WITH THE GRAND FLEET.

(IST JULY, 1915.)

In the work of the Grand Fleet during the last three months there has been a certain amount that was interesting, and much that was not. Allowing however for the notorious coyness of censors, and the fact that readers of this Review are mostly ex officio or life members of the Grand Fleet, its doings may aptly be summed up in that comprehensive military phrase "there is nothing further to report."

Basing our meditations during the last three months on many reports of this nature, we have naturally done a good deal of thinking, but our thoughts perhaps might be even less likely to pass the censor than our doings. Anyway there has been plenty to think about. We have had the entry of Italy into the war, followed by a series of Russian disasters in Galicia which no intelligent officer will attempt to minimise. We have had several battleships sunk at the Dardanelles. There has been the dramatic downfall of the British Government, which suddenly gave place to a Coalition. At the Admiralty, our second First Lord and our third First Sea Lord are now installed.

We have heard to our amazement that England, the greatest industrial country in the world, instead of producing as we supposed an endless supply of war munitions for all our less fortunate allies, is actually turning out less than a quarter of the amount produced in France!

There has been the sinking of the Lusitania and the torpedoing of American and other neutral vessels without warning, as well as many British similarly treated. The enemy's depredations with submarines still continue. They extend even as far as the Dardanelles. Three months ago there were four or five neutral nations meditating war. Now,

to judge from their own press, there are more like ten. At first, everyone's aim was to avoid being dragged into the war, now it looks as if their chief concern was to avoid being too late in coming into it.

Truly war brings many surprises, but the events of the last three months have really caused less change in the situation than many might suppose.

No doubt the end is perhaps deferred, but the final result is as certain as it always was. The Grand Fleet, at all events, still goes serenely on its way: The officers of the Fleet are as optimistic as they always were.

The humble writer suffers still from his incurable optimism, based not entirely on the doings of the past but to some extent on the future achievements which the preparations and the destiny of the Allies will in due time infallibly produce. The enemy's star has climbed high indeed, higher than many of us expected, before reaching its zenith. It may be that it will climb further still, but in the end it must surely set into the blackness from whence it arose.

Reviewing the past it is quite easy to see how the enemy's successes were almost impossible to prevent. The only wonder is that they were not greater than they were.

In the future it is perfectly easy to see how we can finally defeat him *if* and *when* we set about developing all our resources to their fullest extent and then apply them with unsparing determination and energy.

It is obvious to all that we have not yet done so, but the essential changes are, we hope, now being made.

The present moment is opportune for reviewing the situation at a moment when the enemy's forces have perhaps reached the high water mark of success.

Russia has been severely hammered and is looked on by the enemy as practically beaten. Austria has passed through a similar stage, when she was sorely pressed and almost at the last gasp. But Russia has immense recuperative powers and undeveloped resources far in excess of anything possessed by Austria. France has suffered very heavy losses and has been hard hit economically and financially as well. Germany has suffered in a similar manner, but far more severely as regards casualties. All four of these nations have suffered invasion over a portion of their territory. Belgium, Servia, and Montenegro are reduced by the ravages of war to a state of very small military value. All of these nations have suffered tremendously. In some respects the state of Russia may be compared to that of Austria, and France to that of Germany.

What then of England? All the other nations have experienced losses which, in any previous war, would have left them practically beaten. But England has suffered no such loss either in lives in trade or in finance. We alone have had no part of our territory invaded, we alone have not been compelled from dire necessity to exert our whole strength in the struggle. Therefore, as regards the future, the situation is this. England alone has the power and the golden opportunity to end the war rapidly by making a supreme and decisive effort. This war is essentially, more than any other, a war of Nations in Arms. Every man counts and every man can help. is not a war to be won by one man, not even by a Napoleon, a Wellington, a Moltke, or a Nelson. If men of that type have arisen they would seem to have been to some extent dwarfed and overshadowed by the stupendous scale of these events which shake a Continent with more than human force. Similarly in the political world, we have ministers of exceptional brilliance at the heads of most of our departments, yet where is the man who could arise as a Nation's chosen leader to steer the ship of state like a Pitt, a Bismarck, or an Abraham Lincoln? Anyone recalling to mind Grattan's worldfamous eulogy of the great Lord Chatham, would surely say to himself "what would we not give now for such a man to guide our councils, and to be described in history in such terms as those?"

Unfortunately it cannot be.

It is only by the collective effort of every man in the country, one might almost say every man woman and child, that this war is to be won. However, what has all this to do with the Navy? Perhaps not very much, but after all there are over a quarter of a million of us and we ought surely to

be able, by holding sound views and trying to live up to them, to exert a certain amount of influence in the right direction.

This becomes almost a duty when we consider how very little we are able to do for our Country during those periods of inactivity which, as in all previous wars, are interspersed with our Naval operations. There are various points to which our thoughts and our influence might usefully be directed. The first is the avoidance of a premature and unsatisfactory peace.

Our learned military tutor, Mr. Belloc, tells us that the Kaiser will try soon to patch up an inconclusive peace. Certainly philanthropists and others have long since been making tentative enquiries in various European Capitals. To any such offer from the Kaiser the answer can only be-" What hast thou to do with peace?" For a man that will not be bound by a "scrap of paper" must be bound in iron chains. A Government that has no respect for treaties should obviously not be asked to sign one; but the only alternative is that terms shall be dictated and it shall be forced to comply with them. In thus holding out to the end, let us see to it that the Grand Fleet continues ever to set an example to the Nation by its cheery optimism, endurance, and unshakable determination. Many a battle has been lost because a General thought himself beaten when his men were still perfectly able to fight on and win it. The same may happen with a Government if it believes that its fighting forces are at the end of their tether.

To the Navy's tether there is no end, even though it circle the earth; and England can never be compelled to treat for peace until her Navy is beaten and a hostile army is in possession of London.

The only thing we have to fear when arranging terms of peace is that we may be bluffed or deluded by Machiavellian diplomats. The German displays scarcely less cunning in drafting "a scrap of paper" than he does dishonesty in afterwards tearing it up. A rather sinister symptom at the moment is the constant talk about "The Freedom of the Seas"; by which is meant that if Prussian militarism is to be destroyed

it is intended that the British Navy shall be rendered impotent also. If it cannot be done in fair fight it can very possibly be achieved with the pen. The "Declaration of London" is a good example of what we might be persuaded to swallow. Not far beyond this is the pestilent formula described as "the abolition of the right of capture of private property at sea," and it is by such a weapon as this that the German hopes to render the British Navy impotent in future.

Probably the murderous activity of their submarines against our merchant shipping is chiefly designed to frighten us into wishing for some such treaty. But knowing what we now do about treaties, it seems incredible that we could be such fools as to trust our National safety to one in future, unless perhaps it is explicitly guaranteed that every neutral nation will uphold and enforce that treaty with the sword. Such an innovation is scarcely to be expected, but unless a treaty is backed by something more solid than ink and paper it's most probable use will be to betray us to our enemies. That subject is too complicated to enlarge on here, so it may be left at this: if anyone wishes to tinker with a subject so difficult and dangerous as international law at sea, let it be done after the peace, when we have plenty of time to think about it. If the terms of peace are to include any such adjustments it is probable that they will expose us in the future to grave and unexpected dangers.

Continuing my last review of enemy submarine attacks, the following figures give the average number of tons per week for each month.

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April ... ... ... 6,370 per week.

May ... ... ... 12,700¹ ,, ,,

June ... ... ... 19,800 ,, ,,
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Total of British shipping lost in 3 months, 198,860 tons.

It is just as well we should realise that this figure is a formidable one, nor does it show any tendency to decrease. Obviously drastic measures are needed, and they must be offensive not merely defensive, but there is every reason to

^{&#}x27;Including the Lusitania this would come to 19500 a week, but I omit her from the reckoning as her case was a distinctly abnormal one.

suppose that this will be done. All the losses in this war are formidable, every blow struck is a heavy blow, but this is a war in which it does not matter to be nearly beaten—the British Army was nearly beaten on the morning of Waterloo—to win it we must have one side ruinously defeated, while the other, however heavily it may be battered, will be amply rewarded when once the victory is won.

As Napier wrote, of the battle of Elbuera, "The laurel is nobly won when the exhausted victor reels as he places it on his bleeding front."

There is one imperative necessity for all who wish to think intelligently about the problems of the war, whether naval or otherwise. That is, they must make every effort to keep au fait with the trend of the general situation. Any papers or periodicals are worth attentive study if they contain information about the political, military, or economic situation in enemy or Allied countries. Belloc in "Land and Water," in spite of his rather irritating diagrams, is undoubtedly a helpful and able guide. Many other sources are available, chief among them being the official reports from headquarters, which usually require to be interpreted with the aid of a good map.

In the Dardanelles we have had very little progress during the last three months. The naval side is of course, as it always has been, purely auxiliary. Direct assault with Naval forces was foredoomed to failure if the defences were anything like what they ought to have been. The naval problem consists mainly in dealing with the necessary naval work of transport, supply, disembarkation, artillery support etc. and at the same time holding off, or destroying if possible, the enemy's offensive forces, i.e., the submarines and torpedo craft. This certainly can be effectively done, and probably is being done, but it is a big job. Mines, nets, torpedo-craft etc. can be usefully employed there in very large numbers, but this is not the place to discuss the methods of using them.

The main problem there is of course a purely military one. With a certain number of troops and a certain quantity of heavy artillery, which must be ashore not affoat, the Narrows can be taken. The quantity required is easy to estimate, and it is natural to suppose that the enterprise would not have been undertaken unless the forces necessary for success were intended to be available there. On account of the restricted front it may well take some time before the Turk can be subjected to the necessary attrition, but even at the present rate, where progress in yards is infinitely slow, if we reckon in casualties we may safely say that he is nearly half beaten already. cluding Egypt the Caucasus and the Persian Gulf theatres, it is probable that the total Turkish casualties have shaken them a great deal more than they would care to admit. Add to this the moral effect and material damage inflicted by our submarines in the Sea of Marmora, and it can be safely predicted that the energy and perseverance expended on the Dardanelles will be very well rewarded in the end—as energy and perseverance almost invariably are.

It is not profitable at present to discuss whether or not it was wise to commence this attack, whether it was begun in the best way, or what portion of our available strength should now be devoted to hastening its conclusion. Interesting though these subjects are, they should not be discussed in print. It is however most instructive and valuable for any officer to meditate on the various alternatives which our different problems have presented to us. Let him analyse various operations, particularly those which appeared failures, and consider carefully the possible alternatives and their advantages and disadvantages. If failures, what caused the failure and how are those causes to be avoided in future?

Was the operation faulty in conception or was it badly executed? Was there a blunder in strategy or in tactics, or did the defect lie in one of those innumerable abstract factors which lead to errors in judgment and wrong decisions?

If an operation was badly planned, was it due to the Command or to Staff work? If badly executed, was it due to bad leadership, to personnel, to material, or to faulty training?

If successes, what were the chief causes of success and how can they be repeated in future?

In all cases consider the intellect and characteristics of the directing personality on both sides, the views they hold, the system they were trained under, and the effect that these factors might be expected to produce. The same system of analysis can be applied to military as well as to naval problems. Strategy is all one, and its fundamental principles apply on land exactly as they do at sea. The naval officer should be perfectly competent to express opinions as to the general requirements of policy and strategy in Continental operations, but he should beware of touching any subject connected with military technique, tactics, or the employment of weapons. all matters affecting technicalities, such as artillery, the use of "ground," defensive positions, trench warfare, etc., the military officer is the only competent judge. Also in strategy, in so far as it deals with the forces employed and the methods of handling them, the military officer is alone aware of the innumerable technicalities involved. In these matters, the Naval Officer with a sound knowledge of strategy stands about midway between the military expert and the statesman or politician, who as a rule has picked up some smattering of "the strategical sense" but very rarely is a master of that complex art.

Needless to say, among the highest, there are often one or two whose genius for statesmanship can be relied upon seldom to err.

Before concluding, is it worth while expressing any opinion about the future? Obviously there are no sufficient data, obviously the work of a few days may at any time capsize the laborious preparation of months. It is futile to pretend that we have any clear prospect of early victory. But none the less we are quite justified in hoping that the enemy has now almost reached the culminating point of his many successes. It may be that the next three months will show a strong reaction in favour of the allies. Of one thing we may be quite convinced: we have in Great Britain sufficient resources of men, money, and materials, to bring the war to a speedy end if we organise and control them so as to derive the maximum efficiency from every unit at our disposal. If (one shudders

to say it)—if we had started the war with the whole nation organised on German lines, we should probably have won it already. However, taking it all round, we may surely thank God that we are not as the Germans are. If therefore, due to difficulties that are more or less inherent in the English race, the war is unduly prolonged, we can still feel confident of the ending. For we have in the British Empire a tradition of inexhaustible resources and slow but inflexible doggedness, which can wear down and outlast, if need be, a world in arms.

SEA-POWER OR SEA-LAWYERS?1

In the year 1911 a certain student of national economics asked me to give him a short statement on the existing situation as regards the safety of our food supply in time of war, and the advantages to be gained by signing the Declaration of London. This is what I wrote.

"WAR AND OUR FOOD SUPPLIES.

The controversy at present raging round the Declaration of London opens up once again the time-worn problem regarding our food supplies in war-time. The question is simple if studied in the right way, but no final decision can be reached until it is fully realised that a war problem must be looked upon from a war standpoint and must be investigated by people who have studied war. The safeguarding of food supplies is a problem of naval strategy, and as such it ought to be undertaken by the weapons of the naval strategist rather than by those of the international jurist.

The key of the situation lies in naval strength, for if we cannot defend our trade with the sword we certainly cannot do so with lawyer's parchments. Now naval strategy is primarily directed towards obtaining command of the sea, and this aim is to be achieved in one way only, namely, by destroying the naval forces of the enemy. We do not, therefore, need large defensive patrols to defend out trade; all that is necessary is to attack every enemy's ship that may threaten it. Our strategy must be based to some extent upon the movements of the enemy, but it must never deviate from a vigorous offensive. enemy's battle fleet puts to sea, our battle fleet must attempt to destroy it. If the enemy remains in harbour we must institute a rigorous blockade while turning our attention to the destruction of his commerce. For every hostile cruiser that endeavours to threaten our trade, at least one British cruiser must set out for 1 Written 1st February, 1915.

the purpose of destroying her. The true method of defence is, of course, to prevent the enemy's cruisers from ever getting near the trade routes, but, even if they succeed in getting there, they have no power for harm so long as they are not left unmolested.

It is to be remembered that the function of a battle fleet is to destroy the main forces of an enemy who may challenge our command of the sea; nevertheless a battle fleet is no more than a means to an end. The effective control of the maritime highways, which we call command of the sea, can only be exercised by cruisers. Therefore the more cruisers we have the better. The relative strength of our battle fleet in comparison with that of Germany has altered so much to our disadvantage recently, that for a time our programme of new construction could not include a sufficient number of cruisers. But cruisers and battleships are equally necessary for a naval war; moreover, the nation which acts always on the offensive is compelled to incur risks and dangers which demand a margin of superiority considerably greater than would otherwise be required.

This then, is a brief statement of our requirements. If the ships are forthcoming to enable our war policy to be framed as strategy dictates, it is absolutely certain that no serious danger can threaten our trade in war. An enemy who should attempt a serious attack upon our trade, without being able to make sure of command of the sea, would merely be wasting his time; while if command of the sea is actually to be his, he will not be able to spare a single ship during his struggle to obtain it. Further, it may be remarked, that those geographical limitations which largely influence any special case are very much in our favour. For example, the exits from the North Sea and the Adriatic are so restricted as to give us great advantages over any enemy with bases or commercial ports inside those waters. So much for the problem as a mere question of naval strategy.

We have now, however, to consider the matter in that far more complicated form in which it comes under the domination of Chambers of Commerce and international jurists. The Declaration of London, to put the matter plainly, comprises a mass of restrictions and limitations which the naval officer can only regard with deep consternation. To the strategist and the fighter the advantages claimed for this convention are clearly futile; for they relate solely to measures of defence and protection, which not only belong to the least important branch of strategy, but also are already assured so long as our naval strength is sufficient.

The best defence is offence, and the question for the strategist is 'how will this treaty help me to starve, ruin, or destroy my adversary?' The obvious answer is that it will not help at all. To a large extent the aim of the Declaration is to protect trade from the ravages of warfare—an aim of which one can only say that it is magnanimous but it is not war. In these days commerce is at the root of practically all those antagonisms which bring about war; and if the merchant is to call the tune, by demanding war in support of his rights and by drafting treaties for the regulation of war, then he must pay the piper and bear his share of the struggle."

To be an opponent of the Declaration of London has long been, and perhaps still is, to place oneself in a small minority looked down on with scorn by the politicians and the pundits. But the truth is that there are very serious objections to all documents of this nature. Each one tends to cut off a little more from the value of sea power and therefore from the value of the British Navy. Each one adds further to the long list of lawyer's parchments which no one, not even England, will really be bound by when vital interests are at stake, though England very possibly would handicap herself by being the last country to depart from them. Each one definitely puts a premium on national dishonesty, by offering great advantages to that Power which first breaks the law or bribes a neutral to do so in her interests. Each one adds more to the perplexities of the Naval Officer and the juggling powers of International lawyers. And each one, in its construction, affords golden opportunities for the representatives of one Power to fool and hoodwink those of the others.

It is in this last that the Declaration of London is perhaps the most conspicuous. To demonstrate these points let us take now a few cases from each of the three principal treaties affecting the subject.

The Declaration of Paris 1856 has the one merit of brevity and contains only four articles.

Article 4 relates to blockade, which has not been resorted to during the present war. The other articles are as follows:—

- (1) Privateering is, and remains, abolished.
- (2) The neutral flag covers enemy goods, with the exception of contraband of war.
- (3) Neutral goods, with the exception of contraband of war, are not liable to capture under the enemy's flag.

Now Article 1 merely states an untruth. Privateering has never actually been abolished, and in 1907 it was officially legalised under another name. The 1907 Hague Convention permits any merchant vessel to become a privateer (or to be "converted into a warship," which is an impossible feat short of reconstructing her) provided that her Commander instead of obtaining "letters of marque" obtains a "commission from the proper authorities." There are other fanciful stipulations such as "The crew must be subject to military discipline," i.e., presumably they must not be mutinous; and "Merchant ships converted into war-ships [sic] must bear the external marks which distinguish the warships of their nationality ": this stipulation is in practice merely ludicrous, on paper it no doubt looks excel-As regards Articles 2 and 3, it is obvious that they greatly restrict the power of the superior Navy to damage the commerce and national life of its adversary. It may of course be said that these articles help British traders when we are In theory no doubt they do. Actually they do not, for nations at war, as we found when Russia fought Japan, regulate their action solely by their obvious interests on the one hand and the diplomatic and military strength of the nation they injure on the other. This will be so in every war that occurs, and no lawyer's parchments will make it otherwise.

We come next to the Hague Convention 1907, from which I have already quoted a few clauses which legalise the existence of the modern privateer.

Four chapters are inserted under the illuminating heading—"Convention relative to certain restrictions on the Exercise of the Right of Capture in Maritime War."

Truly it would be well if all Declarations on these subjects were printed under the same heading, and we should then at least know what we were signing.

Here are a few articles from that Convention:-

"(1) The postal correspondence of neutrals or belligerents, whatever its official or private character, found on board a neutral or enemy ship on the high seas is inviolable. If the ship is detained, the correspondence is forwarded by the captor without the least possible delay."

Therefore if we board a Dutch steamer (or even a German steamer) proceeding from the Thames to Antwerp, and find her full of letters and parcels addressed to the Kaiser, we must forward them on as rapidly as possible!

"(3) Vessels employed exclusively in coast fisheries, or small boats employed in local trade, together with their appliances, rigging, tackle, and cargo, are exempt from capture." "Appliances" might no doubt include wireless apparatus.

The article certainly goes on to say that these vessels are exempt only so long as they take no part in hostilities, and the Contracting Powers bind themselves not to take advantage of this exemption, but this does not alter the solid fact that Germany in this war has taken very great advantage of it and is making use of that advantage daily.

"(4) Vessels employed on religious, scientific, or philanthropic missions are likewise exempt from capture." The neutral and other fishing vessels filled with German spies are no doubt employed on a religious mission—to wit, furthering the Divine decree that the Kaiser shall be master of Europe, and his enemies shall be slaughtered as a tribute to German "Kultur."

Next we come to the Declaration of London, which for low cunning and subtlety of construction is hard to beat. What joy its signing would have caused to the German Junker, for never was there designed by man an instrument better suited for drawing the lion's teeth.

The Declaration of Paris, and Hague Conventions 1907, had gone far towards robbing the British Navy of its full value in war, but this declaration of 1909, in so far as it was constructed by Germans or their friends, was designed as the finishing touch which should render our sea power practically impotent in any war with Germany. Certainly the power to stop German shipping still remained to us, but the power to end a war by economic or military pressure such as we exercised against Napoleon was to be denied to us for ever. All the raw materials for German industry, all the needs for German agriculture, were placed on the list of articles which may not be declared contraband of war (vide D. of L. Article 28).

Included in the free list (vide same article) were a quantity of items indispensable for the prosecution of a European war. Mercifully we escaped signing this monstrous document, and we are now holding up large cargoes, destined for Krupp's, which were intended to have been on the free list for ever.

By way of disarming suspicion, the preamble of Article 28, and the Article immediately preceding it, ran as follows:—

- "27. Articles which are not susceptible of use in war may not be declared contraband of war."
- "28. The following may not be declared contraband of war: -- "

The following items of Krupp's requirements (which I have put in italics) show the guileless way in which they were rendered inconspicuous.

- "(1) Raw cotton, wool, silk, jute, flax, hemp.
 - (3) Rubber, resins, gums, and lacs; hops.
 - (5) Natural and artificial manures, including nitrates and phosphates for agricultural purposes.
 - (6) Metallic ores (!!).
 - (7) Earths, clays, lime, chalk, stone, marble, bricks, slates, and tiles.
 - (11) Bleaching powder, soda ash, caustic soda, salt cake, ammonia, sulphate of ammonia, and sulphate of copper."

Most of the articles on the free list which I have placed in italics are now, very properly, ordered to be treated as uncondi-

tional contraband. Beyond these we have a further long list of war material which even the English could never have allowed on the free list. These therefore are classed as "conditional contraband" and include such items as fuel, lubricants, balloons and flying machines, railway material, forage and grain, foodstuffs, vehicles of all kinds for use in war, all kinds of nautical instruments, etc., etc.

This list covers such a vast array of vital war material that its free import into Germany, even when at war with us, would seem a miracle of good fortune scarcely to be expected by them. Yet they boldly inserted Articles 32 and 35 whereby not only conditional contraband, but even absolute contraband, could be brought across the North Sea under our very noses and conveyed to Germany through a neutral port. We now know that "Teutonia, Ltd." established at an office in Rotterdam, was a Krupp agency for receiving war material at that port and transhipping it rapidly to barges for conveyance up the Rhine to Essen. These cargoes to Rotterdam were even being brought in English steamers and sent by Companies owned by aliens who had become naturalised Englishmen. The delightful Articles authorising this strange traffic are worth quoting.

- "32. When a vessel is carrying absolute contraband, her papers are conclusive proof as to the voyage on which she is engaged, unless she is found clearly out of the course indicated by her papers and unable to give adequate reasons to justify such deviation."
- "35. Conditional contraband is not liable to capture, except when found on board a vessel bound for territory belonging to or occupied by the enemy, or for the armed forces of the enemy, and when it is not to be discharged in an intervening neutral port.

"The ship's papers are conclusive proof both as to the voyage on which the vessel is engaged and as to the port of discharge of the goods, unless she is found clearly out of the course indicated by her papers, and unable to give adequate reasons to justify such deviation."

The italics are mine, but they are hardly needed to emphasise the amazing trap which so nearly caught us.

Much more amazing is the fact that the worst items I have quoted from Articles 24, 28, 32 and 35 of the Declaration of London are all embodied in the Naval Prize Manual 1914, vide clauses 32, 36, 37, 38 and 42 thereof. This Manual is of course binding on all Naval Officers, but fortunately the Admiralty have largely amended it since war began.

The main point about all this is that slowly but surely the birthright of the British Navy is being bartered away. There may come a time when these ever-increasing restrictions will be useful and beneficial, but that day can only come when we no longer need a navy—for in that day the navy is reduced to impotence. Let the lawyers and politicians clearly understand this: if they want a navy to do their fighting for them and defend the Empire, they must leave it unhampered by fantastic treaties.

If they must have their treaties, then let them pay off the navy and see if they can develop the treaties so as to achieve equally satisfactory results without it, for parchment is certainly much cheaper than warships.

In the Treaty of London there are of course many grave dangers besides those that have come to light in this war, but it is deeply to be feared that, when the war has ended, the lawyers will be seized with a new paroxysm of treaty-making. If the unfortunate Naval Officer cannot succeed in stopping them altogether, let him at least be warned in time and try to mitigate the evil. Why should we not follow that policy so often adopted as a last resort, and seek salvation in being candid and truthful? Why not say, in signing any ambiguous or doubtful Convention, "We sign this Convention only subject to certain definite reservations, which are as follows:—Our signature indicates that we believe it to be fair and beneficial so far as can be foreseen, and it does not appear to menace our security or national welfare. We are anxious and willing to apply it for the benefit of all nations in so far as we can do so without sacrifice of vital But we will not bind ourselves to adhere to it in any interests. circumstances where it becomes a menace to our national security or an obstacle which may hinder us from bringing a war to a successful conclusion."

Actually, every nation in Europe has acted on the above principle as regards treaties. England has done so many times: why should we not be honest and say so? Why not legalise the well-known truth that when a nation is fighting for her life she will not be hampered by lawyers' regulations which, if broken, will only cause to neutral merchants a certain amount of loss that they can easily be compensated for?

Obviously the same principle does not apply to a case such as violating the neutrality of Belgium, for that is a direct breach of national honour which leads inevitably to results that can only be described as a crime against civilization.

These reservations are intended to cope with a situation such as the trap laid for us in the Declaration of London, or some future eventuality such as the following:—

Suppose we make copra a free import, and twenty years hence it is found that a new ray can be evolved from copra which will explode a ship's magazine at 10 miles' range. If then we went to war with Spain, a country whose coast cannot well be blockaded, should we permit neutral steamers with cargoes of copra to pass continually into Spanish ports because we had idiotically put it on the free list?

Had we signed the Declaration of London we should now be in this position as regards all contraband of war which Germany might arrange to import through Dutch or Danish ports. The reservations suggested would at least make these terrible treaties a little less of a leap in the dark, and would slightly reduce the extent to which they undermine the power of our Fleet and the security of the Empire in time of war.

The above remarks were written in February, 1915. Since then the writer's warning has been amply justified. There exists now a party, perhaps small yet not necessarily impotent, whose aim it is to get the Declaration of London immensely extended. Their main principle we understand is "abolition of the right of capture of private property at sea," and they argue, from the usual defensive standpoint, that it would be very valuable to Great Britain. It is perhaps not

improbable that these views will be presented to and even pressed upon the Government, so the danger is a present one.

The arguments against this plausible but disastrous creed are so numerous that no attempt will be made to state them here. The writer will content himself with expressing a firm conviction that if ever we are beguiled into signing such a treaty we shall bitterly repent it when next we find ourselves at war with a Maritime Power.

THE FUTURE OF THE ROYAL CANADIAN NAVY.

All our past comes wailing in the wind, And all our future thunders in the sea.

WHATEVER the other results of the great war may be, and whatever the total loss in blood and treasure to the British Empire, it will have been welded together in a manner which would otherwise not have been accomplished in a century of talk and misunderstanding.

If only re-action is not allowed to assert itself too greatly, representation of the various units of the Empire in an "Imperial" Foreign Office in London will probably be one of the first questions to be approached. Also the question of Preference between the various units will more than likely come to the fore. But of all the ten commandments of Empire the greatest and first must always remain that of self-defence. There is a danger that prosperous countries which have been long immune from the threat of attack, eventually come to think that they are never likely to be attacked, whereas in reality the more prosperous they become, human nature being what it still is, the more likely becomes the danger of some prepared and covetous nation at some time or another attacking them, or in some way challenging their position.

In the case of Canada there is an added danger, which consists in the fact that the armed forces of Great Britain have always been at her disposal in the long and trying years during which she has been steadily and surely welding herself into a nation.

Take for instance the population of the centre and prairies of Canada. It has been the existence of the British fleet that has guaranteed the safe passage of grain and timber to all parts of the world, but it is an undoubted fact that some of these people, very intelligent in most ways, have on occasions failed to realise this all important fact. This, however, is hardly to be wondered

at, as the sphere of the activities of the Royal Navy is very far removed from the prairies, and also the lives and work of these people are such that little time is left over for thought and study in the larger political questions, upon which all the minor political hopes and aspirations really depend. It is probable, however, that the present war has helped to open the eyes of a great number of people, but it still remains for the statesmen of Canada to keep its true lessons always before their eyes.

It is only proposed in this short essay to outline the present state of affairs existing in the Canadian naval service, and submit a scheme for the furtherance or completion of that service on natural lines, taking carefully into consideration the geographical and social conditions existing in the Dominion.

Canada is fast becoming a nation and is developing a national type of her own. She still, however, retains British institutions, cherishes British ideals, and, as the present war proves, is obviously heart and soul with the British Empire, as one of its great partners.

She has already provided herself with a scheme of land defence, which is developing, and a nation with a large seacoast that is prepared to defend itself on land, eventually will be compelled to extend this defence to the sea in the form of a naval service.

The naval policy of the late Government fully recognised this fact, and shortly before giving up the reins of office, started a Canadian Navy. The Conservative Government came into office very shortly after this, more or less under the promise to certain sections of the population of Canada, to abolish the Canadian naval service. At first nothing was done to bring this about, the new Premier, the Naval Minister and others visiting England to consult with the British Ministers on the general situation in Europe, and on the information received from those ministers, formed their opinion as to what was considered most advisable in the matter of naval defence for the Dominion, taking into consideration the general political situation existing at that time.

Now that war with Germany has come, there can be no harm in saying that what the ministers saw and heard in

"secret" appears to have convinced them that there was a distinct danger (or emergency) in the political situation, and that the proposed present of three battleships would not only be the most acceptable, but the most strategically sound policy for that moment. Perhaps if less secrecy had been observed, the Senate and Opposition would have been convinced of this existing emergency and would not have refused to pass the Bill. Be that as it may, owing to the failure of the Bill to pass through both Houses no alternative policy to that of the late Government was adopted, and the results of that policy all but disappeared.

The two ships Niobe and Rainbow purchased from the Imperial Government, were kept in commission with nucleus crews consisting of a few officers and men lent or retired from the Royal Navy. The two dockyards were maintained, and the naval college for cadets at Halifax was also kept open, cadets on finishing their time there being drafted to ships of the Royal Navy as midshipmen Royal Canadian Navy.

At Esquimalt, a certain number of men had been given permission to drill as naval volunteers in the dockyard, in the hope of future Government recognition as a Canadian Naval Volunteer Reserve. This recognition was conferred about a year after their inauguration and a few weeks before the outbreak of hostilities. Twelve hundred officers and men are allowed for the Dominion, including companies to be raised on the Great Lakes and Atlantic.

The Fishery Protection Service was brought up to a higher state of efficiency under the control of the Minister of Marine's Department, new and fast vessels being obtained for the service, manned by a better personnel than in the past. This then was the situation before the outbreak of war. When war was seen to be imminent, and it was not yet known whether Japan would act with her ally Great Britain, the situation for Canada on the Pacific was undeniably critical, especially when it became known that the China-German naval squadron with transports had disappeared, leaving Tsingtau for some destination unknown.

Before the declaration of war the Rainbow had been hastily commissioned, the ostensible reason given, being that she

might carry out the Fishery Protection duties on the Alaskan coast, as the only two British ships available for this duty were the Algerine and Shearwater, and these vessels were employed off the coast of Mexico guarding any British interests which might be threatened, owing to the unstable political conditions existing in that country.

Somewhere off this coast also were the two modern German light cruisers Leipzig and Nürnberg. A day or so before the outbreak of war the Canadian Government succeeded in purchasing two submarines from an American firm in Seattle, these boats being ready for sea, having recently been completed for the Chilian Government.

Retired officers of the Royal Naval Submarine Service were found in Canada to take command of these vessels, and willing volunteers were obtained for the crews from amongst the R.C.N.V.R. at Esquimalt. Torpedoes were hastily forwarded from the east, and these vessels were ready for service in a very short time.

The Rainbow had proceeded to sea "to protect the trade routes," and the examination service was enforced at both Halifax and Esquimalt by the Fishery Protection vessels. The Rainbow's ship's company consisted of its original complement, plus a draft of officers and men from the Niobe, plus a draft of officers and a small detachment of marines from England, plus two officers and 50 men of the R.C.N.V.R. In addition to the Rainbow a Japanese cruiser soon arrived, and H.M.S. Newcastle was hastily despatched from the China station.

H.M.S. Algerine and Shearwater narrowly escaped capture by the two German light cruisers, and on arrival at Esquimalt were dismantled, their crews being sent to Halifax to complete the ship's company of H.M.C.S. Niobe, which was then fully commissioned by the Newfoundland Naval Reserve, some volunteers, and the remains of her original crew that had not before the outbreak of war been drafted to the Rainbow.

All this points to one fact and one fact only, and that is that the West Coast of Canada at the commencement of hostilities was entirely unprepared to defend itself, or assist in the protection of the trade routes, or to prevent a landing of hostile troops on its shores. The same thing applies to the East Coast, only in a less degree, as the Royal Navy is available in the Atlantic, and as Canada is voluntarily fighting a joint war with her senior partner Great Britain, that navy is at her disposal.

It is now proposed to consider the West Coast of Canada from a naval point of view, when it will be seen that this coast is a particularly easy one to defend owing to its geographical and physical peculiarities. Modern weapons such as the submarine, seaplane, and mine if used for defence would make it nearly impossible for hostile men-of-war or transports to approach the coast, and the nature of the country itself would make it almost impossible for enemy troops to be maintained when they had effected a landing. If then Canada first effects a sufficient defence of this coast, the next step would be to extend this passive defence of submarines, etc., into the active and more efficient defence of offensive action in the shape of cruisers, battle and light, to destroy or capture a possible enemy's commerce and protect her own.

Before developing this idea, the policies of the other two partners of the British Empire in the Pacific must be discussed. Australia has already developed and is still further developing a fleet of her own, the present war having thoroughly proved the soundness of her policy. She destroyed one of the enemy's cruisers, transported expeditionary forces, big and small, safely for many thousands of miles, and took possession of several enemy colonies.

New Zealand had presented to Great Britain for use in the Royal Navy one battle cruiser, but since doing that the trend of her naval policy appears to be in following in Australia's footsteps and producing a unit of sea defence of her own however small it may be to begin with.

Surely in view of these facts it should be the best policy for Canada to develop a unit in the Pacific of her own, increasing it as financial and political considerations allow? Let us look five years into the future and see how this policy would place the British Empire in the Pacific in that time.

Australia should by then have a very fine squadron of her own nearly entirely manned by Australians; New Zealand a

small but modern unit ready to act with Australia and Canada against a common enemy in the Pacific. Then Canada under the suggested policy would have perhaps a battle cruiser, certainly some light cruisers, and smaller craft for coast defence, with dockyards in full swing and shipbuilding facilities of her own nearly complete, equally ready to stand side by side with her partners.

Then let us look even further into the future, say 25 or 30 years, when the populations and sea trade of Canada, Australia and New Zealand have greatly increased.

The joint fleets of these three countries would then be able to guard the interests of the British Empire very effectively. It is easy to throw the imagination still further ahead and the advantages of the proposed policy appear even more convincing.

Having outlined a policy, the next thing to discuss is the best method of developing it on right lines.

Looking definitely five years hence, the end to be aimed at in that time will be found to approximate very much to the original aims of the Laurier policy.

Owing to the presence of the Royal Navy in the Atlantic, and its absence in any force in the Pacific it will be advisable to make the safety of the coast of British Columbia the first consideration.

A naval conference of ministers from Canada, Australia, and New Zealand is sure to meet in the near future to discuss the political and strategical questions of common interest to all three nations, and expert technical advice will be available for those ministers. If Canada decides to develop a unit of her own, the future unit would probably consist of one battle cruiser, some light cruisers, six destroyers, six submarines, one depot ship, mine-layers and sweepers, and seaplanes. The dockyard at Esquimalt is already in running order and capable of dealing with plenty of work.

Messrs. Yarrow have purchased the shipbuilding and repairing yards, and in a very few years should be able to build all smaller craft either at Esquimalt or some yards yet to appear. Until this can be done, the first ships must be built in Great Britain. This matter must be clearly explained to the people

of Canada, who do not perhaps all realise how long it takes to raise a plant for building ships, guns, and engines.

There is already a training ship available in the Rainbow; also a submarine depot ship and two submarines. Two light cruisers and destroyers could be ordered and quickly delivered after the war. A good start could then be made.

The chief difficulty to be overcome in a country like that of Canada, at her present stage of development, is the problem of efficiently manning the ships, and this can only be done by adapting the manning problem to the local conditions, and not attempting, as was attempted in the first instance, to man the new navy on the lines of the navy of Great Britain, where the surplus population is very great, and the social and economic conditions of the country entirely different. The new navy's officers and men can be obtained from Canada if for many years to come something in the way of the following scheme is adopted. The proposed scheme could be modified or altered as the population of Canada increased.

