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On the Condition of the Mercantile Marine Personnel and Matériel, with a View to its More Complete Utilization as a Reserve for the Royal Navy

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Wednesday, March 7, 1888.

CAPTAIN THE RIGHT HON. LORD CHARLES D. BERESFORD, C.B.,
R.N., M.P., in the Chair.

ON THE CONDITION OF THE MERCANTILE MARINE
PERSONNEL AND MATÉRIEL, WITH A VIEW TO ITS
MORE COMPLETE UTILIZATION AS A RESERVE FOR
THE ROYAL NAVY.

By Lieutenant W. C. CRUTCHLEY, Royal Naval Reserve.

The CHAIRMAN: Ladies and gentlemen, I have the pleasure to introduce to you Captain Crutchley, who I am sure will give you a most interesting lecture. I may mention that we are very much indebted to him for giving us this lecture to-day, as he is going to sail to-morrow. Therefore it must have been a great personal inconvenience for him to devote his last day at home to giving us a lecture which those of us who have read it consider very interesting and very beneficial to the country.

At no time prior to this has the world ever seen so great an array of ships as now traverse the ocean in all directions. Truly the seas but join the nations they divide. One looks back with a degree of wonderment and admiration at the records of an old East Indian voyage, where, with a vessel of 500 tons, and what would now be a man-of-war crew, she sailed 200 miles in a day, and it was thought the perfection of navigation. The wonder is excited when one thinks it was so short a time since, and how much has been done in the interval; the admiration comes freely when reflecting that accurate charts and chronometers were unknown, and men found their way by dead reckoning and lunar observations, or more frequently still by a noon Summer line. Little more than two centuries ago, the good old motto, "No peace south of the line," found its votaries in almost all seamen. Our first and most famous navigators, tried by the laws of to-day, were little better than robbers; let me rather say they had a peculiar talent for annexation. The retrocession of property was made when people were strong enough to take it back, and this is not so very widely different now. But these men that sailed south were *traders*; their business was to make money, and keep it when they could, so they cultivated the art of war when seeking the needs of peace, and this faculty for the acquisition of property, and extension of our Empire, made England the dominant Power we now have the privilege of belonging to. They knew, however, that to get was one thing, and to keep was another, and the merchantman of those days considered fighting a legitimate part of his business. If this state

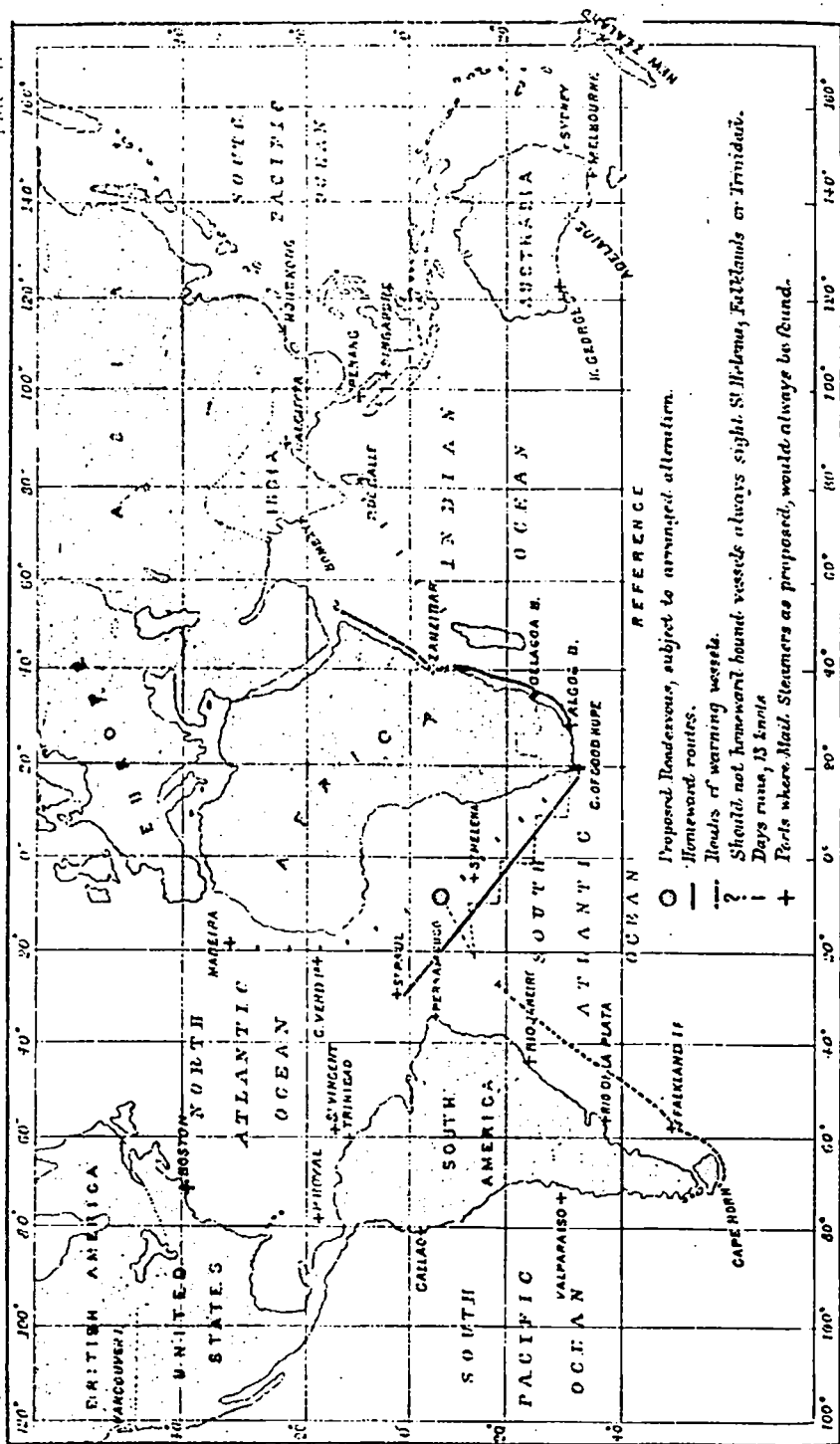
of things applied then when we were few, and the empire of the seas was claimed by other nations, how much more does it now, when our fleets cover the seas, and there is no corner where the British ensign is not seen? Are our ships worse than our neighbours', or have we deteriorated as a nation, that because we are so numerous we are not to take advantage of that fact to provide for our own safety? I know that warfare has grown extremely scientific; but if we are engaged in a great naval war, all or most of the science, both on our own and on the enemy's side, will be taken up in opposing itself, and outside the regular line of battle, will be used, as before, ordinary weapons with less training, but still the confidence begotten of one's own resources. There is always a glorious element of uncertainty in all maritime affairs, and perhaps it is the last and great charm of the sea that it refuses to be fettered, and remains as ever a most capricious mistress.

If in dealing with this matter I find myself on ground which I have traversed, I must plead that when before speaking on a kindred subject I have used arguments and drawn conclusions that must necessarily have a place here. My previous paper¹ must be regarded as a part of a whole, which I should scarcely have attempted, had not the subject been suggested by the Council of this Institution, I hope not with misplaced confidence; but I must ask for every allowance to be made for me, my opportunities for gaining information have been small, and the only qualification for the task I possess is a thorough knowledge of the merchant service, and a keen desire to see it take its rightful place in the estimation of the country. If in any remarks I touch the susceptibilities of anyone, I can assure them it is unintentional, for no one knows until they try, how difficult it is to deal with such a subject without saying something that will start some one.

In looking at this matter, the "Personnel" and "Matériel" are closely allied, "Merchant men and Merchant ships;" the men enrolled in a force possessing a certain amount of coherence only, permitted to sail to all corners of the world until called out by Royal proclamation. The few Officers are perhaps in ships without men, the men again here and there perhaps with no Officer nearer than the nearest man-of-war—what is the best thing to do under the circumstances? I am not sufficiently behind the scenes to know what steps would be taken by the naval authorities on any matters connected with the Naval Reserve, so must regard it solely from the view of a man in my own position.

"How are these Officers and men to be brought together?" is the first question. The coast lines of the world extend for a few thousand miles, and they, the men, will be found on each and every part of it, from the Dundee whaler, as near the North Pole as he can get, to the New Zealand liner amongst the ice of the South Pacific, and the object is to get these men together to join in the great struggle for

¹ "On the Offensive and Defensive Powers of Merchant Steamers," see Journal, vol. xxx, No. 134.



the existence of their country and its pride of place amongst nations. Truly the object is a great one, and the means taken to secure the end will needs be large in proportion. In all my remarks I am assuming that our Navy, excellent as it is, *needs* to be supplemented by a far greater number of seamen than it now possesses, and that the want of them is absolute.

The natural reply to the foregoing question is "Put the Officers and men in the same ships;" it appears to me to afford the only solution of the difficulty, and as I am not at all a believer in impossibilities, I shall try and find a plan that will answer for the purpose. In so doing, the great difficulty will be in propounding any scheme that will at once suit the many conflicting interests that it is wished to combine—you have firstly the shipowner, next the shipmaster, then the shipman. The shipowner says, and rightly enough: "I am not going to be put to any expence or loss because my ships or men are wanted. If the authorities require my assistance, I must be paid for rendering it. I pay my taxes and expect my property to be protected, and unless you appeal to my business instincts, beyond that I will not go."

The shipmaster says: "Yes, I should be very pleased to help in any way. I don't know anything about fighting, but I could learn to do as much with my ship as any other fellow, if opportunity were given me. If war broke out it would not last long, and I might do well running a blockade, but if I had a fair chance I would rather help my country. I cannot, however, be expected to ruin my prospects and throw up my berth for honour and glory, when, the crisis passed, I shall be thrown on my beam ends. I pay my taxes, and let the men fight whose business it is to do so."

Jack says: "Yes, I'm a Reserve man, and if I am called out I shall go; I expect I can put in my time just as well as another fellow. I don't *dislike* the Reserve, but if you want me to give up my favourite ships and sail in those you want me to, you must make it worth my while to do so."

That I think is a fair *résumé* of the question as it now stands, there is no obstacle in the way, save that except Jack the other two are not interested in the matter, and any move they may make is at their own expence, and very possibly at their very proper risk and peril...

