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Friday, May 18, 1888.

THE RIGHT HON. EARL COWPER, K.G., &c., &c., &c., in the Chair.

THE NAVAL DEFENCES OF THE UNITED KINGDOM.

By Rear-Admiral P. H. COLOMB.

I AM desirous of raising a discussion on the purely naval, or active, defences of the United Kingdom, which it seems highly necessary should take place at the present juncture. I think it the more appropriate that we should have a discussion, as looking roughly back over our journals, I easily count up some seventeen papers on the military defences of these islands, but only about four which can be said in any way to touch the naval defences, and I think there is only one—that by Rear-Admiral Scott in 1877¹—professing to deal with them, which has come from the hands of a naval Officer.

But of these four, I do not find one which lays out any principles of naval defence. The paper which goes nearest to principles is that of General Collinson, R.E., which was read in 1874², and produced a very good discussion under the limits set out in the paper.

I have no intention of writing an elaborate paper now, or of enforcing any plans or dogmas of my own. My position is that, so far as I understand, certain systematic arrangements, the results of long experience, were laid down when war broke out again at the beginning of this century which were wholly naval, and which were entirely trusted to, however it may have suited the party exigencies of the day to force the Cabinet into expenses in the way of extra defences on land on the supposition that the naval arrangements would fail.

In those days there was a certain defined way of looking at the situation of these islands as surrounded by water, at the water surrounding them, and at the possible enemies' coasts which bounded the water. Our islands were strictly regarded as the capital of an Empire, surrounded by a water territory, the frontier of which was the enemy's coast. From the very earliest times of regular naval warfare, so soon, that is, as we began to learn, after our great struggles with the Dutch had brought reflection, we began to make

¹ *Ide Journal*, vol. xx, No. 87.

² *Ide Journal*, vol. xviii, No. 77.

disconnected efforts to push out over our water territory and to secure its frontier, knowing that if our territory were to be overrun and left at the mercy of hostile fleets, it would be impossible that the capital should survive. We had seen a contrary course permit an enemy to insult us in the Medway¹ and the Thames, and to threaten Portsmouth.

We had become aware that by efforts to secure our water territory, even though they were incomplete, we had baulked the Dutch plan of blocking the Thames up with sunken ships, and we had learnt as early as 1691 that to blockade Dunkirk was the proper way to prevent the Dunkirkers from stopping the trade of Newcastle by sinking ships in the Tyne.²

We had also had experience that the enemy's fleet in possession of the Channel after beating but not destroying or seriously crippling our own, was incapable of executing any important service against us—held in check by our still capable ships.³

And so, as far as our very imperfect appliances allowed us, we asserted territorial command over our home waters, and endeavoured to prevent the enemy from crossing that which we considered our frontier—the exits from his ports. The appliances were very defective—ships that we could only trust at sea between the middle of May and the end of July—provisions and stores of such defective quality and quantity that a week or two at sea always necessitated a return home to replenish. Vessels so incapable of contending against the wind that they could not be trusted near the land. But with such appliances we did the best we could, pretty confident that if the enemy, from the uncertainty of our guard over his ports, did evade our fleets, their presence near at home was always a complete check on ulterior proceedings.

As time went on and appliances improved, as it became possible to keep up a winter guard, and to push the watch close in to the enemy's ports, it was found that a gale of wind was the only thing that should render evasion possible. Apart from gales of wind Brest itself, 127 years ago, could be so closely watched that Hawke declared he could "safely affirm that except a few ships that took shelter in Conquet, hardly a vessel of any kind had been able to enter or come out of the port these four months."

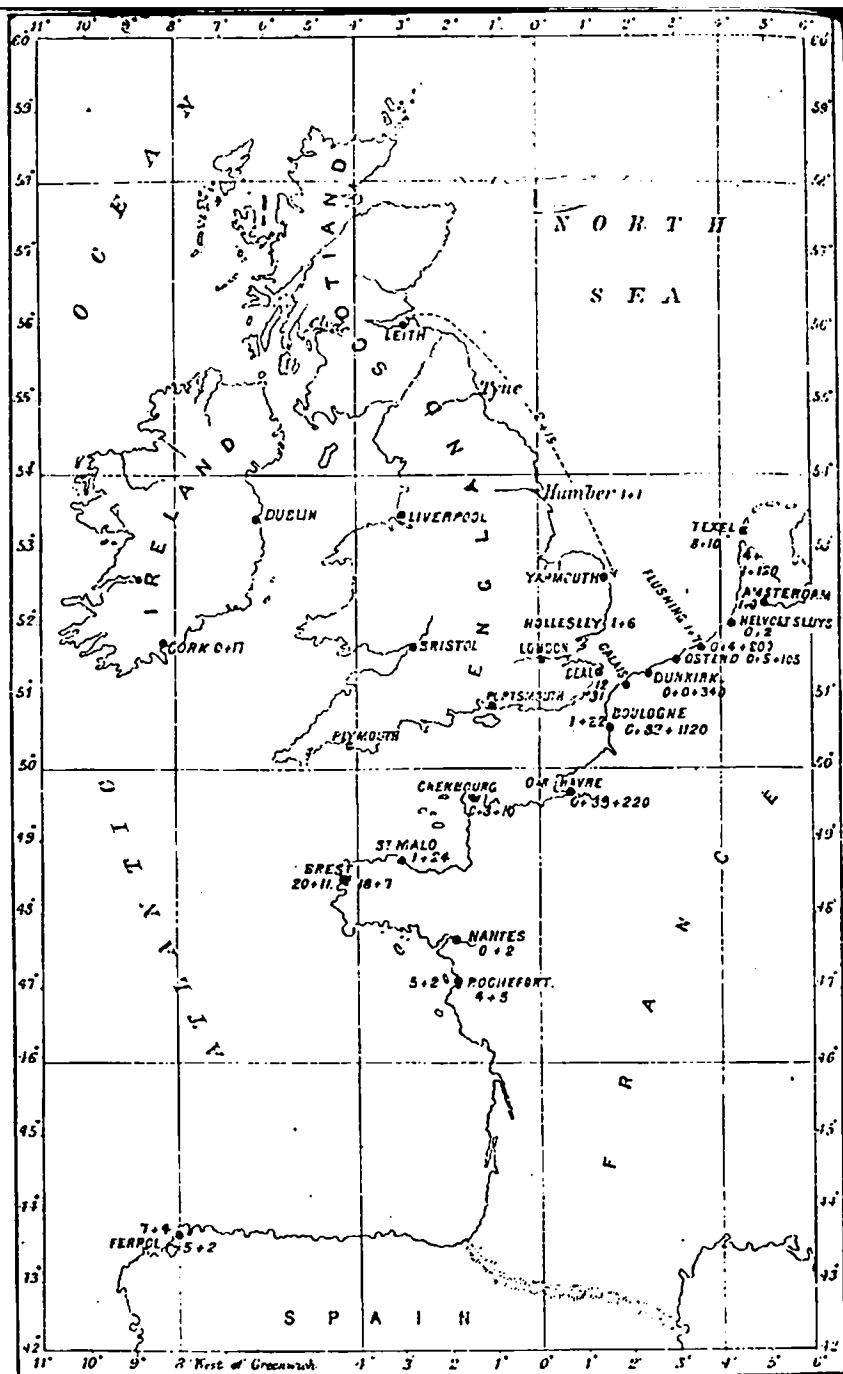
Lord St. Vincent, improving on the work of all who had gone before him, in the first year of this century kept the combined fleets in check at Brest (there were 90 pendants) by anchoring ships of the line in a position which gave them full view into the harbour. What could be done at Brest could certainly be done generally, and so when the war broke out in 1803, and Lord St. Vincent was First Lord of the Admiralty, he made the following naval defensive dispositions.

At Toulon and Cadiz there were known to be of French not more than 10 sail of the line, 4 frigates, and 2 smaller vessels. To look

¹ *Ibid* Journal, vol. xxix, No. 131.

² Admiral Russell, afterwards Earl of Oxford. Quoted by Burchett, p. 435.

³ The condition after the Battle of Beachy Head.



The figures on the water represent British ships, those on the land the ships of the enemy. The first figures represent the number of Line-of-Battle ships, the second, Cruisers, and the third, the special vessels for the intended invasion.

after them there was Nelson with 14 sail of the line, 11 frigates, and 21 smaller vessels.

At Ferrol were 5 sail of the line and 2 frigates, and thither were despatched 7 sail of the line, 2 frigates, and 2 smaller vessels.

At Rochefort and near were 4 sail of the line, 5 frigates, and 2 smaller vessels of the enemy. To watch them were stationed 5 sail of the line, 1 frigate, and 1 small vessel.

At Brest the enemy mustered 18 sail of the line, 6 frigates, and 1 smaller vessel. Lord Cornwallis was there with 20 sail of the line, 5 frigates, and 6 smaller vessels.

In dealing with this frontier of the enemy, containing five ports or passes into our territory, we had about 28 per cent. more sail of the line, about 30 per cent. more frigates, but 600 per cent. more of small vessels than he had. These were necessary clearly, if a close watch was to be kept up in all weathers.

This coast and these ports were furnished with the naval forces of the enemy in the usual character. From St. Malo to the Texel, the ports, besides containing the usual war vessels, were full of the invasion flotilla which had now been in preparation for eight years, and was in a pretty forward state.

In the Texel were 4 sail of the line of the enemy, with a frigate and 120 of the flotilla vessels; and in the various ports, as far as Dunkirk, there was 1 line-of-battle ship, 4 frigates, 7 smaller vessels, and 615 of the invasion flotilla.

To watch these various ports we put 9 sail of the line, 7 frigates, and 14 small vessels.

In the more westerly ports, including Boulogne, Havre, Cherbourg, &c., the enemy had 2 frigates, 7 smaller vessels, 120 special gunbrigs for the service of the invasion, and about 1,450 of the invasion flotilla.

We placed to watch these 2 sail of the line (small 50's), 14 frigates, and 40 smaller vessels.

Such was the true first line of defence, but as it was evident such a line might be pierced in points both by squadrons under the then conditions of ships, and by small vessels, a second line was provided, consisting of 6 sail of the line, 4 frigates, and 19 smaller vessels. This was the Downs squadron, a squadron which might be doubled in force at short notice did need so require, a squadron which was a permanency in war, and had long been regarded as the second line of naval defence.

But not yet was the scheme complete. Evasions even of the second line might be possible on a small scale. It was prudent if not necessary to admit the fact, and there was consequently a local guard in Ireland of six frigates and eleven smaller vessels guarding the St. George's Channel as well.

At Hollesley Bay, at Yarmouth, the Humber, Leith, and generally along the east coasts of England and Scotland were four line-of-battle ships, two frigates, and twenty smaller vessels.

Such were the dispositions of force which Lord St. Vincent considered made the United Kingdom so absolutely secure that it was

only under pressure that he went one step further in the provision of an actual coast defence. Grudgingly he allowed an expenditure of 20,000*l.* for pure coast defence, which afterwards increased to 150,000*l.* For what he considered the wrongful expenditure of this money, Lord St. Vincent always consoled himself by saying "it was the item of his estimates of no other use than to calm the fears of the old ladies both in and out."

What were the principles of this system of naval defence? They were described by Sir Edward Pelew in the House of Commons in these terms: "I see," said he, "a triple naval bulwark, composed of one fleet acting on the enemy's coast; of another, consisting of heavier ships, stationed in the Downs, ready to act at a moment's notice; and a third, close to the beach, capable of destroying any portion of the enemy's flotilla that might escape the vigilance of the other two." Sir Edward was here clearly speaking only of the special danger of invasion which was threatened. It was not necessary to take account of Brest, Rochefort, Ferrol, and Toulon; the arrangements for watching the enemy there, and the conditions of the enemy himself there, were normal.

Now on this summary of what was thought secure and sufficient at the beginning of the century to guard us against the great, the overwhelming blow which had been in preparation for eight years, a question arises. This system of naval defence was no new thing. The same system, only less developed, because it was impossible to develop it more in the then state of navigation and seamanship, had been in use for 200 years. The port of Dunkirk had been dealt with in 1691 precisely as it was now dealt with in 1804.

Doubtless there had been an alternative plan of naval defence contending for favour with that ultimately adopted; and as Hawke was the founder, and St. Vincent the final exponent of the system described, so Lord Howe was the apostle and demonstrator of the competing system.

Lord Howe was of opinion that the maintenance of a squadron at sea in close touch with an enemy's squadron in port was to place the latter at an unfair advantage. Contrary to the popular belief of the present day, Lord Howe thought that in a blockading squadron off Brest there was a continual process of deterioration going on, that both men and ships became gradually worn out, and that the force inside became more and more competent to beat the outside force as the time went on.

While Lord Howe was in power the system of blockade was not approved. His ideal defence was a reserve fleet at St. Helen's and a grand fleet at Torbay. Each of these fleets were to be informed by their frigates of the movements of the enemy in his ports, and the grand fleet was to put to sea after, and not before, the enemy himself was out.

The main difference between the system of Lord Howe and that of St. Vincent was practically that Howe thought the Brest fleet could be more effectually masked from Torbay than from Ushant, but both systems agreed in the necessity for masking the Brest fleet, the only

powerful fleet possible, and for providing a reserve home fleet which would be a permanent check on the operations of a fleet which had in any way eluded the vigilance of the grand fleet or its divisions.

Lord Howe's system was based upon earlier practice, which had been enforced upon us by the inferior character of the ships we had to employ. The best answer to those who might have wished to continue it was perhaps that it was not continued. General experience was against it, as it was found impossible to say where the Brest fleet would go to, or where any of its divisions would go to, if it were once let out of sight.

There was, too, the insuperable objection to the system that it left the enemy free to prey on our commerce. There had been more than one occasion when the whole force of the enemy, being free to put to sea, had massed itself and laid in wait for one of the great convoys which were a necessary part of the arrangement. Squadrons of the enemy also had been nicely calculated to be sufficient to master the smaller convoys which we sent out, and made, in the great open water, bounded by the coasts of England, France, and Ireland, and a line drawn from Cape Finisterre to Cape Clear, wholesale captures of our merchant ships and the warships which were supposed to guard them. When the enemy were free to put to sea in larger or smaller squadrons, or in single ships at their will and pleasure, it was impossible to provide such convoy as would meet the case, as it was impossible to say what the case would be. And hence the outward bound convoys became very large, and to be largely guarded—guarded by the whole of our grand fleet to some western point beyond which it was supposed—very often wrongly—that an enemy's squadron would not lie.