(i.) A small sufficiently highly paid permanent force must be maintained to keep nucleus crews of the higher ratings always on board the various ships. This is necessary to keep the machinery, guns, and torpedoes ready for service. These men, to begin with, will have to be obtained from the Royal Navy, and should only be chosen from among the best available.

This class of men should be long-service men, and after the initial number necessary has been obtained from the Royal Navy, their successors should and could be recruited in Canada as boys and youths, in sufficient numbers for future requirements.

A carefully thought-out scheme for pay and pensions should be prepared before any recruiting commences, on the advice of officers and others capable of giving the Naval Minister the best advice.

This scheme should be drawn up amongst local conditions, and the officers consulted should have some practical knowledge of those conditions.

With pay sufficiently high, and a sound scheme of

pensions in vogue, there should be no difficulty in obtaining the comparatively few men required to man the prospective number of ships with efficient nucleus crews. The petty officers and men of this class could be designated Class A.

- (ii.) The conditions of Canada are such that there are at present, and will be for many years in the future, a large body of men who for four or five months in each year are unemployed. These consist of men employed in surveying, in lumber camps, and many other forms of employment, and there is no doubt that these men supply a first-class ground for recruiting for a First Reserve, which could be designated Class B. The numbers of this class should be in excess of what is actually required, as allowance would have to be made for a percentage of men being unable to answer a call very promptly—owing to the size of the country, and difficulty of hasty transport. This reserve could do three or four months' sea-training in the winter, and would always be available and liable for service in the event of an emergency arising. (During the formation of the R.C.N.V. Reserve a number of men asked if they would be able to join under some such conditions.)
- (iii.) Class C, or the Second Reserve, could be formed out of a Royal Canadian Naval Reserve on exactly the same principles as the Royal Naval Reserve of Great Britain, and arrangements could be made between the various Governments of Great Britain and the Dominions for making these officers and men interchangeable, for the purpose of their annual drills. This is very necessary, as often officers and men of one navy may not be near enough to their home training depots to enable them to put in their proper drills at those depots. Under present conditions many officers of the Royal Naval Reserve of Great Britain would welcome facilities to carry out their annual drills at Esquimalt.

This second reserve would increase yearly with the increase of the British Empire's shipping on the Pacific,

and after the showing of this war there will be no need to enquire into its merit.

The splendid manner in which the officers and men of the Royal Naval Reserve have carried out their duties in the fleet will then be known to everyone.

(iv.) Class D, or the R.C.N.V.R.: This body of men is already in being and, as with the R.N.R., there is no need to speak of their value, and Canada herself knows how useful they were in the early and trying days of the present war in spite of the short length of time they had been in existence.

This reserve consists of all classes of men, who live on or near the sea and Great Lakes, and who wish to fit themselves for service to their country on the sea in time of a national emergency.

At present 1,200 are to be allowed for Canada. As time goes on and the population of the country increases, their numbers also will undoubtedly increase.

Here, then, is an outlined scheme for manning the Royal Canadian Navy, which can be modified and improved as experience dictates, or political and financial necessities allow. It is quite possible that experience will show in a very few years that sufficient recruits will be forthcoming to man the navy entirely with men belonging to Class A. If this is the case, Class B would be gradually reduced in numbers until the need for its existence had ceased, when it would disappear. This is entirely a matter of opinion, which time would prove or disprove.

The next matters to be considered are the training facilities.

- (i.) A moored training ship (or barracks) should be provided at Halifax and Esquimalt. The Niobe and Rainbow are both available.
- (ii.) The first completed modern light cruisers should be used as sea-going training ships, one on each coast.

These training ships would carry out winter cruises of several months for the instruction of Class B, Class C, and any of the R.C.N.V.R. (Class D), who wished to avail themselves of the opportunity of getting some seatraining.

- (iii.) A submarine tender at Halifax and also one at Esquimalt is a necessity. The Shearwater is at present carrying out this duty at the latter place, the two submarines working with her.
- (iv.) A modern destroyer should be obtained for each port for instructional purposes as soon as possible. The R.C.N.V.R. (Class D) would often avail themselves of the opportunity here offered for week-end instructional cruises.
 - (v.) Drill halls with modern weapons should be supplied to each volunteer centre. (This was being arranged for on the outbreak of war, and will undoubtedly go forward when possible.)

Gunnery, torpedo, and engineering schools could be started, experience showing where these institutions could be most suitably located.

As time went on, it would be most necessary that officers of all ranks should every few years gain experience of fleet work, and this experience could be obtained by lending officers of the Royal Canadian Navy to the Royal Navy for short periods.

The time will undoubtedly come when the squadrons of Canada, Australia, and New Zealand in the Pacific will carry out combined exercises and manœuvres, and it will then only be necessary for the senior officers of each fleet to gain experience in the grand fleet of Great Britain.

The Canadian ships in the Atlantic could obtain experience in fleet work with the ships of the Royal Navy every year or alternate year. Also, looking some years ahead, it is certain that joint manœuvres of all the British Empire's fleets will take place every few years.

The next thing to be considered is the matter of obtaining officers and petty officer instructors from the Royal Navy for instructional purposes, and this question is, perhaps, the most important of all, as on the manner on which the foundations of the new service are laid the future of that service entirely depends.

Owing to the undoubtedly higher average of intelligence existing amongst those men most likely to join the Royal

Canadian Navy over those that join the Royal Navy, the officers and petty officer instructors from the Royal Navy should be most carefully chosen, the officers for their known zeal and interest in their profession, and the petty officers for their tact and ability in handling and instructing all sorts of men. When possible, only unmarried junior officers should be borrowed from the Royal Navy, as it is only natural that more extra time will be given by unmarried than married officers to the general interests of the newly recruited men. Also, great care should be taken in early years to change these officers and instructors at not longer intervals than three years.

There are already a certain number of zealous retired officers of the Royal Navy, forming a nucleus of officers of the Royal Canadian Navy from which to expand to the numbers required for the new service as instructors. In addition to these there are quite a number of midshipmen belonging to the Royal Canadian Navy already serving in H.M.C.S. Niobe, Rainbow, and submarines; also in ships of the Royal Navy.

(It is only fair, in passing, to remember those gallant young officers, the first of the Royal Canadian Navy to lay down their lives for the common cause of the British Empire, in the battle off Chili, when Admiral Cradock's squadron was destroyed. They died, as all brave men would most wish to die, "in facing fearful odds.")

The officer instructors and petty officer instructors for the various R.C.N.V.R. depots should for some years be lent from the Royal Navy for periods not exceeding two years, and when the Canadian Navy is eventually in being they should be lent from the sea service of that navy also for a period not exceeding two years. This is an important detail, as the R.C.N.V.R. will be even more a part of the whole Royal Canadian Navy than the R.N.V.R. is of the fleet of Great Britain. By changing officers every two years the volunteers are ensured of coming into contact with the new ideas and inventions in vogue in the fleet at sea.

Every possible opportunity should be given to these volunteers to go for short cruises and gain practical experience in sea work. Their great keenness enables them to pick things

up in a far shorter period than the long-service men. Their value, even in an untrained state, was demonstrated by the work they did when H.M.C.S. Rainbow had to be hurriedly commissioned and also in the quick way they learned to handle the submarines.

There is a delicate subject connected with the selection of officers from the Royal Navy which should, however, not be The democracy of Canada and the other selfgoverning Dominions is undoubtedly far in advance of the democracy of Great Britain in some ways, and many officers who are first-class officers in the Royal Navy will fail in the navies of the self-governing Dominions through their inability to adapt themselves to their new surroundings. This is an important matter in the selection of officers which requires careful consideration. It really means that the officers should, in addition to having the necessary tact, be men with the gift of understanding and working with a people of a nationality slightly different from their own. Every Englishman does not possess this faculty, and it is not to be denied that the various parts of the British Empire, being widely separated, are developing different nationalities of their own in spite of their common love of freedom, and justice, and similar ideals. Anyone who knows the conditions existing in the various Dominions knows this, and should approach this subject in all good faith for the good of the new services. Nearly all the mistakes, made by ministers and officers of Great Britain in dealing with her Empire in past history, were due to the fact that they forgot or failed to realise that they were often dealing with men of a different nationality from their own.

A danger to be avoided is, that no officer should ever be kept in one appointment for too long a period; this is liable to be overlooked when the new service is still young. Also no officer should at the same time be in command of a ship and a shore establishment. He cannot if he is a zealous officer give the best of himself to two entirely different jobs.

Men who have served in the Fishery Protection Service should not be allowed to join the navy, as the conditions prevailing in the two services are not the same, and they would tend to cause discontent amongst the men of the navy, owing to the different standards of discipline in the two services, the true reasons for which would not be properly understood.

This short essay is not intended to be thorough or dogmatic, but merely a suggested outline for the formation of a Canadian Naval Service on true lines, taking into consideration all known political, strategical, social, economic, and geographical conditions in the Dominion of Canada.

There is no doubt that, owing to years of uncertainty, and the unfortunate fact that the Canadian naval policy for a time became the butt of party politics in the Dominion, a certain amount of lost prestige will have to be regained, and there should be no more jeers from the Press at a "tin-pot" navy. Let all acknowledge their mistakes, where they have made them, and things will yet be well. The present war has been, and will yet be, a great teacher of the truth, and there should be no hesitation on the part of any minister or officer in acknowledging that his views have changed, if indeed they have done so.

If we assume that this war will settle European questions for many years, we cannot deny that there are other tremendous problems to be solved in other parts of the world in the near or far future. These problems may have to be solved by force of arms owing to the irreconcilable outlook and instincts of the various peoples affected by them.

The great danger, as far as the future of the Canadian Naval Service is concerned, is the danger of re-action. The greater the action, the greater the re-action, and no man can deny that the action in the present case is very great.

It is the business of those in authority to see that the reaction is not too great and strike now while the iron is hot, and not wait until forgetfulness and returning material prosperity have resumed their sway.

When the history of the last and present centuries is read by our successors many years hence, one of the greatest points to be noticed in it will be the manner in which the fleet of Great Britain has been kept up to the mark through 100 years and more of peace. But at the same time it should be remembered that we had the chance of learning a lesson of re-action from the war with America in 1812 when it was found that our fleet had sadly deteriorated after the re-action from Trafalgar and all the successes that led up to it. This comparatively inexpensive lesson perhaps altered the world's history.

It is to be hoped, therefore, that Canada, as part of the British Empire, will have no need to learn more than this war has taught her.

If the British Empire should again have to fight for its existence, perhaps many years hence, we can only trust that it will, as a whole, be found as ready on the sea, in the Atlantic and in the Pacific, as it was in August, 1914.

The British Empire 100 years hence may be far greater in the Pacific than in the Atlantic. This perhaps is the most important fact that those in whose hands Canada's future lies, should keep before them at all times. The ability to look into the future requirements of a country like Canada is the prime necessity in dealing with the naval service.

If the statesmen of Canada agree to the necessity of naval defence no time should be lost in forming a policy, outside of "party politics" at all costs. Then the day will surely dawn when their descendants will bless their foresight and thought in well and truly laying the foundations of a great Canadian fleet.

THE WORK OF THE GLASGOW,1

AND THE ACTION OFF CORONEL.

PART I.

Rio de Janeiro,

August 4th, 1914.

War seems fairly certain now. We are prepared for battle and all ready to leave at a moment's notice. The ship looks a wreck as all wood that can go has been landed. All the men are very keen to start indeed. The only shirkers being the Maltese canteen people who asked to be sent ashore. They have gone. Later—Mail closed. War will be declared to-night.

rith.—We are coaling to-day in a more or less sheltered spot outside territorial limits. We left Rio at 9 p.m. last Tuesday and since then have been cruising about stopping ships, etc. We have seen neither hide nor hair of any German. We are stewing in this heat. It is all right except at night when everything is battened down so as to show no lights. We have another doctor, a retired staff surgeon who practices at S. Paulo. He came out in our collier and volunteered. All sorts of R.N.R.'s which we recruit from ships at sea, mostly stokers.

15th.—We went on a little run in search of a German ship we knew of, but she was nowhere about; then back again and coaled again on the 13th, off again directly we had finished and tried a bit the other way. Yesterday we picked up a prize, a German ship belonging to the Hamburg S. Amerika Line. She had no wireless and did not know that war had been declared. We got the officers and crew on board here. They were awfully surprised of course and rather hurt that England was against them, and full of curses at Italy. Their poor captain is heartbroken at losing his ship. It is very bad luck ¹ Extracts from the letters of officers.

on them as they are a very nice lot of fellows. We shipped them off in an English ship to-day for Buenos Aires and they will have to stop there on no pay or anything till the war is over. We have a fine fat ship coming to assist us in the shape of the Monmouth, which will be very useful. This station is too big for one ship like us without any home. She should be here in a day or two.

20th.—We picked up the Desna the other night and sent our mail and got some provisions from her. That was Sunday and we were expecting to meet the Dresden that day and fight her, but she didn't turn up, though there was a false alarm. We were all peacefully employed in various ways about 5 p.m., when "action" was suddenly sounded off. I was changing into blues, but I was up in about five seconds. Got on deck and into the conning tower which is my station and saw a man-of-war all right. We were all ready for her and could have started firing at 9,000 yards, which is about as far as our guns are much good at, when she turned a little and hoisted the Brazilian Ensign. It was a pity as we had her stiff and should have sunk her in two minutes. We know of one or two Germans about but none very near us, and I am afraid we shan't fire a shot. The Monmouth will be here on the morning of the 22nd and I expect we shall go down to the Plate then.

25th.—We coaled again and then went north to meet the Monmouth. Picked her up on the 22nd and both went back to our burrow, she coaled, we keeping guard outside in the meanwhile. While we were there we heard that the Dresden had sunk a British ship loaded with grain somewhere off Pernambuco—that is not properly speaking on our station, but we asked permission to go and look and see if we can find her. I gather there is a big drive going on in the Atlantic now. Must be about 30 cruisers of the Allied Fleets there. We shall block the south escape more or less and expect to see the Dresden shortly. I think ourselves and the Bristol are about the only two fast cruisers we have there except the armed merchant ships. We have got one of our colliers safely, and have bagged another taking coal for the Argentine Railways. I expect we shall fight the Dresden before this goes.

Sept. 2nd.—We went up with the Monmouth on the Dresden hunt and searched all the shoals and places on the N.E. corner of S. A. by Cape San Roque, and found nothing at all. No sign of Dresden, or colliers. While we were up there one of the merchant cruisers, Otranto, an Orient boat, joined up with us and we all came back to our burrow where we are coaling Admiral Cradock is searching the other part of the coast further to the west. While we were up there the Dresden came south-must have passed us whilst we were coaling last time—and sunk a ship off Rio Grande do Sul. We are going south directly we have finished coaling to look her up. They know where we are the whole time and simply make a dive in and attack a ship where we are not. They don't respect the neutrality of Brazil at all, just dash in and coal, taking their colliers with them to any place where they won't be noticed for a few hours. We have to respect Brazil's neutrality and so are at an immense disadvantage, as it is impossible for three ships, of which only two count, to guard 3,000 miles of coast. are two others somewhere but nobody knows exactly where. We were coaling all yesterday and last night and have nearly finished now. Monmouth coaling too, and Otranto keeping guard outside.

7th.—We shall get to Monte Video to-night and lay outside and find out whether they will let us coal inside or not. If so we shall go inside and do so to-morrow. Monmouth is following on astern. No German ships of any kind have been seen. Admiral Cradock's lot are coming down our way and we push on to the south (Falklands) to see if they have gone that way. It is poisonously cold here and we have had rain all the way down, but it is nothing to what we are going to get down south. It will be awful and we can't have a fire as the stove pipe gets in the way of the foremost 6". We have practically no food left and are down to bare Navy which isn't enough unless you can buy more, and we can't as we have no canteen. If we had known we were stopping in commission another six months we should have had plenty of everything.

11th.—We got into Monte Video according to programme on Tuesday morning and stopped in till Wednesday morning

so everyone had a night in for once. It bucked everyone up a lot too. We got all the provisions and things we wanted all right, and there is enough to eat again. All the people we knew in Monte Video were very good. They came off in shoals to see us and were eventually allowed on board. They sent off all kinds of things too, books principally and fruit and cigars, etc., and altogether behaved nobly. They have heard that we were sunk about six times, and were quite relieved to see us again. The Monmouth and Otranto were rather a surprise to them too and they didn't know about all the other ships either. are a lot of Cradock's working down this way too. is coming himself in the Good Hope. No more news of the Dresden. We are doing a hold up on Germans off the Plate now, but of course don't see any as they are afraid to move. Got some more R.N.R. ratings from the Orduña. I wish we could catch the Dresden and sink her but am afraid we shan't see her. One of the others has been heard of on the north coast.

12th.—Off north again. Dresden has been heard of off Sta. Catharina and we are all closing on that place. We ought to get her this time with any luck. She must have been about level with that place, 300 miles off the land, laying low since she was last heard of. We, and Otranto are going up fast to try and get her, but I expect she will have moved on somewhere. There is a thick fog in patches but we are going on and risking it.

15th.—We got to Sta. Catharina on the night of the 13th approaching with great caution, and kept guard on the entrance all night. Went in and thoroughly searched the place at daylight and found precisely nothing. Too late again. Went on further up the coast and met the Admiral in the Good Hope. There was a council of war and we all go south again and are on the way down now. There are lots of ships waiting up here for the Dresden if she comes in to the coast. We have the unpleasant job of going down to the Straits of Magellan to wait for news of the two armoured cruisers that have escaped from China. We wait in the Straits, and the Good Hope searches the south part of Tierra del Fuego and mucks about

round the Horn. I hope we don't have to join her there. The Monmouth and Otranto will be somewhere around too. We shall also search the coast on the way down, coaling at the Plate.

17th.—Two years in commission to-day. We got to Monte Video last night—too rough to coal—blowing and rain-

ing like blazes. We anchored outside of course.

18th.—Monte Video. We are off shortly for the south and probably going round to the Chilian Coast, to do what damage we can there. Have just had two awful days here. It has blown as I have never seen it blow before, except in a typhoon at Hong Kong; seas breaking over the ship fore and aft. Coaling of course not possible. We didn't drag anchor much

though.

20th.—S. 35° 10′ W. 55° 58′ English bank. No chance of coming home, we are off on the contrary to Valparaiso. There we have two German cruisers the Leipzig and Nürnberg and I think we can manage them both together if necessary. Also we have the two big German cruisers from China expected shortly. Fruit and vegetables are what we chiefly lack, we have a couple of days fresh meat now, but will be back on tinned stuff directly. Our store ship has been emptied by Cradock's ships further north and there is nothing left at all for us. We shall be out of everything on October 24th and shall have to buy things at Valparaiso which will cost the Admiralty something I know. What is more serious is that we have nearly run out of engineers' stores as well, and some of the things we can't very well buy as they are specialities. Carmania and Monmouth are coming round with us. expect this will be posted at Punta Arenas. We are going to start coaling to-night and shall sail to-morrow sometime for the south.

26th.—We are nearly down to the Magellan Straits now, I do not know exactly what we are going to do till we meet the Good Hope again off Cape Virgins. We met the Ortega last night, almost ran her down as both of us were without lights. She was chased a little north of the Magellan Straits by a German Cruiser of the Dresden class, probably the Leipzig. We got some charts from her.

28th.—Punta Arenas. We arrived here this morning and are going on either to-night or to-morrow. Flagship is with us and is apparently going on with us.

October 2nd.—Port Edgar. We left Punta Arenas at one o'clock the day we got there and went out through the Cockburn Channel. We came out on the south side by the Furies, and then went down round Cape Horn to attack a place called Orange Bay. It was fairly light at midnight when we passed the Horn. It is the only time we have had no motion on the ship at sea this commission, which is curious considering its reputation. It was rather nasty getting to our positions for the attack, raining and snowing alternately—but all the ships got there all right, and we all rushed in on the Bay at the same time from different directions and found nothing as usual. reckon we were about ten days too late. Afterwards, the Monmouth and ourselves came on here via the Straits of le Maire and got here yesterday morning and coaled. Monmouth is coaling now and I expect we shall sail to-morrow. Flagship came in this afternoon.

5th.—Fortescue Bay. We had an awful doing the day we left Port Edgar-the 3rd. It blew, snowed, rained, and hailed and sleeted as hard as it is possible to do these things. I thought the ship would dive right under altogether at times. It was a short sea and very high and it doesn't suit this ship a bit. I think the Monmouth was rather worse if anything though not quite so wet. It eased up next day and we got into the Straits of Magellan last night at 8 o'clock and went straight on to this place. It was fairly fine this morning, but at II o'clock it came on to blow so hard that we had to take shelter here. It looks as if it was going to go on blowing too. We are supposed to leave to-morrow morning for the west. I shall get some sleep to-night though, which will be something; I had none at all last night bringing the ship through here. We have got some duffel suits from the Monmouth so we can keep fairly warm now. They are rather cumbersome but they do keep the cold out. We are as far as I know going up the Chilian Coast a bit and may have to make a bolt for it at any minute. We left the Admiral at Port Edgar. I don't know whether he is coming on here or not. I had a short conversation with him. He came on board just before we left Port Edgar and I was sent for about charts and things. He said a few kind words about our performance the other night too.

11th.—On Chilian Coast.

I spoke too soon about a night off in preceding part of this letter. I had hardly finished when we got a wireless message from the Admiral to go on through the Straits and go round to meet him at Cape Horn, as the Germans were behind us. We had to start off at once—a beastly night raining and blowing. Up all night again taking the squadron through the western part of the Straits. Not a nice job as one could not see and also I had never been there before. We got out all right and reached Cape Pillar at 7.30 in the morning and then went on to the eastward towards the Horn. Blowing a gale and an awful sea. We were rolling 35° and quite useless for fighting purposes. We got as far as Ildefonso Island and were then ordered back and when we turned up head to sea it was something too awful. The ship was practically a submarine. The sea smashed up one side and some of the boats. couldn't steam more than eight knots and I don't think we made any headway at all for the first few hours. After that, the weather moderated a bit and we managed to crawl slowly up to the Evangelists, and after we had turned north it was better. We had a fine passage from there up to this spot where we are all at anchor, some coaling and some waiting to coal. I think the German ships are all to the north of us, some way. Dined with the navigator of the Otranto last night. said we were an awful sight in the Cape Horn sea-you could see our bottom every time the ship rolled, that is when you could see the ship at all for seas. This ship is too small for those awful seas as we couldn't possibly fight our guns with the ship being swept as she was. The Monmouth was nearly as bad and even the Otranto had a 120 list from the wind.

14th.—We left the coaling place on the 12th and came on up the coast. Went into Coronel this morning and sailed at noon. Went in to pick up news but did not get much. The German ships are keeping very dark. We are on our way to Valparaiso

now, shall get there to-morrow and stay about 24 hours getting all we can in the way of provisions and stores.

22nd.—We didn't stop long in Valparaiso. Got in about 9.30 in the morning and shoved off again the same night about midnight. Got provisions and stores of all kinds so we are all right for about three months now. Lots of German ships, the harbour was full up with them-several we had heard about which had been out to their cruisers. The Chilians won't let them leave again. Their crews came round us in boats and cursed us heartily-to our great amusement. We then came back here slowly and coaled and are now waiting for the Admiral to come up with the Canopus and Good Hope. should arrive in about five days' time, as he leaves Stanley to-day. After that we shall have a go for the German ships in force. We ought to have enough to do in the lot with luck. The Canopus will be able to deal with the big ones with the Good Hope's assistance, as she has four 12" guns. We are at anchor in this place now, doing jobs to engines, etc., and having a spell generally. We have landed a party who are on top of a hill keeping a look out to seaward in case anything descends on us, and everything should be all right if the Chilians don't bowl us out, in which case we shall have to go.

29th.—Good Hope arrived and Canopus was due shortly after we left. We were packed off directly flagship came. We had a false alarm the day before. The hill reported three ships on the horizon, so we got under weigh at once and went out after them, fast. The others followed, but we found that they were a parent ship and two whalers and so had our trouble for nothing. We are on our way to Coronel now and get there to-morrow morning if we don't meet the Leipzig in the meanwhile. We have been hearing her all the afternoon and she must be quite close somewhere.

31st.—Just arrived in Coronel and have seen nothing as usual. We leave to-morrow morning.

NAVAL ACTION FOUGHT ON 1ST NOVEMBER OFF CORONEL.

Various indications had shown the probability that the German China Squadron, finding themselves opposed in the

China Seas by the Japanese Fleet and the British, Russian and Australian Squadrons, would follow the line of least resistance and make their way across the Pacific to the West Coast of America. The bombardment of Papeete and the activity among German merchant ships on the south-west coast, who were loading coal and provisions in large quantities, confirmed this opinion.

The German Cruiser Dresden had found the Atlantic Ocean an uncomfortable sphere of operations owing to the ubiquity of our now numerous patrols and had been driven round the Horn by a squadron composed of the Glasgow, Monmouth and Otranto. These ships continued to chase up the coast as far as Valparaiso but fell back later to the southward to wait reinforcement by the Good Hope and Canopus, before risking an encounter with the German China Squadron, strengthened by the Dresden.

The difficulties of operating on the uninhabited Chilian coast to the south of Coronel were increased by the fact that our ships were out of telegraphic communication, since the Chilian Government w/T stations were prohibited by their country's neutrality regulations to communicate with belligerent men-of-war, and consequently, when the Good Hope arrived from the south, Admiral Cradock found it necessary to detach the Glasgow to proceed to Coronel and send and receive telegrams and collect all available information.

Glasgow arrived off Coronel on the evening of 29th October but, as some Telefunken wireless signals then intercepted indicated so strongly the proximity of an enemy man-of-war or merchant ship, the Admiral signalled that the visit to Coronel was a secondary consideration to a search for the enemy, and the next 48 hours were spent patrolling the vicinity.

Glasgow, however, received orders to visit Coronel on the night of the 31st, and to rejoin Good Hope and remainder of the squadron in the afternoon of the following day.

The night in harbour was busily employed on the duties mentioned and the Glasgow sailed at 9.15 a.m., meeting the Good Hope, Monmouth and Otranto at a rendezvous some 80 miles to the south westward of Coronel at 1 p.m. A very heavy sea was running with a strong southerly wind, making boat work impossible, and the telegrams were consequently transferred to the Good Hope by Glasgow placing them in a cask and towing it across the flagship's bows. This was completed even quicker than the boat work could have been done and earned us a complimentary signal of "manœuvre well executed."

At 1.50 p.m., the Admiral signalled that, as wireless signals showed a German man-of-war to the northward, the squadron was to spread 15 miles apart in the order Good Hope, Monmouth, Otranto and Glasgow, the course and speed to be N.W. by N. at 10 knots.

The operation of spreading was half completed at 4.20 p.m., when smoke was seen by Glasgow on her starboard bow and speed was increased to investigate it. As Glasgow approached, and ships became visible, they were identified as two four-funnelled armoured cruisers and one three-funnelled light cruiser.

The enemy turned immediately towards us and the Glasgow, steamed away at full speed to rejoin the flagship, warning her by wireless, and the other ships by signal flags that "the enemy's armoured cruisers were in sight."

The Good Hope was sighted at 5 p.m. and the squadron formed line of battle in the following order: Good Hope, Monmouth, Glasgow and Otranto.

The enemy had now been joined by a fourth three-funnelled light cruiser and were about 12 miles off, also in single line ahead, and in the order Scharnhorst, Gneisenau, Leipzig and Dresden.

At 5.58 p.m., our line altered course in succession to south and the enemy was to the eastward, steering a parallel course. We then tried by altering slightly towards them to force an immediate action, the conditions then being in our favour, as the setting sun was strong in the enemy's eyes.

They declined action by edging away and maintained the range at about 15,000 yards.

The armed merchant cruiser Otranto at this point was ordered to keep out of range and so took no part in the action.

In assessing the value of the forces opposed, it will be seen that the German force preponderated.

Speeds had no effect on the situation, as we should have required almost double their speed to have forced action before nightfall under conditions chosen by us, and no strategical use was made of them during the action, which was therefore simply heavy pounding between two squadrons on parallel courses.

In gunpower, however, there was a marked disparity. The Germans fired a total broadside of 3,812 lbs. to our squadron's 2,815 lbs., the Scharnhorst firing 1,720 lbs. against the Good Hope's 1,560 lbs., the Gneisenau 1,720 lbs. against the Monmouth's 900 lbs., and the Leipzig and Dresden 190 lbs. each against the Glasgow's 355 lbs.

The inequality of artillery was further increased by the heavy sea, since it is doubtful whether many rounds could have been fired from the lower casemates of the Good Hope, and especially the Monmouth, whereas the lower guns of the Scharnhorst and Gneisenau are higher above the water level.

The situation therefore did not lend itself to any tactical coup d'æil on either side and proceeded to develop on conventional lines.

Doubtless, the British Admiral had decided that he was to be guided by his general instructions to "seek out and destroy the enemy" and that if he waited for the Canopus with a slow speed, to reinforce our line, the Germans would elude us in the night and continue to avoid action with a squadron stronger but of slower "ical speed, owing to the inclusion of the Canopus in the line."

Whatever his reasonings re, his gallantry remains beyond doubt and he knew also at arguments of such nature had little weight with his officers and men who saw the fruition of their wishes to get to grips with the enemy. His decision was soon taken and he signalled at 6.18 p.m. "I am going to attack the enemy now."

The sun was now setting immediately behind us as viewed from the enemy's line, dazzling their gunlayers and giving us light on our target, but as soon as it dipped below the horizon shortly before 7 p.m., the conditions were completely inverted.

We were now silhouetted against its afterglow, with a clear horizon behind to show up splashes of the fall of shot while their ships were smudged into low black shapes, scarcely discernible against the gathering night clouds.

Ranges became increasingly more difficult to take but it was apparent now that the enemy were no longer avoiding action and, at 7.0 p.m., their line, now at 12,500 yards distant, opened fire, which was immediately returned by us.

The speed of 17 knots into a heavy head sea was sending showers of spray over our forecastle, which dimmed the glasses of the gun telescopes, and the Glasgow's gunlayers firing from eight feet above the waterline could hardly see their target.

While our control officers reported that the result of our shooting could not be corrected as no splashes were visible in the lack of light; the Leipzig and Dresden had got the Glasgow's range exactly, and the Scharnhorst and Gneisenau were able to apply early and simultaneously their whole gunpower on the Good Hope and Monmouth respectively. At least one shot of the third salvo from the Scharnhorst sent up a heavy burst of flame on the fore part of the Good Hope and, after this salvo, a curious effect of a continuous sheet of flame appeared along the sides of the Good Hope and Monmouth, on which the heavy sea had no effect. The fore turret of the Monmouth was also enveloped in flames and continued to burn for some minutes. As all the paint had been scraped from it, this must have been cordite charges round the gun, burning. Both ships, however, continued to fire some guns, and were rewarded with a few hits on the topsides of the Scharnhorst and Gneisenau.

At 7.14 p.m. the Monmouth sheered off to starboard, after being hit several times, and Glasgow, who continued to follow in the wake of Good Hope had to ease down to avoid masking her fire.

Firing was now at its hottest; the enemy had the range perfectly and all their salvos straddled our line.

The scene ahead was appalling and absorbed the attention of those not actively engaged in directing our fire, far more than the enemy's scarcely distinguishable line. Good Hope and Monmouth were now on either bow, and the smoke from their funnels was ruddied by the dull glare of the deck fires below. On the far side the "overs" showed high white splashes against the darkening sky and the columns of water thrown up by the "shorts" were yellowed by the discharges of our guns. Frequently the whole ship flashed into a vivid orange as a high explosive shell detonated against the upper-works.

Ears had become deafened to the roar of our guns and insensible almost to the shriek of shell fragments flying overhead from shells bursting short. The enemy's ships were no longer visible, and the gunlayers, when the motion on the ship allowed them, could only fire through the zone of splashes between the lines at the flashes of the enemy's guns.

Both the Good Hope and the Monmouth, under the sustained fire of their opponents, were now obviously in distress.

The Monmouth again yawed off to starboard, burning furiously and heeling slightly, and we had again to reduce speed to avoid entering the hail of projectiles meant for her.

The Good Hope, after three-quarters of an hour in action, was keeping up a desultory firing from only a few of her guns. The fires on board her were increasing their brilliance and soon she dropped back more on our port bow and towards the enemy.

At 7.50 p.m., there was a terrific explosion on board her, between her mainmast and her aftermost funnel, and the gush of flames, reaching a height of over 200 feet, lighted up a cloud of debris that was flung still higher in the air.

Those that lived through the explosion must undoubtedly have been stunned, and her fire ceased, as did also that of the Scharnhorst upon her, and she lay between the lines, a low black hull, gutted of her upperworks, and only lighted by a low red glare which shortly disappeared. Although no one on board us actually saw her founder, she could not have survived such a shock many minutes.

The Scharnhorst now fired on the Monmouth and the Gneisenau directed her fire upon the Glasgow, who had been from the start under a rain of shells from the Leipzig and Dresden and had been firing at the Leipzig in return. This

latter ship suddenly ceased fire, shortly before the explosion in the Good Hope, and, dropping back, her place was taken by the Dresden, but the Leipzig was soon able to rejoin the line as fourth ship.

Our fire meanwhile had been shifted to the Gneisenau and we undoubtedly got one hit at least on her after part with our fore 6" gun, causing a slight fire.

Both the Scharnhorst and Gneisenau had had small fires at intervals but not so serious as those in our leading ships.

The rising moon shining fitfully through the clouds occasionally gave us glimpses of the enemy ships and fire was shifted continually to any ship thus shown up. Firing had now ceased in the Monmouth and the enemy were only firing at our flashes so that every shot from the Glasgow's guns drew three replies, and at 8.5 p.m. Glasgow also ceased fire.

The Monmouth now turned away from the line to starboard, badly down by the bows, listed to port and with the glow of her ignited interior brightening the port holes below her quarter deck. Glasgow closed to her port quarter and enquired by flashing lamp "Are you all right?" and received a reply "I want to get stern to sea. I am making water badly forward." She still continued to turn and was now heading north-east. The enemy thinking no doubt that we had continued our course for longer than we did, now realised that we had turned and the four ships approached in line abreast.

Some observers state that a fifth cruiser, the Nürnberg, was by then in their line, but of this we could not be certain. The Monmouth was asked at 8.20 p.m. "Can you steer N.W.? The enemy are following us astern" to which she gave no answer.

The moon was now clear of the clouds and it was obvious that the Monmouth could neither fight nor fly and our Captain must decide whether to share her fate, without being able to render any adequate assistance, or to attempt to escape the enemy. We had maintained our place in the line for over an hour under fire from two ships and although we had been struck several times, there was no vital injury to the Glasgow. Also it was essential that there should be some survivor of the action

to turn the Canopus who was hurrying at her best speed to join up, and, if surprised alone by five ships, however gallantly she fought, could only finally have shared the fate of the other ships.

The Monmouth was therefore reluctantly left, and, when last seen, was bravely facing the oncoming enemy. Glasgow increased to full speed and soon left the enemy astern, losing sight of them about 8.50 p.m.

Half an hour later, a searchlight flickered below the horizon as though searching for us and 75 flashes of the firing against the Monmouth were seen, and then silence.

Her end was heroic and no assistance we could have given against two armoured ships could have screened her, but in the heartbreaking hours of depression that followed, our compulsory defection of our "chummy ship" weighed more on us than the bitterness of the general defeat.

We worked gradually round to a southward course and managed to do 24 knots against a head sea, reducing later to 20 knots and running for the Magellan Straits before the enemy could intercept us there.

Throughout the action the enemy had been jambing ceaselessly all w/T communication and we had been unable to get any messages through, but as we drew further away, their jambing had less effect and we succeeded in turning the Canopus.

Looking back, it is hard to analyse psychologically one's feelings under fire. At first, the dreary wail of shells passing over and the higher "whee-hee" of flying fragments and splinters had a peculiarly irritating effect, amounting to a childish annoyance at anyone daring to do this to us—an annoyance based on pride of race and astonishment at any outrage on it.

The interest in the fight concentrated on one's neighbours. How extraordinarily steady and cool they were. Surely this can't be the real thing. A gun number has the rammer splintered in his hand and doubles across to the disengaged battery—"'ere, Nobby, lend us a rub at your rammer." A shell bursts on the funnel casing just behind a gun. Only one

man has a slight cut from a fragment but it adds a power of hate to the gun's crew as they ram their next projectile viciously home. Three splashes short of the ship—lucky they never ricochetted or else we'd have felt it. A glance on either side expecting to see wounded lying about—not a sign of it—merely business as usual. A dull thud just underfoot—that's a shot on the waterline—more power to the coal that stopped it.

Always a fringe of splashes short and over surrounds the ship and yet we escape the hits. Leipzig dropping back—good, she's hit anyway. Occasional splashes now twice the ordinary size are falling very near—that must be the Gneisenau firing at us now the Good Hope's gone. The range is only 5,000 yards now and its three to one against us as the Leipzig is back in line—and then "cease fire."