The first question on this latter point is: "Is an armed merchantman an infringement of the law of nations?" I mean, is not a man, State aided, allowed to carry arms in his own defence? I was under the impression until this morning that by a statute 22 and 23 Charles II, chap. ii, a merchant vessel was bound by law to defend herself against anyone. I find, however, that all the laws on the subject were repealed in 1863, which I believe was the date when the Admiralty ceased to arm merchant vessels. I mention this, because, if merchant vessels were sailing in convoy, and some were armed, it is quite necessary that the point should be settled, so that if attacked by other armed merchant vessels of another nation, they should legally be able to defend themselves. Any serious attempt to harass our commerce at present would have to be made by vessels of their own

class, as there are not enough foreign men-of-war to give ours the slip and attend seriously to the destruction of our merchantmen.

Secondly. "Is there any possible way by which Officers and men may be brought together in the ships in which they would be most useful and handiest got at?" Yes, I believe there is distinctly a way, and it is one that I do not see would impose a hardship on anyone. I will deal with the case of Officers first. The number of Officers in the Reserve at present is very small—perhaps if a new departure is to be taken, it is as well. But if there were a sudden war-scare now, where are the Officers to fill up the vacancies in the Reserve? There would doubtless be lots of volunteers; but when all is said in favour of volunteers at the last moment, it smacks somewhat too strongly of trusting in Providence alone; and here I am tempted to quote words put into Admiral John Hawkins's mouth by Charles Kingsley: "Taint no uso trusting, young man, you go and *do*—works is the trade." And we know that on a national emergency all the retired and reserved Officers that are effective would be called out, and everything that would float placed in commission. In any new over-sea contracts for mails entered into by the Imperial Government, make it one of the clauses of the contract that the vessels are to wear the blue ensign and comply with the regulations for so doing. The vessels contracting would be first-class ships, and the inference would be that they were officered by first-class men. If the Commanding Officers were not Officers of the Reserve let their names be submitted by their owners as fit to hold commissions either as Sub-Lieutenant or Lieutenant, according to their seniority. And where does the hardship come in? I do not think that any scheme of promoting from midshipmen will ever efficiently officer the Reserve. The merchant service is such a case of the survival of the fittest that it is almost pitiable to see the numbers of youngsters who start with good chances, and yet come to grief before they even hold a master's certificate. If this scheme were once adopted the drill difficulty would be got over at once; for how is an Officer that is at home perhaps one month out of twelve for fifteen days at a time to get up in the middle of the night so as to be on board the "President" by 9 A.M.? For senior Officers at the present time, belonging to the Reserve may be classed under the head of luxuries. Anyone connected with large steamship companies knows the ease with which an Officer can be granted leave for a voyage if the authorities are willing, as there are usually a few spare men on shore to carry out shifts and changes in any ship; but it may be said, "Perhaps the Officers would be unwilling to hold commissions?" My reply is then, make it to their interest; if they are necessary you must have them, and if it is not to their interest to join they will not, unless you make it so; but my belief is they would be pleased to do so if they could only see their way clear to fulfil their obligations and not to be left in the lurch at the close of war! This latter possibility fades into the dim distance, however, if the mail steamers of England have to wear a blue ensign. I am, perhaps, dwelling on the case of the Officers: for unless you provide for their being in the ships who is to look after the men? And

more especially would I urge the great necessity there is for endeavouring to enlist the services of the men in command of the various Channel mail steamers—south, east, and west. It would be hard to exaggerate the importance of the work that might be entrusted to these Officers. At sea, night and day, knowing every appearance of weather and every corner of the coasts, their knowledge and assistance would be invaluable, and would be worth obtaining—even were special regulations made to obtain it!

Is it not possible to establish in certain vessels, now, the nucleus of a crew which should remain in them when actually wanted for State purposes? I think it is.

Complicated as men-of-war are with their (numberless, I was going to say) many engines of all descriptions, the large passenger steamer of the present day is hardly less so; and when I know the time it takes to become acquainted with the interior arrangements of a large ship, I find myself wondering how they are to be manned in war-time if the original crew is not to be retained. In looking at this point, I think we ought to consider how an emergency would be met with the means at our disposal in a year or two's time! And I am afraid that unless some means are taken to draw engineer Officers into the Reserve now, the payment of large sums will not produce the staff wanted on an emergency. You would, doubtless, get numbers of men, but they might be strangers to the class of vessel they would have to serve in, and that, as I have pointed out, is a serious source of weakness. I do not for an instant say that the Staff would not stay in a vessel so taken up if they were well paid to do so, but it is trusting to an uncertainty to assume that they would; and again, engineer Officers are a peculiar set of people to deal with, and have their unions to fall back upon in the event of a disagreement.

Is it not worth while to consider the advisability of offering a moderate retainer to induce engineer Officers to join the Reserve? I think the necessity for them is apparent, and how else are they to be obtained? I do not think that the staff of Royal Naval Engineers is large enough to draw on for the purpose, and even if it were, I should doubt the advisability of a mixed engine-room staff. I should put this matter as the first of the real requirements of the Reserve.

With equal force, or nearly so, the same remarks apply to Officers. The Lieutenants' List is woefully small—thirty-seven by the List at hand, with 101 Subs. At the most not more than half could be reckoned upon if wanted in a hurry, and where the Officers are to come from to man store ships of all descriptions, despatch vessels, and armed mercantile cruisers, I fail to see. Doubtless lots of men would turn up when wanted. England's sailors have never been very backward yet when there was the chance of hard knocks going; but at the time their services would be most wanted they themselves would be acquiring the rudiments of gunnery, with their men knowing more about it than themselves—not a very desirable consummation. And there is also another matter. If a commissioned Officer in command of an armed merchant steamer is not to fire a shot in his own defence, save at the risk of hanging, what would become of men not commissioned

if they were captured? I suppose they could only be hanged once, too; but it does seem strange and curious that with our enormous mercantile marine the number of Officers cannot be brought up to the full strength of the Reserve. It speaks for itself that there is something radically wrong. Here is the list of what it is supposed to be—or contemplated:—

	Present numbers.
150 Lieutenants	42
270 Sub-Lieutenants	102
150 Engineers	4
150 Assistant Engineers	3
200 Midshipmen	134

And it may be assumed that most men now commanding first-class steamers are well qualified to hold commissions if it suited them to do so.

The new regulations that have been in force for the last eighteen months hardly seem to meet the present requirements. To take one thing, promotion of Sub-Lieutenants: it is curious to see a newly-appointed Lieutenant by a sailing-ship qualification serving as junior Officer to a Sub- who has been in steam for years and is his senior in the merchant service. I do not know that the command of a sailing vessel would make a more useful watchkeeper in a steamer than a man with less years in sail but more in steam. There are many other details of a like nature which might with advantage be altered and doubtless would be were they only understood by the powers that be. It is quite clear to me how great the difficulty is in reconciling the separate conditions of the two services to meet all requirements: but it must be a very tight fix indeed, that there is no way out of. I don't remember seeing many, and doubtless this will come right in time; the only question being whether there is the time to spare.

Does not a force of 17,890 men without any petty officers seem an anomaly? It appears so to me, and this is the present condition of the men of the Royal Naval Reserve. The only approach to anything of the sort is the trained man that gets one penny per diem more than the other able seamen for twenty-eight days; that is, two and fourpence per year that the best man can get more than some of his fellows. Many of these men—numbers I may say—hold the ratings from boatswain down in the merchant service, and surely some selection might be made from them to receive ratings in the Royal Naval Reserve. The extra expense would be no great matter compared with the satisfaction it would give the men, and the additional coherence it would give to the force. Jack, like the rest of his kind, likes a little promotion at times; he is proud of the anchor on his cap, which marks the trained man, and would still further appreciate a stripe or two on his arm. There are petty officers in the Naval Artillery Volunteers, but for want of a Lord Brassey's influence in the Naval Reserve it appears always to have been out in the cold.

I should like, whilst on the subject of trained men, to remark that

they have to requalify every year in the first week of their drill, if possible. Having done so, they are in a great measure employed about the drill ships at the lighter duties, falling in sometimes when men are wanted, or for company drill or general quarters always. This being so, their seven days being really a test-drill as in the case of Officers, and the other three weeks virtually given them to enable them to draw their pay, might not one week of that three be given up entirely, on the condition of their serving the rest of the year in a vessel wearing the blue ensign, or in a selected cruiser? I think the advantage of doing so would more than balance the disadvantage; it would keep the men together and help in the work of forming the nucleus of a crew. One other point. It is said on all sides that any future declaration of war will be sudden. Our fleet of mail steamers is scattered over the world, as is our commerce; at the Cape, Australasia, India, China, West Coast of South America; everywhere, in fact,—a very provident arrangement for us too,—if they had arms and the nucleus of a crew in them; but as they are now they are useless, until they can get to a *dépôt* to man and arm.

Quite lately firemen have been enlisted in the Reserve, receiving a yearly retainer of 5*l.*, and doing no drill whatever; whether it would be advisable they should do so, say one week a year, is a question, I think, might be answered in the affirmative. I am under the impression that drill has a humanizing tendency where not carried too far. It is so much education, and here I should like to say that bad as many of our British firemen are, they are not all so by a very great deal; they are, as my experience serves me, capable of behaving themselves (with an occasional break-out in port, but I have only seen one in the last three years), and they keep steam in a very satisfactory manner; the trouble is to get them to realize that they are seamen not in a workshop or factory, but on board ship.

In advocating this scheme for bringing together Officers and men, I have mentioned, as will be seen, only *some* of the largest and best known companies sailing from England. I mention a dozen, and it is capable of considerable extension if necessary; but as nothing but first-rate vessels are usually used for mail services, and they mostly by large and well-established companies, the difficulty of dealing with them would not be excessive. A first-class carrying trade for passengers carries with it its own guarantee for the efficiency of the ships.

