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Publisher: Routledge
Informa Ltd Registered in England and Wales Registered
Number: 1072954 Registered office: Mortimer House, 37-41
Mortimer Street, London W1T 3JH, UK



Royal United Services Institution. Journal

Publication details, including
instructions for authors and
subscription information:

[http://www.tandfonline.com/loi/
rusi19](http://www.tandfonline.com/loi/rusi19)

A Warning Voice from the Spanish Armada

Major-General T. B. Collinson R.E
Published online: 11 Sep 2009.

To cite this article: Major-General T. B. Collinson R.E
(1875) A Warning Voice from the Spanish Armada, Royal
United Services Institution. Journal, 19:81, 285-333, DOI:
[10.1080/03071847509415970](http://dx.doi.org/10.1080/03071847509415970)

To link to this article: [http://
dx.doi.org/10.1080/03071847509415970](http://dx.doi.org/10.1080/03071847509415970)

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LECTURE.

Friday, February 26, 1875.

MAJOR-GENERAL SIR H. DRURY HARNESS, K.C.B., R.E.,
in the Chair.

A WARNING VOICE FROM THE SPANISH ARMADA.

By Major-General T. B. COLLINSON, R.E.

Attend, all ye who list to hear our noble England's praise ;
I sing of the thrice famous deeds she wrought in ancient days,
When that great fleet, invincible, against her bore in vain,
The richest spoils of Mexico, the stoutest hearts of Spain.

—Macaulay.

INTRODUCTION.

“ Before one talks of military affairs he must first of all be skilled in naval tactics.”

UPON a tablet in a public garden at Nan Changfu (the capital of Kiang-se), the above is recorded as a remarkable saying of Change-king, who was a General in the time of the Sung dynasty.

If this maxim was considered worthy of such record in a continental empire like China, it should be of greater value in a maritime empire like Great Britain. If it signifies that the general organisation of a force at sea for battle, should form the foundation of that of a force on land, then I think it is a maxim peculiarly applicable to this country; and that the story of the Spanish Armada of 1588, is a decided illustration of its truth.

The commonly received idea of the defeat of that Armada is that it was mainly the work of the storms of Heaven; but those who read the accounts of it in Froude, in Mottley, and in the original documents of the time, will, I think, come to the conclusion, that although the complete destruction was caused by extraordinary tempests, yet the failure had occurred before they began, and that was due partly to the inherent defects in the Armada itself, but chiefly to the skill and spirit of the English Navy. And from the proceedings of both the contending parties, from the successful and the defective measures on both sides, I draw the same lessons, which even at this distance of time, are, it seems to me, of value, in considering the subject of the general defence of these islands; and which will, I think, give a pregnant meaning to the maxim of the Chinese General. It appears to me that:

There are three Lessons to be learnt from the Armada.

1st. *Decentralisation.*—That is to say that as much liberty of action both in carrying out the details of preparation, and in the actual war-

fare, should be given to the local Commanders, as is possibly compatible with the control and supervision of the central authority.

2nd. *The preservation of the Martial Discipline of the Country.*—That is to say, that the defence of these islands shall be made to be felt such a national duty, that there shall always be ensured a sufficient proportion of the able population, to some extent armed, trained, and disciplined. And—

3rd. *An abundant supply of efficient Seamen.*—That is to say, that not only should there be effective seamen enough in the Navy and its immediate reserves, but that measures should be taken by the Government to preserve as far as a Government can, a race of thorough sailors in our seafaring population.

It may be said by some objectors, that one need not go back to the times of the Spanish Armada to learn that those three points are important to the defence of this country. And by others, that the days of danger to this country from great Armadas are gone by, never to return; and therefore that the ideas of those days are no longer applicable.

I should be very glad indeed were it unnecessary for any person to appear in this Institution to call attention to the importance of those or any points connected with the defence of the country; but when one sees that, notwithstanding the vast sums expended on our Army and Navy, economy and not efficiency has been the guiding rule; and that any organisation of the population of the country towards its defence by land or by sea, has been looked upon as an obsolete idea of a passed epoch, one cannot think that these points have been as yet felt by the Government and the country to be of that importance. And hence, I hope, it will be not altogether a superfluous or useless undertaking, to draw attention to a remarkable illustration of their value, in one of the most vital exigencies of our national history.

Those objectors, who think that the probability of a great national struggle is a chimera existing only in the brains of retired Admirals and Generals, I request to compare the present state of Europe with that immediately preceding the Armada. Then two or three powerful nations had been fighting for some years for rectification of boundary lines; large Armies and Fleets, armed with newly invented cannon and firearms, were to be found in the three great continental states. But the Government of England considered that her insular position and isolated policy rendered any serious measures unnecessary for her security. There were indeed two little clouds appearing on the horizon; one was a religious war, and the other was the fear of the great maritime power of the day that her sea commerce would be interfered with. The English diplomatists however felt certain that both could be dispersed by a judicious policy of non-interference; and they continued in that placid hallucination until the storm burst upon them. There is a large number of people in England now, who trust to ward off all dangers by the same policy, and who, if they should come, will trust rather, as Queen Elizabeth did, to the general spirit of the people, or even to a contrary wind, than pay a reasonable insurance for the existence of their country.

To my mind, the words addressed to Queen Elizabeth by some learned poet at the time are still applicable:—

“And now O Queene, above all others blest,
For whom both windes and waves are prest to fight,
So rule your owne, so succour friends oppress.
(As far from pride as ready to do right)
That England you, you England long enjoy,
No lesse your friends delight, then foes annoy.”

The Position and Power of Spain.

Spain was at the height of that power in Europe, which she so suddenly and in some respects, accidentally acquired. It is no discredit to the Spanish renown, to speak of it as partly accidental; for, although the surprising conquests in America were due to the energy, and chivalry of her people, still those conquests would not have placed Spain in such a dominant position in Europe, if her sovereign had not happened about that time to succeed by inheritance to dominions in Germany, the Netherlands, Italy and Portugal.

Thus Spain seemed to have been placed by Providence in the position to reap the first fruits of the newly discovered ocean traffic; with a seaboard in the Mediterranean as well as the Atlantic, she was able to avail herself of the nautical skill of the Italian and Portuguese, and at the same time to apply the wealth and power resulting from the new world, over her dominions in the old.

Philip had acquired the dominion of Portugal, at the very time when it was most advantageous to him to use its maritime energies towards getting the dominion of the seas; he had added to his inheritances in Naples and Milan, and had thus the benefit of the talent, civilisation and naval science of the Italians. His inherited provinces in the Netherlands contained the most energetic, enterprising and advanced people of the time; but the power they thus possessed was at this time rather a disadvantage than an acquisition to him, for their rebellion had commenced, and to keep it in check occupied a great part of his forces and wealth. Nevertheless the possession was a great advantage to him as far as his affairs with England were concerned, because it gave him a position on the coast immediately opposite the most vulnerable part of England, and an excuse for collecting war forces there, without openly threatening that country.

The Spanish People.

But the marrow of his strength were his own people of Spain. They were still apparently the most warlike and chivalrous people in Europe, and still retained much of the high spirit which had marked them at one time as the most independent of the Gothic races. The result of the long wars with the Saracens, and the subsequent wars going on up to that time in Italy and the Netherlands, had established the Spanish Infantry in the position once held by the archers of England, in Europe: and this superiority was strengthened at that time, by their being more generally armed with the new fire-arms,

than the infantry of other countries. The remarkable religious fervour of the people, though it injured their power as a nation, gave force to them as soldiers. And this great element of strength, was not, as in most other European countries, a merely latent power to be called forth on special emergencies under the feudal regulations, but in Spain it was a fully organised power, and always kept in a condition ready for action. By the help of the wealth from the Indies and from the continuous warfare in his provinces, the King of Spain was able to keep up a force of trained and experienced soldiers, accustomed to traverse Europe and to fight in any country.

The maritime power of the country had culminated in the victory at Lepanto, 17 years before; since that time Spain had been acknowledged mistress of the seas. But there was an element of weakness in it, which caused its speedy fall. It was a seamanship based on the traditions of the Mediterranean and on the navigation of a comparatively safe coasting trade; and unfit to cope in the open ocean with that of the more daring and skilful seamen, trained in the boisterous seas of the North. The very fact of their predominance, led their ocean navigation to take the form of trading with their wealthy Indian dominions, rather than for war or stormy seas.

The internal condition of Spain was favourable to her power in Europe. The peace since the wars with the Saracens, and the commerce and consequent wealth that flowed in from the immense possessions of Spain and Portugal in the East and West Indies, had improved the conditions of the people; and yet the power of the sovereign over the people and resources of the country had become almost absolute. The population of Spain itself was about 7,000,000, or nearly half what it is at present, and the physical condition of the people was probably better. The population of the other European countries under Philip's rule, must have been greater in proportion, because they were then the most advanced countries in Europe; taking them at half their present numbers, Portugal, Naples, Milan, and the Netherlands south of the Scheldt (which was still under Spain), would have contained altogether about 8,000,000.

Thus the King of Spain had supreme power over the finest parts of Europe, containing a greater population than any other kingdom, and those in the most advanced condition of any people of the time; he had also absolute control over greater wealth than any other sovereign, and the largest and finest military force in Europe, and a navy then considered supreme on the seas. No King since him, not even Napoleon, has held such a dominant power in the western world.

That naval supremacy fell, partly because it was accidental to the time, and partly because ocean traffic opened a way for new powers to arise. And the fear of being interfered with and perhaps altogether supplanted in his monopoly of the rich traffic to the East and West Indies, by the bold and skilful seamen of England, was no doubt the mainspring of Philip's determination to invade that country; the reasons ostensibly given, Religion, and the outrages of the English privateers on Spanish property, were sufficient to give a legal colour to it, in the state Europe was in at the time.

The Power of England.

Compared with Spain, England was then, as Mottley says, not more important in Europe than a province of King Philip's extensive dominions. The population of England and Wales was something over 4,000,000, or about one-fifth of the present population, and nearly that of Belgium in 1866. Scotland was still a foreign power, and at that particular time in a state of such doubtful alliance, as to be a subject of anxiety, not of assistance. Ireland was in open rebellion, supported by Spanish help, and therefore occupying the attention of part of the military forces of England, just as the Netherlands was doing to those of Spain.

The internal condition of England was, however, better than it ever had been before. There had been one hundred years of peace in the land, and under the strong but popular rule of the Tudor Sovereigns, the material prosperity of the people had increased, notwithstanding their religious difficulties. The English mariners, who had been rather repressed during the middle ages, soon began to take advantage of the use of the compass, and in ocean discoveries and ocean traffic, found a field for their reviving energies. Still, it was but a small affair compared with the immense traffic of Spain, or even with the advanced condition of the Netherlands. The great exports at that time were wool and corn. The export of wool to the Netherlands in 1550 was valued at about £1,000,000 per annum: not nearly so much in proportion to population, as the present export of cotton goods to India, and probably the whole exports may be taken at £3,000,000 per annum, which, taking the purchasing power of money to be nine times as much in 1550 as it is now, would be £27,000,000 in this day, or £5 or £6 per head of the then population. There was such a mutually advantageous inter-trade between England and the Spanish peninsula, that it delayed open war between the two countries; but it did not affect the ultimate determinations on either side; these were settled by considerations of religious conviction and political ambition.

The war forces of England were in a worse condition than they ever had been. As there was no army but that of the old feudal regulations, the long peace had led to a neglect of military exercises; not only was the renowned weapon of old England, the bow, dying out, but the new weapon, the fire-arm, was little known from want of war experience. Englishmen had evidently begun to think, as many do now, that war, international war, was as much a thing of the past, as domestic war had been for so long. The English infantry had appeared very little on the battle fields of Europe during the disputes between the great continental nations; and when they did appear, it was in a sorry plight, and, with some brilliant exceptions, to little advantage. The Navy had been neglected during the short reigns of Edward VI and Mary; and it was owing to the opening for sea traffic, that the spirit of English seamanship was preserved to such an extent, that when the occasion came, it alone was prepared to meet the enemy. It is true that Elizabeth, from the beginning of her reign, paid atten-

tion to the defences of the country, but as she was naturally too niggardly to spend boldly, and too proud to call in her Commons to do the work, both the naval and military forces of the country were in a somewhat similar condition to that they were in our own day not many years ago.

"And yet," says Mottley, "the little nation of four millions went forward to the death grapple with its gigantic antagonist as cheerfully as to a long-expected holiday. Spain was a vast empire, overshadowing the world; England in comparison, but a province; yet nothing could surpass the steadiness with which the conflict was awaited."

The English People.

This was owing mainly to two elements of strength which then existed in England, the powers of which were not fully appreciated by Philip, or by any of the continental nations, at the time. These were the physical and political condition of the people, and the seafaring ability; and the circumstances of them are worthy of the attention of statesmen at the present day.

In comparing the powers of two nations for conflict, there are two elements of strength to be considered—wealth and population. The measure of wealth, for all ordinary cases of war, may be taken to be the annual produce of the country in agriculture, mines, and manufactures; and in extreme cases it would include every kind of property in the country that has a saleable value. In this respect, taking into consideration all Philip's dominions, European and Colonial, Spain was to England then, very much what England is to Spain now.

But in comparing two populations, not only their numbers must be considered, but their physical, moral, and intellectual condition. The actual physical condition of two peoples may be fairly measured by the respective consumptions of nourishing food; and in this respect the people of England were then superior, perhaps to all other European peoples. Dr. Lyon Playfair has stated that the amount of useful mechanical work stored up in a man, is proportional chiefly to the amount of flesh-forming food he consumes, and from experimental examples of various diets, he considers that 6·5 ounces per day of flesh forming matter, is necessary for a hard-working labourer. Then Dr. Lankester states that the best flesh-forming substance for man to eat is meat, of which matter it contains about 22 per cent.; hence, if the whole of the 6·5 ounces were to be obtained from meat, the hard-working labourer would require 2 lbs. daily. Now, in the sixteenth century, meat was about one-fifteenth of the price it is now. In the reign of Henry VIII, an Act of Parliament, fixing the price of beef at $\frac{1}{2}d.$ a lb., was considered oppressive on the poor. This was owing to the large proportion of the soil of England which was then under natural herbage. But to judge fully of the effect, we must consider the rate of wages; and this consideration is facilitated by the circumstances that the pound in Queen Elizabeth's time, was intrinsically of the same value as it is now. So that if we determine how much food a labourer could purchase in those days, we shall have some sort of

measure of his physical strength, as compared both with other nations of that day and with the labourer of the present day. The average daily wage of a labourer in the early part of the sixteenth century, was $3\frac{1}{2}d.$ throughout the year: taking meat at $\frac{3}{4}d.$ a lb. and bread at $\frac{1}{2}d.$ a lb. (wheat being on the average at that time $6s. 8d.$ a quarter) and beer at $1d.$ a gallon; he could purchase 2 lbs. of meat, 2 lbs. of bread, and a gallon of beer. To purchase the same amounts in the present day would cost the labourer about $2s. 10d.$ Thus, in respect of the essential supports of physical strength, the labourer in Queen Elizabeth's time was better off than he is in the days of Queen Victoria.