It is very difficult to find any reason for the Glasgow's miraculous escape from serious injury under this rain of projectiles. She was under fire from the Dresden for 65 minutes, from the Leipzig for 45 minutes and from the Gneisenau for 10 minutes, and six hundred is a very moderate estimate of the number of shots fired at us, of course the two former had only light 4.13" guns similar to our 4" guns and at the very long opening range the angle of descent would be almost vertical and they did not ricochet. Of the five projectiles which hit us four could not have chosen safer places than bunkers and a funnel and they broke up in three cases without detonating.

The fifth burst on impact just between wind and water, and although it made a large hole only affected a small angular space, doing no damage to the surrounding compartments, and proved no impediment to our attaining 24 knots punching through a heavy head sea, as it did not leak into the adjacent spaces.

Four men were slightly wounded by shell fragments but were all back to duty at the end of a week.

I will try and give you some account of the action off Coronel on November 1st. I wrote most of the events down at the time and have collected others from the yarns of some of the others who were in a position to see.

We left Coronel on the morning of the 1st November and joined up with the Good Hope, Monmouth and Otranto to the westward of Coronel in the afternoon and then started to spread towards the land, the Good Hope being outside ship and Glasgow inside ship. We got about 15 miles from flagship when we saw smoke on the horizon on our beam towards the land. We altered course down towards it and soon made out three German ships, Scharnhorst, Gneisenau and a small town class cruiser. They saw us at the same time and altered course towards us at once and started to chase us back. We ran back full speed towards Good Hope, and the Monmouth and Otranto came too. We rejoined Good Hope at 5.47 p.m., formed single line ahead at once and proceeded S.E. to meet the enemy who were then about 12 miles away. Good Hope led the line, next to her the Monmouth, then ourselves and then Otranto. The sun was nearly setting and we were directly between the enemy and the sun, which was good for us as the enemy could not see us properly. We turned four points to port with a view of forcing an action while the light was in our favour, but the Germans would naturally have none of it and also turned four points keeping the distance between us at about The sun set at about 6.45 p.m. and then the 18.000 vards. enemy closed us rapidly, the light conditions were entirely changed, we were then silhouetted against the afterglow of sunset and they were nearly invisible with a dark cloud behind them, and getting more so every minute. By this time a fourth small cruiser had joined up in rear of enemy's line. At 7.5 p.m. they had closed us to about 12,000 yards and they then opened fire, each ship taking her opposite number in our line, thus we had the two little cruisers firing at us, the Otranto having been ordered to clear out as she was quite useless and if she had stopped it would only have meant sacrificing her to no purpose. We opened fire, all of us, immediately after-We could not see where our shots were falling and after the first 20 minutes were only firing at the flashes of the They, on the contrary, could not have had enemy's guns. better conditions and could see where every shot fell. Their first salvo fell short, the second over about 100 yards and at the third salvo Good Hope and Monmouth were both hit forward. I will tell about Good Hope first. When she was first hit she took fire and had hardly got the fire under when another shot struck her in practically the same place and started the fire up again. She was hit all over and after the first ten minutes had many guns out of action including, I think, the fore 9'2" which was one of the only two guns she could hope to do much damage with; she was on fire forward and all along her port, i.e. the engaged side, she began to close the enemy and to lose speed, at 7.45 p.m. was nearly between the Monmouth and the enemy's flagship, and had practically ceased firing. p.m. she blew up with a tremendous explosion between her mainmast and after funnel, the flames and wreckage went up quite 250 feet, miles above her mastheads, and after that she never fired another shot and the enemy stopped firing at her also, there could have been practically nobody left alive on board. When I last saw her she was down by the stern a long way and the fire was still burning forward. I should say she was rapidly sinking and certainly could never have moved again. The Monmouth was frightfully knocked about early in the action too. Her fore turret took fire and she never got it out and she was also on fire all along her port side, and some of her guns were pretty soon out of action. She only had 6" guns and they were practically useless. There was a big head sea and 12 gale of wind, so she could not fight her main deck guns properly, which also applied to the Good Hope. She was apparently rather unmanageable, as she twice hauled out of the line and came back again, we had to reduce to 9 knots once to avoid masking her fire, she was badly down by the bows and had a heavy list to starboard also, she ceased firing when the Good Hope blew up. We had the two small ships firing at us, their shooting was quite excellent, their shot falling all around us the whole time, within literally five yards of the ship. We were hit five times in all by whole shell, once aft above the armoured deck where a hole was torn six feet square and once each in two bunkers on the water line, so we had three holes with water coming in. We had to shore up the deck aft to prevent its bursting and flooding the mess deck. Another shot hit the second

funnel low down, broke up and cut a lot of steam pipes but did not do much real harm, the fifth went through the captain's pantry which is next my cabin, crossed the passage and went on into the captain's cabin and wrecked it. I felt that one arrive, as it is just below the conning tower where I was.

Monmouth kept away after the Good Hope blew up and we kept half-way between her and the Good Hope. quite dark by then and we were firing at the ships we could see. They could not see the Monmouth then as she was not firing, and every time we let a gun off we got the fire of the whole German squadron on us. Why we were not sunk 20 times over I don't know as none of their shots fell very far away. They kept firing at us and we came to the conclusion that it wasn't good enough. Monmouth had by this time got away to starboard and we followed her. I left the conning tower then and went on the bridge so that I could find out where we were off to and was up there quite five minutes before I noticed the 8''shell dropping close to us. We asked the Monmouth, who was steering N.E., if she could steam to the westward but she said she had to keep stern to sea; we asked then if she could go N.W. and got no answer. The enemy were coming up fast by this time and so we had to leave her, we could do no good by stopping and should only have been sunk ourselves. We went off to the west at full speed and soon lost sight of the enemy, who pursued Monmouth; this was about 8.20 p.m. At 9 p.m. enemy started firing again at Monmouth and must have sunk her. We counted 75 flashes of guns and they also used a searchlight looking for us. We worked round to southward at 20 knots with a view to warning the Canopus who was coming up 200 miles away from that direction, and succeeded after some trouble, as the enemy jambed all our wireless signals. chased us judging by the strength of wireless signals all that night and then chucked it. We mercifully had the legs of them. We went as fast as we could to the Straits and then to Stanley, where we arrived yesterday morning and coaled and left again the same evening. We are off to the Plate now to join up with some big ships. We shall have to dock I think and certainly must get some oil, as it knocks three knots off our speed without

oil fuel. We had four men slightly wounded and they are all back to duty now. After the action for the next two or three days we kept on picking up shell splinters and very nasty wounds some of them would have made. The men were splendid, grumbling and cursing just as they do at battle practice, there was no panic and no expending of ammunition uselessly. I got a sea over me before I went into the conning tower, so started wet through, but it did not make much difference as the spray was coming over the ship the whole time; all the gun telescopes were wet and so the gunlayers could hardly see to sight the guns. As to the damage we did the enemy, it is hard to form an opinion. I saw a small fire in both the enemy's armoured cruisers but it was quickly put out. We got one 6" hit on the second armoured cruiser and also one on our opposite number. At one time that ship left the line and ceased firing, her place being taken by the fourth ship, so I have hopes we did her some damage. Under equal conditions we could sink them both. It was a very trying experience for the men, being under a heavy fire and unable to return it, but as I said before they all behaved splendidly, even the young ones showing no signs of panic. It was not very pleasant waiting for the enemy to open fire, we were steaming alongside each other for nearly an hour first. When we started towards them we all knew it was hopeless and I was thinking how devilish cold the water would be and hoping a shell would get me first as being the pleasantest way out. . . .

We had a trying time running away south, couldn't get any sights owing to the spray coming over the ship and only discovered when we found Cape Pillar eventually that the compass had altered 4° on easterly courses, luckily it hadn't altered much on southerly ones. It was a lively thing to find out just as we were going through the Straits in a blinding snow storm. . . .

We all wanted to be in at the death of those ships, I had a lot of friends in the Monmouth and I fear none are saved.

The blowing up of the Good Hope was an awful sight and I shall never forget it till I die.

CORONEL, IST NOVEMBER, 1914.

THE following copy of Admiral von Spee's report, taken from the German Press, is probably the best if not the only complete official account of the Naval Battle off Coronel.

We see that our small squadron sustained a decisive de-But a European war is not to be won without an occasional defeat, and the record of a Nation's greatness may be read in its defeats as well as in its victories. Some defeats have added more to the glory of a nation's history than many of its victories, and in our history there are episodes like the fight of the "little Revenge," Moore's retreat on Corunna, and the loss of the Birkenhead, which will be remembered as long as deeds of heroism are recorded. In the case of the 1,520 officers and men who were lost off Coronel, there was no single feature to relieve the misery of their desperate situa-They fought in gathering darkness and a stormy sea, ten thousand miles from home, with a rocky inhospitable coast They fought against overwhelming odds, with no chance of receiving support, nor any chance of inflicting serious damage on the enemy. Their crews were largely reserve-men and had never been in action before. They had no reason to expect that one single man would survive the action—unless they struck their colours. Even the "little Revenge" had done that. But Cradock's ships, as a lesson to us all, kept their colours flying long after the last gun had ceased to fire. Such an example can be given only in defeat, and those men who were once our shipmates will not have died in vain if the rest of us make sure that their example is never forgotten. Of what passed in the Admiral's mind before the fight we perhaps shall never know. It may be that, expecting to be beaten, he determined to do the best in his power against the forces that he entered the Pacific to fight. It may be that, trusting to the traditions of a thousand years wherein British ships not seldom have routed overwhelming odds, he

hoped and expected to win. He was a gallant officer and might equally have held either view. Those who know him best know well that he would have followed either course with high courage and inflexible resolve to the bitter end. One thing at least is certain. He has added to our Naval traditions a story that can never die, and he has proved that the British Navy of to-day, in defeat as well as in victory, can worthily maintain the standards of its splendid past.

VICE-ADMIRAL COUNT SPEE'S DESPATCH.

The squadron under my command, composed of the large cruisers Scharnhorst and Gneisenau, and the small cruisers Nürnberg, Leipzig, and Dresden, reached on November 1 a point about twenty sea miles from the Chilean coast, in order to attack a British cruiser which, according to trustworthy information, had reached the locality on the previous evening. On the way to the spot the small cruisers were several times thrown out on the flanks to observe steamers and sailing ships.

At 4.15 p.m. the Nürnberg, which was detached on one of these missions, was lost sight of to the north-east, while the Dresden remained about twelve sea miles behind. With the bulk of the fleet, I was about forty miles north of Arauco Bay. At 4.17 p.m. there were sighted to the south-west, at first two ships, and then, at 4.25 p.m., a third ship about fifteen miles away. Two of them were identified as warships, and were presumed to be the Monmouth and Glasgow, while the third was evidently the auxiliary cruiser Otranto. They, too, seemed to be on a southerly course. The squadron steamed at full speed in pursuit, keeping the enemy four points to starboard. The wind was south, force 6, with a correspondingly high sea, so that I had to be careful not to be manœuvred into a lee position. Moreover, the course chosen helped to cut off the enemy from the neutral coast.

About 4.35 p.m. it was seen that the enemy ships were steering to the west, and I gradually changed my course to south-west, the Scharnhorst working up 22 knots, while the Gneisenau and the Leipzig slowed down. The enemy's numerous wireless messages were "jammed" as far as possible.

At 5.20 the arrival of another warship was reported, which took the head of the line, and was identified as the Good Hope, the flagship of Rear-Admiral Cradock.

The enemy ships now got into battle formation, hoisted their mast-head flags, and tried slowly to approach a southerly course. From 5.35 p.m. onwards I held to a south-westerly course, and later to a southerly course, and reduced speed to enable my own ships to come up. At 6.7 both lines—except Dresden which was about one mile astern, and the Nürnberg, which was at a considerable distance—were on an almost parallel southerly course, the distance separating them being 135 hectometres.

At 6.20, when at a distance of 124 hectometres, I altered my course one point towards the enemy, and at 6.34 opened fire at a range of 104 hectometres. There was a head wind and sea, and the ships rolled and pitched heavily, particularly the small cruisers on both sides. Observation and range-finding work was most difficult, the seas sweeping over the forecastles and conning-towers, and preventing the use of some guns on the middle decks, the crews of which were never able to see the sterns of their opponents, and only occasionally their bows. On the other hand, the guns of the two armoured cruisers worked splendidly, and were well served.

At 6.39 the first hit was recorded in the Good Hope. Shortly afterwards the British opened fire. I am of opinion that they suffered more from the heavy seas than we did. Both their armoured cruisers, with the shortening range and the failing light, were practically covered by our fire, while they themselves, so far as can be ascertained at present, only hit the Scharnhorst twice and the Gneisenau four times. At 6.53, when at a distance of 60 hectometres, I sheered off a point.

The enemy's artillery at this time was firing more slowly, while we were able to observe numerous hits. Among other things it was seen that the roof of the fore double turret was carried away, and that a fierce fire was started in the turret. The Scharnhorst reckons thirty-five hits on the Good Hope.

As the distance, in spite of our change of course, had now decreased to 49 hectometres, it was to be presumed that the enemy doubted the success of his artillery, and was manœuvring for torpedo-firing. The position of the moon, which had risen about six o'clock, favoured this manœuvre. At about 7.45, therefore, I gradually sheered off. In the meantime darkness had set in, and the range-finders in the Scharnhorst for the moment used the reflections of the fires which had broken out in the Good Hope to estimate the distances; gradually, however, range-finding and observation became so difficult that we ceased fire at 7.26.

At 7.23 a big explosion was observed between the funnels of the Good Hope. So far as I could see, the ship did not fire after that. The Monmouth seems to have stopped firing at 7.20.

The small cruisers, including the Nürnberg, which came up in the meantime, were ordered by "wireless" at 7.30 to pursue the enemy and make a torpedo attack. At this time rain squalls limited the range of vision. The small cruisers were not able to find the Good Hope, but the Nürnberg came upon the Monmouth, which, badly damaged, crossed her bows and then tried to come alongside. At 8.58 the Nürnberg sank her by a bombardment at point-blank range.

The Monmouth did not reply, but she went down with her flag flying. There was no chance of saving anybody owing to the heavy sea, especially as the Nürnberg sighted smoke, and believed that another enemy ship was approaching, which she prepared to attack.

At the beginning of the fight the Otranto made off. The Glasgow was able to keep up her harmless fire longer than her consorts maintained theirs, and she then escaped in the darkness.

The Leipzig and the Dresden believe that they hit her several times. The small cruisers sustained neither loss of life nor damage. The Gneisenau had two slightly wounded. The crews went into the fight with enthusiasm. Every man did his duty, and contributed to the victory.

¹ The times in this dispatch and other evidence, point to the German clocks being about 30' slow on our times.—Hon. Editor.

TRANSLATIONS OF EXTRACTS FROM LETTERS BY VICE-ADMIRAL COUNT SPEE AND HIS SON, LIEUTENANT COUNT OTTO SPEE.

EXTRACT from a private letter from Vice-Admiral Count Spee, commanding the German Squadron in the Far East, dated "SMS Scharnhorst, 2 November 1914," as published in the German Press.

"Yesterday was All-Saints'-Day and a lucky day for us. I was steaming south along the coast with the squadron, when I received information that a British cruiser had run into Coronel, a small coaling station near Conception. As according to international law a belligerent vessel must leave again within 24 hours I thought of catching her. In the dispositions I then made, the Nürnberg was to steam past the entrance to see if the cruiser was still there, while the remaining ships were placed in a semi-circle outside. To economise coal, the ships only had steam for 14 knots, but were ready to develop their full boiler My ships were therefore somewhat power at short notice. scattered, the Gneisenau alone being quite close, when at 4.25 p.m. it was reported to me that two ships had been sighted to the S.W. I headed for them and ordered the other ships to join me, as it was soon clear that they were enemy ships, none other than the armoured cruiser Monmouth and the light cruiser Glasgow. Soon afterwards we sighted astern of them the armed merchant cruiser Otranto, and a little later the armoured cruiser The enemy tried various movements which would have brought him nearer to the coast and to windward of me, I had at once ordered which would have been bad for us. Scharnhorst and Gneisenau to raise steam for full speed and in a quarter of an hour we were steaming 20 knots against a heavy sea, which fortunately enabled us to get on a parallel course to the enemy, but we were alone and had to wait for the others. The enemy was amiable enough not to disturb us in this. were then about 9 miles apart. As soon as my ships, except

Nürnberg, not yet in sight, were collected, I began at 6.10 p.m. to decrease the distance, and when we were at 5 miles I opened fire. The action had begun and generally speaking I led the line steadily with few alterations of course. I had outmanœuvred the sun in the west, so that he could no longer hinder me; the moon in the east was not yet full, but promised to shine well in the night. Rain squalls were to be seen here and there. My ships fired rapidly and with good effect on the Scharnhorst fired at Good Hope (flagship of big ships. Admiral Cradock), Gneisenau at Monmouth, Leipzig Glasgow, Dresden at Otranto. The latter quitted the line after a while and I think escaped. On board Good Hope and Monmouth many fires broke out. A tremendous explosion occurred in the former, which looked like gigantic fireworks against the dark evening sky, white flames with green stars reaching higher than the funnels. I thought the ship would founder, but she remained afloat, and the battle continued uninterruptedly. Darkness came on. I had reduced the distance at first to 4,500 metres, then I turned slowly outwards, increasing the distance again. Fire was continued against the ships, made visible by the fires burning on board, but ceased when the gunlayers were no longer able to sight their guns. The enemy's fire had ceased, I therefore ordered the light cruisers to continue in chase, but as the enemy had apparently extinguished his fires, nothing was to be seen, and steaming round the hostile line so as to get a better light on it did not bring about another meeting. The action had lasted 52 minutes. At 8.40 p.m., when steering N.W., we observed gunfire ahead at a great distance, estimated at 10 miles. steered for it, to render assistance if necessary. It turned out to be the Nürnberg, which had been unable to find me, and now had come across the Monmouth. The Nürnberg closed her and finished her off with her guns. Monmouth capsized and sank. Unfortunately the heavy sea forbade all attempts at saving life, apart from the fact that Nürnberg thought she saw Good Hope not far off, which however was probably a mistake. She may have taken our big cruisers in the moonlight at a great distance, for her. I do not know what

became of Good Hope. Lieut. G., who had leisure for observation, thinks that he made out that she had a heavy list. When I recall to mind what I saw this appears quite possible. though I thought it was due to the movements of the ship in the heavy sea. It is possible that she also foundered. She was certainly "hors-de-combat." The Glasgow we could hardly make out. It is believed that we got several hits on her, but in my opinion she escaped. We have thus been victorious all along the line and I thank God. We have suffered no losses. Gneisenau had a few cases of lightly wounded. Our light cruisers were not hit at all. Such hits as Scharnhorst and Gneisenau received hardly caused any damage. A 6-inch shell was found in one of the storerooms of Scharnhorst. It had come through the ship's side, made all kind of havoc below, but luckily did not burst, and now lay there to greet us. was hit, but not so as to prevent it continuing its functions. Similar trivialities occurred in Gneisenau. I know not what adverse circumstances deprived the enemy of every measure of success. The enthusiasm of our brave lads is tremendous. I could see how certain they were of victory. I am especially glad that the Nürnberg, which through no fault of hers missed the battle: after all contributed to our success. If Good Hope escaped she must in my opinion make for a Chilean port on account of her damages. To make sure of this I intend going to Valparaiso to-morrow with Gneisenau and Nürnberg, and to see whether Good Hope could not be disarmed by the Chileans. If so I shall be relieved of two powerful opponents. Good Hope, though bigger than Scharnhorst, was not so well armed. She mounted heavy guns, but only two, while Monmouth succumbed to Scharnhorst as she had only 6-inch guns. The English have another ship like Monmouth hereabouts and in addition, as it seems, a battleship of the Queen-class carrying 12-inch guns. [It was the Canopus.] Against the latter we can hardly do anything. Had they kept their force together, we should probably have got the worst of it. You can hardly imagine the joy which reigned among us. We have at least contributed something to the glory of our arms, although it may not mean much on the whole and in view of the enormous number of English ships."

Under date of November 5th the Admiral adds: "We arrived at Valparaiso this morning. Our Minister, M. Erchert was present. He soon came on board, also the Consul General, Gumprecht. The news of our victory had not yet reached here, but spread very quickly. When I landed to call on the local Admiral there were crowds at the landing place. Cameras clicked everywhere and here and there small groups raised cheers. The Germans of course wanted to celebrate the event, but I positively refused. I was forced however to spend 1½ hours at their club. On my way back to the boat a lady presented me with a bouquet of roses."

Extracts from a private letter from Lieut. Count Otto Spee [son of the Admiral] dated "SMS Nürnberg, 1 November 1914."

"About 6.30 p.m. we sighted some smoke and a quarter of an hour later we saw flashes of guns in the twilight. We were soon able to distinguish the two lines: ours to the right with reddish fire, the English to the left with lighter coloured whitish fire from the muzzles of their guns. The darker it got the brighter these flashes appeared. On board us there was great anxiety as to who the enemy was, what his strength was, and the result of our and the enemy's fire. About 7.15 we could make out masts and funnels, but not yet the number of ships engaged. Nor were we quite sure which was friend and which foe. Suddenly there was a terrible explosion. For several seconds we saw a glowing column in which white objects moved. It must have been a terrible sight nearer by. With breathless anxiety we awaited the Scharnhorst's next signals, from which to draw our conclusions as regarded the situation.

Then Scharnhorst made the general call sign and all ships replied simultaneously. We thus knew that the explosion had not occurred in one of our ships, and when soon afterwards the Scharnhorst ordered the light cruisers ahead for a torpedo attack, proceeding herself with Gneisenau at 17 knots, we knew that the action had been crowned with victory for our side. Still, we all felt rather depressed, as we had only acted as spectators. We now tried to join in the chase at our utmost

speed. The moon was shining brightly, but rain squalls obscured our view from time to time. The wind was blowing from the south with a force of from 5 to 8, and as we were "pile-driving" against it at 21 knots the seas were coming continuously over the forecastle and into the conning tower. Scharnhorst, had ordered a general chase after the flying enemy, saying that both his armoured cruisers were severely damaged, but that a light cruiser appeared to be practically intact. We thus heard that our big cruisers had had to do not only with the light cruiser Glasgow, but with her consorts, the armoured cruisers Good Hope and Monmouth. A later wireless message told us that the armed merchant cruiser Otranto had also been present at first, but had sheered out after the third salvo and made off. About 7.45 we observed the last shots, after which we saw nothing more. About 8.5 the look out reported a column of smoke on the starboard bow, for which we at once steered. At first it seemed to approach, then the vessel steamed away from us at speed, for although we were going 21 knots she rapidly disappeared in the darkness. chase we had occasionally observed a cruiser looking something like the Leipzig or Emden, steering at first a parallel course to us, about two miles on the starboard beam, but then keeping away. When the other fellow got away from us we turned to the second and found it to be the Monmouth, heavily damaged. She had a list of about 10 degrees to port. As we came nearer she heeled still more, so that she could no longer use her guns on the side turned towards us. We opened fire at short range. It was terrible for me to have to fire on the poor fellow who was no longer able to defend himself. But the colours were still flying and when we ceased fire for several minutes, he yet did not haul them down. So we ran up for a fresh attack and caused him to capsize by our gun fire. The ship sank with flying colours and we were unable to save a single man, firstly on account of the heavy sea, which made it impossible to lower a boat, but also because fresh columns of smoke were reported, which we hoped were enemies and for which we at once steered. Eventually we found they were our own big cruisers, also looking for the enemy."

TRANSLATION OF A POCKET DIARY FOUND ON AN OFFICER SURVIVOR FROM THE GNEISENAU.

- 1st Oct. 5 p.m. On course close to Rivada we saw close under the land without colours 2 Inhabitants are very hostile to French.
- 2nd .. (Undecipherable)
- 3rd ,, Our patrol duty on Tuesday. Heard message from Dresden and Leipzig. Bought three pairs of boots.
- 4th ,, My watch from 6.30 to 8.30. Lecture in mess from 10 to 11.
- 5th ,, General quarters. Nothing in sight. Weather getting bad. Heard weak signals from Dresden.
- 6th ,, Dresden reports that Good Hope, Monmouth, and Glasgow with an auxiliary cruiser were at Punta Arenas on 27th September, and left again after short stay.
- 7th ,, Changed hammocks. German steamer reports that three ships on an easterly course, also two English steamers passed through the Magellan Sts. on 5th October.
- 8th ,, Nothing.
- oth ,, Antwerp reported to have fallen. Victory of the German cause causes consternation in England.
- 10th ,, Played War game. Wrote home. At sea.
- 11th ,, Attended divine service. TG in sight.
- 12th ,, Anchored about nine o'clock at Easter Island.
 Gottingen and York came alongside for coaling.
 Coaling stopped owing to signals received. Prepared for night action.
- 13th ,, 5 a.m. Recommenced coaling. Coaling excessively slow owing to want of coal bags. Gottingen (rest undecipherable).

14th Oct. Coaling from Gottingen. LE meets us with three steamers with 3,000 tons of coal, Anubis, Amasis, and Karnak, probably all three Kosmos liners.

15th ,, 3 p.m. . . . died (rest undecipherable).

16th ,, Went to old anchorage. Hope to receive S. American coal.

17th ,, Provisioning and coaling ship. Yorck and TG left . . . Y. with a Reserve Officer.

18th ,, Coaled from Karnak, 250 tons on deck and 2,200 tons. Leave at five o'clock for Mas-a-fuera.

19th ,, . . . found an A.B.C. Code. Monmouth, Good Hope, Glasgow reported to the south.

20th ,, At sea steering for Mas-a-fuera. Sighted a sailing ship.

21st ,, Morning and evening watches. Saw lots of albatrosses.

22nd ,, (Undecipherable).

23rd ,, Intention of the Admiral to seek out Good Hope.

DR¹ has patrol.

24th ,, Blank.

25th ,, Blank.

26th ,, Arrival at Mas-a-fuera. LC² looking for colliers. . . . coaling. Very high island. Lecture to junior officers.

27th ,, Coaling. P.M. left for Valparaiso.

28th ,, At sea.

29th ,, Arrived off Valparaiso. Admiral circulates orders.

Conference with K. Prinz Eitel is expected with
coal. Many steamers but none English. Sighted
a sailing vessel. SB investigates.

30th ,, Off Valparaiso. Jemchug sunk at Penang.

31st ,, NL remains off Valparaiso. 2.30 p.m. received news from Santa Isabel has arrived we go to meet her. Prinz Eitel and Gottingen arriving. Received a Telefunken message that Glasgow arrived to-day at Coronel.

1st Nov. Making for Coronel at 14 knots. 10 a.m. passed four ships. 6.35 to 7.30 action off Santa Maria.

Dresden. Leipzig.

Good Hope exploded apparently sunk. Monmouth engaged by us and sunk. Glasgow and Otranto damaged but managed to escape in the dark Victory was ours. Small cruisers sent by us. . . . AL¹.

2nd Nov. 11 a.m. formed into two divisions. Admiral sends congratulations to all ships. With the help of God we have won a glorious victory.

3rd ,, H.M. arrive Valparaiso midday. Germans ignorant of action. Germans ashore highly delighted. Dined at the Club. Received many presents from people on shore.

4th ,, Filling up with provisions. Received 50 reservists.

Went for a ride on shore with ladies. First meeting with ladies since the outbreak of war. Left 11 p.m. under cheers from German steamers in port. Shaped course for Mas-a-fuera. Hear from English people received no information of Glasgow. Absolutely nothing as regards G Hope.

5th ,, News of in Berlin, otherwise nothing.

6th ,, At sea steering for Mas-a-fuera. Arrived p.m. Found there Valentine, French four-masted barque, 3,600 tons of Cardiff coal, and Norwegian full-rigged ship 3,500 tons of Cardiff coal. LE coaling from Helicon.

7th ,, Coaling from the two sailing ships.

8th ,, Coaling from the Valentine.

9th ,, Coaling finished. Sacramento with DR arrived.
Prinz Eitel arrived took in 1,440 tons.

10th ,, Sacramento transferred to first division. LPC left mid-day.

11th ,, It has moderated. At 10 o'clock hands sent on board.

Transferred coal from Valentine to Baden. K.... very transferred 350 tons.

¹ This, and other evidence points to the German clocks being about 30' slow on our times.

NOTE.—The abbreviations may be ships' call signs. LE, LC, LPC, apparently refer to Leipzig, DR to Dresden, ST Scharnhorst, NL Nürnberg, K his Captain, Kommandauf.

13th Nov. Had guard. Frenchman on fire. Coal taken out. Fire put out.

14th ,, K.'s birthday. Officer of day.

15th ,, Coaling Baden and Amasis from Sacramento.
Went to sea in the evening.

16th " Course 177 degrees.

17th ,, We hear that the English Admiralty confirms the sinking of Good Hope and Monmouth in the action of 1st November.

r8th ,, (Undecipherable).

19th ,, Steering towards the shore, very likely towards Penas Gulf. From 8 to 4 very thick.

20th ,, Twelve miles off entrance to Penas Gulf.

21st ,, Arrived at Noon during rain and fog in San Quentin's Sound. Seydlitz and Memphis were there with 6,000 and 2,400 tons of coal. Coaling from Amasis until 8 p.m.

22nd ,, 4. Coaling from Amasis emptying after holds.

Beautiful view of glaciers (diary here has rough chart of place). ST. coaling 885 tons. Received presents from Punta Arenas.

23rd ,, S.S. Luxor arrives with coal from P. Arenas and large quantities of provisions. Wrote home.

Knorr and Schenk came on board. Doctor asserts Seydlitz and Moltke loaded with ammunition are making their way into the Atlantic.

24th , Taking water from Rubro river.

25th ,, On watch from 5 until 12.

26th ,, Coaling from Luxor. Have received of second class. (List of officers decorated). 4 p.m. went to sea.

27th ,, Very bad weather. Force of wind up to 12. Sea 9.

Steaming without any definite formation. Had
to reduce to 5 kn. P.M. weather moderated a
little so that we could proceed at 8 knots.

28th ,, Weather still very bad. Again had to reduce speed so that colliers could keep in touch. On the whole shipped remarkably little water. 4 p.m. increased

speed again. Sea and wind now astern. 4 to 6 beam sea.

- 29th Nov. Wind 8. Sea 12. SB partly not visible as the waves appear to be over 30...high. Impossible to lay the tables. Broken up furniture thrown overboard. All crockery was smashed. In the ship and in the mess there were water leaks everywhere. Impossible to be on deck. Necessary to secure oneself with ropes. We are about off the entrance to the Magellan Straits.
- 30th ,, Steaming at 10 knots. Much rain and hail in the first watch.
 - 1st Dec. Weather gradually moderating. At 11 o'clock dark. Horn 12. In the middle, it was hailing.
 - 2nd ,, Sighted two icebergs, appear to be 50 metres high.

 At the same time sighted a sailing ship. LC detached to investigate. Weather much improving. Sailing ship turned out to be English s.v.

 Dunmuir with 2,800 tons of Cardiff coal.
- 3rd ,, Dresden and . . . coaling from Seydlitz. We are lying at the eastern exit of the Beagle channel close to Picton Island. Saw sea lion 6 p.m. alongside Seydlitz. 3 p.m. muster for payment. Evening went on board Dresden.
- 4th ,, Coaling until 6 p.m. (rest undecipherable). News from home appears favourable. Russians seem completely beaten.
- 5th ,, In the forenoon went ashore, absolutely wild, no signs of life. In the evening Knorr and Sidemba came on board.
- 6th ,, We are going to Port Stanley. Sent a party on board sailing ship. Arranged . . . charge and was afterwards sunk by LC. Sank very slowly.

This is apparently an error, see page 423.—Hon. Editor.

EXTRACTS FROM THE LOG OF THE DRESDEN, WITH COMMENTS.

For many years past thinking men, both within and without the Service, have exhaustively discussed the question of our trade in time of war. The conclusions reached have varied from the deepest pessimism to complete optimism. We have been told on the one hand that the country would be starved within a few weeks, that famine prices causing internal disorders would quickly induce us to sign an ignominious peace, and that all this would be caused by the depredations of a few German cruisers and a swarm of armed German merchantmen. On the other hand there have been those, and I think they include the majority of service writers on the subject, who have drawn from a comparison of the Napoleonic wars with modern conditions, only the most hopeful conclusions.

After nine months of war we are able to judge of the accuracy of these latter views. It would be an investigation of the deepest interest to enquire, by a broad and comprehensive survey of all the operations of German ships without the North Sea, wherein their predictions have been falsified and wherein they have been fulfilled, and how it is that German ships have failed in the task which we have assumed to be the one assigned to them. But this investigation cannot be undertaken without full details collected from every station, backed by a complementary knowledge of the movements of our own ships, and the latter should not properly be revealed until the end of the war.

We may however examine the doings of certain German ships if they are known to us, and try to deduce from them the intentions in the minds of their commanders, and speculate on the nature of the general German plan.

In the following paper it is proposed to pass in review the movements of the German cruiser Dresden from the commencement of the war until she was sunk at Juan Fernandez on

March 14th, 1915. In so doing, we are able to throw some light on the later movements of the German Pacific squadron under Von Spee, and to extend our speculations to his future, had his squadron survived.

By good fortune we are possessed of the movements of the Dresden in some detail. The information was copied and translated from the observation book of an *Obersteuermann's Maat* (assistant navigator) serving in the Dresden. The book was commenced in December 1913, when the Dresden left Kiel, and contains the following information:—

Places and distances run before the war.

Places and distances run during the war.

Two pages of daily positions before the war.

Seven pages of daily positions during the war.

A list of coaling places and coal taken during the war.

A list of certain German steamers.

Account of expenditure of ammunition.

A list of events during the war.

These have been reproduced below as they were copied from the book, except that the noon positions have been omitted, and all information relative to the ante-bellum period.

The noon positions have been plotted on the accompanying chart.

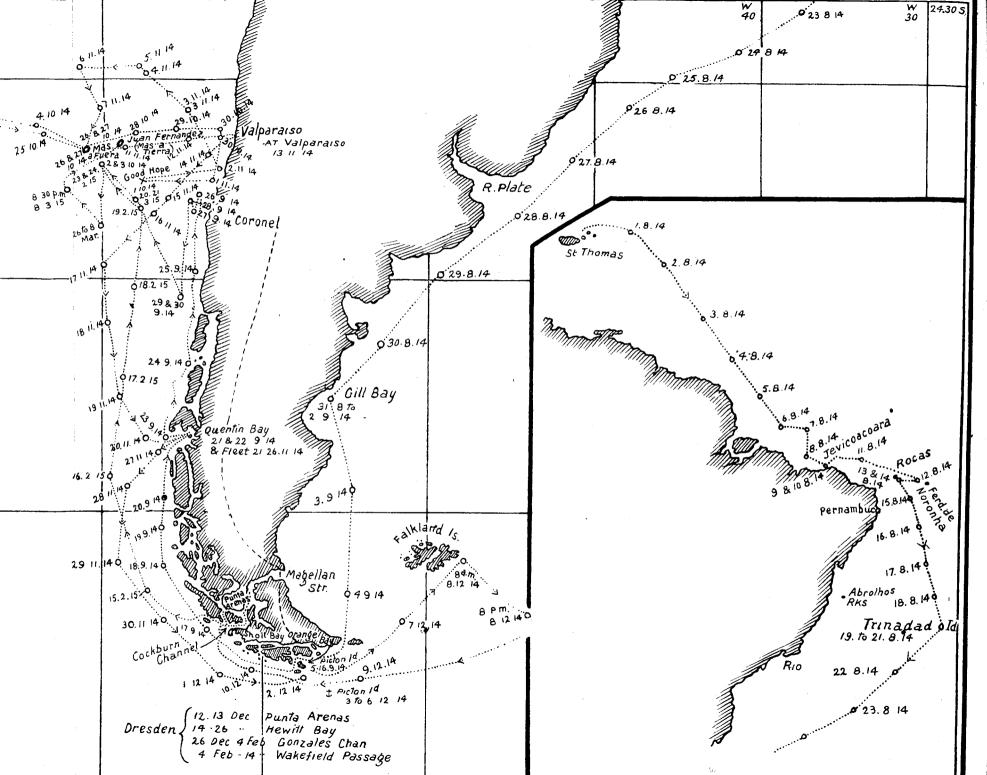
The notes on places and ships which follow have been inserted by the author of this paper.

EXTRACTS FROM THE OBSERVATION BOOK.