When the system of blockade was adopted, the necessity for large convoys was to a great extent abrogated, and latterly it appears as if only the single privateer, or the very small group of privateers, were able to escape to sea and to attack our commerce, which, to suffer, must have either been very slenderly guarded or not guarded at all.

Lord Howe's system of leaving the enemy's ports open presupposed an equal commerce on both sides, and then in a calculation—which seldom came out right in practice—the Power which sent most squadrons and cruisers to sea had most chances. Obviously, where the commerce was unequal, the superior commerce suffered most.

Now there are before us two systems of naval defence, one older than the other and superseded by it. Do we still hold by the system to which experience ultimately led us? If we do not hold to it, why have we abandoned it? And what have we substituted for it?

One would suppose that as a great nation earnest in preparation for war—or claiming to be so through the eternal panics and alarms which we offer as a testimony to foreign observers—we were ready with an answer to such very simple questions as these. Yet I venture to think there is not a man in the United Kingdom who could give such answers as the next man he meets would agree to.

But without answering directly, we have answered indirectly and

officially both in words and deeds, and in such a way as to make it difficult to say whether we have ever thought about the matter at all, or ever considered whether any answers were necessary.

Let us take what the Royal Commissioners said in 1860 when advising the expenditure of 12,000,000*l.* on the fortifications of the military ports. This Royal Commission was very badly constituted for pronouncing an opinion on the general principles of defence, but it did pronounce notwithstanding.

It held as a primary axiom that the fleet could not be relied on at the present day as a defence of the United Kingdom, even if England had no greater interest to protect than the countries which may be opposed to her. It could only be relied on if an undue portion of our fleet were tied to the Channel for home defence, setting free a portion of the enemy's fleet. While the Navy in the earlier part of the century was sufficient for the duties imposed on it, it could hardly be made so now. More naval force would be required now for purely defensive purposes than formerly, owing to "the certainty with which the movements of fleets can be combined by the aid of steam, and the rapidity with which a large force can be concentrated at a given time on any point." The expense of providing an efficient navy would be greater than the country would bear. Then "the efficient blockade of an enemy's fleet had become well nigh impossible" in consequence of the use of steam. Then it was held that shell had made it likely that even a victorious fleet would be more seriously crippled than in former days, and therefore a longer time unfit for service. Circumstances might occur to prevent our fleet being at the right place at the right time. It might be dispersed in a storm or overpowered.

Then the Commissioners summarized thus: "Should any such catastrophic occur, or should the fleet, from whatever cause, be unable to keep the command of the Channel, it appears to your Commissioners that the insular position of the kingdom, so far from being an advantage, might prove a disadvantage for defensive purposes, inasmuch as it would enable any superior Naval Power or Powers to concentrate a larger body of troops on any part of our coasts, and more rapidly and secretly than could be done against any neighbouring country having only a land frontier; and an army so placed could maintain its base, and be reinforced, and supplied with more facility than if dependent on land communications."

Now, however we may differ about the truth and applicability of these pronouncements, I think we must all agree that there is not amongst them the slightest glimmering of an idea that there existed either Lord Howe's or Lord St. Vincent's systems of naval defence, or indeed any other, if any other were possible. But I would ask whether the whole argument does not come simply to this: "We assume it as certain that this country has lost faith in its Navy, and will never put faith in it again. That it will have an insufficient naval force, and that then we shall find, what every other nation has found, that nothing will protect territory from sea attacks if the command of the sea be lost."

That Report I look upon, in fact, as one of the strangest *non-sequiturs*

that ever put wrong notions into a nation's head. How the spending of twelve millions in the fortifications of the military ports was to provide an efficient Navy which it was certain the country would not provide, or to prevent a rapid and secret descent on some other part of our coasts, the Commissioners did not say. But their argument assuredly was—we are in a hole, and cannot help ourselves; let us spend a large sum in an extraneous matter which has nothing to do with the arguments we have been using.

Let us now turn to the later official utterance which has urged us to spend more money in the same direction. I take what Mr. Stanhope's Committee says, or rather what the "case" given to them came to. "In the case of the principal military ports," says the Committee, "the scheme is framed on the assumption that the command of the Channel has been temporarily lost to us by the fact that the Channel Squadron is absent or disabled, and that these ports and dockyards might have suddenly to rely exclusively on their own resources for defence against attack by a powerful squadron of ironclads." The Committee thus accepts the conditions accepted by the Royal Commissioners of 1860, but they go farther, and give reasons for spending the money. The reasons are that the destruction of our great dockyard at Portsmouth, and in a less degree that of Plymouth, might be decisive of the issue of a great war; and for the Thames and Medway and Harwich, the fortifications are necessary to prevent a sudden attack on London covered by an ironclad fleet. Here, again, is no sign of knowledge of a system of naval defence. A total failure of naval defence is assumed, but not a word is said as to the nature of the defence, not a syllable as to how it will fail. Only, it is held, that the gain of the command of the Channel by the enemy, which he never gained but once in Charles II's time, will probably be his in the next naval war, and we had better prepare for the inevitable.

But neither Lord Howe nor Lord St. Vincent would have allowed any of this vague and somewhat wild language for a moment. To them it would have appeared very like what proposing to provide a substitute for the militia in case it should not be called out would appear now to a military man. Howe placed his reserve fleet at St. Helen's, St. Vincent placed his in the Downs, and both of them thereby made an end of these woes which were to follow the "catastrophe" to the Channel fleet. Moreover, both of them were quite aware that if this miraculous catastrophe was not to take place, but there was to be only an evasion, the Channel fleet itself could have no other post but the Channel, and that the enemy was so perfectly aware of the fact that his hands were entirely tied.

Let us now examine a little closely what the Royal Commissioners of 1860 have said, bearing in mind that we have, if they had not, these two systems of defence before us, and that Mr. Stanhope's Committee can only get their ironclad fleet to bombard Portsmouth, or force the Thames, by accepting the Royal Commissioners' assertions.

See what an enigmatical thing it is to talk about, "an undue proportion of the fleet being tied to the Channel." Suppose there were ten ironclads at Brest ready for sea, and, for the sake of argument,

none at Cherbourg; and suppose the force in the Mediterranean were sufficient to mask the enemy there. Suppose this left us fifteen iron-clads at home. What would, on Lord Howe's principles, be an "undue proportion" to keep in the Channel for purely defensive purposes? Is it not obvious that Lord Howe would have kept the whole fifteen in the Channel, perhaps ten at Torbay and five at St. Helen's? Where else could they have been but in the Channel on Lord Howe's system of defence?

But on Lord St. Vincent's system we may suppose that five would have remained at home and ten have gone off Brest. Would the ten off Brest be an "undue" proportion to keep there for purely defensive purposes? Could they have been sent anywhere else as long as the ten of the enemy were at Brest, on Lord St. Vincent's principle? Surely this talk of "undue" proportion is nothing but a mere phrase, embodying the fallacy that our fleets will be wanted somewhere where the enemy is not, and that, therefore, they cannot be kept where he is.

We are next told that while we could, as we have seen under Lord St. Vincent's arrangements, have a sufficient naval force to keep the enemy everywhere in check, we could not have it now because of the certainty and rapidity of steam communication.

What is the meaning of this under either of the two schemes of defence? Certainly Lord St. Vincent could make little of it, for he would say, "This certainty and rapidity has got nothing to do with me, for by the hypothesis I have my eye on every portion of the enemy's force in his own ports, and I have such a grip of him that he cannot move. There is nothing in the fact that he can move more certainly and more rapidly to prevent me having as great a superiority off each port in 1860 or 1888 as I had in 1803. Of course you may start me with an inferior fleet to that of the enemy, and then certainly I cannot carry out my plans, but you have shown me nothing yet to prove that you would not give me as great a superiority at either of the latter periods as you did at the earlier. That proportion may be too little for a steam fleet, but not for any reasons you have yet put forward."

Lord Howe's answer would be equally complete. "You give me," he would say, "by the hypothesis, the superior fleet at Torbay. You gave it to me just in the same way in 1793. I was never attacked there, and the enemy never came near me there, because I had the superior fleet. If you give me the superior steam fleet at Torbay, the fact that the enemy can now move quickly and more certainly, and make his combinations with more accuracy, will not bring him off the Start in 1860 or 1888 any more willingly than in 1793; what kept him away in 1793 was my superiority, and this would keep him away still."

But if what you mean is that I, in a steam fleet at Torbay, will find it more difficult to defend the United Kingdom from territorial attacks, invasions, and what not, because the enemy can make combinations with greater certainty and rapidity, then I join issue, and say that is palpable nonsense. As long as my superior steam

fleet is at Torbay, it is a full defence against territorial attacks on any part of the coast whatever. Why do I say that? Simply because the whole course of naval history has told no other story. Nothing can be done in the way of territorial attack with a disputed command of the sea. The greatest seamen have submitted and obeyed the rule, abandoning territorial attack on the mere rumour that the command of the sea would be disputed; not the greatest seamen have tried to disobey and have suffered for it; take the Duke of Medina Sidonia and Admiral Persano as examples. How can a steam fleet which dare not face me where I wait for it care to run the risk of being caught by me when entangled with his territorial undertaking? It is not as if the thing was a novelty. More than once we made territorial attacks on the coast of France in later days, but when we did so we took care to mask the only fleet that could interfere with us.

And, Lord Howe would say, if the enemy has improved in capacity to move and concentrate with certainty and rapidity, I have improved also, and have other advantages which in the case before us he has not got. I am at the end of the electric telegraph, and there is no part of the coast that he can approach that will not warn me of the fact in a very few minutes. But while I shall know all about his movements, he can know nothing of mine until he sees me. If history tells me that an enemy would fear to attack when I had not this advantage, why should I suppose he will cease to fear when I have that tremendous pull over him?

But now comes the strangest statement that could be made without the shadow of a reason or an argument. The efficient blockade of an enemy's fleet, say the Commissioners, has become "well nigh impossible" in consequence of the use of steam. Lord Howe considered it well nigh impossible under sail, and if it were so under steam, it would only leave his system of naval defence untouched. Lord St. Vincent had no experience of steam, and could not reply in consequence. Let us, therefore, go to the American Federal Navy, which had a coast of 3,500 miles, comprising 189 ports, blockaded by steam for near about four years, and, therefore, had some little experience of the matter. This is how the historian sums up their experience:—

"As to the legal efficiency of the blockade after the first six months, there can be no question; and by the end of the second year its stringency was such that only specially adapted vessels could safely attempt to run it. If proof of its efficiency was needed, it could be found in the increased price of cotton, and in the scarcity of manufactured goods in the South. In the last year it became as nearly perfect as such an operation can be made. Taking its latest development as a type, it is probable that no blockade has ever been maintained more effectually by any State; and it is certain that no State ever had such a blockade to maintain.

..... "The success of this undertaking, so unprecedented both in its magnitude and difficulty, can best be judged by the results. The number of prizes brought in during the war was 1,149, of which 210 were steamers. There were also 355 vessels burned, sunk, driven on shore, or otherwise destroyed, of which 85 were steamers; making

a total of 1,504 vessels of all classes. The value of these vessels and their cargoes, according to a low estimate, was thirty-one millions of dollars (over 6,000,000*l.*). Of the property afloat destroyed or captured during the Civil War, the larger part suffered in consequence of the blockade. In the Civil War, the work was done wholly by the Navy; and it was done in the face of obstacles of which naval warfare before that time had presented no example or conception."¹

When the blockade had become so stringent that only special vessels could break it, it was estimated at Wilmington that one-third of the attempts failed; and the calculation was that out of sixty-six special blockade runners working that port, forty were ultimately captured or destroyed. Remember, again, that not one of the Confederate cruizers was able to use a Confederate port as her regular base, while under our old system of sailing blockade, privateers used all the French ports as their regular bases, and sent our captured ships into them sometimes at the rate of two or three a-day. Then let us say, if we can, that there is the slightest justification for accepting the dictum of the Royal Commissioners of 1860.

On the face of it, things must be the other way altogether with steam. In our wars with France and Spain, there were three things only which allowed their fleets or squadrons to pass to sea; either (1) that we made no effort to stop them, which was Lord Howe's principle; or (2) that the blockading squadron was blown away; or (3) that it was away to replenish, to clean bottoms, and to refit. Applying these conditions to steam warfare, it is clear that the first is common to both steam and sail, and is not affected by the change. As to the second condition, its entire disappearance from the Federal experience is a sufficient answer. The Federals experienced all the bad weather that any blockaders could expect to be exposed to, but it never caused their squadrons to quit their posts. There remains then the third condition, that of replenishment, refit, and cleaning bottoms.

Here it is important to note that this difficulty only exists where the base on which the blockading squadron rests is distant. Even in this case temporary bases can often be found to modify the difficulty. Much was done in former years even in the open sea in the way of supply. Hawke, in the middle of last century, had made arrangements which practically got over the difficulty for Brest and the adjacent ports, when Plymouth was his base. St. Vincent would have laughed to scorn the idea that there was any difficulty in that region at all, and in the latter years of the war, except where there were cases of distinct blundering, I do not gather that the question of replenishment and refit ever allowed the enemy an advantage on the Atlantic coasts of France.

It was, for some reason, different at Toulon. Villeneuve's escape was due to the necessities of Nelson's supply, and not to the regulation gale of wind.

Nelson used temporary bases, but they were a long way from his

¹ "The Blockade and the Cruizers." Soley, p. 43.

station at Toulon. Our squadrons to the southward of Brest made temporary bases of their stations, and territory was several times occupied by our troops, and formed, as a consequence, a naval base. The conduct of the Federal blockade was, as Captain Long well showed in a lecture delivered here in 1881,¹ a continued securing of bases nearer and nearer to the station which the blockading squadron must occupy. Steam gave them facilities for this which wind propulsion would have withheld from them. I think that no one who looks at the geographical situation of the different war ports of the world can doubt that the Federal method will always be an element of steam blockade.