That this was felt at the time to be a peculiarity of the English people, although its full value was not recognised, was shown in various ways. A State Paper of 1515 says, "what comyn folk in all this world may compare with the comyns of England in riches, freedom, liberty, welfare, and all prosperity." A writer in England in 1577 says, "These English have their houses made of sticks and dirt, but they fare commonly so well as the King." And one or two others, natives and foreigners, remark on the good feeding of the English, which enabled them to bear arms and fatigue better than the soldiers of any other nation. And the pay and rations of soldiers and sailors was in proportion. Before the time of the Armada, a seaman in the Royal Navy, received $6s. 8d.$ a month, and a daily ration besides of 2 lbs. of meat, $1\frac{1}{2}$ lb. of bread, and 1 gallon of beer; being a good deal more than he gets at present, considering the different value of money. The Militiaman cannot be compared with the soldier of these days, because he only got paid when out for exercise; but then he received (1588) $8d.$ a day, equivalent now probably to 4 shillings, or the following extraordinary ration, $2\frac{1}{2}$ lbs. beef, $1\frac{1}{2}$ lbs. bread, 2 quarts of beer, 1 quart of wine, $\frac{1}{2}$ lb. butter, 1 lb. cheese, 1 lb. biscuit!

There is no soldier or sailor in any Army or Navy in Europe, and no labourer in England, except perhaps the navy, who is fed up to what Dr. Playfair would call such a "war pitch," as was the labourer in the sixteenth century.

The English Political State.

This quality, however, would not have enabled the English to defeat the Armada, if it had not been accompanied by moral, intellectual, and political advantages, which were also peculiar to this country. The whole nation was then organised into one complete body politic, and the people, though technically divided into Catholic and Protestant, had throughout, a deep religious feeling, and a strong sense of their duty to God and their country. Froude says, "The Legislaturo undertook to distribute the various functions of society by the rule of capacity; of compelling every man to do his duty—securing to him that he shall not be injured by his neighbour's misdoings." Under this system, every man was brought up with the idea that it was his duty to be trained as a soldier to defend his country, as well as in some civil capacity to serve it; and the object of the statesman was

not to increase the wealth of the country by the encouragement of commerce, but the maintenance of the population then existing in a sound and healthy condition of body and mind. The organization of the population was as complete as that of Prussia is now, only it was not as an army for offensive purposes, but as a nation, for religious, civil, and defensive purposes.

Every class in the State was taught that they had duties as well as rights; and as the labourer was so plentifully supplied with food, and having a somewhat independent position from the possession of a few acres of land, which he had by law, he was in a condition to appreciate and perform his part in the State, and ready for hard work and enterprise. England, moreover, was altogether in a better condition than other countries to take advantage of the revival of learning, and also of the new opening for enterprise in the oceans and worlds not long discovered, and now being opened out.

The seamen were good specimens of these characteristic qualities of Englishmen at that time; they are called by Mr. Kingsley, the true descendants of their Viking ancestors; their boldness was that of independent reasonable men, who felt that they had a responsibility in the face of difficulty, and that they had the skill and the power to meet it.

It appears from the foregoing that the power of Great Britain now, in respect of a conflict with another nation, is at least sixteen times as great as it was then. The population is eight times as large, and the exports of the country, which may be taken as some measure of the wealth, are now nearly £10 per head, whereas in those days they were apparently only £5 or £6 per head.

PREPARATIONS IN SPAIN.

In the huge isolated palace of the Escorial, by himself at his study table, sits a grey-headed man of sixty, who, from his slight frame and stooping posture, and assiduity to his desk, might have been taken by a stranger for a confidential clerk of the palace. This is Philip II, King of Spain, and ruler of Portugal and parts of Italy, Germany, and the Netherlands, and of both the Indies; who sits here for hours together, day after day, seeing few people, saying little, trusting nobody, but directing the affairs of his vast empire himself, and sowing discord all over Europe by the correspondence dictated in that room.

It is a picture worthy of the attention of all Englishmen, for in that room was hatched the invincible Armada, and those very circumstances of its birth were some of the principal causes of its failure. Philip himself gives to the Duke of Parma, his Viceroy in the Netherlands, the credit of originating the idea of an invasion of England, by way of putting an end completely to the Protestant ascendancy in the north; but Philip himself is responsible for the plan of carrying it into execution. It was he who decided that while Parma was preparing troops and means of landing and occupying the country, the fleet that was to protect his passage should be prepared in Spain; and, although Parma was to be the supreme chief of the undertaking, the person command-

ing the fleet was of such rank that he was, in effect, an independent authority. Then, again, Philip ignored the advice of Parma that a proper harbour in the Netherlands, for embarking his troops and to which the fleet could get access, should first be secured; and thus it happened that, when the fleet arrived at their appointed place, selected by Philip, Parma could not bring his troops to them, and the fleet could not reach him without first defeating both the English and the Dutch fleets. Then, the jealousy of the two great Commanders made them each suspicious of the other, under the action of which the fleet left the rendezvous, and never returned.

The habit of secrecy and mistrust, characteristic of Philip II, prevented him from confiding, to any person but the Duke of Parma, the destination of the great expedition he had ordered to be prepared; and he had not the capacity himself to organize the details absolutely necessary for the work to be done. The result was that ships were constructed unfitted to fight those of the enemy they were to meet; proper information was not obtained of the countries they were going to, or proper pilots for the coast; no arrangements were made for insuring the junction of the two parts of the expedition; and, at the last moment, a wealthy nobleman, who had been a soldier, was put in command of an expedition expressly naval. It would probably have given more chance of success if Philip had published his purpose to all the world, as he would then have been compelled by his advisers in Spain to listen to the repeated warnings of Parma. He did succeed in blinding, to some extent, the Governments of Europe, and especially that of the country he had in view—England; but, fortunately for us, he could not altogether lull the feelings of the people of this country, and especially of the seamen. And it may be said to be owing to his boast that he governed the world in secret from his room in the Escorial, that the Armada had in itself causes almost sufficient for its failure.

The actual preparations were probably begun in 1585, when the direct assistance given by Queen Elizabeth to the revolted Netherlands showed Philip the necessity for taking more decided measures against England. But his slow methodical ways of carrying on all the services of his empire, which he had concentrated in his own hands, extended to the Armada, and it was not ready till May, 1588, when it actually started. Thus, again, by his own fault, he lost the opportunity of taking England unprepared. And yet so little did he realise the character of the business he had taken in hand that, when he found the time going by and the preparations in Spain still behind-hand, he proposed to the Duke of Parma that he should invade England without waiting for the Armada from Spain, forgetting that it was by his own direction that no war-ships had been provided in the Netherlands' part of the expedition, because the Armada was expressly to convoy Parma's forces over.

The King had a large area from which to draw his resources for the equipment of the expedition. Besides the ports of Spain proper, he had the more efficient ones of Portugal, and those of the adventurous Biscayans, and of the more advanced and scientific Italians. The harbours of all these countries were occupied during those three years with the

preparations for the contingents they were to supply towards the great Armada; and from all these countries bodies of horse and foot soldiers were making their way, either to Spain or to the Netherlands, to form part of the invading army. The power of the King was absolute, and the work was blessed by the Pope; for, although the precise destination was not allowed by Philip to transpire, it was well known that, at all events, it was to be employed in the service of the Catholic Church against the heretics. And yet, notwithstanding these powerful influences, it was not till the beginning of May, 1588, that the whole force was assembled in the Tagus, ready to start. And before that time, another act of Philip's had struck a heavy blow against the prospects of the expedition. The first commander appointed to it was the Marquis of Santa Cruz, a man of considerable naval experience; under his superintendance the preparations were made, and under his guidance it might have had a different issue. But the ignoble spirit of the King was influenced by other favourites to discredit this naval noble, and in so evil-minded a manner that the Marquis died of chagrin three months before the Armada sailed. Then, to complete his mistake, he appointed to the command, the Duke of Medina Sidonia, whose capacity for it, as compared to the other, was marked by the saying that "to the iron Marquis succeeded a golden Duke." He was a grandee of vast wealth, with little capacity, and less experience.

List of the Spanish Armada that sailed from Lisbon at the end of May, 1588.

Commanded by—

The Portuguese squadron..	The Duke of Medina Sidonia..	12 vessels of various kinds.
„ Castile „	{ General Diego Florez de Valdez (the most experienced sailor in the fleet).. }	16 do.
„ Andalusian „	.. General Pedro de Valdez	11 do.
„ Biscayan „	{ General I. M. de Recalde (the upper Admiral) }	14 do.
„ Guipuzcoan „	.. General Miguel de Oquendo..	14 do.
„ Italian „	.. General M. de Bertendona ..	10 do.
„ Urcas „	{ General Gomez de Medina (store ships)	23 do.
Tenders, caravels, &c.	General A. H. de Mendoza ..	22 do.
The galleasses of Naples....	Don H. de Moncada	4
The galeras, or galleys	Captain D. Medrado	4

The second in command was Don Al. de Leyva, and Don Fr. de Bobadilla and Don D. de Pimentel were chief officers.

The total number of vessels given by Don D. de Pimentel was altogether 145, of which 110 were men-of-war, and 90 very large.

The total tonnage of the whole fleet was	59,120	} By Mottley, on the authority of Spanish writers.
„ number of guns	3,165	
„ „ soldiers	19,265	
„ „ mariners	8,252	
„ „ galley slaves	2,088	

Don D. de Pimentel said that daily allowances were issued for 32,000 people.

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The size of the men-of-war varied from 300 to 1,200 tons. Pimentel's own ship (a galeass of Portugal) was 700 tons.

The galleons were huge, clumsy vessels, with round sterns, built up at stem and stern like castles, and with bulwarks musquet proof, and the lower work four or five feet thick, which was proof against small guns.

The galleys were rowed by slaves, who sat amidships; the bow and stern had each enormous towering structures, like castles. The canuons were placed both in these and between the benches of the slaves.

The galeasses were similar, but one-third larger; each of these was rowed by 300 slaves.

Pinaces and caravels were small sailing vessels, about the size of modern yachts.

All the vessels were over-weighted with top hamper in proportion to their draught, and could bear but little canvas, even in fine weather.

A large vessel carried 63 guns; Pimentel's carried 32; but one-third of the guns were of cast-iron. There were at least 40 rounds of ammunition per gun.

The Spanish soldiers on board the Armada contained the picked veterans of Spain, and were considered to be the pith of the whole expedition.

The Armada was said to be provisioned for six months. A Spanish record made by order of King Philip, gives the following list of provisions on board:—

110,000 quintals of biscuit.	} The quintal being		
6,500 " bacon.		} 101·4 lbs.	
3,458 " goats' cheese.			} avoirdupois.
8,000 " fish.			
3,000 " rice.			
6,320 septiers of beans or white peas (of 1½ bushel each).	} of 3½ gallons each.		
14,170 pipes of wine (of 110 gallons).			
11,398 arrobas of olive oil,			
33,870 arrobas of vinegar,			
11,875 pipes of water.			

which would be a poor provision for 30,000 people for six months. It gives, however, some notion of the difference in feeding of the Spaniard and the Englishman of that time.

The same authority gives the following arms on board:—7,000 arquebusses, 1,000 musquets, 10,000 pikes, 1,000 partisans, 6,000 half-pikes, so that the proportion of fire-arms to soldiers was nearly one-half; a greater proportion than in the English forces; and the Spaniards had, no doubt, better fire-arms, and were more practised in their use.

Construction of Spanish Ships.

Sir W. Monson, an Admiral of those days and a great naval critic, had not a high opinion of the Spanish navy. He says their vessels were generally constructed for commerce rather than war; that they were commanded by soldiers who were ignorant of the sea and despised the real seamen; that Philip had to get ships and seamen from other parts of his dominions than Spain; the good vessels in the Armada

being other than Spanish; and that generally the English were at that time superior to the Spanish at sea; but this was owing, not to the construction of the ships, but to "the irresolution and insufficiency of the men." One is rather surprised to hear this of the conquerors of the New World and rulers of an empire on which the sun never set, but we must recollect that it was the Portuguese who first led the way in maritime discovery, and that Philip had the control over the naval resources of Portugal, which he used for the Armada to an extent disastrous to that country.

Sir William enters into the discussion of construction of vessels with a zeal that would have given him a prominent place in naval literature had he lived in the days of ironclads. He does not coincide in the opinion we find expressed by other sea captains of the time, of the advantage of the small handy English ships; for, as he puts it, in a maxim worthy to be handed down by English sailors, "when you speak of the strength of ships, you must speak of the sufficiency of the men within her." Sufficiency, not of quantity, but of quality. Therefore, he says, "I would rather desire a reasonable ship of the King of Spain's manned with Englishmen, than a very good ship of Her Majesty's manned with Spaniards." In short, he leads us to infer that, in his opinion, the Spanish Armada was defeated, not by superiority of ships, but of seamen; a view of naval warfare which, in these days of scientific naval construction, ought not to be obscured. Indeed, he commends the galleys, vessels which failed beyond all in the Armada, and especially the "gallias of Venice," as "low and snug by the water," "carrying the force of a ship in men and ordnance;"—"not swift, but certain"—in fact, the "Devastation" of her day. Thus we learn, from the criticisms of this expert of the time, that, although the size and construction of ships may alter from age to age, the different classes of them necessary for naval war will remain much the same throughout all ages, and the main naval strength of a country will always depend on the quality of the seamen.

