544.

[397] *Letters and Papers*, 16th Jan. 1513.

[398] *Letters and Papers*, iv, 5101.

[399] *Ibid.*, vi, 1380.

[400] *Letters and Papers*, 1540 (uncalendared).

[401] *Ibid.*, 15th May 1544; March 1545; and 19th April 1545 (uncalendared).

[402] Somerset.

[403] *State Papers, Venetian*, Falier's Report.

[404] *Ibid.*, Barbaro's Report.

[405] *Ibid.*, Soranzo's Report.

[406] *Voyages*, v, 256. (Ed. 1885).

[407] *State Papers, Spain*, 2nd January 1541.

[408] The facts relating to this doubtful voyage are fully discussed by H. Harrisse in *John Cabot, the Discoverer of North America, and Sebastian his Son*, London 1896, p. 157 et seq.

[409] *Ibid.*, p. 340.

[410] Herbert, *Life of Henry VIII.*, p. 651, ed.

1870.

[411] It is said £80,000.

[412] *Letters and Papers* 19th March, 1513.

[413] *Ibid.*, xi, 943.

[414] Gasquet, *Henry VIII and the English Monasteries*, ii, 534-5.

[415] *Letters and Papers*, Preface to vol. ii, p. 194.

[416] *Ibid.*, i, 4533.

[417] *Chapter House Books*, vol. i, f. 23.

[418] *Chapter House Books*, vol. iii, f. 68. Cf. *Letters and Papers*, xiii, (Pt. 1), 1777, where the dates and amounts differ somewhat.

[419] *Pipe Office Declared Accounts*, 2587.

[420] *State Papers* (ed. 1830), 6th April 1546.

[421] *Ibid.*, xvii, 683 (old numbering), Wriothesley to Council.

[422] *State Papers, Dom. Ed. VI*, xv, 11.

[423] Any kind of movable fittings.

[424] *State Papers, Spain*, 30th January 1532. Chapuys to Emperor.

[425] *Letters and Papers*, ii, 235.

[426] *Cott. MSS.* Calig. D., viii, 150.

[427] *Letters and Papers*, 29th March 1532.

[428] *Ibid.*, xii, 782.

[429] *Ibid.*, xiii, 158.

[430] *Acts of the Privy Council*, 14th April 1546.

[431] *Acts of the Privy Council*, 8th August 1546.

[432] 27 Hen. viii, c. 4.

[433] *Stowe MSS.* 146, f. 41.

[434] *Nomenclator Navalis.*

[435] *Chapter House Books*, vol. xii, f. 91.

[436] *Letters and Papers*, 23rd Feb. and 25th Nov. 1514, and i, 5024. The last was 2400 lbs. The prices for serpentine and bombdyne powder are probably only for manufacture.

[437] *Chapter House Books*, vol. x, f. 32.

[438] *Ibid.*, vol. v, f. 110.

[439] *Ibid.*, vol. vi, f. 58.

[440] Arrows of inferior quality.

[441] *Letters and Papers*, x, 299.

[442] *Chapter House Books*, vol. vi, f. 41. The ton contained 40 cubic feet of dry, and 50 of green, timber.

[443] Probably Olonne (Vendée).

[444] 28 ells: the English ell is five—the French six-fourths of a yard; as the canvas was French, the ells are most likely French.

[445] Probably Vitré (Brittany).

[446] A bale.

[447] A Breton canvas. There was a 'poll davye baye' on the Breton coast (*State Papers*, ed. 1830, xiv, 325), and a small village named Poldavid is situated in Douarnenez Bay. At a later date it is frequently called 'Dantzic Polldavy' and then probably means a canvas of Breton type obtained from Dantzic.

[448] Printed in full in *Archæologia*, vi, 218.

[449] *Lansd. MSS.* 2, f. 66.

[450] Probably the *Moon, Seven Stars, and Swift.*

[451] *Pipe Office Accounts*, 2194.

[452] *Harl. MSS.*, 354, f. 9. Printed in full in Derrick's *Memoirs of the Royal Navy*, pp. 16, 17.

[453] Edward was present at the launch of the *Primrose* and *Mary Willoby* on the 4th July 1551 (*Journal*).

[454] *Acts of the Privy Council*, 7th February 1551.

[455] *Acts of the Privy Council.*

[456] *Ibid.*

[457] *Pipe Office Accounts*, 2355.

[458] *Acts of the Privy Council.*

[459] *Pipe Office Accounts*, 2194 and 2588. War with France and Scotland continued until 24th March 1550.

[460] *Pipe Office Accounts*, 2194.

[461] Hakluyt, *Voyages*, iii, 53 (ed. 1885) and Fernandez Duro *Armada Espanola*, p. 121.

[462] *State Papers, Dom. Ed. VI*, iv, 39.

[463] *Acts of the Privy Council*, 31st January 1552.

[464] *Chronicle of King Henry VIII*, edited by Major Martin Hume, Lond. 1889, pp. 161-3.

[465] *Acts of the Privy Council*, 20th November 1552.

[466] *Ibid.*, 22nd September 1551.

[467] *Ibid.*, 18th February 1550.

[468] *State Papers, Dom. Ed. VI*, 7th Sept. 1548.

[469] *Journal of Edward VI*, April 1550.

[470] *Ibid.*, 2nd July 1551.

[471] *Acts of the Privy Council*, 17th May 1552.

[472] *Pipe Office Accounts*, 2194.

[473] 2 and 3 Ed. VI, c. 6.

[474] *State Papers, Dom. Mary* i, 23. Although calendared under the first year of Mary the return goes on with a list of those 'decayed since the death of Edward VI to the present time,' numbering sixty-two of 9170 tons. The date assigned to this document cannot therefore possibly be correct and it probably belongs to the reign of Elizabeth.

[475] *Journal of Edward VI*, 14th February 1552.

[476] 2 and 3 Ed. VI, c. 19.

[477] *State Papers, Dom. Ed. VI*, xv, 41.

[478] *Ibid.*, xv, 11.

[479] Supra p. 94.

[480] *Pipe Office Accounts*, 2195. According to *State Papers, Dom. Eliz.*, ii, 30, the *Primrose* had been sold for £1800, but only £1000 had ever been paid.

[481] *Acts of the Privy Council*, 4th October 1553.

[482] Machyn's *Diary*, Camd. Soc.

[483] *Cecil MSS.* Cal. Pt. I, No. 846. The credit to be attached to this paper is discussed in the *English Historical Review*, ix, 711.

[484] *Pipe Office Accounts*, 2356.

[485] *Ibid.*, 2357.

[486] *State Papers, Dom. Mary*, xii, 36, 65.

[487] *Exch. War. for Issues*, 23rd April, 2nd and 3rd of Philip and Mary.

[488] *Ibid.*, Oct.

[489] *Ibid.*, 30th March, 3rd and 4th of Philip and Mary.

[490] *Rot. Pat.*

[491] *Acts of the Privy Council*, 11th January 1556.

[492] *Ibid.*, 3rd June 1557.

[493] Paulet, Marquis of Winchester.

[494] *State Papers, Dom. Mary*, x, 1, 2.

[495] Supra, p. 110.

[496] Hakluyt, *Voyages*, iii, 20, ed. 1885.

[497] *Pipe Office Accounts*, 2591.

[498] *State Papers Dom., Mary*, xiii, 64.

[499] With the exception of the galley establishments at Seville and Barcelona there were no royal dockyards in Spain. There was no difference made, in building, between merchantmen and men-of-war, and in 1584 Martin de Recalde petitioned to be allowed to fly the royal standard because without it his fleet would be taken for merchantmen. In return for the large bounty given and the advances made to builders the crown seized their vessels on every occasion and for every purpose where, in England, the royal ships would have been employed. The system was the same as that by which Edward III had destroyed English shipping. In 1601 the Duke of Medina Sidonia wrote plainly that the remedy for the impoverishment fallen on Spanish shipowners was 'that the King should build the vessels he required and not take them from private individuals, ruining them.' In the fleet of the Marquis of Santa Cruz at Terceira in 1583 only three belonged to the crown, and in the Armada only twenty-five. Sometimes contracts were made with admirals who undertook to serve with a certain number of ships, and at other times with towns who engaged to supply them. There was no Admiralty as in England. There had been an Admiral of Castile from the beginning of the thirteenth century, but the civil portion of his duties was confined to the headship of the courts of law deputed to hear maritime causes. If a fleet or squadron was to be equipped officials, who may or may not have had previous experience, were temporarily entrusted with the duty at the various ports and their functions ceased with the completion

of their work (Fernandez Duro, *La Armada Invencible*; *Disquisiciones Nauticas*, Lib. V.; *Hist. de la Marina*).

[500] *Lives of the Devereux* I, 375.

[501] No information available.

[502] The whole navy except the *Popinjay* in Ireland. And in this year, as in many others, the same vessel was sometimes in commission more than once. This was especially the case with the fourth- fifth- and sixth-rates and is an unavoidable source of error.

[503] *State Papers, Dom. Eliz.*, 20th February 1558-9.

[504] *Ibid.*, 24th March 1559.

[505] *Add. MSS.* 9294, f. 1.

[506] *State Papers, Dom.*, iii, 44.

[507] Machyn's *Diary*, 3rd July 1559; *State Papers, Dom.*, iii, 44, and xcvi, p. 295.

[508] *State Papers, Dom.*, xcvi, p. 295; *Pipe Office Accounts*, 2358, and *Cecil MSS.*, Cal. No. 846.

[509] *Exch. War. for Issues*, 14th Mar. 1560; *Pipe Office Accounts*, 2358, and *State Papers, Dom.*, xcvi, p. 295.

[510] *Pipe Office Accounts*, 2358.

[511] *Ibid.*

[512] *Ibid.* and *Cecil MSS.*, Cal. No. 846.

[513] *Ibid.*

[514] *Cecil MSS.*, Cal. No. 846, and *Pipe Office Accounts*, 2198.

[515] According to *State Papers, Dom.*, xcvi, p. 295, built in 1560, but she is not mentioned in the accounts till 1563, and was first in commission in December 1562.

[516] First mentioned this year and noted as French, probably from Havre. There were also eleven small French ships taken in the port of Havre in 1562, and carried on the navy list till 1564, after which year they disappear. They may have been returned on the conclusion of peace in April; there was some discussion to that effect.

[517] Four small brigantines. *Exch. War. for Issues*, 4th July 1563, and *Pipe Office Accounts*, 2360.

[518] *Pipe Office Accounts*, 2200 and 2361.

[519] *Ibid.*, 2364, and *Exch. War. for Issues*, 12th Aug. 1567.

[520] *Pipe Office Accounts*, 2206 and 2367.

[521] *Ibid.*, 2206 and 2208.

[522] *Ibid.*

[523] *Ibid.*, 2209 and 2370.

[524] *Ibid.*

[525] *Ibid.*

[526] *Ibid.*

[527] *Ibid.*, 2213 and 2374.

[528] *Ibid.*

[529] *Ibid.*, 2376. Or *Marlion*.

[530] *Ibid.*, 2217.

[531] *Ibid.*, 2218.

[532] *Ibid.*, 2219.

[533] *Ibid.*, 2220. The *Philip and Mary*, rebuilt and renamed.

[534] *Ibid.*, 2381. The Galley *Ellynor* rebuilt and renamed. She had a ‘gondello’ as a boat.

[535] *Ibid.*, 2221.

[536] *Ibid.*

[537] *Ibid.*

[538] *Ibid.*, 2223 and 2383.

[539] *Ibid.*

[540] *Ibid.*

[541] *Ibid.*

[542] *Ibid.*

[543] *Ibid.*

[544] *Pipe Office Accounts*, 2223 and 2383.

[545] *Ibid.*

[546] *Ibid.*

[547] *Ibid.*

[548] *Ibid.*

[549] *Ibid.*, 2224. Possibly bought of Ralegh, or originally built for him.

[550] *Ibid.*, 2385.

[551] Flagship of Don Pedro de Valdes; carried on the effective till 1594.

[552] *Pipe Office Accounts*, 2226.

[553] *Ibid.*, 2227.

[554] *Ibid.* Or *Guardland*.

[555] *Ibid.*

[556] *Ibid.*

[557] *Ibid.*

[558] *Ibid.*

[559] *Ibid.*

[560] *Ibid.*, 2388. Lost at sea, 17th May 1591.

[561] *Ibid.*

[562] *Ibid.*, 2503.

[563] *Ibid.*, 2228.

[564] *Ibid.*, 2390.

[565] *Ibid.*, and 2229.

[566] *Ibid.*, 2230 and 2390. The *Eagle* of Lubeck bought for £70, and 'made into a hulk for taking ordnance out of ships.'

[567] *Ibid.*, 2231.

[568] *Ibid.*, 2393.

[569] *Ibid.*, 2232 and 2394.

[570] *Ibid.* Or *Dieu Repulse*.

[571] Taken at Cadiz.

[572] *Pipe Office Accounts*, 2239. Bought of the Lord Admiral.

[573] *Ibid.*, 2239. Two galleys.

[574] *Ibid.*

[575] *Ibid.*, 2240. Two galleys.

[576] *Add. MSS.* 9294, f. 1.

[577] *Egerton MSS.* 2642, f. 150.

[578] Found by Mr E. Fraser in a *Rawlinson MS.* at Oxford.

[579] *Harl. MSS.* 167, f. 1. That in papers kept by different officials the time of the change of name should not exactly correspond is not strange.

[580] *State Papers, Dom.*, clx, 60, and *Pipe Office Accounts*, 2211.

[581] *State Papers, Dom.*, ccxlii, 21.

[582] *Ibid.*, cclxxxvi, 36, and *Add. MSS.*, 9336, f. 10.

[583] Hakluyt, *Voyages*, xi, 354, ed. 1885.

[584] *Infra* p. 157.

[585] J. Edye, *Calculations relating to the displacement of ships of war*, Lond. 1832.

[586] *State Papers, Dom.* ccix, 85.

[587] Rowing seat.

[588] *State Papers, Dom.*, ccxxix, 77.

[589] By 39 Eliz. c. 4. (1597-8) 'dangerous rogues' were to be sent to the galleys, but it is the only statute so directing and does not seem to have been acted on (Turner, *History of Vagrants and Vagrancy*, p. 129). Nor am I aware of any allusion to an English galley service in the literature of the time.

[590] *State Papers, Dom.*, ccxliii, 110.

[591] *Works*, II, 78, ed. 1751.

[592] *Cecil MSS.* Cal. ii, 222.

[593] W. Bourne, *Inventions or Devises*, Lond. 1578. Bourne's book was possibly the origin of the fireships used at Calais in 1588; it must have been well known to the leading seamen of the fleet.

[594] *State Papers, Dom.*, cxlvi, 97.

[595] *Cecil MSS.* Cal. No. 846.

[596] The Elizabethans called any ship comparatively low in the water a galleass, or said that she was built 'galleas fashion,' irrespective of oars.

[597] *Pipe Office Accounts*, 2218, 2220, and 2221.

[598] *Ibid.*, 2223.

[599] *State Papers, Dom.* cclxxvi, 57.

[600] *Ibid.*, ccxxiii, 45.

[601] Ralegh, *Invention of Ships*.