It may be that the coal question is more insuperable than it appears. But it is evident that if it is, which appears to me in the highest degree unlikely, all that it can possibly do is to throw us back from Lord St. Vincent's system of naval defence upon Lord Howe's system. How can we under either system get an enemy's ironclad fleet into the Channel, and free to bombard Portsmouth or Plymouth Dockyard, or to force the Thames, the Medway, or Harwich? I think that the country has a right to call on those who are urging expenditure on the hypothesis of an enemy's ironclad fleet in command of the Channel to justify their hypothesis in some way. Nothing can be more unbusinesslike than to spend money to meet a very improbable contingency, and I venture to think that one which has not occurred for centuries is *prima facie* improbable, and cannot be assumed.

I want to put it to those authorities who are for spending this money, whether they accept the basis of naval defence as determined by Lord Howe or Lord St. Vincent, or whether they are prepared with another system, and if so, what it is? I cannot accept at their hands the preliminary hypothesis of an insufficient fleet for any system of naval defence, for neither they, nor any one else in the country, has formulated such a condition of things for acceptance. But I am willing that they should say we have not, or shall not have force enough to adopt Lord St. Vincent's method. But then I turn round at once and say, that there is nothing else for us to adopt but Lord Howe's method.

If we cannot defend ourselves by masking the enemy's fleets in his ports, but yet have the superior naval force, what can we possibly do, being moderately sane, but concentrate that superior force in a defensive attitude, and wait? The ironclad squadron which is to bombard Portsmouth must come out of some port if we have not the power to prevent it from coming out of that port; and therefore cannot send our fleet there, can we—still being moderately sane—do anything else with our fleet but keep it at home, and ready? And if the enemy's fleet is inferior, which by the hypothesis it is, how can it come and attack us?

The First Lord of the Admiralty uses a curious expression, in approval of spending the money in fortifications, which might otherwise come into his hands for the strengthening of the naval defence.

¹ *Ibid* Journal, vol. xrv, No. 110.

He says the fortifying the home ports "must largely increase our offensive naval power, for the bases of operation from which our fleet can issue will require little or no naval defence."

What meaning can we attach to these words in view of either of the systems of defence before us? Would Lord Howe have agreed that because Portsmouth, Plymouth, and the Thames were strong, therefore he could dispense with his reserve fleet at St. Helen's, or take the grand fleet away to attack Rochefort? Most assuredly not. What would become of our Channel commerce, what would hinder invasion, were he to leave the Channel open behind him? How could he attack Rochefort with the Brest fleet free on his flank? The strength or weakness of Portsmouth or Plymouth could not affect in the slightest degree the necessities or the conduct of Lord Howe's system of defence. If that system succeeded, the fortifications would not be necessary; if it failed, the enemy would have an ample choice without thinking of Portsmouth or Plymouth.

In a system of defence conducted on Lord St. Vincent's principles, the status of Portsmouth or Plymouth would be equally powerless to aid or control the action of the fleet. If the blockade succeeded, the fortifications would not be called in question, if the blockade failed at any point, the evaded squadron must fall back on the Channel.

In no case could a squadron proceed on an offensive expedition leaving the territorial waters open to the enemy.

The strategical error which underlies the whole demand for this vast and growing expenditure on fortifications and other fixed defences is of old standing, and I venture to think that we all shared in it—I am sure I did—a few years ago. I shall best bring it out by mentioning two utterances, one quoted by Sir Charles Dilke quite recently, and the other occurring in the discussion on General Collinson's paper in 1874. The author whom Sir Charles Dilke quotes without disapproval says that the state of the works at Plymouth and Portsmouth is such that in war we should probably withdraw two considerable portions of our fleet from the blockade of the enemy, and place them at those two ports to prevent their reduction. The other observation fell from the then Captain, but now Colonel, Ardagh. He said: "It would be perfectly preposterous to employ an ironclad to defend a port when you could construct a fort at one-twentieth of the cost of the ironclad, and put one-sixth of the personnel into the fort to defend it."

Setting aside the obvious slip of the intellect which befell the first writer when he forgot that a blockaded force was blockaded, and therefore could not attack Portsmouth or Plymouth, and coming to his divided disposition of naval force to defend those ports, we can see how easy it is to go wrong. It is manifest, when we think of it, that if there were force enough in ironclads at Plymouth to defend Plymouth, Portsmouth would not want any further defence except on the supposition, hardly capable of being made, that Portsmouth and Plymouth were attacked at the same time; and that in no case would a naval strategist, having to defend Plymouth and Portsmouth by ironclads, divide his force.

And the same error, though it is not so close to the surface, was in Captain Ardagh's mind when he spoke as he did. In no case ought a naval strategist, having to defend the ports and coasts of these islands by naval means, to think of separate naval defence for separate ports when the attack is of a serious character and requiring time for its accomplishment.

We have seen that this was well enough understood by our forefathers, even when the movements of ships were slow and of almost measureless uncertainty. It is exceedingly singular that when we have ships of which the movement is both rapid and certain, we should have so clean forgotten it. And so we have, Captain Ardagh stating a thesis which is entirely a wrong one as applied to the defences of these islands, but which we have all of us accepted over and over again as truth.

You can defend a harbour, he says, in these islands, by fortification at one-twentieth of the cost of its defence by ironclads. This is no doubt true if the defence by ironclads were like the defence by fortification and required separate constructions for each harbour. But it is the reverse of truth as matters stand.

If on any line of coast of these kingdoms there were twenty ports, each port requiring to be defended by something equal to a single ironclad, which plan would be the cheapest? To build twenty forts, each equal to an ironclad in power, or to build one ironclad and station her in the middle of the line of coast? Captain Ardagh might have argued that the construction and arming of the twenty forts would not have cost more than the construction and arming of the ironclad, but he admits that the forts would take three times as many men as the ironclad to man them. And again, when the first rough estimate put forward for defending our mercantile ports, not against ironclads, but only against cruisers, is given at over two millions, we may be confirmed in our doubts as to whether twenty forts, each equal to an ironclad, can be prepared and maintained for the cost of one.

Into this same strategical error we seem to have fallen in building the group of coast defence ironclads, and the coast defence gunboats. The idea was, and is, to distribute them at different ports; and they were intended to be the answer, not to sporadic raiders, but to the ironclad squadron. But five or six ironclads of little locomotive and no sea-keeping power, distributed at different points, can only be a defence against a very limited strength of attack; and on this point Captain Ardagh was perfectly sound in 1874. A much smaller number of ironclads of good locomotive power and good sea-keeping qualities, is a more powerful form of defence when concentrated at one point on our coast, connected up with the electric telegraph, and ready to act on any other point.

The error we have fallen into arises, I believe, from forgetting that the strategy of the naval Power in command of the sea is necessarily diverse from that of the naval Power which cannot hope to have it. France, in building coast defence ironclads and stationing them at her great war ports, is pursuing a policy which can be supported by sound

reasoning. Each of these ships is, in her place, the equivalent of a sea-going ironclad, and would compel the enemy, if he determined to blockade, to appear off the port with a sea-going ironclad for every coast defence ironclad within it, or to suffer the chances of a reverse. But the superior navy cannot logically contemplate or prepare for any other position than that of the superior navy. If she does, every pound she spends on that assumption is so much subtracted from her own power, so much deliberately spent in encouraging inferior naval Powers to hope.

There is nothing in history to show that there can be in steam naval wars those alternations of success and failure which existed in our sailing naval wars. There are no longer the uncertainties on which those alternations rested. Times and spaces which were then incalculable and might turn to the advantage first of one side and then of the other are now fixed and known.

We sometimes speak in a vague sort of way, as a justification for the spending of millions on defences which are not naval, and presuppose naval failure, of what we are pleased to call Nelson's being "decoyed" to the West Indies. But if we came to chapter and verse about it, we should see that from no point of view does that action of Nelson's justify the inference drawn from it. In the first place there was no "decoy," in the proper sense of the word. If Villeneuve had pretended to go to the West Indies only, and had turned back into the Channel, leaving Nelson to pursue a false scent, there would have been something in the "decoy." But as it was, Nelson simply followed him all the way there and all the way back again, continuing the watch on him which he would have pursued had Villeneuve not quitted the Mediterranean, and masking his force throughout the proceedings. Not only so, but when Villeneuve, after forming his junction with the ships at Ferrol, was ready to proceed up Channel, there was in front of him, off Brest, a full muster of the whole of our available force, including Nelson's ships. If, therefore, there was any danger to England from invasion at this juncture, it arose, not from any errors, mistakes, decoys, or evasions, but from the prosaic fact that the country had not provided a sufficient naval force for the work it had to do.

Strategically, there was nothing novel or startling in that episode of naval war. There was a junction between some of the divisions of the enemy's force, which had often been completely carried out before, and was now only partially carried out in consequence of that very "decoy" which is generally supposed to have led up to its completion. Had Nelson never quitted the Mediterranean, then indeed Villeneuve might very possibly have gone on to Brest, for he would have been conscious of having shaken off Nelson's fleet. But as it was, when he sailed from Ferrol for the last time, he was certain that Nelson was near him (he was really two or three days' sail ahead of him), and was conscious that, strategically, Napoleon's plans were a failure. How far this consciousness influenced his decision to retreat to Cadiz we cannot say, but we can say that it was certainly an element in enforcing that decision.

So we come back again to the point from which we started, that there are before us two systems of naval defence for these islands, that of St. Vincent, which was also that of the Federals, a systematic and close blockade of the whole of the enemy's ports; or Lord Howe's system, which assumes blockade to be impracticable, and concentrates the naval force at home in a defensive expectant attitude. Both systems assume a reserve fleet which would not be brought into action but upon the failure of the main fleets to prove defensive. Coming back again to them, we have to repeat the request that those who are calling for the expenditure of money on defence which is not naval, and assumes naval failure, should show distinctly how and where the failure is likely to take place.

I do not mean to deny that generally what has happened before in naval war may happen again except where the use of steam power distinctly forbids it, as for instance, the blockading fleet being blown off the coast as it used to be. But if it is once admitted that we can safely refer to history and experience, then I claim that we can rely on naval defence just as we used to do.

But I think it is imperative on us to prepare to adopt St. Vincent's method, and that solely on account of our commerce. Draw a line in imagination from Cape Finisterre to Cape Clear, and consider that perhaps 9,000 British ships cross it either outward or homeward bound every year, of a value only to be reckoned in hundreds of millions.

Consider then that in the wars of the past, until the blockade system was in thorough working order, it was about this line that both sides made some of their heaviest captures. Consider too that Spain in the days of Queen Elizabeth checked her commerce as a measure of self-preservation; that Holland stopped hers entirely for two wars with us; and that Germany in our own time did the like. Consider that for the same reasons any naval opponent of ours would leave us no commerce to prey upon, and we can see that this line from Cape Finisterre to Cape Clear would be the scene of peculiar disasters to us without any compensatory advantages under a revival of Lord Howe's system of defence. When, in our earlier wars with France, the volume of the commerce of each country was so far equal that the captures were also nearly equal, the struggles over this line were pretty nearly equally productive and equally disastrous to each side. Now the disaster could only be on our side, and the produce on the side of the enemy. In order to protect ourselves over this line, I see no means but a revival of convoy—which always was, and always must be of doubtful value alone—or a close blockade of the enemy's ports. It seems impossible to deny, in the face of American experience, that steam blockade, properly undertaken, is exceedingly effective; perhaps if I mention that the number of steamers captured or destroyed by the Federals amounted to three-fifths of the whole number of steamers of 100 tons and upwards now possessed by France, it will serve to show what a tremendous engine that blockade was.

There is therefore nothing so likely to protect the line and the free

passage of our commerce as close blockade; and close blockade on St. Vincent's system, with a reserve squadron at home, does away with all this waste in fixed defences. It appears to be clear that logically we have no right to spend the money we propose to spend. For if the blockade be effective it is certain our coast cannot be insulted. If it be not effective it is incumbent on us to make it so in order to protect our commerce. There is no logical sequence in taking away money from blockade to spend it on forts and submarine mines, because if the blockade be so efficient as not to need it, it is certain the ports cannot be attacked; and if the blockade be inefficient it is imperative to make it so. But if it cannot be made so, commerce must suffer, but the ports are no more open than before to attack, for the fleet must be concentrated at home on Lord Howe's system.

I had intended to have gone pretty fully into the dangers to which our shipping near at home, all round our coasts, and off our ports would still be liable even after all the greater measures of defence were completed. Time does not permit it, however, and I must only glance for a moment at the question. At times when Lord St. Vincent's method of naval defence was in full force, and when ordinary war ships were hardly to be met with at sea, the systems on which our commerce was attacked changed, but the attack was still effective. The scene of the attack shifted from that great line we have been speaking of, and centred itself pretty well at Beachy Head. There never were such swarms of privateers seen as were to be met in and about the Channel in 1810. We captured them by the score annually, but they captured our ships by the hundred. The mischief was no longer done by the great war ships such as the grand corsairs like Jean Bart, Duguay Trouin, or Thurot commanded. Such ships could not get through the blockade. Their places were taken by luggers and cutters and snows carrying only six or eight guns, but with plenty of men for boarding and forming prize crews. These "despicable craft," as contemporaries called them, were small enough to slip in and out of the French ports almost without let or hindrance, but they were found competent to face an Indiaman off the Bill of Portland. There was nothing stopped them. The more of them we captured the more they swarmed, and the Admiralty of that day, with more than 600 cruizers at their command, fairly admitted they were beaten. They had reason to confess, seeing that over 600 of our ships were carried into the enemy's ports under our noses in one year.

These excessive losses were in part due to a relaxation of St. Vincent's system off the smaller ports, which was deprecated by contemporary observers. But still in 1804, when this was not the case, the captures of our ships ran up to 387. This is as much as to say that a very good blockade was not a perfect one. From the numerous small ports in France small raiders did manage to make exits, and the richness of the prizes justified the risks.