Preparations in the Netherlands.

The Duke of Parma, King Philip's Viceroy in that part of the Netherlands which still acknowledged his rule, was considered one of the best soldiers of his day, and was, besides, an able ruler and diplomatist. If Philip had put the whole affair of the invasion of England into his hands, the issue might have been very different; but, fortunately for this country, Philip's habitual distrust made him limit Parma's action to the preparation of the main body of the land forces required, and Parma appears to have done his part with completeness, zeal, and caution. For he had his forces fully equipped for their work long before the Armada was ready; and during the whole time the preparations were going on, he succeeded in so blinding Queen Elizabeth and her councillors, that negotiations for peace were carried on up to the last minute; and one of her Commissioners in the Netherlands writes confidently of Parma's pacific intentions on the day when the Armada was having its first engagement with the English fleet.

By April, 1588, Parma had collected, under pretence of subduing the newly united Provinces, and of checking France, a force of the following composition and numbers:—

<i>Infantry.</i> —Spanish.....	8,718
Italian	5,339
Burgundian, Irish, and Scotch ...	3,278
Walloon	17,825
German.....	19,925
Garrisons of fortresses.....	1,180
	<hr/>
	56,265
<i>Cavalry.</i> —German.....	3,650
Foreign mercenaries	668
	<hr/>
Total.....	60,583
	<hr/>

Of this total force, it was expected that about 30,000 would be available for the invasion of England; and this 30,000 had dwindled down to 16,000 by August from sickness and other causes.

These were collected from all the dominions of Philip, and contained many experienced and celebrated bodies of troops. There was the Terzio or Legion of Naples, 3,500 strong; every man in which had armour either inlaid or gilded; and the young adventurers, Catholic nobles of Europe, flocked to the Netherlands to serve under so distinguished a leader on so important an expedition. He had already prepared, during the year 1587, a large stock of war material suitable for the undertaking: rafts and oars for landing, fascines and sand-bags to form temporary shelter at first, timber for stockading quickly the posts occupied, barrels and superstructure for temporary bridges, special carriages for quickly getting his field guns up on landing; and he had built, or purchased from the North German ports, 400 vessels, which he describes as mere transports, many of them flat-bottomed, and incapable of making any fight at sea; although both Philip and the English appear to have thought he had an independent war fleet, and, by acting on that belief, caused difficulties on both sides.

Parma had desired to obtain possession of Flushing beforehand, a deep water harbour, into which the Armada could have entered, but as he could not make his master understand the absolute necessity of having such a harbour to effect the junction of the two parts of the expedition, and as Philip was earnestly pressing him to be ready, as the Armada would join him in the autumn of 1587, he had to content himself with taking Sluys, which he was able to effect, owing chiefly to the supineness of Elizabeth, who would not expend money towards its defence. Thus he had three small harbours, Sluys, Newport, and Dunkirk, for embarking his forces; and he made a canal from Sas de Gand to Sluys for his transport vessels, as the ordinary channels were in possession of the United Provinces. But these three harbours were inaccessible to the large vessels of the Armada, and as they were carefully watched by the Dutch fleet, he and his elaborate preparations were unavailable until the Armada could clear the seas of

the two hostile fleets. Parma excuses himself from blame in this matter by reminding Philip that he was expressly instructed to depend on the Armada for securing his passage across; that alone would hardly be sufficient explanation to clear so powerful a Viceroy; but he also complains of deficiency of the money promised for these objects—a deficiency which was probably caused by Walsingham's financial manœuvres on the Bank of Genoa, as related by Burnet.

Cost of Spanish Preparations.

The cost of the whole of the Duke of Parma's force, military and naval together, is recorded as 454,315 dollars per month, or, taking the dollar at 4s. 2d., it was £94,649 per month. The cost of the naval part of the Armada itself is recorded as 12,000 ducats per day, which, taking the ducat at 5s. 2d., would be £93,600 per month; and the cost of the whole expedition, including both that from Spain and that in the Netherlands, is recorded as 30,000 ducats per day, or £234,000 per month. Froude says, the total cost of the Armada was expected, in 1585, to be 4,000,000 of gold crowns, which, at 5s. 2d., would be about £1,000,000 at that time. There must be some mistake in this, because, in 1587, Philip told Parma he had 6,800,000 ducats ready for the expense of it, which would then have been upwards of £1,500,000.

Thus one can see that there was an element of failure in the Armada itself. But, besides that defect, it was not so very powerful an expedition, considering the resources of King Philip, at least, compared with armaments of our time. Taking the population as a standard, and assuming the population under the control of Philip for these objects, at 15,000,000, the total tonnage of the Armada gives one ton for every 250 persons, which we shall find was much less in proportion to population than what was provided in England to meet it, and is less than the tonnage of the ironclad fleet of France in proportion to its present population. The total number of persons engaged both in Spain and in the Netherlands, bears about the same proportion to population as the army for the invasion of England prepared by Napoleon in 1803; and in each case it may be assumed that the full power of the invading country was put forth. Then again, although the tonnage of the Spanish fleet was much larger than that of the English, the Spanish ships carried fewer sailors per ship, and had on the average 200 persons per ship on board, so that they were transports as well as fighting ships, and with less manœuvring power.

Nevertheless, it was acknowledged by all Europe to be a splendidly appointed and very powerful expedition; and the forces themselves looked upon success, not only as certain, but easy. If religious enthusiasm, chivalrous spirit, and military skill could ensure success, they had reason to be confident; for the expedition contained the choicest of that Spanish race which had so distinguished itself in the world, from the noble to the veteran soldier; and there is no doubt that they were animated with a sincere belief that their cause was approved by Heaven. The experienced seamen among them had, however, already felt that the English seamen were more than a match for

them at sea; and the whole Armada had to acknowledge, in the end, with the bitter disappointment of brave men, that success on the ocean belongs to those who are born to the sea.

PREPARATIONS IN ENGLAND.

When we turn to the preparations made in England to resist this great expedition, we find a remarkable contrast, both in the matter of the preparations made, and in the manner of making them, which illustrates the genius of the two nations, as well as the character of their rulers. We find a Sovereign desirous of peace, and parsimonious, but forced into a great war by the bold determination of her people. It is an instructive example to the rulers of Great Britain for all time, of those eventful periods which have occurred sometimes in our history, when the sound instincts of the people have risen to direct their reluctant governors in the right path of England's duty.

Queen Elizabeth, with all her intellect and high courage, and loyalty to her faith and country, inherited the despotic feeling of her family, and added to it a closeness of her own, and a womanly attraction towards peace. Her arbitrary aversion to appeal to her Commons, and her remarkable repugnance to spend money, nearly counteracted all the efforts of the country. The contest was virtually between Philip and all England; and the monarch discovered the mistake, as others greater than he have done, in backing himself against such a field.

The one remarkable, and encouraging and instructive feature about the preparations in England was their *complete localisation, both materially and in spirit*. No doubt this was fostered (as Mr. Mottley says) by the two new passions that had taken hold of the English mind, revolution against the Pope and mercantile adventure, which were now combined with the old martial spirit of the people. The first feeling had been used as an incentive against Spain, for three years before the Armada, from the pulpits of the Church; that is about the same time that the Queen determined to give material support to the Protestants in the Netherlands. The second was kindled into new life by the opening of the splendid traffic of America, and necessarily the old seafaring spirit of the Northmen was both roused and made antagonistic to the Spanish claims in those countries. Thus the people of England were quite prepared in spirit to take up any gage of battle thrown down by Philip.

But though this localisation affords us so useful a lesson in some respects, it must not be forgotten that it nearly failed in saving the country, and that the cause of its want of efficiency was the absence of that very central motive power which was so injurious in Spain. The one part of England's defence which was successful, the Navy, owed it to that unity of authority combined with individual enterprise, without which it could hardly have existed at all. Thus we learn, that as in each country the system of national defence must be suited to the national characteristics of the people, so *in England no system will be thoroughly national and thoroughly effective which does not combine a powerful central direction, with local liberty of execution.*

Without the latter, the true spirit of the English people will not be roused; without the former, that spirit will be of little value against an enemy.

Queen Elizabeth acted in a perfectly legitimate manner in calling upon the counties to raise and organise their quotas of armed men for internal defence, indeed, she had no other means of raising any land forces. The old feudal duties of subjects had not then expired, though they had been modified (to meet the altered state of the country after a long peace) by the allowance of substitutes or money payment instead of personal service. In Elizabeth's reign this feudal duty was organised by counties, and the Lord-Lieutenants of counties were made the Queen's representatives for seeing the order properly carried out; each county was subdivided among Deputy Lieutenants, also appointed by the Queen, and under them were captains of horse and of Foot, who were generally officers who had served in foreign wars. The quota of horse and foot to be furnished by each county is given in the State Papers, and even that of certain individuals, justices of the peace, bishops, and others. They were all to be furnished, clothed, armed, victualled, lodged, and munitioned, at the expense of the county for a certain time after enrolment, after which, if kept embodied, it was at the Queen's expense. This was a happy arrangement for the great, but penurious Queen, but a very unfortunate one for the necessities of the country; for the Queen took care that they should never be in training long enough to come under her charge, and the counties were not eager to incur the expense of the training without having the necessity strongly brought home to them.

False Economy of the Government.

Two remarkable instances of the Queen's unwillingness to incur expense in war, and to bring matters between herself and Philip to such an issue, occurred in 1585 and 1587.

In 1585, the newly-united Provinces of the Netherlands sent to offer the sovereignty of their country to Elizabeth. Notwithstanding her decided predilection for the reformed faith, and her fear of the power of Spain; and, notwithstanding the warning of some of her counsellors that, if she did not fight Philip in the Netherlands she would have to fight him in England, she not only refused the sovereignty, but snubbed the deputation, and only agreed to help them with troops on condition of her favourite Leicester being made Governor of the Netherlands and of her receiving some towns as securities. She sent over some 10,000 men, of all sorts, but as she soon ceased to pay them, they became a trouble instead of an assistance to her Dutch allies. Her repugnance to join heartily with the United Provinces was, perhaps, partly due to her tendency for diplomacy, in which, however, she was no match for the unscrupulous Philip, and his still more unscrupulous viceroy, Parma. But the mainspring of her action seems to have been fear of spending money. Secretary Walsingham says, in 1586, "rather than spend £100, she can be content to be deceived "of £5,000;" "Her Majesty and her Council do greatly stagger at

“the excessive charge;” “She scorneth the peril (of giving up the cause of the Netherlands); the hope of peace with Spain has put her into a most dangerous security.” One cannot but think that, if she had carried on a bold war in the Netherlands, the Armada would have been forced on before its time, and England would have come out of the struggle holding a much higher place in the world.

But though the English land forces were thus losing precious time for want of resolution in the Government, the English navy, with equal spirit and more confidence in themselves, was not tied down by the same leading strings. Sea expeditions not being then considered to be actual war, and every merchant ship being prepared to fight, it had long been the custom of the adventurous sea captains to fit out expeditions, especially against Spain, partly private and partly supported by the policy of the Government. It was not, therefore, difficult for Sir Francis Drake to get up such a combined expedition to discover what the Spaniards were really doing in the matter of the Armada. For, by the spring of 1587, says Stowe, “the commonalty began to entertain a stronger opinion touching the Spaniards’ settled resolution for the invasion of England than either Queen or counsel.” And Drake was the popular hero of the cause, just as Nelson was afterwards against Napoleon. And good service he did. With 4 Queen’s ships and 24 merchanters, he entered Cadiz harbour, silenced the forts, beat back 12 great galleys, and destroyed 10,000 tons of shipping; and repeated the performance in the Tagus, under the eyes of the Marquis of Santa Croce. By which performances he not only delayed the Armada for another year, but produced the more important effect in war of shaking the *morale* of the enemy, and “taught the mariners of England how to handle those great galleys,” but, though Lord Burghley himself gives this testimony to Drake’s exploits, he is obliged to add, “Her Majesty is greatly offended with him.” The attacking Spain itself was carrying the little game at sea rather too far for her cautious policy; she sent an express after him to forbid it, but fortunately for all parties, there were no electric telegraphs between London and Plymouth in those days, and she was enabled to make political capital out of her attempt, and at the same time reap the benefit of Drake’s misdemeanours.

Detail in Counties.

The preparations on land for defence were extremely well elaborated on paper. There were to be three distinct armies, and a reserve; forming, one may say, three lines of defence. The first line, that “to encounter the enemy on his descent,” was to consist of 34,262 men, spread along the south and east coast, and to be furnished by the counties bordering on that coast. The second line was to consist of 22,872, stationed at Tilbury, because it was expected that the descent would be made in Kent or Essex, and was to be furnished from the midland and southern counties. The third line was to consist of 28,900, and be stationed near London, and considered as the Queen’s guard, and was to be furnished by selected troops from all the counties. The reserve, 46,145, was to remain in the counties, to be used as required. These make a total of 132,179; but, in addition to them,

there were the quotas to be raised in Wales, amounting to 9,377, which are not included in any of the above; also, those in Yorkshire and Durham, which formed a separate command of about 14,000 and then there are nine northern counties not mentioned at all, so that the total force calculated (on paper) to be raised in all England and Wales must have been nearly 170,000.

The great principle at the bottom of all these proceedings was, that every man in the country, if he was able, was bound to assist in the defence of it. The returns from the counties give the number of "able men" above 16 years old, and also the number "furnished" to "armed;" but these returns are evidently not trustworthy, for, on the whole, the number of able men returned is not above double that taken for service. Now, Sir W. Raleigh estimated the number of men capable of bearing arms in England, at that time, to be 1,172,000; a much more probable number when we consider that, in 1841, the male population of England, between the ages of 16 and 45, was one-fifth of the whole population.

This 170,000 would have been a respectable force in proportion to the population of about four millions, if it had actually existed and had been trained and armed; it would have been *one twenty-fifth of the whole population*. The present military forces of Great Britain, including Volunteers, are about *one sixty-fifth of the population*. The war army of North Germany, including Landwehr, is about *one thirty-fourth of the population*, but, including the Landsturm authorised in 1874, it is about *one-fifteenth of the population*. But the numbers actually embodied fell very far short of these, and the training and arming were still more lamentably deficient; and the fault that it was so, lay more with the Government than with the people.