Page 2. Places and Distances Run During the War.

| Miles. |
|--------|
| 1500 |
| 1000 |
| 1050 |
| |
| 2300 |
| 800 |
| 900 |
| |
| 1350 |
| |

| | Miles. | |
|----------------------------------|----------------------|--|
| Mas-a-fuera to Easter | I. (towed by | |
| Baden ¹) | 1540 | |
| Easter I. to Mas-a-fue | ra 1540 | |
| Mas-a-fueraCoronel- | -Mas-a-fuera 1490 | |
| Mas-a-fuera to Valpar | aiso 470 | |
| Valparaiso to 40 00 S. | , 80°00 W 590 | |
| 40.00 S., 80.00 W. to 9 | Quintin Bay 540 | |
| Quintin Bay to 51 00 S | ., 80 00 W 350 | |
| 51'00 S., 80'00 W. to | Picton I 720 | |
| Picton I. to Falkland | Is 420 | |
| Falkland Is. to Sholl | Bay 750 | |
| Sholl Bay to Punta A | renas 65 | |
| Punta Arenas to Hew | ett Bay 130 | |
| Hewett Bay to ? Bay | 40 | |
| ? Bay to Gonzales Ch | annel 40 | |
| Gonzales Channel | to Wakefield | |
| Passage | | |
| Wakefield Passage | to 53.30 S., | |
| , , , | 160 | |
| ¹ 53'30 S., 77'00 W., | to Mas-a-tiera | |
| (Juan Fernandez) | 1290 | |
| • | | |
| ¹ Total | 19,035 | |
| Page 19. Co | ALS. | |
| Date. | Position. Tons | |
| 31st July, 1914. | St. Thomas. 828 | |
| 9th-10th Aug. | Jericoacoara. 570 | |
| 13th-14th Aug. | Rocas Island. 254 | |
| 19th-20th Aug. | Trinidad Island. 843 | |
| 31st Aug1st Sept. | Gill Bay. 855 | |
| 8th-14th Sept. | Orange Bay. 399 | |
| 22nd Sept. | St. Quentin Bay. 400 | |
| 2nd-3rd Oct. | Mas-a-fuera. 600 | |
| 12th, 15th, 16th Oct. | Easter I. 881 | |
| 26th Oct. | Mas-a-fuera. 588 | |
| 1 Not in the original | | |
| 3 | | |



| Date. | Position. | Tons. |
|------------------------|--------------------|--------|
| 8th, 9th, 10th Nov. | Mas-a-fuera | 908 |
| 21st, 22nd, 26th Nov. | St. Quentin Bay. | 742 |
| 3rd Dec. | Picton I. | 518 |
| 12th-13th Dec. | Punta Arenas. | 750 |
| 20th, 28th Jan., 1915. | Gonzales Channel. | 398 |
| 13th Feb. | Wakefield Passage. | I 22 |
| 24th, 25th Feb. | Hiller Ocean. | 450 |
| | | |
| | ¹Total | 10,106 |

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STEAMERS.

Amasis. Corrientes. Baden. Göttingen. Santa Isabel. Prinz Eitel Friedrich.

Santa Lucia. Sacramento. Persia. Rhakotis. Prussia. Memphis. Eleonore Woermann. Seydlitz.

Steiermark. Turpin.

Sierra Cordoba. Yorck. Esperdradu. Karnak,

Page 23.

AMMUNITION EXPENDED.

15th Aug. 1914, S.S. Hyades ... 42 rounds. 1st Nov. 1914, Battle off Coronel ... 102 rounds.

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EVENTS.

1st Aug. 1914. War commenced.

Sank S.S. Hyades. 15th Aug.

Sank S.S. Holmwood. 26th Aug.

Met S.M.S. Eber. 19th Sept.

12th Oct. Joined German squadron at Easter Island.

Battle off Coronel. ist Nov. Sank Titania.

12th Nov.

16th Nov. Sank S.S. North Wales.

2nd Dec. Sank French sailing vessel Grumurier.

¹ Not in original.

8th Dec. Battle off the Falklands.

25th Feb., 1915. Dismissed S.S. Cordoba.

27th Feb. Sank British sailing vessel Conway Castle.

8th ? Sank French sailing vessel Valentine.

Notes on H.M.S. Kent Chasing S.M.S. Dresden. 8th March 1915:—

2.37 p.m. Sighted Kent.

2.41 p.m. Engines started. Steered slowly to N.W 1st distance off 12,000 metres (measured).

3 p.m. Steered course 278 degrees.

3.45 p.m. 2nd distance off 12,400 metres.

4 p.m. 3rd distance off 12,500 metres.

4.10 p.m. 4th distance off 12,700 metres.

5 p.m. 5th distance off 15,000 metres.

P.S.—Crew of Conway Castle reported put on board Peruvian vessel bound for Callao.

Notes on the Foregoing Information.

St. Thomas (18.20 N., 65 W.).—A Danish West Indian island. One of the Virgins Group.

Jericoacoara (2'40 S., 40'30 W.).—A point on the coast of Brazil, near the mouth of the Paranahyba River. Probably uninhabited.

Rocas Island (3.52 S., 33.49 W.).—A coral reef in the Atlantic, 83 miles from Fernando Noronha. Both are uninhabited.

Trinidad Island (20'30 S., 29'22 W.).—A rocky island in the South Atlantic. Three miles long and 2,000 feet high. Uninhabited.

Gill Bay (45.4 S., 65.42 W.).—A bay on the coast of Argentine. Uninhabited.

Orange Bay (55.24 S., 68.4 W.).—A bay in Hoste Island just to the westward of C. Horn. Chilean territory. Described in the sailing directions as "an excellent anchorage, well adapted for a large fleet." Uninhabited.

St. Quentin Bay (San Quentin Sound) (46.52 S., 74.22 W.).—A bay on the coast of Chile in the Gulf of Penas. Unfrequented.

Valparaiso (33 S., 71'40 W.).—The chief seaport of Chile. Mas-a-fuera (33'46 S., 80'46 W.).—An island in the Pacific, about 460 miles to the westward of Valparaiso. Belongs to Chile. There is a convict settlement here, and communication with the outside world is rare.

Easter Island (27 S., 109 W.).—An island in the Pacific nearly 2,000 miles from the coast of Chile, to whom it belongs. Inhabited.

Picton Island (55.5 S., 67.6 W.).—An island near C. Horn. Belongs to Chile; probably uninhabited.

Punta Arenas (53'10 S., 70'54 W.).—A Chilean town in the Straits of Magellan, population about 10,000. It is the southernmost town in the world. The inhabitants include many Germans, and are supposed to have pro-German tendencies.

Gonzales Channel (54.5 S., 72.25 W.).—An uncharted channel to the south of Magellan Straits. In Chilean territory. Uninhabited.

Wakefield Passage.—Ditto.

Cockburn Channel.—A large channel leading out of Magellan Straits to the southward. All this is in Chilean territory. Uninhabited.

Sholl Bay.—An anchorage near the north end of Cockburn Channel.

Hewett Bay.—An anchorage near the south end of Cockburn Channel.

S.S. Hyades.—British steamer, 3,352 tons, Liverpool, British and South American Steam Nav. Co.

Holmwood.—British steamer, 4,223 tons, London, F. S. Holland.

S.M.S. Eber.-German gunboat.

Titania.—British, 4 mst. Bkn., 1,107 tons, Sydney, The Titania, Limited.

North Wales.—British steamer, 3,691 tons, Newcastle, North Wales Shipping Co. (Admiralty collier 253).

Grumurier.—?

Valentine.—French steel 4 mst. Bk., 3,120 tons, Dunkirk, Ant. Dom. Bordes and Fils.

Conway Castle.—British steel Bk., 1,694 tons, London, S. Conway Castle Co., Ltd.

Sierra Cordoba.—German steamer, 8,226 tons, Bremen, Norddeutscher Lloyd.

Baden.—German steamer, 7,676 tons, Bremen, Ham. Am. Of the ships mentioned in the Dresden's list, the Santa Isabel and the Baden were sunk at the Falkland Islands, the Eleonore Woermann was sunk by the Australia. The remainder are nearly, if not quite, all in South American ports.

The information contained above is a tolerably fair account of the movements of one ship. By following the positions on the chart and combining them with the other details of information, we are able to construct a more or less accurate narrative of that ship's actions. Next we should note one or two minor points of somewhat technical interest, before passing to a process of analysis by means of which we may hope to discover the actual motives which dictated those actions. Thence by a converse process of synthesis we may perhaps be able to reconstruct the German plan of action in the Atlantic and Pacific oceans.

THE NARRATIVE.

The Dresden left Germany at the end of 1913 and proceeded to Vera Cruz, calling at Funchal and St. Thomas on the way. Thereafter she was the German representative in the Mexican troubles, and remained on the coast of Mexico until the 21st of July. She was joined there by the Karlsruhe.¹

On July 31st, 1914, she was at St. Thomas, a Danish island, and there she took in over 800 tons of coal. On the following day she sailed, and it is significant that in the "Observation Book" this day, August 1st, is recorded as the commencement of the war. War between France and Germany was not declared till August 3rd, and between Britain and Germany till August 4th. It was the Dresden's duty to be well away before hostilities commenced, so that she could disappear and avoid immediate capture.

We do not know when or where she met her first collier, but an examination of the chart shows that she made a sudden

1 The captains of the two ships exchanged.

deviation from her course on August 7th, and that subsequently she went close into the coast, so that it was probably on that date. It must be remembered that the Germans were using as colliers large ships fitted with wireless. On August 9th and 10th the Dresden coaled at Jericoacoara Point, sailing on the 10th. By the 12th she was half-way between Fernando Noronha and Rocas Island, and the distance steamed on that day (196 miles) suggests that she examined Fernando Noronha before going to Rocas Island to coal on the 13th.

On August 15th the Dresden made her first capture. Leaving Rocas Island on the 14th her course took her directly across the great trade route which runs up the coast of South America as far as Pernambuco and thence bends across the Atlantic. Whilst crossing this zone, and purely incidentally in the course of her voyage, she met and sank the S.S. Hyades. That it was an accidental meeting, in so far that the Dresden was not then devoting any time to the attack of trade, is shown by the fact that her course in no wise conformed to the main trade route, but took her much farther out to sea. It was merely calculated to take her from Rocas to Trinidad by the shortest route.

On August 19th she arrived at Trinidad Island to coal again. This time she stayed two days, leaving on the 21st. As Trinidad is a barren and quite uninhabited island, over 500 miles from the continent of America, this stay can hardly be said to have stretched appreciably the bounds of any nation's neutrality.

From Trinidad to Gill Bay, the next selected coaling place, a straight course lies 200 miles off the mouth of the River Plate. This is quite outside the trade route going north from that very frequented waterway; but by a small deviation, involving a very slight lengthening of her journey, the Dresden came within 80 miles of the coast to the northward of the River Plate, and thus succeeded in meeting and sinking another British ship on August 26th. This was the Holmwood. Once again we must observe that the event was purely fortuitous. The Dresden did not for a moment check her hurried career in order to remain in the vicinity of this focal point of South

American trade; she carried on to the southward with unabated speed, and therefore did not pick up any more British ships. On August 31st she arrived at Gill Bay and coaled, 855 tons: this last stretch from Trinidad I. was 2,300 miles.

Still, the Dresden did not tarry but left again on September 1st for the last part of the Atlantic journey, 800 miles to Orange Bay. This is a large harbour a few miles to the north and west of C. Horn, but uninhabited. Here she was at last clear of the Atlantic, and here she paused for 11 days. Up to this time the daily run had varied between 240 and 290 miles, giving a mean speed of something over 11 knots. She had steamed 6,600¹ miles at this speed, with scarcely a deviation from the straight course, with but four stops none longer than necessary, with no incursions into civilisation, and leaving no clues behind her. Her object must have been to get out of the Atlantic as expeditiously and as secretly as possible.

On September 16th the Dresden left Orange Bay and started her Pacific cruise, keeping up her previous speed for one day and then dropping to $8\frac{1}{2}$ knots. It would appear that she was no longer in a hurry; either her proper career was about to start or else she was waiting for some event to occur. By the 18th she was off the western end of Magellan Straits, keeping well inshore in marked contrast to her course in the Atlantic.² It was obvious that she no longer feared to meet with delay, she was looking for ships rather than avoiding them. On the following day she met the German gunboat Eber. What the result of that meeting was we cannot tell. At all events it had no apparent effect on the Dresden's actions, and she continued to cruise to the northward, keeping fairly close inshore well within sight of passing steamers.³

On September 21st she entered the Gulf of Penas and anchored in St. Quentin Bay. This spot is not entirely unfrequented, for the fact of ships having visited it becomes known. On the 23rd she was at sea again; by the 26th she was only a few miles off the land somewhat to the northward

¹ Since Aug. 1st. 9430 from Puerto, Mexico.

² This must have been the day on which she fired on the P.S.N. Co.'s Ortega and chased her into Nelson Straits.

³ The writer is not aware what happened to the Eber.

of Coronel. She stayed within fifty miles of this port for two days and then struck south again. This time she kept some 40 miles further on, thinking perhaps that she had missed the track of British ships when on her way north. But on September 29th she turned suddenly and made for Mas-a-Fuera at 11½ knots. Her action irresistibly suggests that she received a definite order at this moment.

On October 2nd and 3rd she coaled at Mas-a-Fuera and from there she was towed to Easter I. by the Baden. The journey of 1,500 miles was accomplished in seven days, giving a mean speed of nine knots. The best day's run was 240 miles. On October 10th Easter I. was sighted: the Dresden steamed round it on the 11th: on the 12th the Scharnhorst, Gneisenau, and Nürnberg arrived from the west, and the whole squadron anchored.

The squadron remained at Easter I. till October 19th, and it is believed that the Leipzig also joined here, though it cannot be stated for certain by the present writer.³ Henceforth the movements recorded are those of the Dresden, but they are identical with those of the Scharnhorst and Gneisenau.

On October 26th the squadron arrived at Mas-a-Fuera and coaled. They left again next day and at noon on the 30th they were about 50 miles west of Valparaiso; the following day also their position was about the same. There cannot be any doubt that they were getting information from the shore, probably by wireless, for on that day, October 31st, the day the Glasgow went into Coronel with telegrams from Admiral Cradock, the squadron started south. Next day, in the evening, they fought the action off Coronel and sank the Good Hope and Monmouth. From the "Observation Book" we know that the Dresden was present at that action; from survivors of the Nürnberg we know that she also was present; therefore the

¹ The noon positions of 27th and 28th are only ten miles apart, but the ship steamed 200 miles during the interval.

² At this time the Scharnhorst was nearly 4,000 miles away, therefore the order did not come direct from her. It must have come from Chile by wireless. Possibly the Dresden had heard of the arrival of four British ships in the Pacific. This was Cradock's squadron.

³ Compare note 2 and NAVAL REVIEW, Vol. III., No. 1, p. 159.

older and slower Leipzig was left in charge of the colliers. We know also that on the following day two light cruisers went into Valparaiso, but the Dresden's log shows that she did not; therefore those cruisers were the Nürnberg and Leipzig. The two big ships and the Dresden stood out to the north-west, and from the 4th to the 5th they were stopped; probably the other two rejoined here. Then, travelling by what seems an unnecessarily circuitous route, the squadron returned to Mas-a-Fuera on November 8th.

It is interesting to note how these movements deceived or otherwise. All the ships were reported as leaving for the north. The British squadron on the other side of America received this report, as did the Australia in the western Pacific; the latter in fact went to Mexico at once. The blind therefore was perfectly successful for the moment; but it was almost immediately raised, for the squadron left Mas-a-Fuera again on the 10th and steamed straight to Valparaiso. The Scharnhorst, Gneisenau, and Dresden anchored in the Bay. The others were left outside, and probably out of sight. (Nov. 13.)

The visit afforded the local German colony the opportunity of giving a banquet to the officers of the squadron, and it was at this function that Admiral Von Spee refused to drink "damnation to the British Navy." He also expressed his belief in the speedy termination of his own career.

The day before reaching Valparaiso the Dresden reports sinking the Titania, a British sailing ship. This again was the result of pure chance and not of deliberate search.

At Valparaiso Von Spee got all the information that he wanted, and he certainly heard that the British ships were going north on the other side of America to concentrate on the coast of Brazil. Without further hesitation he started south, keeping no less than 300 miles out to sea, determined to avoid observation. By great good fortune his squadron ran across the North Wales, an Admiralty collier, proceeding southwards from Juan Fernandez where she had been since the action off Coronel. Von Spee put into St. Quentin Bay where he coaled

¹ This accounts for the Portsmouth coir fenders which were recovered from the Dresden when she sank.

and stayed five days. This stay was reported, and the report reached Sturdee's squadron which was coming south in the Atlantic.

On again putting to sea Von Spee stood out about 200 miles from the land before heading south. On December 2nd the French sailing ship Grumurier was sunk east of the Horn, and on December 3rd the squadron anchored at Picton Island. They coaled and remained three days before proceeding for the Falkland Islands. Sturdee's squadron reached Port William on the morning of the 7th, Von Spee's left Picton Island on the 6th; neither admiral was using wireless, neither was aware of the other's proximity. The result we know.

On December 8th the Dresden was last seen escaping to the southward. Her position was as follows. There was but little chance for her consorts, and her colliers would almost certainly be captured or sunk. She herself had got clear away, but the British ships were certain to begin the search for her very soon. She had, therefore, to visit some port in order to ascertain the result of the action, and to make some arrangements for her own future supply; and then, whilst waiting for these arrangements to fructify, she had to lie securely hid in some unfrequented spot.

The port she chose to visit was Punta Arenas, and for her purpose it was the best available. To begin with, it was the nearest. It could be approached by the Magellan Straits from east or west, and though the main entrances to the Straits might possibly be watched by the time that the Dresden arrived, yet there are several other channels by which they may be entered. Again, the very hiding place was near at hand; the innumerable channels of Tierra del Fuego and Patagonia would hide many ships for many months, even in the face of a vigilant search.

To Punta Arenas then she went, steaming fast round the Horn, and entering Magellan Straits from the southward by way of Cockburn Channel. She learnt that she was now quite alone, all her arrangements had to be made afresh, and she had to begin again by losing herself until the hue and cry should be past. The German consul strongly urged intern-

ment, but with a fortitude which we cannot but admire she determined to carry on single handed.

After filling up with coal, she left Punta Arenas on December 13th 24 hours before the arrival of two British cruisers. From that date till March 8th she was seen no more. save by the one ship which she sank. The first two months of this period were spent in the uncharted region to the south of the Magellan Straits. Here there are no regular inhabitants, and no passing ships; even fishermen are unknown. Securely hid behind the snow-clad mountains, sheltered from the winds in land-locked harbours, the Dresden lay and cleaned her boilers, and scraped her bottom, and patched her hard worked engines. First she went to Hewett Bay for 12 days. This is a charted but secluded anchorage, and doubtless this time was spent in sounding the neighbouring channels and selecting a haven suitable for her purpose. On December 26th she shifted to Gonzales Channel, which has two entrances and the whole of which is unsurveyed. Here she stayed till February 4th. It is probable that her supply ship, the Sierra Cordoba, joined her in Hewett Bay, for the former cleared from Monte Video for Callao on December 18th with coal and water.2 Twice in January the Dresden coaled.

On February 4th she shifted her berth to Wakefield Passage, an anchorage near the Pacific end of Gonzales Channel, so we may suppose that she was all ready to go to sea. The Sierra Cordoba was still with her, and she coaled again on February 13th, before finally abandoning her hiding place on the 14th. Why she remained so long is something of a mystery. The only conclusion we can come to is that she wished the pursuit to die out. No reliable information as to her position was ever received by the British cruisers during this time, and it is in the highest degree unlikely that the Chilean authorities were in the secret, for the Dresden could not afford to trust them however highly Germany might pay

¹ She coaled from the German ship Turpin.

² The Sierra Cordoba was actually met and boarded by a British cruiser. She was allowed to proceed because the meeting occurred in neutral waters. Her capture would seriously have inconvenienced the Dresden, to put it no more strongly.

for the accommodation. Rumours were rife throughout the length of the Chilean coast as to her whereabouts, but all were vague to a degree as long as she was there. After her departure the stories became more circumstantial, and reports came through the British Consul at Punta Arenas of people who were prepared to swear that they had seen her. places in particular were actually mentioned, neither of them very accessible, both almost uncharted and full of dangers to navigation. Both were visited by British cruisers at the beginning of March: neither was ever visited by the Dresden. It seems almost that these rumours were circulated for the sole purpose of luring the British cruisers into dangerous places and keeping them busy, whilst the Dresden passed up the coast and picked up her supply ships from the various Chilean ports. If so, their object was achieved in both particulars, for the Bristol damaged her rudder in Last Hope Inlet at the end of February, and the coasts of Chile and Peru were cleared of British ships by these very rumours.

We have no reason to doubt that the Dresden received news, information, and even fresh provisions from Punta Arenas during the whole time of her stay in the south. The distance was less than 100 miles by sheltered channels, and it was not difficult to smuggle by means of the many Chilean steamboats which may be hired at Punta Arenas. But it was by this very communication that she at last gave herself away. One of her last telegrams was intercepted or discovered, and it was this telegram, giving a rendezvous for a collier, which located the Dresden and brought about her meeting with the Kent.

To resume our narrative. When the Dresden left Wakefield Passage she once more stood northward into the Pacific, but this time she kept 300 miles out to sea, not risking any approach to the main trade routes where she would soon be reported by neutral shipping, and where she knew the British cruisers to have been. Accompanied by the Sierra Cordoba she continued steadily northwards until February 19th, then she stopped for three days in Lat. 36 30 S., Long. 77 45 W. Apparently nothing was seen, for on the 22nd she proceeded

northward to a position some way south of Mas-a-Fuera. Here she stopped for three days again and coaled for the last time in her career. The Sierra Cordoba was dismissed after this coaling. On February 25th she steamed south, and at eight p.m. on the 26th she stopped in Lat. 37.52 S., Long. 81.05 W. It must be noticed here that the rendezvous referred to above was in 37 S., 80 W., and was to last from March 5th till the end of the month. She had almost passed through it on the 26th.

On February 27th the "Observation Book" records "50 miles to the north-west and back again," and under remarks we find "sank Conway Castle." The crew were "reported" as placed on board a Peruvian vessel bound for Callao. How this was done it is hard to say, since it is not very likely that a Peruvian ship would be so far out, and the word "reported" is peculiar. Perhaps the Sierra Cordoba was recalled by wireless, for she did not reach Valparaiso till March 3rd.

From February 28th till March 8th the Dresden remained stationary, according to the "Observation Book." And yet on March 8th she was sighted by the Kent about 2.30 p.m. some ten miles to the west of the Rendezvous. Both ships were stopped at the time, and if the Dresden had been stopped since February 28th she had, in ten days, drifted north-east-by-east (true) 55 miles. The only peculiarity about this is, that the drift experienced by the Kent whilst waiting at the rendezvous was in a direction east-south-east (true).

The Kent had been on the rendezvous for two days, stopped nearly all the time, occasionally steaming to regain her position. By her own account the Dresden had been stopped for ten days. She made no attempt to close the rendezvous to see whether it was occupied by her collier. Probably she was relying on that ship's wireless to inform her of her arrival. March 8th was a misty day, visibility not above three miles; not a sound disturbed the calm air, not even a flicker of wireless was heard in the wireless room. Quite suddenly the mist lifted and the two ships were revealed to each other about 12 miles

¹ She went to Valparaiso, took in coal, and left again on March 7th. She eventually put into Callao where she now is. On April 26th she was said to have 750 tons of coal on board.

² She put into Valparaiso to land the crew of the Conway Castle.

apart. The Kent at once turned and approached, and 15 minutes later the Dresden also turned and ran. The delay had not been sufficient to enable the Kent to get within range, and thereafter the distance uniformly increased. Five hours later darkness came and the chase was abandoned.1

Probably of all things the Dresden least expected to be met on her rendezvous by a British cruiser. She was now in a quandary: if she returned to the rendezvous she would be discovered again, but her collier was already overdue and might even have been sunk by the Kent.2 Accordingly she made a wireless signal appointing a rendezvous at Juan Fernandez (Mas-a-Tierra), and after dark she turned and proceeded thither. She arrived on March oth and anchored in Cumberland Bay. Here she was in a strong position for if a collier turned up she could go out and coal, but if a British ship arrived she could claim the protection of the Chilean flag, and say that she was waiting for adequate officials and force, by whom she might be interned.

As it happened, three British ships, the Kent, Glasgow, and Orama, turned up on the 14th. Without waiting to argue the question from the Dresden's point of view, they fired on her until she surrendered. After that her officers blew her up. Thus ended the somewhat peculiar career of the Dresden. After leaving Mexico on July 21st she steamed just over 20,000 miles, and took in 10,106 tons of coal. She sank but seven merchant ships of the Allied Nations in 7½ months; was present at the action off Coronel where she fired 102 rounds. and at that off the Falklands where she did not fire a shot. In six months she spent no less than 84 days at anchor within Chilean waters, and fired on a British mail steamer within the same limits. Who was she to object to the manner of her end in an open undefended Chilean anchorage, which entirely lacked the force to impress upon her the law of nations, and thereby to guarantee to the British cruisers that they would not again be cheated of their prey?

¹ Dresden does not appear to have seen Kent as soon as Kent saw Dresden. Note the first range in Dresden's report, and the fact that she was under way 4 minutes after sighting the Kent, steaming slowly to the north-west. The latter was certainly closing as fast as steam would permit for 15 minutes before the Dresden moved, and the Dresden was heading about east when sighted.

2 The collier she was expecting was the Gotha, but the Sierra Cordoba left Valparaiso again on March 7th.

COMMENTS.

It is of interest first to notice that only once did the Dresden coal at sea. This was at the very end of her career when she was shunning even the ordinary trade routes, and when she might have suspected that the anchorages which she had used before were known to her pursuers. On all earlier occasions she had sought some sheltered but uninhabited spot. During the course of her long journey from Mexico to the Pacific she did not touch at a single inhabited spot after leaving St. Thomas.

It is very noteworthy with what ease the German ships maintained their supplies without the vestige of a base. fact, strange as it may seem, it was their lack of a base which enabled them to last so long. In the China Sea the Germans had a strong naval base at Tsingtau. The Emden was the only German cruiser which visited it after the commencement of the war. Von Spee collected his forces in the Caroline Islands and thus avoided a second Port Arthur for his fleet. He had another base, Herbertshohe or Rabaul, in the Bismarck Archipelago. Here the Australian fleet vainly waited for him to turn up when Tsingtau was drawn blank, but once again Von Spee was too wary. He never went near Rabaul. Abandoning both his prepared bases he went east. For if he had depended on a base he would have been located, and his supplies would have been located, and once this was done a superior force could immediately have been brought upon the scene. He demonstrated what is perhaps a new conception: that the true rôle of the commerce destroyer or wandering raider is to work without a base at all; for he is by hypothesis without command of the sea, and therefore any base is at once vulnerable. The wandering raider cannot defend it without relinquishing the object of his existence, and a base besieged is no base at all.

But supplies he must have, and these can only be obtained by organisation, an organisation requiring many ships in many neutral ports, and served by a comprehensive and secret intelligence system covering all those ports. The junction with the supply ships can be made by rendezvous at sea, and any unfrequented anchorage becomes the temporary base where the supplies may be transferred; a base to be abandoned almost as soon as chosen, never perhaps to be used again. There is no fountain head of supply where the stream may be cut off, and no main channel where it may be dammed up. The system lacks but one requisite, and that is the means for large repairs or docking. Here at last the wandering German cruisers would have come to grief, but no one of them remained at large long enough for the want to be felt.

Another point to be observed is the careful choice of ships to carry supplies and coal. Every ship employed had wireless, some of them could steam 14 knots. Being big ships they were also capable of towing the smaller German cruisers. Thus when the Dresden found herself about to travel 1,500 miles over a track on which she was very unlikely to meet any other ship, she preferred to be towed, saving her own coal whilst expending that of the collier. She saved also on the total expenditure of coal, for by towing the engine and propeller losses are halved.

If we look back upon the narrative we see at once that it is easily divided into three periods. The first period is from the beginning of the war until the Dresden met the Scharnhorst. The second is that during which the squadron cruised in company, and is terminated by the action off the Falkland Islands. The third is the Dresden's single-handed effort after the loss of the squadron. We will now consider the first and third periods which have one common characteristic—they deal with the Dresden alone. Afterwards we will consider the second period which deals with the doings of Von Spee's squadron, and therein differs materially from the other two.

FIRST PERIOD.

The first period presents four main features.

- (1) When war broke out the Dresden was in the Atlantic.
- (2) She steamed immediately to Cape Horn.
- (3) After staying there for 11 days she cruised for about a fortnight in the Pacific.
- (4) She then suddenly joined the Scharnhorst at Easter I.

From the second fact it is obvious that the Dresden was not intended to play any part in the Atlantic, for before war was actually declared she was making for the Pacific at the respectable speed of 111 knots. Why then did the outbreak of war find her still 6,000 miles from C. Horn? With so well organised and well prepared a country as Germany we should expect to find all ships at their appointed stations at the moment, the chosen moment, at which she broke the peace. The reason is not far to seek. Looking back at the Dresden's movements prior to hostilities we find that she left Puerto Mexico for Jamaica and St. Thomas on July 20th; her flight to the Pacific began on that date. Turning to the other side of America, we find that the Nürnberg, recalled to Von Spee's flag, left San Francisco on July 21st. Therefore it was about July 20th that the German Admiralty began to collect their scattered cruisers, and to despatch them to their war stations. Previous to this date the chances of war with England had been so remote that no preparative measures had been deemed necessary. Thus the Dresden remained in Mexico owing to local troubles, and the fortnight's warning was insufficient to enable her to gain her proper sphere before hostilities commenced. This would have been a matter of no moment for a war with France alone; but the war with England had not been expected.

Our next task is to try to discover why the Dresden went to the Pacific. There are two possible explanations of her movements:—

Either she came to attack our Pacific trade, or she came to join Von Spee.

In favour of the first supposition we may say that her movements from September 16th to 29th certainly conform to such an explanation. Furthermore we had then no cruisers on this coast. The Germans had many merchant ships in Chilean harbours, and almost certainly private wireless arrangements on shore. On the other hand, the west coast of South America is a conspicuously bad place for the attack of British trade, which is there but of small volume and very scattered over a wide area. A glance at the trade route charts

shows the much greater suitability of the Atlantic coast north of the River Plate, and the Dresden was already near to this point. By coming to the Pacific she wasted six precious weeks and nearly 4,000 tons of yet more precious coal.

In favour of the second supposition we find that she actually did join Von Spee, but this may have been caused by the pursuit of Cradock's squadron.¹ Against it we may say that Von Spee certainly did not really need her; she would have been of more use destroying trade, for which purpose he had already detached the Emden.

Reviewing all the circumstances it seems probable that the Dresden really came to the Pacific to attack British trade there. Her junction with Von Spee's squadron was caused by her knowledge that four British cruisers were searching the coast for her, and that the material damage she had succeeded in inflicting was nil. The movements of the Dresden in company with the Scharnhorst cannot be said to alter this conclusion at all, and the fact that she returned to the same station in 1915 is in itself a confirmation of it. Let us consider whether this plan was calculated to extract the greatest value from her existence.

When attacking trade the first thing to decide is where to attack. The best spot is a point of convergence of the enemy's trade routes, as near as may be to the attacker's source of supply, and as far as may be from the enemy's coast or bases.

A glance at the trade route charts shows that the great focal points of British trade are as follows:—The mouth of the English Channel; the western end of the Atlantic lane; the Straits of Gibraltar; the mouth of the Red Sea; the Indian Ocean in the neighbourhood of Colombo; C. Verde Is.; and the neighbourhood of Pernambuco.

The first is out of the question, for though it is the nearest to Germany, yet for the purposes of this attack on trade the German harbours are non-existent. They are closed in such a manner that no commerce destroying cruiser can use them, and at the same time the British Islands lie athwart them and nearer to the ocean trade.

¹ See NAVAL REVIEW, Vol. III., No. 1, p. 166.

The western end of the Atlantic lane is also very risky, for it lies close to Canada, and is almost the first spot to be reinforced from England in time of war.

The Straits of Gibraltar are entirely dominated by the British possession of Gibraltar, and the whole Mediterranean is closed to German operations.

The mouth of the Red Sea is uncomfortably commanded by Aden, a garrisoned and defended British port.

The vicinity of Colombo also is close to sufficient British bases.

All these places have grave disadvantages from the point of view of their nearness to British bases, and in no case are they well situated for the particular form of supply which had to be adopted by the German cruisers. The United States is too firm and watchful a neutral to allow much coal to escape; the Indian Ocean offers no point of supply at all so that every collier must make a perilous voyage from a far port.

But the trade of the Indian Ocean has one peculiar characteristic; it is particularly valuable, vital, and necessary to the British Empire. It is trade between England and India, and its loss would have a greater effect upon the British Empire than the loss of the trade with the neutral republics of South America, for instance. This consideration is sufficient to make the Indian Ocean and the Bay of Bengal of importance to German cruisers.

Between C. Verde Islands and the Canaries is the junction of the South African and South American trade routes. It is not over far from Sierra Leone and Gibraltar, but on the other hand the islands themselves are starting points whence German merchantmen may creep out with coal for German cruisers.

But the ideal spot for the attack of British trade is near Pernambuco, the focus of the West Indian trade to South America, one of the greatest trade routes in the world. South America is the one place in all the world where the German ships can get away from British bases. From the West Indies at the northern extremity of the continent right down to the Falkland Islands at the southern extremity there is no British port, and the Falkland Islands afford but an undefended

anchorage. At the same time South America was one of the great supports of German sea-borne trade. In every port of the continent German ships are to be found awaiting but the signal to go forth to some secret rendezvous with their life-giving supplies of coal and provisions. All possible strength should have gone to the attack of this ideal spot, for it is a point of convergence of the enemy's trade routes as near as may be to the attackers only available sources of supply, and as far as may be from the enemy's bases.

With this preliminary examination of the world let us see where the Germans actually attacked our trade. The Karlsruhe, the fastest and most modern of their light cruisers, operated near Pernambuco. The armed liner Kronprinz Wilhelm also operated on this trade route. The Kaiser Wilhelm der Grosse commenced operations near C. Verde Islands, but her career was soon cut short. The Emden was detached from China to attack the Indian trade in the Bay of Bengal, and the Königsberg was also in the Indian Ocean. The Nürnberg was recalled from San Francisco to the China Squadron, and the Leipzig was left on the west coast of America. The Prinz Eitel Friedrich also started in the Pacific. The Cap Trafalgar was in the Atlantic.

The Dresden was already in the Atlantic and yet she steamed 9,000 miles to gain the Pacific Ocean, where British trade is comparatively scarce. So marked is this scarcity that it counterbalances the ease with which she could obtain supplies and information from Chilean ports, and the distance from any British base. After a brief fortnight, during which she captured nothing, she joined the flag of Von Spee and abandoned the rôle of commerce destroyer. Thus the first six weeks of the war were wasted by the Dresden, the waste being relieved only by the sinking of two British steamers quite by chance. These weeks were wasted for no corresponding advantage. Far better had she been employed like the Karlsruhe on the great Atlantic trade route, where she might at least have made a rich haul during this time. Therefore we conclude that her station in the Pacific was an error, unredeemed by any possibility of success.

THIRD PERIOD.

If this is true of the first period of her career it is true also of that last period in which the Dresden reappeared in the Pacific. There was no greater chance then than there had ever been of finding British merchant ships in Pacific waters; and the Chilean government had been moved to intern the ships of the Kosmos line on some of which she was depending for coal, and to threaten the Dresden herself with internment should she appear in a Chilean port. All the coal she actually received, or came near to receiving, during this last period came from Atlantic ports and not from Chile. The removal of the powerful German cruisers left the British cruisers free to move about singly, and thus they could cover much more ground and threaten her with much greater risks. So much did she realise the increase of these risks that she no longer sought for British ships close in shore, but instead, she lay for days together in the open sea on the Australian trade route to Val-This route is used almost exclusively by sailing ships; it is not on sailing ships that the wealth of England depends. Once again the Dresden would have been better employed on the great Atlantic trade route. Here she would have been nearer to her remaining sources of supply, more confident of immediate success, and at least as well placed for flight from overwhelming force.

SECOND PERIOD.

"A cruising commerce destroying warfare, to be effective, must be seconded by a squadron warfare, and by divisions of ships of the line, which, forcing the enemy to unite his forces, permits the cruisers to make fortunate attempts upon his trade. Without such backing the result will be simply the capture of the cruisers." 1

An exhaustive examination into the history of past wars supplies us with this conclusion. Does a comparison of the conditions at the beginning of the 19th and 20th centuries lead us to any different conclusion, or is this one of the great broad principles which may be followed through all history despite the transition from sails to steam and the development of cables

¹ Mahan: Influence of Sea Power on History.

and wireless? Is this the considered opinion of naval strategists which presented itself to Germany when faced with the problem of the attack of British trade at the beginning of this war?

In the NAVAL REVIEW for February, 1915, appears an article, a large part of which is devoted to a consideration of this question. The article was written before the war and therefore is inspired by only the same knowledge of facts as could be brought to bear at the commencement of the war. Therein the conclusion is reached that the statement is still true, that a "cruising commerce destroying warfare, to be destructive, must be seconded by a squadron warfare."

As might have been expected the statements made in that article have not all been borne out by the experience of actual warfare. For instance it was argued that modern ships, being dependent upon coal, are very much more dependent on bases, and are therefore less efficient as commerce destroyers. But this condition has been combated by the admirable organisation of the German supplies. Their cruisers actually did exist without any base at all for some months, and it was not the lack of a base which brought about their respective ends. Rather this lack was a very shield in their defence, a cause of bewilderment and uncertainty to their pursuers. In this respect, and in the particular instance of this war, the modern commerce destroyer does not compare very unfavourably with her prototype.

This but confirms the truth of our original statement; it was true of the past and it is true of the present. Now its primary application was seen in the assistance which the German High Seas Fleet rendered to the German outlying cruisers, cooped up though that fleet was in its own harbours. It enforced a concentration of our forces in the North Sea.