Admitting, as we must do, that though steam blockade can be very much closer and more stringent than sailing blockade ever was, we cannot expect it to be absolutely perfect, and remembering that the

prizes are far richer than they used to be, it is not reasonable to assume that the 900 steamers in Franco thrown out of ordinary commercial work by the war would not be largely employed for raiding purposes. There are 620,000 or 630,000 British ships entering or leaving our home ports every year—1,800 or 1,900 a day—and they cluster like bees off all our great estuaries, the Thames, the Humber, the Tyne, the Clyde, the Mersey, the Severn. A great rich belt of trade eternally girdles our shores, of which the richness may be measured when I tell you that I have had the ships counted from Beachy Head for a period, and that there are always thirty-five ships in sight there, and there is a ship passing every five minutes.

If the "despicable" privateer eighty years ago could make such havoc when shipping was thin and winds uncertain, what grounds have we for supposing that the equally "despicable" raider will not in a future war do much more mischief in the much larger and richer field now open to him? Plainly, none. That sort of attack on our commerce is as certain as any operation of war that can be reasonably predicted.

The operations of the raider will be limited by the question of coal supply, and what he does must be done in two or three days. Should no steps be taken to prevent him, the raider who is lucky enough to break the blockade will assuredly make for points where the shipping is thickest, and where most work can be done in the shortest time. No doubt he will approach in the guise of the innocent British or neutral merchant steamer. His object will be to run alongside two or three ships and secure them by means of prize crews for capture or dynamite for destruction before his real character has been discovered; and speed in the transaction will be all-important to him. It seems as if, unless there are armed ships *on the spot* wherever shipping is thickest, a single raider in the short time at his disposal might do enormous damage.

Our noble Chairman has headed a movement to utilize the great volunteer forces which are so ready to hand in this country, and to commit to them the charge of defending our home waters against the raiders of the class specified—the only class which can in any properly organized system of naval defence approach our shores. The idea has been to arm local steamers so as to make them the equals of the raiders they are likely to meet, to man them with volunteer crews, and to station them at all points where shipping is likely to be threatened by the sudden rush of the raider. The Admiralty has given its concurrence and approval of the plan, and we look to see it extend, not only on the ground given, but also from the absolute necessity which is before us of enabling the citizens of a naval nation to throw themselves into the defence of the waters surrounding these islands which certainly ought to be preliminary at least to the defence of the land.

In this paper I have not estimated whether our present fleet is, either in quantity or quality, sufficient to carry out Lord St. Vincent's plan of defence. It has seemed to me that such a discussion would properly follow the acceptance of his system. But I am bound to say,

in order to avoid misapprehension, that we seem to be little prepared for it, and that in war even with France alone, we should have to fall back on Lord Howe's system, which I understand to mean practically the abandonment of our commerce, though our shores would be perfectly secure.

The Navy in Home Waters, August, 1805.

Port and fitting.	
18 line, 9 (50 to 44), 30 frigates, 93 sloops, &c. . . .	= 150
Channels.	
29 line, 26 frigates, 118 sloops, &c.....	= 173
Downs and North Sea.	
4 line, 4 (50 to 44), 9 frigates, 144 sloops, &c.....	= 161
Spain, Portugal, and Gibraltar.	
12 line, 1 frigate, 6 sloops, &c.	= 19
Total 63 line, 13 (50 to 44), 66 frigates.	

August 11th, leaving out Nelson.

Gauteaune at Brest.....	21
Allemand at sea	5
Villeneuve leaves Ferrol.....	29 = 55
Cornwallis off Brest	17
Calder's fleet	9
Stirling's fleet	4
Home ports, &c.	16 = 46

Colonel Sir C. NUGENT, K.C.B.: Lord Cowper, ladies, and gentlemen, I perhaps may be excused if I regard this paper which we have just heard read as in some sort a counterblast to a paper read here by me about three months ago. At that time the gallant lecturer's hand was heavy on me, but I found my consolation in that he said, "After Easter I will let you into the mysteries of this matter." In effect he said, "After Easter I will give you a straight tip." It may be said that in dealing with this matter we naval and military men should seek for as many points of agreement as possible, and not to find points of difference, and I can assure you, my Lord, that it is with this feeling that I take up this paper, and it is with this feeling that I rise to discuss it. But I am sorry to say that there are many points on which I cannot agree with the gallant lecturer—in fact, if I may, I would say that I do not think he is always quite fair in his mode of putting his case. However, if I differ from the lecturer, I shall differ from him with the greatest respect. I have heard, my Lord, that in a House not far from this when a speaker gets up and professes to express his regret for what he is about to say or do to the speaker who preceded him, he generally means to say or do something especially nasty, but I can assure you that that is not my intention. In effect what the lecturer says is this—I do not pretend to go into the minutiae of the naval part of the matter, because there are naval members here present who will have to deal with that. He says: "You have all been wrong for the last twenty-eight years. Follow Lord St. Vincent's system, that is, mask with equal numbers the enemy's ships in each of his ports, and retain a sufficiently strong naval force in a convenient position to act with efficiency when the moment comes, and all the rest will be superfluous." Well,

really I do not know why he should call that Lord St. Vincent's or even Lord Howe's system. It seems to me it is as old as the hills, or perhaps I ought rather to say the waters when dealing with a naval question. It is a system which I learned, as many of you have done, in my earliest boyhood, when I was first instructed in the noble art of self-defence. My instructor said, "Cover your vitals, look your enemy in his eyes, be ready to counter, and counter with all your might when the moment comes." It is not the principle with which I join issue, it is with the costly and limited application of the principle. I believe the principle is one of the earliest known in the primary antagonism of individual organisms; but the lecturer goes further, and says that in order to enable him to carry out his views he must have at all times, and at all places, and against all comers, the mastery of the sea. Well, if he has that, of course he can do as he likes. Away then with fortifications. Away then with the volunteers; perhaps too the militia and yeomanry may follow suit; and I must add, I fear, in such a case, away with the defences of your coaling stations. Then the lecturer proceeds to postulate as follows:—The superior navy cannot logically contemplate or prepare for any other position than that of the superior navy. Generally postulates are dangerous things, and turning this particular postulate over in my mind it does not commend itself to me; but as I turn it over there rises to me a great naval Power of antiquity, supreme in her day—a naval Power supposed by many to furnish many and close parallels to this our England, the Queen of the Sea, but which showed an utter disregard of—a total blindness to—naval possibilities. What became of this Power? Why it ceased to be; its name became in a brief time a bye-word and a reproach. When the lecturer says that we should always depend on our Navy, I add the words, "*not alone, but in its proper place in the scheme of defence.*" I directly traverse the lecturer's postulate, and assert that the superior Power should always have in contemplation the possibility of being in the inferior position due to reverse. What mortal man can say reverses may not come? The elements may overwhelm your fleet; your ships may collide in the dark—they have collided in the day time before now—and there are a thousand perils with which the craft of your enemies may compass you. Then the lecturer goes on and says that the position we assume is all very well for a country like France—not very complimentary to France, it is true—but it won't do for us. It appears to me that the lecturer has had France, and France only, in his mind when preparing this paper; yet in thinking of history I recall the time when in addition to France we had Holland and America combined against us. Will the lecturer say what force is necessary to attack, according to Lord St. Vincent's system, the ships of those countries, masking them in all their ports by at least an equal number of ships, that is to say, to blockade a coast of 2,000 miles in Europe, and a coast, to take his own figures, of 3,500 miles in America, 4,000 miles distant? Is it possible to have such a fleet always by us, and if not, what becomes of the lecturer's argument? But there are two other things I notice which are necessary. Not only must you be superior at sea, but your fleet must be always in the way. Well, now, can you depend on your fleet being always with you? In my mind you cannot. The truth is the Admiralty and the Navy are variable quantities, and so is naval policy. In this problem there are many variables and, as far as I can see, no constants, and he must be an unusually skilful mathematician who can solve this problem. How variable is the Navy! and I do not impute it as any disparagement to the Navy, but rather as a condition of its being, and I have never met two naval Officers who are thoroughly agreed on what is the proper type of fighting ship. You have three types at present, of which one must be better than the other, and with the advent of a new Chief Naval Constructor you may have a fourth type. You are in some extent at the mercy of the Naval Constructor, for naval Officers are not practical naval architects. Is not the Admiralty variable? The individuals of which the Board of Admiralty is composed seem to be habitually in a state of antagonism rather than of combination; anyhow the public have been much edified lately by the contention of the First and Last Lord—a contention which, whichever of the two may be right, must be fatal to efficient administration. Is not naval policy variable? We have a Conservative Ministry at present, but we may have a Liberal Ministry by-and-by, and the whole policy may be reversed, may be a policy of retrenchment; ships may be put out of commission—you cannot

put forts out of commission—stores may be depleted, and so on. I think the lecturer is especially unfair when he refers to fortifications. Of course the only reason why he could object to fortifications is because they, in his opinion, may subtract money which might be better devoted to the Navy, for as far as fortifications go they cannot do any harm to the Navy, and even the most pessimist view of fortifications must allow that upon occasion they may do good. For instance, says the lecturer, "You have spent twelve millions on the fortifications under the recommendations of the Royal Commission on Defences." As a matter of fact, however, we have spent little more than half, viz., seven millions and a half. Then he talks rather wildly of the millions that we are spending on fortifications, and going on from that he stigmatizes in, as I think, uncalled-for terms, the composition of this Defence Commission. In effect he says the Navy were not represented on that Committee properly. Now sitting next to me is a naval Officer of great distinction (Sir G. Elliot) who was a member of that Commission, and he no doubt will say his say about it when the time comes; but all I can say is the composition, so far as the Navy goes, of that Commission was thoroughly approved of by the Admiralty at the time. I myself was for eight years Secretary to the Defence Committee. The highest naval talent, in fact the Admiralty itself, was represented on that Defence Committee, and I certainly never heard any one of them speak lightly of the Royal Commission on Defences, or express any doubt with regard to the value of fortifications. Just to go back to the question of fortifications, whatever we have spent on the defences of Portsmouth, Plymouth, and so on, the fortifications are there, and, when armed, efficient. But how is it with the Navy? I for my part do most earnestly deprecate any comparison of expenditure between the Army and the Navy. Each should get what it wants if it can, and having got it should spend it to the best advantage. But there is one thing I can say, that during all the many years I was in the War Office, and when I was intimately connected with the defences, I cannot recall one single instance when a military Officer either grudged money to the Navy, or when it entered into his head, as far as I could perceive, that money should be subtracted from naval purposes to swell fortification estimates. I said I thoroughly deprecated any comparison of expenditure, and if I make it now, it is that I may show in their sphere, and in their proper sphere only, the economic value of fortifications. I told you what we had spent on the defences of the country. What has been spent on the Navy? In the last twenty-five years you have spent 50 millions on ships. Of that 50 millions 22½ millions have been spent on armour-clads and partial armour-clads, or, if I may so style them, on the *fortifications of the Navy*. Looking to the Navy List I see that the oldest armour-clad ship in foreign European waters dates from 1876. Is the inference to be drawn from that that the whole of the expenditure on *naval fortifications* before that date has passed away? In other words, are 10 millions defunct, and if the remainder of the fleet is treated in the same way must another 9 millions be added? Anyhow we do know that a Naval Lord claiming to be an expert said not two years ago that the fleet was not in a state of organization to go anywhere in case war came. I said just now I thought the lecturer stigmatized in terms that were not warranted the composition of the Defence Commission. Well, amongst those who accepted the recommendations of that Commission I made mention of certain Naval Lords, members of the Defence Committee. Let me give you their names. Sir Alexander Milne, Sir Cooper Key, Admiral Boys, Sir Richard Hamilton, Sir William Mends, and many others whose names I do not at the moment recall. These naval Officers were illustrious in the Navy by their great experience of war and their intimate acquaintance with naval administration, and the lecturer will I hope forgive me if, while I admit that he has the zeal of a convert, I decline to abandon the position which I hold, which seems to me eminently logical, and which a long acquaintance with military finance teaches me is economical, which is sanctioned by the Officers I have mentioned, is indeed hallowed by the illustrious names of those of them who have left us,—and abandoning that position, to walk over into the separatist camp to which he invites us.

Admiral Sir GEORGE ELLIOT, K.C.B.: My Lord, I have listened to the reading of this paper with the greatest interest. It is impossible that any subject could be brought before this Institution of higher importance than the one brought forward

by the gallant Admiral. I go further, and I say that, so far as the views that he entertains are concerned, it is not well possible that those views should have been brought before this Institution in a stronger light or more ably than he has done. With regard to his historic references, I shall not question them, but I shall endeavour to show that they are not applicable to the present period. I must claim your indulgence, my Lord, for taking up a little more time this afternoon than is usually allowed, but I feel personally concerned in the remarks that have fallen from the gallant Admiral. I was a member of the Royal Commission of 1860-61, on the defences of this country, and I must say that the lecturer has treated us with some very forcible, and certainly uncomplimentary remarks. In fact I see that in his lecture he has discredited my sanity, and he does so on more than one occasion. I take that in very good part, but at the same time I must say that it is rather a hard accusation to make. I have, however, this satisfaction, that if I am insane, I am insane in very good company, and if all those who differ from the gallant Admiral in opinion are to be called insane, I think you will have to erect a large number of madhouses to contain them. He speaks of the insanity of this Commission, and in no unmeasured terms. He says that the Commission had not a shadow of reason or argument, and that is one remark, and another is that the Commission was badly constituted. Now I am sorry I have not got the names of all the members of that Commission, but I know General Lefroy was one, Sir Cooper Key was another, Sir William Jervois was another, and unfortunately, I suppose the insane member, Sir George Elliot. Well, we will pass that by, and I will now take what I consider to be the essence of this paper, the two fixed principles of a system of defence, namely, the blockade of all the enemy's ports, and the retention of a portion of the fleet in the Channel in lieu of land defences. I think I am correct in what I say. It is a condemnation certainly of land defences altogether. Well, now, it was only yesterday I was informed by a very high authority—perhaps it is not exactly safe to talk of high authorities in these days—but I was informed by very high authority, and I quite agree with that high authority, that Portsmouth and Plymouth, and the River Thames—these places where that money was spent which this Royal Commission were responsible for—notwithstanding that they have all muzzle-loading guns, and that the calibre of their guns is not what it probably will be in a few years hence, yet at this moment it would be a very daring thing for a fleet of a foreign country to attack any of those ports as they are now. Therefore I hold that the Royal Commission of 1860-61 certainly cannot fairly be condemned, considering that now, after this lapse of time, the work they performed still holds good. Now with regard to blockade, which is more in my line altogether, I hold that the attempt to blockade in these days would lead to disastrous circumstances, in fact, if I were to retaliate, I should say it was a mad scheme. I see by the number of ships there on that chart, which Lord St. Vincent thought necessary to blockade those ports—and mind you all the ports are not blockaded, only a certain number—I see that the force outside a port to blockade it was considered efficient if it had a very small superiority, five to four, for instance, and that sort of thing. So that in those days England always felt that when we were only on an equality, we were superior; but nowadays, with steamships, I must say that I for one, with all my love and pride for the Navy, do not consider that we can claim more than an equality if we have an equal number of ships, and I say that in these days, in order to attempt that system of blockade, you would have to increase the number of ships outside very largely, not only as fixtures, but you would have to add to them a certain number of ships to relieve those ships constantly, in order to allow them to obtain fuel and provisions, and to repair damage. Therefore, instead of five ships being against four, I should say eight ships would be much more correct, in order to hold that squadron off a port constantly. But supposing you had done that, supposing that numbers were not material at all, that we had plenty of money, and could double the fleet at this moment to be able to carry out that blockade (a very unlikely prospect), I still should say that that would not be the most satisfactory and beneficial manner of employing those ships. I think in this paper we hear something of ships anchoring off Brest, but would we dare to anchor our battle-ships now off a harbour of that kind? Mind you the fleet that blockades must be accompanied by all the auxiliaries