Norfolk.

It is when we turn to the details of arrangements in each county that we see the genius of the people really appearing. As early as 1586, instructions were given to the Lieutenants of counties, but they only mentioned generally the different points that were to be considered, leaving it to the county authorities to apply them to each locality. Mr. Bruce gives, as an example, the arrangements made in the sea-coast county of Norfolk—not one of those most threatened—and which appear to have been due to Sir Thomas Leighton. Eight places on the coast, considered to be those of greatest danger "by reason of the good roads into the interior and the depth of the sea inshore," were selected to be fortified temporarily and to be the guard-posts of the forces. Two of these, Waburne and Yarmouth, were selected as the centres of defence. The whole force of the county, about 3,000 foot and 250 horse (which is about the average of each county's quota for the first line of defence) were divided into two divisions, one to each of these two places, and each of these into three or four subdivisions; so that, in each subdivision, there were about 300 foot (half of whom were "trained" and half "untrained") and 40 or 50 horse, of whom about one-fourth were "Lancers" (or regular cavalry) and the remainder "light horse," which probably meant the

yeomanry of the time. With each subdivision there were some 70 pioneers, with spades, picks, shovels, axes, bill-hooks, and "brown-bills," and a few artificers (carpenters, smiths, and wheelwrights), and two carriages.

The subdivisions were told off (by name of captain's) to take duty by the week at one or other of the above two centres (as convenient to their locality), to keep guard and go on with the defences. On an alarm (by beacon fire), each full division was to repair to its centre. The remainder of the able bodied population were to assemble at certain appointed places in their respective hundreds, and wait further orders from the Deputy Lieutenants.

If a division was driven back from the coast, the whole force was to retreat on Norwich, which was to be victualled with that intention, and Mount Surrey was to be intrenched and defended, as well as the castle, and certain named bridges, over rivers between Norfolk and the coast, were to be prepared for defence, and for destruction. On retreat from the coast, no carriages were to be left, all corn that could not be carried away was to be destroyed, and cattle driven into marshland, and the bridges on their route destroyed. The chief constables were to appoint the watchers of beacons, and watchmen at every bridge, and post-horses in continual readiness, at all needful places on the coast, to carry information; also, a foot-post in every parish, and a horse-post in every market-town. If the enemy could not be impeded from marching on London, the county force was to follow close on him, to hinder as much as possible his spreading and foraging over the country.

Arms.

The clothing was supplied by the county, and cost about fifteen shillings a head. The arms were either purchased or "requisitioned" from private individuals. It was an unfortunate period, in this respect, for England's position; the old English long-bow was giving way before the musquet, the latter not only required more skill and training, but they were more difficult and more expensive to obtain.

The advantage of a weapon like the long-bow to the English people was, that it could be used to full advantage only by a strong bold race. It was, moreover, so easily attainable in the country itself, that every labouring man could provide himself with one, and the regulations for practice throughout the country placed the means of keeping up his skill within easy reach of every man. It was no despicable weapon in the hands of well-fed Englishmen: the effective range was from 300 to 400 yards, and an arrow could be discharged every two or three minutes, with fair certainty of hitting a man at that distance; whereas the new firearm, though it carried farther, required fifteen minutes for each discharge, and was not very sure of its mark even then. The introduction of breech-loaders, also a weapon that requires bold and skilful men to bring out its qualities to full advantage, appears likely to restore to the English infantry some of that superiority which they held with the bow in the middle ages.

In Norfolk they desire, "if possible, 45 musquets for every 300

“men,” and though London could muster 4,000, “chiefly shot,” in other parts of the country, only about one-third of the whole force were armed with musquets, harquebuses, or calivers, the remainder were armed with bows or bills. The horsemen were so few in number (about one-fifteenth of the whole in the southern counties) that they could only be considered as patrols; and of these about one-fourth were armed with lances, and half that number with harquebuses or petronels. The Queen appears to have supplied few if any small arms; her stock of them had, perhaps, been used up in the Netherlands, and they were not made in England. But ammunition could be procured in England, and if there was one article that a foreseeing Government would have taken care to ensure the supply of, at such a time, it was surely gunpowder. The only advantage, however, given to the counties, in this one matter, was the liberty to purchase the Government powder below the market price; and the want of forethought in providing for the supply for the Navy very nearly snatched the well-earned victory out of their hands.

The Sea Coast.

The ordnance were, most of them, supplied by Her Majesty, and the gunners also, for in those days such things were “caviare to the multitude,” but the counties had to pay for them. Both bronze and iron (cast and wrought) guns were made in England at that time, and of such character and number that other nations sent there for them. The official report of the proposals for fortifying and arming the coast of Sussex (which was published by Mr. Lower in 1870) affords probably a favourable specimen of what was done generally. Along the 90 miles of the coast of this county it was proposed to place altogether 114 guns, the greatest part of which were to be demiculverins ($9\frac{1}{2}$ lbs. ball) and sacres ($5\frac{1}{2}$ lbs. ball); only in Winchilsea Castle (or Camber, as it was called) and Rye there were a few cannon (60 lbs. ball), curtal cannon (41 lbs. ball), demicannon ($30\frac{1}{2}$ lbs. ball), and culverin ($17\frac{1}{2}$ lbs. ball). Of the above, 6 sacres were to be mounted and used as field-pieces, and this was the proportion of field-pieces proposed for each of the southern coast counties, for which they were to provide teams of horses, and carts for ammunition. For the field-pieces one hundred weight of “canon corn powder” was to be provided per gun, which, at an average charge of 4 lbs., would be 28 rounds. It is curious that the points selected for defence on the coast of Sussex are almost exactly the same as those selected by a committee for the same object in 1870, showing how little the general features of the coast have altered in three hundred years; and that the “sconces, trenches, flankers, and scarpings” then recommended would be equally, even more applicable to our modern arms of precision. The sea-coast is an everlasting defence, suitable for all ages, requiring, in addition, only parapets to cover the defenders, and the greater the precision and quickness of the weapons, the more suitable is the sea-coast for a line of defence. The number of guns is about the same as that proposed in 1870, though, from the immensely increased size and range of them, they can now be placed to greater

advantage along the coast. In Norfolk, places were selected where the sea-banks were to be cut to flood the levels.

The second line of defence, the 22,000 men of Tilbury, was well placed to meet what was pretty well known to be the direction of the attack, for there was a floating bridge (made of "western barges") over the Thames there, so that the troops from the north could cross over in time to take an enemy on the flank, if he landed in Kent or Sussex. And there were batteries at nine places between Tilburyness and Woolwich, and another floating-bridge at Blackwall.

Kent was remarkable, not only for the large proportion of soldiers actually raised and armed, but for the number of mounted musqueteers—a peculiarity which seems to be handed down to the present day.

But if the county Militia made but a poor show in numbers, arms, and ammunition, their rulers seemed to think, with Henry V, that it was more to the purpose to "show the mettle of their pasture;" for they were better paid and fed than any soldier is now. The Dorsetshire labourer would be glad now-a-days to enlist if he got 4s. a day, which is the present equivalent of the 8*d.* a day the Militiaman of his county got then, when on duty; and the Militia Captains would, no doubt, be glad to return to the rate of £5 per day of training, which they got then. There was a good commissariat staff to ensure the supplies, two purveyors, one surveyor of victual, and one carriage-master to each division of a county, and a victualler to each captain; but evidently, from the rations allowed, there was no control department.

We may smile at the idea of the 3,000 men of the Norfolk militia attempting to stop the 30,000 veterans of Parma, from marching upon London; but the very fact of the county people alone proposing to do it, is an evidence of the bold and patriotic spirit that animated them. The letters and reports from the counties at this time, are full of the English fearlessness of danger. Lord Sussex from Hampshire, writes, "the poor say, he that would not sell horse and cart to defend his country, it were a pity he had any." Sir T. Scott in Kent, though the Queen is drawing largely on his forces for her own body guard, seems to have no fear of the result. Stowe, the London Merchant-tailor and chronicler, describes, "the cheerful countenances of the soldiers marching to Tilbury—joyful at the news of the foe's approach—and when they heard they were fled, began to lament." The Earl of Pembroke offered 300 horse and 500 foot, armed, at his own cost. The city of London was asked for 5,000 men and 15 ships; they voted 10,000 men and 30 ships.

Supineness of the Government.

But all this time the Queen and her Council, who should have appointed men with authority and ability to superintend the drilling and disciplining of the county forces, and have raised funds to supply and pay them, contented themselves with writing despatches to the Lord-Lieutenants, in an official style worthy of the most bureaucratic Government. In 1572, a Royal Defence Commission was appointed; the Queen was already alarmed, and apparently wished to make a show

of doing something, for nothing seemed to have been done till 1586, when instructions were issued to the Lord Lieutenants, which were repeated with additions in the spring of 1587, and yet at the end of that year (when, be it recollected, Philip intended to have done the deed), Lord Treasurer Burghley, in issuing further instructions, incidentally remarks that he has received no returns or answer to his former ones, and though, in the course of these instructions, he talks very wisely about foreseeing things in time, and by due preparation, serving the purpose with fewer soldiers; he also desires "certificates in writing as to the execution of these orders, yearly!" and in April, 1588 (the Armada then starting), he once more complains of receiving no replies, but "the Queen hopes they have put in execution her former orders." And then, after the manner of dilatory administrators, he got frightened, and Sir John Norris was appointed Captain-General over the maritime counties, to consider among other things "whether it be not convenient to have some troops in such places as the enemy are likely to land (considering the enemy is in a readiness), to be continued for a time in Her Majesty's pay, whereof some part to be borne by the county."

No wonder the people took it easy in their preparations, when there was so little earnestness at head-quarters: and no wonder Sir E. Stanley, in Cheshire and Lancashire, found that there had been no training (even for the regulated six days) for two years past, and little desire to spend money on preparations; and that the Spaniards (well informed from England) conceived the idea, that through the peace of thirty years, the English had become "a pacific, delicate, effeminate race, dependent on good living, without experience of war, quickly fatigued and discouraged;" when some of the best Englishmen could fear of the effect of "our long quietness," and say that "God had stirred up the war in the Low Countries, to be a school, to breed up soldiers to defend the freedom of England; which through these long times of peace and quietness, is brought to a most dangerous state."

Indeed, things were looking very bad on land in England. On the 8th August, 1588 (the Armada then being at Calais) there were only 4,000 men in the camp at Tilbury, and those by no means effective. Of the army of London, the Queen's Guard, there only existed the contingent supplied by London itself, and the Commanders had a very poor opinion of that. The county forces were probably at their posts, but we may presume from the above, that the reserve was—where reserves appear generally to be—nowhere. Lord Huntingdon (commanding in the North) says, in June, that he wants "Money, men, armour, ammunition, and victuals." And even the favourite Lord Leicester, who was put in command of the imaginary force at Tilbury, is constrained to speak out by August, with more force than grace: "I see many causes to increase my former opinion of the dilatory wants you shall find upon all such hurley burleys—I prefer Her Majesty's life and safety, and the defence of the realm, before all sparing of charges in the present danger,—play not away this kingdom by delays—Her Majesty must deal liberally. 'For your

“ ‘army, it is more than time it were gathered about you’ (this is to the Queen herself)—‘for the placing of it, no doubt, I think, about “ ‘London the mettest—so soon as your army is assembled, let them “ ‘by and by be exercised.’ ” These sentences are emphatic, when we consider that the enemy was at the gates when they were written.

We are obliged moreover even to blot out that historical chivalric visit to the army of Tilbury; not that the Queen was wanting in the personal valour of her race, by any means, but for the simple reason that there being then no army at Tilbury to visit, the celebrated occurrence did not take place till after the Armada had disappeared from the scene. Had she gone before, the famous Governor of Tilbury Fort might have said as truly of the British Army as he did of the Spanish Fleet; “ ‘the British force thou canst not see—because there’s none in “ ‘sight.’ ”

Comparison with Present Forces.

But what a lesson this is to all rulers of the British empire, on the defence of the islands of Great Britain itself. There were men enough then, with strength and spirit enough in them to make a very fair resistance to the landing and advance of any invading army, if they had been embodied, and trained, and disciplined, and armed in time: and if the practice of the bow had not been allowed to die out, before that of the new fire-arms commenced. As it was, if by any accident the invaders had got clear of the British fleet, there was nothing that could be called a serious obstacle, to stop them from capturing London. *If that same proportion of one twenty-fifth of the whole population, was now trained, it would give a force of one million, which would be sufficient to place 350 men per mile round the coast of England.* And if the favourable landing places were prepared beforehand, with cover for the defenders and obstacles against the invaders, and the men were armed and well trained with breech-loading rifles, that number would go a very great way towards defeating altogether, any attempt at landing by the greatest possible force that could land on a given distance. It would be a force like the ancient county Militia, levied, trained, and fighting at the places they lived in, and would, therefore, tend more than any other, to keep up the martial spirit of the people. But it is evident from this part of the story of the Spanish Armada, that if any dependence is to be placed on any such force, it must be so organised, that there will be no fear that they will not always be accustomed to discipline, and well trained in the use of the rifle: and I think, after what we have heard, it would not be amiss to add, that they should at least while embodied, be well fed.

And now what proportion of that armed million of Englishmen, are we prepared to raise on such an emergency? 130,000 partly trained militia, and 150,000 volunteers, who, as their title implies, may come or stay as they please. For the rest of the security of our great empire, we depend on 150,000 regular troops, who are just enough to occupy our military posts over the world in peace time; and to reinforce whom on the outbreak of war, we have at the most about 30,000 old soldiers. Thus, taking the favourable view that all those numbers would be

forthcoming on sudden demand, we have under 500,000 men, or one half of the proportion of the population considered necessary in 1588; and to defend an empire, probably twenty times as great. The security of our dependencies, none of which existed in those days, would now absorb the whole power of those 150,000 regular soldiers, leaving our own shores to be defended by a force of militia and volunteers one-third the strength of what the founders of our empire would have raised.