[602] *Pipe Office Accounts*, 2232. The distinction between overlop and deck is not always clear. Sometimes overlop appears to mean a deck running the whole length of the ship, as distinguished from a forecastle or poop deck, and at other times a slight lower deck not intended to carry guns. This last became its ultimate meaning, and it is used in this sense in relation to the *Defiance* and *Warspite*.

[603] *Pipe Office Accounts*, 2200.

[604] *Ibid.*, 2204.

[605] Trailboard, a carved board reaching from the stem to the figure head.

[606] *Pipe Office Accounts*, 2238.

[607] Bulkheads.

[608] Poop.

[609] *Pipe Office Accounts*, 2236.

[610] *Add. MSS.*, 20,043. *Treatise concerning the Navy of England*, f. 6. By James Montgomery.

[611] *State Papers, Domestic*, clii, 19.

[612] Compare the measurements of the two men-of-war, as given here, with those on p. 124.

[613] 'Esloria,' *i.e.*, the keel length added to the fore and aft rakes.

[614] Duro, *Dis. Nauticas*, Lib. V, p. 152. If this is tried with the above ships the feet must first be reduced to cubits; it will be found that the Spanish method makes the tonnage much heavier, the *Elizabeth* is 996 net and 1196 gross.

[615] *State Papers, Venetian*, Surian's Report.

[616] *Calendar of Letters and Papers relating to English affairs at Simancas*, 10th May 1574.

[617] *Ibid.*, 3rd Aug. 1566.

[618] *Ibid.*, 8th Jan. 1569.

[619] *Ibid.*, 1st June 1569.

[620] *Ibid.*, 30th March 1586.

[621] *State Papers, Dom.*, clii, 19. The Spaniards allowed one seaman to every five tons of net tonnage.

[622] *Ibid.*, clxxxv, 33, ii.

[623] *Pipe Office Accounts*, 2233.

[624] *State Papers, Dom.*, cclviii, f. 10.

[625] *Lands. MSS.*, 166, f. 198.

[626] *Ibid.*, 144, 53.

[627] *Ibid.*, 73, f. 161.

[628] *Pipe Office Accounts*, 2225.

[629] *Ibid.*, 2228 and 2231.

[630] *Exch. War. for Issues*, 25th Jan. 1579.

[631] *Ibid.*, 28th Jan. 1580. The story is told in full in Hakluyt, *Voyages*, xi, 9, et seq. (ed. 1885).

[632] *State Papers, Dom.* ccxxxvii, ff. 169, 170.

[633] *State Papers, Dom. Jas. I*, xli, p. 119.

[634] See Appendix B.

[635] *State Papers, Dom. Eliz.*, ccxv, 41.

[636] *State Papers Dom.*, 26th Aug. 1588. Howard to Walsyngham.

[637] *Lansd. MSS.*, 70, f. 183.

[638] *Acts of the Privy Council*, 14th Aug. 1580.

[639] *Pipe Office Accounts*, 2233.

[640] *Harl. MSS.*, 167, f. 39.

[641] *State Papers, Dom. Eliz.* xvii, 43, and xxvi, 43.

[642] *Ibid.*, xxxvii, 61.

[643] *Pipe Office Accounts*, 2205, 2206.

[644] *Ibid.*, 2358 and *Exch. War. for Issues*, 15th Feb. 1560.

[645] Dried fish.

[646] *Pipe Office Accounts*, 2362.

[647] *State Papers, Dom.* cix, 37.

[648] *State Papers, Dom.* clxxxix, 8.

[649] 12,040 lbs.

[650] He was chief clerk of the kitchen, (*Lansd. MSS.*, 62, f. 132).

[651] *State Papers, Dom.* ccix, 16.

[652] *State Papers, Dom.*, ccxix, 23.

[653] *Ibid.*, ccxxvi, 85, and ccxxxi, 80.

[654] *State Papers Dom.*, ccxxxix, 109.

[655] *Rot. Pat.* 8th Nov. 1595.

[656] *State Papers, Dom.*, clii, 19.

[657] Born in 1532 of a well-known Plymouth mercantile and seafaring family. He went to sea early, but his voyages of 1562-4-8, and the diplomatic difficulties to which they led with Spain, first brought him into prominence. He married Katherine Gonson about 1558.

[658] *State Papers, Dom.*, cxi, 33.

[659] *State Papers, Dom.*, cclxxvi, 57.

[660] *Ibid.*, ccxxii, 48.

[661] *Harl. MSS.*, ccliii, f. 6.

[662] *Ibid.*

[663] *State Papers, Dom.*, ccii, 35, Hawkyns to Burghley.

[664] Some of these charges are examined in detail in Appendix C.

[665] *State Papers, Dom.*, 28th Oct., 1579.

[666] *State Papers, Dom.*, clxx, 57, April 1584.

[667] *Ibid.*, ccxxxi, 83.

[668] This probably referred to Borough. Another writer, who was no lover of Hawkyns, said that Borough did all he could 'to gett all the keyes to his owne girdle,' (*Harl. MSS.* 253, f. 1).

[669] *State Papers, Dom.*, ccxlii, 79 and ccxlvii, 27.

[670] *Rot. Pat.*, 8th July 1585.

[671] *State Papers, Dom.*, 30th May 1594.

[672] *Rot Pat.*, 5th May 1596.

[673] *Ibid.*, 22nd December 1598.

[674] *Ibid.*, 11th July 1589.

[675] *Ibid.*, 20th Dec. 1598.

[676] *Ibid.*

[677] *Ibid.*, 10th Oct. 1560.

[678] *Ibid.*, 24th Mar. 1580.

[679] *Ibid.*, 6 Nov. 1588.

[680] *Lansd. MSS.*, 116, f. 4.

[681] *Pipe Office Accounts*, 2204.

[682] *Ibid.*, 2210.

[683] *Ibid.*, 2215.

[684] *State Papers, Dom.*, ccxl, 47.

[685] Hawkyns and Borough to Lord Admiral. *Exch. War. for Issues*, 6th July 1573.

[686] *State Papers, Dom.*, clxxvii, 26.

[687] *Add. MSS.* 9294, f. 58.

[688] 'Candles spente in nightlie watches of four shippes lying at Chatham for the better suertie and preservacon of the flete there at xiii^{s} iiii^{d} every shippe,' for the quarter.

[689] *Harl. MSS.* 253, f. 13.

[690] *Ibid.*, f. 14.

[691] *Seaman's Secrets.*

[692] Appendix B.

[693] *State Papers, Dom.*, clii, 19.

[694] *Ibid.*, clxxxvi, 43.

[695] *Ibid.*, cclxxxvi, 36.

[696] Quoted by Duro, *Disq. Nauticas*, II, 189. Professor Laughton considers that the losses of the Armada, in the flight round the west coasts of Scotland and Ireland, were as much due to bad seamanship as to the summer gales with which they had to contend.

[697] *State Papers, Dom.*, iii, 44.

[698] Slings do not again occur in ordnance papers; these were probably relics of the reign of Henry VIII.

[699] The 'pace' was 5 feet (*Cott. MSS.* Julius F. IV, f. 1, *Arte of Gunnery*).

[700] *Lansd. MSS.* 113, f. 177.

[701] *State Papers, Dom.*, xcvi, p. 275 (1577).

[702] *Ibid.*, p. 317.

[703] *Ibid.*, clxxxvi, 34.

[704] *State Papers, Dom.*, ccliv, 43.

[705] *Royal MSS.* 17 A xxxi.

[706] With two chambers.

[707] With three chambers.

[708] Although the *Victory* was not rebuilt until some years later she was not at this date upon the effective.

[709] Also two curtalls.

[710] The other three galleys had the same armament.

[711] *State Papers, Dom.*, cvi, 58 (1575).

[712] *Add. MSS.* 9297, f. 212.

[713] *La Armada Invencible*, I, 76.

[714] *State Papers, Dom.*, cvi, 14.

[715] *Ibid.*, cclxxv, 40.

[716] *Ibid.*, cclvii, 108.

[717] *Lansd. MSS.*, 65, f. 94.

[718] *State Papers, Dom.*, ccxliv, 116.

[719] *Ibid.*, xcv, 22, 69.

[720] *Acts of the Privy Council*, 19th June 1574.

[721] *State Papers, Dom.*, xxi, 56. Corn, or large grain, powder was used for small arms; serpentine for the heavy guns, but the latter was going out of use at sea.

[722] *State Papers, Dom.*, ccxviii, 35.

[723] *Ibid.*, lxxiv, 3.

[724] *Ibid.*, cclxxxvii, 59.

[725] *Exch. War. for Issues*, 1st Mar. 1564.

[726] *Ibid.*, 21st Feb. 1567.

[727] Until, and including, 1564 the money for victualling is paid by the Navy Treasurer and contained in his totals.

[728] Comprising wages and tonnage hire.

[729] Timber, ironwork, pitch, tar, etc., and sometimes included in the dockyard amounts.

[730] Ordinary, comprised wages of clerks and shipkeepers, moorings, and normal repairs of ships. Extraordinary, building and heavy repairs of ships, building and repair of wharves, storehouses, and docks, purchase of stores, and ordinary sea wages.

[731] Accounts wanting.

[732] In 1560 and 1563 some subsidiary charges at Harwich and other ports.

[733] The total spent is now exclusive of the victualling.

[734] Account keeping by dockyards ceases; divided into ordinary and extraordinary.

[735] From 1st Jan., 1595, to 24th April, 1596.

[736] From 6th May to 31st Dec. 1596.

[737] From 1st Jan. to 31st Dec. exclusive of the Cadiz Fleet.

[738] Of which Cadiz £14,415.

[739] Of which Channel £9945, and ocean service £27,263.

[740] *Add. MSS.* 9294, f. 30.

[741] *State Papers, Dom.*, cxxxii, 41, 42.

[742] *Pipe Office Accounts*, 2221.

[743] *State Papers, Dom.*, ccxviii, 16.

[744] *Ibid.*, cclxx, 26.

[745] *Burghley Papers*, p. 620.

[746] *State Papers, Dom.*, ccxxxiv, 72, 75.

[747] *Cott. MSS.* Otho. E IX, f. 192.

[748] *State Papers, Dom.*, ccxvii, 71.

[749] *Cott. MSS.* Otho E IX, f. 192.

[750] *Exch. War. for Issues*, 10th May 1560.

[751] *Ibid.*, 13th June 1569.

[752] *State Papers, Dom.*, ccxxxiv, 72.

[753] *Ibid.*, ccxl, 14.

[754] *Ibid.*, cclvi, 107. But see *supra* p. 160.

[755] *Pipe Office Accounts* 2233, but £70,000 according to *State Papers, Dom.*, cclix, 61.

[756] *State Papers, Dom.*, cclii, 107.

[757] *State Papers, Dom.*, cciv, 46.

[758] *Lansd. MSS.*, 70, f. 82. The *Madre de Dios*, the *Bom Jesus*, the *Santa Cruz*, and the *St. Bartholomeu*, all richly laden left Goa in company on 10th January 1592. The *Bom Jesus* was lost in the Mozambique Channel with all on board, the *Bartholomeu* parted company about the same time and was never heard of again, the *Santa Cruz* was run ashore and burnt to prevent capture. Nor was the total loss of a Portuguese or Spanish squadron, from various causes, at all remarkable. The captain of the *Madre de Dios*, Fernando de Mendoza, had been master of Medina Sidonia's flagship in 1588; his maritime interviews with the English must have become a veritable nightmare to him. The Fuggers of Augsburg, to whom the cargo was hypothecated, are said to have been the real losers by the capture, as it was probably not insured. It was difficult to insure Spanish ships at this time. In 1587 a Spaniard wrote of a vessel in the West Indies, 'I have not assured any part thereof and at this

present I do not find any that will assure at any price' (*Lansd. MSS.*, 53, f. 21). The conditions had become much more unfavourable to Spanish seaborne commerce by 1592.

[759] *Lansd. MSS.*, 73, f. 38.

[760] *Harl. MSS.*, 598.

[761] *Lansd. MSS.* 73, f. 38. It suited Elizabeth to rate the *Foresight* as high as possible, so she now reached her maximum of 450 tons; she had been as low as 260.

[762] *Lansd. MSS.* 70, ff. 55, 187.

[763] *Harl. MSS.*, 306, f. 233, 3rd May 1594.

[764] 5 Eliz. c. 5.

[765] *State Papers, Dom.*, cvii, 68.

[766] *Ibid.*, cxlvii, 21, 22.

[767] *Ibid.*, ccl, 33. This paper bears a note by Burghley, 'Engl. shippes allowed money for ther tonag sȳce 22 Eliz.' It has been shown that the custom, as a mark of royal approbation, was much older than Elizabeth, but it may have been made a right from about 1580.

[768] *Ibid.*, cl, 96.

[769] *State Papers, Dom.*, ccliv, 33.

[770] *Ibid.*, cclxii, 126.

[771] The Admiralty Court.

[772] *State Papers, Dom.*, cxxxvi, 35. When the *Pelican*, or as she was afterwards called, the *Golden Hind*, returned from her famous voyage round the world she was placed in a dock, filled in with earth at Deptford, and remained there as one of the shows of London

for nearly a century. There is an estimate for works to the amount of £370 for this purpose (*Add. MSS.* 9294, f. 68), but it does not appear that this plan, which included a brick wall, roof, etc., was ever fully carried out. In the Navy accounts only £67, 7s 10d for her repairs, £35, 8s 8d for a wall of earth round her, and £14, 13s 4d for preparing the ship for the Queen's visit are entered.

[773] *State Papers, Dom.*, ccxxxviii, 142.

[774] *State Papers, Dom.*, cxxxi, 61.

[775] *Ibid.*, cxlix, 58.

[776] *Ibid.*, ccxxxiii, 13, and ccxxxix, 44.

[777] *State Papers, Dom.*, lxxxiii, 37.

[778] *State Papers, Dom.*, cxx, 54.

[779] *Lansd. MSS.* 142, f. 182.

[780] *State Papers, Dom.*, cli, 6 (1581).

[781] *Ibid.*, ccxlviii, 80.

[782] Malyne, *Lex Mercatoria* p. 200, (ed. 1622).

[783] *State Papers, Dom.*, xi, 27.

[784] *Ibid.*, viii, 36. Eventually £100 was remitted.

[785] *Ibid.*, xxxviii, 8.

[786] *Ibid.*, xxviii, 3.

[787] *Harl. MSS.*, 168, f. 248.

[788] *State Papers, Dom., Eliz. Add.* xxii.

[789] *State Papers, Dom.*, xcvi, p. 267. London is described as, 'The river of Thames wherein is contained Maulden, Colchester, Bricklingsey, Lee, Feversham, Rochester, and the creekes belonging.'

[790] *State Papers, Dom.*, cvii, 68.

[791] *Ibid.*, clvi, 45.

[792] *Harl. MSS.* 4228, f., 45.

[793] *Cott. MSS.*, Otho. E. IX, f., 162.

[794] *State Papers, Dom.*, ccxxii, 57.

[795] *Lansd. MSS.* 81, f. 88.

[796] *State Papers, Dom.*, cclxii, 21.

[797] *Ibid.*, xi, 27. This is a return of 'mariners and sailors' only, and does not include fishermen. London is omitted, and from the numbers, *e.g.*, Norfolk 178, Northumberland (with Newcastle) 37, is probably only of men at that time ashore.