of the fleet of different kinds, and those auxiliaries cannot be of the same description as the auxiliaries to the fleet inside; because take for instance first and second class torpedo-boats. You might send on a fine night swarms of these boats out of harbour to attack the fleet outside, but you cannot carry out these torpedo-boats with you to blockade an enemy's port, you must leave them behind, and therefore the outside fleet is always at a disadvantage. Then, again, numerous heavily armed and protected gunboats and coast defence vessels would in moderate weather prove most offensive to blockading armour-clads, since France and Russia are both supplying themselves with this class of war vessel; and I notice that the lecturer, referring to these coast defence ironclads, says, "Each of these ships is in her place the equivalent of a seagoing ironclad, and would compel the enemy, if he determined to blockade, to appear off the port with a seagoing ironclad for every coast defence ironclad within it, or suffer the chances of a reverse." This is a large order, which greatly militates against the plan of defence by blockade. During foggy weather and thick nights there is a probability of the ships escaping to sea. In former days you required a fair wind to get out of harbour; and if ships left port with a fair wind the wind might chop round, and the vessels might be caught in a trap. Now they have only to put on steam on a dark night or in foggy weather, and the chances are that you won't know where they are gone to. You may go in chase, but you won't know in what direction. I therefore think the whole of the circumstances are changed. But apart from that I maintain you have not blockaded the coast of France. You have not even by that system protected your commerce, because all the other commercial ports of France that are not strictly blockaded would be open to the raiders of that country to carry on their depredations and get supplies. By that system I see by the chart of the gallant Admiral that it would require sixty-seven ships to blockade forty-two. Now he has not reckoned upon reliefs. Nowadays you want reliefs to relieve your steamships, and therefore you must add to that number. I say according to that system it would require eighty ships outside to blockade forty-two, or in fact double the number. We have also heard from a very high authority that the subject has been considered, and that they reckon that in a war to-morrow with France and Russia, we should require fifty line-of-battle ships to blockade their military ports. We have at the present time twenty-eight—I believe that is the utmost—at least we have not got that now, but we are supposed to have it in 1890, as it appears that some of them are minus guns. I agree entirely with the lecturer with regard to the supremacy of our Navy. I agree with him to the utmost that we want to have a superiority of every kind, not forgetting a sufficiency of floating defences for our commercial ports and coaling stations, especially heavily armed gunboats, of which we have not one; but at the same time I say that with all that, if we had it to-morrow, I certainly should not employ it in blockading, because I consider that you cannot blockade effectually, and you would subject your ships to be attacked and overpowered by the combined forces of the enemy, if they slipped out of their ports before you knew where they were. Then again with regard to the question of land defence, I feel very certain that if the news came that a French fleet of twenty ships had gone out of Brest, if we had a stationary fleet lying in the Channel, the Admiralty would send them out to look after that fleet. Therefore you never can depend upon a stationary fleet; the moment there was an exigency that fleet might be sent elsewhere, and then the fleet that had escaped might double back some way or other, and come upon your shores. Every war, I believe, history teaches us has been ended by big fights. When you allow the enemy to get to sea, you have a chance of meeting him there, and beating him; but this system wants to keep him in port, and if you succeeded in doing so it would lengthen the war enormously. I have detained you a long time, but really this subject is so wide that if I were to say all that I might say, I should occupy a great deal more of your time than you would wish me to do.

Admiral Sir R. V. HAMILTON: It is perfectly unnecessary for me to compliment the lecturer on his very able paper: the very large attendance here is the greatest compliment that could be paid to him, more especially as we are very glad to see so large an attendance of the fair sex, for in the future we hope that they may play a very important part as they did in the late American War. I remember, in 1862,

seeing Mr. Vizetelly, then correspondent of the "Illustrated London News" with the Southern Army. I asked him if there was any chance of the South succumbing, and his answer was, "Not as long as there is a woman alive," because if any man held back, a woman drove him to the front. Therefore I say I am very glad to see so large an assemblage of ladies who I hope may play their part in this matter. This year is the Tercentenary of the Spanish Armada. That invasion was repelled by the patriotism of Queen Elizabeth's sailors, and of their patriotism there can be no doubt. But there was one point that did much to assist their patriotism, and that was plunder. In those days the Spaniards held a monopoly of the commerce of the world, and when one of our privateers captured a Spanish ship it meant that they were not only destroying the enemy but also filling their own pockets. Well now, that is the position in which we stand at the present moment before the world. We are the great carriers of the world, and every foreign nation looks at the rich argosies of England with longing eyes. On this point I may refer to a book entitled "Russia's Hope," written by an eminent Russian Admiral, in which it is said that they are going to destroy the Fleet of England, and to take our commerce. There is another book that is called "The Downfall of England," written by a Frenchman, in which he shows how we are to be annihilated, the upshot being that we are to pay 560 millions of money and cede Dover and Heligoland and all our Colonies that are worth anything. Now no one can conceal the fact that Russia and France hate us, and therefore we ought to prepare against a combination such as Russia and France combined. We ought to have a naval policy irrespective of party, whether Whig, Liberal, or Tory: the country ought to lay down that if the French and Russian Fleet combined numbers fifty ships, that then we ought to have so many more; our naval policy should not be guided by the fluctuating economical system of the day, but by what our enemies have. As to the value of fortifications there can be no doubt. The Royal Commission I believe stated, though I think they were wrong in that respect, that we only once lost the command of the sea, when the Dutch took it in Charles's reign. I read in the memoirs of Lord Keppel, in 1779, "Fleets of France and Spain appeared off Plymouth; are prevented from landing by the east wind. Pursued the British Fleet to Spithead, and panic ensued: England was in a perfectly unprepared state." "Royal Proclamation was issued, commanding all horses and cattle to be driven from the coast: beams placed across the entrance to Plymouth Harbour: order sent from Admiralty to sink vessels; greatest consternation along the whole line of coast, and the greater number of those who had the means withdrew into the interior and thereby increased the general panic." That is what we will come to again if we have not a fleet sufficient to keep our enemies away. Of course there is nothing like leather. I don't say the fleet ought to predominate over everything else, but I will give you the opinion of Sir Andrew Clarke, who says, "The coast defence must depend very materially upon the state of the Navy: that is to say if the Navy is large enough you do not want to spend so much money on coast defence:" but he does not doubt the necessity of such defence. The remarks that the lecturer has made with regard to the First Lord of the Admiralty with regard to fortifying our coaling ports are, I must say, singularly inapplicable, for the great thing I had to fear when I was in China was this, that until the guns for the ports were sent out, the Navy had to defend the ports of Singapore and Hong Kong. Now, I consider we have no business in harbour in war-time unless we came for coals, or to rest—when we are in harbour, we are either doing that or skulking, and I do not think it a characteristic of the British Navy to skulk. Now that Singapore and Hong Kong have got their guns and are defended, the Admiral in China is left free to defend his commerce. A few days ago the First Lord remarked, referring to myself, that I was perfectly satisfied with the state of the squadron out there. So I was, because the squadron was as three to two against any combination of French and Russians on the spot. I would not have been satisfied with less. Therefore I say in case of naval policy we ought to settle what our ships are to be. I rather hold with what Sir George Elliot said about blockading. The lecturer has alluded to the Federals. The Federal blockade was carried out not against a hostile fleet, in reality there was no hostility against them, but to show what force was required the Federals increased their navy from

5,000 men, at the beginning of the war, and fifty-five ships, to 57,000 men and nearly 700 ships. That was the enormous force required to keep up the blockade as against what was not a hostile enemy, in fact on the sea. To show how much you must increase your navy, during the Russian War our naval force which was at commencement 39,000 went up to 79,000, or to double the number, and besides that the ships in commission were nearly treble. That was a purely offensive war, for as a matter of fact our commerce was free, but that will not be the policy of the Russians or the French in the future: they will try to molest our commerce, and I know, as a matter of fact, that the Russians in China were going about selecting coaling stations, and one vessel which left China was found at anchor off the Laccadive, or Maldive Islands, in the very spot which would be best for their colliers to meet cruisers and carry out the views of "Russia's Hope." The great thing we have to discuss is what naval policy should be. My opinion is that for every two line-of-battle ships that France and Russia could bring against us we certainly ought to have three, and smaller ships corresponding, or in greater proportion. We have enormous advantages in England, and on our foreign stations, as to the aid that we can derive from the merchant service; for instance, I did not think that the strength of the fleet in China was to be measured by the number of men-of-war alone on that station, but there were merchant steamers and other vessels which might have been utilized in case of need for scouting, carrying dispatches, and leaving men-of-war free for aggression. After all, I repeat the thing we want to fix is what the naval policy of the country should be, and to lay down that as a certain proportion—that we should have either 1·75 or 1·5 more than our probable foes, or whatever it is, and that proportion should not be departed from.

Captain J. C. R. COLONY, M.P.: I am sure we must all acknowledge the opportuneness of this paper and the value of raising this discussion when we look at the agitation now prevailing in the public mind and the state of the Continent of Europe. The gallant Admiral who has just sat down I think hit the nail on the head when he said we ought to have a naval policy; but I would venture to remark that you cannot have a naval policy till the country, Parliament, and statesmen clearly understand what is the nature of the naval work to be done. To my mind the question that really has to be determined is this, if you are not going to adopt either of those two policies which have been so excellently brought before us to-day, what are you going to do? The three gallant Officers who have spoken have rather quarrelled with both principles, but they have not suggested, if you abandon those principles, what on earth you are to do. One gallant Admiral says what we have to do is not to lock the enemy's fleet up; we have to let it out and meet it at sea; but if you let it out, or, at all events, if it is no part of your policy to apply your force to keeping it in, where is the security of meeting it at sea? And he says, "Why, if you put naval superiority off an enemy's ports and assert this blockade really the war will never end." In my belief the war, if you are prepared to do that, would never begin. Maritime peace I, myself, believe depends mainly upon this country maintaining Lord St. Vincent's policy, so well brought before us to-day, of being ready, always ready to assert and maintain naval superiority off the enemy's ports. Now I want to ask some naval Officer who says he cannot accept these principles to tell us what principles he can accept, and I want the country to have clearly before it national naval principles of policy, and why they are to be accepted, and let the country judge. If you are not prepared for that I am afraid my gallant friend who spoke last will not see a real material naval policy such as he desires. It was mentioned as a matter rather for condemnation that the principle of the lecturer was that England was to depend solely and wholly upon her fleet. I do not find that in the paper. What I find in the paper is this, that you must have a certain naval preponderance because you must assert naval power in a certain way. It goes without saying that naval superiority, when you come to deal with the whole waters of the world, involves also the application of military forces, and that the exercise of military power by England involves also the exercise of naval power. The question is, what is your fundamental principle? Is it the principle of masking your enemy's naval force or is it not? I would ask those who object to this principle to answer this question. Are you going to observe the enemy's ports, and if so, are you going to observe them with battle-

ships, or how are you going to observe him? I maintain that considerations will draw in your mind your own war power towards the enemy's ports, and whether the term used is "observed" or whether it is "blockaded" or "masked" is really very difficult to define. What you have to do is, I think, to keep close to your enemy from the beginning, and thus if possible to keep him in port, at all events to be prepared to meet him with superior force the moment he comes out and not let him slip. A great deal has been said about the Royal Commission of 1860, but it has not been pointed out that the terms of reference of that Royal Commission assumed certain things. In the first place it was to examine places already prepared for the fortifications, and partly commenced, to resist naval attack. Therefore, they did not actually have, by the terms of reference, the option of examining those naval conditions which ought to be examined previously to their coming to an opinion as to whether the works were required; and you are exactly in the same position now with regard to the increase of armaments and works now asked for, and which we have a resolution before Parliament to provide. A Committee assumes arbitrarily, by order of the War Office, certain naval conditions, and therefore concludes that Portsmouth and Plymouth are to be attacked by squadrons, mind you, not by a fleet—squadrons of powerful ironclads; that Malta and Gibraltar are liable to be attacked by powerful ironclads, but that the limit of attack on mercantile ports is two armoured cruisers and torpedo-boats and small boats. It might be supposed that that conclusion is arrived at by an examination of probabilities, based upon an accurate comparison of our fleet or number of war vessels with the number of war vessels in the ports of the enemy. I doubted it, and asked a question in the House, of the Secretary of State for War, whether that Committee had examined the strength and composition and the condition of war ports of possible enemies as compared with the strength and composition of our own fleet, and I was told, as I knew before, that no such inquiry was held; that the number of ships, the relative position of navies which determined those conditions, or should determine them, was not before the Committee, was not inquired into, and was not even considered an element in the question. That I think is important. When you begin assuming without due inquiry, and your assumptions are not the result of cautious, careful, and thorough inquiry, you do not know where you will be landed. I believe since 1859—the date of the Royal Commission—if you compare foreign navies with our navies, if you compare the whole tone and mind of the public during those thirty years, you will find that your naval strength has relatively declined, and the country has more and more been tending to rely upon fixed fortifications and military means. The fact is, nine men out of every ten in England now understand something about the military policy of this country, but if they are asked about naval policy they are in a complete fog and have no rational notions at all. Therefore I think this paper will do incalculable good if it makes people think and speak. We shall then have the opinions of different people, and I am satisfied of one thing myself, that if you are going to protect your commerce, if you are going to maintain the safety of your whole position, the very first step you must take is increasing your battle fleet and not putting up fortifications to secure, as they say, the freedom of a weak fleet. The principle, I believe, upon which England must act is this, not to secure by fortifications the freedom of her own fleet, but to secure by her naval power the certainty that she can paralyze that power of her enemies.