Liners.	No. of ships.	To be compulsorily carried.	
		Officers.	Men.
P. and O.	10	20	150
Union Line.	6	12	90
Castle Line.	6	12	90
West India Mail.	6	12	90
Orient.	6	12	90
White Star.	6	12	90
British India.	10	20	90
Cunard.	6	12	90
Inman.	6	12	90
Pacific.	6	12	90
New Zealand.	6	12	90
Mail steamers. { English Channel.	8	8	64
{ Irish Channel.	8	8	64
{ East Coast.	10	10	80
Total ships, Officers, } and men. }	100	174	1,238

This list may be called a fairly representative one; one-third of the vessels and men would be within easy reach of, or in the United Kingdom, the remainder of them would be doing service abroad in diffusing information (of which I shall speak later), and otherwise doing as they were wanted, always providing they were able to take care of themselves against ordinary comers. They would be rallying points all over the world to the most remote corner for the Reserve men to gather to, and would be most valuable aids to any of our fighting ships in doing scout work and obtaining information. I do not regard the carrying of their armament as an insurmountable objection. I should not be an advocate for carrying any large supply of ammunition, but the greater part of the armament might be carried closely stowed; and I still think it would be an advantage to have a couple of guns on deck mounted in their places always, at all events on the longer routes; the Atlantic trade would be different. It will doubtless be said such a scheme as this is impracticable; but if there be a need for it, it will have to be carried out somehow; it is summed up in a few words. "Help the merchantmen to look after themselves, and get and impart information for and to our men of war."

With the tactics of the next great naval struggle still undeveloped, and very obscure, there is a vague uncertainty on all hands as to the lines such a combat will take; but never, I think it will be conceded, has the doctrine of "Forewarned is forearmed" been of greater importance. With means of communication so rapid, that people on one side of the globe are acquainted with facts which have happened at the other side, at a date which is still future to them, it is a matter

of speculation to imagine what would be the result of a day's lost intelligence at a critical time, or the start that a week of no intelligence would give to a well-prepared enemy—to make one comparison—is there any doubt at the present moment that if one of the Continental nations now armed to the teeth could gain a day's clear start, it would omit to use it to the disadvantage of its rival? By the same reasoning could our submarine cables once be blocked or cut for a week, what would be the result on our Colonies, dependencies, and merchant vessels? I could not attempt to show how this evil is to be remedied, but shall confine my remarks to a small measure of organization, which, if adopted in peace-time, would considerably minimize this, to us, element of destruction.

As the manner of communication would be the same all the world over, save that different rendezvous would be appointed, I shall limit my remarks to the routes best known to myself, and even then sketching only the broad outlines of a plan that, from the standpoint of the shipowner, would possess few objections and no hindrance to the all-important work of earning the £ s. d. I am the more encouraged to do so when I see the start that has been made in the way of subsidizing vessels for mail steamers that have places on the Admiralty List, and the apparent willingness on the part of their owners to meet the wishes of the Imperial Government. I think the experiences of all Officers engaged in the late troop arrangements will bear me out when I say that the tendency is generally to endeavour to give satisfaction to the Government when employed, and to be very thankful for anything like a Government contract. John Bull is usually a liberal taskmaster.

On the Cape of Good Hope route—and it is needless to mention the immense traffic there is even now homeward from that point—I mark this spot on the map as one that all mail steamers should pass over both homeward and outward bound except when calling at St. Helena, and under ordinary circumstances the time of their passing it could be well fixed to, say, six hours. In so doing I assume an average speed of thirteen knots, and when I say that the same points are passed voyage after voyage within an hour or so of the same time, I am not guilty of exaggeration, and the thing is well within the ordinary scope of modern navigation. Sir William Thomson's compass has proved so great a success, that with it it is quite possible in water where no great current exists to be within 5 miles of a dead reckoning position at the end of a twenty-four hours' run, and this greater accuracy of navigation renders it as easy to find a look-out vessel at a certain rendezvous as it is to pick up land or a lighthouse.

Now, suppose that by last advices by cable the Admiral on the Cape station is informed that war is imminent, or perhaps will be declared on a certain date, when suddenly there is a break in the communication, and the cable has been cut somewhere between Zanzibar and Aden, and again between Mozambique and Delagoa Bay. Probably the Admiral on the Indian station might despatch a fast vessel to Natal with the intelligence that war was declared, but what

happens in the meantime? For the space of ten days, roughly speaking, all traffic in our ships round the Cape is going as rapidly as it can to its destruction on the line where our enemies would be cruising to intercept it. On the other hand, let us suppose the Cape mail steamer leaves Lisbon or Madeira with the news that war is declared by France,—say for argument,—she knows perfectly well that she has to pass Goree and the French men-of-war in the probable vicinity, but that is a matter of little moment, as having more speed than an ordinary war vessel, she picks her own route until a time when she hauls into a track which shall take her over a certain line. A point, say, lat. 8° S., long. 3° W., which shall be extended 40 miles each way in a N. 38° W. and S. 38° E. direction. There is little current there to put a ship out of position, and sights are nearly always obtainable in that latitude both night and day; she should know that under the conditions there would be a vessel there waiting for news, this vessel would have been despatched from the Cape immediately on the supposed outbreak of war or interruption of intelligence to cruise on the arranged rendezvous, and her instructions would be something after the following: "If on meeting the mail steamer you find that war is declared by or against Great Britain, you will immediately proceed in a W.S.W. (true) direction until arriving in the track of homeward bound vessels; you will instruct them, instead of attempting to cross the Line, to haul their wind and proceed to Rio de Janeiro (say), where a convoy will be formed to protect them home; after having cruized for fourteen days across the track, you will return to the Cape by the ordinary route of sailing vessels, taking every care to warn vessels you may meet by the way." By making Rio a place of refuge for vessels, they would have the S.E. Trade on their beam, the best point of sailing, and Rio harbour is perfectly secure in every way, there being a number of very potent arguments against any infringement of the Law of Nations.

The rendezvous here mentioned in 8° S., 3° W., is eight days from Madeira and six from the Cape; by the time the vessel despatched from that port had been four days on her cruising ground in the track of vessels, the mail steamer would have arrived at the Cape, or perhaps information would have reached there from the East Coast, and other vessels would have been sent out to warn the homeward-bounders off Agulhas to make for Table or Simon's Bays, until such time as convoys could be formed to protect them on their homeward route.

On the other hand, if nothing of this sort were done, a fortnight's traffic round the Cape would have drifted up, say, to St. Paul's Rocks as a crossing place, and been probably captured and burned. It will be an absolute duty on the part of the British Government to give warning to vessels at sea, if we are again engaged in naval warfare, but unless some scheme such as this is organized during peace-time, and masters of vessels on the long sea voyages familiarized with giving and receiving information, we shall hardly spare ourselves the spectacle of the line illuminated by the flames of our burning merchantmen.

It may be said that having these points fixed is likely to be a bait to an enemy's cruisers; that may be so, but it does not follow that the same spot should always be selected for a rendezvous, it might be varied for each month of the year, and our own cruisers would know exactly how it varied. The spot now mentioned only requires to be glanced at to understand how thence news could be disseminated to the West Coast of Africa and the Atlantic islands. In the case of the outward-bound vessel calling at St. Helena, she might do it after she had made her communication, or as otherwise arranged for an emergency. As I said before, this is only a broad outline which would require much filling in, but some similar measure would have to be taken to secure the safety of the San Francisco wheat ships and vessels bound home round Cape Horn. Here the Falkland Islands being British possessions no trouble should be experienced. A fast steamer cruising to and fro from Cape Pembroke E.S.E. 60 miles would pick up the majority of both steamers and sailing vessels, but there would also, I think, be necessity for another in the latitude of Trinidad Island to intercept stragglers bound either way.

In furtherance of this same object of intelligence-giving, I think that all subsidized lines and mail steamers should be compelled at all times to follow certain hard and fast lines at certain points of their route, and to do it in an unvarying fashion. These sections of routes could be arranged for each month or quarter between the Admiralty and the Post Office officials with the owners of the vessels, and it is needless to point out the advantage it would be to our own men-of-war when away from telegraphic intelligence, to be able to intercept our mail steamers with certainty, say, when engaged in patrolling one of our lines of commerce; but before this can be properly worked out there must be an arrangement of signals come to, which will be very widely different from anything we have in existence at present. Now, if a merchant vessel sighted in unsettled times another vessel that she was doubtful about, away she would go, with the other perhaps in chase, whether friend or enemy; after, say, a day or half a day, the chase ends either one way or the other, and if they are friends it might well come under the heading of Whyte-Melville's very beautiful chapter on "Wasto"—waste of time, coal, and perhaps temper, for it might well be provided against, instead of leaving it in the blessed state of uncertainty which now prevails.

Naval Officers are naturally jealous of private signals, and until very recently of having anything in common with the merchant service, but now that the merchant auxiliary has found its way into the Navy List, it may be as well to make the best of the business, and try how much good can be obtained from it. In other words, having once admitted that these steamers are useful, to get the greatest amount possible of good work from them. I do not for one instant advocate that the private signals of the Navy itself should be brought into use, or placed in the hands of the Commander of any vessel not wearing the White Ensign, and I hope no one will credit me with the idea, but a special code might be established for use between vessels of the Royal Navy and Royal Naval Reserve, I say ships of the Royal

Naval Reserve, because I look forward to a time not, I hope, far distant, when all our over-sea mail steamers will come under that head, and the sooner the better, I think.

These signal books might be of two descriptions, the one to be used at once, to accustom both men-of-war and mail steamers to communicate; the other to be a sealed book, issued to the Commanders of vessels on *certain routes* only. These latter books should be numbered and issued only through the Registrar-General of Seamen *himself*, or through an Admiralty official, equally responsible to the Officer in command.

The books should be frequently called in, in the United Kingdom, and different sets issued. Each set might run for three or six months; and men-of-war only on foreign stations should have them all, and receive the key to the set in use by telegram.

Any Officer breaking the seal of one of these books should be subject to an investigation of his conduct, unless he could show that he considered himself justified in doing so, and the matter of inquiry *alone* would be quite sufficient to keep seals intact until the time came to break them. When this time arrived, it should be done in the presence of the two senior Officers of the ship, and the facts of the case noted in the log book, and attested as usual in the case of important events on shipboard. By so doing the chances of their falling into an enemy's hand would be small; the destruction of the signal book in case of capture could I trust be well left to the loyalty of the Officer holding possession.

These signals would have to be in the first place distant signals; by daylight in clear weather it should be possible to communicate easily at 12 miles, and of the many systems in use, by sails or yards (to take the place of semaphore arms) or canvas shapes, it is not necessary to express an opinion here as to which is the more advisable. I would only advocate the most *extreme simplicity* for urgent signals; but if once the principle be conceded, the details will follow as a matter of course, without any trouble. I may say, however, that I think large canvas shapes will be indispensable for effective distant signalling (as apart from an urgent signal), and the cone, drum, cross, and diamond would probably play their part in any system brought into use.