[798] *Ibid.*, xxxviii, 8, 9, 14, 23, 28; xxxix, 17. This is also incomplete but includes fishermen.

[799] *Ibid.*, lxxi, 74 1; lxxiii, 15 1, 48.

[800] *Ibid.*, clvi, 45. Includes seamen, fishermen, and masters of ships.

[801] And 311 at sea.

[802] Including Liverpool.

[803] Including 957 watermen.

[804] *State Papers, Dom.*, cclxxiv, Feb.

[805] *State Papers, Foreign*, 29th Dec. 1568, and *Ibid.* 1573-1279.

[806] 'Releasing them for bribes and billes of dette.'

[807] *Acts of the Privy Council*, 29th April 1576.

[808] *State Papers, Dom.*, cxxxv, p. 240.

[809] *State Papers, Dom. Add.*, xxix, 126.

[810] *Lansd. MSS.*, 148, f. 13.

[811] *Add. MSS.*, 11405, ff. 91, 103.

[812] *Lansd. MSS.* 148, f. 1 and *State Papers, Dom.*, cv, 18.

[813] *State Papers, Dom.*, cxxxix, 54. In 1603 these owners were still patiently petitioning James I.

[814] *State Papers, Dom.*, cclxv, 13.

[815] Near Vigo.

[816] *Ibid.*, cxci, 7.

[817] *Lansd. MSS.*, 115, f. 196.

[818] Appendix D.

[819] *State Papers, Dom.*, cxxxiii, 7.

[820] *State Papers, Dom.*, cclxxxvi, 11.

[821] *Harl. MSS.*, 253, f. 10.

[822] *Ibid.*, 253, f. 18, and *Exch. War. for Issues*, 17th Dec. 1597.

[823] *State Papers, Dom.*, ccxxviii, 1.

[824] *Cott. MSS.*, Otho E., VIII, f. 169.

[825] *Lansd. MSS.*, 61, f. 184.

[826] *State Papers, Dom.*, ccxxvii, 1.

[827] Breton.

[828] The last was of 12 barrels of 31½ gallons (old measure).

[829] *State Papers, Dom.*, ccxx. Stow says that Hawkyns introduced nettings. They went out of use for a time.

[830] *Harl. MSS.* 306, f. 68.

[831] *Pipe Office Accounts*, 2210, 2212.

[832] *Ibid.*, 2232.

[833] The *Jesus of Lubeck* and the *Revenge*.

[834] Ralegh, *Discourse of Ships*; Monson, *Naval Tracts*; Duro, *Disq. Nauticas*.

[835] Monson says that in 1599 a fleet was prepared for sea in twelve days, and 'the Queen was never more dreaded abroad for anything she ever did.'

[836] *Add. MSS.* 5752, f. 136.

[837] *Add. MSS.* 19889; *The Jewell of Artes*, 1604, f. 135 et seq.

[838] *Harl. MSS.* 309-51.

[839] *Add. MSS.* 9294, Nov. 1610.

[840] *State Papers, Dom., Jas. I.*, cl, 83, 84.

[841] Whole or partial external double planking.

[842] *Harl. MSS.* 2301.

[843] Paul Hentzner.

[844] On 20th July 1613 a warrant was issued to pay wages owing since 1608.

[845] *Add. MSS.* 9302, f. 9.

[846] *State Papers, Dom.*, cl, 20.

[847] *Ibid.*, xl, f. 70.

[848] *A Dialogical Discourse of Marine Affairs*, by Nath. Boteler, *Harl. MSS.* 1341. Partly printed in 1685 but of this period.

[849] *Ibid.*

[850] *State Papers, Dom.*, clxxxii, 29.

[851] *Rot. Pat.*, 26th April.

[852] *State Papers, Dom.*, xc, 98.

[853] *Ibid.*, xxii, 15.

[854] *Ibid.*, cxii, 101.

[855] *Ibid.*

[856] *State Papers, Dom.*, cxvi, 86.

[857] *Ibid.*, ciii, 104.

[858] *Ibid.*, lxxxix, 33.

[859] *State Papers, Dom.*, xli, f. 17.

[860] *Ibid.*, xl, 87.

[861] *Cott. MSS.*, Julius F. III, f, 15.

[862] *State Papers, Dom.*, xli, f. 25. See also Bishop Goodman's description of Mansell's temper in *Court of King James I*, I, 56.

[863] *State Papers, Dom.*, cxii, 101.

[864] *Coke MSS.*, *Cal. Hist. MSS.*, *Com. Report, xii*, App., pt. i, 41.

[865] *Cott. MSS.*, Julius F., III, ff. 98, 249, 250, 252.

[866] The report of the commissioners will be found in *State Papers, Dom. Jas. I*, xli; the sworn depositions on which that report was based are preserved in *Cott. MSS.*, Julius F., III. The evidence in question is of value for to-day, and may be instructively compared with the reports of the committee of investigation of 1803-5 on the again astonishing condition of naval administration. It is to be hoped that the Navy Records Society will print the *Cottonian MS.*

[867] Gardiner, *History of England*, II, 11.

[868] Gardiner, *History of England*, III, 200.

[869] *State Papers, Dom.*, clxxxii, 28.

[870] *Pipe Office Accounts*, 2257, 2259, 2260.

[871] The Commissioners acted by Letters Patent of 12th February 1619. They were Sir Lionel Cranfield, Sir Thos. Weston, Sir John Wolstenholme, Sir Thos. Smith, Nicholas Fortescue, John Osborne, Francis Goston, Richard Sutton, Wm. Pitt, Sir John Coke, Thos. Norreys, and Wm. Burrell.

[872] *State Papers, Dom.*, c and ci, 3.

[873] *State Papers, Dom.*, cli, 35.

[874] *Ibid.*, clx, 43.

[875] *State Papers, Dom.*, clvi, 12.

[876] There are few separate dockyard amounts for these years.

[877] Includes £4734 for a naval pageant on the Thames at the marriage of the Princess Elizabeth.

[878] Exclusive of Algiers fleet £6446.

[879] Exclusive of Algiers fleet £17,665.

[880] Inclusive of £9667 repairs to Algiers fleet.

[881] A fleet was sent to Spain for Charles, and £9100, owing from 1615, paid.

[882] *State Papers, Dom.*, clxxv, 85, 3000 hammocks were to be supplied in this fleet.

[883] *Cott. MSS.*, Otho E, VIII, f, 316.

[884] *Ibid.*

[885] *State Papers, Dom.*, lxxxvi, 101.

[886] *Ibid.*, xc, 24.

[887] R. Playfair, *The Scourge of Christendom*, p. 34.

[888] Monson, *Naval Tracts*.

[889] *State Papers, Dom.*, cli, 21.

[890] *State Papers, Colonial*, March 1620.

[891] *State Papers, Dom.*, civ, 65.

[892] *England's Way to Win Wealth*, Lond. 1614, and *The Trade's Increase*, Lond. 1615.

[893] The Dutch Company is said to have distributed in twenty-one years, ending with 1622, dividends of 30,000,000 florins on a

capital of some 6,000,000 florins, (Irving, *Commerce of India*).

[894] *Egerton MSS.*, 2100.

[895] *State Papers, Dom.*, xxii, 22.

[896] *Ibid.*, cxix, 118, 1 and 121.

[897] *State Papers, Dom. Jas. I* cxxxiii, 70; *Ibid.*, clviii, 54; *Ibid., Chas. I* xiii, 56. *Pipe Office Accounts*; *Add. MSS.*, 9294 p. 505; *Ibid.*, 9295, Pett's Autobiography; *Ibid.*, 9297, p. 359. As usual all these dimensions, especially tonnage, differ somewhat in the various papers.

[898] The *Nonpareil* rebuilt and renamed.

[899] The *Hope* rebuilt and renamed. These ships were not completed till 1605.

[900] The *Swiftsure* rebuilt and renamed.

[901] The *Ark Royal* rebuilt and renamed.

[902] The *Golden Lion* rebuilt and renamed.

[903] For convenience the *Merhonour*, *Dreadnought*, and *Defiance* are placed under one date, but they were in hand from 1611 till 1614.

[904] Or *Convertive*. This was the *Destiny* built for Sir Walter Ralegh before his last voyage, and afterwards bought or confiscated into the Navy.

[905] The *Rainbow* and *Antelope* were in dry dock some three years (*Pipe Office Accounts*).

[906] *State Papers, Dom.*, clxxiv, 56.

[907] *Cott, MSS.* Julius F. III, f. 293.

[908] *Ibid.*, Otho E., VII, f. 155. Letter, Pett to Baker, 10th April 1603.

[909] *Coke MSS.*, Cal. I, 114.

[910] In the literal but not later sense of

'three decker.' She had two full batteries besides an upper deck armed. In 1634 the authorities of the Trinity House, who, through a long series of years appear to have always chosen the wrong view, wrote, 'The art or wit of man cannot build a ship fit for service, with three tier of ordnance.' Three years later the first 'three-decker' was afloat.

[911] *Add MSS.*, 9294, Nov. 1610.

[912] *Pipe Office Accounts*, 2249.

[913] *State Papers, Dom.*, ci, 4.

[914] *Pipe Office Accounts*, 2248.

[915] *State Papers, Dom.*, xli, f. 39.

[916] *Ibid.*, clxi, 68. The classification is that of the *State Paper*.

[917] *State Papers, Dom.*, clviii, 56.

[918] *Ibid.*, and cviii, 58.

[919] *Harl. MSS.*, 2301. About 1625 or earlier, and by Sir Hen. Manwayring. It was printed in 1644 under the title of *The Seaman's Dictionary*. There is another MS. copy among the State Papers (*S. P. Dom., Chas. I*, cxxvii), called *A Brief Abstract ... of all Parts and Things belonging to a Ship*. The three versions differ but little from each other.

[920] *Add. MSS.*, 9299, f. 48.

[921] *Pipe Office Accounts*, 2248.

[922] *Ibid.*, 2252.

[923] *Pipe Office Accounts*, 2261.

[924] *Ibid.*, 2256.

[925] *Ibid.*, 2257, 2258.

[926] *Ibid.*, 2260.

[927] *Ibid.*, 2258.

[928] *Ibid.*, 2261, 2262.

[929] *Pipe Office Accounts*, 2262.

[930] *Add. MSS.*, 9297, f. 25.

[931] *Cott. MSS.*, Otho E. VII, ff. 219, 220.

[932] *State Papers, Dom.*, cxxxvi.

[933] *State Papers, Dom.*, cix, 139, 1.

[934] *Ibid.*, cxxxiii, 70.

[935] *State Papers, Dom., Eliz.* ccxxxvii, f. 119. Although calendared under Elizabeth

many of the papers in this volume are copies of documents relating to the reigns of James I and Charles I. See also M. A. Lower, *Contributions to Literature*, for an article on the Kent and Sussex gun foundries.

[936] *Cott. MSS.*, Otho E, VII, f. 78.

[937] *State Papers, Dom., Jas. I*, cxxviii, 94.

[938] Yonge's *Diary*, Camd. Soc.

[939] *State Papers, Dom.*, xvii, 103.

[940] *Ibid.*, cix, 139, I.

[941] *Add. MSS.*, 9302. f. 9.

[942] *Coke MSS.*, Cal. I, 105.

[943] *Cott. MSS.*, Otho E. VII, f. 263.

[944] *Cott. MSS.*, Otho E. VII, f. 263.

[945] Mr Del Mar (*Hist. of the Precious Metals*, p. 209), quoting Tooke and D'Avenant, estimates the stock of gold and silver coin in England and Wales in 1560 at £1,100,000 and in 1600 at £4,000,000.

[946] Martin, *Hist. de la France*, X, 446.

[947] Kolb, *Condition of Nations*, p. 209.

[948] Gardiner, *Hist. of England*, X, 222.

[949] *Parl. Debates*, 31st Aug. 1660.

[950] A writer of the reign of James I estimated that there were 37,000 Dutch seamen engaged in the North Sea fisheries alone; Ralegh put the number at 50,000 men.

[951] *State Papers, Dom., Charles I*, vi, 23. The original purpose had been to take 2000 English veterans in the service of the States-General, leaving the recruits in their place; but the men were sent before any arrangement had been come to with the Dutch, who finally refused to assent to it. The proceeding was

characteristic of Buckingham's hopeful belief in the immediate acceptance of his measures.

[952] 'The number of lame, impotent, and unable men unfitt for actual service is very great.' (Ogle to Conway, 18th June 1625.)

[953] *Ibid.*, ix, 15, Blundell to Buckingham.

[954] There were twelve king's ships in the fleet (*Pipe Office Accounts*, 2425).

[955] *State Papers, Dom.*, ix, 39, Cecil to Conway.

[956] *Ibid.*, xi, 49.

[957] Levet's *Relation of Cadiz Voyage*, Coke MSS.

[958] *State Papers, Dom.*, viii, 41, Coke to Buckingham.

[959] *Voyage to Cadiz in 1625* (Camden Society).

[960] Sir Allen Apsley, also lieutenant of the Tower, remained victualler with Sir Sampson Darrell till 1630.

[961] *State Papers, Dom.*, xviii, 63, 1.

[962] *Ibid.*, 75.

[963] *Ibid.*, xii, 81.

[964] *Ibid.*, xx, 25. February 1626.

[965] *State Papers, Dom.*, xxii. 33, and *Coke MSS.*, 4th March 1626.

[966] *Coke MSS.*, 27th February 1626.

[967] *State Papers, Dom.*, xiii, 67 and 73.

[968] *Ibid.*, xxiv, 9, and *Coke MSS.*, 12th April 1626.

[969] *State Papers, Dom.*, xxiv, 24.

[970] *Ibid.*, xxv, 45.

[971] *Ibid.*, xxiv, 33. Pennington to Buckingham.

[972] *State Papers, Dom.*, xxiv, 65.

[973] *Ibid.*, cxcvi, 32.

[974] *Proc.*, April, 1626.

[975] *State Papers, Dom.*, xxxv, 19, and *Add. MSS.*, 9339, f. 24. Six rates of vessels are classified. All carry trumpeters, and the first four drummers and fifers. Both lieutenants and corporals were employed in 1588, but afterwards discontinued; the *Lion* had a lieutenant in 1587, and perhaps it was not uncommon for a large ship on war service to carry an officer of that rank.

[976] According to rate of ship.

[977] Only to 1st, 2nd, and 3rd rates—'a place not formerly allowed.'

[978] 'Not formerly allowed'; his duties were akin to those of a musketry instructor of to-day.

[979] *Egerton MSS.*, 2541, f. 13.

[980] *State Papers, Dom.*, xxx, 48.

[981] *Ibid.*, 75.

[982] *Ibid.*, xxxiii, 27; July 1626.

[983] *Ibid.*, xxxv, 44.

[984] *State Papers, Dom.*, xxxv, 102 and 109, 1, Willoughby to Nicholas.

[985] *Ibid.*, xxxvi, 60.

[986] *Ibid.*, xxxvii, 57.

[987] *Ibid.*, xxxix, 78.

[988] *Ibid.*, xli, 56, (1626).

[989] *State Papers, Dom.*, 8 and 77, Philpott to Nichols.

[990] *Ibid.*, xlii, 100.

[991] 12th Dec. 1626.