Captain BOWDEN SMITH: In discussing this question it seems to be almost impossible to avoid drawing comparisons between this country and France; not because we have any ill feeling towards her, but because she is our nearest neighbour, and because she possesses, after ourselves, by far the most powerful fleet in the world. A few weeks ago, when the Parliamentary Committee on the Naval Estimates was taking evidence, they had before them one of our principal naval Officers. He was asked if he did not think we had many obsolete and inefficient ships on our list, and to the best of my recollection he answered that he did not think we had more obsolete ships than our neighbours. If he was referring to France, I wish to point out that, although up till recently France has rather clung to her old and useless ships, she has lately weeded her list—especially her armoured fleet—as much, if not more, than we have. If you compare the French Naval Estimates of 1896 and

1888, you will find between those dates she has taken off from her armoured list six ships, and, just before that, in 1885, she took off three more; so that we must not run away with the idea that the French fleet is the obsolete lot some people would have us believe! I will now make a general comparison between the French fleet and our own, because the lecturer having entered into the subject of blockade, I would point out that in our present condition we are hardly in a position to blockade a first-class Power like France. If we take our present fleet as described in the Naval Estimates and the Navy List, and considering the armoured ships first: if we take from our armoured fleet eight ships, four of which we thought obsolete ten years ago, and are now laid up on foreign stations, and four others—which all naval Officers know could not possibly be used in case of war in their present condition—what have we left at this present moment? Counting up the whole of the armoured list—battle-ships, armoured cruisers, coast defence ships, ships building, and ships that have guns and no guns, we have exactly fifty-five. That is not enough for England's requirements. Perhaps someone will say, "But it is far more than the French have got—it is more than the armoured ships of any other two nations." The last assertion would not be correct. But have we so very many more even than the French? If I take the French list at the present moment, and going by the estimates, their actual armoured list (including battle-ships, armoured cruisers, and coast defence ships) numbers forty-three, to which I add the "Brennus" (building), which makes forty-four: they have also eight armoured gunboats, four building and four completed—that is, fifty-two against our fifty-five. Our superiority is not, therefore, so very great in this matter. But when we come to the unarmoured fleet, the comparison is still less in England's favour. The whole of the unarmoured fleet capable of going 14 knots an hour—and a ship is of little use that cannot go 14 knots nowadays—numbers fifty-four; among those I include the "Rattlesnake," "Sharpshooter," and "Grasshopper" class. In the same way, taking the French unarmoured ships, including their little "Bombe" class (of which there are eight) they have forty-nine. Where is, then, our great superiority that we hear talked about? But there is something more to add. Of fast seagoing cruisers (from 19 to 21 knots) the French are building fourteen against our eight. We launched the first of our eight the day before yesterday. Now, considering that we ought to have a very powerful fleet in China—and I am happy to hear from Admiral Sir R. V. Hamilton that we have a powerful fleet there—and that we must keep a considerable fleet in the Pacific, and that in a few years we shall have no inconsiderable portion of our fleet locked up in Australian waters, how can anyone say our fleet is greatly superior to the French at this moment? No sensible man wants to go to war, but if we should be so unfortunate as to have a war thrust upon us, we ought to be able to hold the sea against all comers. That is the right way for England to protect her shores and her commerce. I wish to refer, for one minute, to something I read in the "Saturday Review" two or three weeks ago, namely, that naval Officers are so divided amongst themselves that it is almost impossible for the authorities to know what to do. I do not know whether the gallant Officer who spoke just now read that article—but he expressed exactly the same view; he said naval Officers were so divided amongst themselves that it was very difficult for the authorities to know what to do. It is only on details that naval Officers are divided: on the broad facts of the question, I think, we are very much at one. What we do want particularly is some immediate steps to be taken to get guns for our fleet and coaling stations, and then, as Admiral Colomb says, that some policy should be steadily carried out whereby we shall have a fleet built up both of armoured ships and cruisers, till we have an undoubted superiority over everyone else. And last, but not least, we do hope that they will hurry on the immediate completion of the defence of our coaling stations. One thing I hope I may say we do not want; we do not want to do anything unconstitutional. We do not want to cast any doubt on the zeal and ability of the distinguished Officers who now compose the Board of Admiralty, and have done so much for the Service since they have been on the Board. All we seek to do here or elsewhere is to educate public opinion, and thus encourage and assist the authorities in this great question of naval defence.

Admiral Sir E. FANSHAWE, G.C.B.: As Captain Bowden Smith has mentioned the numbers of English and French ships in their respective navies at the present

time, it may be convenient that I should state the numbers of effective ships in May, 1804, when Lord St. Vincent had established his system of blockade, as First Lord of the Admiralty. English line-of-battle ships 88, and 13 fifty-gun ships, against 48 French line-of-battle ships. English frigates 125, against French frigates 37. Corvettes, sloops, and small craft, English 150, French 146 (including prams for invasion). Our Navy was therefore fully double the French Navy; and less than a quarter of it was then required for distant stations beyond the Mediterranean.

Captain PENROSE FITZGERALD, R.N.: I believe we are here to discuss the question of naval strategy. I think we have somewhat wandered from the object of the paper (if I understand it aright), and I should like to bring the sense of the meeting back to it. On a sound naval strategy, I imagine, would depend to a very large extent the fate of the country in any future naval war. The main point, and the whole gist of the paper, is to prove that the money which has been voted, and is to be voted, for fixed defences, should be taken for movable naval defence instead. The lecturer gave us a choice of two policies, which he called Lord St. Vincent's and Lord Howe's, one of which would involve the abandonment of our commerce, and he finished up by pointing out how it would do so. There has been considerable opposition to the lecturer's views, and I have one hope that whatever our naval policy is to be in the future, it will not follow the policy of the opposition who fired their broadsides and then retreated. I saw them go directly they had fired their broadsides.¹ But even in the absence of those gallant Officers, I cannot refrain from making one or two observations on their remarks, because the meeting heard them, and they may go away with the idea that there is some sanity, as Admiral Colomb put it, in those remarks. I venture to think they were bordering very near the other thing, and even the fact of these Officers being, as they said, in such good company, does not seem to me to be a very sound argument, because there are a lot of people in Bedlam, and I do not know that it at all argues that they are sane because they are in a large company. Sir Charles Nugent gave us an illustration from the art of self-defence, and he told us that one of the first principles laid down to him by his instructor was that he was to cover his vitals. I imagine he carries his vitals inside his waistcoat—the question is how is this applicable to England? Is England's commerce vital to her, or is it not? Where is it? It is all over the world. Is it in any way a parallel case to Sir Charles Nugent's vitals? I do not know whether you saw the fallacy of the argument, but I thought I would point it out to you. There is no comparison at all about the vitals—they are all over the world in the case of England. Then he accused naval Officers of not being able to agree amongst themselves on types of war ships, and set that forth as a reason why the Navy should not be increased. That is a very stale argument. I do not know whether the "Saturday Review," quoted by Captain Bowden Smith, was the first paper that introduced it, but I have heard it often before. The Financial Secretary to the Admiralty rolled it off at Liverpool the other day, and thought it was a very good argument. Now, I do not know if our noble Chairman is the owner of a coal mine, but if he is I should like to know what he would say if his manager came to him, and said, "We have not enough of these new safety-lamps for the safe working of the mine and we know it; but the fact is the miners are not agreed amongst themselves what is the best form of safety-lamp, and, therefore, I think it is better to risk an explosion till they make up their minds." Or suppose he made use of the argument which, with all respect, the First Lord of the Admiralty made use of the other day. (I may as well be hanged for a sheep as a lamb.) He said, "No, we know we have not enough safety-lamps, but we have more than the last manager had." These are the red herrings of debate. Sir Charles Nugent said fortifications could do no harm. I never thought they could. It is a very curious argument—but what is that to do with it

¹ I have been informed that Sir Charles Nugent was unavoidably obliged to leave the meeting directly after he had spoken; and I am also informed that as Sir George Elliot does not hear very well, he did not see the use of waiting for a reply to his remarks. In any case, I am sure the meeting understood that my remark was intended as banter, not reproach.—C. C. P. F.

if they take our money? The question of defence must be taken as a whole, and if the people of England are given to understand that so many millions spent as fortifications will help to protect the country, of course they will deduct that from the Navy. It all comes out of the same purse. It all hinges upon the question of those two policies, and it hinges mainly upon the question of sufficiency or insufficiency of ships to carry out either of those policies. I congratulate the lecturer upon putting it forward so clearly, and I hope that it will concentrate opinion upon the subject which is uppermost in my mind, the movement now going on to try and draw public attention to this. I venture to hope that in spite of the refusal of Monsieur Polydore de Keyser, the present Lord Mayor of London, to allow the Guildhall to be used for this purpose, and in spite of his thinking proper to stigmatize this movement as a "discreditable panic" (I wrote the words down because I thought they were remarkable) and an "unpatriotic agitation,"—of course, the question of what is patriotic must depend upon the point of view from which you look at it. I imagine that Englishmen and Scotchmen, and even some Irishmen, might venture to look upon it as a patriotic movement. I hope, in spite of all, that it will go forward, and that people will be informed and come to look upon it in its true light as to the sufficiency or insufficiency of naval force for our protection, whether they adopt Lord Howe's or Lord St. Vincent's policy.

Admiral Sir SPENCER ROBINSON, K.C.B.: It is much too late to enter into any debatable ground. My only object in rising after the excellent speeches we have heard, and the very valuable lecture we have listened to, is simply, if I can, to induce some calm on the troubled waters of our discussion. I heard with much regret a sharp passage of arms between my respected friend Admiral Colomb and Sir Charles Nugent. I think it is extremely to be regretted that there should be any personality, or any sort of feeling approximating to jealousy as to which Service is to have the expenditure of money wanted for defence. I say it is much to be regretted that any such feeling should find its way into this theatre, where we have so often listened to the wisest and most patriotic members of both Services arguing, and arguing well and justly, for the necessity of an adequate defensive force for the country which, whether we are stigmatized as "insane" "panic-stricken pessimists or unpatriotic" (they are welcome to shower on us any epithets they please)—the whole country still feels to be necessary for its position on the face of the earth, and to defend the noble inheritance our forefathers have given us. I cannot venture at this late hour to enter into any of the points which the lecturer has raised—there is now no time, or I should have liked to refer in some detail to our Channel experience of last year and to many others, by which I could support the views I hold in opposition to the very great effectiveness of blockade; and I lay stress upon these opinions as, if they are sound, they considerably qualify the assent which in some measure I am disposed to give to the Admiral's opposition to fortifying by large land defences mercantile and military ports. Such measures I consider to be admissible only as a security against a *coup de main*, whose object would be plunder and destruction, not invasion and its consequent establishment of a basis of operations. I dissent, therefore, considerably from the Admiral's conclusion as to the inutilty of a coast defence afloat which can operate in conjunction with a system of land defence when the supreme moment arrives. I also differ from him, as I think that this supreme moment will certainly arrive unless the superiority of our Fleet in all its branches be carried out to a far greater extent than what was granted to Lord St. Vincent. These are only indications of the line of argument which I should take in giving an exhaustive answer to the postulates and assumptions of the Admiral if time allowed, but I must not leave unnoticed the little, as well as the unsatisfactory, nature of what he has said relative to the defence of our commerce, and therefore of our food supply. I am happy to find myself in agreement with him as to the danger the commercial ships would run between Cape Finisterre and Cape Clear; he sees no means to protect this passing commerce but a resort to convoys, which he thinks must also be of doubtful value, or a close blockade of the enemy's ports, which, referring to the American experience, he considers a tremendous engine. His strong point, however, of the singular efficiency of the blockade carried on by the United against the seceding States, seems to me to be somewhat irrelevant, for there was no armed navy in

these blockaded ports, which is a factor of considerable importance in estimating the facility and completion of such a measure. I dissent emphatically from the lecturer's dictum that if the blockade is efficient it is certain our coasts cannot be insulted. He admits that according even to American experience "the very best blockade will not be perfect," and unless it can be made perfect there can be no certainty that our coasts cannot be insulted. I can only glance at the many other places besides that space between Cape Finisterre and Cape Clear, or the waters within sight of Beachy Head where commerce will require protection notwithstanding a blockade as nearly perfect as he holds the American to have been. I fear, therefore, I cannot rest satisfied with the paper, nor can I think it calculated to calm to any extent the professional anxiety which devours us. I wish the lecturer could have told us with more decision and less hesitation that he does not consider the Fleet either in quality or quantity adequate to carry out Lord St. Vincent's system; or that he saw some tangible method of protecting our commerce in all the latitudes and longitudes it will have to pass through to bring home our floating wealth, or secure us from national starvation. In much of what my gallant friend has said in advocacy of a naval defence for that commerce, to be aided if not altogether undertaken by a system of localized volunteer efforts, I cordially agree, and I believe the system may be made of much value; but I ask every person capable of thinking to ponder seriously over the conclusion to which my esteemed friend's researches have brought him, "that we may have to fall back upon Lord Howe's system," which he understands to mean practically the abandonment of our commerce (that is our food supply), and see if they can take comfort from his hypothesis that our shores would be perfectly secure.