Cost of Land Forces.

The cost of all the forces and all the preparations made on land for the Armada, cannot be easily obtained, if at all; because the bulk of it was raised and paid in the counties, without the intervention of the central authority. If we judge by the rate of pay to the officers and men of the Militia, it was a much more expensive army than our present regular force. Mr. Bruce gives the statement from the county of Northampton in 1588, of the expenses of levying, clothing, and supplying with ammunition and their stores (not arms), and pay for five days' training, for 600 men, which amounts to £1,172; of which the pay of the men was only £86. In 1872-3, the pay of the rank and file of the British forces amounted to about one-fifth of the estimate for the whole expenses of the effective force. If we assume that the pay of the rank and file of the Militia at the time of the Armada was half of the whole expenses, we shall probably be near the truth. Taking that proportion; and assuming the whole 160,000 to have been embodied, and that the pay of heavy horsemen was 1s. 6d. a day; that of the light horseman 1s., and of the footman 8d.; the total cost of the whole rank and file would have been nearly £250,000 per month; and the total cost of the whole preparations on land would have been £500,000 per month; and if we take the purchasing power of money in the necessaries of life, at that time, to have been six times as much as it is now, the above sum would be equivalent to £3,000,000, or about 15s. per head of population *for the month*. The total cost of the British Army and appliances for 1872-3, was estimated at £14,824,500, which would be less than 10s. per head of the present population, *for the whole year*.

It is true that during the time this Militia force was not embodied, there was hardly any charge upon the country; but considering that they were in fear of the invasion for a whole year, the whole force must have been embodied for a period of altogether three months; at all events we may assume that the country was quite prepared to pay the necessary expense for such a time. This would, therefore, have been equivalent in our day to £9,000,000; and if we take the difference in population into account, it would be equivalent to our spending £72,000,000 on a war that lasted three months, and that for the army only.

NAVAL PREPARATIONS IN ENGLAND.

The aspect brightens when we look towards the sea. Not that the Government used more diligence on the sea, than they did on the land,

but the English Navy had a field for their energies more independent of the Government. Fortunately for England, the people had never lost that attraction to the sea, which made it seem part of their country; and the maxim of Alfred, "That England only enjoyed peace from invasion when her fleets were powerful enough to repel it from her shores," had never been altogether forgotten. In the reign of Elizabeth, the new field for sea enterprise in the Indies, coming at a time of comparatively long peace, had revived the national predilections, and had created a race of adventurous seamen, and made the fleets of England once more claim dominion on the "narrow seas." Thus there was a material of ships and experienced seamen ready to make use of, and in the temper to use themselves.

It is somewhat difficult to arrive at the precise numbers of vessels in the Royal Navy and of merchants employed on this occasion, because the numbers are given for different days of the whole affair, in the course of which some became disabled and others were added. By taking the names of all vessels of all kinds mentioned in the records of the time, as given by Bruce and Dodsley, it appears that the following numbers were employed at one time or other:—

	Nos.	Tonnage.	Guns.	Men.
Royal Navy	35	12,690	658	6,361
Merchant and private ships	161	20,000	400 ¹	9,070

These were divided into two fleets; one under the Lord Admiral, Lord Charles Howard, containing two squadrons; a squadron under himself with Sir John Hawkins, as Rear-Admiral of 17 Royal and 52 merchant ships (chiefly victuallers), and a squadron under Sir Francis Drake, as Vice-Admiral of 6 Royal and 34 merchant ships. This fleet was stationed at Plymouth. The other fleet was under Lord Henry Seymour and consisted of 12 Royal and 52 merchant ships, of which 23 were furnished by the Cinque Ports, and the remainder by the City of London. This fleet was stationed in the Downs.

The Royal ships averaged about 300 tons, 14 guns, and 140 men; the largest, the "Triumph" (Sir Martin Frobisher), had 1,000 tons, 40 guns, and 500 men. The merchant ships averaged about 130 tons, varying from 30 to 400 tons, of which about half were above 80 tons.

Thus it will be seen that although the total number of vessels employed on the English side was greater than that of the Spaniards, the tonnage was little more than one half, and the number of men and number of guns were not more than one half of the adversaries. The English ships had the advantage of having a fewer number of persons on board each ship, and that a much greater proportion of that number were efficient seamen.

¹ Estimated only.

Composition and Strength of Naval Forces.

The composition of the English fleet and its strength compared with population, deserve consideration. The total tonnage of all kinds gives about one ton to every 140 of the then population of England. The tonnage of the present ironclad fleet of Great Britain gives about one ton to every 80 of the population. The number of men on board the Royal ships was about $\frac{1}{70}$ th of the population. The numbers included in the Naval Estimates, now-a-days, are altogether about $\frac{1}{30}$ th of our population. The total number of adult males in the seafaring professions of that time, judging by an estimate made in 1572, must have been (including the Royal Navy) about 22,000, or about $\frac{1}{60}$ th of the population. The number of adult males in the present seafaring professions (including 60,000 in the Royal Navy)¹ is about 350,000 or about $\frac{1}{30}$ th of our population. Thus the fleets, both Royal and mercantile, and the whole marine of the country were small for their day, as compared with our time. The remarkable point is the very large proportion of this small marine, that was available for the defence of the country. The men in the Royal ships were about $\frac{2}{3}$ ths of the seafaring men, and the whole number employed was about $\frac{1}{3}$ ths of them. If we take the former of these to represent the peace establishment of the Navy, that proportion would give us now about 100,000 men, in place of the 60,000¹ we annually provide for. And if we take the latter to represent the war establishment, that proportion would give us 250,000 men. During the great war with France, at the beginning of this century, we employed nearly 150,000 men in the Navy; and I believe it has been estimated that we should now require at least double the strength of our peace establishment on an outbreak of serious war.

There were two modes at that time, in which the mercantile marine could be brought in to assist the Royal Navy. The first was by the impressment of sailors; that is to say, it was then understood that every man in the country was liable to be called upon to assist in the defence of it, either in the Army or in the Navy. This practice was used at the time, because the pay in the Royal ships was not sufficient to attract the mercantile seamen, except when a prospect of booty was added to it.

The second mode was the requirement from certain of the port-towns of quotas of ships and men to be furnished by them in war time, as a return for special commercial privileges granted to them. Thus we see that at sea, as on land, the principle was that as the wealth of the country increased, those who gained the chief profit should be prepared to defend what they had got by their enterprise. We have lost the idea of that principle, and have only kept the power of impressment in its most obnoxious form; and thus it has come to pass that with the greatest sea-commerce the world has ever seen, we have no system of securing it against a rival power, except by a costly permanent war fleet; which, though very expensive in peace, is quite inadequate for the demands of a serious war.

It is also remarkable how, in that spring-time of British commerce, all those demands on the lives and property of the sea-merchants, seemed only to rouse the enthusiasm of all to a pitch beyond what was

¹ This number includes persons of all classes, and the Royal Marines also.

required of them. The port-towns not only supplied vessels beyond the quotas asked, but private persons equipped and themselves brought ships to the support of the admirals. The spirit of the people having been preserved and organised, rose equal to the great occasion. The action of the English at sea, at that period, may be fairly compared to the deeds of Greece at Salamis. The English, like the Greeks, virtually took to the sea with their whole available maritime force, and their spirit was an earnest of their ability to do the work before them. The tone of all the letters is like that of Nelson and his sea captains; exultation at the opportunity of at last having a good fight with the great rival; a clear perception of the difficulty, but also a resolute mind to meet it, and a confidence in their intimate knowledge of the ships they were to fight in, and the sea they were to fight on.

As was said in the *Times* the other day, commenting on the works of that gifted and patriotic writer who died last month,¹ "It was well for us that English commercial enterprise took that form in the days of Queen Elizabeth. Had these Devon gentlemen stayed at home tilling their paternal acres; had Hawkins, Forbisher, and Drake, confined themselves to coasting voyages in the narrow seas, the story of the Armada would have ended differently, in spite of the elements; and in place of being mistress of her vast Colonial Empire, England might have seen herself a province of the House of Austria."

Construction of Ships.

With respect to the size and construction of the vessels, the opinion of the experienced sea-captains of the time was generally in favour of the smaller and handier English vessel. "Grande navis grande fatica," says Sir Walter Raleigh. Lord Howard calls his ship (the Ark Royal, 800 tons), with evident delight, "a little odd ship for all conditions." When the adventurous mariners of England took to the great ocean, they were obliged, no doubt, to give up the galley, from want of labourers for the oars, and to use small sailing-vessels manned by a few very good seamen; and to compete with the great Spanish galleons, they had to be quick and handy. This suited their genius, and they and their ships became famous together; but we must not assume that the smaller size was deliberately selected for a great naval war. Indeed, the English seem to have been quite as much behind hand in the theory of shipbuilding then, as they have been almost ever since; and to have borrowed their ideas from the Netherlanders. Lord Howard's first demand after his first engagement with the Armada was for larger ships; and, as we have seen, Sir W. Monson preferred larger vessels and a proportion of galleys for sea-fights. The whole of the vessels of that period of all nations, apparently, carried so much top hamper as to be obliged to give up a large part of the hold to ballast; hence the number of attendant victualling ships; the victualler was to them what the collier is to a modern squadron, and gave the limit of their cruising power. This was also limited by the unwholesomeness of the vessels after a short time; the number of men put *hors de combat* by this cause was a very serious loss both to the English

¹ The late Canon Kingsley.

and Spanish fleets, but more so to the latter on account of their crowded state. Otherwise the English ships appear to have been very well built, as far as the workmanship was concerned, and cheaply.

The armament of both Spanish and English fleets was probably alike in point of size of guns. Sir W. Monson gives a list of the guns in use, and says that demi-cannon (80½ lbs. ball, carrying 170 paces point blank) was the largest gun commonly used on board ship. Sir W. Winter mentions culverins (17½ lb. ball, 200 paces P. B. range) and demi-culverins (9½ lb. ball, 200 paces P. B. range); and, after the second day's fight, Medina Sidonia sent off an express to Parma for 4, 6, and 10 lb. balls. The ranges of the guns given by Monson should be borne in mind in the account of the fighting; some of the English guns being, no doubt, of good iron construction may possibly have been better shooting guns than the bronze pieces of the Spaniards.

Government Delays.

The Royal drag had not, therefore, the same effect on the wheels of Neptune's car as it had upon the chariot of Mars. It was felt, however, and produced quite as much noise. Hawkins wanted to cruise off Spain, but the expense (£2,700 per month) was too much for the great Queen. What a Chancellor of the Exchequer she would have made for these days! Lord Howard complains, in March '88, that Sir F. Drake's squadron is not allowed to be completed, and that some of the large men-of-war are kept lying idly in the Medway at Chatham, "to defend the church there," he supposes: "sparing and war have no affinity together." "Money and jewels will not redeem the time." And he includes Lord Burghley among the economists. "I pray we do not curse, for this, a long grey beard with a white head witless." Mr. Puff was apparently right when he called on Lord Burghley to shake his head as if there was something in it.

There were alternate panics and fits of economy worthy of the most peace-devoted government of commercial days. Even in the beginning of 1588, when we know Philip was hoping that Parma was already in England, the fleet was much dismantled, and many seamen allowed to go; and immediately afterwards they had to be refitted at a greater expense, and an inferior lot of men taken to replace those who had gone to seek employment elsewhere. Then, at a time when the goodwill of the sailors was of so much importance, the rations were reduced, and issued monthly, with such delays, that the fleet was short of food during the whole operations. It appears as if the Government of England, at the time, was unable to realise the crisis, which we can see now was occurring in the fates of Spain and England; that the former, if not checked, would inevitably continue her course of aggrandisement, and swallow up first Holland, then England; and that the latter was at a point in her existence, at which the people were both prepared and able to rise to the occasion, and gain a new footing in the world in fair fight.

One can hardly believe it possible that such infatuated economy existed in those great days, but we have an instance in our own days of the deliberate blindness of a Government in like case. In 1858, when

there were rumours of war in the political air, the Royal dockyards of England were allowed to get reduced into such a condition that if the whole force of them had been put on the work of fitting out the vessels lying in harbour for war, irrespective of building new vessels and of chance repairs, it would have taken two years to do the work.

A list of the whole of the Royal ships mentioned in Bruce, as having been employed on this service, is appended, and in it will be seen several well-known names in the British Navy. If any record were to be put up in this Institution of the historical deeds of the Navy, I do not think that there could be any names more worthy to commence the list with than those of the captains of these ships. And of all those names, many of them renowned in the world, I feel certain that there could not be a nobler one to head them than that of Lord Charles Howard. A nobleman of England and a Catholic, he sacrificed his feelings and his ease, and, without hesitation, drew the line between his adherence to his faith and his allegiance to his sovereign. Throughout the whole proceedings he shows the high-minded honesty of an English gentleman, coupled with a skill and gallantry worthy of the best days of British seamen.

Preparations in the Netherlands and in Scotland.

We must not omit the preparations made by the United States of Holland towards counteracting the Armada, for, without them, the junction between it and Parma would have been effected, and that great commander would have made a much more vigorous effort to land his troops in England. In the autumn of 1587, as soon as Parma had taken Sluys, they blockaded that port, and Newport and Dunkirk; and, by April, 1588, they had 90 war ships and 50 merchanters, varying in size from a gunboat to 1,200 tons employed on this service. The large square-rigged vessels were stationed between the Flemish Coast and England, those of smaller size lay within the banks off the former, and the sloops and flyboats lay close in-shore. The admiral of Holland was Warmond, and the admiral of Zealand was Juan de Nassau. These fleets, it will be seen, played an important part not only in blockading Parma, but in assisting to secure the results of the victory gained off their shores. And even after the great Armada had disappeared into the North sea, the danger that was still apprehended from Parma (so great was his renown) was so felt, that the English admirals showed great anxiety to get back to the Flemish Coast to watch him.

Neither must we omit to record the part played by Scotland. The young King James had been personally doubting which side to take, but the mass of the people of Scotland settled the question for him, by showing, unmistakeably, like the English people, their determination to adhere to the Reformed religion. In 1586, King James made a definite treaty of mutual defence with Elizabeth, in case of invasion of either country. Nevertheless, in June, 1587, Philip spoke of a simultaneous invasion from Scotland, when the Armada should appear by troops in his (Philip's) pay; but these were apparently to be furnished by the nobles of the Catholic party in Scotland. It, however,

so far affected the arrangements in England that the militia forces in the northern counties were all kept there.