[992] *State Papers, Dom.*, xlii, 137.

[993] *State Papers, Dom.*, xlix, 68; January 1627.

[994] *Ibid.*, liii, 9 and 10; February 1627.

[995] *Ibid.*, lxiv, 76, Mervyn to Buckingham.

[996] *Ibid.*, lxxxviii, 62; 1627.

[997] *State Papers, Dom.*, lxxxv, 61.

[998] *Ibid.*, lxxxvi, 42.

[999] *Ibid.*, lxxxvii, 37; December 1627.

[1000] *Ibid.*, lxxx, 83 and 86.

[1001] *Coke MSS.*, 17th September 1627.

[1002] *State Papers, Dom.*, xc, 38.

[1003] *Ibid.*, 75.

[1004] *Ibid.*, xcii, 73; February 1628.

[1005] *State Papers, Dom.*, xcviii, 26.

[1006] *Ibid.*, 29, March 1628, Gorges to Buckingham.

[1007] *Ibid.*, cv, 80; 1628.

[1008] *State Papers, Dom.*, cv, 85.

[1009] *Ibid.*, cviii, 18.

[1010] *Add. MSS.*, 9297, f. 118.

[1011] *Coke MSS.*, 3rd June 1628.

[1012] *State Papers, Dom.*, cxiv, 48.

[1013] *State Papers, Dom.*, cxx, 27; November 1628.

[1014] *Ibid.*, cxviii, 78.

[1015] *Ibid.*, cxlix, 90; September.

[1016] *Ibid.*, 92.

[1017] *State Papers, Dom.*, clxxii, 42; August 1630.

[1018] *Ibid.*, clxxv, 75.

[1019] *Ibid.*, ccxviii, 52.

[1020] *Ibid.*, ccxlvi, 85.

[1021] *State Papers, Dom.*, cclxxii, 58; July 1634.

[1022] *Ibid.*, cclxxix, 106, *Advice of a Seaman*, &c., by Nath. Knott.

[1023] *State Papers, Dom.*, ccxcviii, 5; September 1635.

[1024] *Add. MSS.*, 9301, f. 54.

[1025] *State Papers, Dom.*, cccxxvi, 10.

[1026] *Ibid.*, cccxxxvii, 15.

[1027] *Ibid.*, cccxxxviii, 39.

[1028] *Aud. Off. Dec. Accounts*, s.v. 'Navy.'

[1029] *State Papers, Dom.*, cccliii, f. 95.

[1030] *Ibid.*, ccclxv, 28.

[1031] The sale of gunpowder was at this time a crown monopoly (*Fœdera*, xx, 107). Charles's sad and picturesque dignity of appearance did not imply such a delicate sense of honour as to prevent him turning a penny by forcing contraband of war through the fleet of a friendly power and supplying the privateers who were the scourge of English commerce.

[1032] In the eighteenth century he would have had a hole-and-corner trial, undefended and ignorant of the law, before the associates, and perhaps friends, of the man whom he had assaulted.

[1033] *State Papers, Dom.*, lvi, 101, (1627), and ccccvii, 32, (1638).

[1034] *State Papers, Dom.*, ccccxxxi, 30.

[1035] With the exception of the Amboyna affair, a case once more of the 'prancing proconsul,' the Dutch showed, throughout this century, exemplary patience and moderation under a long course of provocation, in affairs of salutes, right of search, and seizures of ships, several instances of which there will be occasion to mention. The rulers of the United Netherlands chose to consider wider aims and more urgent needs than revenge for insults to their flag, however flagrant, but when the Navigation Act of 1651 brought matters to a crisis the Dutch must have felt that they had a long score to settle.

[1036] *State Papers, Dom.*, cccclxxxii, 13.

[1037] *State Papers, Dom.*, ccccxciv, 2nd Jan. 1643.

[1038] Public Acts, 17th Charles I.

[1039] Preface to *Calendar of State Papers*, 1652-3, p. xii. In other prefaces Mrs Green refers to the same point.

[1040] The number eventually serving that year was nearer 20,000, but this included some thousands of soldiers.

[1041] *Infra* p. 244.

[1042] *State Papers, Dom.*, cii, 72.

[1043] *Ibid.*, cclxiv, f. 33.

[1044] *Ibid.*, cccvi, 87; 1635. In another copy of this paper (*Add. MSS.*, 9301, f. 57), they suggest the sensible remedy of a register at each custom house, in which agreements might be entered.

[1045] *State Papers, Dom.*, cccxcviii, 23 and 40.

[1046] *Fœdera*, xx, 278; 25th November 1638.

[1047] *State Papers, Dom.*, cclxxi, 12.

[1048] Digby's *Voyage* (Camden Society), p. 9.

[1049] *State Papers, Dom.*, clv, 31 and cclxxxii, 135.

[1050] *State Papers, Dom.*, xviii, 59.

[1051] But only applicable in port.

[1052] *Add. MSS.*, 18772.

[1053] *State Papers, Dom.*, ccclii, 78.

[1054] *State Papers, Dom.*, cccxii, 90.

[1055] *Ibid.*, ccclii, 78.

[1056] *Ibid.*, 81.

[1057] *Add. MSS.*, 9301, f. 156.

[1058] I am indebted to the courtesy of Admiral Sir R. Vesey Hamilton, K.C.B., President of the Royal Naval College, for permission to examine these books.

[1059] In receipt of yearly pensions.

[1060] For eight months ending 4th January 1644.

[1061] For three and a half months.

[1062] For a year.

[1063] *State Papers, Dom.*, cclxxix, 106.

[1064] *Reasons*, &c., dated 17th June. The officers who sign threaten, unless terms are made with the King, to blockade the river.

[1065] Various authorities give 9, 10, and 11 ships; the discrepancies may most probably

be explained by supposing that one or two of those which left the Downs turned back before reaching Holland.

[1066] *Clarendon*, IV, 574, ed. 1888.

[1067] Warburton, *Memoirs of Prince Rupert*, III, 262.

[1068] *Supra* p. 207. The *Speedwell* was lost in November 1624, after this list was drawn up. There were also some worn out Elizabethan ships remaining, the *Crane*, *Answer*, *Moon*, and *Merlin*, which the compiler did not consider of sufficient importance to include.

[1069] *Pipe Office Accounts*, 2425.

[1070] *State Papers, Dom.*, lxvii, 47.

[1071] *Pipe Office Accounts*, 2428.

[1072] E.g. the *Sovereign of the Seas*, which, until she was cut down, was the largest most ornate, and most useless ship afloat.

[1073] *State Papers, Dom.*, lxxi, 65. These remarks must be read in conjunction with those relating to the lack of victuals and stores, and want of competent and willing service on the part of officers and men, made in Part I, and for which Buckingham's incapacity was principally responsible. But his incapacity was, in this matter, not the only nor even the main factor, since, when in 1627 he applied to Gyffard, Sir Sackville Trevor, and Hervey for suggestions as to freeing the narrow seas from pirates, they agreed that the existing vessels were too slow to catch any but others of their own type (*State Papers, Dom.*, liv, 9, 11-13). In October 1625, the Channel squadron consisted of ten English men-of-war and merchantmen and four Dutch ships, a larger force than had probably ever been employed before for

merely protective duties. The conditions were as bad or worse, after his death.

[1074] *State Papers, Dom.*, cclxxvii, 43.

[1075] *Ibid.*, xi, 62, 63. Assuming in these instances the rake, fore and aft, to have been about three-eighths of the keel length.

[1076] *Ibid.*, lvi, 56.

[1077] *Ibid.*, lvii, 42.

[1078] *Ibid.*, cccxxxviii, 39.

[1079] Other prizes, which were nominally King's ships, but which only served during one of the big expeditions or for a few weeks in the Channel, were the *Mary Roan*, *St George*, *St Peter*, *Pelican*, *Mackerel*, *Nightingale*, *St James*, *Little Seahorse*, and *Hope*. Where special references are not given, the general authorities are *State Papers, Dom.*, ccxv, 108; ccxxviii, f, 38; ccxliv, 23; ccclxviii, 121; *Add. MSS.*, 9294, f, 505; 9300, f, 54; 9336, ff, 63, 64; 18,037 and 18,772. As in previous instances the measurements frequently differ in these lists, and can only be taken as approximately correct.

[1080] From greatest breadth to upper edge of keel.

[1081] *State Papers, Dom.*, x, 25.

[1082] *Ibid.*, xxiv, 4. The *St Mary* was given to Sir John Chudleigh in 1629.

[1083] *State Papers, Dom.*, xxiv, 62.

[1084] *Ibid.*, xxi, 72, and *Aud. Off. Dec. Accounts*, 1699, 64.

[1085] *Ibid.*, xxxvii, 95.

[1086] Called the 1st, 2nd-10th whelps. Two differed slightly in size from the others.

[1087] *Aud. Off. Dec. Accounts*, 1699, 66.

[1088] A Dutch-built ship bought for Richelieu's newly created fleet, but taken in the Texel (*State Papers, Dom.*, lxxxiii, 20 and lxxxvi, 64).

[1089] Captured Dunkirkers. The measurements of the *Nicodemus*, *Nonsuch*, *Phœnix*, and *Elizabeth*, are from a paper in the *Pepys MSS.*, quoted in Derrick's *Memoirs of the Royal Navy*. The *Swan* was lost off Guernsey in October 1638.

[1090] Bought in 1642 (*Aud. Off. Dec. Accounts*, 1706, 89).

[1091] Built in 1646 as a privateer, and employed as such by Warwick (half share), Pett, Swanley, and others; bought by the Parliament from 20th Jan. 1649, when she was appraised at £2081 (*State Papers, Dom., Interreg.*, xxiii, 119). The dimensions are from *Harl. MSS.*, 4161. She is popularly said to have been the first frigate built in an English yard, but it will be seen from the above list that four others, of a still more pronounced frigate type, were launched in the same year.

[1092] The first seven vessels were prizes captured during the civil war and taken into the Navy, in which they remained long enough to be included in the Commonwealth lists; the *Globe*, and *Hector* were merchantmen bought into the service. For the names of others see *Aud. Off. Dec. Accounts*, 1812, 443 A.

[1093] *State Papers, Dom.*, xxi, 72.

[1094] *Supra*, p. 54. Mr R. C. Leslie (*Old Sea Wings, Ways, and Words*, p. 49 et seq.) believes all the smaller craft of old, and some large ones, to have been clinker-built.

[1095] *State Papers, Dom.*, lviii, 25.

[1096] *Ibid.*, cxxi, 41.

[1097] *Ibid.*, ccclxv, 17; 1637.

[1098] *State Papers, Dom.*, ccclxiii, 29. It is difficult even in these days of mechanical appliances to keep the ports completely water-tight in heavy weather. Ports were fastened by a bar of wood passed through a ring on the inside; but this could not have been very effectual, and it was usual to drive oakum into the seams of the ports when bad weather was expected (*Nomenclator Navalis*).

[1099] The Dutchman was probably Cornelius Drebbel, who claimed to have solved the secret of perpetual motion, and to have invented a submarine boat. His name occurs several times in the *State Papers* as receiving rewards for various inventions and appliances, and in 1628 he was employed in the preparation of some especial fireships and 'engines for fireworks.'

[1100] *Aud. Off. Dec. Accounts*, 1703, 73.

[1101] The original waistcloths of the *Prince* were of silk; ordinary waistcloths, the precursors of the later boarding nettings, were still of red kersey listed with canvas.

[1102] *State Papers, Dom.*, ccliv, 25.

[1103] *Ibid.*, ccxliv, 77, 78.

[1104] *State Papers, Dom.*, cclxvii, 55. Pennington said nothing about the crew; he was used to such crews. But Sir Hen. Manwayring remarked that he had never seen a ship so wretchedly manned; that, except the officers, there was scarcely a seaman on board, and that they were 'men of poor and wretched person, without clothes or ability of body, tradesmen, some that never were at sea, a fletcher, glover, or the like,' (*Add. MSS.*, 9294,

f. 489).

[1105] *Ibid.*, cclxviii, 47.

[1106] *Ibid.*, cclxxiii, 49, 1 and 50.

[1107] *State Papers, Dom.*, ccxli, 16; 1633.

[1108] *Ibid.*, ccxxviii, f. 63a.

[1109] *Ibid.*, cclxxviii, 41, I.

[1110] *A True Description of His Majesty's Most Royal and Stately Ship*, etc., 2nd edit., London, 1638.

[1111] *State Papers, Dom.*, cclxxiii, 25.

[1112] *Ibid.*, cclxiv, ff. 67 *a* and 87 *a*.

[1113] Storekeeper at Deptford; one would suppose a most unlikely person to be consulted on such a point.

[1114] *State Papers, Dom.*, cclxxxvi, 44.

[1115] *Ibid.*, cclxxxvii, 73.

[1116] *Aud. Off. Dec. Accounts*, 1703-77.

[1117] *State Papers, Dom.*, ccxcviii, 20.

[1118] *Ibid.*, ccclxi, 73.

[1119] In the *Leopard* and *Swallow* he had himself ordered that the ports should be eight feet apart (*State Papers, Dom.*, cclx, 86,) although Pennington and other practical seamen urged that nine feet was the minimum space that should be allowed.

[1120] *State Papers, Dom.*, ccclxxiv, 30, and ccclxxxvii, 87.

[1121] Drakes were fired with full, periers with low, charges of powder.

[1122] *State Papers, Dom.*, ccclxxxvii, 87.

[1123] *Add. MSS.*, 9297, f. 345.

[1124] *State Papers, Dom.*, cclxxix, 27.

[1125] *State Papers, Dom.*, cccxix, 4, 15. When ships were in commission captains were in the habit of cutting windows and scuttles in a vessel's side if it suited their convenience.

[1126] *Ibid.*, cclxxxiii, 1.

[1127] *Aud. Off. Dec. Accounts*, 1703, 78.

[1128] *State Papers, Dom.*, ccccxcviii, 48 and 51.

[1129] *Ibid.*, xxxiii, 108; 1626.

[1130] *Ibid.*, 78.

[1131] *State Papers, Dom., Elizabeth*, ccxxxvii, f. 60 (list of French and Spanish ships before Rochelle). There were thirty-six Spaniards, and eleven of them were of 1000 tons apiece, the others being nearly as large.

[1132] *State Papers, Dom., Charles I*, clxiv; 9th April 1630.

[1133] *Ibid.*, cxcviii, 84.

[1134] Barbou, *Hist. de la Marine Française*.

[1135] *State Papers, Dom.*, lv, 39; 1627. By John Wells. I cannot profess to explain how all the figures here given are obtained.

[1136] *I.e.*, 63½ x 26⅛ x 11 ÷ 100 = 182 burden and 243 ton and tonnage (Cf. *supra*, p. 30, note 2, and p. 132.)

[1137] The planks on the inside of a ship's frame on the floor.

[1138] This method was adopted during the Commonwealth.

[1139] *State Papers, Dom.*, xxvii, 67.

[1140] *State Papers, Dom.*, xxix, 7.

[1141] Floor, the bottom of a vessel on each side of the keelson.

[1142] *State Papers, Dom.*, xxix, 10.

[1143] Other papers relating to this question will be found in *State Papers, Dom.*, xxxii, 119-121; xxxviii, 30, 1; lv, 36; lvii, 92; and lix, 75.