Colonel O. B. BRACKENBURY, R.A.: It occurs to me, my Lord, that the arguments of the gallant lecturer would logically lead to a reduction of the Army, to the abolition of the militia, and to sending the volunteers to inglorious ease in their homes. If the fleet is to defend the country without the aid of the Army, which he appears to advocate, then there is no occasion for the home defensive forces. (No, no.) I cannot say how delighted I am to hear that denial, because though apparently the tendency of the lecture is in that direction, it is enough to know that the idea is not accepted. I trust that the denial will be adhered to. In 1803, at the time to which the lecturer has referred in his history, there were about 100,000 sailors and marines, and 473 ships of war of various kinds. That fleet, as has been shown by our gallant Admiral, was enormously superior to any other fleets that could be brought against it. Is the lecturer able to say that there is any human probability of such superiority being produced now and kept up in time of peace? I can only say that we soldiers will give our hearty co-operation in any possible measures which might be taken to put the fleet on that footing, but I am very much afraid you would find it difficult to obtain the ships which would put you in such a position. With this vast mass of ships which there were against our enemies, did we remain without protection of the shore by means of troops? We had in the British Isles of regular troops 129,000.

Admiral COLOMB: I have not said a word about troops. If you supposed that I am against troops you would be misrepresenting me altogether.

Colonel BRACKENBURY: Well, others have done so. A question has been raised whether money should be granted for fortifications and for troops, or for ships.

Admiral COLOMB: No, not at the present moment.

Colonel BRACKENBURY: We also had 110,000 militia and 317,000 volunteers, or a total of 536,000, besides Irish volunteers, 70,000, making 656,000 in these islands. Nor were we at that time without fortifications. That was in 1803. In 1804, when Pitt came into power, the first thing he did was to bring forward the "Additional Forces Bill," which placed the regular Army on a stronger footing, and increased the fortifications. Although we had all these troops and this enormous superiority at sea, yet Mr. Pitt as his first measure introduced land fortifications, and increased the regular Army. I do not know whether Admiral Colomb expects to produce a greater naval superiority, or whether he thinks Pitt did not know his business. We are challenged to say how the Navy can be beaten, and therefore in what possible circumstances there could be invasion. It

would be a very invidious task to endeavour to show how the Navy could be beaten, we certainly hope that it cannot possibly be beaten, and it is not for landmen, at any rate, to pretend to know how they could be beaten. But, in 1866, would the Austrian Army have laid down for itself how it was going to be beaten, and whether it would have to defend Vienna? Could the French, in 1870, have understood how and why their first line was going to be beaten, and how they were to have to defend Paris? No, I do not think that we are bound to show how or why the British Navy is to be beaten. We can only say that war is a series of chances and surprises, and it is quite possible that such a thing might happen, as that for the time being the great and glorious Navy of England might lose temporarily the command of the Channel, as it did more than once in its palmiest days, and, therefore, I think that we have to provide against the chance of invasion. The fleet is the first line, as other nations have their first line on land. Our home defences, which must include fortifications and troops, are the second line, as other nations have their second line. I would ask Admiral Colomb this question: is he able to tell us what a naval action will be? You will have a number of these tremendous ironclads dashing about amongst each other, ramming as they best can. My friend Admiral Tegenhoff told me, in speaking of his own ramming an Italian ship during the battle of Lissa, that he had no special design of any kind, but he saw "a great grey thing" near him, and he ordered his ship to be steered in that direction, and that was how he succeeded in ramming. There will be great grey things and black things or white things, ramming each other in a narrow space; is Admiral Colomb or anybody else able to say what will be the result? Is it not as likely as not that even the winning fleet may be nearly destroyed? One cannot help thinking that such a result is possible. With regard to the question of blockading, it is not for a landsman to speak, and we certainly should not speak as having any new ideas upon the subject; but I observe that after the paper read by Admiral Colomb last year, and the discussion which followed, the Chairman, Admiral Sir Cooper Key, summed up by saying: "The introduction of steam, and the use of torpedo-boats in modern warfare are of more advantage to the blockaded port than to the blockader." Therefore, whatever the system of blockade may be, we have it on most excellent authority that you cannot always be sure of success. On one occasion I happened to go through, as well as I could, all the invasions and attempted invasions by sea that there have been in history, and I found that by far the larger number were successful. It is a very curious fact that whatever happened after landing, in the great majority of cases the expeditions were successful in disembarking. Another question (I do not know whether the lecturer will be able to go into this problem, but I think it would be interesting to the audience to hear his solution) would be this: supposing us to be at war with Russia, and in presence of a neutral, not benevolently neutral France, how would he use the British fleet to blockade? Would it not be well if, in such a case, the land forces could guard against invasion? I think that is one occasion possible to occur. We have been asked, landmen generally have been asked, what principle we would advocate if we do not accept one of those two principles of blockade, Lord St. Vincent's or Lord Howe's. We do not accept or reject either of these principles of blockade. The principle that we would vote for would be this, security at home, leaving the fleet perfectly free to defend our communications, to protect our trade, and in doing so to strengthen the whole Empire.

Captain W. H. HENDERSON, R.N.: I wish to say that I without the least hesitation support the views that have been put forward by Admiral Colomb. What is more, I believe that a large majority of naval Officers will do the same when they read the valuable paper which he has prepared. It stands to reason that given the necessary force, it must be by far the most satisfactory course to seal an enemy up in his own ports, knowing his exact whereabouts, and being on the spot ready to pounce upon him the moment he comes out if he dare attempt it, rather than by concentrating our strength in the Channel, to expose the fleet to harassing alarms, decoys, feints, and the uncasiness which must ensue from having given him freedom of the sea, and being ignorant of his movements and real intentions. One course seems to me to be definite, the other indefinite, and therefore

unsatisfactory. It is true that both courses protect the United Kingdom from invasion, and our own ports from attack, but the former does much more, it leaves the command of the sea in our hands, prevents territorial attack by sea on any port of the Empire, and backed up by a sufficient number of cruisers holding the lines of communication, gives the utmost possible protection to our commerce; while the latter means abandonment of the command of the sea, exposure of our possessions abroad to attack, and the transference of our commerce to neutral owners, a contingency which I for one say we have no right to submit to, we ought to be able to protect it, and if we are not able to do so, we shall deserve the blow which the loss of it will give us. I know that blockade means a great superiority of naval force. One of our most distinguished Admirals has said that it requires fully one-third more of the number of battle-ships than there are inside, but given sufficient superiority of force, and the proper complement of the necessary auxiliaries to a fleet of battle-ships, I see no reason why it should not be as successful in the future as it was in the past. It requires courage, determination, and energy, how much may very well be judged by Nelson's letters while he was blockading Toulon. We trust, I hope, that we have not deteriorated in these qualities, and given the power, I am certain that we should attempt blockade and stick to it until experience proved it was impossible. At the present moment, unfortunately, we have no choice in the matter. So far as I understand, during this year the French have twenty-six battle-ships and first-class cruisers ready to put to sea against our thirty of similar description. Relatively the condition of the boilers of the French ships in point of age is better than ours, three of our thirty ships require new boilers, and should be laid up for the purpose, consequently from naval weakness we shall be forced to adopt Lord Howe's system, were we obliged to go to war even with France alone. What does this mean? The concentration of the fleet in the Channel on Lord Howe's plan means withdrawal of our garrison from Egypt, abandonment of the command of the Mediterranean, the uncovering of Malta, either to an investing blockade which will reduce it by starvation, or to an attack in force, and the transference of flag by all our merchant ships engaged in the Mediterranean trade; to say nothing of leaving the Suez Canal route open to any organized attack that may be directed to any point of our possessions in the East, to the possible uncovering of Gibraltar, and of possessions in the Atlantic. Such is the position which our naval weakness forces upon us, it cannot be a satisfactory one, nor is it one the nation would long put up with if it knew the truth. If we are to give up the command of the Mediterranean on the declaration of war, without having the power to strike a blow for its retention, it would be better for us far to withdraw from Egypt at once, and to dispose of our interests in Cyprus, Malta, and Gibraltar to the best possible advantage in time of peace. If we are to protect our commerce, as I maintain we should attempt to do, we must, in addition to the force required for blockade, have a sufficient number of cruisers to hold the main lines of communication, which our foreign commerce uses as its trade routes, free from the depredations of "raiders," with a local defence force for the protection of our coast lines of communication, or better still to either blockade or destroy in their own commercial ports vessels likely to issue from them as raiders. I think there is a possibility that it may be found, on closer examination, that in addition to the reasons given by Lord Howe for adopting his principle, it may here have been partly dictated by want of strength sufficient to adopt blockade. It must be borne in mind that given increase of strength, there is a point at which Lord Howe's system insensibly becomes Lord St. Vincent's. The position is distinctly analogous to a military one, weakness necessitates concentration on a short line of defence, and means abandonment of territory without a blow; strength means occupation of a longer line of defence which covers all the territory to be protected. Between the two there is a position in which increase of strength enables a defending army or navy to be advanced, but the projection of armies or fleets in this manner requires greater strength than would the occupation of a well-selected though long line of defence in the first instance, for it exposes the projected force to a concentration of all the enemy's strength against it, but given superiority of numbers, this projection amounts to a masking at a distance of the enemy's fleets. From the remarks which have just fallen from Colonel Brackenbury, implying

that the "drift" of Admiral Colomb's reasoning must be to advocate the non-necessity of the militia, volunteers, and possibly of the Army, in the scheme of national defence, he must, I think, quite misunderstand the meaning of the principles which the gallant lecturer sets forth. The interpretation which those naval Officers who agree with him put upon these principles is that for national defence, the considerations in order of importance are: 1st, a Navy strong enough to hold command of the sea; this insures protection from territorial attack, from invasion, and offers the utmost possible protection to our commerce. Of equal importance must be an Army capable of holding the north-western frontier of India, and possibly of the frontier of Canada. 2nd. An active army ready to deliver a counter-stroke whenever it may be required. 3rd. Such military defence of the coaling stations, some commercial ports, and some strategical points as will secure them against the operations of raiders. The amount of this defence will depend on the strength of the Navy, an active naval defence being the best, a local naval defence second best, and passive military defences the weakest for the purpose. 4th. Organization of the militia and volunteers as a field army as a check to the possibility of an attempt at invasion. 5th. And only if the Navy is too weak for its work, such military defences to the arsenals and some ports as will render them secure against a combined naval and military attack in force. What we say is, that the common purse should be devoted to common purposes, we do not want one cent more to be expended on the Navy than is necessary, we only ask that national defence should be looked at from the point of view of national needs. In whatever order the enumeration of these needs is placed, it stands to reason that absolute necessities should be provided for first, the luxuries last. If the enumeration which I have given approximates to the truth, it is evident that large expenditure on military defences to seaports must weaken the national power of defence, by devoting resources which should go to making considerations 1 and 2 in the first instance perfect; in other words, if the naval contention be true, the course we are pursuing at the present moment must tend to weaken our military as much as our naval strength, for it is putting the Army on to a false scent instead of its true function.¹ Sea fortresses are the natural defence of a weak naval Power fearing attack from a strong one; their existence is an admission of naval weakness. It is fully admitted that even a second-class fortress cannot be successfully attacked by a fleet, and can only be reduced by a combined naval and military attack in great strength, which requires enormous preparation, and absolute command of the sea for the purpose. Given sufficient naval strength, and they are luxuries which we can very well do without, Lord St. Vincent's saying, which was quoted by the lecturer, being very applicable to them. Before sitting down, I cannot refrain from noticing the remarks made by several speakers concerning the want of unanimity of opinion among naval Officers; they are true I will admit, and there are two good reasons for it; one is the want of a sufficient naval element at the Admiralty, the other, that although we possess the finest naval educational establishment in the world at Greenwich, on which the country spends, I think, fully 35,000*l.* a year, at which many non-naval sciences are taught, there never has been any attempt to form a school to condense opinion, and to encourage the study of the most important of all naval sciences, the art of the operations of naval warfare; this subject has been consistently "tabooed," and it is only within this last year that six lectures have been given annually on tactics. I have been twenty-nine years in the Service, and can honestly say that during my career I have never received one jot of instruction, nor has my attention ever been directed to a consideration of the operations of naval warfare. Such knowledge as we possess is derived entirely from the private efforts

¹ I will put it to the military critics in this way: if the Navy be so weak that on the outbreak of war a concentration of all our battle-ships on Lord Howe's system in the Channel is forced upon us, not only will the power of the Army in India be weakened, but the power of our active Army within the United Kingdom will be paralyzed, it will have to be kept inactive within our own shores, and will be unable to deliver that counter-stroke which all military writers say is so essential to a good defence, for the Navy under such circumstances will be unable to protect the line of communication by sea, and the base from which it should operate.

of individuals like Admiral Colomb, who come here to give us the benefit of their private work; necessarily it exists in an unorganized state. It is no excuse to say that material does not exist, the material has existed and always must exist whatever the conditions and means, and it exists in greater profusion and exactness at the present moment than at any previous time. If, then, the intelligence and attention of naval Officers be not brought to bear from their first entrance into the Service on this the most important of all the branches with which ultimately they have to deal, and from which all other considerations must spring, how is it possible there can be any cohesion of opinion in regard to the best type of ship? Judgment in this matter cannot be sound unless there be full appreciation of the conditions under which they will be obliged to act. It is futile to suppose there can be any finality in ship development, any more than there has been or can be in the development of weapons used in military warfare; a knowledge of conditions will enable us, as we should, to lead the way in this development, instead of being, as we generally are in matters military, the last in the race. This is a serious matter, and requires all the attention the authorities can give it, for while other nations in their naval academies have thorough and systematic courses of instruction, in naval history, tactics, strategy, and the operations of naval warfare, working out regular war games, and laying special stress on the framing, transmission, and interpretation of orders by writing and telegram, we practically do nothing of the sort, and leave everything to chance.