But it can also be applied to the correct use to be made of the Scharnhorst and Gneisenau, two powerful cruisers inevitably isolated from the forces of their country, and it points at once to their true rôle. Just as the Grand Fleet, "lost to view amid the Northern mists . . . silent, unsleeping, and as yet unchallenged," controls the trade of the world, so the Scharnhorst and Gneisenau by the very fact of their existence and conjunction produced effects which were felt to the furthest limits of every ocean. In the words of the First Lord of the Admiralty they "had to be watched for or waited for in superior force in six or seven different parts of the world at once . . . we had to use old battleships to give strength to cruiser squadrons."

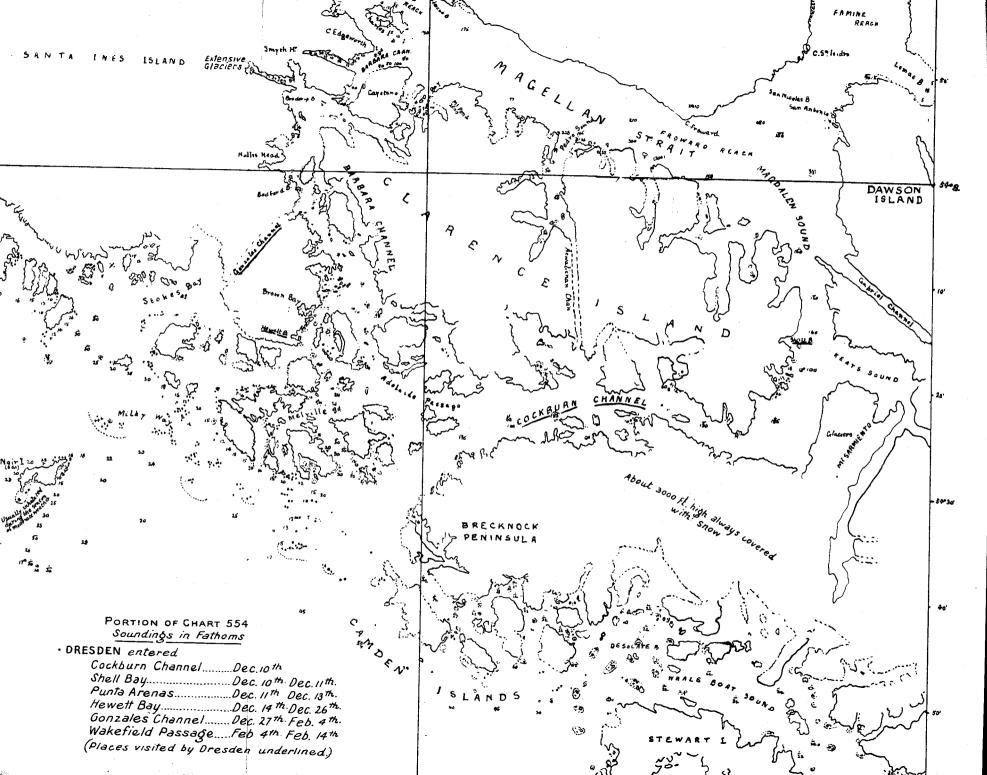
Purely from theory then this is the rôle of the Scharnhorst and Gneisenau:—To keep together and thus "force the enemy to unite his forces," or, in the event of his failure to do so, to annihilate the scattered detachments of those forces; to move about the world without any fixed base, appearing first in one ocean and then in another, served by a system of supply having its beginning in almost every neutral port in the world and its end at constantly shifting rendezvous; to avoid all forces stronger than themselves; to threaten the communications of British detachments and oversea forces, and to destroy those communications where undefended.

Let us see how their actions conformed to this theory. The known facts concerning Von Spee's movements are as follows:—

- (1) After preparing for war in the Caroline Islands, he came steadily, though slowly, east across the Pacific.
- (2) At Easter I. he picked up the Leipzig and Dresden, already on this station.
- (3) He sank two British armoured cruisers and scattered the remaining British ships opposed to him.
- (4) He made no attempt to attack trade.
- (5) After vanishing in a false direction to coal he appeared openly at Valparaiso.
- (6) He made for the Falkland Islands by an unfrequented route and was prepared to land there.

Also we must note one further fact; the Emden had been with the squadron, but was detached to attack British trade in the Bay of Bengal.

Now, the eastern movement was forced upon the Germans. In the Western Pacific they were faced with the Allied squadrons on the China Station, the Australian Navy, and the Japanese Navy. They could not stay west and prosper.



They might have stayed in the Pacific Islands without discovery for untold months, but there they would have been doing no good except in so far as the menace of their undiscovered whereabouts would have hampered the free movement of British ships all over the world. But such a menace, unbacked by any illustration of its reality, would soon have lost its potency.

Early in the war, Von Spee detached the Emden to attack a vital trade route, rightly counting that she would do more good on that service than in company with himself in mid-Pacific. Then he turned towards the coast of America. On approaching it he was joined by two more light cruisers, both worried by the presence of hostile ships. From these he learnt what forces were opposed to him in the South Pacific. Had there been a superior British squadron on this coast he would still have had to remain undiscovered, a fugitive on the seas. As it was the British weakness, due perhaps to the German's seeming lack of stomach for a fight, or perhaps to a sense of security occasioned by the tardiness of their appearance, brought about that very state of affairs for which Von Spee was longing. He seized his opportunity and signally defeated an inferior British force.

At once that sleeping, almost forgotten, menace was rediscovered, and, magnified by the blinding light of unexpected defeat, became a very present fear. All over the South Atlantic the British cruisers hurried in to join their flags, British trade in South America was held up, insurance on British cargoes rose, British prestige throughout the world was rudely shaken.

Meanwhile Von Spee, skilfully giving the impression that he had gone north, retired to consider his next step. To the north there was a Japanese squadron, perhaps inferior to his own; he might with luck have repeated his stroke in this direction. To the south there was nothing but a shaken light cruiser and an aged battleship; beyond that the undefended Falkland Islands and the Atlantic. To the west there was the barren Pacific, and all those forces which he had come east to avoid.

His choice between the three alternatives shows us his true appreciation of the principles on which he was acting. It was not his policy at once to repeat his stroke and risk his ships again in order to sink more enemy cruisers. He could never hope to exterminate them all. But rather it was his policy, now that he had demonstrated the reality of that menace of which he was the incarnation, discreetly to vanish, leaving all in a turmoil of preparation for his coming, and next to appear at some quite different spot.

Accordingly he went to Valparaiso, presumably to give the impression that he was staying in the vicinity, and then left by a route far removed from the ordinary lines of trade. Leaving the chance of a second victory in the North he turned south. He took the whole force with him, perhaps intending later to transfer the Dresden and Leipzig to some more fruitful station. Had he now followed his policy to its proper conclusion, and, avoiding all places where he might immediately be expected, appeared again where least expected; had he in fact carried on to South Africa as there is reason to believe that he had some intention of doing later, he might perhaps have reaped another advantage. But he was carried away by the idea of another spectacular stroke, another blow to British prestige. He risked his all in the hope that the erstwhile undefended Falkland Islands were still without a guard. turned aside to try and capture a British colony, and hoist for a little while the German flag where the British flag had flown. And thus he failed.1

With him vanished the last hope for the German war on commerce. The fate of the few remaining ships was made more certain; the truth of the old laws of war confirmed.

¹ The capture of the Falkland Is. would have been a blow at British communications, but he had no troops with which to garrison the place. He could only have destroyed the wireless installation, taken what coal there was and what provisions he could get, and then, leaving the German flag flying, abandoned it to instant recapture. It would have affected British prestige; other effect it could have had none.

THE SINKING OF THE DRESDEN.

On March 8th, 1914, H.M.S. Kent acting on information received, sighted the Dresden in lat. 37 S., long. 80 W. Both ships were stopped at the time and only revealed to one another by the lifting of the mist. Time 3 p.m. distance about 11 miles. The Kent at once gave chase and was able to steam towards the Dresden for about 10 minutes before the latter got under way.

The course of the chase was N. 84 W. Mag: the bearing on which the ship was sighted.

There was reason to hope that the Dresden was short of coal and might be brought to action before dark even if she had no accidents; but she had spent two months in unfrequented anchorages since the action off the Falkland Islands, and probably cleaned her bottom then. On the other hand, the Kent was also short of coal, had a dirty bottom, and had just steamed for three days at 17 knots. She averaged 21'4 knots through the water, and the Dresden must have been doing about 23½. By 8.30 p.m. when it got dark she was 15 miles ahead.

This was the first time that the Dresden was known to have been sighted since December 13th, when she coaled at Punta Arenas, excepting the occasion on which she sank the British sailing ship Conway Castle.

Though not immediately successful, the chase used up nearly all her coal, drove her out of touch with her colliers, and forced her to anchor at Juan Fernandez for "lack of coal and engine room defects." During the chase, the Kent picked up a few groups of one of the Dresden's signals; these signals were being jammed by the Kent. The intercepted groups were unintelligible at the time as they were in code.

The Kent proceeded to Coronel to coal before searching the islands of Juan Fernandez and Mas a Fuera. Wireless communication was established with the Glasgow and Orama, and during the night of 12th-13th two officers of the Glasgow

succeeded in deciphering the intercepted groups; these gave a rendezvous at Juan Fernandez. Accordingly, the whole squadron proceeded there at once.

On the morning of 14th March, the Glasgow and Orama approached Juan Fernandez from the westward, and the Kent shortly afterwards from the eastward. At 9.30 a.m. the Dresden was sighted at anchor in Cumberland Bay with her colours flying and smoke issuing from her funnels. At 9.51 all ships opened fire, the Kent at a range of 4,000 yards, the Glasgow and Orama at about 8,000. The Dresden returned the Kent's fire. Firing lasted 21 minutes during which the Dresden was much obscured by the smoke of bursting shell. At the end of that time she had struck her colours and hoisted a white flag at the fore truck. Her people were abandoning her by boats and swimming and a quarter of an hour later she was apparently deserted and her men assembled on shore. A lieutenant came out in her steam boat, flying a white flag. The ship was on fire aft but not very badly, and did not appear to be sinking. fate was still undecided, when some men returned in a boat, blew up her foremost magazine, and hoisted the German flag at the vard arm. At 12.16 she sank, flying both the white flag and the German ensign.

The doctors of the squadron were sent on shore to attend the wounded immediately after the action, and as far as could be ascertained there were about 40 killed, wounded and missing. Fifteen badly wounded were conveyed to Valparaiso by the Orama, and the remaining Germans were removed later by Chilian cruisers.

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IN THE SOUTH ATLANTIC.

November, 1914.

THE defeat of Admiral Cradock's Squadron off Santa Maria on the Chilian Coast on November 1st, 1914, wrought a complete change in the South American strategical situation, and therefore necessitated a re-distribution of the remaining ships on the station.

The report of the action was received by the flagship Carnarvon on the morning of November 5th. The position of the ships in the command was then as follows: Bristol, Macedonia, and Edinburgh Castle, with a collier, were hunting for Karlsruhe off the north-east coast of South America; Carnarvon, with colliers and an oilship, was at the South Atlantic rendezvous; Cornwall was en route from Rio de Janeiro to the rendezvous; Defence and Orama with colliers were in the neighbourhood of Monte Video.

The statement issued from Valparaiso, was to the effect that Scharnhorst, Gneisenau, and Nürnberg had arrived there on November 3rd, having engaged Good Hope, Monmouth, Glasgow, and Otranto. The German ships, it was said, were practically undamaged, whereas Monmouth, and probably Good Hope, were stated to have been sunk. No mention was made of Canopus, whom we knew to have been sent to join Cradock's squadron. We had had no definite news of any of these ships for some time; we only knew that there were colliers at the Falkland Islands and on the Chilian coast.

The story of the action, being received from a German source, was naturally open to suspicion. Nevertheless, the disposition of a squadron in such circumstances should be based on the assumption that the worst has happened, until it is ascertained to the contrary. In this case, therefore, it had to be assumed that Good Hope and Monmouth had been sunk, that the enemy, undamaged, had left Valparaiso to the southward on November 3rd, that Glasgow and Otranto had lost touch

with the German squadron, and that the Australian and Japanese ships were not near enough to render any assistance.

The first question to be considered was, "Does the enemy propose rounding the Horn to the eastward?" On this point there seemed little doubt: they intended to come east. The entry of Japan into the war probably determined their strategy. Moreover, to remain on the west coast of South America would give comparatively little scope for destroying British commerce.

Assuming, then, that the German Admiral proposed to come east, what would he make his objective? There appeared to be two courses open to him:—

- (a) To threaten our South African possessions.
- (b) To create havoc on the Atlantic trade-routes.

Before finally deciding which of the above two objectives we should endeavour to meet, it had to be considered whether it would be possible to base our squadron, without undue risk to the general situation, in a position suitable for frustrating both aims of the enemy.

The only possible position for this base appeared to be the Falkland Islands, flanking the route from Cape Horn, both to the Atlantic trade-routes and to the Cape of Good Hope.

The Falkland Islands are undefended, but it was known that Canopus would probably be available as a floating fortress. In any case, the islands contain innumerable good harbours suitable for hiding colliers and store ships, while there is an excellent anchorage for a squadron at Port William. It would be absolutely necessary that the base should have prompt and certain communication with the mainland telegraph, as that would be the only likely way of receiving intelligence of the enemy's movements. Unfortunately there is no cable to the Falklands, but there is a wireless station at Port Stanley with a nominal range of four hundred miles. As it happened, one of the neutral stations on the mainland had been allowed to communicate cypher messages to Port Stanley, but this arrangement might at any moment come to an end under the pressure of German dollars. It would then be necessary to station a ship at the nearest point on the mainland which is connected to the telegraph—that is to say, a distance of four hundred and fifty miles from Port Stanley. This duty would probably fall to a light cruiser, the installations of the armed merchant cruisers being insufficient for the purpose.

So far, then, the Falklands were on the whole suitable for a base. But the distance of the Carnarvon from the Falklands on November 5th—over two thousand miles—rendered it probable that the enemy would have passed that place before our squadron could arrive.

Assuming, then, that there was no suitable position which we could take up for guarding against both possible objectives of the enemy, it had to be decided which object we should endeavour to frustrate. In settling this question it was, of course, insufficient to consider merely which was the more probable of the enemy's intentions. We had also to weigh the results that would follow on a wrong judgment, while another factor in our decision should be the relative ease of carrying out either course.

It was not easy to say which was the more likely objective of the enemy. It was suggested that, if the Germans had wished to stir up strife in South Africa they would have proceeded by the far shorter route across the Indian Ocean. This, however, would have presented even greater difficulties as to fuelling, and would seem to have offered an easier strategical situation for solution by the Allied squadrons.

The then recent rising in South Africa lent colour to this suggestion of an intended attack by the enemy, for it certainly seemed possible that the rebellion had been timed to coincide with the arrival of the German squadron, and that it had been found impossible to hold in the insurgents. The long voyage across the South Atlantic could easily be accomplished by the enemy, who would only need steam for economical speed where the chances of being attacked were so small. On the other hand, the failure of the South African rebellion might well have caused the enemy to change his objective.

The other suggested intention of the enemy—to create havoc on the Atlantic trade-routes—seemed the more probable of the two. I do not think that the actual German objective has yet been discovered. Shortly before the battle of the

Falklands there were strong rumours on the mainland that the enemy intended making for the West Coast of Africa. Survivors of the action, on the other hand, stated that the German purpose was to scatter and attack our trade in the Atlantic. This last statement may well have been true, but "all men are liars," and Germans particularly so where service matters are concerned, as some of our prisoners proved. They are trained to deceive, and one can but admire them for the thoroughness with which they have learned their lesson.

Undoubtedly, the second objective was the only one which we could hope successfully to combat. By concentrating our force in the South Atlantic we might force him to concentrate, and thus, if we could not bring him to action, we would at least reduce his commerce-destroying powers to a minimum.

Moreover, to frustrate the first objective it would be necessary to proceed with the whole squadron to South Africa, leaving all the South American trade-routes at the enemy's mercy should we have judged wrongly. This course did not admit of consideration.

Having decided, then, to endeavour to frustrate any attempt upon our trade-routes, the question arose as to how this was to be done. An initial concentration was obviously necessary, and the correct point for such appeared to be off the River Plate—the great starting point of South American trade and therefore the point most liable to be attacked.

Colliers were despatched thither from the South Atlantic rendezvous, sailing at twelve-hour intervals to lessen the chance of capture. By November 11th the following warships were in the vicinity of the River Plate:—Carnarvon, Defence, Cornwall, Glasgow, Orama, and Otranto.

The armed merchant cruisers were, of course, not "fit to lie in the line," their principal functions being—

- (a) To assist the cruisers in sweeping for the enemy.
 - (b) To search out possible coaling bases of the enemy, for which duty this type of ship is particularly suitable where the possible field of operations is large; their suitability being due to the ease with which they can accomplish long journeys at high speed without coaling.

The employment of armed merchantmen as a convoy for colliers or a protection for a coaling base appears debatable. In such cases their wireless, though of short range, is certainly useful, and it is also an advantage to have a naval officer in charge of the colliers. On the other hand, to collect our colliers under an armed merchantman would seem to invite an attack by the enemy. It might, therefore, be advisable to leave the base entirely unprotected, hiding the colliers in pre-arranged positions amongst the islands if possible, as in the Falklands or on the Chilian coast, or where this is impossible, scattering them at sea within a limited area.

The concentration of the majority of the squadron having been effected, further doubts as to our next movement were set at rest by an order to retire and cover our base at the South Atlantic rendezvous, where reinforcements would be sent.

The tactical handling of our squadron, in the event of meeting the enemy, was a matter of some interest, and depended to a great extent on the composition of the rival forces. On November 5th we were ignorant of the whereabouts of Glasgow and were not certain that Bristol would come south in time to be of use. We had heard that Kent was reinforcing us, but we knew that she was yet some way off. We knew, in fact, that we might have to oppose the enemy with Carnarvon, Defence, and Cornwall only, but we hoped for the assistance of Kent and the two light cruisers. Canopus was not seriously considered as a possible sharer in the combat.

In spite of the lack of homogenity about the squadron, it was felt that we should render a good account of ourselves should we be brought to action. The words of Nelson expressed our thoughts—"By the time the enemy has beaten our fleet soundly, they will do us no harm this year."

A suggestion was made that the organisation of the squadron should be based on the following suppositions:—

- (a) That we have armoured cruisers only, in which case organisation No. 1 would be in one division:—
 - 1. Defence.
 - 2. Carnaryon.
 - 3. Cornwall.
 - 4. Kent (if available).

(b) That both ourselves and the enemy have armoured and light cruisers, and that the enemy light cruisers outnumbered ours; in this case organisation No. 2 would be in two divisions:—

1st Division.

2nd Division.

1. Defence.

Light Cruisers

2. Carnarvon.

and

3. Cornwall.

Kent (if available).

The suggestion to place Kent in the light division was afterwards justified by her fine steaming in the Battle of the Falklands.

(c) That both ourselves and the enemy have armoured and light cruisers, and that our light cruisers outnumber those of the enemy: organisation No. 3 would be in two divisions:—

1st Division.

2nd Division.

Armoured Cruisers.

Light Cruisers.

(d) That we have armoured and light cruisers and that the enemy have armoured cruisers only. In this case organisation No. 2 or No. 3 could be used.

On sighting the enemy, the composition of their squadron would soon be seen, and the necessary organisation assumed without delay. Clear weather can nearly always be relied upon in these parts.

The primary duty of the light division would, of course, be to attack the enemy light cruisers. Should the enemy have no light cruisers present, our light division would endeavour to torpedo the enemy armoured ships and, in general, to harass them, acting independently under the senior officer and taking care not to interfere with our prosecution of the main action.

The unhomogeneous nature of our armoured division gave food for thought. Defence would prefer to fight at 14,000 yards, Carnarvon at 11,000, the county cruisers at 8,000. Scharnhorst and Gneisenau were good for 12,500 yards, and it therefore seemed a pity to waste the superior range of Defence's guns by placing her in line with Carnarvon and the county cruisers. On the other hand, satisfactorily to handle the squadron with each of the armoured cruisers stationed at her

own range would be a matter of great difficulty. It would, in fact, tend to develop into a long-range mélêe, if such a thing be possible.

There is no doubt, in short, that the enemy had a great advantage over us in that their two armoured cruisers were of the same class.

The actual battle orders cannot, of course, be given in this article.

It was felt by all that, had it been necessary, we should have fought a fine battle, and it would, at any rate, have been a most "sporting" fight. It was, therefore, with mixed feelings, though chiefly, it must be confessed, with feelings of relief, that we heard of the despatch from England of Invincible and Inflexible. We felt that it would not be quite such a glorious victory, but we knew that it would be more complete.

The final concentration was effected at the South Atlantic rendezvous on November 24th. The sequel is too well known to need recounting here.

NARRATIVE OF THE PROCEEDINGS OF H.M.A.S. SYDNEY.

PART II.

THE narrative will now be continued from the time when the Emden ran ashore on N. Keeling Island.

Having seen that she was safely ashore, Sydney went off full speed in pursuit of a collier which had appeared on the scene during the action and was seen to be flying the German naval ensign. She had made off to the northward when she saw the way the action was going, but it did not take long to overhaul and stop her with a shot across the bows. On being ordered to do so she hauled her colours down, and then signalled that she had a number of British subjects on board. An armed party was sent to take charge of her, but on arrival it was found that the Germans had scuttled the ship and so damaged the inlet valves that it was impossible to save her. Consequently the crew and German prize crew were taken off, and then the ship sunk by a few rounds of gunfire.

She turned out to be the collier Buresk, which had been captured by the Emden some time previously and taken round from place to place along with another collier, supplying the German cruiser with best Welsh coal at British expense. At the time of re-capture the Buresk had still a large quantity of coal on board, and it transpired that the Emden had arranged to coal from her at I p.m. that same day, in fact coal bags and shovels were found in the battery of the Emden after the action.

The Sydney then returned to N. Keeling where the Emden was found with her colours still flying, so she was called upon to surrender. Our signals were made first by flags, but on receiving the answer that Emden had no signal books left (made by Morse flag), they were repeated by Morse, and acknowledged, but no answer made, nor any attempt to haul down. Having

repeated the demand for some twenty minutes without any result, fire was opened, and then after two salvos, white flags were shown and a hand sent aloft to haul the colours down. This incident has been described in full detail, so as to dispel any idea of the white flag having been fired on, or a ship being attacked after having surrendered. It was simply a piece of bad bluffing on the part of the captain of the Emden, and it cost him dearly, those last two salvos having killed and wounded more than thirty men, who were quite defenceless, and in a state of utter exhaustion.

It was now getting late in the afternoon, and as it was essential that Cocos Island should be visited as soon as possible to see if a party had been landed there, it was impracticable to take the survivors off that night. However, one of the boats from the Buresk was sent over manned by a German officer and crew taken from the collier, with a supply of food and water, and a promise of assistance next day on the understanding that the survivors would give their parole while on board the Sydney.

Course was then set for Cocos Island, but the ship was so much delayed by having to stop and pick up men found in the water, that it was dark before Cocos was reached. These men in the water had been blown overboard from the Emden during the action, and had been swimming about for nearly eight hours, in a sea supposed to be infested with sharks, which, however, must have been driven away by the gunfire, because several were seen next morning at Cocos Island.

Having heard a Telefunken note on the wireless while approaching Cocos, it was not considered advisable to anchor there for the night and the ship stood off and on until daylight, when an armed party was landed, the landing being covered by the ship.

On arrival ashore the party was met by the cable officials, who gave an account of the doings of a party landed from the Emden the day before. It seems that she had appeared off the entrance to the harbour at daylight on the Monday, with a dummy fourth funnel. Fortunately it was not properly rigged and was seen waving about in the breeze, whereupon the

cable people at once sent out the message which called the Sydney upon the scene.

The German party, consisting of two officers, twenty-five men, and four machine guns, immediately landed, and at once smashed up the wireless gear, then proceeded to cut the cables and demolish the instruments, but did not molest the inhabitants at all. A number of dummy cables and abandoned shore ends were cut, but two cables were left intact, and a stand-by set of instruments which had been buried were not found, and so escaped destruction.

When the Sydney appeared on the horizon the party was recalled, but they did not have time to get back to their ship, and were left behind when the Emden slipped her cable and got under way. When the action started, all the people on shore, British and Germans, mounted to the roofs of the telegraph buildings to get a good view, the Germans assuring our people that the Emden would soon sink her antagonist and come back for them.

However, as time went on, and it was seen the way things were going, the Britishers were hustled off the roof and locked up in one of the buildings, while the Germans proceeded to make arrangements for escape from the island. They took the schooner Ayesha, belonging to Mr. Ross, provisioned her for two months with stores stolen from the Telegraph Company, commandeered a large quantity of blankets, fur rugs, binoculars belonging to private individuals, embarked their machine guns and men, and sailed away just before dusk, thus escaping by a few hours only.

As soon as they had gone, the telegraph people unearthed their hidden set of instruments, joined them up to the surviving cables, and with some difficulty got their report away.

The Sydney's party, having inspected the damage and ascertained that they could give no assistance, returned on board, bringing the Eastern Telegraph Company's doctor and an assistant, and the ship at once proceeded to the wreck, and started the rescue of the survivors.

The sea was quite calm, but there was a big swell, which made the transhipment of the wounded very difficult, especially

as the state of most of them was very bad, and there were no stretchers or any other appliances on board the wreck.¹ Very little help was given by the Germans themselves, either by the officers or the men, and the work of sorting out the cases, getting them into the boats and bringing them over was done almost entirely by volunteers from all departments of the Sydney's ships company.

The worst cases were sent over lashed on to planks, and all were dressed in a very rough and ready fashion, bound up with any old bits of rags, the wounds often being in a gangrenous condition.

The work took the whole day up to about 3 p.m., when the ship was taken round to the lee side of the island for the purpose of bringing off some of the survivors that had got ashore when the Emden had grounded. A boat with a rescue party was sent in, but the men could not be found before dark, so the party was supplied with provisions and left ashore for the night, while the ship lay off and on until daylight, when the Cocos doctor was landed and the survivors and rescuers were brought off.

Course was then set for Colombo, and with fine weather we were able to make a good sixteen knots for the whole trip.

It was a good thing that there were no hostile craft to worry us on the way, the ship being nothing more than a floating hospital, with the wardroom full of our own wounded, the waist and quarter deck covered with German wounded, and one side of the boat deck being used as a prisoners' compound, so that it would have been a terrible thing if another action had had to be fought.

It is now proposed to return to the action and give a few notes on the effect of shell, fire control, etc., which may be of interest.

EFFECT OF SHELL.

(a) In Sydney.—The effect of the German shell generally was not as great as had been expected. Out of a total of fifteen hits only five are known to have burst, probably

That was what the German surgeon told our rescue party. Subsequent examination of the Finden by II.M.S Cadmus proved that the Sick Bay under the forecastle head was absolutely intact, and completely stocked with dressings and first class surgical instruments.

one high explosive, one or two shrapnel, and the remainder nose fuzed common.

The behaviour of the shells was most inconsistent, some exploding on impact with something quite light, such as a waste steam pipe, while others went through several thicknesses of plating without bursting. Of those which burst, the effect seemed to be quite local, and almost entirely in a forward direction; the fragments were always guite small and would not pierce a half-inch plate about three feet away, while a shot-mat mantlet stopped fragments at a distance of about six feet. only H.E. shell which burst, hit the ship's side on the two-inch side armour about ten feet in a direct line from a gun; one rivet being driven into the empty coal bunker behind the plate and two others slightly started. plate itself was slightly dented, but the mark is hardly noticeable now that it is painted over and the rivets replaced.

The products of the explosion were of a thick yellow vaporous nature; the side of a gun shield and men's clothing about ten feet away were coloured; the men suffered no ill effects at all.

Fragments of a shell were found to have struck a lyddite shell lying in rear of one of our guns, making dents about $\frac{1}{4}$ inch deep on the body and shoulders close to the fuze without exploding it, or making it in any way unfit for firing.

Cordite seems to be very easily ignited by shell-burst when in canvas cases, when it is not easily put out, and the only thing to do seems to be to throw it over the side. This requires great presence of mind and gallantry, but was done on both occasions of cordite fire in the Sydney.

(b) In Emden. 1—The scene on board the Emden after the action is almost indescribable, and the effect of 6-inch lyddite is clearly very terrible in an open battery ship.

The following is written after a very casual examination of the wreck, and will probably be found most incomplete when full investigation is made.

It is significant that the upper deck personnel was practically wiped out before any really serious damage had been sustained by the hull or engines, with the exception of the steering gear, which was damaged by a lucky hit early in the action.

Two shells entered and burst under the poop deck lifting the whole deck up in waves; both guns mounted there were completely put out of action, the entire guns' crews being killed or blown over the side. The deck was riddled with small holes like the lid of a pepper pot, and the after part of the ship was completely gutted by fire, remaining unapproachable for many hours. One shell burst below and in rear of one of the battery guns; the whole deck was blown up and the gun's crew precipitated into the shield, where they were all killed and horribly mangled.

Apparently one shell was sufficient to bring down each of the funnels and the foremast, but so great was the damage to the decks and upper works that it was difficult even to guess where any individual shell had hit, or to estimate the size of the danger zone of a burst or detonation.

At least two shells hit and burst close to the conning tower, but although the occupants were badly shaken, all survived. The effect of hits on or near the water line could not be seen from us, in fact during the action one would have thought there were no such hits, but survivors say that quite early in the fight two shells entered the submerged torpedo flat, putting both tubes out of action and flooding the flat, but without doing much harm to the crews. The second torpedo officer admitted that he had to leave the flat, and could not at any time have fired a torpedo at us with any hope of success.

The engines and boilers were apparently intact until after beaching, when several shells went in well below the water line and created great havoc.

One in particular went right through the ship, exploding as it went out and making an enormous hole.

CONTROL OF FIRE.

The first point which strikes one is the total inadequacy of recent battle practices to imitate the conditions of an action between single ships. High speed and alterations of the same, combined with almost constant alterations of course, rendered control exceedingly difficult, the long range at which the action was fought adding considerably to the difficulty.

The range was completely lost two or three times when the enemy altered course while hidden by the smoke from her burning decks or from our funnels (N.B.—We were making an enormous amount of smoke as we were burning Westport coal), and as the range-finder had been shot away in the first five minutes, it was a bit difficult to pick up the target again.

Enormous rates of change were produced, the average being about 800 yards per minute, constantly changing from opening to closing and vice versa.

The control officer was not worried by the enemy's shots except when "shorts" splashed water up over the bridge and wetted his glasses. Even when a shot passed over his shoulder and wrecked the range-finder just behind him, it was hardly noticed at the time.

The bursts of our shells on hitting the enemy were taken by some to be his guns going off, in fact there were a lot of people who did not think we were hitting at all until the funnels began to go over the side.¹

It is impossible to lay down that a ship should be handled in any particular way, but it was borne in upon one that when once hitting with the guns, the ship should be kept as steady as possible, provided of course that other circumstances allow of this being done. It is not the magnitude of the range or the rate which makes control difficult, but the frequent and large alterations.

Many of the academic rules of fire control break down under conditions like those of the Emden fight, and it is probably no exaggeration to say that the difficulty of efficient control under such circumstances will only be understood by control officers

¹ The "Australasian" of the 2nd Jan., 1915, has an excellent photograph of our second salvo falling just short; one at least of this salvo ricocheted in and burst.

who have been in action; even then it is believed that the Sydney-Emden fight is the only one so far where two single ships both engaged resolutely right from the start.

On finally leaving the scene of the action the ship was, as has been remarked before, more like a hospital ship than a man-of-war, and it would have gone hardly with the German survivors if we had fallen in with another enemy ship.

As it was, things were none too good on board; all the decks abaft the boat deck were crowded with wounded men, and although we did all we could with extra awnings and curtains, every tropical shower drenched most of them, and ruined their bedding. However, the sea was like a mill pond the whole way to Colombo, and we were able to carry on at high speed without taking in any water over the side.

On the morning of the 13th November we met the Empress of Russia, and transhipped about half the German wounded and prisoners to her, and got some new bedding to replace that used for the wounded. It may be remarked that the officers cabins had been practically stripped of beds, bedding and rugs, on the 9th and 10th, and every spare blanket in the ship commandeered for the wounded. The removal of the people to the Russia made a great deal of difference on board; not only was there more room, but each case got more attention, and there was a better chance to try to keep the ship in a sanitary condition, which she had not been since the 9th. Colombo was reached early on the 15th, the ship being secured to buoys in the harbour.

The prisoners were at once got rid of, and the wounded landed and sent to various hospitals after a certain amount of delay with the military authorities.

It was a blessed relief to see the last of them leave the ship, which by then had become almost uninhabitable in the after parts, in spite of generous daily sprinklings of disinfectant. Coal was taken in, temporary repairs made to the ship, and finally the whole ship disinfected and made sweet again before sailing on the 19th November.

The journey to Suez was quite uneventful, a call being made at Aden for coal.

Going through the Canal at night, the entrenchments and camps looked very weird; as we passed each detachment along the bank, a voice would ask our name, and on receiving the answer Sydney, there would be loud cheers and shouts in English and Hindustani, much to the amusement of our people.

Port Said and Malta were visited for coal, and Gibraltar reached on the 6th of December.

Here the ship was refitted and the damage sustained in action repaired, a stay of 18 days being made, thus giving the ship's company a good rest. The Carmania was in harbour most of the time, and it was very interesting being able to compare notes on the two actions, many points in common being found. Gibraltar was left on the 24th of December, our destination being a secret, and it was not until the 26th that we knew that Fayal was to be our next stop, with future movements still unknown. After three or four days in and around the Azores without any incident, course was shaped for Bermuda, and at last we knew that we were bound for the West Indies and not the N. Sea. Bermuda was reached on the 6th January, and after our usual stop just long enough to fill up with coal, the ship went on to Kingston, Jamaica, calling in at St. Nicholas Mole in Haiti, where it was rumoured that the Karlsruhe had a coal and provision base. However nothing was found, and Kingston was reached on the morning of the 12th. Coal was at once put on board by natives, and as the ship was alongside the chance of a run ashore was made good use of. Here the Melbourne was met once more, she having been with us also at Malta and Gibraltar.

On the afternoon of the 13th the Sydney put to sea, this time for patrol duty outside the harbour of San Juan de Puerto Rico, where there were two German merchant ships supposed to have reserve officers and men on board.

After two days there, we were ordered to St. Lucia, where we arrived on the 17th and went alongside to fill up with coal.

This is a delightfully pretty little island, with a good and easily defensible harbour, and perfect climate. It was intended at one time (about 1900) to make the island the chief British military base in the West Indies, and magnificent barracks,

officers' quarters, etc., were built, rifle ranges laid out, and powerful defence works constructed, with an armament of 9'2" and 6" guns. The plan, however, was abandoned about 1904, just when everything was practically completed, the guns being dismounted and removed, and the barracks left standing empty. A few of the buildings are now occupied by Government officials, but thousands of pounds worth of works are lying idle.

After a few days stay there, the Sydney once more took up the patrol off San Juan, remaining there till the 27th January, when the German ships were interned and we went to Fort de France, Martinique, for a short overhaul of auxiliary machinery.

On the 2nd February the ship was ordered south, and we proceeded to search the mouth of the Cachipour River and the Island of Maraca, on the N. coast of Brazil; owing to the very shallow water, however, the ship was unable to approach within about five miles of the shore, which is very low and practically uncharted. Many small rivers and islands thereabouts would make ideal hiding places for a small cruiser of very light draft, especially when driven by hostile craft to taking a certain amount of risk of grounding. The neutrality of Brazil would be violated, but as the coast is almost uninhabited it is unlikely that a ship would be reported, and investigating craft would work at a great disadvantage. Having done the best that could be done under the circumstances we returned to St. Lucia for coal, calling in at Trinidad on the way up.

It was hoped that we should be able to stay a few days at St. Lucia this time, and it was intended to billet the men in some of the barracks, each watch for a day or two, but the scheme fell through. On Monday the 15th February we went out and did a little firing, intending to cruise on the trade route for the rest of the week, and then return for the proposed rest and our mails, but late that evening orders were received to proceed with despatch to Lavandeira Reef, just above Pernambuco, where there was said to be a rendezvous for the Karlsruhe, Dresden, Kronprinz Wilhelm, and certain store ships. However, on arrival there on the 20th February, we as usual found nothing,

and so had to cruise slowly about waiting for our own colliers. On Sunday the 21st we met the R.M.S.P. mail ship Alcantra off Pernambuco, and as there was a rumour that the Kronprinz was waiting close by for that very ship, we started off to convoy her past the supposed danger zone. She however went gaily off at 14½ knots, and as we were only doing 10 she was very soon completely out of touch, and in fact was never convoyed at all. Later on that night we passed a steamer which gave the name Bangor, which was one of the German store ships. Unfortunately we were very short of coal, and so allowed her to carry on unmolested. She was later on captured further south by one of the other cruisers.

On the 26th we had filled up with coal at Lavandeira Reef, the work having been carried out in a heavy swell, and proceeded with the Edinburgh Castle and two colliers, the four ships forming a sweep and working round Fernando Norohna and south down to the South Atlantic rendezvous.

There we found the flag of the Rear-Admiral commanding the station flying in the Vindictive, and a regular fleet of colliers, oilers and store ships, and the Carnarvon just leaving for Rio for repairs.

After we had filled up with coal and stores, the flag was shifted to us, and the sweeping squadron started off once more on Saturday the 6th of March.

Working southward, we had in company at one time and another the Glasgow, Edinburgh Castle, Celtic, Macedonia and two colliers, the Vindictive being left at rendezvous to look after the other colliers and oilers.