[1144] *State Papers, Dom.*, ccxxvi, 74. By the old rule the *Sovereign* was of 1367 net and 1823 gross tonnage (*ibid.*, ccclxi, 71).

[1145] From outside to outside.

[1146] 'Withinside the plank.'

[1147] Leaving out the false post, *i.e.*, a piece bolted to the after edge of the main stern post.

[1148] *State Papers, Dom.*, xvi, and xvii.

[1149] *State Papers, Dom.*, xxxi, 56; xxxii, 29, 71, 72, 1; xxxiii, 3, 1, 70, 1, 120, 129; xxxiv, 31, 98-110; xxxix, 28, 50, 1. North Wales has nothing larger than thirty tons, and 'not six persons who can take charge of a barque as far as Dublin or the Land's End.'

[1150] *State Papers, Dom.*, xcii, 45.

[1151] The East India Company possessed this year a fleet of twenty-seven ships, of 12,250 tons (*ibid.*, cxviii, 76).

[1152] *Ibid.*, cxxxvii, Feb. 1629.

[1153] *Ibid.*, cxxxii, 19, 20; cxxxviii, 4; cclxxxii, 135, (1634).

[1154] *State Papers, Dom.*, xlvii, 22.

[1155] *State Papers, Dom.*, liii, 62.

[1156] *Ibid.*, lxi, 79, 81.

[1157] *Ibid.*, 85, 1.

[1158] *Ibid.*, lxxx, 77, 1.

[1159] *Harl. MSS.*, 1721, f. 642, and 7018, f.

24.

[1160] *State Papers, Dom.*, cclvii, 29.

[1161] *Ibid.*, cccliii, f. 116.

[1162] *Add. MSS.*, 9302, f. 24.

[1163] *State Papers, Dom.*, xciv, 1.

[1164] Meaning an order on the Treasurer of the Navy.

[1165] *State Papers, Dom.*, iv, July 21.

[1166] *Ibid.*, xxx, 53.

[1167] *Specifications relating to Marine Propulsion.* London, 1858.

[1168] *Ibid.*

[1169] *Fœdera*, xix, 257.

[1170] *State Papers, Dom.*, cclxxii, 72. Perhaps the inventor was a Mr Philip White (*S. P. D. Interreg.* May 25, 1658), in which case it was patented for fourteen years from the 10th of Charles I.

[1171] *State Papers, Dom.*, v, 6, 24, 36. As is well known, several Englishmen of good family joined the Algerines and other states. It must have been solely their guidance that brought the Mediterranean corsairs so far north.

[1172] *Ibid.*, xxv, 71.

[1173] *Ibid.*, xxx, 17, (1626).

[1174] *Ibid.*, xliii, 46, (1626).

[1175] *State Papers, Dom.*, xxxiv, 85, (1626); and lvi, 66, (1627). We have no figures which enable us to even guess at the financial loss caused by the Dunkirkers during the first half of the seventeenth century, but M. Vanderest (*Hist. de Jean Bart.* 1844), himself a native of the town and having access to its archives,

estimates the pecuniary injury they caused to England during forty years of warfare, from 1656, at 350,000,000 livres. Nor does this computation appear to take into account the higher value of money during the seventeenth and eighteenth centuries.

[1176] *State Papers, Dom.*, lxx, 8 and 9.

[1177] *Ibid.*, clxii, 41, 82.

[1178] *Ibid.*, cccxxxi, 7.

[1179] *State Papers, Dom.*, cccxxxiv, 16. Stradling to Nicholas.

[1180] *Autobiography of the Rev. Devereux Spratt.* London, 1886. It need hardly be said that the jealousies of Christian princes were a large factor in causing the immunity in which these barbarian states so long rejoiced. Spratt was captured while crossing from Cork to Bristol.

[1181] It does not come within the design of this work to describe the operations of fleets at sea, but, in this instance, I must venture to question Mr Gardiner's depreciatory estimate of William Rainsborow as a commander. Mr Gardiner considers that such success as was obtained was due neither to Rainsborow's skill nor to the efficiency of his men, but to the existence of civil strife, disorganising what might have been a united opposition, between the old and new towns of Sallee, situated opposite each other on the right and left banks of the river Regreb (*Hist. of England*, viii, 270). When Rainsborow arrived off Sallee on 24th March with four ships, he found that they drew too much water to close in effectually with the town. Instead of wandering off helplessly to Cadiz and spending his time in 'shooting and ostentation,' as Mansell did to Malaga under adverse circumstances,

Rainsborow, while he sent to England for lighter vessels, organised a blockade with the boats of his squadron. So far as I know he was the first of our commanders to recognise—and almost invent—the possibilities of boat work on a large scale, in which English seamen afterwards became such adepts, and it appears rather that his readiness and resource under unexpected and unfavourable conditions should alone be sufficient to relieve his memory from the charge of want of skill. That this patrol duty was no child's play is shown by the fact that in one night's work thirty men were killed and wounded in the boats (John Dunton, *A True Journal of the Sallee Fleet*. London, 1637). In June he was joined by the *Providence* and *Expedition*, which made the task easier; but for the previous three months, riding on a dangerous lee shore, in a bad anchorage, and exposed to the heavy Atlantic swell, using the ships by day and the boats by night, he never relaxed his bulldog grip on the place, in itself a proof of fine seamanship. That the end came more quickly from the existence of civil war is very certain, but I think no one who reads Dunton's account (he was an officer of the flagship), and Rainsborow's own modestly written Journal (*State Papers, Dom.*, ccclxix, 72), can doubt that the result would eventually have been the same, seeing that the blockade grew closer day by day until at last every vessel which attempted to pass in or out was captured or destroyed. In August, when the enemy were already crushed, two more ships joined him, and he was then quite strong enough to have dealt with both the old and new towns, had they been united, or to have gone on, as he desired to go on, to settle accounts with Algiers. It should also be remarked that Rainsborow anticipated Blake in

attacking forts with ships, the *Providence* being sent in within musket range of the castle and coming out unscathed from the contest. Looked at from another point of view, and compared with the French attempts against Sallee, Rainsborow's ability and success stand out just as clearly. In 1624 M. de Razilly was sent down with a squadron, but permitted himself to be driven off by weather; in 1629 he came again, and, after lying off the port for three months and negotiating on equal terms with these savages, had to depart without having obtained the release of a single French captive. A surely significant contrast!

That Charles was satisfied with Rainsborow does not, perhaps, prove much, although he offered him knighthood and did give him a gold medal and chain and make him captain of the *Sovereign*, a post then of high honour. But Northumberland, a very much better judge was equally well pleased, and in 1639, strongly recommended him to the burgesses of Aldborough as their member. Northumberland, not then Lord Admiral, but paramount in naval affairs, is also entitled to a measure of the credit of success; for had Rainsborow been dependent on the energy and intelligence of the Principal Officers of the Navy for the supplies which enabled him to keep his station he would probably have fared but badly. And doubtless many of the men who under him worked with such courage and devotion had formed part of the demoralised and useless crews who were such objects of scorn to Wimbledon and his officers before Cadiz in 1625. The only difference was in the commander.

[1182] *State Papers, Dom.*, cccclix, 8, 60.

[1183] Halliwell's *Royal Letters*, II, 277.

[1184] The first Commissioners of the Admiralty acted by Letters Patent of 20th September 1628. They were Richard, Lord Weston, Lord Treasurer; Robert, Earl of Lindsey, Great Chamberlain; William, Earl of Pembroke, Lord Steward; Edward, Earl of Dorset, Lord Chamberlain to the Queen; Dudley, Viscount Dorchester, Vice-Chamberlain of the Household; and Sir John Coke, Secretary of State. Powers were granted to them or any three of them. Although in modern phrase they are called Lords of the Admiralty, they were in reality a committee of the Privy Council, carrying out the instructions of the King and Council, who retained the power and exercised the control of an eighteenth century Admiralty Board. A fresh commission was issued on 20th November 1632, which omitted Lords Pembroke and Dorchester, and added Lord Cottington, Sir Francis Windebank, and Sir Henry Vane (the elder). The third and last commission was of 16th March 1636 to William Juxon, Bishop of London, Lord Treasurer, Lords Cottington, Lindsey, and Dorset; and Vane, Coke, and Windebank.

[1185] His patent as Lord Admiral was dated 28th Jan. 1619.

[1186] *State Papers, Dom., Charles I*, ccxli, 85, 86.

[1187] *Add. MSS.*, 9301, f. 110.

[1188] *State Papers, Dom.*, ccciv, 9.

[1189] *State Papers, Dom., Elizabeth*, ccxxxvii, f. 138.

[1190] *State Papers, Dom., Charles I*, ccclxxii, 21.

[1191] *Rot. Pat.*, 5th April 1627.

[1192] It will be remembered that during his treasurership he helped himself to £3000 from the Chatham Chest, and that the money was still owing in 1644. After his dismissal from office Crowe was ambassador of the Levant Company at Constantinople, and, in 1646, nearly ruined that company by, on the one hand, quarrelling with the Porte, and on the other imprisoning the members and agents of the association. When he returned in 1648 he was sent to the Tower, but seems to have escaped scatheless.

[1193] *Rot. Pat.*, 11th Feb. 1626 (a renewal of his patent of James I), and 21st Jan. 1630.

[1194] *Rot. Pat.*, 12th Jan. 1639.

[1195] *Ibid.*

[1196] *Ibid.*, 19th Dec. 1632.

[1197] *Ibid.*, 26th Sept. 1638.

[1198] By an order of 13th Feb. 1637 no place in the Navy or Ordnance offices was henceforth to be granted for life, but only during pleasure. Edisbury's real name was Wilkinson (see Hasted, *Hist. of Kent*, I, 20 note, ed. Drake, London, 1886).

[1199] *State Papers, Dom.*, cxxxv, 37.

[1200] *Ibid.*, clii, 51.

[1201] *Add. MSS.*, 9301, ff. 121, 133.

[1202] Barlow lived to contest the place with Pepys in 1660. The date of his patent was 16th Feb. 1639.

[1203] *State Papers, Dom.*, clxxiii, 6. Mervyn to Nicholas.

[1204] The Duke of York was 'declared' Lord Admiral at a meeting of the Council on 18th March 1638. There was no patent.

[1205] *Rot. Pat.*, 13th April 1638.

[1206] *Add. MSS.*, 9297, f. 178

[1207] The price of beer at this time was about £1, 10s a tun.

[1208] In 1634 Palmer, the Comptroller, Denis Fleming, Clerk of the Acts, Phineas Pett, another Principal Officer, and several storekeepers and masters attendant had all been suspended for selling government stores for their own profit.

[1209] *State Papers, Dom.*, ccccliii, f. 88.

[1210] *State Papers, Dom.*, ccccliii, f. 55.

[1211] *State Papers, Dom.*, xiii, 70, (1625), *i.e.*, by the system of servants and apprentices. It was not until 1647 that the shipkeepers in the Medway were ordered to strike the bell on board every half-hour through the night (*Add. MSS.*, 9306, f. 103).

[1212] *State Papers, Dom.*, cclviii, 30.

[1213] *Discourse of the Navy*, (*Add. MSS.*, 9335).

[1214] *Discourse of the Navy* (*Add. MSS.*, 9335).

[1215] *State Papers, Dom.*, xxvii, 69.

[1216] *Ibid.*, cli, 33.

[1217] *Ibid.*, cclx, 29. Edisbury to Nicholas.

[1218] *Ibid.*, cclxiii, 19.

[1219] *Add. MSS.*, 9306, f. 119.

[1220] *State Papers, Dom.*, xxiii, 120; 1626. Ten years later Northumberland still complained about this. There had been no reform.

[1221] *State Papers, Dom.*, cccclxxx, 36.

[1222] *Ibid.*, ccccxxix, 33.

[1223] It must not, however, be supposed that naval morality was worse during the reigns of James and Charles than subsequently. Leaving the eighteenth century out of consideration it was said that at the beginning of this one the annual public loss from fraud and embezzlement ran into millions, a sum which may well have almost drawn the shades of Mansell and hundreds of other pettifogging seventeenth century navy thieves back to earth. The great difference was that at the later date, whether from higher principle or stricter discipline, the combatant branches of the service were honest, the theft and jobbery being confined to the Admiralty, Navy and Victualling Boards, and dockyard establishments. Lord St Vincent said of the Navy Board that it was 'the curse of the Navy,' and the methods of the dockyards may be gauged from the fact that while the (present) *Victory* cost £97,400 to build, £143,600 were in fifteen years expended on her repairs. Of the Admiralty there will be much to be said.

[1224] *State Papers, Dom.*, ccxxix, 114.

[1225] *Ibid.*, ccxlv, 19.

[1226] *State Papers, Dom.*, cviii, 18.

[1227] *Ibid.*, ccxxvii, 1.

[1228] *Ibid.*, cclxix, 67.

[1229] *Ibid.*, ccclxxvi, 160 and ccccxlii, 12. Cf. *supra*, p. 239.

[1230] *Ibid.*, cccxcvii, 37.

[1231] *State Papers, Dom.*, cccclxxvi, 115.

[1232] *Butler's Dialogical Discourse*, &c. Of course the guns would be going all the time; this form of reception appears to have been

that given also to the King or to a general commanding an expedition.

[1233] *State Papers, Dom.*, liii, 40. Heydon to Nicholas.

[1234] *State Papers, Dom.*, lxxxviii, 27.

[1235] *Ibid.*, ccxx, 25. Professor Laughton was the first to suggest (*Fortnightly Review*, July 1866), that the real origin of the English claim to the lordship of the narrow seas is to be found in the possession by our early kings of both shores of the Channel.

[1236] *Ibid.*, 2nd May 1635.

[1237] *State Papers, Dom.*, cccxvii, 102.

[1238] *Ibid.*, cccxxxvi, 13 and cccxxxviii, 39.

[1239] *Aud. Off. Decl. Accounts*, 1699, 65.

[1240] *Ibid.*, 1812, 443 A.

[1241] The last of tonnage measurement varied in different places, but was of about two tons.

[1242] *State Papers, Dom.*, ccccxxxviii, 102.

[1243] Pennington and his men were paid double wages 'out of the French king's moneys' (*Aud. Off. Decl. Accounts*, 1698, 63), which throws their intense abhorrence of their work into still stronger relief.

[1244] In this year the Navy and Ordnance offices were £251,000 in arrears (*State Papers*, lxxxvii, 35).

[1245] *Add. MSS.*, 17,503.

[1246] Includes 'all incident expenses,' such as repairs, shipkeepers, administration, etc.; the difference between the totals of the third and fourth columns, together, and the fifth is in great part covered by the cost of the winter

fleets.

[1247] And eight pinnaces.

[1248] Summer ‘guard,’ or fleet.

[1249] Winter guard.

[1250] Includes allowance of twenty shillings a month per man to the crews of 48 privateers.

[1251] Includes cost of new ships building.