Admiral COLOMB: We have had a long debate, and it is very late. I ought to have a great deal to say, but I will endeavour to make what I have to say as short as possible. I should like to reassure Sir Spencer Robinson at the very first as to anything personal between Sir Charles Nugent and myself. There is not the slightest personal feeling. We are excellent friends. We like to hit one another under the fifth rib sometimes, it is pleasant for both of us. But he gives me quite as good as I give him. There is no personal feeling between us: we are theoretical antagonists. I would like the audience to carry this fact away with them, that my paper argues one point, and one point only. Sir Spencer Robinson is a little mistaken in finding fault with me for not taking into consideration more largely the defence of our commerce. I was not considering the defences of the Empire, I was considering simply the naval defence of the United Kingdom, and I wanted to show that, so far as I can understand, there are only two ways in which the naval defence of the United Kingdom can be carried out: the one is by blockading, which I have called Lord St. Vincent's system; and the other by concentrating the naval force in some home port or ports, and waiting in a defensive attitude. What I wished to have brought out in the discussion, and which has not been brought out, is, whether there is any third way of looking at naval defence. No speaker has pointed out any third way. I must therefore take it that I am confirmed in my belief that there is no third way, and that when we regard naval defence, we must regard it in either of those two ways, and we must prepare our fleet for acting as a defensive force in either of those two ways, and in no other. And if we say that we are going to abandon blockade, we must say at the same time that we are going to fall back on Lord Howe's system, and that Lord Howe's system, the concentration of our naval forces at home, pre-supposes the abandonment of our commerce. I want that made perfectly clear, that those two things are before us, and nothing else. My paper is simply an argument to show that there are those two policies before us, and no other, and to steady the mind of the country, and, if I can, to concentrate it on the point that there are only those two policies, and that the Navy must be prepared for either of them. If we say we are not prepared, and that we cannot carry out the policy of blockade, we must fall back upon a system of concentrating at home, which is virtually the abandonment of our commerce, and I want to make it perfectly certain what that abandonment of our commerce means; because, as I understand it, it is the first step to our downfall. I most firmly believe that if you allow your commerce to be impeded or stopped, as the German commerce was in the Franco-German War, if it comes to pass that our ships cannot freely leave and enter our ports, cannot freely cross the sea backwards and forwards, I look upon it that the downfall of this country begins from that moment. I see no way out of it. But I want to point out this, that if you carry out this

system which I have called Lord St. Vincent's system, I wish you to believe that it would not be a very expensive business, that if you will avoid spending your money in other directions, unless it be shown to be absolutely necessary, the cost of carrying out Lord St. Vincent's policy would not be so very heavy. But that if you do carry that policy out, you protect your commerce in the first instance, and because you have protected your commerce, you have absolutely protected everything else in the United Kingdom. There is no escape from the fact that if your ships are free to enter and leave their ports, it is a truism to say that those ports themselves must be free from attack. My paper is nothing but that I say in my own belief that the blockade system is the system which we ought to work for, and begin about to-morrow, and to build our ships on purpose for it. But if you differ from me, if you say, and the country says, "We cannot carry out this blockade system," very well, content yourself with what you have got. I believe the country itself is secure with our present forces at the present moment, because I believe we should inevitably concentrate them at home. But we should, as has been said just now, most likely abandon the Mediterranean, that would be the beginning, and in abandoning the Mediterranean, it is the letting out of water from the first; for you would have to abandon your commerce, your commerce, in fact, would leave you; and at the end of the war, if you did not encourage other nations to turn against you, seeing that you were turning against yourself, you would at any rate find you had fallen altogether from your very high place. I think, instead of answering separately the questions that were put, that general statement is sufficient, considering the lateness of the hour. But I must enforce, if I can, one point in my paper. Speakers have not understood what the history of the question of what we are beginning to call a flanking fleet, is. They have not understood that if there were such a thing as an ironclad fleet at Portland, that that is an absolute protection for every part of the coast of England against a large organized hostile attack until it itself is beaten. I say that, because naval history tells it in every page. It has always been the case. Right through from the very beginning of naval war, Officers, when they have proposed to make attacks on territory, have had to abandon them because they have heard a mere rumour that there was a fleet at sea. In the case of the Spanish Armada, as has been pointed out by Professor Loughton, if Medina Sidonia had masked the English fleet in Plymouth, the chances are that invasion would have succeeded. What really prevented it from succeeding was the action of the English flanking fleet. It was impossible to carry out the invasion in the face of that fleet. Again at the end of history you have Persano the Italian Admiral doing precisely the same thing. He goes to bombard Lissa, and is preparing to land, not having masked the Austrian fleet. In the middle of his operations, the Austrian fleet comes out, and we know the result. But all through history you can find that this action of the flanking fleet is a complete defence, and down to what we must call the other day it was so. The French fleet in the Baltic during the Franco-German War twice prepared to bombard Colberg. Colberg is a town on the southern coast of the Baltic, a fortified town which was to be bombarded by the ironclad fleet and nothing else, and with no preparation. Therefore there was no trouble about it, no organization had to be taken in hand. They intended to bombard this, made all their preparations, and were about to put to sea to do it, when they heard a false rumour that the blockade of the Jade was raised. Instantly they postponed it, although the German fleet at the Jade was much inferior to theirs, and although it was 600 or 700 miles off. A second time, some weeks afterwards, finding that this was a false rumour, they proceeded actually within 150 miles of Colberg all ready to bombard it, when they heard a second time, and this time truly, that the blockade of the German fleet was raised: they immediately dropped it. They dared not undertake even the light business of the simple bombardment of a coast town, because there was the neighbourhood, 700 miles off, of a German inferior fleet. If that were an isolated case, I should not speak so strongly, but it is not an isolated case. All through the line of naval history that has been the case, and therefore I do wish you to bear this in your mind, that if you fall back upon Lord Howe's system and abandon your commerce, you will have the territories of these islands perfectly untouched, because no fleet can touch them until it has beaten your fleet on your own coast, and that, therefore, the money

which you are now spending on your fortifications is money really thrown away. If you like, after you have prepared to blockade the enemy in his ports wherever he may be, and to keep him there safe, if you have money to spend afterwards, I have not the slightest objection to your spending it on your fortifications. I think every naval Officer will reject the view taken by Sir Charles Nugent. I do not think he quite meant it. I do not think we are all tax grabbers, the Navy on its side, and the Army on its side, to get as much money out of the country as we can. I am quite sure there are very few naval Officers who hold that view. I think it was very well put by Captain Henderson that the Navy, as a rule, wants to see the whole thing taken up as a whole, and worked as a whole. And I should like, before I sit down, to point out to Colonel Brackenbury that when I am attacking fortifications—because I say the best fortification you can have in any case is a movable fleet, there is no better—that when I attack them specially, I am not attacking the Army or the militia or the volunteers. My view is what Captain Henderson has so well said, that the Army at present is on a false scent, that it is mixing itself with defensive questions, when all through its glorious history it has been an attacking force. That is the point, and I think the Army ought to take that seriously to heart. Its business is to organize itself and go and take its place as it has always done. But for defensive purposes I hold that the militia such as would be left at home and the volunteers if properly organized, the 400,000 of them, would be ample. But I would not take a man away from them. I would say organize them properly, because what they do is this, they prevent any focus of ours from thinking for a moment of invading this country, unless they do it with a very large force; and because they cannot do it except with a very large force they put it out of their head altogether, and in that way leave out of naval consideration the question of invasion. But still, even invasion is put out of the way, and postponed and made absolutely impossible if you carry out the system of blockade which Lord St. Vincent inaugurated.

The CHAIRMAN (Earl Cowper): Ladies and gentlemen, I think you will agree with me that we have had a most interesting discussion. This system of speaking for ten minutes suggests to me, from the very concise and powerful speeches to which it has given rise, that it might with advantage be extended to other places, and that there would be a great deal more substance in the speeches if that were the case. I certainly, for one, shall follow the rule, and shall not probably intrude upon your time so long as that. I am glad, as a public demonstration, that this meeting has taken place. I quite agree with Captain Fitzgerald that it is necessary at these times that people who have the defence of the country at heart should make their views known. We all know that there is a steady pressure of public opinion upon the Government at all times in favour of diminishing taxation. This is natural enough on the part of those who have to pay. This is a steady and continued pressure. Every Government necessarily feels that if it cuts down the taxes, it must get a certain amount of popularity. It is our business to show that though the British people do not wish to pay taxes more than they can help, yet that they are, on the other hand, determined that the defence of the country shall be attended to, and that our Army and Navy shall be in a thoroughly efficient state. No Government, as I say, under our present constitution can stand without popularity. Popularity is the breath without which they cannot exist. We must therefore show that neither they nor any other Government can be popular if they neglect the Army and Navy, or expose us to danger from any foreign foe. I am also glad that this meeting has taken place, because of the remarkably good speeches that have been made and the useful hints that have been given. Not only have I never presided on an occasion of this sort, but I do not think I have ever been at any one of these meetings before, so if I do not follow the usual custom you must excuse me. I believe I have, to a certain degree, to sum up the result of what has been said to-day. The admirable paper with which the business commenced must be fresh in your memory. It was most interesting from an historical point of view, calling us back to that golden period which every Englishman must look back to with pride and pleasure, when we commanded the seas in the way we did in the last great war with France. We have been shown that there were then two great rival plans of defence—Lord St. Vincent's, which consisted of blockading the enemy, shutting him up in his

own ports, and having a reserve fleet in the Downs, in case he should escape, to deal with him in the open sea: and Lord Howe's, which consisted in abandoning any idea of blockade, but having two strong fleets ready to move and attack the enemy wherever he might be or whenever he might approach our shores. These are the plans, chiefly the first of these, Lord St. Vincent's, which Admiral Colomb recommends. I need not go into the question about the Commission of 1860, either to attack or defend them,—I think that is a point I need not glance at. Admiral Colomb particularly deprecates the idea of much money being spent upon our forts, and thinks that though they do no harm the money might be much better spent elsewhere. He says steam so far from being against our being able to blockade the enemy or against the plan of Lord Howe's, of keeping a central fleet ready to stop invasion, is on the contrary rather in its favour. We can use steam as well as our enemies. It does not alter the state of things which existed during the last war against us, but is perhaps rather more in our favour. He winds up by strongly advocating Lord St. Vincent's system, so that our commerce should not be left to be preyed upon by the enemy. He says if we abandon this, the only thing we can do is to fall back upon Lord Howe's plan. This is the substance of Admiral Colomb's paper. At the end of our discussion he reminds us that his paper is not by any means on the subject of the defence of the Empire at large, but is entirely confined to the question of the defence of our own shores. This may dispose of some of the objections that have been made. But in the subsequent discussion you have been reminded on the other side that we may not only have France to deal with, but we may possibly have a combination of France, America, and Russia, or at all events any two of them. Now it would be almost impossible to conceive that we could blockade all these great Powers at once and keep them all within their ports; it would require a far greater navy than any we are ever likely to have. It has been also represented that a bare majority in the days of Lord St. Vincent, almost an equal number of ships, were sufficient to keep the enemy at home, but that now this would not be the case. The introduction of steam and other things make us feel that we are no longer in the proud position of being able with an equal force to shut up the enemy within his ports, which is very nearly what we could do in former days. It was also said that the necessity of keeping the fleet supplied with coals would compel ships to leave their stations very often, and to be reinforced by others more than they were then. Sir George Elliot has told us that it would require in his opinion at least two to one in these days to shut up an enemy. We must be twice as strong as he is, which makes things different to what they were in the days of Lord St. Vincent. We have been reminded by Admiral Hamilton that it is a mistake to think we have always had the command of the sea in former days, and that there have been several times in which we had not, and that even in former days occasionally the Channel was for a short time at the mercy of the enemy. Certainly I would not pretend to decide between these experts on both sides who have laid their views before us. I should be very vain indeed if I gave any opinion on the matter, but I do think it is an unfortunate thing that there is so little unanimity among our experienced men and the great sailors of this country who understand the business. This is a great difficulty for the Government to contend against. But we all agree that it won't do that they should ride off upon this or make it an excuse for doing nothing. There are certain things upon which everybody is agreed. They are all agreed we must have guns and we ought to have had them long ago; we must have guns for the ships we have, and our coaling stations throughout the world must be strengthened and protected. Everybody agrees that the naval forces of this country must be increased. As I say, it won't do for those in authority to say that they will do nothing because there is not unanimity as to what they are to do. We have got to such a state of things that any vigorous policy with anything reasonable to recommend it, and a strong body of opinion amongst professional men to back it up, and any reasonable policy of this kind, even though it may not be the best possible policy, is better than doing nothing. I will say nothing more except one word upon an allusion made at the end of the paper to an association of which I have the honour of being Chairman, for encouraging volunteer assistance in the defence of our sea-ports and our commerce against privateers or other small vessels which might be

sent out by the enemy in time of war, and which would be sent out, however close a blockade we might succeed in maintaining. This association is not in a very flourishing condition. We have a great number of very good names upon our Committee. We made a pretty good start some time ago when there was what was called the Russian scare and we thought we were going to war with Russia; but the feelings of the public on the subject when that was over rather went to sleep, and we found we had very great difficulty in getting money, and we had very great difficulty in rousing local effort which is what is really necessary. But I think the difficulty of rousing local effort is partly because people are still waiting to see what the Government themselves mean to do, and how much they intend to leave to local effort, and also because every movement is difficult to start. But I cannot but believe when I look at the magnificent volunteer force which there is in this country, and the patriotism and military ardour and public spirit which has given rise to it, even though it was coldly looked upon at first,—I cannot but believe that this same spirit if properly roused and directed will take another form in our sea-coast towns, and that there will be naval volunteers manning boats provided by private means, and a force that will be ready to take its place and co-operate with the Government in securing our coasts from attack. I am sure you will all join with me in thanking Admiral Colomb for his very able paper.

ST. LUCA

By a NAVAL OFFICER.

At Port Castries, in the Island of St. Lucia, in the West Indies, the works now in progress for rendering the harbour suitable as a coal-station are well advanced.

This port has been selected for the fortified naval coal dépôt in the Windward Islands in preference to Barbados, where, hitherto, men of war have been in the habit of receiving their principal supplies of coal, and which is also the head-quarters of the troops in the West Indies.

Although from a naval point of view Castries is not without some drawbacks as a port of call for the receipt of supplies, still in all probability it will in time of war sufficiently serve the purposes in view.

The harbour is a long narrow inlet on the west side of the island, and lies about E.S.E., and W.N.W.; at the inner end the water space widens out somewhat, and the further increase of this is an important feature in the work now going on. At the eastern extremity or head of the harbour on low ground, part of which has been reclaimed from it, stands the small old-fashioned town of Castries. The town is bounded on its western side by the waters of the bay, which then narrowed to about half its width extends a short distance farther to the eastward, thus occupying the north side of the town. This situation gives, what is for the size of the place, a large water frontage, and advantage is being taken of it in the wharves now under construction.