Cost of the Naval Preparations in England.

We have got considerable data on the subject of the cost of the fleet, in the accounts of Sir J. Hawkins, the controller (who appears to have had as sad times under the Tudor sovereigns, as ever a controller of the present day had under the most economical Government). But there is a difficulty in determining the whole cost of the naval preparations during the year in which they were expecting the Armada; because the Queen, in her anxiety to save expense, ordered ships into harbour as often as she could, and the crews were either paid off or put on reduced rates, and the bulk of the expense of the merchant ships fell on the seaport towns which furnished them, or on private individuals. Sir J. Hawkins gives a statement of all the expenses paid by him for the eleven months, from 1st November, 1587, to 30th September, 1588, for H.M. ships, coasters, and volunteers, over and above the charges borne by the seaport towns and others, and not including victuals. This was £77,295, of which about £24,000 appears to have been spent on merchanters. In Bruce, there is an estimate of the cost of victualling H.M. ships and others for 18 months, from 1st July, 1587, to 31st December, 1588, which was £66,331, of which about £20,440 was for merchanters. From these two accounts the total cost of the 34 Royal ships, during 12 months, would have been about £90,000.

For estimating the cost of the merchant ships engaged, we have the following data:—The tonnage paid by the Crown to the owners, was at the rate of 2s. a ton per month, which, for the 20,000 tons employed, would be £2,000 per month. The wages of the seamen so employed were 14s. a month, and their victualling was estimated to cost as much more, so that the 9,000 men employed in the merchant ships, at 28s. per head, would have cost per month £14,600. Now whatever proportion the Queen paid, the owners of the merchant vessels would have had to incur the balance of the expense to make up that amount. Therefore it is fair to assume that the cost to the country during the twelve months could not have been less than £175,000 for the merchant vessels, and £90,000 for H.M. ships, or about £260,000 altogether. And if we take the purchasing power of money in necessaries of life to have been in 1588 six times what it is now, that amount would be equivalent to about a million and half pounds, and this fell on a population of about $\frac{1}{3}$ th of the present population of Great Britain, and consequently would be the same to them, as if we expended £12,000,000 in one year. The cost of the effective services of our War Navy at present is about £8,000,000 per annum.

Cost of the whole Naval and Military Defences in England.

Thus we see that the people of England had made arrangements for the defence of their country, which would have involved an expenditure for army and navy in the course of twelve months of a sum which would be equivalent to about £90,000,000 at the present day,

which is more than the cost of our naval and military forces in 1813—the most expensive year of the great war with France—and double the cost of the Crimean war in 1856.

THE ATTACK AND THE DEFENCE.

The plan for the invasion of England, originally proposed by Parma and finally adopted by Philip, was virtually the same as that of all other intended invasions of this country, since England was one united kingdom: namely, to land the main body of the invading forces as near to London as possible, and to make straight for that city. But to carry out this plan in this case, it was necessary that the naval part of the expedition from Spain, should first clear the seas of the hostile fleets, before the military part from the Netherlands could venture to cross over. Philip does not appear to have realised the probability of a great naval action; his idea was to effect the junction without the knowledge of his enemy, and so to take England by surprise. This involved the dangerous expedient of passing with his fleet along the whole south flank of his enemy's position; an operation which looks impracticable with a force like the Armada, in those days of slow sailing vessels; Sir W. Monson, however, says that if they had followed Philip's orders, they might have got to Calais in time to defeat the Dutch fleet, before the arrival of the English fleet, and so to have embarked Parma's forces. As it turned out, it was precisely this scheme of secret combination of the two parts of the expedition which ruined it. Had the Armada come the year before, when the Queen and Burleigh were writing official reminders to the Lords Lieutenant, this plan would probably have succeeded.

Philip's original idea appears to have been three or four simultaneous invasions; one in Ireland, the Armada in the Isle of Wight or some western port, Parma on the east coast, and a force from Scotland.

The report in England (according to Stowe, and probably spread by Philip) was, that a French force was to be landed in the west, Parma in Kent, and another force in Yorkshire. The Queen must have well known that France was in no condition to assist in such an undertaking. This plan of Philip's would have had a good chance of success, provided the whole expedition had been previously arranged for it; as it was not so arranged, Parma objected, and Philip so far yielded, that it was settled, that after Parma's force had landed, and succeeded (of which they had little doubt), the Armada was to return and take the Isle of Wight, as a stronghold, and after that to proceed to Ireland.

There was a very fair prospect of success, from the Spanish point of view. Parma had obtained information about England, and had selected the neighbourhood of Deal for the landing place, and the time after harvest, because of the fertility of Kent and the unwarlike character of its inhabitants (there was a greater force of horse and foot raised in Kent, than in any other county); there were no fortified cities in England as in the Netherlands, and London, even then remarkable for its wealth, was altogether defenceless. It was long

since the English infantry had appeared with success on the battle fields of Europe, and altogether there was little expectation of a defence like that the Netherlands had made. The fault of the failure in this promising programme lay not in his calculations and preparations.

Sailing of the Armada.

On the 30th May, 1588 (new style, which will be followed throughout), the Armada at last cleared out from Lisbon. The character of their movements is well illustrated by their having waited a month for a fair wind, and then being three weeks in reaching Cape Finisterre (300 N. miles). Then they were dispersed by a storm, which proved the inefficiency of some of the ships: of the four great galleys, one foundered, and two were captured by the slaves on board, led by a Welshman of the name of Gwynne, who must be recorded as one of the heroes of the Armada time. The fleet sheltered in Corunna Harbour (called the Groine by the English), and were so injured and had so many sick, that it was the 22nd of July before they put to sea again.

The instructions issued to the fleet by the Duke of Medina Sidonia (given in Bruce), show a religious zeal, but a military martinetism quite unsuited for a naval expedition.

The English fleet lying at Plymouth, appears to have been remarkably deficient in intelligence as to the movements of the enemy; which may be partly accounted for by the Queen's refusal to allow men of war to cruise off the coast of Spain. They had been ordered to cruise in "the Sleeve," as they then called it, against the advice of the Lord Admiral: provisions were the turning point of a cruise then, and what the Lord Admiral feared most, was meeting the Spanish fleet when he was short of them, and he even thought it would be part of their plan to starve him out of the way. This is what would occur now, substituting coal for provisions. The last they heard of them was their being driven in "the Groine" by the storm; the Queen heard of this too, and characteristically ordered some of her war ships to be immediately dismantled; an order the Lord Admiral fortunately delayed to execute, as he almost immediately heard of the arrival of the Armada at the Lizard. There is a fine letter from Lord Howard to Secretary Walsingham, of July 6th, showing his noble and sailor-like character; after discussing in good seamanlike style, the *pros* and *cons* of the case, he finishes with, "we must proceed by the likeliest ways, and leave unto God to direct for the best, and so I bid you heartily farewell.

"From on board Her Majesty's good ship the 'Ark,' the 6th day of July, 1588.

"From your assured loving friend,
"C. HOWARD."

It turned out that what they had been doing was for the best; for the Spaniards at Corunna were also deceived by a report that the English fleet had been dismantled in Plymouth Harbour, and by the advice of De Valdez, their best sailor, Medina Sidonia determined to

disobey his orders, and attack the English fleet in harbour; for which Valdez was afterwards imprisoned for life. They would, however, have succeeded in surprising Lord Howard in harbour, but owing to their ignorance of the English coast, they mistook the Lizard for the Ram's Head at Plymouth, and stood off for the night, intending to enter in the morning. By this delay Lord Howard had had time to warp his ships (60 in one night) out of the Catwater where they then lay; and to the disagreeable surprise of the Armada, as they came along the Cornish coast on the afternoon of Saturday, the 30th July, about 15 miles west of Plymouth, they found some 70 English vessels ready to receive them.

What a night that of Friday, the 29th of July, 1588, must have been in England: when the thought of it warmed the philosophic Macaulay into patriotic verse:—

It was about the lovely close of a warm summer day
 There came a gallant merchant ship full sail to Plymouth Bay;
 Her crew hath seen Castillo's black fleet, beyond Aurigny's isle,
 At earliest twilight, on the waves lie heaving many a mile.
 Night sank upon the dusky beach, and on the purple sea,
 Such night in England ne'er had been, and ne'er again shall be,
 From Eddystone to Berwick bounds, from Lynn to Milford Bay,
 That time of slumber was as bright and busy as the day;
 For swift to east and swift to west the ghastly war-flame spread,
 High on St. Michael's Mount it shone; it shone on Beachy Head.
 Far on the deep the Spaniard saw, along each southern shire,
 Cape beyond Cape in endless range, those twinkling points of fire.

The running Fight in Channel.

And now we come to that remarkable running fight which lasted nine days and extended over 400 miles; but I am not going to attempt a detailed description of this tournament of ships along the coast of England, when there exists so admirable a picture of it in that charming book "Westward Ho," and such full accounts of it in Mottley and Froude. There are, however, some points about it, which are, I think, worthy of attention in these days of discussion on naval tactics; a fleet of comparatively small ships, over that time and distance, got the better of one of large ships, by artillery at long range. And this was done, not by construction or armament, for these were generally the same in both fleets, but by three qualities; swiftness and handiness of the ships, and good seamanship. There are some reservations to be made in the first part of this long fight, but the great final battle appears to me to teach a clear lesson about guns, as I shall point out when we come to it.

The Spanish fleet sailed in what Admiral Monson calls "the pro-portion of a half moon," the centre advanced, the wings thrown back; the Admiral in the centre, with the Rear-Admiral behind him, the great galleys and galleasses on the flanks. As there was no sailing close on a wind in those days, the orders were simple; no ship was to go a-head of the Admiral, or astern of the Rear-Admiral: Hakluyt, speaking of their good order of sailing, says they were "three or four in a rank," following close up one after the other; and Camden says

they stretched seven miles; this agrees with the drawings in Adam's and Ryther's book. And in this order they advanced slowly along the coast of England, before a S.W. wind and a smooth sea, such as one expects to find in the channel in August. The Duke of Medina Sidonia, after finding out his mistake about the English fleet, resolved to make straight for his rendezvous at Calais without stopping for anything. The English fleet would have got to close quarters and boarded, if they had dared; but the Spanish vessels were too high to run such risks; and Lord Howard knew well that the issue to England depended mainly on his thirty ships of war. So he let the Armada pass, and kept behind, that was to windward, and ordered that his ships should not allow themselves to get closer to the enemy than good cannon range, 200 to 400 yards. Divided into four independent squadrons, they carried out this idea so well, that even, when by a slant of N.E. wind the Spaniards got the weather-gage, they could not close upon any English ships: and the Spanish Admiral was obliged to place his best galleys in the rear to cover his progress.

The Spaniards describe the English fleet, during the progress in the Channel, as sailing along the rear of their line, firing into their vessels in succession, and that they in vain attempted to get alongside of them by crossing their courses. They mention particularly the Flag ship, the "Ark Royal," which, the wind being at the moment easterly, had run into a Spanish vessel and damaged her own rudder, and yet, before another Spaniard could close upon her, she got her head pulled round by her boats and sailed away from them. They were also astonished at the quick firing from the English guns, which they say was four to one of their own.

I said there were reservations on this part of the fight. Firstly, the Spaniards could not manage their own ships; they repeatedly fouled each other, and their losses in the Channel were almost entirely occasioned by the English capturing their ships damaged and left behind by their own fault in this respect. Secondly, very little damage was done on either side by the firing, although each side fired away the greater part of their ammunition. This was partly bad gunnery; the master gunner of the English flag ship (who corresponded direct with the Secretary of State), was as angry as if he had been director of the gunnery ship of the day: and some of the Spanish guns were so high (in their castles) that they could not depress them sufficiently to hit the low English hulls. Thirdly, neither side was satisfied with the result: one can understand the Spaniards being dissatisfied and sending off express to Parma for "fly boats," to chase the English ships; but it is curious to find the English Admiral also sending off express to his Government for larger ships to board the Spaniards with. He was gaining a victory without knowing it.

An episode occurred at this time, illustrative of the importance, even in those days, of having a war harbour about Dover. Lord Henry Seymour, who commanded the squadron stationed in the Downs to assist in watching the Flemish coast, came westward as far as Dungeness on hearing of the arrival of the Armada. But, running short of provisions, and hearing nothing more, though the Armada

must have been almost in sight, he returned to the Downs on Saturday morning, August 6th; and before he could revictual, he received orders to join the Lord Admiral off Calais. Now if the Spanish expedition had been arranged so that Folkestone had been one point of debarkation, it would have been effected before Lord Henry could have arrived to assist in preventing it; for the wind was so light, that it was evening before he joined the Admiral.

The Anchorage at Calais.

On Saturday evening, August 6th, 1588, the two hostile fleets anchored off Calais, within one mile and a half of each other; about 130 vessels in the Spanish fleet, and 140 in the English; the Spanish fleet to the westward, in the more sheltered position. And there they lay all Sunday. Perhaps no British Admiral before or since has had so important an issue resting on his shoulders, as Lord Charles Howard had that night: the fate of England depended on his action. The enemy were still virtually intact; they had steadily pursued their course in spite of the English fleet; and after their junction with the Prince of Parma (of which neither side had then the smallest doubt), that fleet would be still less able to stop these mighty ships from crossing the short distance further to the English coast; and if they once landed there, the Lord Admiral knew there was little to oppose them. Little did he imagine that the mind of the Spanish Admiral was equally filled with doubt as to his next move.