After visiting Monte Video and Rio, the whole squadron arrived back at the rendezvous on the 8th of April, when we got our first mail since leaving Gibraltar on the 24th December.

The operations were now transferred to the northwards, and on the 14th the news was received that the Kronprinz was interned at Newport News.

All the sweeping ships collected at The Rocas, and after a final conference proceeded on their several ways in accord-

² Coaling at exposed anchorages of the East Coast of South America has been very troublesome; there is invariably a swell causing ships and colliers to roll and range in a most alarming manner. The colliers get their side plating damaged, and we have had all fittings on the starboard side destroyed, and overhanging gun platforms crumpled up like paper.

ance with orders. Two other cruisers had just arrived out, and for one day the Sydney had at anchor under her command the following ships: Glasgow, Gloucester, Liverpool, Vindictive, Edinburgh Castle, Celtic, Macedonia, and Laurentic. The flag was transferred to the Liverpool on the 16th, and the Sydney proceeded to Lavandeira Reef to coal, en route to St. Lucia, after a dull and tiring time in the South Atlantic, during which, however, the Sydney has had the honour of carrying the flag of the Admiral commanding the station.

STATISTICS OF EMDEN FIGHT.

| | S | ydney. | | Emden. |
|-----------------------------------|---|--------|--|----------------|
| Rounds fired | | 670 | | 1100 approx. |
| Times hit | | 15 | | 100 estimated. |
| Killed | | 4 | | 180 approx. |
| Wounded | | 12 | | 45 |
| Slightly injured and others saved | | | | 141 |

TIMES.

9.15 a.m. Sighted Emden.

9.39 ,, Opened fire.

10.4 , Emden's third funnel went.

10.24 ,, foremast went.

10.41 ,, first funnel went.

11.18 ,, second ,

11.11 ,, Emden grounded.

11.15 ,, Ceased fire.

H.M.S. INDEFATIGABLE.

WITH THE SQUADRON OF OBSERVATION OFF THE DARDANELLES DURING THE FIRST SIX MONTHS OF THE WAR.

PART I.

WITH THE MEDITERRANEAN FLEET.

Towards the end of July 1914, the British Mediterranean Fleet was at Alexandria. We had just completed a cruise which included visits to Phalerum Bay (Athens), Marmarice, Larnaka, Alexandretta, Beirut, etc., and the Fleet was due to return to Malta carrying out a programme of exercises en route. C.-in-C. had also visited Constantinople.

Our first disquieting information came with the telegrams of the 24th of July.

On the morning of the 28th the Fleet proceeded. All exercises delaying our passage were cancelled and war preparations commenced.

Ships were not darkened altogether to start with, as the weather was very hot, but no unnecessary lights were allowed to be shown outboard. Hands, at night defence stations, etc.

Received telegram London 28th July. 5.10 p.m. Austria declared war on Servia.

Our squadron consists of:-

Four light cruisers spread ahead (Chatham, Weymouth, Gloucester and Dublin).

Battle Cruisers: Inflexible (flag) and Indefatigable.

Warrior and Black Prince, ½ mile on port beam.

Twelve destroyers, 2 miles on starboard beam.

On 29th increased speed to 17, 19 and finally 20 knots. Warrior dropped astern considerably and was ordered to dock on arrival.

Defence and ships from Durazzo were also returning and rejoined squadron on the morning of 30th July.

11 a.m. Thursday 30th arrived at Malta. Indomitable was there refitting.

Squadron coaled to full stowage on arrival. Completed with ammunition, stores and provisions on Friday and Saturday and removed all unnecessary gear, etc., to stores in the dock-yard.

Harbour defences at Malta were rigged and manned.

August 1st.—The whole conduct of the negotiations between Austria and Servia appeared so deliberate that it was considered from the first to be a "put up job" and that the Great War for which we had been waiting, was to come at last.

One incident may here be stated. There was at Malta a large German steamer. She was lying off the Custom House heading directly for Indefatigable, which ship was at the inner buoy in Bighi Bay—moored head to seaward. (This ship was made to lower her W/T aerials while inside the harbour. Her contents were not examined although she was said to contain stores for the Goeben, etc.) In any case a very slight accident while she was getting under-weigh might have brought her into serious collision with Indefatigable or she might have run into the breakwater and sunk, and thus blocked the entrance.

2nd (Sunday).—At 2 p.m. the squadron was ordered to raise steam for full speed. Inflexible (flag) and a few destroyers to remain. The squadron under R. A. 1st C. S. (Defence) to proceed to sea at 9 p.m.

Black Prince left in the afternoon for Durazzo to re-embark our military details, etc., which had been landed there, and bring them to Malta.

The steamer above reported left at 6 p.m. She was next heard of with the Goeben's convoy at Messina although she had cleared direct for a Dutch port.

The following squadron proceeded at 9 p.m. steering to north eastward:—

Indomitable Defence (Flag) Chatham
Indefatigable Duke of Edinburgh Gloucester
Warrior Weymouth

First and Second Divisions of Destroyers.

Our difficulty was coal—all good colliers apparently having been concentrated in home waters for the recent mobilisation we had very few available and those small.

Our object was obviously to patrol the Straits of Otranto and close the Adriatic—the battle cruisers being chiefly concerned with the Goeben, which with the Breslau was some time before at Trieste and Durazzo respectively.

When squadron left, Chatham was sent towards the Straits of Messina.

An early report of the 2nd of August gave Goeben coaling at Brindisi.

Chatham reported the above steamer making for Straits of Messina and asked permission to stop her—which was not allowed.

A later report stated that Goeben and Breslau were at Messina 1.30 p.m. August 2nd.

During the night weather was calm and light—bright moon from southward to west till 2.30 a.m. Destroyers were therefore spread to some distance.

Early on 3rd August a/c for Straits of Messina—it being useless our going on, with the Goeben and Breslau out to the westward of us.

Chatham later reported no sign of Goeben in Messina, but we could hear Vittoriosa w/T station in Sicily, communicating with Goeben up to noon 3rd. Prepared for battle.

6.o a.m.—Squadron now proceeded:—

Gloucester and destroyers to patrol Straits of Otranto.

Chatham to proceed through Straits of Messina to westward, and remainder to proceed to westward passing south of Sicily with us, the main interest was of course centred on the action of Italy.

The officially declared neutrality of Italy is naturally under suspicion, and it should be assumed that the German vessels will get all the coal and information they want from the Italian ports.

Our orders at this time were merely to "locate and observe" and we were later told not to close within six miles of the Italian coast.

1.30 p.m.—a/c to westward to pass south of Sicily.

4.0 p.m.—Closed to 20 miles off Malta for instructions.

Then proceeded as follows:-

Indomitable and Indefatigable to westward to look for Goeben between C. Bon and south of Italy.

First C. S. under Defence (R. A.) joined by Black Prince to proceed to support destroyers and patrol Straits of Otranto—base in Ionian Island.

10.30 p.m. received orders for Indomitable and Indefatigable to proceed to Gibraltar at 22 knots to cut off Goeben. Chatham was soon after ordered back to Malta.

Few reports were received or intercepted.

4th.—Malta appears to be trying to secure coal from the Greek Government at Corfu, otherwise the cruisers will probably have to coal the destroyers. (This was what they had to do for some time.)

The Greek Government appears to refuse, unless assured they can replace it from England shortly.

We have tried to intercept any colliers that pass Malta, as we have hardly any out here at present.

Reported, German ships bombarded Bona this morning. Goeben and Breslau left Messina on the night of 2nd-3rd for northward (apparently shortly before arrival of Chatham).

Steaming to westward 20-21 knots with Indomitable, we suddenly sighted Breslau about 10.30 a.m. on starboard bow steaming eastward and shortly after Goeben on port bow steaming about 15 knots.

We went to action stations, but kept guns fore and aft.

Passed Goeben about 8,000 yards and turned to port to follow her keeping out of direct line of her wake.

Breslau sheered to northward at high speed and disappeared, but later rejoined Goeben to eastward of us. Steaming 14 to 20 knots keeping German ships in sight.

Gloucester, Chatham and Dublin ordered to reinforce, the latter to join from Bizerta where she was stationed to communicate with French C.-in-C.

2.0 p.m.—Received information "War is imminent."

Weather was now not so clear, there being some wind and showers of rain, sky overcast to eastward, with considerable smoke from German ships.

It should here be understood that the whole main French Mediterranean Fleet was engaged in the safe conduct of the French Algerian army to France. This is a long line to safeguard, especially as long as the neutrality of Italy was uncertain.

The Goeben and Breslau had almost reached the French cruiser screen, but were apparently turned back by the news that we were "coming in" to the war, which it appears they did not expect.

They had a store ship or collier at Majorca, and also two or three ships at Genoa and adjacent ports, and were also busy rounding up other German ships in the Mediterranean at Messina and Syra.

We closed up at action stations again at 3 p.m. when the chase began, Goeben having steam for full speed then available.

Dublin joined and chased on their starboard quarter, keeping them well in sight. Goeben, Breslau and Dublin must have been doing 27 knots, Indefatigable about 23, keeping near Indomitable going 21-22. Later we increased and edged to port, to keep further to northward. All were steering to pass north of Sicily—evidently for Messina.

About 6 p.m. Dublin reported enemy separating, Goeben apparently steering N.W. or northerly, Breslau E. to E.S.E.

We a/c North and N.E. to try and cut them off but Goeben again hauled to eastward.

Turned again to eastward, Dublin only just keeping Goeben in sight at 7 p.m.

Our position was now about 80 miles north of C. Bon between W. of Sicily and S. of Sardinia. Goeben 30 miles to eastward.

Finally, Dublin was sent to shadow Goeben till dark. Indomitable and Indefatigable turned to westward at reduced speed. This permitted us to clean fires and trim down coal for fast steaming. We were now about 800 tons short.

Received information confirming Italy's strict neutrality (for the present). Having heard that many of her naval forces

were at sea, it looked more as if she were to join in. Part of her fleet came as far south as Taranto.

Midnight 4th-5th.—Informed that British Ultimatum expired 1 a.m. when war would be declared. We had received no official information of France being at war but knew that it was well under weigh already.

2.0 a.m.—Received signal to commence hostilities against Germany.

Indomitable and Indefatigable, with light cruisers, ordered to join C.-in-C. in Inflexible off Pantelleria Island.

Proceeded towards C. Bon at 15 knots.

First and second destroyer divisions withdrawn from Adriatic patrol to Greek coast to coal, a collier having been sent there for them. Remaining divisions and all light cruisers with C.-in-C.

10.30 a.m.-Joined Admiral 5 miles north of Pantelleria.

"Collected" a couple of German steamers, one being a good collier.

Squadron proceeded 15 knots for Bizerta. On arrival there about 4 p.m. Indomitable and two destroyers proceeded to coal.

Inflexible, Indefatigable, Chatham and Weymouth, stood to northward at slow speed.

We had received a list of colliers which left Cardiff and other ports after 25th July, for Mediterranean or eastern ports, and had now collected three. One large one bound for Jedda (Red Sea), one German and one other English one.

Indomitable coaled from one of these, as only bricquettes were available at Bizerta.

Clear night, almost full moon. Patrolling, Bizerta to C. Spartivento.

6th.—3.30 a.m.—Reported from Malta, Goeben and Breslau at Messina.

4.0 a.m.—Being about 20 miles south of Sardinia, turned to southward, and later to eastward, steering to pass north of Sicily. Light cruisers spread as look outs.

It now appeared certain that our one guarantee was that we should prevent Goeben and Breslau from again breaking to the westward, and so in any way interrupting the passage of the French Algerian troops to France.

Two German steamers said to have been fitted as auxiliary cruisers, were reported to have left Genoa on the 5th. (This was correct—they were afterwards disarmed and interned.)

We had apparently no idea of the possibility of the Germans going to Turkey, but had received a report from Palestine that a German cruiser was expected at Jaffa to collect reservists. This it was thought might be the Strasbourg which was reported to have entered the Mediterranean. (This report was incorrect.)

Gloucester and Dublin were to the southward of the Straits of Messina.

Goeben and Breslau reported as having left Messina at 6.0 p.m. Dublin reported Goeben sighted steering east, and later reported she had a/c south.

P.M.—We a/c S.S.W. to pass close to west of Sicily and then S.E. along south coast.

By noon, Indefatigable was over 1,200 tons short of coal. Inflexible and the light cruisers which had coaled recently were not so badly off.

Received practically no further news about their movements, but gathered that Goeben was proceeding to eastward shadowed by Dublin or Gloucester.

First C.S. cannot get at them unless they go north, and must particularly look out for their doubling back or to northward to join the Austrians.

Indomitable rejoined during the night also the Weymouth passed to take station ahead.

7th.—Indefatigable proceeded to Malta to coal. Arrived 11 a.m. and took in 1,450 tons of coal, 50 tons of oil, 150 tons of water, and several thousand pounds of meat and vegetables.

It is apparently decided Goeben and Breslau are proceeding towards Alexandria, from their reported course and speed:—S. 55 E. 20 knots. They have left their auxiliary cruisers, also steamer Marsala which left Naples 5th or 6th instant with 1,000 tons ammunition (!). Chatham is detailed to discover and sink any of these three.

Coaling very slow. Ordered to finish by midnight. Went to sea ship darkened and closed down—20-30 tons of coal still on deck.

Gloucester, following Goeben and Breslau to eastward, reported former 20, latter 10 miles ahead—steering to pass C. Matapan.

Later, reported she had been in action with Breslau at long range. Goeben turned to her assistance, when she withdrew, but turned to follow again when they resumed their original course. Gloucester ordered not to follow but to proceed to Corfu to coal.

Gloucester and Dublin have done most of the shadowing and stuck to it well.

Goeben was apparently hustled out of Messina by the presence of Italian destroyers on the termination of her allowed time. Both auxiliary cruisers at Genoa have been interned.

8th.—Squadron of battle cruisers and Weymouth, steaming 15 knots for C. Sapienza (S.W. of Greece).

P.M.—When about 60-80 miles from Greece turned to northward.

At about 3 p.m. an order was received "Commence hostilities against Austria." Shortly after, an urgent signal came cancelling this order. On an explanation being asked for, a reply was received "Situation critical with Austria."

This was expected, but the situation *re* Italy was still more anxiously awaited. Italian naval force was reported coming south from near Otranto.

Our destroyers and 1st C. S. were immediately ordered to concentrate, and Rear-Admiral to arrange coaling or towing to Malta. This situation was due to non-arrival of two colliers on which they were depending. Cruisers have had to coal destroyers since their arrival and all are short—and they have had a bad week of it in other respects.

9th.—Our disposition was:---

Battle cruisers, cruising about 40-50 miles west of Zante.

First C. S. and destroyers at Sta. Mauria or Ihtaka.

Weymouth searching islands for missing colliers.

Gloucester returned to Malta and coaling.

Noon.—The French stated their fleet would be available from 10th (Monday) which means that the transporting of their Algerian troops must have been completed.

P.M.—Collier Vesuvio found by Weymouth at Vachi. Destroyers returning there to coal. Cruisers to coal later. Patrol not to be renewed until arrival of collier due the same evening.

Battle cruisers spread, searching to southward for Goeben's return. Still the possibility of the German ships making for the Dardanelles does not appear to be considered.

Reports show concentration of German merchant ships at Syra, including two with coal—and also those which had concentrated at Messina before Goeben and Breslau broke away to the westward.

6.0 p.m.—Battle cruisers proceeding to eastward—joined later by Weymouth. Collier ordered from Port Said to Crete.

R.-A. 1st C. S. ordered to resume Adriatic patrol.

10th.—Heavy northerly squalls when rounding Malea and through channels. Kept along inshore—there being a bright moon to southward.

Collier, Paddington, ordered to Milo.

After passing C. Malea, spread steering for Zea, Thermia, and Serpho, patrolling this area and guarding the channels while Weymouth was sent to examine Milo, then make enquiries at Syra.

This was cancelled when strong w/τ signals were heard, thought to be the Goeben. These turned out to be from the "General" now at Constantinople—which ship is fitted with a special high power installation.

P.M.—Indefatigable sent at full speed to look into Milo before sunset and rejoin. Weymouth carrying out her search, which brought her to Syra about midnight.

Chatham at Syra obtaining information.

Dublin at Milo coaling.

R.-A. 1st C. S. ordered to send a cruiser (Black Prince) to the Red Sea.

First division of French fleet with destroyers, etc., arrived at Malta.

11th.—Battle cruisers then steamed slowly past Syra and Serpho to eastward, turning to northward in the morning towards Lemnos.

Weymouth ordered to examine Gulf of Smyrna.

All other light cruisers to join flag.

Noon.—Battle cruisers searching northward past Kios.

Report received, Goeben and Breslau at the Dardanelles 9.0 p.m.

Situation off the Dardanelles P.M. Tuesday 11th August.

Goeben and Breslau reported at Chanak. Their 24 hours expires 8.30 or 9 p.m.

Weymouth stationed 2-3 miles off entrance.

Three battle cruisers, patrolling N.N.E.-S.S.W. 8 knots. S.W. of Tenedos Island.

Chatham joined 10.30 p.m. and proceeded to position 5 miles from Tenedos, supporting Weymouth.

Gloucester joining from Syra due 5.0 a.m.

Dublin rejoining, and two colliers ordered to close for battle cruisers (from Milo and Syra).

Very dark till 9.0 p.m. when moon rose.

During all this time we felt pretty certain that the German ships would have to break out, but on Wednesday morning 12th August a report was received from Weymouth:—"Turkish Commandant sent officer to report:—German cruisers Goeben and Breslau proceeded to Constantinople, and sold to Turkey. Renamed the Sultan Osman and Medeleh."

12th—Confirmation of this was received from Consul at Therapia: "German cruisers Goeben and Breslau sold to Turks. Crews returning to Germany."

Breslau however remained at Chanak for several days.

Messagerie S.S. Sachalien boarded by Gloucester, reports detained at Chanak five days. Goeben and Breslau arrived there 7 p.m. 10th August. Officer boarded Sachalien and disconnected wireless under threat of sinking the ship. Goeben left for Constantinople 2 p.m. 11th flying German colours. Breslau still at Chanak, German colours, also the armed merchantman General. Purchase by Turkey made known p.m. 11th. Turkish T.B.'s patrolling the Dardanelles.

P.M.—Battle cruisers patrolling as before S.W. of Tenedos.

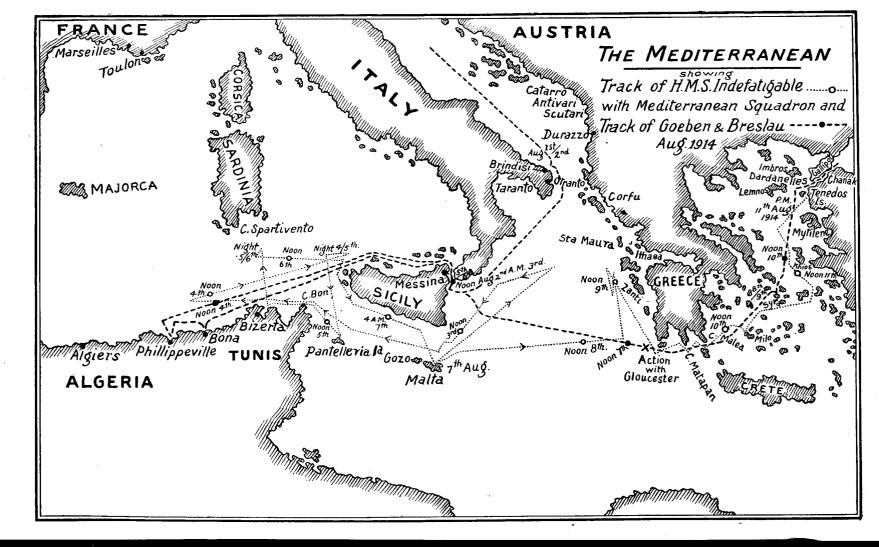
Gloucester relieved Weymouth 3 miles from entrance.

Weymouth one mile further off.

Dublin on arrival sent to south end of channel east of Tenedos.

8.0 p.m.—Steamers boarded by Gloucester all report Goeben at Constantinople flying German colours. Breslau moved above Nagara Point. Corcorvado and General (German armed merchantmen) both at Constantinople, apparently being dismantled—all crews returning to Germany.

At this stage war was declared with Austria.



NARRATIVE OF PROCEEDINGS OF H.M.S. CHATHAM.

OFF EAST COAST OF AFRICA IN SEARCH OF GERMAN LIGHT CRUISER KÖNIGSBERG.

On the declaration of war H.M.S. Chatham formed one of the four light cruisers then attached to the Mediterranean fleet, the others being Weymouth, Dublin and Gloucester.

On 30th July 1914 the whole Mediterranean fleet returned to Malta from Alexandria on the conclusion of a cruise in the Levant and off the Syrian coast. At 2.45 p.m. on Sunday 2nd August, the Chatham received the signal to raise steam for full speed and recall all officers and men, and at 5 p.m. we were steaming out of the Grand Harbour and shaped course for Messina Straits. All unnecessary woodwork, boats, officers' gear, etc., had already been landed and the ship was prepared for war.

The Goeben and Breslau were understood to be then at Messina, and at 7 a.m. on 3rd August we proceeded through the Straits but to our great disappointment found Messina empty of men-of-war.

On the morning of 4th August we returned to Malta, completed with coal and were at sea again by 11 a.m., and at 9 p.m. received the signal that war with Germany was to be declared at 1 a.m. 5th August.

On the evening of 11th August we were off the Dardanelles with a portion of the fleet, the Goeben and Breslau having arrived there and entered on the previous evening.

At 4 a.m. on 13th August the Chatham was ordered to Port Said, and that same night on our way south we captured the Austrian Lloyd Mail Steamer Marienbad (8,000 tons) off the north-east coast of Crete and took her into Alexandria.

We arrived at Port Said on 15th August and from that date until 21st September, we were employed on various duties at Suez and subsequently escorting transports to Bombay, and then again with convoys from Aden to Suez. These duties were instructive but inclined to be monotonous after a time, especially during the hottest season in the Red Sea. On 17th September we left Suez for Aden to meet more transports and were off Perim at 4 a.m. on 21st, when we received an urgent order to search with all despatch for the German light cruiser Königsberg. It was indeed a very welcome one. Her whereabouts were at that time entirely unknown to us, but on arrival at Aden at 10 a.m. we were told she had sunk H.M.S. Pegasus at Zanzibar on the previous morning—20th September. Some time previous to this-on 31st August-we had received reports that the Königsberg had been sighted on 28th August off Sabany, and again on 30th August off Madagascar. wonderful performance!

Earlier in the month the British steamer City of Winchester from Colombo to Suez, had been sunk by the Konigsberg not far from Socotra, and subsequent to this from other vague reports received, she was here, there and everywhere. Consequently it was very good news indeed that she had at any rate been definitely located off Zanzibar, although with such disastrous results to the Pegasus. Yet it was not at all certain that she would still be in the same locality a week afterwards, especially with such an extremely wide area open to her for operating against commerce. On the other hand, both Zanzibar and Mombasa were very open to attack from the sea, and it was quite possible the Königsberg might take the risk of surprise by a superior naval force and attack either or both of these places. She was certainly perfectly aware that there was no other British man-of-war at Zanzibar.

We finished coaling at Aden at midnight on 21st September and left immediately afterwards for Mombasa. There was no other British ship off the east coast of Africa at this time and it was devoutly hoped that we might find the Königsberg off that place on our arrival. All wireless on board was stopped so as not to give away our approach and we sighted Mombasa about

7 a.m. on 27th September. But on arrival we found that nothing whatever was known of the Königsberg, subsequent to the sinking of the Pegasus, except that she had disappeared to the southward after dropping what was thought to be a number of mines in the southern channel, Zanzibar. As she steamed away she made the following "En clair" by w/T "Keep clear of southern entrance."

Numerous rumours were afloat as to her movements, the most definite being that she had been seen off the north end of Pemba island on the night of 24th September by an Englishman in a dhow. In Killindini harbour, Mombasa, we found two B.I. steamers, a hospital ship, two colliers and the small cable ship Sherard Osborne. The defence of the place was in the hands of volunteers, all regular troops being away guarding the railway and at other important points up country.

It was expected that the German land forces would make an attempt to blow up the Makupa railway bridge connecting Mombasa with the mainland, and their troops at this time were in considerable force at Ghazi, which is in British territory about 24 miles along the coast from Mombasa. As regards the total military strength of the Germans, estimates differed widely, perhaps the most general opinion being a total of 15,000 of which 5,000 would be whites—i.e. Germans. They certainly possessed a very large number of guns.

All the British military force available near Mombasa was at this time at Ghazi to check the German advance on Mombasa. We landed two maxims for the defence of the Makupa bridge and erected wire entanglements on the mainland approach to it, and also mined the approaches with charges of gun cotton.

Shortly after noon on 27th September we started coaling ship, finished at 2 a.m. on 28th and left for Zanzibar at daylight. Searched the German coast inside the reefs between Mombasa and Zanzibar, and here we sighted several suspicious looking objects floating in the water which were at first taken to be mines and some were sunk by rifle fire. Close investigation however showed them to be the long cylindrical zinc cases used in the German navy for B.L. cordite charges. These particular ones were evidently from the Königsberg and were

no doubt the objects which she was reported to have thrown overboard in the S. Channel, Zanzibar, and which were taken to be mines.

At 8 p.m. 28th September we arrived at Zanzibar where every one was immensely relieved to see us. The only visible signs of the Pegasus were her mast heads, only just showing at high water. Her survivors were being employed in many ways, viz., as crews of the patrol steam boats, signalmen and look outs at lighthouse and various other points, W/T operators in place of the Eurasian operators, artisans in the workshops making field gun carriages, etc., whilst the remainder formed a much needed reinforcement to the "Army" of 100 natives, Zanzibar's sole means of defence.

Salving operations were also about to be started to recover the Pegasus' guns, etc. In this connection it is worth noting that as she heeled over, on sinking, she obligingly threw all the 4" guns and mountings clear of the deck and hull of the ship, thereby rendering the salvage work much simpler. All salvage appliances had to be extemporised, and a small local steamer which luckily possessed a strong steam windlass, was used for recovering the heavy guns. Being placed correctly, divers secured her chain cable to the 4" gun and mounting, which were then weighed and taken alongside the whart and thence hoisted on shore. The captain of the Pegasus had charge of all these operations, and by the end of November two 4" guns had been sent to Mombasa and mounted there for defensive purposes, others were mounted on field carriages which, together with another three pairs of field carriages, were all made in the workshops at Zanzibar.

At the time the Pegasus was sunk, a collier, the Banfshire, with several thousand tons of coal, was lying at anchor two cables from her, but was left untouched. The Königsberg fired no shots at the town, except at a dummy wireless station, the real wireless station being partly hidden by trees and scarcely visible from where she engaged. No attempt had been made to cut the cables, which could easily have been done, or to enter the harbour, or to land any armed parties. Having sunk the Pegasus and a small steamboat on guard off the southern

entrance, the Königsberg had steamed off at full speed to the southward and nothing more had been heard of her. It was reported that certain German ships were working with her, as colliers, store ships, etc., but that was all. The search problem was therefore as follows: - The area of coast to be searched was anywhere between Cape Guardafui and Delagoa Bay, including the island of Madagascar, and the Comoro and adjacent islands, although anywhere to the north of British East Africa was very unlikely owing to the very small amount of trade on that line. There was no definite knowledge of any base which the Königsberg might be using, although reports generally favoured the Comoro islands, where searchlights and rockets had been reported on more than one occasion recently. As will be seen from a map the Comoro islands are excellently well placed as a base for operations against trade passing either north or south or to or around Madagascar.

The coast of German East Africa also has numerous excellent harbours, many of them extending for miles inland, and the Germans had established an extensive and most efficient intelligence system all along their coast, as well as an extremely well organised coast defence force. There were numerous signal stations all along or near to the coast and on the numerous islands and islets amongst the reefs, and also a land wire running the whole extent of the coast. In this way the movements of all ships along or in sight of it were reported and telegraphed to their W/T stations inland, at Tabora, Muanga and Bukoba, and these stations could communicate with the Königsberg. Wherever we went, if in sight of the coast, signal (or bush) fires sprang up along the hills inland, and these would accompany and precede us along the coast like a veritable feu de joie, or rather a "feu d'avertissement." Certainly credit is due to the Germans for an exceedingly well organised system, and we soon had very good first-hand evidence as to its efficacy. It is worth noting that the German W/T station at Tabora was in communication with Windhoek, their H.P. station in German S.W. Africa and thence with Berlin. Another important consideration affecting the search was the question whether the Königsberg was likely to remain

near the coast of German East Africa, using the numerous harbours available, and trusting to their excellent intelligence system to warn them of our movements, or whether she would operate on a bigger scale against our commerce to the southward on similar lines to the Emden, whose movements at this same time also formed the subject of numerous and conflicting reports. For instance, it was quite generally believed at Zanzibar, that the Emden was coming to join up with the Königsberg off the east coast of Africa.

The principal harbours along the coast of German East Africa most of them with sufficient water for a 20ft. draught ship at any state of tide, are as follows, starting at the northern end, about the latitude of Pemba island:—

HARBOURS ON THE COAST OF GERMAN EAST AFRICA.

Mansa Bay. Good and sheltered anchorage.

Tanga Bay. Post and telegraph. Railway. Garrison.

Pangani Bay. Open anchorage. Bagamoyo Open anchorage.

Dar es Salaam. Entirely land locked, about three miles in extent.

Narrow entrance blocked by floating dock sunk by Germans at outbreak of war.

Railway.

W/T station destroyed by H.M.S. Astraea at beginning of war.

Mafia Island.

Between Mafia Island and the mainland lies an area about 30' by 40' with numerous islands and coral reefs, forming good anchorages amidst difficult navigation, as many of the reefs are uncharted.

Rufiji Delta.

To the south-west this area is bounded by the Rufiji Delta, the numerous branches of which according to Admiralty charts were unnavigable except to small coasting steamers. Practically nothing was known regarding the Delta, which had never been visited by an English ship or any Englishman for about ten years, and the native information was most contradictory and vague.

Kilwa Kivinje. Telegraph. Garrison.

Kilwa Kisiwani. Harbour entirely landlocked and extending about 15 miles inland, depths in lower part of harbour from 20 to 30 fathoms. Anchor-

of harbour from 20 to 30 fathoms. Ancho age can be obtained in about 12 fathoms.

Sangarungu. Landlocked harbour. Muddy water which

obscures the reefs.

Kiswere. Open to the eastward.

Lindi. Entirely landlocked, 18 feet on bar at

L.w.o.s. Extends for about 6 miles, after which it branches off into several different

streams. Telegraph. Garrison.

Mgau Mwania. Landlocked. Anchorage off Mwania, 9

fathoms.

Mikindani. Anchorages entirely sheltered by reefs, 6 to

Mts. Mtwara. 9 fathoms.

Rovuma River. Three fathoms on bar, after two miles depth

of water is only a few feet.

The whole coast is fringed with coral reefs and small islets with, in many places, an outer line of reefs with numerous channels capable of navigation but unmarked, and invisible at high water. It would be necessary of course to search all these harbours, as well as the Comoro islands and the Mozambique channel, and the coast to the south of Cape Delgado down to Delagoa Bay.

By October 6th three more of our ships had arrived at Mombasa from the northward, viz., H.M.S. Fox, Dartmouth and Weymouth, and the two latter were then placed under orders of Chatham, as a detached light cruiser squadron to search for the Königsberg, leaving the Fox for operations in conjunction with the Expeditionary Force which was shortly to arrive from India.

To conduct a search on definite lines the whole coast was divided into areas and a number of R.V.'s fixed. The Dartmouth and Weymouth were based temporarily on the Comoro Islands, to search the Mozambique Channel and coast

to the south of Cape Delgado and at the same time to afford protection to our trade; whilst the Chatham took the area between Mombasa and Cape Delgado to search the German coast and the various harbours already noted. recognised that the Königsberg had a very fine field open to her for operations against our shipping, as well as that of the French to and around Madagascar, and hardly a day passed without fresh reports from Madagascar, Mozambique, Beira, Comoro Islands, etc., of a strange man-of-war sighted off different places in the area between Zanzibar, Madagascar and Delagoa Bay. Many of these reports might be brought in by natives who never have any knowledge of the names of places and who judge the position and distance solely by the time taken by them to reach the place where their report is made. Their description of a ship's appearance would be equally vague, except that everything seen was certain to be a man-of-war with an unlimited number of guns and funnels according to taste.

A large scale chart will show the numberless small harbours, creeks, islands and reefs along the coast between Cape Delgado and the Zambesi, affording excellent "cover" for a light cruiser or for supply ships accompanying her, and although all in Portuguese waters yet there are in most cases only natives to report ships seen. One result of this was that on more than one occasion during the search the appearance of one of our own ships off the coast would be reported some days later as being the Königsberg, and the uncertainty as to dates would confuse the matter further. On one occasion reports were received practically simultaneously that the Königsberg was

- (1) Off the Mozambique coast near the Kiliman River.
- (2) Off the S.E. end of Madagascar; and
- (3) As landing guns at Kiswere in German East Africa. Such incidents however naturally occur in any similar form of search, and undoubtedly they give it an additional interest.

It is unnecessary to detail the various incidents of this search, but at any rate they afforded ample proof of the difficulties referred to above, of the perpetual fast steaming which this form of operation entails on the searching cruisers, and the consequent necessity of an abundant and elastic coal supply,

i.e., a very large number of colliers. During this time all merchant shipping ran as usual, though on special routes, and without any loss occurring, though on the other hand without any definite clue of the Königsberg.

By October 28th the Dartmouth and Weymouth had searched as far as the lat. of 22° S. and had obtained a fairly intimate knowledge of the Mozambique coast, and by the same date the Chatham had thoroughly searched the German coast and every harbour in German East Africa with the exception of the Rufiji delta (if this latter could be termed a harbour), for details of which see list of harbours.

The possibility of the Königsberg being up the Rufiji was considered very slight, especially as the Admiralty charts showed the delta as practically unnavigable for her. Reports however had been received that the Germans had carried out a later survey of the Simba Uranga branch of the delta, and on October 19th we obtained a German chart of the Rufiji amongst a set which we captured from the German ship President, up The President-one of the German East the Lindi River. African Line-had been reported as working with the Königsberg, and when our armed steamboat in searching the inner harbour at Lindi on 19th October, found the President four miles up the river, it was hoped we should obtain some The President's engines were broken information of value. down and she had no coal on board. Probably any important papers had been landed or destroyed, but in addition to the charts, we found some papers including a receipt for coal supplied by the President to the Königsberg in September at Salale. Salale being a small village up the Simba Uranga branch of the Rufiji.

The Germans did not dispute the search of Lindi River although a number of their troops were seen at the entrance, and our steamboat had to pass entirely out of sight of the ship. We were anchored as close in as possible in the outer harbour about 5,000 yards from the entrance to inner harbour, and with guns trained on the entrance and on the town.

The Germans claimed that the President was a hospital ship, a very favourite proceeding on their part, but apart from

a red cross on her side and the Geneva flag flying, there was no evidence whatever that she had been or was being used as such. Her name had not been communicated, her side had not been painted, there were no medical stores or preparations of any sort on board, no sick and no doctors. As she could not be removed she was permanently disabled before we left her.

By 28th October we had concluded the search of the coast and the captain then decided to try and definitely discover if the Königsberg was anywhere up the Rufiji or not. difficulty lay in the fact that the Chatham could not get within six miles of any of the entrances except on the top of high water springs, and that it was known the Germans had troops along the coast and in the Rufiji delta, as well as on Mafia island. Troops holding the Rufiji delta, a region of mangrove swamps, would require a large force to turn them out. The various branches of the delta could be held with ease and the passage of any boats up them rendered impossible. No troops were available on our side and the military could give no hopes of being able to spare any in the future. It was finally decided to make a surprise descent on the nearest point of the delta which the Chatham could reach at daylight, with the object of getting information from natives before the Germans could assemble in force to drive our boats off. The point selected was at the mouth of the Kiomboni branch of the delta (see Chart). The German signal stations on Mafia island and the mainland would naturally give warning of our approach from whichever direction made during daylight, and as there is grave risk in navigating these waters by night owing to the numerous and intricate reefs and shoals, any such warning by day would be sufficient for the Königsberg. At daylight on 30th October we passed through the southern Mafia channel and anchored at the spot marked B, and at once despatched the steam cutter and cutter, manned and armed and with an interpreter, to land at the point selected, where a small village (Kiomboni) was indicated on the chart. We were unopposed, but the villagers were much alarmed as the enemy's troops were expected back at any moment and the alarm had evidently been given. They mentioned sailors and white men as being amongst the troops, and

the head man and two others—the most intelligent looking—were brought off to the ship. Here they definitely stated that the Königsberg was up the Simba Uranga branch of the delta, off the village Salale, which is roughly six miles up that river from the entrance, and about nine miles in a direct line to the nearest point which we could reach in the ship. Other information obtained was that the Simba Uranga entrance of the delta had been mined and fortified, and that the Germans had employed the natives for some time digging trenches, etc. Nothing however was visible in the direction named from our mastheads and so anchor was weighed to proceed off the Simba Uranga entrance; the three fathom line and extensive shoals forcing us to keep at a distance of from six to nine miles from the shore.