[1252] Few historical students admire Charles I, but even such a king as he is entitled to the justice of posterity beyond that which he obtained from his contemporaries. Professor Hosmer (*Life of Sir H. Vane the Younger*, p. 497) says that Vane, ‘had created the fleet out of nothing, had given it guns and men.’ He appears to think that a naval force, with its subsidiary manufactures and establishments, could be created in a few years, but, as a matter of fact, Parliament commenced the struggle infinitely better equipped at sea than on land, and it was so powerful afloat that it did not find it necessary to begin building again till 1646, when the result of the struggle was assured. If Mr Hosmer is referring to a later period, the statement is still more questionable, since the number of men-of-war had been increased and Vane had ceased to have any special connexion, except in conjunction with others, with naval affairs. Allowing for his narrow intelligence and vacillating temperament Charles showed more persistence and continuity of design in the government of the Navy than in any other of his regal duties; for, although relatively weaker as regards other powers, England, as far as ships and dockyards were concerned, was stronger absolutely in 1642 than in 1625. The use made of the ship-money showed that

under no circumstances could Charles have been a great naval organiser; but he has at least a right to have it said that he improved the *matériel* of the Navy so far as his limited views and disastrous domestic policy permitted.

Returning to Vane, Mr Hosmer says in one place (p. 148), that the post of Treasurer was worth £30,000, and in another (p. 376), £20,000 a year. What Mr Hosmer's authority (G. Sikes, *The Life and Death of Sir Henry Vane*), really writes is, 'The bare poundage, which in time of peace came to about £3000, would have amounted to about £20,000 by the year during the war with Holland.' The poundage in peace years never approached £3000, and, as Vane ceased to be Treasurer in 1650, and, from the date of his resignation, a lower scale of payment was adopted, the second part of the calculation is obviously nothing to the purpose. Whether the reduction in the Treasurer's commission was due to Vane, or whether he resigned on account of it, we have no evidence to show, nor do vague generalities help to clear the doubt. As bearing testimony to Vane's disinterestedness Mr Hosmer quotes Sikes to the effect that he returned half his receipts, from the date of his appointment as sole Treasurer, at the time of the self-denying ordinance. Unfortunately the accounts previous to 1645 are wanting and the question must remain open, but if the probability may be judged by general tendency it must be said to be extremely unlikely, since he was Treasurer from 8th Aug. 1642 till 31st Dec. 1650, and during that time received in poundage and salary for the five-and-a-half years for which the accounts remain the sum of £19,620, 1s 10d. There is no sign in the audit office papers that he returned one penny

of his legal dues, and, whoever else had to wait, he seems to have paid himself liberally and punctually. Mr Hosmer has only indirectly noticed that Parliament, when Vane resigned, settled a retiring pension on him. Sikes says, 'some inconsiderable matter without his seeking, was allotted to him by the Parliament in lieu thereof' (*i.e.*, of his place). The 'inconsiderable matter,' was landed estate producing £1200 a year. Seeing that he held his post for only seven and a half years, that during that time he must have received at least £25,000, and that all previous Treasurers had been, on occasion, dismissed without any suggestion of compensation, his disinterestedness may be questioned. When Parliament voted Ireton an estate of £2000 a year he refused it on account of the poverty of the country. And Sikes's version that it was 'without his seeking' is not absolutely beyond doubt. On June 27th, 1650, a petition of Vane's was referred to a committee to discuss how the treasurership was to be managed from Dec. 31st following, and 'also to consider what compensation is fit to be given to the petitioner out of that office or otherwise in consideration of his right in the said office.' It is no unjustifiable assumption to infer from this the possibility that the petition at any rate included a claim for compensation. Sikes, again, tells us that he caused his subordinate Hutchinson to succeed him, but when, on 10th Oct. 1650, the motion was before the House that the 'question be now put' whether Hutchinson's appointment should be made, Vane was one of the tellers for the 'Noes' and was beaten by 27 to 18. This was immediately followed by Hutchinson's nomination without a division. The incidents of Hutchinson's official career imply a much stronger and more

lasting influence than that of Vane, but the only importance of the question is as affecting the trustworthiness of the latter's seventeenth century biographer. Mr Hosmer, like all other writers on Vane, appears to quote Sikes with implicit faith, but the man evidently wrote only loosely and generally, making up in enthusiasm what he lacked in exactness; *e.g.*, 'In the beginning of that expensive war he resigned the treasurership of the Navy.' Hutchinson succeeded him from 1st Jan. 1650-1, and war with Holland did not occur till June 1652. There is nothing to show that Vane was not an honest administrator, but his party, fortunately, produced many others equally trustworthy.

[1253] *Add. MSS.*, 9302, f. 42.

[1254] *State Papers, Dom.*, ccxxxix, 43.

[1255] *Add. MSS.*, 9297, f. 75.

[1256] *State Papers, Dom.*, clxxiii, 32.

[1257] *Supra*, p. 150.

[1258] *State Papers, Dom.*, ccxlv, 49; January 1627.

[1259] *Ibid.*, l, 45.

[1260] *Ibid.*, cxxxviii, 66.

[1261] *Ibid.*, cxliii, 37.

[1262] J. Holland, *Discourse of the Navy*.

[1263] *Add. MSS.*, 9301, f. 135.

[1264] *Egerton MSS.*, 2541, f. 123, Deptford was chiefly used for building, and Chatham for repairing.

[1265] *State Papers, Dom.*, cccii, 27.

[1266] *Ibid.*, cccliii, f. 67.

[1267] *State Papers, Dom.*, cccxlvii, 85.

[1268] *Ibid.*, xlviii, January 20. This, must, however, refer to some improvements as ring-bolts for the purpose are mentioned earlier.

[1269] *Fœdera*, xix, 549.

[1270] It is possible, too, that the present navy button and cap badge may be traced back, in inception, to the parliamentary *régime*. Northumberland's seal consisted merely of his arms (*reverse*), with (*obverse*) a figure on horseback with a background of sea and ships; and although earlier Lords Admirals—Southampton, Lincoln, and Buckingham—had used the anchor, none of them had combined the coronet, anchor, and wreath. Warwick's was one which differs only in the relative proportions of the details from the button and badge now in use, except that the anchor is now fouled. If it is only a coincidence it is a curious one. Popham, Blake, and Deane employed a modification of Warwick's seal, omitting the crown; and the Navy Office adopted another, consisting of three anchors, a large centre one with a smaller on each side, and 'The Seale of the Navye Office' round the edge, so that the device selected by Warwick seems, in one form or another, to have been soon widely used and continued. A reproduction of this Navy Office Seal is used on the binding, and at the foot of the Preface, of the present volume.

[1271] These prices were paid by the government; the cost to the sailor depended on the honesty of many intermediaries.

[1272] *State Papers, Dom., Interreg.*, 22nd June 1649; Council to Generals of fleet.

[1273] Captain John Stevens, *Royal Treasury of England*, 1725. He gives no authorities and his figures are very doubtful, but Mr Dowell

(*Hist. of Taxes*) appears to quote him as trustworthy. In any case the revenues of the republic enormously exceeded those of the monarchy. The anonymous writer of a Restoration pamphlet (*The Mystery of the Good Old Cause*, 1660) estimates that the Commonwealth raised £3,000,000 a year.

[1274] The value, in 1894, of the English merchant navy was £122,000,000, Admiralty expenditure £18,500,000; of the French merchant navy £10,100,000, Admiralty expenditure £10,500,000.

[1275] *Add. MSS.*, 5500, f. 25.

[1276] De Witt, *The True Interest of Holland*, p. 227. De Witt notices the preference given to land operations during the thirty years' war.

[1277] *Ibid.*, p. 218, et seq.

[1278] In the Dutch service each captain contracted to provision his own ship, and the men had meat only once a week.

[1279] Relatively, that is, judged by a standard of comparison with what they had endured under the Stewarts.

[1280] Burton's *Diary*, III, 57, 3rd February 1658-9. There are several other references in Burton to the care the Long Parliament bestowed on the Navy.

[1281] Gumble, *Life of Monk*, p. 75. Eleven hundred according to a Dutch life of Tromp.

[1282] This is, perhaps, not literally correct; a contemporary seaman, Gibson, tells us that the aim of the English captains was to lie on the bow or quarter of their antagonists (*Add. MSS.*, 11,602, f. 77), but that was very different from the game of long bowls Englishmen had learnt to be the best medicine for Spaniards, and had never till now

discarded. Our fleets went into action *en masse*, the only rule being that each captain should keep as close as possible to the flag of his divisional commander. The result at times was that while some ships were being overwhelmed by superior force others hardly fired a gun, and an officer who had closely obeyed the letter of his instructions might afterwards find himself charged with cowardice and neglect of duty.

[1283] *State Papers, Dom.*, 19th March 1649. There was theological bitterness involved as well, since the Navy Commissioners directed that any man refusing meat in Lent was to be dismissed as refractory, (*Add. MSS.*, 9304, f. 54).

[1284] *State Papers, Dom.*, 12th March 1649, Council to Generals of the fleet. John Sparrow, Rich. Blackwell, and Humphrey Blake were appointed on 17th April 1649 to be treasurers and collectors of prize goods; Rich. Hill, Sam. Wilson, and Robt. Turpin were added from 8th March 1653.

[1285] *Commons Journals*, 21st Dec. 1652. The 'medium' cost of each man at sea was reckoned at £4 a month, including wages, victuals, wear and tear of ships, stores, provision for sick and wounded, and other incidental expenses. *Rawlinson MSS.* (Bodleian Library), A 9, p. 176.

[1286] *State Papers, Dom.*, 12th May 1649, Council to Generals at sea.

[1287] It is advisable to dwell on this point because the late Mrs Everett Green (Preface to *Calendar of State Papers*, 1649-50, p. 24), said, speaking of the Commonwealth seamen generally, that 'disaffection and mutiny were frequent among them,' and writers of less

weight have echoed this opinion. The instances of mutiny were in reality very few—seven between 1649 and 1660—were not serious, and were, in every case but one attributable to drunkenness or to wages and prize money remaining unpaid, the single exception being due to the refusal of a crew to proceed to sea in what they held to be an unseaworthy ship. This is a very trifling number compared with the series of such events occurring during nearly every year of the reign of Charles I. Of disaffection in the sense of a leaning towards the Stewarts there is not a trace among the men, and but two or three examples among officers. The exiles in France and Holland, with that optimism peculiar to the unfortunate, were continually anticipating that ships and men were coming over to the royal cause, an anticipation never once verified in the event. The analogue of the seventeenth century seaman, if he exists to-day at all, is to be found, not in the man-of-war's man, who now has literary preferences and an account in the ship's savings bank, but in the rough *milieu* of a trader's forecastle, and among men of this type violence, or even an outbreak of savage ruffianism, by no means necessarily implies serious ground of discontent, but may be owing to one of many apparently inadequate causes. There were no such outbreaks among the Commonwealth seamen, and the punishments for drunkenness and insubordination were not disproportionate to the number of men employed, but if that is made an argument it should also be applied to the army; nearly every page of Whitelocke furnishes us with instances of officers and men being broken, sentenced, or dismissed for theft, insubordination, and sometimes disaffection, but no one has yet suggested that

the army yearned to restore the Stewarts. The two most striking examples of these mutinies usually quoted are those of the *Hart* in 1650 and the riotous assemblies in London in 1653. In the case of the *Hart* what actually happened was that, the captain and officers being on shore, 28 out of the 68 men on board seized the ship when the others were below, with the intention, according to one contemporary writer, of taking her over to Charles, according to another, of turning pirates, and according to a third, because they were drunk. Perhaps all three causes were at work, seeing that the mutineers soon quarrelled among themselves, and the loyal majority of the crew regained possession of the ship and brought her back to Harwich. Yet I have seen a serious writer quote the *Hart* as an example of desertion to the royalists, an error probably due to the fact that she was afterwards captured by the Dutch, and eventually sailed under a Stewart commission until she blew up at the Canaries. In October 1653 there were tumults in London, due entirely to the non-payment of prize money, and these, it is true, required to be suppressed by military force. But this riot, extending over two days, was the only instance in which the government found difficulty in dealing with the men, and does not warrant a general charge of disloyalty during eleven years. If a detailed examination of the remaining instances were worth the space, they could be shown to be equally due to causes remote from politics. Historically, a mutiny among English seamen has never necessarily signified disloyalty to the *de facto* sovereign or government; the mutineers at Spithead and the Nore in 1797 were especially careful to declare their loyalty to the crown, and their failure at the Nore was probably due

to the extent to which they carried this feeling. If the character of the service rendered to the republic is compared with that given to Charles I, it is difficult to understand how the charge of disaffection can be maintained.

[1288] *State Papers, Dom.*, 24th May 1652, Council to vice-admirals of counties. The subject of impressment belongs more fitly to the eighteenth century. Here it will be sufficient to remark that while in many cases the government officials reported that the men were coming in willingly of their own accord, in others the press masters found great difficulty in executing their warrants, and writers of newsletters in London describe the seizure of landsmen and forcible entry of houses, in which seamen were supposed to be hiding, in a fashion which reminds the reader of the beginning of the present century. The two versions are not irreconcilable; at all times there has been a remainder, after the best men had been obtained, difficult to reach and willing to make any sacrifice to escape a man-of-war.

[1289] *Add. MSS.*, 9306, f. 85.

[1290] *Thomason Pamphlets*, 684/9 The regulations of 1649 were only adaptations of the rules made, independently, long before by each Lord Admiral when in command of a fleet. Mr Gardiner has suggested to me that the formal enactment of the articles at that particular moment was possibly directly connected with the defeat off Dungeness in November. This view is supported by the fact that they were obviously not aimed at the men, with whose conduct no fault had been found and whose position was, if anything, improved by them, by the definition of crime and punishment and the institution of a court

of eight officers; while, on the other hand, the severest clauses are those affecting officers whose conduct, both in action and when cruising, had in many cases caused great dissatisfaction.

[1291] *State Papers, Dom.*, 31st Dec. 1653.

[1292] *State Papers, Dom.*, 4th Feb. 1652.

[1293] *Ibid.*, 15th Dec. 1652.

[1294] *State Papers, Dom.*, lx, 135, October 1653; Bourne to Navy Commissioners.

[1295] *State Papers, Dom.*, xxix, 57; October 1652.

[1296] *Ibid.*, 6th Jan. 1653.

[1297] *Ibid.*, xxx, 84, and xlv, 66.

[1298] From the Dutch *Grom*, or Low Latin *Gromettus*, one occupied in a servile office. Gromet is at least as old as the thirteenth century and then meant a ship's boy. Later it came to mean ordinary seamen; here it is applied to a class between ordinary seamen and boys, but probably nearer, in qualifications, to the former than the latter.

[1299] The earliest mention of midshipmen yet noticed is in a letter of 7th Feb. 1642-3, in which a Mr Cook writes that he will not undervalue *himself* by allowing his son to accept such a place.

[1300] The pay of the privates was 18s per month; no officer of higher rank than serjeant was in charge.

[1301] *State Papers, Dom.*, 19th April 1655. Hatsell to Col. John Clerke (an Admiralty Commissioner).

[1302] *State Papers, Dom.*, ccv, 54. Disborowe lent £5000, which he had

succeeded in getting back; seven aldermen £19,500, of which £11,700 still remained.

[1303] *Add. MSS.*, 22,546, f. 185, and 18,986, f. 176.