On the other hand, night and sound signals are capable of very great expansion. It is an easy matter now to recognize any liner by her night signals, but in war-time it would be necessary to carefully stop any method by which well known lines communicate with one another. On a previous occasion I have mentioned the grave inconvenience and uncertainty of being at sea in unsettled times for twenty days without information, and it might well be incorporated with or in these signals, the spot over which vessels without information should pass, that in the event of war they should receive timely notice in a certain amount of security; the said information need not be necessarily imparted by a man-of-war, but it would be distinctly valuable if the whereabouts of a powerful cruiser could be imparted

to a merchant vessel possessed of valuable information as to an enemy's movements.

There is a very important question to be settled in the next naval war, and it is so intimately connected with the merchant service primarily, that I do not think it would be out of place to make some allusion to it here. I do not think I should be very far wrong if I called it a vital question, and yet it is only one of those important simplicities which may settle the fate of the next great naval action, I mean the supply of coal to men-of-war at sea or in an open anchorage, or for that matter wherever men-of-war may happen to be with their supply ships. I have read with very great interest two papers read at this Institution on the subject, and to my mind both systems are open to serious objection as a first method, for the following reasons.

If the weather or sea be quiet enough to permit vessels to be taken in tow, and masthead hawsers rigged, it is fine enough to do the work by lighters or boats. If on the other hand the weather be too bad to rig hawsers, it may still be fine enough to get through the work by bags and boats. I base this assertion on the following reasons:—I was once towed from Ascension to England, and experienced the extreme difficulty of maintaining a safe distance between two large ships at close quarters in a seaway, and the very large and long experience I have had in working cargo with lighters on the South African Coast. On that coast, which is in close proximity to the so-called Cape of Storms, it will hardly be believed how bad the weather may be, and yet the work goes on uninterruptedly. I therefore venture to put forward the suggestion that effective coaling at sea must be done with large boats and bags.

Now I am aware that the idea of employing the largest boats of a man-of-war would find little favour; they have to be kept in such a state of efficiency, that even a temporary use of them for this purpose would seriously impair it; the boats carried by merchantmen are also unfit, both as to size and capacity, but a naval war while it lasts may be very warm work, and yet not be very lasting. That being assumed, I think the difficulty could be met very fairly by the employment of large Berthon boats; every coal storeship attached to a fleet might well carry a dozen, say thirty feet by ten or eleven. These boats, specially constructed with vertical rubbing pieces, or still better, a light steel shield, to protect the side, would carry from fifteen to twenty tons easily in anything like moderate weather, and it does not follow that coaling is always to be done in a gale of wind. I am not speaking now theoretically, but from actual practice. The boats in themselves have rather too much buoyancy, and therefore lend an especial aid to the work under consideration. I can say that I have seen them do very good work in transshipping cargo, &c., and their extreme portability and handiness for stowage is all in their favour. They should be fitted with or carry good coir boat ropes which have very great elasticity.

Coal ships for this purpose should be supplied with bags to hold two hundred weight; these bags, properly roped, and becketed, are

very easily manipulated and hoisted, in or out, five at a time. With hooks at the end of a whip (one hook, one bag) it is surprising the amount of work that can be done with them. With a fair supply of bags on board colliers they can be filled and tied at sea when there is nothing else doing, and within an hour from the order being given to commence coaling, the work might be in full swing, working four gangways. I cannot but think effective coaling will have to be done in this manner.

I see by the Navy List that a number of the largest and fastest steamers sailing from British ports have been permanently retained for Government service. I regard it with great satisfaction, and yet with a feeling of uneasiness that a good scheme is likely to meet with disaster through being imperfectly worked. I am afraid that the opinion held so largely in naval circles as to the uselessness of the merchant steamer as a fighting machine will receive a certain amount of confirmation if these very long vessels are to be the armed mercantile cruisers of the future. The ships themselves are perhaps the finest in the world, but, to use an expression I have heard applied to a mail steamer in this theatre, if to be a "long ghost of misery" is a misfortune, why prolong or elongate the said poor ghost by a hundred feet or more beyond its necessary length. These vessels in question have undoubtedly the speed to decline an action, but if forced into one against their wish their manœuvring power would, against a shorter vessel, be almost *nil*. I doubt if either of them could steam a circle at full speed in less than twenty minutes, added to which they are too big entirely, save as transports, store, or hospital ships, or look-out vessels. They offer a target to shoot at which could not be missed, but would be riddled from end to end, and the damage would be spread over such an area as to offer the least chance of repairing. Mere speed in a contest between two armed merchantmen would not mean everything; it would of course provide escape, but that is not the requirement in this case; and although the ram in a man-of-war is a very dangerous instrument, both for the rammer and the rammees, the same remark hardly applies to a merchant vessel's stem when used for that purpose. I draw the inference that if two of these vessels were opposed to one another, given sea room, the shorter one, if there is any decided difference in length, is practically safe from the ram—pre-supposing there is equally good handling on both sides, and each vessel with only one propeller; and owing to the great space required to turn, if a long fast ship were coming up astern of a slower, shorter one, with intent to damage her propeller or rudder, the shorter one could escape the longer, and very possibly administer also an effective ram below.

The only vessels afloat to my knowledge that would need these "Umbrias" and "Etrurias" to catch them are the North German Lloyd steamers, and they are not probable antagonists. The French Messageries Maritimes are not nearly so fast or nearly so large, but they are comparatively handy vessels, are officered now by naval Officers, and, I am informed, but I cannot vouch for the accuracy of my information, though I believe it, carry their armament carefully

stowed away on board, but quite handy to get at. It appears somewhat curious also that these vessels should have privileges in our own ports which are denied to our own mail steamers.

The late naval manœuvres have shown, however, the absolute necessity of a Commander-in-Chief having at his disposal the very fastest vessels for look-out men, and here the advantage of great length comes in, by being able to maintain a big speed against any weather. I do not know that it is fair to expect a man-of-war to be an express boat for long distances, certainly a few fast merchantmen in the last manœuvres could have patrolled the Channel from end to end with the greatest ease, and given ample warning and information as to the movements of an enemy's ironclads, and I suppose we may take the late movements as a fair criterion of the present condition of naval warfare. Again these vessels in clear weather could always give two hours' notice of the approach of almost any fighting ships afloat, but the armed mercantile cruiser should, I think, be chosen from the list of vessels at the utmost 390 feet long, and there are numbers of vessels not even that length that would answer the purpose admirably.

In the foregoing remarks I have not aimed at anything like detail; I have purposely avoided anything of the sort, my object has merely been to point out the broad outlines of a scheme such as would be well within the limits of our ordinary everyday work, and to urge the necessity of acquainting each and all of our shipmasters that a certain scheme for the preservation of our merchant fleet from an enemy is in existence, and so quicken their perceptions, that if suddenly informed of a war, and they recommended to proceed to a place of safety, they would be enabled to weigh in their own minds the probability of its being a ruse of the enemy or an arrangement made for their safety. They being men used for the most part to look at all sides of a question would adopt means to satisfy themselves as to the vessel giving information, and in the majority of cases arrive at a right conclusion. I do not say who is to bear the cost of these warning vessels, but they should most assuredly be dispatched by the Admirals commanding stations, and arrangements made with owners and insurance companies either before or after the necessity arises for their despatch. I cannot too clearly express my opinion as a merchantman, that unless some scheme such as this be taken in hand, on the sudden outbreak of war there will be such a destruction of property as can hardly be imagined, and it will be little use trying to formulate any such idea at the last moment; all vessels bound over sea should be aware of the existence of the plan, and the issue left to the good sound sense that has made England the greatest Power in the world.

I have been encouraged to make many of these remarks by the good reception given to a former paper, and the formed conviction thereby, that many of these subjects, interesting in a way to everyone connected with the Navy, are more especially understood and thought over by the people more immediately concerned. I, being a merchantman first, and more or less an amateur as a naval Officer, naturally

think most about merchant vessels and how to use them; not least also should I like to help to get in the thin end of the wedge for the organization of our merchant fleet, and I shall be well pleased if this paper draws a little attention to the ease with which steps may be taken to protect our commerce, and the vital necessity there is for inaugurating measures for that purpose at once.

Captain J. C. R. COLOMB, M.P. : I think it is a most valuable thing that a gentleman competent to speak upon this subject from the mercantile marine point of view has given us this lecture, for I am sure in dealing with the protection of our commerce, there is nothing so valuable to us as the views of those who are engaged in carrying it on during time of peace. I can only say that I wish we had these views a little oftener expressed in this Institution, because after all, when we come to think of it, upon the Navy primarily will rest the protection of that commerce; and we all know, pressed as the Navy is to fulfil the ordinary duties of peace, that they have not that opportunity which is, I think, necessary for their education, of being brought into contact with the views of the representatives of that commerce which they will have to protect in war. I must say, speaking from the general point of view, I have read this paper with the deepest interest. I am very pleased to observe some salient principles running through it that I have some time ago defined and long wished to hear debated and discussed by representatives of the commerce of the country. One of these main principles touched upon is a pre-arranged system for the variation of route of our commerce, and the power that steam gives you to vary your routes. I have always considered that that is the principle on which arrangements for the safety of your commerce should be based. I ventured myself to put that view forward in this Institution some years ago, and I am delighted to find that the lecturer has adopted it to-day. There are just two or three other points in the paper on which I may offer one or two remarks. In the first place, remembering that our commerce is in two departments, the sailing and the steam, and that the sailing is the diminishing one, we can only consider the protection of the sailing commerce from a temporary point of view; that is not that you will have to arrange during a war for a long-continued protection of your sailing commerce, although you must be prepared to deal with its protection on the outbreak of war when it is actually at sea, because I think the whole tendency must be that the sailing commerce will not in war get freight. That affects the routes: the shutting up of your sailing trade affects the routes that you will have to guard. But on the other hand, there is a medium stage for any steamers that cannot take the direct course of the great steamers, and consequently your route will be a sort of compromise in many cases between the direct steam route and the old sailing route. The power of varying your commercial routes is therefore limited. That will determine the distribution of your naval force, and the lecturer indicates that view. I doubt myself whether one of the needs of the Navy, if I understand him to mean the Royal Navy, will be men. I think the difficulty and needs of the Royal Navy in war will be to get ships, and I think, therefore, that that assumption on the part of the lecturer requires very careful consideration before it is accepted. I entirely agree with the view that the mail contracts given to steamers should carry some conditions with them with regard to their defensive obligations in case of war, and I think we are doing immense mischief by adopting the mail contract principle in peace without inserting those conditions, and, if I am correctly informed, we are the only nation that gives postal contracts to vessels and make no such conditions. With regard to the *dépôt* for arming and manning your merchant ships, that is a matter I have strongly urged for very many years. In order to shorten the whole question, which is really a very large one indeed, I think that we want to deal more with companies and big and organized groups of ships in making our arrangements than with individual ships. That, as I understand, is also indicated in this lecture, but here you are met by one great consideration. As it appears to me, the quarter from whence war comes will vary the operations of your ships. A European war would throw none of your ocean-going steamers out of trade, but an American war