As we opened up the coast the masthead look out reported strange mastheads visible over the trees, first of one vessel and then of another, and there was great excitement when it became apparent that the latter were the masts of a man-of-war. The other vessel proved to be the Somali, a German merchant ship, acting as storeship to the Königsberg and at this time full of grain and wood. As we continued to open up the Simba Uranga entrance, the Königsberg's mastheads could be distinguished above the distant trees from the tore control position, and it actually appeared as if she was under weigh. All hands were at their action stations and we quickly worked up to full speed to obtain a favourable position off the entrance from which to engage her as she came out. But unfortunately it soon became evident that she was not under weigh and we finally anchored as close in as possible, viz., about 81 miles from entrance. W/T messages were sent out to recall the Dartmouth and Weymouth, the latter at the time coaling at the Comoro islands, and the former off the Portuguese coast in the neighbourhood of Beira.

A short description of the Rufiji delta may help to explain the situation. It is formed by the various branches of the Rufiji and the Mohoro rivers, and as noted in the sailing directions, consists of a remarkable maze of creeks extending roughly for 40 miles from lat. 7° 40′ S. to lat.

8° 20' S. Some of these creeks do not communicate at ordinary times with either river, neither do the rivers themselves ever join. Eight large mouths open from the Rufiji into the sea, and all these mouths are connected by a series of small creeks passing through the mangroves near the sea, which serve as canoe channels but are not otherwise navigable. The Simba Uranga mouth is the principal one and, as will be seen from the Chart has two branches, the Simba Uranga and the Suninga. From seaward nothing but trees can be seen along the whole extent of the delta, some of which stand on fairly high ground, and hence nothing can be seen of the masts even of a man-of-war lying up the river unless she was close to the entrance. Higher up she gets entirely hidden to view behind the high trees. Outside the delta the water is shallow, the three fathom line running at a distance of from four to eight miles from the coast off the Simba Uranga entrance. This one was the only one known to have been used by German trading steamers previous to the war, and two fairway buoys, marking the channel inside the three fathom line, are shown in the charts, but these had been removed.

The state of the tides on October 30th was midway between neaps and springs, spring tide being on November 3rd. The max. spring range off the Rufiji is fifteen feet and neap range nine feet, the rising tide being roughly five hours and falling tide seven hours.

October 31st and the forenoon of November 1st were occupied in sounding from boats towards the Simba Uranga entrance and obtaining a minimum depth of five feet at low water; and at high water in the afternoon of 1st November, we succeeded in getting to within 4½ miles of the entrance at a range of 14,500 yds. from the Somali, our maximum gun range, the Königsberg being another 1½ miles further up. Opened fire with 6″ lyddite at the Somali, directing from the masthead, but shot appeared to fall short. Spotting however was extremely difficult as nothing but the masts were visible even from our masthead. On 2nd November at noon the Dartmouth and Weymouth arrived, and as the Dartmouth had nearly empty bunkers it was decided she should get in as close as possible at high water (3.8 p.m.). At

2.15 p.m. all three ships weighed and closed the entrance, the Dartmouth getting to within about two miles of it, and signalling she had obtained soundings of quarter less three on the way. The bottom hereabouts was thick mud which we found very quickly choked the condensers. From the above position the Dartmouth could see nothing of the Königsberg owing to high trees, but the Somali was treated to another shelling as also the trenches on both banks of the entrance. The following day 3rd November was the top of spring tides, the afternoon H. w. being at 4 p.m., and at that time the Chatham managed to get within two miles of the entrance, the Königsberg's topmasts heads only being visible from aloft. She had evidently housed topmasts and placed branches of trees on her mastheads. Her range was about 14,800 yards and with the ship listed as much as possible—5° to port—we engaged her with our starboard guns for half hour until the falling tide rendered it imperative to move out again. Fire was again directed from the masthead and guns laid by bearing, as nothing of the enemy could be seen from the guns.

Following on this it was decided to make a boat attack up the Suninga entrance, principally with the object of disclosing the enemy's strength up the river. A request had been made for troops to co-operate but none were available. At daylight on 6th November the Goliath's picket boat arrived, with two 14" torpedoes and dropping gear, towed round from Mombasa by a small local trading steamer the Duplex, capable of seven knots speed. The Goliath at this time was carrying out repairs to main engines at Mombasa. The boat attack was made at daylight, 5 a.m. 7th November, with the picket boat, supported by three steam cutters from Chatham, Dartmouth and Weymouth, and the Duplex, the latter having been temporarily armed the night before with two 3-pounder guns from Goliath on extemporised field mountings.

Orders were given not to force the attack should the enemy be found to be holding the banks of the river in force, as once round the entrance the boats were out of sight and entirely out of protection of the ship's guns. As soon as they rounded the entrance a very heavy fire was opened on them from both banks, from 3-pounders, maxims and rifles, the enemy being completely concealed by the mangroves which extended to the water's edge. As it was obviously impossible to push on without losing the boats, the latter returned to the ships, which had been moved in as close as possible to cover their approach by shelling the trenches on each side of the entrance. The Chatham also fired a few shell at the Somali—at 13,000 yards range—and scored at least one very distinct hit which started a fire which lasted for nearly two days. The ship was said to contain grain, wood and stores for the Königsberg, and evidently the Germans were unable to put out the fire which was subsequently reported to have completely gutted her. As it was apparent that the Königsberg was too far up the river to give any chance of success by boat attack, it was decided to try and block the channel of the Simba Uranga which, from all the evidence obtainable, was the only branch navigable by the Königsberg. According to the charts, the narrowest part of the channel appeared to be at the first bend, about one mile from the entrance by the Kiomboni village, and although the breadth of the river at this point might be anything up to 500 yards, the channel was apparently narrowed to half that distance by a shoal extending from the southern bank. With this object in view, the collier Newbridge of 3,800 tons had already been ordered to Zanzibar from Mombasa, and immediately on the conclusion of the boat attack on the 7th, the Chatham left for Zanzibar to prepare the Newbridge and to coal. A rough conning tower of steel plates was constructed on the collier's fore bridge to protect officer and helmsman, and sand bags and plate protection arranged forward and aft for the men attending It was arranged anchors and stern anchors. ship had been placed in position soon as the stern, the main sinking and anchored bow and be removed, and finally gun cotton exploded from a boat when all had left the ship. Three charges (32) lbs.) were placed in the engine room bilge, wedged down, and 161 lbs. outboard under the bottom, secured by bottom The crew, selected from the Chatham, consisted of three officers, and sixteen men all told, the commander of the Chatham

being in command. All were to wear lifebelts. The officers and crew of the Newbridge were all removed at Zanzibar with the exception of the master, first officer and chief engineer who remained until her arrival off the Rufiji, when they were also removed and sent back to Zanzibar. It was stated in the Press that the master was actually on board when the Newbridge was sunk, but this was not so.

The Chatham and Newbridge arrived off the Rufiji at noon 9th November, when preparations were completed and all necessary orders issued for the attempt to be made at daybreak the following morning 10th November. High water not being till 8 a.m. the Newbridge would have a flood tide to swing her across the stream on anchoring, and two stern anchors and wire hawsers were ready to let go to hold her in that position.

As already noted, the point selected lay about one mile from the entrance, and for this distance the Newbridge and covering steamboats would be entirely out of sight of the ships, hidden by the tall trees, and consequently unsupported by their fire. We knew that both banks were strongly held, and the positions of the enemy's guns as estimated after the action are shown on the chart.

Sunrise on 10th November was at 5.36 a.m., and as the ships lay nine miles from the entrance it was necessary to weigh at 4.0 a.m. The Dartmouth remained at anchor as a stern mark for the Newbridge, whilst Chatham and Weymouth closed the entrance as far as possible—9,000 yards—and at 5.15 opened fire on the trenches on both sides of the entrance.

By 5.30 a.m. the Newbridge was off the entrance followed by her flotilla of steamboats, and our covering fire had to cease—five minutes later she passed out of sight but was already under a heavy fire from the enemy. The Newbridge was followed up the river by the Duplex (two 3-pounders), Goliath's picket boat (one 3-pounder), and Chatham's and Weymouth's steam cutters (one maxim each), the Dartmouth's steam cutter remaining in the entrance in sight of the ships, to signal.

From first coming under fire until the Newbridge was abandoned there was a regular hail of maxim and rifle bullets on the temporary protecting plating on the bridge and

other exposed positions, the ship and superstructure were repeatedly hit by 3-pounder shell, and had it not been for this protection reinforced by sand and coal bags-placed also in the Duplex and steamboats—the casualties would undoubtedly have been heavy. The steamboats kept up a most spirited fire as best they could, steaming close in to the banks, as the enemy's positions were completely hidden from view, and only occasional glimpses of their troops moving amongst the trees could be The Newbridge was successfully placed obtained. anchored-bow and stern-exactly as ordered, inlet valves opened and finally when all hands had been removed in Chatham's steam cutter the scuttling charges were fired and the ship rapidly settled down. The retirement to the entrance was made under a heavy and continuous fire, the boats being hit repeatedly, funnels shot away or riddled, etc., and it seems a marvel that none were sunk. The German fire however got very wild, this being probably due to the spirited fire from the boats and to the cool and successful manner in which the Newbridge was handled and the whole operation carried out by all those taking part in it.

The boats were all back to their ships by 8 a.m., the total casualties being only three killed and nine wounded, four of these severely. The wounded were all sent back to Zanzibar in the Duplex the same evening and unfortunately had a very trying time of it on the way, as she ran on one of the very numerous reefs, the Dira shoal, about 8 p.m. in pitch darkness and remained there all night. Luckily she was got off at 7 a.m. next morning, but the wounded had a very severe shaking.

The Dartmouth left for the Cape the same day November 10th, and the Weymouth followed her on November 14th. On November 15th the armed liner Kinfauns Castle arrived from the Cape with a Curtis seaplane and joined us off the Rufiji. On two occasions successful flights with this machine located the Konigsberg a long way up the river at a point which she could only have reached on the top of spring tides (see position K_3 on Chart). We continued to have a busy time of it together with the Kinfauns Castle and three small steam vessels (Adjutant, Duplex and Halmuth), stopping all supplies

Kwale 2000 yds: 5 miles Nioro GERMAN EAST AFRICA Ssuninga and Kiomboni Rivers reported to be defended by Torpedoes

A Position of Chatham 7 am Oct. 30th B Position of Chatham, p.m. Oct. 30th Rufiji Ri Ιέ. Pombwe B + Anchorage for Kikunjuni bombarding at high water DELTA Msungu . # 18 of the Mdjimwema RUFIJI P. RIVER Mkejele Ras Ssimba (from German Chart.) German SOUNDINGS IN METRES Ndjugussi Encampment H.W.F.& C. Mafia Canal IVh. Om. Springs rise 144 ft. Neaps 74 ft ookout Station Ssimba (Telephone cut) Kilindini Njemssati Uranga() Kiomboni Mouth Gengeni , Mssirga Ras Twana Msassani Fissini German . Baranjimbo Bumba Mouth Buma Msala Mouth Suini Мьиті Felder Mangesani Tungun 15 Bojdul Baum Mssala Savanne Totogea . Kilimandembo Kissiwit Mirango Kisinde Kiassi Mouth River Kisimbia Ras Dima Fumarundu

and dhow traffic by sea, and knocking out the various signal stations which the Germans had established on almost all of the very numerous islands and headlands in the vicinity. On January 7th Mafia island was taken with the assistance of the military. The above work was also combined with seaplane reconnaissances from time to time, but as these operations are still being carried out, it does not appear desirable to give any further account of them.

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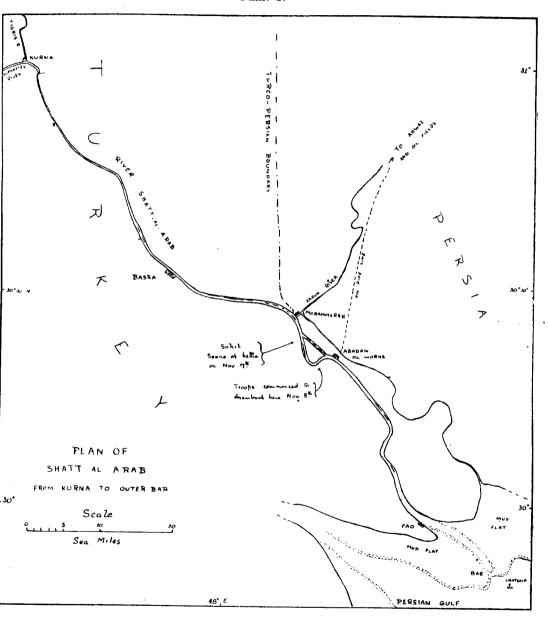
THE PERSIAN GULF.

THE NAVAL OPERATIONS IN THE SHATT-AL-ARAB. (UP TO AND INCLUDING THE SURRENDER OF KURNA.)

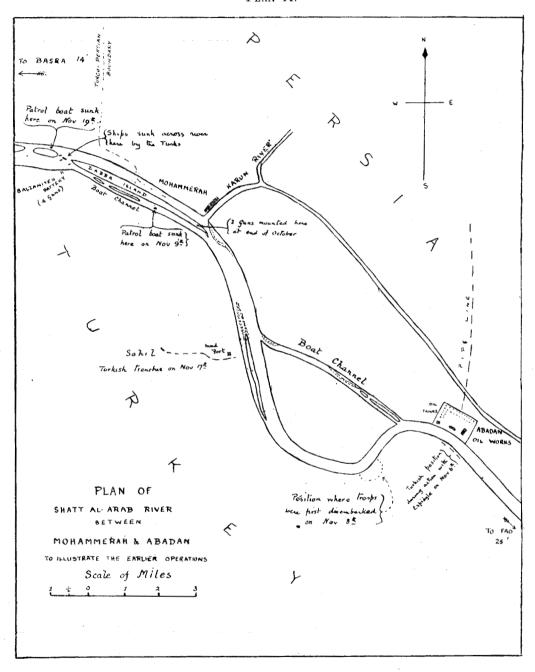
Although from time to time reports have appeared in the Press relating to the military operations at the head of the Persian Gulf, up till the time of writing little appears to be known of the work of the Navy in these parts. The following account of the campaign from a naval aspect may therefore be of interest to readers of the Naval Review.

The proceedings of H.M.S. Espiègle form the basis of the following narrative, the article being confined to first-hand information except where the contrary is specially stated.

The state of affairs on October 1st, 1914, was as follows:— The Espiègle was at anchor in the Karun river off Mohammerah. H.M.S. Dalhousie (an armed R.I.M. ship) was lying in the Shatt-al-Arab off Abadan oil works, and H.M.S. Odin was at anchor outside the outer bar of the Shatt-al-Arab. From the map (Plan I.) it will be seen therefore that both Espiègle and Odin were outside Turkish territorial waters. However on October 4th, the Vali of Basra made a strong protest to the British Consul against the presence of H.M. ships in Turkish waters, and this was followed up on October 7th, by a formal letter which was delivered on board by a Turkish naval officer who came down from Basra in an armed Thorneycroft patrol launch. This letter was written in Turkish and English and was somewhat curiously worded. After explaining that the whole of the Shatt-al-Arab belonged to Turkey and therefore no warships belonging to the belligerents could enter the same, it ended up with the sentence "Please you leave the Shat before 24 hours." A reply in writing was given that we could not leave without instructions from Admiralty, and the matter rested at that for some days more.



PLAN II.



About this time, continual reports came in to the effect that the Emden, which at that time was at large in the Arabian Sea, intended coming up the Gulf and doing the same trick at Basra as the Goeben and Breslau had done at Constantinople, i.e., sell herself to the Turks. The Odin lying outside the river bar would have fallen an easy prey to her. Therefore to prevent the Emden appearing unexpectedly in the Gulf, the Dalhousie was despatched on October 11th to place look-outs on the islands at its entrance, and from that date until after the declaration of war there was no British warships inside Turkish territorial waters; though the Turks regarded the Espiègle lying at Mohammerah as a violation of their neutrality. The Espiègle was anchored a few hundred yards up the Karun river and therefore in Persian waters.

On October 13th, information was received through the British Consul that the Vali of Basra had notified him that the Espiègle should leave the Shatt-al-Arab within eight days from October 11th, and any attempt to pass through after that period would be prevented by force of arms.

Signs now began to appear of Turkish activity in fortifying their bank of the river; a telephone was observed being led to the Fort at Fao (at the mouth of the Shatt-al-Arab-see map), earthworks were being erected and two guns mounted on Dabba Island, opposite to where Espiègle was anchored in the Karun and only 1,000 yards distant by range-finder (see Plan II); the Turkish troops could also be seen loopholing the walls. Continued reports were also coming in that the Emden would come up to be sold to the Turks. About this time, however, the Duke of Edinburgh was ordered to the mouth of the Gulf to intercept her should she appear. News was also received that H.M.S. Ocean had arrived at Bahrein in the Gulf, with a convoy of five transports carrying a brigade of troops from India. That was good news for everybody, as it showed that we meant business and from that time onwards we had little doubt that war with Turkey was coming.

The difficulties of telegraphic communication were very great, Mohammerah being only connected to the Persian system, which frequently broke down for periods of a week at a time and which in point of fact did break down during the most critical week before war was actually declared. Otherwise we depended on telegrams being sent up by boat from Fao, where the Indo-European line connected with the Turkish. As this place was on Turkish territory its limitations in this case are obvious, and after that we only had occasional night communications with the Ocean, which had arrived at Bahrein nearly 300 miles off and near the limit of our wireless.

On October 26th, Ocean was ordered to safeguard the transports to the Shatt-al-Arab, and Dalhousie was sent to Bushire for purposes of W/T communication.

Turkish activity became more and more pronounced, their armed patrol Thorneycroft launches frequently passed up and down the river filled with officers and men, and reports were received of big reinforcements arriving at Basra and guns being mounted in various places on the river banks.

On October 30th, the "warning" telegram was received via the Dalhousie at Bushire; and through the British Consul, we arranged for all British ships to leave the river at once and proceed outside the bar, where the Odin was anchored. In this telegram Espiègle was ordered to prevent any ship being sunk in the river below Mohammerah, and in case of the enemy laying mines in the river they were to be swept up, and in case of resistance the mine-layer sunk. Reports had been received that mines were on their way out from Europe, but we had reason to believe that they had not yet arrived. This afterwards turned out to be the case.

While lying at Mohammerah, the ship had been prepared for river warfare in the following ways.

- (1) The bridge had been sand-bagged all round, coal sacks filled with mud (no sand obtainable) being used.
- (2) The two boat's maxims had been removed from their stowing position amidships (where they cannot fire) and mounted on the hammock nettings, one each side.
- (3) Bullet proof iron shields had been obtained and fitted to all guns and maxims; also iron plating placed on top of the nettings to protect men in the battery from rifle fire.

These proved most useful and undoubtedly saved several casualties during the next month, besides giving the guns crews a feeling of security while under rifle fire from the banks.

The telegram announcing commencement of hostilities with Turkey arrived about midnight October 31st—November 1st, and directed Espiègle to protect British interests and property up river at Mohammerah and Abadan, particularly the Anglo-Persian Oil Company's works at Abadan, and also to reassure the Sheikh of Mohammerah as to our proceedings.

The Sheikh of Mohammerah remained loyal to the British cause throughout, and in this connection it is interesting to note that after the Vali of Basra surrendered at Kurna, a copy was found with his papers of a letter which he had sent to the Sheikh of Mohammerah dated October 20th, which contained an interesting proposition that the Sheikh of Mohammerah should allow a large body of Turkish troops in disguise to be put on the housetops on each side of the Karun river, where Espiègle was lying; it being arranged that the two guns on Dabba I., previously mentioned, would open fire on Espiègle, and when she returned the fire, the force on the housetops should open fire "especially at the gunners"—"thus," it proceeded, "there will be an unexpected slaughter. When no one can defend the gunboat they will board it, killing everyone they can find and seizing the gunboat." It was further pointed out that this was "an excellent opportunity for the Sheikh Mohammerah to perform a valuable service to the Turkish Government." Needless to say the Sheikh would have nothing to do with the scheme.

Espiègle remained at Mohammerah during November 1st and 2nd, all being quiet, but wishing to be more in touch with Abadan, it was decided to leave the Karun that night unnoticed if possible, so as to avoid drawing the fire of the Turkish battery on Dabba I. until clear of the houses, which would have received many of the shell which missed Espiègle.

Accordingly, at 3 a.m. on November 3rd, anchor was weighed in silence and the ship dropped down river stern first, the current carrying her out into the Shatt-al-Arab river, after which we made off down river apparently unnoticed by the

Turks although the ship passed less than 300 yards from their battery and trenches on the island. The Turks appeared to all be asleep; we did not wake them however as we wished to cut their telegraph wire before dawn. About eight miles further down river the ship was stopped, and a party landed who cut and removed a portion of the telegraph wire connecting Fao with the Turkish headquarters at Basra. The ship then remained at anchor in the Shatt-al-Arab between Mohammerah and Abadan in a position to intercept anything coming up or down river.

On the evening of November 5th we received news that the Ocean had arrived outside the bar with the transports, and that the following morning at daylight the Odin (which had been waiting there) would cross the bar and engage the battery at Fao and then cover the landing. It will be seen from the map that the bar is ten miles out from the river mouth, and therefore the Ocean herself could take no part in the bombardment as she cannot cross the bar.

As it appeared likely that Abadan oil works would be attacked as soon as the Turks heard of the bombardment of Fao, the Espiègle moved down river at dawn on November 6th and anchored off the oil works, cutting the Fao-Basra telegraph wire again "en route" as it had since been repaired. We found a considerable body of Turkish troops entrenched opposite Abadan, but as they did not fire on the ship we did not fire on them; as our policy was to delay any action up river until the arrival of the expeditionary force, since the Espiègle obviously could not be both at Abadan and Mohammerah at the same time, both of which places were liable to attack.

We were not left in doubt very long however, and shortly after noon a volley rang out from the Turkish shore, and immediately rifle fire opened on the ship from all along the bank, the enemy being behind trenches and in the thick scrub and reeds which bordered the river at ranges varying from 500 to 1,000 yards. They had no guns. All the Espiègle's port guns were brought into action, the disengaged gun's crews also used their rifles; the enemy's fire very soon slackened and by 2 p.m. was silenced except for occasional sniping. The

action was continued under weigh until they were finally silenced, after which the ship anchored off Abadan again. Espiègle's casualties were two men wounded, both of them while lying down on the forecastle firing rifles, none of the gun's crews who were behind the shields being touched. The only material damage done was to the searchlight which had three bullets in it, the standard compass also had a bullet in it but was not materially injured. The enemy were reported to have left behind 46 killed, but neither this number nor the number of wounded is known for certain.

While Espiègle was in action at Abadan, the Odin had crossed the bar and engaged the battery at Fao, mounting four 15-pounder Krupp guns, which she silenced in one hour, after which a landing party from the Ocean landed and occupied the town without further opposition. The Odin was hit but had no casualties.

On the evening of November 7th, Odin joined Espiègle just below Abadan, having escorted the transports up river from Fao without opposition. On the following morning Odin, Espiègle and the transports anchored in a pre-arranged position two miles above Abadan ready for disembarkation.

The first troops landed on the afternoon of November 8th, and for the next few days transports to the number of about 15 kept arriving and disembarking troops. The conditions were as nearly ideal as could be. Since their severe handling on November 6th, at Abadan, the enemy had cleared off from this section of the river altogether and the landing was never disputed. Moreover, the transports lay within a stone's throw of the beach which here was quite steep to; in fact a fully loaded ship's boat could go right alongside the bank, and the soldiers did not even get their feet wet.

Hearing that a Turkish patrol boat had been seen in the Shatt-al-Arab just below Mohammerah, the Espiègle weighed at 1.30 a.m. on the morning of November oth and proceeded up to the northern end of the Abadan boat channel into which the patrol boat was reported to have penetrated. Finding nothing in this channel, she proceeded up river to reconnoitre the boat channel westward of Dabba I. at dawn. A heavy rifle fire was

opened on the ship before reaching this from the Turkish shore, which here has to be kept close to owing to the shallowness of the water on the Persian side of the river. We were rewarded however on opening up the boat channel behind Dabba I. by seeing one of the Thorneycroft patrol boats about a mile and a half up, making frantic efforts to escape; as the channel was too shallow for Espiègle to follow her, she was fired on and sunk by the forecastle 4" gun. She replied with a 2-pounder pom-pom, all the shots from which seemed to fall short. The rifle fire from the shore by this time had got pretty hot, and as little or nothing could be seen of the enemy in the thick scrub on the bank, Espiègle returned down river and anchored just above where the transports were disembarking troops. The engines and gun of this patrol boat have since been salved but the hull was smashed beyond repair.

Just before dawn on November 11th, the Turks delivered an attack on the soldiers' camp on the river bank. This attack was pushed well home, some of the enemy getting right into the camp and one British officer was killed at five yards range; the enemy however were driven off with considerable loss and were then shelled by Odin, Espiègle and armed launches as they retired across the open desert.

A reconnaissance in force left camp on November 15th and moved up the river bank supported by the Odin in the river. The enemy were encountered about three miles up from the camp, and hearing heavy firing about 10 a.m., Espiègle too moved up in support, but did not come into action, as by that time the troops were somewhat mixed up in the date groves lining the river, and it was difficult to distinguish friend from foe. The reconnaissance returned to camp in the evening, having found and destroyed the enemy's camp, the casualties being approximately 8 killed and 40-50 wounded. Turkish casualties 400 all told.

The main advance up river by the military commenced on November 17th, the troops leaving camp at dawn, the Espiègle and Odin weighing at 6.30 and supporting the right flank of our army. The enemy were found to be strongly entrenched at Sahil about five miles up from the camp and four miles below

the south end of Dabba I. Here lining the right bank, there is a belt of date groves about half a mile wide, beyond which the country is a perfectly flat open desert with no cover of any The line of Turkish trenches ran out at right angles to the river, their left resting on a mud fort near this belt of date groves. While our troops were attacking, Espiègle and Odin from the river were "lobbing" shell over the date groves into the back of the Turkish trenches. It was noticed that any of their guns in the open at once limbered up and moved into the date groves where we could no longer see them; so these 4" shell coming in from their flank and rear evidently had considerable moral effect, but beyond that, we do not claim very much as it was our first attempt at indirect firing. The difficulties can be appreciated when it is explained that the gunlayer, or anyone in the foretop for that matter, could see nothing of the battlefield at all, owing to this thick belt of date trees lining the river bank. The only person who got a good view was the spotting officer who went up to the main truck. After that day, we never attempted indirect firing while under weigh, but invariably anchored the ship first, so that the gunlayers could be given some definite point of aim. Shortly after noon the Turkish trenches were stormed and carried, though the British losses were heavy, as the fight resolved itself into a direct frontal attack over a level desert plain on which there was no cover of any sort. The Dorsets led the attack throughout and had over 300 casualties alone. The enemy sent some riflemen down to the river bank to snipe the ships, but these were soon dispersed with a few shrapnel. After the trenches were carried, the enemy fled up river through the date groves; they were not pursued, as a heavy rain and sand storm coming on about this time caused our cavalry and guns to get bogged. The Espiègle followed up a short distance and just before dark located the enemy's camp in the date groves, into which a few 4" shell were dropped. This started some fires which continued burning all night.

Knowing that the Turks had removed the guns previously mounted on Dabba I., and placed them in position on the Turkish shore to command the narrow channel north of that island,

which we heard had been blocked by sunken ships, Espiègle proceeded up river on November 19th to reconnoitre same.

On opening out the channel between the island north of this obstruction and the northern shore, we spotted another patrol boat and immediately opened fire on her at a range of 4,300 vards. She attempted to escape up river but was hit several times and burst into flames. Apparently her oil tanks caught fire as she burnt very fiercely. Her pom-pom fired a few rounds in reply. At this time too, the Turkish gunboat Marmaris of 500 tons opened fire on Espiègle. In the excitement of finding and sinking the patrol boat, we had not noticed her, as she was some way off up river beyond the obstruction and nearly hidden by a low island. The battery at Balzaniyeh too, commanding the obstruction, also joined in, so our forecastle gun being the only gun that would bear, was kept busy. After sinking the patrol boat, this gun was turned on the Marmaris, but she was taking no risks and steamed off up river. We heard afterwards that she was holed in one place forward, but she was too far off for us to see this ourselves. Nearly all her shots went over us, while nearly all those from the battery fell short and the ship was not touched. Knowing we could outrange the battery, we then dropped down river somewhat, anchored, and commenced a systematic bombardment of the battery for about half an hour, after which it was apparently silenced.

The following evening reports came in that the Turks were abandoning Basra. Nobody could believe it at first, as it was generally thought that a big stand would be made before giving up their headquarters. Apparently however, the decisive action at Sahil on 17th had very much shaken them and when, on 19th, the battery at Balzaniyeh had been silenced, the patrol boat sunk, and the Marmaris was seen in flight up the river, a general panic seems to have set in and all the Turkish forces hurriedly embarked in river steamers and dhows and fled up river on the 20th, the highest officials being the foremost in the flight.

At daylight on November 21st, therefore, the Espiègle, Odin, and Lawrence (latter had been armed with Sphinx's

guns), weighed and proceeded up river again to try and find a passage through the sunken obstruction. The ships anchored below the obstruction and the river was then sounded out. There were found to be five ships of various sorts sunk all told, only one of which however had been skilfully placed. was the ex-Hamburg-Amerika liner Ekbatana which was broadside on right across the middle of the channel, her upperworks being out of water. The space astern of her was blocked by other ships and wires were stretched from her bows to Dabba I. These wires were cast off and it was then found that there was room for a ship to pass between her bows and the shore. The tide was running through this gap like a mill-race however. At 1 p.m. Espiègle passed safely through this gap, but only with great difficulty, the eddies being so strong that one screw had to be reversed on several occasions before she would bring up. Odin and Lawrence were signalled to wait until tide had further slackened before passing through, and since then ships have always passed through at slack water. Espiègle then anchored and sent ashore a party who occupied the battery at Balzaniveh which Espiègle had bombarded on It was found to contain four 15-pounder Krupp guns with a considerable quantity of ammunition. By 2.30 p.m. Odin and Lawrence were both safely through the gap. Lawrence was left to guard the battery while Espiègle and Odin pushed on up river to Basra which was reached by 5 p.m. The Turks had all left and in consequence the Arabs had come in and were having the time of their lives looting, and shooting each other indiscriminately; the custom house and adjoining warehouses being in flames. Parties were at once landed and the safety of Europeans thus secured; apparently only just in time.

The next morning, November 22nd, large parties were landed from both ships, who systematically cleared the town of looters and hoisted the Union Jack and (when we had run out of Union Jacks) the White Ensign over all the public buildings, including the German Consulate, the German consul and staff being made prisoners of war. Having posted sentries over the public buildings, we then awaited the arrival of the military,

the first of whom came by water in two shallow draught river steamers which the armed launch Mashona had escorted up, and which reached Basra just before noon and relieved our sentries in the guarding of the public buildings. The main body of the troops marched up and reached the outskirts of the town that night. They marched in to the town on November 23rd, when the formal hoisting of the Union Jack took place and salutes were fired.

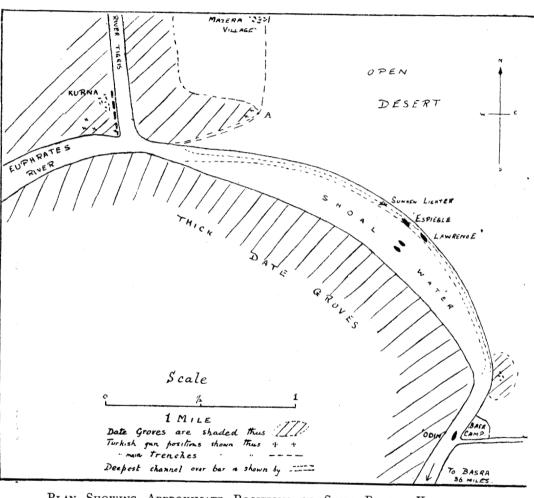
This same day, November 23rd, H.M.S. Odin reconnoitered some 25 miles up river but found no sign of the enemy and returned to Basra that night.

The army being now firmly established in Basra, on November 25th at daylight the Espiègle and Odin proceeded up river on a further reconnaissance accompanied by the armed launches Miner and Mashona. These latter had some difficulty in keeping up with the sloops, but we knew our only chance of catching the Marmaris was by going at a fair speed in the hopes of running across her at anchor, as we had previously done with the patrol boats. Being as fast as the sloops, she could always escape us up river as she drew at least 2ft. less water than we did, and we knew we were very near the end of our tether as regards depth of water.

It should be noted here, that there are no charts of the river above Basra, as sea-going ships do not go beyond this point and therefore we had to rely on the military maps of Mesopotamia, none of which of course gave any soundings. However we got 36 miles up without much difficulty and had just rounded the bend in sight of Kurna, when the river suddenly shoaled. We started groping our way slowly forward when the enemy opened fire from trenches in the date groves on the left bank, and with a battery at Kurna. This fire was returned with interest. The Marmaris could be seen miraged up in the air on our starboard bow across the desert, being some miles up the River Tigris. We could however advance no further, being then stuck in the soft mud. Odin who was following astern of us was even less fortunate. She kept still further over to the left bank which turned out to be the correct channel, but the Turks had sunk an iron lighter

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PLAN III



Plan Showing Approximate Positions of Ships Before Kurna, on December 4th.

here which the Odin struck and damaged her rudder considerably. Mashona also afterwards struck this; being completely submerged it was not visible. The guns at Kurna fired at intervals most of the afternoon, though they appeared to be They were however very difficult to silenced by 2.30 p.m. locate, being back in the date groves in pits, so that one only saw the flash, and afterwards there was considerable difference of opinion as to where they really were. At 3 p.m. both ships backed off down river into deeper water round the bend, leaving the Miner behind to cover the steamboat which had been sounding out the river during the afternoon. As soon as the sloops were gone however, the battery opened fire again, the first shot of which dropped only two yards short of the Miner throwing a column of water over her. They were then recalled, and we returned down river again, reaching Basra the following forenoon, where the state of affairs up river was reported to the G.O.C.

The iron lighter had been found and buoyed by the sounding boat, but as 11ft. was the most water that could be found anywhere over the bar below Kurna, it looked as if the sloops which drew 11ft. 9in. had come to the end of their tether. N.B.—During this month the river is at its lowest.

On December 3rd, a combined naval and military expedition left Basra to operate against Kurna, the ships taking part being the Espiègle, Odin, Lawrence, with the armed launches Miner, Lewis Pelly and Shaitan; the troops being brought up in several large shallow draught river steamers. In two of these steamers, the SS. Blosse Lynch and Mejidieh, a couple of 18-pounder field artillery guns had been mounted, and throughout the operations these guns were worked by the military under the S.N.O.'s orders. The troops consisted of part of the Norfolk regiment, also 104th, 110th native regiments and others with field artillery—less than a brigade in all.

A point three miles below Kurna was reached at dawn on December 4th, and here the troops were disembarked from the river steamers at the place marked "Base Camp" (see Plan III.) out of sight of Kurna. Odin remained here to guard the

camp from attack from the right bank. Having a damaged rudder, it was doubtful whether she could negotiate the next bend of the river in any case. Espiègle and Lawrence then proceeded round the bend of the river and came under fire from the guns at Kurna, and also from two guns which had now been placed in position this side of the Tigris, and at the edge of the date groves marked A in plan. Like those at Kurna, these guns were very well concealed and though barely a mile and a half distant, the most powerful telescope would reveal nothing of them and the flash was all one ever saw. Again our forecastle gun was all that could be brought to bear, the channel being too narrow to get our broadside round, in fact as it was, we were aground most of that day, even lying in the deepest part of the channel.

Within half an hour both these guns were silenced and never fired again, and after that we only had those at Kurna to deal with. By 9.30 a.m. the troops were advancing across the desert on our beam to attack, and then the Blosse Lynch and Mejidieh came up and took up a position on our port beam as shown in the plan. These ships chiefly directed their fire on the Turkish trenches, which extended from the end of the date groves in a northerly direction across the desert to Mazera village. Being of very shallow draught (3ft. 6ins.) they could take up this position in the shallow water out of the direct line of fire from the guns at Kurna. Espiègle and Lawrence chiefly directed their fire on Kurna, but just before the assault all ships heavily shelled the trenches, which were carried by the infantry with comparatively little loss. The casualties here were less than one-tenth of those suffered in similar circumstances at Sahil, where there was little or no artillery support. The Turkish casualties were heavy, though a large number escaped down communication trenches into the date groves and thence got across by boat to Kurna. About 40 prisoners were taken here, and the two guns previously silenced by Espiègle and Lawrence, one of which was brought back into camp; a lyddite shell had entered the pit of the other one and only the bits were left. On examining this pit after the surrender we found the whole place yellow with lyddite fumes.