[1304] The methods of these gentlemen were sometimes directly ancestral to those of their successors in the prize courts of the beginning of this century. In one case a ship was condemned and its cargo sold, apparently on their own sole authority; the Admiralty Court ordered restitution, and then the Commissioners presented a bill of £2000 for expenses (*State Papers, Dom.*, 26th Feb. 1655). A contemporary wrote, 'It was nothing for ordinary proctors in the Admiralty to get £4000 or £5000 a year by cozening the state in their prizes till your petitioner by his discovery to the Council of State spoiled their trade for a great part of it,' (T. Violet, *A True Narrative, etc.*, Lond. 1659, p. 8).

[1305] *State Papers, Dom.*, xc, 2.

[1306] *Ibid.*, 18th March 1654.

[1307] *Resolutions at a Council of War on board the* Swiftsure*: The humble Petition of the Seamen belonging to the Ships of the Commonwealth.* These two broadsides are in the British Museum under the press mark 669 f. 19, Nos. 32 and 33, 'Great Britain and Ireland—Navy.'

[1308] *State Papers, Dom.*, lxxvi, 81; 1645 (? Oct.).

[1309] *State Papers, Dom.*, clxxiii, 26th Oct. 1657; Morris to Navy Commissioners.

[1310] *Add. MSS.*, 9304, f. 129. The *Sapphire* seems to have been the crack cruiser of her time. The contrast between that which, with all its faults, was a strong administration, morally stimulating to officers and men, and the enervating Stewart *régime* is illustrated in the life and death—if the expression be permitted—of this ship, and exemplified in the grim entry in the burial register of St Nicholas, Deptford, under date of 26th Aug. 1670, 'Capt. John Pearse and Lieut. Logan shot to death for loosing ye *Saphier* cowardly.'

[1311] *State Papers, Dom.*, clxxxii, 8; 6th July 1658.

[1312] *State Papers, Dom.*, 15th Sept., and 16th Nov. 1658.

[1313] I have only noticed one instance of direct interference by Cromwell in minor details. The widow of a seaman, killed by an accident on the *Fagons*, had petitioned the Commissioners of sick and wounded for help, and had been refused by them. She then

appealed to the Protector, and her memorial bears his holograph direction to the Commissioners to reconsider their decision, the case being the same 'in equity' as though the man had lost his life in action (*State Papers*, cxxx, 98; 10th Nov. 1656). If this is the only surviving illustration of the character of his intervention in questions connected with the well-being of the men it is gratifying that it should be of such a nature.

[1314] *State Papers, Dom.*, ccxii, 109. The revenue of England for 1659 was estimated at £1,517,000 (*Commons Journals*).

[1315] Allowance for short victuals.

[1316] *State Papers, Dom.*, ccxxii, 28.

[1317] *State Papers, Dom.*, 20th Dec. 1652.

[1318] *Ibid.*, 21st and 26th March 1653.

[1319] *Ibid.*, 14th April 1654.

[1320] *State Papers, Dom.*, 5th April 1653.

[1321] *Ibid.*, 31st March 1654.

[1322] *Ibid.*, cxl, 43.

[1323] *State Papers, Dom.*, 17th Dec., 1657.

[1324] *Add. MSS.*, 9304, ff. 133,135. It would not be just to pass from the subject of the aid afforded to the men in disease and suffering without some notice of Elizabeth Alkin, otherwise 'Parliament Joan,' who wore out health and life in their service. This woman appears to have nursed wounded soldiers during the civil war, for which she was in receipt of a pension, and, in February 1653, volunteered similar help for the sailors. She was then ordered to Portsmouth, and, in view of the before noticed condition of the town, must have found very real work to which to put her hand. If £325 went in one

item to nurses there must have been plenty of a kind to be had; but she gave her heart to her helpless patients, and in June had spent not only all the government allowance but also her own money, as 'I cannot see them want if I have it.' She was then sent to Harwich, and on 22nd Feb. 1654 returned, weak and ill, to London, with only 3s remaining. Of the last £10 given to her she had spent £6 on the Dutch prisoners at Harwich: 'Seeing their wants and miseries so great, I could not but have pity on them though our enemies.' A week later she again appeals for at least an instalment of her pension, or to be sent to a hospital in which 'to end my days less miserably,' having been forced to sell even her bed. In May and September 1654, two warrants, each for £10, were made out, and her name does not occur again. Even these few data are sufficient to suggest the outline of a life of self-sacrifice, illumined by a native kindliness of heart and unsoured by religious fanaticism, of which there is not a trace in her letters.

[1325] *State Papers, Dom.*, c, 139.

[1326] From seamen's wages.

[1327] By estimation.

[1328] Average for three years, less taxes.

[1329] By estimation.

[1330] *Add. MSS.*, 9305, 13th Jan. 1657.

[1331] *State Papers, Dom.*, cxxv, 39, 11. Under Charles I, widows obtained donations from it, but no pensions.

[1332] *Add. MSS.*, 9317, f. 1 et seq. We have not Pett's reply, and the full force of the accusations, as they stand, is vitiated by the fact that they were made by royalist servants

inquiring into the conduct of a Commonwealth official. The committee of inquiry in 1662 consisted of Sir J. Mennes, Sir W. Coventry, Sir W. Penn, W. Rider, S. Pepys, and R. Ford.

[1333] *State Papers, Dom.*, 30th Nov. 1650. There were five partners joined with Pride—John Limbrey, Wm. Beak, Thos. Alderne, Dennis Gauden, and Rich. Pierce (*Audit Office Dec. Accounts*, 1708-96). The rates, in 1645, had been eightpence three farthings and sevenpence; the Victualling was then under the supervision of the Treasurer (*Ibid.*, 1706-90).

[1334] *State Papers, Dom.*, 12th Jan. 1653, and *Add. MSS.*, 9306, f. 2.

[1335] *State Papers, Dom.*, xxx, 10.

[1336] *State Papers, Dom.*, 17th Oct. 1654, 1st, 7th, 14th Aug., and 8th Sept. 1655.

[1337] It is said that Alderne's executors could produce neither vouchers nor assets for £200,000 imprested to him. But the story rests only on the authority of a royalist Comptroller of the Navy, Sir R. Slingsby (*Discourse of the Navy*, f. 58).

[1338] *Add. MSS.*, 9300, f. 330; 19th Nov. 1656.

[1339] *State Papers, Dom.*, 31st Jan. 1660.

[1340] *State Papers, Dom.*, 6th March 1660.

[1341] *Ibid.*, 16th Aug. 1650. This is the medal shown on the title page.

[1342] *State Papers, Dom.*, cxliv, 66, 68, and *Add. MSS.*, 9305, f. 155. The *Triumph* medal was 'For eminent service in saving ye *Triumph* fired in fight w ye Dutch in July 1653.'

[1343] *S. P. D.*, cxvii, 64; 11th Dec. 1655.

[1344] *Ibid.*, cxxxiv, 64.

[1345] *Ibid.*, cxlv, 47; Sep. 1656.

[1346] This list is based on that of Dering (*Archæologia*, xlviii), but corrected where collation with the *State Papers* and other authorities points in some cases to the certainty, in others to the probability, of Dering's being in error, completed by the insertion of omitted dates, and enlarged by the addition of all such vessels as were wrecked, captured, destroyed, or sold out of the service, between 1649 and 1660 and which the *Archæologia* list, being only one of ships effective in 1660, does not profess to supply. Prizes, originally privateers and taken into the service, are indicated by an asterisk. Being the first attempt at a complete Commonwealth Navy list, it must almost necessarily contain some errors, but it is certain that every ship here mentioned was carried on the Navy list of the state. A few others omitted as doubtful or more than doubtful may really be entitled to a place in it; some of the prizes assigned to 1653 may belong to 1652, and, in some instances, continuity or similarity of name renders the exact date of purchase or capture a little problematical. It has not been thought necessary to overload this list with the innumerable references that could be given, especially as the details seldom exactly agree in the various papers, but no name has been inserted except on what appears to be sufficient authority. Dering's *Dolphin*, *Minion* and *Pearl Brigantine*, I have been unable to place; the *Pearl* is only once mentioned, in 1658, as being 'for use as occasion requires.' The *Diver* which is also given by him, was not a man-of-war at all, but a hoy temporarily hired for use in recovering the guns of wrecked ships, and the *Princess*, of his list, was not launched till August 1660. Some of the

Dutch prizes were converted into fire ships before being sold. The use of fire ships was not new in either the English or foreign services, but they now appear to have been systematically attached to fleets and, on one or two occasions, to have been used with effect.

It may be well to remark that the document of April 1660 (*State Papers*, ccxx, 33), which purports to be a list of ships then existing, is altogether untrustworthy.

[1347] The *Guinea*, *Amity*, *Concord*, *Discovery*, *Gilliflower*, *Mayflower*, *Hopewell*, *Accada*, *Nonsuch Ketch*, and *Marmaduke*, were bought into the service in the respective years under which they are placed, and are marked (B).

[1348] Or *Great President*.

[1349] The *Gilliflower*, then called the *Archangel*, and the *Marmaduke*, were two prizes taken by Rupert, recaptured at sea by their own crews, brought back to England, and taken into the service.

[1350] Usually said to have been lost in action of July 1653, but can be traced as the *Dunkirk* after 1660.

[1351] There is a model of the *Bristol* in the museum of the Royal Naval College of Greenwich. No confirmatory evidence is added to the bare statements of names and dates on the labels attached to these models, and the dates assigned to some of them do not inspire a heedless confidence. However, from the character of the decoration, etc., the model ticketed *Bristol* is probably, at any rate, of this period.

[1352] Rebuilt.

[1353] Rebuilt.

[1354] Most of the Commonwealth ships were named after some event of the civil war. This is probably a derivative of St Fagans, near Llandaff, where there was a fight in 1647.

[1355] The *Royal James*, a Stewart privateer, commanded by captain Beach, afterwards admiral Sir Richard Beach, of the Royal Navy, who during the exile gave the state's ships much trouble. Renamed from the French Les Sorlinges, near which she was taken.

[1356] The *Blackmoor* and *Chestnut* were especially designed for service on the coast of Virginia (*State Papers, Dom.*, cxli, 127).

[1357] A Spanish prize; the earlier *Elias* was Dutch, and remained in the effective as a cruiser.

[1358] For use in the Medway, and carrying one bow gun.

[1359] *Add. MSS.*, 11,602, f, 49.

[1360] *State Papers, Dom.*, ccxiii, 81.

[1361] Dering's list.

[1362] Ed. Hayward, *The Sizes and Lengths of Rigging for all His Majesty's Ships*, 1660. Although not printed till 1660 this was written in 1655.

[1363] The absence of all allusion to davits is stranger from the fact that they are found referred to, evidently as well known and in common use, in navy papers of 1496. They were then used for the anchors. It seems singular that in the intervening century and a half the principle had not been applied to hoisting in the boats. In the *Nomenclator Navalis* of 1625 (really Manwayring's *Dictionary*) he speaks of boat tackles 'wch stand one on the main mast shrowds the other on the fore mast shrowds to hoise the boat,'

and this plan was identical with that in use in 1514 (see Appendix A).

[1364] *Audit Office Accounts*, 1707-94.

[1365] *Add. MSS.*, 9306, f. 68.

[1366] *State Papers, Dom.*, lxxxv, 73.

[1367] *Ibid.*, lxxxii, 13. The Admiralty was paying shipwrights 2*s* 2d a day.

[1368] *Add. MSS.*, 9306, f. 132. When the *Prince* was rebuilt in 1640-1, £2571 was spent on gilding and £756 on carving (*Add. MSS.*, 9297, f. 351).

[1369] *State Papers, Dom.*, ciii, 94.

[1370] The *Sovereign*, was however of 100, and the *Resolution* and *Naseby* were of 80 guns. The armament of the *London*, a second-rate of 1656, was: lower tier, 12 demi-cannon and 12 culverins; middle tier, 12 culverins and 12 demi-culverins; forecastle 6, waist 4, and quarter-deck 6 demi-culverins (*State Papers, Dom.*, cl, 170).

[1371] *Add. MSS.*, 22546, f. 42.

[1372] *State Papers, Dom.*, ccxii, 115.

[1373] *Add. MSS.*, 9302, f. 81.

[1374] *State Papers, Dom.*, xxx, 77. But possibly there were others at sea, although the contracts for hired ships do not show any large tonnage.

[1375] Sir R. Slingsby, *Discourse of the Navy*.

[1376] *Add. MSS.*, 9306, ff. 130, 160; 1655-7. Until about this period ‘the Straits’ was the general term for the whole of the Mediterranean; ‘the Straits’ mouth,’ and ‘the bottom of the Straits’ respectively describing the western and eastern portions. The increase of commerce now necessitated more specific

descriptions of locality.

[1377] *State Papers, Dom.*, 10th July 1652.

[1378] *Add. MSS.*, 11,684, f. 3.

[1379] *State Papers, Dom.*, 9th Dec. 1653.

[1380] *Add. MSS.*, 9299, f. 171.

[1381] *State Papers, Colonial*, 19th Oct. 1654.

[1382] *State Papers, Dom.*, 26th Feb. 1656; Elton to Admiralty Commissioners. It is very likely that the message did reach Cromwell.

[1383] The Parliamentary Navy Committee, which had managed matters throughout the civil war, existed for some time contemporaneously with the Admiralty Committee. But it soon lost all authority.

[1384] *State Papers, Dom.*, 12th March 1649.

[1385] The first Commissioners of the Admiralty and Navy were Generals, Robert Blake, George Monk, John Disborowe, and Wm. Penn; Colonels, Philip Jones, John Clerk, and Thos. Kilsey; Major Wm. Burton, and John Stone, Edward Horseman and Vincent Gookin, Esquires. They acted from 3rd Dec. 1653.

[1386] *Commons Journals*, 1st June 1659.

[1387] Holland, Smith, Pett, and Willoughby, were appointed by order of the House on 16th Feb. 1649; Thompson was added later in place of captain Roger Tweedy, who had been a Commissioner during the civil war, and who was again proposed but rejected on 16th February. On 21st of February the House ordered that Holland, like Batten called Surveyor, was to have £300 a year; the others £250 a year.

[1388] *State Papers, Dom.*, 9th May 1649.

This letter is signed by Holland, Smith, and Thompson. The tone of Holland's *Discourse of the Navy* (1638), is one of fulsome adulation of the Monarchy and the principles it represented; but the *Discourse* was not in print and he had had time to realise the new tendency. Holland was the least active of the Commissioners, but if he helped to carry out some of the reforms he recommended in 1638 he did his share of service.

[1389] *State Papers, Dom.*, 20th July 1653, Monk to Admiralty Committee.

[1390] Substitutes for pursers; see *infra*, p. 356.

[1391] *State Papers, Dom.*, 27th July 1653.

[1392] *Ibid.*, 11th April 1654.

[1393] *State Papers, Dom.*, ciii, 72, 73; 1655.

[1394] *Naval Speculations and Maritime Politicks*, Lond. 1691.

[1395] *State Papers, Dom.*, cxxxii, 115; 1656.

[1396] *State Papers, Dom.*, cxxi, 16, Navy Commissioners to Admiralty Committee.

[1397] *State Papers, Dom.*, clxxxii, 8, 111.

[1398] *State Papers, Dom.*, 30th June 1653.

[1399] *Ibid.*, 31st Dec. 1653.

[1400] *State Papers, Dom.*, cxxvi, 99.

[1401] *Ibid.*, 2nd Sept. 1653.