Whether from natural incapacity, or jealousy of the rival commander, Medina Sidonia does not appear to have contemplated the idea of forcing his way up the Scheldt to effect the junction; he expected Parma to come to him. Parma set to work with great energy and got 16,000 men (all that was left of the 30,000 of six months previous) on board his transports at Dunkirk and Newport, but he could not move out in face of the Dutch fleet. Thus were the two component parts of this mighty expedition, lying within thirty miles of each other, each waiting for the other. There was still great enthusiasm and spirit among the Spanish forces, though there was, no doubt, some fear of the English seamen. There also was lying the English fleet, animated with equal spirit and greater confidence, but yet not daring to attack the tall galleons filled with men, while they were at anchor; if they had had equal sized ships, they would, no doubt, have anticipated the tactics of the battle of the Nile; as it was, the only question was, how to force them from their anchorage before Parma could join them. A modern naval tactician would have been only too happy to have got such an opportunity of bringing his rams and torpedoes into action. There were no vessels suitable for ramming in the English fleet, but the torpedoists will be gratified to know that that weapon was virtually brought into play, and with remarkable success.

Sir William Winter (then apparently a Commissioner of the Navy) came on board the Lord Admiral's ship to give his advice under the circumstances, and then saw the great Armada for the first time: "and having viewed the great hugeness of the Spanish Army, did

“consider it was not possible to remove them but by a device of firing of ships, which would make them leave the only road which was meetest to serve their purpose.” And in the middle of Sunday night—a dark, cloudy night, with flashes of lightning—the Spaniards suddenly beheld six fire-ships coming down before the wind and tide upon them, all ablaze. Fire-ships alone were well-known expedients, and might have been met without endangering the existence of the fleet; but, not long before, an Italian engineer had employed against the Spaniards in the Netherlands some kind of floating torpedoes, which, coming down the Scheldt at Antwerp, had blown up a floating bridge and some vessels, and many men. This was well known in the Armada, and it was also known that the Italian engineer was then in England, and these fire-ships were supposed to be of his invention. A panic seized every ship in the fleet; Medina Sidonia in vain attempted to preserve order; before morning, the whole Armada had cut their cables and got under way. Gianibelli, the engineer, must also have a place among the victors of the Armada.

Once more, then, the great line of the Spanish fleet is going before a fresh south-west wind up the deeps of the Channel, between the Goodwin Sands and the coast of Flanders. But the gallant, though incapable Medina Sidonia, exasperated against Parma for, as he thought, deceiving him, now resolved to act for himself. He reformed his line and when the English fleet came up with them again, he turned, and the great decisive battle between England and Spain at last took place.

The Battle of the Goodwins.

About 8 A.M. on Monday, the 8th August, 1588, the fleets neared each other. Lord Howard had determined his plan of attack, in three independent squadrons; but this was upset by his remaining behind to assist some small vessels, whose boats were capturing a great galleass, which had grounded at Calais; so the impetuous Drake had the opportunity of leading his squadron against the centre of the Spanish line, in which he was followed by the equally pushing Frobisher and Hawkins. Lord Henry Seymour and Sir W. Winter attacked the starboard wing.

This was a real battle of guns. The English necessarily adhered to avoiding being boarded by the Spaniards, and kept at musket shot, that is to say, probably not exceeding 200 yards; it is difficult to understand how they avoided it, as they speak of being surrounded by these great galleons. The Spaniards must have been dispirited and the English inspired by the night before; for the wing attacked by Winter ran into the body of the fleet, and fouled each other; and the small English vessels remained thus firing on all sides for eight hours. Winter says he fired 500 shot, which, as he had 30 guns, would be 25 rounds a gun. By 4 P.M. the Spaniards had suffered considerably; all their best ships were injured in their hulls and rigging, three large slips sunk, two or three others drifted on shore or into the clutches of the Dutch fleet; one ship is said to have had 350 shot in her, another was shot “through” six times. Strange to say, the English fleet

suffered comparatively little damage; there is no mention of one single ship being put *hors de combat*, and not 100 men killed, whereas the Spaniards lost more than 4,000: Drake's ship was pierced by 40 shot. The height of the Spanish guns above the water will probably account for part of this difference of injury, but still they carried guns in their waists, and we must put it down mainly to the superior skill and confidence of the English seamen.

At 4 or 5 P.M., Medina Sidonia was warned by his pilots that he was drifting on the dangerous lee shore of Flanders, with an increasing wind from more to the northward, so he made sail away to the N.N.E., evidently unwillingly, for he retreated in good order. The English were not loth to stop either. Winter says, "When every man was weary and our cartridges spent, we ceased;" and says Lord Howard, "We put on a brag countenance, and followed the enemy." They must have felt that they had won, but they did not know how great a victory it was; how serious a battle both sides thought it, may be judged from Lord Howard: "Some make little account of the Spanish forces by sea, but I do warrant you, all the world never saw such a force as theirs was; and some Spaniards taken say, it exceeded Lepanto." But neither side as yet realized that that day's fight had settled the question of the command of the sea for many years.

Now the question I would put to naval tacticians of the present day is, whether such a fight is possible with ironclads? Is it practicable to build an ironclad of comparatively small size, and which shall nevertheless carry a few of the largest guns, and yet be swifter and handier than what we may call the line-of-battle ironclads? For if it is possible to construct such a vessel, it seems that they would be able to make a fair fight against the larger vessels at long range. The tactics adopted by the English fleet against the Armada were quite different from the ordinary practice of the time. The guns were then considered so inferior to the ships, that in all naval actions the object of the attacking fleet was to get alongside as soon as possible, and determine the issue by the personal combat of the fighting men on board. The battle of Lepanto was so fought. The English fleet would have gladly followed the usual system, had they dared: they adopted the other plan in desperation of the circumstances. The remarkable thing about it is, that it entirely succeeded, and its success equally astonished both sides. It is true, the Spanish ships were unwieldy and badly handled, but they were manœuvred during the battle, and with great gallantry and some effect. It was really a question of the comparative manœuvring power of the two fleets, as well as of their seamanship and gunnery.

Now, let us consider the difference between guns and ships at that time and at the present. The gun was evidently then really superior to the ship, if guns and ships were properly handled. So much was this known to be the case, that the guns continued much the same for two hundred years after, while attention was turned to improving the ships. And this went on until, in Nelson's days, the ships became again more powerful than the guns, and the plan of battle again was

to get alongside. Then, in our own day, the guns took a start, but the ships almost immediately counterbalanced the improvement by the adoption of armour-plating; and, just now, we find naval tacticians recommending rams and attached torpedoes, showing that they consider the ship to be superior to the gun. No person can venture to say, at the present moment, to what extent the use of iron in ships and guns can be carried, or that we have arrived at the ultimate speed of ships. But there is this point to be considered—ships have apparently arrived at a resting-place, and are large vessels with slow manœuvring power, whereas the gun is still advancing, not only in size, but, what is equally important to the question, in facility of working. The size of ships has increased five-fold since the Armada; the size of guns has increased twenty-fold; there are fewer of them carried, but each is more effective, and is likely to become more accurate and quick in firing.

This is an important question for us, for if there is a possibility of the gun becoming again superior, it will evidently be to the advantage of those maritime nations which cannot afford large ironclads, to be able to use small, quick, handy vessels, at long range, with a prospect of success. And, in such case, it would be necessary for a great maritime power to have a proportion of such vessels to match them. This would not dispense with the necessity of having the larger vessels as well; but they would be reserved for grand maritime warfare; that is to say, a war for the command of the sea, which can only be settled in too ways—either by great naval actions or by the invasion and conquest of one of the powers.

The Great Storm.

The story of the subsequent proceedings of the Armada is interesting to us, as exhibiting the superior seamanship of the English, acting, as it were, in spite of the economical tendencies of the Government. Medina Sidonia made another gallant attempt to face his pursuing foe, but, owing to the faulty navigation and seamanship in his fleet and to the adverse heavens, it only resulted in the whole Armada being nearly stranded on the shoals off the mouth of the Scheldt. Then he appears to have lost spirit, and to have had thoughts of surrendering altogether. It is true that he had many sick and wounded on board, many of his vessels were disabled, his men discouraged, and his pilots ignorant of the sea they were entering. But one has only to consider the condition of the English fleet he was flying from, to learn the true cause of the failure of the expedition. Hawkins writes, on August 11th, still much afraid of the Armada, "has no victual, money, powder, or shot; men have been long unpaid;" Lord Howard, on the 17th, "powder and shot well nigh all spent; made for the Forth to refresh our ships with victuals, whereof most stood in wonderful need." Yet they followed the Spaniards (out of gun shot) up, to 55° 18' N. lat., where they left them on the 12th August; but only to refit, still expecting their return—still expecting the terrible Parma to burst forth from the coast of Flanders, for, says the humble-minded victor, "I long to do some exploit on their shipping." Then came the

great storm, like the final judgment of Heaven on the undertaking; for it was not only a most unusual event to happen in August, but the bad weather lasted all through August and September; and though the English fleet was exposed to the first burst of it, they did not lose a ship. They re-assembled at Harwich, only to find that their economical Government had made no preparation for their sick and wounded, not even for the pay due to the seamen; and to receive, in reply to their earnest request to go to sea again, such wise official reflections from Lord Burghley as these:—"To spend in time convenient is wisdom; " to continue charges without needful cause bringeth repentance."

And yet, at that moment, the Armada still consisted of upwards of 100 ships, and if they had gone to Denmark to refit, as some expected, they would still have been more than a match in material strength for the English fleet; and at that moment Parma had still his 16,000 men fully equipped. When one reads, in "Froude's History," of the Spanish ships strewed along the coast of Scotland, and of whole fleets and armies wrecked in Ireland, and of still a remnant returning to Spain, one cannot but acknowledge, with Mottley, "that the danger " was at last averted, is to be ascribed to the enthusiasm of the British " nation—to the heroism of the little English fleet—to the effective " support of the Hollanders—and to the tempest;—very little credit " is due to the diplomatic or military efforts of Elizabeth's Govern- " ment."

CONCLUSION.

The spirit of a nation lies in its aristocracy, but its strength rests in the people.

If this is true, the story of the Spanish Armada teaches a lesson to statesmen in peace as well as war, for the English nation, then of little repute in Europe, showed both the will and the power to maintain their independence against the strongest, and a capability of doing something more than that. And this was not owing to unlimited freedom in trade or in person or in politics, but, as far as it was due to human foresight, was mainly the result of laws having the special object of regulating each person's position and duties in civil life, from highest to lowest, and which were executed by men in authority, who felt and were not afraid of their responsibility.

But if we take into consideration the possibility of war, the statesmen responsible for defending our empire may learn the further lesson from this episode in our history, that one of the greatest securities for the independence of these islands is in a very large and well organized Militia. If that little nation of Englishmen, imperfectly armed, could determine to defend their shores against a greatly superior foe, how much more should we be able now to make them impregnable? We have five times the population, two or three times the wealth per head of that population, and the most perfect weapons in the world, to defend the same length of coast-line. If we multiplied our Militia by ten, and paid them at the highest rate of labourers' wages while in training, we should be doing no more than those few ancestors of ours, who laid the foundation of all our

wealth. I am not saying that it is necessary to increase our military forces immediately, but that we have lost the organization which enabled them to do so; it is not in the numbers that the defect consists, but in the absence of the spirit of being prepared to hold our position in the world. What we want is, the will to sacrifice so much of our present wealth as they did, to ensure our security. Having got that will, we should have little difficulty in these days in arming and training them, so that every man would be capable of making the most of his weapon, and accustomed to some kind of discipline.

But there is a danger, in these days of refined organization, that we shall sacrifice real efficiency for the sake of official precision, by centralizing the administration and authority. Now, it hardly requires the record of those days to convince us that the one great characteristic of all the deeds of Englishmen is, the feeling of independent authority, and with it of responsibility; it is an essential mark of a free, God-fearing nation, and any organization that does not take it into consideration fails to touch the heart of the nation's spirit. But the story of the Armada shows, in a remarkable manner, how, on the one hand, the Kings of Spain, by concentrating all authority into one centre, stifled the individual enterprise of their people, to their own loss; and how, on the other hand, the good local organization of all ranks throughout the country in England produced success, notwithstanding the supineness of the central Government. It is in this point where I think the maxim of the old Chinese general is applicable. For, in our navy, that delegated responsibility and authority has always of necessity been more preserved than in our army. The Commander of a fleet or of a ship is necessarily, even in peace, in a more independent position and with a larger sphere of responsibility than a Commander of any military force. I advocate the application of the system to a greater extent in our army than has been the case for many years—a return, in some measure, to the principles of organization of former days, which were more in accordance with our national characteristics; and I would take this responsible authority low down in the ranks of officers; not only should the local Commanders of our military forces have greater power and greater responsibility in all things, but the Colonels of regiments and the Captains of companies should be allowed a greater field for the exercise of their capabilities in providing for and keeping up the efficiency of their men. This idea, it will be said, is very contrary to the doctrines of administrative economy and Parliamentary responsibility which have been taught for many years. I can only reply, in the words of the noble seaman whose fleet saved England from the Armada:—"Sparing and war have no affinity together;" "I must and will obey; I am glad there be such there as are liable to judge what is fitter for us to do than we here; by my instructions I did think it otherwise, but I will put them up in a bag." I believe that, by striving after this formal precision in appearance—this concentrated responsibility—you lose what is of ten thousand times more value to the country—the stirring of the conscience of the real workers—the hearty feeling of a share in the power and responsibility of defending the empire.

The British proprietor, when he is organizing an establishment to carry out some private business of his own, seeks for men he can trust, and then puts entire confidence in them. But this is not the way in which they proceed in dealing with the business of the country; at least, of late years the idea has appeared to be, that the best security for the proper performance of it is to give local authorities as little power as possible, and to supervise that power with such an arrangement of checks as to take away almost all feeling of responsibility.

The one paramount lesson to be learnt by our war statesmen, from the story of the Armada, is the preservation of a race of efficient seamen. Our present seafaring population is far larger in proportion to the whole population, than it was in those days, but it is a question whether there are on the whole as large a proportion of efficient seamen among them. Then, every man who was a sailor at all, was of necessity a seaman, with a general skill in all the branches of his profession, which is more perfectly learnt with small vessels and a hazardous trade, and also of necessity having a knowledge of guns, and a resolute enterprising spirit. The parsimony of the Government prevented the employment of the best of them in the Royal Navy, but there was a large field to draw upon, and as we have seen, on emergency it was very largely drawn upon. And there was a more intimate connection between all parts of the naval service of the country, royal and private: from the nature of the ships, little alteration was required to turn a merchantman into a royal man-of-war; and indeed there was not very much difference in the operations of each; the prizes taken by the royal ships gave a better reward to the men engaged than any ordinary trading. It was, in fact, this fine prospect of fortune that made the seamen of those days; the harvest to be reaped even in the regular channels of commerce, was as tempting as blockade running, or any of our most lucrative lines of sea trade, and the prizes to be gained under a bold man-of-war Captain, were like gold diggings to the labourers of to-day.