would throw the greater number of the steamers engaged in the carrying trade across the ocean out of work. Therefore an American war would place actually at the disposal of this country the best of the mercantile marine; a European war would not. I entirely agree with the view laid down by the lecturer, that you should deal with the steam lines connecting your Empire on an Imperial principle. I know the Chairman will not agree with me, still one always likes to stick to one's guns. I think the principle adopted of arranging to take your fastest steamers off your Imperial lines in war is a most dangerous one, and one that will be found so in actual war. It is because you have not approached the question as a whole that you have got into that muddle, and therefore I trust that such broad views as the lecturer has brought forward will be considered, because it is only by dealing with broad principles that you ever get satisfactory detail.

Lieutenant W. BADEN-POWELL, R.N.R.: I wish to make one or two remarks on this subject, because having given some consideration to it, I at the present moment look upon it as a question of the first importance to this country; not only as a maritime country, but as a country full of human beings that must live. We all know that war is declared at the present day at a moment's notice, can be declared at a moment's notice, and we know also that the great food supply of this country is water-borne, and that the country itself cannot really supply one-eighth of the people living in it. The question would be then, on war being declared, how are we to keep that supply constantly coming into the country? It has been assumed—and I think without good reason, by most speakers and writers on naval policy—that a naval war will be sudden, short and sharp. I should say most naval men will agree that a naval war may be the most prolonged of any war. It would probably become a blockading war. The first thing that naval men would like to see would be the ships of the other nation out at sea, and to have a chance at them; but I believe we should find, as was the case in the Franco-Prussian War, that they would play hide and seek in their own ports. That being so, it seems to me that the lecturer is perfectly right when he says that "a good scheme is on the chance of being lost by not being properly carried out." And it seems to me that this scheme really does not receive the attention of the country that it ought to receive, when you notice that in the scheme for the Naval Estimates about to be produced in the House of Commons the subject of armed merchant steamers occupies scarcely the space of 3½ lines in several columns of matter. Then we go a little further: the lecturer has pointed out that the ships, in his opinion, are not fit for the purpose for which they are being retained; that is, assuming they are being retained as fighting ships. I do not know myself what the Government scheme may be as to retaining merchantmen to be armed in time of war, but it seems to me that they are to be retained for fighting purposes; if, however, they are to be armed and simply keep on their work armed as mercantile cruisers, there will be very little harm in that, provided they can get over the question of international law with regard to the Declaration of Paris. But the real work to which they can be best put for the purposes of the country would be scouting work; and then only the fastest and handiest ships such as are now constructed on the Clyde, at Liverpool, at Barrow, and Belfast, twin-screw ships giving a speed of 18 or 19 knots, should really be used. I do not doubt that in a naval war we could get vessels from every part of the country of all sorts, fitted either to carry coal or stores, or to fight. I do not doubt that for a moment; but I do maintain that the difficulty is the men. Captain Colomb pointed out just now that manning was not the difficulty for the Navy, but I should like to know in case of a European naval war where we should get the men from, to man the Service. In the old days we had treble the number of men on every merchant ship at sea that we have now. Our merchant ships carry 14 or 15 men, where they used to carry 40 or 50. They have so much steam power to do all the work. Since I have left the sea I have been at work in the Admiralty Court, and there we have collisions and salvage cases nearly every day, and the crews of British ships that come before us in nine cases out of ten are largely composed of foreigners. We have even Officers holding certificates as captains and mates of British ships who are Swedes, Danes, Germans, and others; some hardly capable of speaking English. Where will these men go in war-time? They will clear out of the

country, of course, and where should we then draw our men from for the Navy? Of course the Naval Reserve would have to be taken out of the merchant ships under the present system of reserve, and how are the merchant ships then going to be manned, so as to continue to carry that food which the country must have? It is a most difficult problem, and one that ought to be faced at once, and carefully faced. There was the question of patrolling the seas. I can only say I should like to see that patrolling the seas known to every nation, for if the enemy would only bring their fast cruisers to the patrolling stations, it would give us some chance of getting hold of them. In the case of the "Alabama," the difficulty of Captain Semmes' enemies was to find him; he cruized here, there, and everywhere, like a Spring-heeled Jack, and was never to be caught. As to the men of the Naval Reserve, my opinion is this, that men ought not to be drilled on these old drill-ships at docks and out-of-the-way places, where they are allowed to come in in comparatively slovenly order, but they ought to be sent on board men-of-war, in order to get a slight dose of discipline, and of Jack's cleanly habits on board a proper ship. I have seen hundreds of Naval Reserve men, good cleanly men, too—they put on a guernsey, and wear a paper collar over it—the sort of men that would take about half a month of Sundays to get up a fore-castle ladder. These are the men you should work up on men-of-war, and then let them go back to the merchant service, and like decoy ducks they will bring in the other men. There is one other thing we ought to be seriously inquiring into, and I hope that some day the House of Commons will take the matter up, viz., the disgraceful state of the Naval Reserve List. If that is all the number of Officers and men that we can get, there must be something radically wrong. I think the great difficulty is the relation between the merchant officer and the merchant man and his owner. We cannot expect a shipowner who has to make his money by his ship to employ a man who may at a moment's notice be taken away from him, and you cannot expect a man to come and join the Naval Reserve when he knows that it may be the bar to his getting a ship. A man goes to an owner and says, "I should like to serve in your ship." "Are you a Naval Reserve Officer?" "Yes." "Oh, that will never do, you will be wanting to get away to drill, or you may be taken away at a moment's notice." And besides that, no doubt some of these foreign gentlemen do without grumbling, harder work and for less pay. What we want is to make the Naval Reserve as large a body as possible, and it may be done in a most inexpensive way. It seems to me that a little more promotion, a little better pay, better chance of study for Officers, a few cruizes in men-of-war, especially in small craft, so that the men may not be bothered with the routine of an unwieldy turret-ship, would make it a success. Then as to the Declaration of Paris: I do not wish to go into that, but the lecturer has truly said that the old fighting clause, I think it was in Charles II's reign, has been done away with. But I believe it to be absolutely illegal for a man at the present day to be caught armed on the ocean. He is liable to be treated as a pirate. Therefore I think the sooner that Declaration of Paris is reconsidered the better. I have been told by very high authorities that it is an illegal document; that the noble lords who signed it signed it without authority, and exceeded their authority. That may be so, but in time of war, when you get caught on a foreign station on the other side of the world by a foreign cruiser, they don't wait to know anything about the Declaration of Paris being legal or illegal; they would have you up quick. These things ought to be settled in time of peace, and all doubts removed; and when could England, looking at the present state of the Continent, find a better opportunity to go boldly to the other countries of Europe and say, "Let us consider the Declaration of Paris, and see whether it is legal or illegal;" and, I should say, cut out the clauses about privateering, or remodel the clauses so as to include and legalize the armed mercantile ships as an auxiliary navy. We are the best privateers; other countries who did not join the Declaration of Paris are all able to fit out privateers, and would not they give us some? When I see Royal Commission after Royal Commission sitting on such questions as "Saving Life at Sea," considering third class passengers, and all those sorts of things, such as whether they ought to have a life-belt each, and to be instructed how to wear it, I ask why should not we have a Royal Commission properly constituted with efficient men to look into this subject of utilizing the merchantmen, and keeping our country's food supply safe

in time of war. It would be our most vulnerable point; it would be our duty to protect the merchant service, and we cannot do it without our Navy. I say it would be putting an expense on the country at the moment when it would not be ready to undertake that expense, and certainly it would be incapable of providing ships at the last minute. These questions are of such magnitude that they cannot be dealt with here; but as I say, they are a subject fit for a Royal Commission, or at any rate for careful consideration by both Houses of Parliament.

Admiral SCOTT: The subject before us is really, as has been said, very important; it touches us in so many directions. I think, however, we are mostly agreed, that if the best men are taken out of our mercantile marine in time of war, we shall at once do what the enemy would like us to do, namely, destroy our own commerce. Unless these men, who are the very pith and marrow of the merchant service, are retained, there will be but little hope of securing the continuance of our supplies. I see no reason against our merchant vessels being armed at once. Why should we not utilize the whole of our resources just as other nations are utilizing theirs? We are utilizing these resources as regards the volunteers; and other nations are enrolling their able-bodied men, and utilizing them as a reserve. Why then are we to be bound down, and not to use every power that has been put into our hands? It seems to me to be foolish not to do so. The Declaration of Paris, about which a good deal has been said, was for the abolition of privateering. Our merchant vessels going about their legitimate work are not privateers, and surely their crews should be allowed to strike in their own defence. They would when armed be a purely defensive force, and are the crews to allow their vessels to be burnt, or themselves carried into captivity, without striking a blow? Give these men the weapons and the opportunity, and I suspect they would render a very good account of themselves. As to the preparations we have already made by sending guns to different parts abroad, it seems to me that in the first place the guns are unsuitable; and in the second place that the greater part of the war would be over before they were mounted. Another mistake is that of putting naval Officers in command of merchant vessels and displacing their Officers, who are fully acquainted with them, on war breaking out. With respect to the value of our mercantile marine as an auxiliary in warfare, merchant ships are far less powerful than men-of-war; but merchant ships can, as in times past, perform very excellent services. Our East Indiamen used to fight their own way; but let us look for a moment at what they are now doing in the west of England to commemorate the Tercentenary of the Armada's defeat. Let that great action remind us that merchant vessels will stand a great deal more hammering than is generally supposed. I think it is only a modern fallacy that they would be sunk at once. If you look at the pictures of former actions, you will see vessels with great holes in them, such as the "*Sanspareil*" and other ships which withstood a very great deal of hammering at Sebastopol; and in like manner our paddle war steamers were riddled in the River Plate, but were still serviceable. Look at the national importance of arming our merchant vessels. We could then, instead of taking the men away from their work to drill them in harbour, carry these men to sea, and teach them aloft the use of the guns in their own vessels. You would thus secure a large armed force in all parts of the world, and wherever our vessels voyaged there would be found a very considerable body of trained men. And more than that, we should also secure a real reserve for the Royal Navy, for very soon after war was declared our sailing ships would be laid up, and these men would flow into the Service. I have had much experience in drilling seamen, and as an old Gunnery Officer I know well that if you teach men properly you will soon find they are quick enough. The slow and stupid way in which seamen are sometimes drilled is enough to dull any men's senses. Nor do seamen require the long drills that are often talked of as necessary. We can have very simple guns mounted, and such weapons can be the most efficiently handled; whatever is complicated is sure to fail in war, and therefore simplicity is required in our weapons. But the main requisite is trained men, and if we have trained men in the mercantile steamers, we shall possess an armed force which will materially strengthen our commercial defences; and these men would soon draw into the same national force our seafaring population. But not only should we seek to enrol the seafaring population of England, but also that of our Colonies, and then what a