[1402] *Add. MSS.*, 9304, f. 60.

[1403] *State Papers, Dom.*, xlviii, 81.

[1404] Soon afterwards Taylor and Young were placed in command of armed merchantmen; Blake subsequently had a man-of-war. John Saltonstall and John Wadsworth were involved with the four others.

Wadsworth certainly commanded a hired merchantman; Saltonstall's ship is doubtful.

[1405] Accused by his crew (*Adventure*), who were prepared 'to spend our lives and limbs in this service for the good of our native country of England and this government.' He was in trouble again in 1656.

[1406] Allowed two colliers to be captured, and would not chase because they were 'only colliers.'

[1407] 'The prize office commissioners said they thought the devil must be in that captain to sell all and bring nothing but bare hulls of ships.'

[1408] 'The court did not think it meet to expel him, being an active and stout-fighting man.'

[1409] No result appears to have been arrived at about the captain, but the court-martial found that the boatswain, he was charged with maiming had struck him, but they 'possessed no power to sentence him'—a very strange conclusion to come to.

[1410] Second offence. He petitioned that £80 might be accepted in settlement of the £150 he was fined, as he was very poor and had a large family. His petition was granted.

[1411] Second offences of Best and Nixon.

[1412] According to Montagu, who was dissatisfied with the result, undue pressure was brought to bear on members of the crew to induce them to retract.

[1413] Foote refused to allow the customs officers to search his ship, saying 'it would be a dishonour to the state.' The commissioners of customs called attention to this as a 'great and growing evil.'

[1414] *State Papers, Dom.*, cxiv, 82.

[1415] *Add. MSS.*, 9302, ff. 188, 192.

[1416] *Ibid.*, 9306, f. 36.

[1417] *State Papers, Dom.*, cxiv, 116. From 1st Oct. 1655. Five rates carried pursers; the captains of sixth-rates also did pursers' duties.

[1418] *Ibid.*, lxii, 55, 56; 1653.

[1419] *State Papers, Dom.*, cv, 50, 51.

[1420] *Ibid.*, cix, 69 and cx, 73.

[1421] *State Papers, Dom.*, 27th August 1653, Navy Commissioners to Admiralty Committee.

[1422] *Ibid.*, 9th Jan. 1655. Thirty-one persons were implicated, including four colonels.

[1423] *Add. MSS.*, 9305, f. 208; 1657.

[1424] *Commons Journals*, 21st March 1652-3.

[1425] 'The captain the master.' The captain's pay remained the same as in 1647.

[1426] Trumpeters were no unimportant members of a ship's company. In 1650 Popham and Blake desired the Navy Commissioners to press trumpeters, and 'particularly a complete noise' for their own vessel. It is to be hoped they got it.

[1427] Thos. Foley is mentioned with Browne, but he seems to have been either a partner or subordinate (see *Commons Journals*, 30th Dec. 1645). A Rich. Pitt is once named as a founder of brass ordnance.

[1428] *Commons Journals*, 16th April 1652; 'if of brass £67,200, if of iron £13,520.'

[1429] *State Papers, Dom.*, 25th March 1652.

[1430] *State Papers, Dom.*, xxx, 12, 102.

[1431] *Ibid.*

[1432] *Ibid.*, xl, 14.

[1433] *Ibid.*, xlix, 168.

[1434] *State Papers, Dom.*, 15th April 1656.

[1435] *Add. MSS.*, 9305, f. 112.

[1436] *State Papers, Dom.*, 6th Dec. 1659.

[1437] *Ibid.*, ccix, 49, 67, 68, 71-5, and ccxii, 49, 51, 64.

[1438] Oak, elm, ash, and beech.

[1439] Very little timber, but large stores of iron fittings.

[1440] Two-thirds meridian and one-third ordinary.

[1441] Thirty-two yards to a bolt, of 27 inches breadth, (*Add. MSS.*, 9306, f. 37).

[1442] *State Papers, Dom.*, clxvii, 62, and *Add. MSS.*, 9306, ff. 151, 197.

[1443] *State Papers, Dom.*, lviii, 108.

[1444] *Add. MSS.*, 9305, f. 114.

[1445] *State Papers, Dom.*, lx, 12.

[1446] *Add. MSS.*, 9306, f. 175.

[1447] *State Papers, Dom.*, 12th Sept. 1653.

[1448] *Ibid.*, lxxxi, 194.

[1449] *Ibid.*, cxxxv, 17.

[1450] *Ibid.*, clxxx, 170, and *Add. MSS.*, 9306, f. 197.

[1451] 'New making' may have only meant repairs.

[1452] *State Papers, Dom.*, xlvi, 36.

[1453] *State Papers, Dom.*, l, 101, April

1653. The reading is doubtful whether the land and water fronts, or the land front alone, were meant to be walled in. The nature of the foreshore renders the latter view the most likely; if the former, the enclosed area must have been very small.

[1454] *Ibid.*, lxii, 24 and lxxix, 57.

[1455] *Add. MSS.*, 9305, f. 119.

[1456] *Ibid.*, f. 155.

[1457] *Ibid.*, 9306, f. 153. I am informed that there is no trace in the corporation records or in the narratives of local historians of this agreement. Whether Poirson ever obtained this £500 may be uncertain, but it is quite certain that the town volunteered the money and that the government carefully guarded itself from being called upon to pay it.

[1458] *State Papers, Dom.*, 9th Aug. 1652.

[1459] *Add. MSS.*, 9302, f. 99.

[1460] *State Papers, Dom.*, 9th Oct. 1658.

[1461] *State Papers, Dom.*, clxiii, 41; 27th May 1658; and cxcii, 98.

[1462] *Add. MSS.*, 9306, f. 176.

[1463] *Ibid.*, 9305, f. 176, and *State Papers, Dom.*, 10th Sept. 1653, and lxxxi, 4.

[1464] *State Papers, Dom.*, cxxx, 102.

[1465] *State Papers, Dom.*, 8th April 1659, and ccxxiv, 38.

[1466] The dockyard expenses include the rope yards.

[1467] Covering the period from 13th May 1649 to 31st Dec. 1650.

[1468] From 1st Jan. 1649 at Deptford, 24th Aug. at Woolwich, 24th June at Chatham, and

12th June at Portsmouth.

[1469] 'Oliver, in the year when he spent £1,400,000 in the navy, did spend in the whole expense of the kingdom £2,600,000.' (Pepys, *Diary*, iv, 52, ed. Wheatley).

[1470] Includes many arrears.

[1471] Amount owing for wages in September (*Add. MSS.*, 9300, f. 343).

[1472] Covering the period from 1st Jan. 1658 to 7th July 1660.

[1473] Owing on 7th July.

[1474] *Add. MSS.*, 32, 471, ff. 2, 15.

[1475] *Ibid.*, f. 6.

[1476] *Commons Journals*, 20th May 1659.

[1477] *State Papers, Dom.*, 1st Sept. 1653.

[1478] Department for the sale of delinquents' lands. In 1653 £136,000 was received, by the Navy Treasurer, from this office.

[1479] Governor of the Tower.

[1480] *State Papers, Dom.*, 2nd April 1655.

[1481] *Ibid.*, cxliv, 140.

[1482] *Ibid.*, 15th March 1659.

[1483] *Ibid.*, ccxii, 24.

[1484] According to *Commons Journals* (3rd March 1660) it was £694,000 to 1st Feb.; the *State Papers* (ccxxiii, 165) make it £788,000 to March. But the figures in the Audit Office Accounts are circumstantial and minute, and the bureaucracy is frequently better informed than Parliament.

[1485] *Add. MSS.*, 9302, f. 66.

[1486] *I.e.*, the old Union Jack with the harp

at the centre.

[1487] There were three qualities of Noyals canvas. A bale contained 282 yards.

[1488] Prussia.

[1489] 1514.

[1490] Deadeyes.

[1491] Pulleys, or blocks.

[1492] The wheel of a pulley or block.

[1493] Later the bushing of the wheel-pin; here apparently the pin itself. Cf. 'colkes of brasse grete and small ... xxviii'—Inventory of the *Grace Dieu* in 1486.

[1494] Pulleys, or blocks.

[1495] Halliards.

[1496] Perhaps the main beam or head piece across it (Cf. *breast-summer*, Halliwell, *Dictionary*).

[1497] Some sort of rope gear, but the exact use is unknown.

[1498] Grappling-irons, or hooks.

[1499] Piece of timber carrying blocks and used with various ropes.

[1500] See p. 374, where it is written 'power.' Probably used in the sense of 'bowline bridle' (See p. 375), and from the old English *powe*, a claw, or something which holds.

[1501] Braces.

[1502] The davit was a movable beam of wood fitted with blocks, and used to raise the fluke of the anchor.

[1503] The main mast was a 'made' mast, *e.g.* 'a grete mast to be the spyndell of the mayne mast to the *Henry Grace à Dieu*.'

[1504] The *Sovereign* had ‘bote tacles of both syds the mast x.’ It appears therefore to have been customary to hoist one or two out of the three boats.

[1505] Timber.

[1506] Now known as a ‘burton tackle.’

[1507] Wooden blocks for the sheets.

[1508] Used in connection with the main sail.

[1509] Wood.

[1510] Tyes.

[1511] Blocks of a particular kind; from French *palan*, *palanc*, a combination of pullies, or *palanquer*, to hoist or haul.

[1512] Leathern.

[1513] Luff.

[1514] Or Leche hooks, probably broad hooks, from old French, *leeche*, *lecsche*.

[1515] 300 lbs.

[1516] Six and a half inches.

[1517] Laniards.

[1518] Flag staves.

[1519] The body or main portion of the sail.

[1520] Perhaps from the Catalan *destre*, to bridle.

[1521] Sheet anchors.

[1522] Kedge anchors.

[1523] Wooden.

[1524] Lanterns.

[1525] Five hundredweight.

[1526] Half a hawser.

[1527] Linstocks.

[1528] Herbert.

[1529] Another document (*Letters and Papers of Henry VIII*, i-4968) gives the distribution of these guns:—*Forecastle*—33 iron serpentines, 1 brass serpentine, 4 stone guns. *Waist*—29 iron serpentines, 4 great guns of iron, 2 great Spanish pieces. *By the rudder*—7 iron serpentines. *Lower deck*—20 iron serpentines. *Second deck*—33 iron serpentines, 3 brass serpentines, 18 stone guns, 4 vice pieces of brass, 6 brass fawcons, 2 great stone guns of iron, 1 sling of iron, 2 brass culverins, 1 curtow of brass, 1 'fryre' piece; and 9 brass serpentines and 2 fawcons in the great boat.

[1530] Armour composed of overlapping plates working on rivets.

[1531] Headpieces.

[1532] Printed in full in Barrow's *Life of Drake*, p. 242.

[1533] *Lansd. MSS.*, 115, f. 22.

[1534] *State Papers, Dom., Eliz.* cciii, 1.

[1535] *Ibid.*, ccviii, 77.

[1536] A volume of the Cæsar papers. Modern punctuation has been added, and contractions are extended.

[1537] *Infra*, p. 388.

[1538] Cascaes, near Lisbon.

[1539] Any abnormally diluted drink, as beer and water, or cider and water.

[1540] Peaked or slanted.

[1541] Immediately.

[1542] Plot.

[1543] Regarded the action.

[1544] Borough.

[1545] Luff.

[1546] Sheets.

[1547] H. Hall, *Society in the Elizabethan Age*.

[1548] As is admitted by the writer in the *Dictionary*.

[1549] Cf. *Lansd. MSS.*, 113 f. 45.

[1550] *Lansd. MSS.*, 52 f. 117.

[1551] *State Papers, Dom., Eliz.*, clxx, 57, and clxxviii, 12.

[1552] *Add. MSS.*, 9294 f. 60.

[1553] *State Papers, Dom., Eliz.*, ccvi, 15. Wynter and Borough to Burghley.

[1554] Of 1585, see *supra*, p. 162.

[1555] *Lansd. MSS.*, 52 f. 117.

[1556] Hawkyns was more generous to Borough. In 1582 he wrote on his behalf to Walsyngham, 'Mr Borough is a man of great virtew and judgment.' (*State Papers*, clvi, 34). In fact he very seldom indulged in recriminations even in the thick of the attacks on himself, usually contenting himself with defending his procedure.

[1557] *State Papers, Dom. Eliz.*, cciv, 18. Burghley's usual way of writing Allen—the name only occurs in one other instance in his writing—was Ally, with a contraction mark over the last letter. In this case he omitted the contraction dash but, from internal evidence, there is no doubt of the identity.

[1558] *Lansd. MSS.*, 52 f. 117.

[1559] *State Papers, Dom. Eliz.*, cciv, 17.

[1560] *Cott. MSS.*, Otho E VIII, f. 169.

[1561] *State Papers, Dom. Eliz.*, ccviii, 18.

[1562] Cf. p. 162.

[1563] *State Papers, Dom. Eliz.*, clxxviii, 12.

[1564] Naval Tracts: *Churchill's Voyages*, III, 371, ed. 1704.

[1565] *Lansd. MSS.*, 70, f. 231.

[1566] The quintal varied from 101½ to 155 lbs; ordinarily it was the former.

[1567] A traveller to the Spanish colonies had to produce satisfactory evidence that he was a native of the peninsula, a good Catholic, not only in present belief but by descent, and that he was sailing with the knowledge and consent of his wife. There was a flourishing trade, at Seville, in forged certificates to meet these requirements; there was also a trade in smuggled passengers outwards as well as in smuggled goods homewards.

[1568] *Lex Mercatoria.*

[1569] About the latitude of the Straits of Gibraltar.

[1570] Spanish, *Amainar las velas*, to lower the sails; the summons to strike.

[1571] *Harquebus à croc*, a musket fired from a rest.

[1572] Biscayan; the *St Francisco*.

[1573] Silenced their fire or drove them off the deck.

[1574] Going large from the wind; to leeward.

[1575] Came up close to the wind.

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ERRATA

Page	12,	line	8,	*for* ‘Sopor,’ *read* ‘Soper.’
”	19,	”	7,	*for* ‘Tavener,’ *read* ‘Taverner.’
”	39,	”	36,	*for* ‘1495-6,’ *read* ‘1495-7.’
”	39,	”	38,	*for* ‘April and July of the latter year,’ *read* ‘April of the latter year and July 1497.’
”	41,	”	41,	*for* ‘1496,’ *read* ‘1497.’
”	57,	side note		*for* ‘galliasses,’ *read* ‘galleasses.’
”	65,	line	38,	*for* ‘the victor of Flodden,’ *read* ‘son of the victor of Flodden.’
”	135,	”	6,	*delete* quotation mark after ‘forms.’
”	138,	”	23,	*for* ‘price,’ *read* ‘prices.’
”	152,	”	30,	*for* ‘1557,’ *read* ‘1587.’
”	155,	”	28,	*for* ‘Triumph,’ *read* ‘*Triumph*.’

Transcriber’s Note: The errata have been corrected.



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*** END OF THE PROJECT GUTENBERG EBOOK A HISTORY OF THE ADMINISTRATION OF THE ROYAL NAVY AND OF MERCHANT SHIPPING IN RELATION TO THE NAVY FROM MDIX TO MDCLX, WITH AN INTRODUCTION TREATING OF THE PRECEDING PERIOD ***

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