There are no such premiums to offer in our day to enterprising seamen: the orderly government of the world and the use of steam are against these adventurous spirits, just as regular armies and arms of precision have done away with knight errantry; but there are still plenty of openings both on land and sea for enterprise for boldness and for skill; and there are still modes in which the seafaring population may be encouraged in their profession, and brought into connection with the higher duty of defending their country. There are confessedly improvements required in the interior economy of our merchant vessels, and in the condition of our sailors, and for the sake of humanity and for our trade, it will, no doubt, be the duty of the Government to interfere in these matters with a strong hand; I would advocate a more extensive interference, for the sake of the efficiency of British seamen, so that they may be raised to the highest status among the seamen of the world. There is at present, no connection worth speaking of, between the merchant service and the defence of our empire and its trade, and perhaps no such connection can be made, that will be really equal to the requirements of the times, without

trenching on the liberties and the profits of the shipowners and seamen of the country.

This question of the supply of efficient seamen has been given a startling interest this winter, by the representations of the Liverpool shipowners to the Government, of the deterioration of the British merchant seamen. And this conclusion has been arrived at, not by alarmist officers, but by patient and perfectly independent enquiry, by the commercial men most concerned in the matter. As a curious corollary moreover to the arguments I have been drawing from the story of the Armada, they couple with that announcement, an expression of the necessity for a better connection between the mercantile and the Royal Navy. Some think, and there are naval men of high authority who agree in this, that the deterioration dates from the time of the abolition of the Navigation Laws, and system of apprenticeship; but whatever the cause, all men who think seriously about the defence of their country, will agree with the shipowners of Liverpool, that it is a vital question for the existence of Great Britain. We appear to have been working for some years past on the idea, that the accumulation of private wealth by commercial enterprise, is an interest sufficient to govern the world; we seem now to be discovering, that owing to the many other conflicting interests in the world, this system fails even to govern itself; and that that country, which, like Great Britain, has devoted its energies to the realisation of the idea, has put itself very much at the mercy of those, who, not enjoying the same profits, but anxious to do so, have rival interests. Because, while the devotion to commerce has lasted, two elements of national vitality have been allowed to get into a dangerous condition. The food supplies of the people have become dependent on foreign countries, and the war spirit which should secure them, has fallen into decay. Spain would have had no occasion, now, to prepare a great Armada to invade England, in order to cripple that country; she would divert the attention of the British fleet by threats upon our colonial empire, while her cruisers intercepted the merchant fleets coming from America and Germany, laden with the food without which we can no longer exist. There seems, therefore, to be some necessity for a reconsideration of our position.

The serious question is, whether under the circumstances of the world in which we find ourselves just now, it is not indispensable for Great Britain to sacrifice some of the enormous wealth she is annually accumulating, to effect such a connection between the labouring population and the land defences, and between the seafaring population and the sea defences, as shall not only raise the numbers requisite, but shall rouse the spirit of the people, as those of our patriotic forefathers were roused, when they determined to sacrifice all they had, rather than let the country fall under a foreign yoke.

Great Britain is now somewhat in the position that Spain held in the days of Queen Elizabeth; the great maritime and colonial power of the world. The Government of England in those days, failed to appreciate the true position and future of their country; and the Government of England of late years, has not apparently fully appre-

ciated the position and responsibilities of the empire now: or they would have been more earnest in providing such an organization of the people by land and by sea, as would have ensured the fulfilment of our duties to our colonial dependencies, and would have prevented the alarms about the security of our trade, and even of our shores, to which we have been lately subject.

But there is another remarkable point of similarity between the two epochs. There are clouds appearing in the peaceful horizon that has surrounded these islands for half a century. We have been told by high authority, that the religious question in Europe is tending in directions that can hardly be settled peaceably; and a new power has arisen in Europe, whose aspirations after sea commerce are most likely to bring her into some sort of collision with the great maritime nation of the day. These aspirations may be perfectly legitimate, and may indeed be a necessity; just as it was indispensable for Spain to add Portugal and other maritime countries to her dominions, in order to carry out her mission in the rest of the world. But it is not the less a necessity for us to preserve the power placed in our hands by Divine Providence, for our mission in the world. Let us hope that if the political sky is once more overcast by these two ancient elements of discord, the Government of Queen Victoria will not, like that of Queen Elizabeth, trust so much to subtle diplomacy, and to the skill and devotion of the few soldiers and sailors in the Royal Service; but that, taking warning from that story, they will prepare the country well beforehand, so that we shall not be in danger of losing any of that dominion by land and sea, which has been growing under our hands, ever since those gallant English seamen defeated the Spanish Armada.

DETAIL OF THE ENGLISH LAND FORCES.

Army to Encounter the Enemy on the Coast.

Counties.	Foot.	Light horse.	Lances.	Pioneers.	Total.
Cornwall	2,000	140	16	..	2,156
Devon	3,000	200	..	600	3,800
Somerset	3,000	340	50	..	3,390
Dorset	2,000	40	120	600	2,760
Wilton	2,000	300	50	..	2,350
Southampton.....	4,000	50	100	1,000	5,150
Berks	2,000	37	10	115	2,162
Sussex	4,000	240	20	1,300	5,560
Kent.....	4,000	330	64	1,077	5,471
Surrey	1,000	127	8	200	1,335
Total.....	27,000	1,804	438	4,892	34,134

Army at Tilbury.

Counties.	Foot.	Lances.	Light horse.	Total.
Bedford.....	500	17	40	557
Buckingham.....	500	18	83	601
Hertford.....	1,000	25	60	1,085
Surrey.....	1,000	8	98	1,106
Berks.....	1,000	..	..	1,000
Oxford.....	1,000	..	..	1,000
London.....	1,000	35	89	1,123
Suffolk.....	3,000	50	200	3,250
Essex.....	5,000	..	..	5,000
Kent.....	5,000	50	100	5,150
Norfolk.....	3,000	..	..	3,000
Total.....	22,000	203	669	22,872

The Queen's Guard.

Counties.	Foot.	Lances.	Light horse.	Petroncls.
London	10,000	35	88	
Middlesex	1,000	35	88	
Northampton	1,000	20	80	
Oxford	1,000	8	120	
Gloucester	1,500	20	180	
Bedford	500	17	40	
Buckingham	1,000	25	119	600
Hertford	1,500	20	119	500
Cambridge	500	6	49	
Essex	2,000	49	250	300
Kent	2,000	..	..	300
Surrey	800			
Suffolk	2,000	70	230	300
Norfolk	2,000	80	695	300
Warwick	600	12	76	
Leicester	500	9	70	
Huntingdon	400	6	20	
Worcester	600			
Total.....	28,900	377	2,127	2,300

Total 33,704.

Remaining in Counties.

Counties.	Foot.	Counties.	Foot.
Bedford	500	Sussex	4,000
Buckingham	600	Wilton	2,400
Hertford	1,500	Cambridge	1,000
Surrey	1,872	Northampton	610
Berkshire	1,900	Leicester	500
Oxford	1,161	Warwick	500
London	10,000	Dorset	3,330
Gloucester	4,000	Suffolk	4,259
Somerset	4,000	Norfolk	4,600
Total.....	25,536	Total.....	20,600
Of which 6,000 to be ready to join at Tilbury.		Of which 17,600 to be ready to join Her Majesty's Guard.	

Summary.

	Totals of all kinds.
Army on the coast	34,262
Army at Tilbury	22,872
Queen's Guard	33,704
Reserve remaining in counties ..	46,145
Forces in Wales	9,377
Forces in Yorkshire and Durham	14,000
	<hr/>
Grand Total.. ..	160,360

This total consisted of the following proportions:—

Foot ..	87 per cent.
Horse ..	4 per cent.
Pioneers	9 per cent.

The foot were about half of them trained and half untrained; and about one-third of the whole were furnished with fire-arms; the remainder with pikes, bows, and bills.

Of the horse, about three-quarters were light-horse, and of the remainder about half were lancers (or heavy cavalry), and half petronels (or dragons).

DETAIL OF THE ENGLISH SEA FORCES.

List of the English Royal Navy engaged in the Defeat of the Spanish Armada.—August, 1588.

Lord Admiral's Squadron.

No.	Names.	Tonnage.	Guns.	Men.	Captains.
1	"Ark Royal"	800	32	400	Lord C. Howard, Lord Admiral.
2	"Victory"	800	32	400	Sir J. Hawkins.
3	"Mary Rose"	600	30	250	Finton.
4	"Bonaventure" ..	600	30	250	Reyman.
5	"Triumph"	1,000	40	500	Sir Martin Frobisher.
6	"Elizabeth Jonas"	900	40	500	Sir R. Southwell.
7	"White Bear"....	900	40	500	Lord Sheffield.
8	"The Lion".....	500	30	250	Lord T. Howard.
9	"Swallow"	330	16	160	R. Hawkins.
10	"Dreadnought" ..	400	20	200	G. Beeston.
11	"Tramontana" ..	150	8	70	L. Ward.
12	"Foresight"	300	16	160	Baker.
13	"Charles"	70	6	45	Roberts.
14	"Moon"	60	5	40	Clifford.
15	"Bonavolia" galley	500	30	250	W. Bourough.
16	"Teittari"	200	12	100	J. Bostock.
17	"Brigandine"	45	4	35	T. Scot.
		8,155	391	4,110	

Sir Francis Drake's Squadron.

No.	Name.	Tonnage.	Guns.	Men.	Captains.
1	"Revenge"	500	30	250	Sir F. Drake, Vice-Admiral.
2	"Swiftsure".....	400	20	200	W. Fenner.
3	"Aid"	250	15	120	J. Wentworth.
4	"Hope"	600	30	250	Cross.
5	"Nonparcille"....	500	30	250	T. Fenner.
6	"Advice".....	50	5	40	J. Harris.
	Total.....	2,300	130	1,110	

The tonnage, guns, and men in *italics* are only estimated from the other ships.

Sir Henry Seymour's Squadron.

No.	Names.	Tonnage.	Guns.	Men.	Captains.
1	"Rainbow".....	500	30	250	Lord H. Seymour.
2	"Vanguard"....	500	30	250	Sir W. Winter.
3	"Antelope".....	350	16	160	Sir H. Palmer.
4	"Tiger".....	200	12	100	W. Wentworth.
5	"Bull".....	200	12	100	J. Turner.
6	"Scout".....	120	8	66	Ashley.
7	"Achates".....	110	7	60	G. Riggs.
8	"Spy".....	50	5	40	Bradbury.
9	"Martin".....	45	4	35	W. Gower.
10	"Sun".....	40	4	30	R. Buckley.
11	"Signet".....	20	3	20	J. Shirive.
12	"George Hoy" ..	100	6	30	R. Hodges.
	Total.....	2,235	137	1,141	

Summary.

No.	Names.	Tonnage.	Guns.	Men.
17	Lord Admiral.....	8,165	391	4,110
6	Sir Francis Drake.....	2,300	130	1,110
12	Sir Henry Seymour.....	2,235	137	1,141
35	Grand total.....	12,690	658	6,361

The tonnage, guns, and men in *italics* are only estimated from the other ships.

*Merchant Ships engaged in the Defeat of the Spanish Armada.—
August, 1588.*

	No.	Men.	Tons.
Under the Lord Admiral	Ships and barks, fighting ships, and victuallers	33	1,561
		Coasters, great and small, paid by the Queen	19	943
„ Sir Francis Drake..	Merchant ships.....	34	2,394
		Coasters paid by the Queen and partly by the Cinque Ports..	23	1,093
„ Lord H. Seymour	Ships and barks paid by the City of London.....	29	2,140
		23	939
Voluntary ships, great and small.....			
Totals.....	161	9,070	About 20,000

The average size of these merchant ships was 130 tons each, but they varied from 30 to 400 tons, of which there were about half above 80 tons.

LIST OF SOME BOOKS RELATING TO THE SPANISH
ARMADA.

- Bruce*.—Report on the Spanish Armada, compiled for the Government, 1798: contains many of the original reports and letters on the English preparations in the State Paper Office, and is the source from which most late writers have obtained their detailed information.
- Monson*, Admiral Sir W.—Naval tracts, written in the time of Charles I: gives details of naval operations and discussions.
- Hakluyt*, Collection of Early Voyages, written in 1599: gives some account of both fleets, and of the operations.
- Camden's Annals of the Reign of Queen Elizabeth*; written by desire of Lord Burghley: contains some account of the whole affair, but not so full as might have been expected.
- La Felicissima Armada*, a Spanish account by Jacques Boullain, Lisbon, 1588: contains full details of the Spanish Fleet. (In British Museum.)
- Expeditionis Hispanorum Angliam vera descriptio*; Rober. Adams, Authore—A. Ryther, Sculpfit, 1588.—This consists of a map of England, and ten plates of the Southern Coast, showing the position of the two fleets each day. (Bound up with the last book.)
- Survey of the Coast of Sussex* in the time of Queen Elizabeth: reprinted by Mr. Lower, Lewes, 1870.
- Barrow's Life of Sir F. Drake*: quotes much from a Spanish MS. account, which appears to be in the Admiralty.
- Froude's History of England from Henry VIII to Elizabeth*, 1870: gives much detail concerning the condition of the people of England, and of the operations; rather favourable to the Spanish.
- Mottley's History of the United Provinces of the Netherlands*, 1860: gives an animated and full account of the whole affair, but of course chiefly on the Dutch and Spanish side, and favourable to the former. He, like Froude, quotes from the original documents in Spain and the Netherlands; and from Herrera, Strada, Meteren, and Bor.
- Scott's Archæology of the British Army*, 1868: quotes from the records of the Lancashire Lieutenantancy.
- Dodsley*, *History of the Spanish Armada*, written 1759: gives some details of the land and sea forces in England, in addition to those given in Bruce.