large national volunteer force we should have! I do not speak without experience in this matter, for in one of our Colonies, New Zealand, I had an opportunity of drawing seamen together and organizing a squadron for a sham attack on Camarú. The whole of the men were delighted with their work, and readily gave up their time and pay for four or five days together to carry on these operations. Seeing then what has been done in New Zealand, are, I ask, our seamen here less patriotic? I am quite sure if they were properly encouraged and taken by the hand, we should have ere long a very large number of trained men. And with respect to the Officers, they likewise want encouragement, and ought to have a like chance of rising in rank. I believe it would be an excellent thing if we abolished one-third of the entry into the Royal Navy, and took more Officers from the merchant service in war time; this course would knit the two services more closely together, and would also allow of far quicker promotion to be given to our own Officers during peace. Our nation has been given the command of the sea, it is our highway and means of communication with all parts of our Empire. We have much trade at the different ports, and hold the keys of the ocean routes in our hands; and if we cannot utilize our large naval and mercantile marine so as to preserve these routes, I think our nation must be in a very bad state indeed. I think, however, that we should bear in mind that the present opposition to each of the two great Powers is of enormous advantage to us; but supposing these two Powers or others should unite against us, do you not suppose that they would be very glad, if they could do so, to lay hold of our commerce? Have we not had a little experience of how readily two Powers could unite in the cutting off a portion of Denmark? And how easily, did we not make adequate preparations, could our own commerce be injured. This is a matter which requires very careful looking into, and is not one which can be settled by any individual opinion, but is a question that really requires a Royal Commission to go into the whole matter; and I am quite sure it would be found that we have in the mercantile marine¹ and in our seafaring population a force which very few people have as yet realized the full defensive value of.

Rear-Admiral COLMAN: The general impression I have gained from hearing this paper read is, adopting the words of the lecturer himself, that if the mercantile marine is to produce many specimens such as we have before us in the person of the lecturer, we should certainly encourage the mercantile marine to look after itself, for it will do its work right well. We have heard a most excellent paper, a paper that deserves a great deal of thinking over. There is one point adverted to which has been a belief of mine for some time, and that is, that the greater part of the preying on our mercantile marine must be done by armed merchant ships. As the lecturer says there are not enough men-of-war anywhere to prey heavily on our mercantile marine, but all the experience of former wars tells us that the armed merchant ship when it was in the form of a privateer did the worst of the work on our ships. And now that she will be in the form of a raider, I think it will be the same case, and therefore I think there is a great deal in what the lecturer has said in pointing out that the merchant ship herself, properly armed and encouraged, will be able to do a great deal of the repelling of the raider without the necessity of appealing to a man-of-war at all. As to the Declaration of Paris and the abolition of privateering there is one thing we quite forget. The abolition of privateering is all for the bad and not for the good in any way, because the privateer in old times could not destroy. The privateer must carry his prize into port, and she must be condemned in regular course—he could not destroy her, he could not hurt her in any way, he could only take her into port. If she was recaptured

¹ An Imperial naval volunteer force afloat would have great advantages over the land volunteer force, for it would not require to be taken away from its usual avocations for drill or warfare, but would be always ready for service, and without requiring the cost of ammunition depôts, drill sheds, nor other outlay essential to the efficiency of our fine volunteer army. Raids upon commercial ports would be hopeless with guns and drilled marksmen in every merchant vessel, and until such is carried out, the fortifying of coaling stations will add but little to our mercantile safety, or to forwarding that close union in federation upon which the future prosperity of our Empire depends.—R. S.

there was an end of it. The Federals called the "Alabama" a privateer, but she was not a privateer at all, inasmuch as she had powers of destruction which were never granted to any privateer. That is a point that ought to be thoroughly well dwelt upon in relation to the Declaration of Paris. The lecturer holds that the object is to bring Officers and men of the reserves together, and also I think to bring the Officers and men and the ships together. That is a thing that we are now doing almost for the first time in the Royal Navy—for the first time within the last forty or fifty years; we are adapting our personnel to our matériel, bringing the two together, and making the one govern the other. I must say I think there is a great deal of force in what the lecturer has said with regard to the subvention of steamers, because I presume he must apply his remarks principally to those. We ought in dealing with those steamers to see that we have the crews belonging to them, and that we get the crews with them when they are taken up for war. It was the old practice. The old hired armed merchant ship was hired, Officers and men together. She was not a hired ship manned from the Navy, she was a ship which had her crew and Officers all hired together. I was very much surprised at Mr. Baden-Powell's remark as to the law in reference to merchant ships protecting themselves. It was stated by Lord Thring in this Institution not very long ago that every merchant ship had a perfect right to arm herself, and that any merchant ship was perfectly justified in using any amount of force to prevent herself from being robbed. I cannot help thinking, whatever may be said, that that must be so still. No Englishmen has a right to allow himself to be robbed if he can fight for it, and, therefore, I think no English ship either has a right to allow herself to be robbed if she can fight for it. The difficulty in officering H.M.'s ships from the mercantile marine is unquestionably the training. At the present moment, both with regard to Officers and men of the Royal Naval Reserve, I do not think we are quite clear as to what we are going to do with them. We are taking a certain number of Officers of the Reserve on board our ships, and placing them on the same level as the other Officers for the purpose of training them for a year in the ways of men-of-war. That points towards bringing the Officers of the Naval Reserve on board our ships to supply the known want (but not the admitted want), the known want of a sufficient number of Officers in the Royal Navy. But the lecturer certainly takes a somewhat different line, because he contemplates the officering and manning of the subventioned ships by the men of the Reserve and Officers of the Reserve, and so far I must say I feel myself much with him. He amused me a little—I was not aware of it—by showing that our old friend the sail turns up again in a very unexpected quarter. As far as I understand him, the Officers of the Royal Naval Reserve brought up in sailing ships have a certain advantage over those who have been brought up in steamers. I think my friend Captain Fitzgerald may have a shot at that presently. I was very glad to hear the lecturer speak so highly of drill as an education. There cannot be a doubt about it, no man that ever lived is the worse for being drilled. The practical way in which the lecturer has looked at this question, the way in which he has dealt with the sort of attacks that are likely to be made, with the sort of contingencies that are to be prepared for war, is what we do not often meet with in this Institution. I am sorry to say that in the theatre of this Institution it is much more usual to suppose that the forces that are going to attack us are coming from the moon. The question of private signals is also one which has engaged a good deal of my attention, and I am glad to note the lecturer's remarks upon it. One of the possibilities of attack upon merchant ships in war is that they will not be able to tell friend from enemy on approach. In old days you knew a Frenchman by his rig: if you saw him 10 miles off you knew he was a foe of some kind; but now that the mass of steamers are built in England they are all nearly of one pattern, and you will never be able to tell whether a steamer coming towards you is an enemy or a friend. Unless you have a good system of private signals I think our ships will often be caught napping. There was a little confusion between Captain Colomb and Mr. Baden-Powell as to the manning question. I understood Captain Colomb to say it was the question of manning the Mercantile Marine, while Mr. Baden-Powell thought he referred to the question of manning the Navy. Now I do not agree that for the ships we have got now in the Royal Navy we want men. As far as I can make out, we have

plenty of men, but as Mr. Baden-Powell pointed out here, you have a large number of foreigners, and where you propose to draw a certain number of the best men away from the mercantile marine, I think it is quite possible the manning of the mercantile marine in war may be a very difficult and critical business, and it is one which I am glad has been brought forward. There is one further remark I have to make in reference to what will happen in the case of war in regard to sailing ships. Only the day before yesterday I was looking into the question in British ships of the relative tonnage registered of the steam and sailing mercantile navy. The sailing navy is as $3\frac{1}{2}$ to 4 of the steam. I had always supposed the sailing ships must go, we could not possibly maintain them free to do their business on the sea; but when I come to think how the $3\frac{1}{2}$ is to get into the 4, that is to say how the steamers are to carry 7 $\frac{1}{2}$ when they now only carry 4, it begins to show me that that question is not so clear as I had been in the habit of thinking. It seems possible that we may not be able to drop the sailing commerce, and we shall have to put forward exertions for its protection which we have not yet dreamt of.¹ The point which strikes me most forcibly of all in this lecture is the way it follows on the statements of the two Ministers who are responsible for the defences of this country. My own impression from many many years' consideration, now becoming doubly strong the deeper I go into the question, is that the great danger, the only danger that this country is open to, is the destruction of its commerce. I cannot think that there is any danger at all commensurate with it. But if we regard the statements of the two Ministers, such a fear appears to be almost absent from their minds. There is one slight reference in the statement of the First Lord of the Admiralty to the protection of commerce, but for one slight reference to the protection of the commerce which is close to the enemy, can be most readily got at, for one line that is uttered in reference to that danger, we have columns on a danger which has never been the danger of this country since the days when navies have become organized. The danger which is displayed before us by authority is the danger of a country which has absolutely lost its command of the sea; the danger which is brought before us by the lecturer to-day is one which was most menacing when our command of the sea was most complete. Recollect that in the year 1810, when we had 661 cruisers, when we had 194 cruisers in the Channel where merchant ships were likely to gather close round our coasts, in that year we lost over 600 merchant ships, very nearly all off the coast of England. That was historically our greatest danger. It is the danger brought before us by the lecturer, but it is one to which we do not pay serious attention.

Captain FITZGERALD, R.N.: I wish to make a remark about the Declaration of Paris. I am not a lawyer, but we have had the opinion of a lawyer on the subject. For my own part I do not think it matters one button whether there is a Declaration of Paris or not. We know very well that declarations and treaties are only regarded as long as it is convenient to the people who sign them to do so. I do not think there is any necessity for having a Royal Commission. I cannot see what it is for, and I am quite sure you will never get it. I imagine that an Officer holding a commission in the Royal Naval Reserve would be as much authorized to fight as a Royal Navy man. I do not think there is the slightest danger of Captain Crutchley being hanged; if they hang him they might as well hang me, but there is not much difference whether we are hanged or blown up, as far as I can see. I imagine the lecturer somewhat underrated the patriotism of the ship master when he represented him as saying, "I cannot, however, be expected to ruin my prospects and throw up my berth for honour and glory, when the crisis has passed I shall be thrown on my beam ends. I pay my taxes, and let the men fight whose business it is to do so." I fancy they would all fight rather than give their ships up if they were authorized with a blue ensign and a commission to do so. Admiral Colomb in treating of the sailing tonnage question said that about half our commerce is now carried in sailing ships, $3\frac{1}{2}$ to 4. Well, I never thought there was a question that the moment war was declared sailing tonnage would disappear off the ocean. You might have to

¹ I was influenced also in coming to these conclusions by the numbers 12,997 sailing vessels to 4,920 steamers.

make a provisional arrangement for their protection whilst going into neutral ports and discharging their cargoes, but as to sailing commerce being carried on in war, it is absurd and out of the question. I do not know how the steamers are to carry double their tonnage. They might perhaps try the new Admiralty plan and shift the *Plimsoll's* mark up a little bit, and load down to it. It has been successfully carried out in our men-of-war, and their paper tonnage increased thereby, and I dare say it could be done in merchant ships. With regard to the armaments for merchant cruisers I quite agree with the lecturer in saying that they should be kept abroad. They could always get armed in England, but there should be one armament abroad and one at home, so that they might pick up whichever was nearest to them. There seems to be a difference of opinion as to whether we shall be most in want of ships or men in case of war. I must say I agree with Admiral Colomb in thinking there would be no difficulty about the men. What we want is the ships. Stokers would really be our principal want, but there would be an enormous number of slow merchant steamers thrown out of employment. Stokers are not at all equally good, but no doubt we should be able to meet the requirements of the Navy, because after all we have not got so many ships, not half enough in fact; so I think the difficulty will be ships and not men. "Help the merchantmen to look after themselves and get and impart information." That is a most excellent remark: we should train the Royal Naval Reserve men not with the view of bringing them into the organized men-of-war; their place appears to me to be in their own ships. I quite agree in thinking that the Captains and Officers should not be turned out of their ships in war-time, ships which they know how to manage and are accustomed to. Moreover, their duty will be not to fight more than they can help, but to patrol the ocean, to act as the eyes of an Admiral as scouts and look-out vessels. We have not half enough cruisers, and these ships will do admirably as patrols. But as to fighting or the necessity for manœuvring power in a merchant steamer I have the misfortune to disagree with the lecturer on that point. I think speed is the main thing desirable.

Mr. E. H. CARBUTT, M.P.: Perhaps as an outsider you would allow me to say I have been delighted to be invited here to-day and to listen to the excellent paper we have had. No doubt the question is becoming riper and riper every day before the country, are we going to protect ourselves? We are often told that we must go in for economy. I am in favour of economy, but depend upon it if the Government does not put the country in a proper position to protect our commerce they will suffer for it at some future day. I believe that if the case is properly put before the representatives of the country, they will vote the money and that we need not fear the question of £ s. d., so long as we can show that the money is properly spent. It is therefore very interesting when we can get gentlemen of the mercantile marine to come here and lay their views before us. I agree with one of the former speakers that the Government has not done as much as is required in the way of preparation for protecting our commerce, that is to say, in the statement which the First Lord of the Admiralty put forward the other day, the main object did not seem to be protecting our commerce. I think, however, that Mr. Forwood, who has taken so much interest both in the mercantile marine and in the Navy, will be the last man in the world to let our commerce go without being properly protected. I think it is to his influence and that of one or two other gentlemen at the Admiralty that we are indebted for the Admiralty bringing out the schemes for these new fast scouts. Of course we all have to make a beginning, and these new scouts with very high speed and large coal endurance will be of very great service to the country. But what we are really wanting is guns. Wherever we go, whatever we read of, what we are doing abroad or in this country, the great deficiency is in guns. Even the First Lord of the Admiralty tells us we have several ships waiting for heavy guns, and Lord Brassey the other day in speaking of the defences at Bombay and South Africa said there again it was a case of wanting guns. I do hope the country will insist upon the Government spending money in letting us have proper guns so that we may not find, when war suddenly breaks out, that we are defenceless for want of guns.

Captain CURTIS, R.N.: With reference to the comparison that has been made between steamers and sailing ships, you must remember that the steamer makes two

or more voyages to the sailing ship's one. As to manning these steamers, it has been said in this Institution that our sailing ships will be laid up in the event of war, and consequently their crews will naturally seek employment on board these steamers. With respect to the reserves, I know that some of the Royal Naval Artillery wish to go afloat in torpedo-boats, but from my knowledge of them many are not exactly the stuff that is required for such work. Captain S. Long, who is regarded as a high authority on the subject of Naval Reserves, says, practically speaking, our fishermen are not sufficiently considered in the scheme of Naval Reserve: in the event of war they will be prevented from following their daily calling, and would be left ready for service, and no doubt glad to take a part in the defence of their country. I should not like it to go forth from this Institution that the Royal Naval Reserve are thought so very little of. As it has been said they come in a very untidy state to the docks to drill, I think that might be the fault of the Commanding Officer. If he was strict and made a point of calling their attention they would turn out properly. The Coast Guard Commander at King's Lynn, the other day, said that at the Jubilee, 150 of the Naval Reserve men turned up in proper uniform, and he congratulated them and said he had not one complaint in six months. That is rather different to what has been said. Then these Naval Reserve men, these fishermen, know every inch of the coast—you could not have better pilots. With respect to coaling, I may tell you that when I was on the Pacific Coast I was employed in a very disreputable manner, namely, in smuggling on board a Government vessel; the people who suffered were many of them our own subjects—bondholders. The ship's pinnace and cutter were laden tolerably deep with dollars, crossed the bar of the River Altata at night, the Officers and crew were kept in the boats, under the main yard whip, until they were cleared, the ship rolling considerably. I am of opinion properly constructed boats, mere shells so as to fit into one another, in form somewhat after the Madras Masoola boats, bow and stern, would be suitable for coaling. Large vessels can nearly always form a lee sea, and can tow a small vessel or boat so as to give her a sheer off. They not having experience sufficient afloat, they should have at least two actual weeks at sea in each year. A portion I suggest might be embraced in the mobilization scheme. It used to be said "it took one year to make a soldier, but three to make a sailor."

Captain W. H. HENDERSON, R.N.: I think the training of the blue-jackets of the Royal Naval Reserve is carried on in an obsolete and extravagant manner. There are nine old sailing frigates stationed for this object at the various ports, perfectly useless for any purposes of defence, yet costing a considerable sum annually to keep in repair and order. They bear a not insignificant complement whose services, except those of the instructing staff, are wasted. Why should not their places be taken by vessels capable of strengthening the local passive naval defence force of these ports? Corvettes, sloops, gun-vessels, gunboats, and even the smaller ironclads, when no longer fit for active service with the fleet, are useful and fit for local defence vessels. It would be a great saving if instead of being paid off into the 3rd or 4th Class Steam Reserve, when they cannot possibly be got ready for commissioning again except at a great expense of labour and time, and in many cases are allowed to rot until sold out of the Service. In each case they would serve as the nucleus of the local defence, could go outside for target practice, and the labour of their crews would at least be expended in keeping a local defence vessel in order, instead of one that is of no use whatever. I should take their masts out, but leave their guns, fittings, and other gear intact. The manner of employment of the R.N. Reserve men in war-time, the Admiralty will decide in working out a mobilization scheme—if they are to be largely used in supplementing the crews of men-of-war, then the greater the touch between them and the man-of-war's man during their training the better. Alluding to what has been mentioned by several of the speakers, there is no getting over the fact that the defence of the Empire rests on the shoulders of the Navy; it always has done so, and our insular and maritime position necessitates it. In the past we had to protect the country from invasion; in addition to this, and really the more vital function of the two, we have now to protect our lines of communication throughout the world. In the past this was not a necessity, it was of secondary import—now it is the primary

consideration; for if our supplies of food and war material are stopped, we must come to terms. Our possible opponents know this, and that it is our most vulnerable point. We must keep the command of the sea; if we lose it anywhere, that portion of the globe will be cut off to us. If the Navy is not strong enough to maintain its position, it will be withdrawn to protect the United Kingdom, and if we thus give up the command of the sea, and our trade is cut off, we shall be equally starved into submission without an invasion or the necessity of an investment even of our own shores—no military defence of the arsenals, commercial ports, or coaling stations can save us. Relatively, therefore, the Navy ought to be much stronger than at any previous time, for its duties are much more arduous. Is it so? Naval Officers say it is not.

Rear-Admiral Hon. E. R. FREMANTLE, C.B., C.M.G.: It is some presumption on my part to speak at all. I regret exceedingly not having been able to come here in time to hear the lecture, therefore my remarks will be very short. It was a lecture which I was particularly anxious to hear. It is one that I think is of the greatest importance, and when the Officers of the Naval Reserve come and tell us what is required to make the Naval Reserve a better Reserve for the Navy, I am sure we ought to be very much obliged to them for coming here. I should not have risen but that I strongly object to some things which have been said against the present system of Naval Reserve. It is not perfect, a good many things are not perfect. I am not by any means against a change in administration, or opposed to changes or improvements generally, but I must say I think in the present day what we want generally speaking is much more than is generally admitted—good administration, and not changes. The Naval Reserve is exactly a case in point. There is something to be said and a great deal to be said against some of the old hulks stowed away in a dock, but, on the other hand, a great many of them, stowed away in the dock though they may be, are models of cleanliness and models of men-of-war; and it is the fault of commanding Officers of a district, Captains, and of the inspecting Officers of these ships if they do not set a good example, and give the merchant seamen some idea of what a man-of-war should be. It has been said by some speakers that we could not expect Naval Reserve men to come and drill, that it is a great inconvenience to owners, and so on. I venture to say, although I am not a shipowner, that they must very often find it a great convenience to have the Naval Reserve to fall back upon. When I commanded a district ship some years ago I went to Shetland to inspect the Coast Guard, and there I inspected 200 Naval Reserve men on drill at the same time, and very well drilled they were; they had an excellent Coast Guard Officer, and everything was done as far as possible in man-of-war fashion. The Officer was a very able man. He prided himself very much on setting up the little compass and something to represent the wheel, and he stood in the right position, and I stood in the right position for Admiral or Captain, and everybody passed round and took off their hats in a very proper way. These are little details that should be carried out. I could mention many other circumstances of the same nature, and, therefore, I say what we want is that these things should be fairly and properly carried out, and with the best material at our disposal. If any change is required, by all means make it; but do not always and on every occasion blame the system, when it is the men who do not carry out that system. As regards the Naval Reserve Officers, and what has recently been done for them, in the last ship I was in not many months ago we had two Naval Reserve Officers, and extremely useful men. They came with the object of learning the work of a man-of-war, and I have no hesitation in saying that they learnt a good deal of it in a year, and I have no doubt we shall have learnt something from them too. That is a system I hope to see carried out still further. I am very much against a large reserve of Naval Officers. We hear it frequently said we have not enough Naval Officers in case of war. I really call it somewhat of a cuckoo cry. The first requisite in case of war is to have our ships thoroughly efficient, the ships that are ready and that can be ready at very short notice, and we shall not have them thoroughly efficient when they are manned by Officers who have had little or no experience in those ships; therefore, the first thing we must try to have is a limited number of naval Officers who shall be thoroughly efficient. Admiral Colomb told us about the proportion between sailing ships and steam ships

as being $3\frac{1}{2}$ to 4. I think that is a little misleading. I do not know whether Admiral Colomb meant to assume it, but I am quite sure a great many of his hearers did assume that he meant to say the proportion of commerce carried was $3\frac{1}{2}$ for a sailing ship to 4 for a steam ship. That is very far from the fact. I know there is a proportion in which we may talk of the number of voyages performed by a steam ship as compared with the number of voyages performed by a sailing ship, but I should imagine it would be something like 5 to 1. I think if you take the cargoes brought in the course of a year to England you would probably find about 5 brought in steam ships to 1 in a sailing ship.

Admiral COLOMB: Quite so.

Admiral FREMANTLE: If that is the case, only one-sixth of the carrying trade would be lost by sailing ships being laid up, and therefore we need not be quite so frightened about throwing all the sailing ships out of employment. With regard to the Declaration of Paris, I have never understood that it is worth argument. I agree with Captain Fitzgerald in thinking that International Law is one of those things which is extremely elastic. I saw at the India Office this morning a fine picture of the celebrated occasion on which Commodore Dance with his East India-men drove off a French squadron consisting of a line-of-battle ship and three frigates under Admiral Clauris. Nobody ever supposed that they were acting improperly in defending their ships. They were not privateers, they had no letters of marque, they were merely East Indiamen, ordinary merchantmen armed, and which could and on that occasion did show fight, and to very good purpose. I cannot suppose for a moment that International Law, elastic as it may be, can be such as to condemn any merchant-ship which chooses to prevent itself being robbed, as was so well expressed by Admiral Colomb. I regret I am not able to enter more fully into this paper. I can only hope when one has read it that we shall find that the links between the merchant service and the Royal Navy will have been drawn tighter. An attempt has been made, at all events, to show how the links between the merchant service and the Royal Navy may be drawn more closely together, and anything that tends in that direction is worthy of the support of this Institution and of the consideration of Her Majesty's Government.

The CHAIRMAN (Lord Charles Beresford): I think, ladies and gentlemen, such a paper as this which has been presented to us to-day shows what immense good this Institution does. Here is a paper read by a gentleman who thoroughly understands the question he has taken up; he understands all the detail of the question, and he has got that gift which is, I think, not very common, that gift of a system in his head of organization to carry out what he proposes. Now, this question of the defence of the mercantile marine which is largely entered into in this paper is, in my opinion, one of the most important questions for this country, because the defence of the mercantile marine means actually our existence. It means our food supply, first of all; it means all our mercantile interests; and it means, besides, all the enormous amount of money that is paid in the rate of insurance. Now, it is the rate of insurance that ruins a country, because they cannot afford to either send out or to receive at home the vessels that bring the supply of food to this country. There are one or two points I might mention that have been noticed by some of the speakers. There is the question of armed cruisers. In the Board of Admiralty we thought it was most important to take up this question of the armed cruiser, and we threshed it out thoroughly; but the armed cruiser under no condition whatever is meant as a cruiser to fight unless attacked. It is meant to take such a position as this; it may be three positions. One is that directly war is declared, you send out one of these fast ships to a certain locality where someone of the enemy's vessels may be which is not at all equivalent to it, but which has got in what I may describe as a highway of the sea where trade is more or less focussed; and look what such a vessel as that of the enemy could do to your trade in the first three weeks after war was declared. That is one of the objects of the armed cruiser; she goes out and stops a very inferior vessel destroying perhaps in a dog-watch ten or twenty or whatever there is of English vessels in certain localities. Another use is that she should be used in these days when we are lamentably short of cruisers as what we call runners for the fleet, that she should be at a certain indicated place and communicate to the Admiral certain information which she

may find out. And another use is to enable her to go out and meet a cruiser which we might know of belonging to the enemy or one of our own ships which might be taken in arms, and there she is a very good match for her because she has the same scantling and speed; and we thought it was one of the most useful things we could do to take up these vessels to the limited amount of money and arm them. There is one point I must criticize in the paper relative to using a shorter vessel. I do not think a shorter vessel is so good, because you cannot get the speed out of the shorter vessel, and for the particular reasons which I have given we chose the long vessels. Another reason that we did not take up more than we did was this, that in these days of extraordinary quickness in building vessels we thought we had better take up vessels even that had not been built but had been designed, which may sound rather like an Irish bull. With certain companies we guaranteed under certain conditions the carrying of mails, and we promised that when their vessels were of such speed we would take them up and put them on the list. As to their armament, it would be very wrong for me to say where, but there are some places about the world to which the armament has gone out, so that the vessels in the different stations can at once go to certain places and put their armament on board. But more than that, the vessels we have taken up have the regular sponsons fitted, so that they are ready to put the guns in, in other words, they are far more useful than many of the vessels we took up some years ago which had no fittings at all. The Board of Admiralty have also taken up the question of coaling. I am sorry to say not nearly to the extent it ought to be, but I hope during the next evolutions they may be able to put the classes of ships into different positions, and that there will be certain days when the weather is bad in which those ships will undertake actually to carry out in detail what they would have to do in time of war. I entirely agree with the idea of having a system by which vessels should be able to change their route—the plan is most excellent—also of having a system thought out in time of peace of what you would do in time of war if your wires were cut. All that is excellent, if I may be bold enough to say so. And the lecturer's idea of how the merchant ships should communicate to the Admiral is most valuable, because it might save a whole fleet of merchantmen the panic that would occur if any one or from one to five ships homeward bound were destroyed. I venture to say that in the year 1885 that would have occurred, for there was then no system or shred of organization. The present organization, as has been so ably brought forward in this paper, is very bad. My own opinion would be, having read this paper over very carefully, that the great thing is publicity, inquiry, and discussion, and those of my brother Officers that did me the honour of reading what I said in the House the other day will know that I supported this Royal Commission so as to let the country know certain facts. You keep an Army and Navy, you have a great mercantile marine. You, as taxpayers, pay 31 millions—but what for? You pay it that you may be defended. Now comes the point—none of us, not even these gallant Admirals here, know actually what you want to enable your Empire to be defended. I say that ought to be brought out, that your experts ought to let people know. You ought to have a given amount of guns, ships, and men, and a regularly defined programme, such as is so well put in this paper, for the mercantile marine, so that directly you go to war, everybody knows what to do, and where to go. If I have an opportunity, and I shall make one, I shall try and get a Committee or bring it before the Admiralty that we should have a Committee of the men who understand the question, which is the mercantile marine, men like Captain Crutchley (and I have the honour of knowing a great number of men similar to himself), that should be presided over by a Naval Officer, and should thrash this thing out. It is all part and parcel of the defence of the country. And more than that, remember in time of war these ships must take care of themselves. Our fleets must fight the enemy's fleets, and our cruisers must look after their fleets and cruisers, but as to thinking that at the present moment the British Navy can defend your mercantile marine, it is utterly impossible, and nobody could prove that it is possible. As to the Admiralty not having worked at this question before, I hope on Monday to prove that it is impossible for the Board of Admiralty under its present constitution and system of administration to look at these sort of questions at all. I shall endeavour to prove that the present system is—and I cannot use words too strong,

I think the best way is to say—utterly rotten. You cannot work under your present system, and I shall do my level best on Monday to prove that what I say is true. I do not say one word against my late colleagues, or my late chief, because I think they have done extraordinarily well. And, remember, these great reforms that have been carried are financial reforms, dockyard reforms, manufacturing reforms, but they do not enable your fleet to fight a bit more than it does. Thanking you for listening to these words, I once more say that I consider this paper of the most excellent advantage to the country, and as far as I can I shall try and press it a great deal further than this Institution.

Captain CRUTCHLEY: There is only one point I should like to answer, that is as to the character of the British seaman. The British seaman I do not think is a bit worse than ever he was, in fact I think he is a great deal better. The only thing he wants now is to be treated like a reasonable being, and then you will get as much out of him as ever you did.

The CHAIRMAN: I thank Captain Crutchley once more for his most able paper. I am sure it will not only please his brother Officers in the mercantile marine and those seamen by whose labour and pluck we get all our luxuries and half our food, but it will also be read with great interest by our own Service, by my brother Officers in the Navy.