At 1 p.m., the trenches being carried, the armed launches Miner and Shaitan moved up within 800 yards of Kurna, while the Espiègle and Lawrence (both of which were now on the mud, as the tide was low) shelled the guns there. The launches came under a very heavy rifle fire from Kurna where all the houses were loop-holed, and also from one small gun which was screened from our fire by the trees on the near point. The Miner got badly holed on the waterline of her engine room by this gun, and the pluck of her engine room hands-both of whom were badly wounded-alone saved her. She got back to within 200 yards of Espiègle listing heavily, and was there beached in the shoal water on our port bow. The troops too on reaching the banks of the Tigris, came under a very heavy rifle fire from Kurna, and as they were losing heavily and had no means of crossing in the face of such fire, the O.C. ordered a general retirement, which all ships endeavoured to cover by shelling Kurna-or such parts of it as were visible. The troops retired back to the base camp, also the Lawrence and armed river steamers. Espiegle and Lewis Pelly remained with the Miner while latter was being patched up. After dark the battery at Kurna opened fire on us again, but as the shots went nowhere near us we kept all lights out and did not reply. The Miner being patched up and both ships being afloat again on the rising tide shortly afterwards, we backed down river to the base camp. Wireless messages were then sent to G.O.C. Basra explaining the unexpected strength of the enemy and asking for reinforcements to be sent up. These arrived with General Fry on December 6th. That same day the enemy appeared in force crossing the open plain as if to attack the camp, but were easily dispersed by a few shrapnel from Lawrence and Espiègle. Our troops having been considerably reinforced from Basra on the 7th, Espiègle and Lawrence, followed shortly afterwards by the armed river steamers, moved up to attack, and took up almost similar positions to those occupied on December 4th. An almost similar battle took place, as the Turks had re-occupied all the trenches captured and then abandoned by our troops on that day. The two guns lost at the edge of the date groves on the left bank had however not been replaced.

Before evening the enemy's trenches were again stormed and carried by the infantry, and Mazera village which was strongly held by the enemy and near which they had some guns, was shelled both by the ships and the field artillery ashore. Being composed chiefly of mat huts it very soon caught fire and the place was completely burnt out. During the afternoon the remainder of the channel beyond the sunken lighter was sounded out, but the deepest passage only gave 11ft. As on December 4th, the launches again went forward while the heavier ships were stuck and received a heavy fire. The Shaitan was disabled and only got back with difficulty, one rudder being smashed (she has two) and her wheel carried away. Her captain was killed. The launches Miner and Lewis Pelly were then recalled.

The troops bivouaced that night in the trenches they had taken, no attempt being made to push on to the banks of the Tigris opposite Kurna, which had proved so costly on November 4th. The next morning everything being quiet, the Lewis Pelly was twice sent forward to reconnoitre. On both occasions the Turks held their fire until she had got almost into the narrows, when a heavy rifle fire opened on her; which she returned covered by the fire of the heavier ships. The battery at Kurna then opened fire again, so the ships thereupon commenced a systematic bombardment whenever we could see the flash of a gun. This continued all the afternoon and drew the enemy's attention off the enveloping movement which the army was then Our soldiers worked round north of Mazera village and reached the River Tigris three miles north of Kurna. The first few men swam the river with a line and finding a dhow on the other bank, used this as a flying bridge; before dark two battalions and a few mountain battery guns had crossed by this means. The ships too were closing in well on the south. Though we were never properly afloat, the mud was so soft that at high water we could push through the last few inches of it, and by this means during the afternoon had got well up past the sunken lighter, while the Lawrence was only just below it. The Odin too had got round the bend in spite of her damaged rudder and joined in the bombardment.

The fire from the battery by now had practically ceased, though we had not located the exact position of any of the guns. The attack was arranged to commence next morning again at 6 a.m.

Shortly before midnight that night a steam launch was observed coming down from Kurna. As she was carrying all lights and blowing her syren we did not fire on her, but sent a boat to examine her. She was found to contain three Turkish officers who had come under a flag of truce to obtain terms of surrender. As it was not possible to communicate at once with our General (who was senior to the S.N.O.) the latter demanded the unconditional surrender of Kurna, failing which, he explained the assault would take place at daylight. After about two hours, when they found that we would agree to no other terms, the Turkish officers agreed to unconditional surrender. This was communicated to the General ashore as soon as we could get into touch with him, and the assault next morning stopped. The General came on board Espiègle at 8 a.m. with his staff, and at 10 a.m. at the top of high water we pushed on over the last few hundred yards of shallow water, steamed up into the Tigris, and anchored off Kurna. There we found the remainder of the garrison which had not escaped up either river, drawn up with arms piled. At I p.m. our troops had marched in, a party of blue jackets was landed also, and the formal surrender and hoisting of the Union Jack took place. Bluejackets from Espiègle hoisted the Union Jack. The total "bag" was over 1,000 prisoners, including Subhi Bey, the Vali of Basra, with 35 officers and 8 guns. There was one Turkish naval lieutenant amongst them who reported that he belonged to a Thorneycroft armed patrol boat, which had been sunk during the bombardment on the day before while lying in the Tigris off Kurna. We had not seen this boat during the bombardment, owing to the trees on the near bank of the river.

We afterwards visited the Turkish gun positions, and found they were back about a quarter of a mile or more from the Tigris in the date groves and very cleverly concealed in pits, nothing except the muzzle being visible from ahead. One had a direct hit and was disabled, and the ground and trees all round were cut to pieces with shrapnel bullets everywhere. It

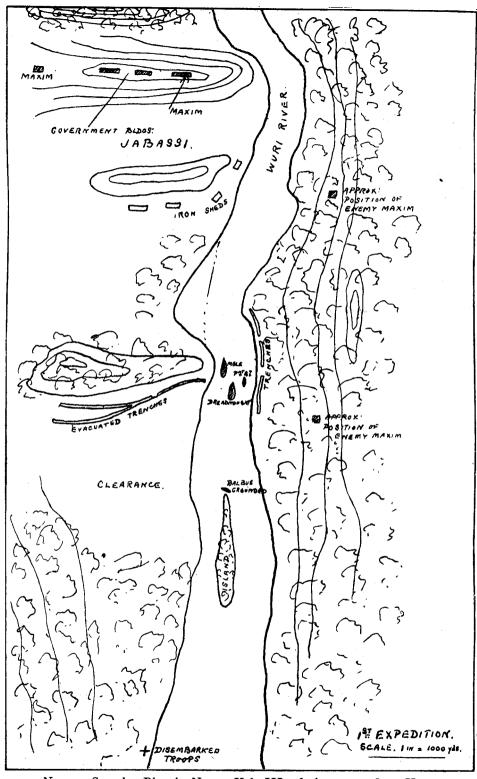
spoke highly of the courage of the gunners who served them to the last. They were all Krupp guns of a somewhat ancient type. In our first position we must have been near the limit of their range, for many shot fell between Espiègle and Lawrence which must have hit Espiègle's upperworks if they had not been dropping at a very steep angle—the two ships being very close together. The next day too, when a shell passed through both sides of a cowl before bursting, one could see from the position of the two holes that it was falling at an angle of about 45°. The destructive effect of their shell seemed much less than our own of a similar calibre. One which hit Espiègle forward, only just penetrated the ship's side and most of the burst took place outside the ship, one however penetrated the Lawrence's dynamo room, and put that machine out of action. fuzes on the other hand seemed very efficient and the shell always burst on impact with either the water, or soft mud, or the rigging.

The general lesson to be learnt from the operations before Kurna seem to be that, in a flat wooded country such as this was, guns which have been carefully concealed in the trees are almost impossible to locate accurately, provided that they are not fired too frequently or the same one fired twice running.

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Note.—See also Plan in No. 2, Vol. III., facing page 289.—Hon. Editor.

PROCEEDINGS OF H.M.S. CUMBERLAND AND THE OPERATIONS IN THE CAMEROONS.

EXTRACTS FROM THE DIARY OF AN OFFICER.

PART II.

September 8th.—The typed orders for procedure during the day were—

Alligator and Crocodile to close Cumberland at 5.30 a.m. with a view to sweeping the bar at the entrance to the Cameroon River.

- 2. When Balbus and Walrus are complete with coal, they will close Alligator and Crocodile for their sweeping party, and will then sweep in company with them.
- 3. The eastern sweeping craft is to drop buoys at intervals of one mile or on alteration of course. When the bar, and one mile to the N. Eastward in the direction of "A" buoy has been swept and found clear of mines, Cumberland will proceed across the bar and anchor.
- 4. The sweeping craft will then proceed toward "A" buoy and get a channel cleared for Cumberland, after which they will proceed towards "B" buoy, observing great caution, in view of the possibility of sunken obstructions.
- 5. Dwarf is to proceed astern of sweeping boats with a coal lighter in tow. She is to anchor the lighter in a position S. 39° W. 6 miles from Cape Cameroon, with plenty of chain cable so as to ensure her not dragging. After anchoring the coal lighter, Dwarf is to remain in company with the sweeping craft until a channel has been cleared for Cumberland as far as one mile from the lighter in the direction of "A" buoy. As soon as the channel is cleared, Dwarf will report the fact by W/T to Cumberland and await her arrival.
- 6. When Cumberland has crossed the bar, Dwarf and Ivy are to close on her and embark 25 marines each.

- 7. A sweeping boat finding an obstruction is to hoist a red flag and keep it flying until the obstruction is clear of the channel. In the event of rain, or fog, or heavy rain squalls, all vessels are to anchor until the weather clears.
- 8. Cumberland will give orders by w/T when Dwarf and Ivy are to land their marines on the south side of Cape Cameroon and Suellaba Point respectively. The marines are to clear the points of men and guns, and to report by signal whether any electric cables lead from the shore. If no cables are found, the marines will re-embark after ascertaining that the points are clear of the enemy. If cables are found, the minefield will if possible be blown up, in which case Cumberland will return and give orders by w/T to Dwarf and Ivy to land the necessary people and batteries to blow up the mines, Dwarf and Ivy reporting progress by w/T to Cumberland. Meanwhile the marines will cover Dwarf's and Ivy's landing party. If it is impracticable to blow up the mines, the cable is to be cut and the end dragged into deep water.
- 9. The mining lighter and other lighters not required are to remain at their present moorings. Ivy is to visit them and see that their moorings are correct and that they have plenty of chain out. Vampire will follow Cumberland.

Balbus and Walrus had to coal, so No. 1 started in Crocodile, and Stronmeyer and I in Alligator, and we swept as per orders. Dwarf followed us up and moored one of the lighters in the given position to act as mark buoy.

At 10 a.m. Balbus and Walrus arrived and No. 1 and his party turned over to them. We then both carried on sweeping independently. We got as far as "B" buoy before dark, having found nothing all day, and then returned to the ship which had come into a position just inside the lighter.

We sighted the Herzogin Elizabeth (G. governor's armed yacht) a craft much like the Ivy; but she did not attempt to come out and molest us.

9 p.m. Crocodile with surf boat in tow landed King Bell and another native to spy out the land. Sent 25 marines to Ivy in readiness for to-morrow. It was a very hot day, so I was only wearing a flannel shirt, the sleeves of which I foolishly

had turned up, with the result that my arms got rather badly burnt by the sun.

9th. Daylight, sent 25 marines to Dwarf.

5.30 a.m. No. 1 and I started in sweeping again. This time we swept in echelon, he leading and being directed by searchlight from the ship. When within 2' of Cape Suellaba, Crocodile the inshore boat reported 15ft. of water, which I signalled to No. 1. Soon after which we dropped a buoy, and simultaneously sighted the Elizabeth coming out, so No. 1 made the signal to slip the sweep and close Cumberland. I did a full power trial back and knocked a good 13 knots out of my two motor boats.

7.30 a.m. The ship proceeded to anchorage between the two points 6,000 yards from each, and shelled them. After which Dwarf and Ivy landed their marines in accordance with par. 8 of the orders. There was no resistance. The Suellaba Point party captured 4 prisoners, 3 Germans and 1 native, they were apparently a signalling party whom we have seen the last two nights. They were examined and a little information was abstracted, whether true or not remains to be seen. The Dwarf exchanged shots with the Elizabeth in the evening at long range and claims to have hit her; but I should think it extremely doubtful.

In the afternoon I swept all round the quarantine anchorage where it is proposed the ships will come to-morrow. We were in there for over an hour with no one to support us, when the Elizabeth appeared and came within 3 miles of us or less; but appeared to be just as frightened of us as we were of her. During this time we had the misfortune to get the sweep foul of the bottom in turning, added to which my engines were going very groggy, as the petrol pipes were blocked. She could easily have had either of us as our only arms consisted of three rifles in each boat. Only just managed to get back to the ship in the evening, as we were forced to struggle back against the tide with two cylinders out of the four firing on the S. engine, and the P. engine stopped altogether. Could see the sunken ships from the Quarantine anchorage.

oth. Orders for Dwarf, Balbus and Walrus.

At 5.30 a.m., 10th September, Dwarf, Balbus and Walrus are to proceed to the Cameroon River.

Balbus and Walrus are to sweep ahead of Dwarf.

The objective is to ascertain if there is a 12 foot channel at low water up the river past sunken obstructions as far as Doctor Point and entrance to the Prisu-a-Loba Creek.

Should any vessel offer any resistance the sweep is to be slipped, Balbus and Walrus taking station well astern of Dwarf until the engagement is over.

Dwarf is to take every precaution against the Balbus or Walrus being captured.

Should a shore battery open fire, Dwarf is to approach the shore in the wake of the sweep. When Dwarf is within range the sweep is to be slipped, Balbus and Walrus getting astern of Dwarf out of range. Dwarf is to keep a special look out for mines.

Ships should return to Cumberland by 5.30 p.m. anchoring to the southward of her $2\frac{1}{2}$ cables. Cumberland will proceed to an anchorage approximately N.E. by N. two miles from Suellaba Point.

roth. Alligator and Crocodile were given a rest to clean their engines, so I took over Balbus and Walrus and acted under Dwarf's orders. We swept out a channel up to the sunken ships, having one delay on the way when my kite dived deep into the mud. It was a tremendous business weighing it again; but by bending on another wire and bringing the kite wire to the capstan we at last got it out, and carried on with the shorter drift on the kite wire. It was rather exciting as we approached the sunken ships, because according to spies' reports there were by way of being 12 rows of mines just outside them—but we found nothing.

There are eight ships sunk in the deep water channel, but they have evidently been sunk by some amateur, as they have not succeeded in blocking it for light draft ships. The H. E. was employed in sinking two more this morning.

Having got as far as the sunken ships, we slipped the sweep, and received orders from Dwarf to proceed independently and try and find a channel for her past the wrecks. This we succeeded in doing in a very short time between the two ships sunk this morning. When just above the wrecks I spotted a small steamboat, which had evidently come out to see what we were doing. As she was only a mile off I thought it was a good opportunity of firing my first "angry" shot. I fired two rounds at her with a rifle, the second of which was fairly adjacent—anyhow she nipped all right! I asked Dwarf's permission to chase, pointing out that I had rifles, but he would not allow me to, on account of orders. In the afternoon we all passed through the channel between the two wrecks and proceeded another two or three miles up the river, finding no trace of mines. Dwarf anchored for the night just below the ships so as to guard against any more attempts to block the channel.

No. 1 in the meanwhile had been having a very good time up the Lungasi River with the picket boat and steam pinnace, the former having a three-pounder, maxim and rifles, the latter a maxim and rifles only. He had got some way up when he sighted a launch; he at once went on full speed, but unfortunately the three-pounder went off while being loaded, which gave the alarm, consequently the Germans ran their launch ashore and nipped into the mango swamp. Having looted two double-barrelled shot guns, two chickens, three deck chairs, and some eggs, he sank her with his three-pounder. He later sighted some Germans in canoes; they also took to the bush, closely pursued by No. 1 and party, who fired rifles at them. found rather an amusing letter in the launch which was in the process of being written when No. 1 so rudely interrupted the proceedings. The fellow had been writing to his young woman in Hamburg, the addressed envelope being alongside the letter. He told all about the English landing at Victoria, and how they were easily thrown out the next morning, adding that although they might be some good at sea, they were useless as soldiers ashore. He then went on to describe what a good time he was having patrolling the creeks, and that he was perfectly safe if the English forces appeared, as all he had to do was to run for the bush—having got as far as that, he ran! The letter is being kept until the end of the war, when Calloway

is going to send it on. Taking it all round it had been a most amusing day. I am very pleased to have been the first person to see Duala.

Quarantine Anchorage.

11th.—Champs went away with the picket boat and divers to the sunken ships to examine one or two of them with a view to raising. Champs then went on up the river and chased a launch to within 4 miles of Duala, when it came on thick, so he gave it up.

Joined Dwarf with Balbus and Walrus soon after 8.0 a.m. and drew a maxim which we mounted on the bridge. We got out the sweep above the wrecks and swept a channel for Dwarf off Doctor Point. When about a mile short of Doctor Point. I sighted a red spar sticking out of the water and altered course slightly so as to drag it out of the channel, but the sweep parted. So I went and examined this obstacle and found that it was a big cylindrical water-logged buoy with a spar through it, so we left it and proceeded towards Duala with the sweep again. When we were abeam of Doctor Point and were just opening up Prisu a Loba Creek, the Dwarf started firing at a steamboat with a lighter in tow, which had just come out of Mungo Creek. the first shot most of the niggers jumped into the water. second shot was shrapnel, which appeared to burst right over the boat, the contents hitting the water about 200 yards over. There was then a pause in the firing, during which I was busy examining Prisu a Loba Creek for enemy's craft. the slightest warning a shore battery, very effectually hidden in the trees, suddenly opened fire on Dwarf. They had very kindly waited until Balbus and Walrus were just out of the line of fire; for all that, I wasted no time in slipping the sweep. We then both turned to port and legged it down river as fast as we could go, still keeping the kites in tow. Although not quite in the line of fire, the Shorts and Riccos came quite close enough to be unpleasant. I kept well over to the northern side of the river in order to give Walrus lots of room between me and Dwarf. In so doing I ran into shallow water, the kite dived into the mud and almost at the same time we stuck fast in it and brought up all standing. At the time I was dreadfully upset at the thought of losing the kite, and made every effort to weigh it, without success; so I was forced to slip it and buoy the end of the wire. Having done this, we went full speed ahead both engines with the helm hard over. For fully two minutes she did not budge an inch, during which time I had visions of a German prison and all sorts of pleasant things, as the tide was falling fast and I did not think that we had a chance of coming off again; but after what seemed to be ages, she suddenly began to move slowly and we slid off. The Dwarf by this time was more than a mile lower down and had ceased firing. The battery lushed me up to a couple of rounds while Balbus was on the mud, but they fell miles short.

From the look of the splashes and the flash of the guns in the trees, I thought the battery consisted of two 12-pounders, but when I closed Dwarf he said he was convinced that there were three or more guns and that they were 6"! Taking into account that it was a shore battery, well hidden in the trees, I thought that their shooting was rotten, and can only conclude that they are amateurs who have never done much of it. They opened at a range of 3,000 yards and fired about 40 rounds all told, scoring one hit on Dwarf. If it had been manned by some of the 12-pounder gun crews I have seen at Malta or Gibraltar, I am certain that they would have got twice as many hits in the time as that battery fired rounds.

The Dwarf had bad luck in the shell that did hit her. It got the after side of the bridge and burst downwards, most of the fragments going through a 4" opening at the top of the chart house windows (chart house has been armoured and turned into a conning tower) and wounding all four men, including the Chief Quartermaster, who were inside. It was rather a serious moment as the ship was heading for the beach at the time; but Jones, the navigator, with great presence of mind nipped down, got the bridge wheel, shipped it and steered the ship himself. There was one other man slightly wounded by a fragment which went through the deck.

In the evening I took P.O. Coombes back to Cumberland to be operated on, as he had been seriously wounded in the head. Sent a large party up to S.S. Cameroon, consisting of

seamen, stokers and marines, with Haddon and Breaks in charge. She is a large and very fine steamer, apparently beached last night and deserted in a hurry, as the clocks were still going. P.O. Coombes died at midnight. Collier, Sterndale arrived during the day.

Suellaba Base, Cameroons.

12th.—I went up to Manoka Bay at daylight with Balbus and Walrus to try and tow off Cameroon. She is the best found ship that I have seen for some time, brand new with everything intact. Breaks had managed to raise steam—no mean effort when everything was in German. Spent most of the forenoon trying to tow her off, she working her engines, but we had no success, although she is in 17 foot of water and can't be drawing more than 20. Think that when tanks are pumped out she will probably come off.

D. H. landed in charge of funeral party and buried P.O.

Coombes at Suellaba Point.

Ivy, armed with one of our 3-pounders and picket boat with 3-pounder and maxim, relieved Dwarf as sunken ship guard.

Nachtigall (German armed yacht) fired at Ivy from one of

the creeks in Modeaka Bay but did her no harm.

Sunday, 13th.—Having had my share out of the ship, have now got to stay on board and do a little watch keeping. D. H. went away in picket boat this morning to have a look round the creeks leading out of Modeaka Bay for any of the enemy's small craft. He went through Mboka Creek, and just as he was going out into Mikanye Creek, he sighted a small motor launch which he at once gave chase to. She disappeared round the point and up Nachtigall Creek, he firing a few rounds of 3-pounder after her. He dashed round the point in chase and was greeted with a shell from a big ship, which was just getting under way. D. H. at once put his helm over and fled, being closely followed by his friend who kept up a pretty hot fire. Three or four shells burst within 25 yards of the picket boat, but for some extraordinary reason she was undamaged and nobody was hurt. D. H. made very good use of his helm while running away, and was thus enabled to get off 13 rounds of 3-pounder at her, at least two of which he is certain got home.

14th.—Smythe and Lambert have spent the whole of to-day and yesterday sounding out a twenty-foot channel up to the sunken ships.

Hear to-day, that Challenger and a couple of French ships are coming here — if they can find a channel which will allow Challenger to get within range of Duala, I reckon its practically all over bar the shouting.

Balbus and Walrus had another effort at the Cameroon; but without success.

15th.—Lambert piloted the Bintang (late Sterndale) up to Manoka Creek, and a most determined effort was made to get the Cameroon off, which was partially successful. The Bintang took her in tow and shifted her about 50 yards before the wire parted.

A desperate boat attack was made on the Dwarf last night, while she was doing duty as sunken ship guard. There were three launches of sorts, one a small steamboat with a sort of torpedo rigged over the bows. The affair consisted of two C.O.2 cylinders filled with explosive, and the heads fitted with This was rigged up on a sort of tripod, and was capable of adjustment to various depths. When the boat with the infernal machine got near the Dwarf she was sighted and fired upon. The German who was steering her then jumped overboard, having lashed the helm; but apparently he did not allow for the tide, with the result that the boat ran up on the mud instead of hitting Dwarf. The other boats cleared out, and the German, who managed to swim to the wrecks was discovered in the morning with practically no clothes on, gesticulating wildly, and half mad from exposure. sent on board here to be examined, but he was still a bit shaken and refused to speak much.

16th.—Lambert took the Bintang up to the Cameroon again to-day, and succeeded in running ashore on the way, but she was soon got off again, with the help of Balbus, Walrus and Trogan. They had no luck again to-day owing to hawsers parting, etc.

Marina and Remus arrived this morning, the latter looking very smart with her $\frac{5}{16}$ plating all over her, in order to protect

troops from rifle fire. Captain Child, director of Nigerian Marine, came in Remus to discuss plans of attack with our captain. He is going straight back to report to General Lugard, the Governor-General of Nigeria, and I gather the troops will arrive some time next week. The captain of the Remus (Henderson) was full of news; apparently there are about 7,000 troops coming, also the Bruix and Surprise (both French). He also said that a host of political officers and officials were all ready to come down and take over the Government of the Cameroons as soon as Duala and surrounding country has been captured.

We seem to have made rather a mess of the business on the frontier. We have practically denuded the Nigerian-Cameroon frontier of troops, in order to get as many as possible for this business; with the result that the Germans have cut up two small garrisons, taken Oban, and are now within two days march of Calaba.

Kept the first watch, and between 9.30 and 10.0 p.m. saw Dwarf's searchlight beam, and several flashes of guns from the direction of Bimbia River. At 11.0 p.m. received from Dwarf by W/T "Have been rammed and have banked"—later, "Have destroyed Nachtigall, am all right." I was in the captain's cabin when the second signal arrived, and he fairly jumped for joy and told me I was to go away at daylight to Dwarf's assistance.

DWARF'S NIGHT ACTION WITH NACHTIGALL.

Dwarf was anchored in Bimbia River just short of Bakwin Creek, cable all ready for slipping, steam on main engines, guns manned, ship darkened.

At 9.20 p.m. a light was sighted rounding the point below Dwarf. Dwarf at once switched on her searchlight, and Nachtigall was sighted heading straight for them at about 9 knots. The Captain who was on deck at the time, shouted out "fire" and the four guns on the port side immediately went off. One 4" hit her in the forecastle head, unshipped most of the deck, killed the gun's crew and knocked the gun into the ditch, the other three rounds hit her and she caught fire at once. The German captain seeing his only chance was to ram the Dwarf, put his telegraphs full speed ahead and went straight at her.

In the meantime Strong and Jones had both nipped for'ard, the former put the telegraphs full speed ahead, while the latter personally slipped the cable; this probably saved the ship, as she was just moving at the moment of impact. By the time she Nachtigall struck the Dwarf, she (N.) had got about 30 shells pumped into her and was blazing fore and aft. The German captain was then seen to stop the telegraphs, throw up his hands shouting "Don't shoot" and plunge overboard, followed by the surviving members of his crew. Strong did his best, but was unable to stop his men firing for some time. The Dwarf managed to pick up the captain, three other white men and ten niggers, all of whom were wounded; the remainder of the crew, 8 white men and 16 niggers, were either killed or drowned in the mangroves or eaten by crocodiles - poor devils, it must have been hell! The Dwarf eventually got clear of the Nachtigall, and the latter drifted away up the creek. blazing fiercely, with explosions at intervals. No trace of her has been found.

17th.—Daylight Bintang left for Lagos with Captain Child on board. Lambert piloted her out.

Ashby and I left in the picket boat at 6.15 a.m. to go to the assistance of Dwarf, taking a native pilot. We went via Nachtigall Creek, and Steamboat Creek into Bimbia River. Just as we were going across the mouth of Bakwin Creek, we passed some floating wreckage and a small grey dinghy up in the mangroves — presumably belonging to Nachtigall. Soon after this joined Dwarf. She had a nasty looking nudge on the port side just abaft the bridge, the Nachtigall's bows having cut into her flying deck, bulwarks and ship's side above the water line, while there was quite a fair sized hole in the provision room below the water line. I was longing to hear the details, but there was not time; he told me that he had 5 white and 10 black prisoners all wounded, and that as far as he knew, the rest of the Nachtigall's ship's company were killed or drowned, also that he had no casualties.

Dwarf told me to scout ahead of him, and I understood him to say that he was going to examine Bimbia. Anyhow, I lost Dwarf after a bit. Having looked for him for some time I

decided to go on to Bimbia. Passed Klippen Point where there were three houses—quite deserted—and proceeded into Dikullu Bay, where I found a small motor boat high and dry which the natives told me had been brought there the previous evening by some white and black men. Not being able to get her off, I fired four or five rounds of 3-pounder at her, one of which blew up the petrol tank. Before we left she was in a splendid blaze. I then went and inspected the next bay, saw two men in khaki leaving Bimbia Farm, but as they were unarmed I did not molest them.

Having lost Dwarf entirely, I thought the best thing I could do was to get back to the base as soon as possible in order to allay any panic. As Bimbia River was absolutely deserted on my way down, and it was pouring with rain, I allowed the boats crew to go below for dinner on the return journey. I was below in the cabin writing a rough report, when I heard what I took to be our maxim firing. It had been jammed all the morning in spite of all attempts to make it fire rapid, and everybody had been having a lap at it, so it did not surprise me in the least. I very soon realised, however, that it was not our maxim, when three niggers and two of the boat's crew fell down into the cabin on the top of me. I at once nipped up like a nigger and found the bullets fairly zipping over the stern sheets and all round the boat. It was really rather amusing when I arrived on deck, as the only two men there, were the coxswain and one able seaman, both lying full length on the deck the lee side of the E.R. casing. The coxswain could just reach the wheel with one hand. My one idea was to get the 3-pounder under way as soon as possible, and pump lead into the blighters. It made me so damned angry that these fellows who one moment pass for peaceful traders, should half an hour afterwards fire at one from behind a bush. They opened fire at a range of from 400 to 500 yards and made devilish good shooting; it is still a marvel to me that none of the six men men on top of the cabin were hit—all hands in the P.B. seem to have charmed lives. They were firing from the bushes low down on the western side of Klippen Point and from the westernmost house. I am certain that there were at least a dozen rifles. I soon got the 3-pounder under way and plumped three rounds into the bushes, which burst splendidly, after which the fire slackened quite perceptibly. After I had fired seven rounds I turned the gun over to P.O. Gibson (G.M.) who knocked the side of the house off and set it alight. I was sorely tempted to stop out of range and knock all the houses down; but thought it was rather a waste of time and ammunition. One thing I have quite made up my mind to in future, and that is, to shoot any German on sight and demolish any German house I see. I picked up a rifle bullet in the boat, which I have kept as a "souvenir" as our Yankee friends say.

Got back to the ship about 3.30 p.m. Very glad I was to return, as I had been soused to the skin for the last four hours. It was a distinct blow when I was told to carry on straight away to the Ivy, and stay there all night if she wanted me. Arrived at Ivy soon after 5 p.m., and he decided to keep P.B. for the night; still he gave Ashby and me a hot bath, so we were not so badly off. About 8 p.m. had to go and get hold of Vigilant, who could not be prevailed upon to approach the ship. I could not find him for some time as it was pitch dark and raining hard, added to which he would not answer the challenge. Ivy was rather rattled, as we had seen H.E. and three small craft under way just before dark and he was certain they meant to make a night attack. I don't blame him for being a bit anxious, because if that funny old death trap of his does get hit by a bursting shell, she will go up like a Brock's benefit.

the sunken ships, and spun us a hair-raising yarn about lights moving backwards and forwards across the river by Prisua-Loba Creek. He was quite certain that the Germans were either laying mines or sinking more ships. Hughes was very worried about this, so eventually I volunteered to go up and see what was doing. He fairly jumped at my offer, so at 11.30 p.m. I started off. I must confess I was not particularly keen as it was dark as Egypt's night, raining hard, so dark in fact that one could not see a boat more than 200 yards off even if one knew where she was, added to which the compass

was quite unreliable! I first of all groped my way up to Vigilant, arranged with him to show a light when he saw firing, so as to give me something to steer for if the blighter chased me. Soon after leaving Vigilant I picked up a sounding of 9 feet, which I knew could only be the bank about 300 to 400 yards clear of the wrecks. I tried to see the wrecks, but never caught a glimpse of them. I was very lucky in hitting off the channel so well, as we never got less than three fathoms the whole way up. About 20 minutes after leaving Vigilant, the rain stopped and we sighted a light right ahead, which turned out to be, as I expected, the lights of Duala on the horizon. Everything after that was plain sailing. I went up to the entrance of Prisu-a-Loba, and found everything perfectly quiet, never even saw the H.E. or a patrol boat of any kind, and I am quite certain no one saw me. It was a great temptation to go on to Duala and shell the place with my threepounder—the resultant panic would have been most amusing to watch—but I decided that the amusement would in no way compensate for the loss of the P.B. if they did happen to hit her. Also I thought that the flash of the three-pounder would probably blind us for some considerable time, in which case we should probably have run ashore. We got back to the Ivy at 2.30 a.m. and slept until 5 a.m., when the Ivy shifted billet.

The Cameroon was got off to-day by the tugs, but ran ashore on the same shoal as the Bintang did the other day. All attempts to get her off during the night failed.

18th.—6.30 a.m.—Left Ivy and proceeded to the north of Mowe Lake in order to try and find a channel into the Mungo River. The orders were:

To proceed to explore the creeks to the north of Modeaka Bay, the object being to endeavour to find a deep water channel to the Mungo Creek.

On reaching the Mungo Creek, to survey it towards its junction with the Cameroon River, but not to be sighted from Duala nor Bonaberi. At the same time, if possible, to ascertain from native sources what depth of water there is over the bar at the Cameroon entrance to the Mungo Creek, and also

if there is any good ground, and paths from the Mungo Creek, by which a force could land and attack Bonaberi.

To work back by other creeks to the north-west of the one we go north by. To be back at Suellaba Base by 5.45 p.m., but if delayed, to return to Ivy for the night.

If Cumberland or Ivy are approached after dark, to burn side lights, and make the local challenge.

To navigate the creeks with great caution, and keep a special look out for enemy snipers, especially when rounding points.

Any of the enemy's launches or boats are to be captured if possible, or destroyed; launches if captured, can be hidden away until they can be sent for.

To make a rough sketch survey of the creeks.

The creek pilot Dunbar and another of Bill's sons is being sent by Vigilant.

Having arrived at the north-west corner of Mowe Lake, I found that it was impossible to progress any further until high water as there was only three feet of water in the lake. To pass the time until high water I decided to go up Mischellili Creek, where Dumbi, the native pilot, said there were some Germans. I was going pretty fast when I suddenly ran up high and dry on the mud, the water shallowing from five fathoms to four feet in half the boat's length. After shifting all the three-pounder ammunition aft and getting all hands in the stern sheets to jump up and down, she eventually came off. We then proceeded slow ahead, but had not gone half a cable before there were three tremendous bumps under the bottom. This was in five fathoms, so I think it must have been a submerged tree. To my joy I then found on trying to go ahead, that there was a tremendous crash every revolution when the helm was amidships; but all right when it was hard over one way or the other. We could not anchor where we were, as the German plantation was in sight, and we could see people moving about in the trees. As we were only 40 yards from the bank, I was rather frightened that these fellows would start shooting—even a German could not have missed us at that range! I then started a most tortuous business, in order to get out into the

lake again. Helm hard over one way, then go ahead, stop and head over the other way-it took over half an hour to go iust a quarter-mile at slack water! I beached the boat on the bank leading into the lake, and put a hand over the side, who reported immediately that one blade of the propellor was bent nearly double and that it caught the rudder a tremendous smack every revolution. I gave him a sledge hammer to biff it with, hoping that he would break the tip off, but it was too springy. The only thing to be done was to unship the rudder and rig a jury rudder in its place. It was not a pleasant prospect, as I knew it would take at least an hour, during which time we should be helpless if any Germans came along. I put the gunner's mate at the three-pounder with orders to fire on sight, while the rest of us dug out for daylight. The jury rudder was made out of the side of a locker from the stern sheets, with the boat hook and pendant staff nailed and lashed one each side of it. It was no mean job hoisting the rudder inboard as it is not a light thing to handle in a cramped space. When everything was ready (the whole business took close on 13 hours) we weighed and started off for the ship, going slow. The coxswain worked the jury rudder, while one hand sitting on each quarter pulled and pushed as requisite on the two small connecting rods of the balance rudder, which were crossed before all. The latter really did most of the work, as the jury rudder was-such a flimsy affair that we did not dare put much weight on it. It took 3½ hours to get back to the ship, a distance of 15 miles, if we attempted to go fast the balance rudder jammed hard over and we went round in a circle! I must admit I was very pleased the business worked so well, as there were many sceptics among the grinning knowalls in the boat's crew.

The Cameroon was refloated again in the afternoon.

19th.—The "Transmitter" has picked up the German cable from here to Bonny, so that we are now in communication again with the outer world!

Adams had quite a brilliant effort in the creeks to the north'ard of Rugged Point. He not only discovered the way into Mungo Creek, but sank two German launches and a canoe,

killing white men, black men, and capturing white men and black men. One of the launches was rigged with an infernal machine, similar to the one that they used against the Dwarf. Apparently they had meant to have a go at the Ivy to-night.

The two foremost guns of the Remus being finished, she went away for gun trials this evening, but much to everyone's disappointment one of the plates buckled, so they will have to be further strengthened. She is mounting three of our twelve-pounders altogether, two for'ard, one aft.

20th.—Work on the Dwarf's injury and Remus's gunmountings still going at full pressure.

Eighteen marines out of the 52 landed for the night at Victoria are now down with malaria.

Had a yarn with the captain of the Nachtigall and Lieutenant Phoelig (captured by Adams) both of them quite good fellows. The former very much regretted that he had been unable to give his guns crew any training, otherwise he says he would never have allowed D.H. to escape the other day in the P.B.

21st.—No. I returned at daylight in the picket boat, she failed yesterday to find any entrance into Prisu-a-Loba Creek from Lungasi River. He went nearly up to Duala at midnight and "crept" on the way back; but picked up nothing.

Remus's guns trial went off quite successfully to-night. Hear there is to be some sweeping on Wednesday. Apparently the assault on Duala is to come off before the end of this week, although of course General Dobell has yet to be consulted on the subject.

22nd.—Dalrymple went to Remus, and took over sunken ship guard.

Adams went away early on a most dangerous expedition to reconnoitre Mungo River again, with orders to go as far as possible. We discussed it in the first watch last night and came to the conclusion that it was odds on his having two or three men hit, as Dumbi had told him that the German troops at Bwapo had been strongly reinforced. As it turned out, he and one A.B. were hit, Adams in the chest, the A.B. in the

thigh. Neither of them were serious, which was a great bit of luck as an inch either way in both cases would have been fatal.

These are the first casualties, which is little short of miraculous when one looks back at all the boat work that has been done in these creeks.

23rd.—9 a.m. Challenger with transports Appam, Elmina, Boma, Lokoga, Niger, and Boulama.

Captains Child and Percival live on board here now to run all small craft and details of disembarkation.

The captain is doing too much and will be on the list soon if he isn't careful.

Away sweeping; No. 1 in P.B. and steam pinnace, self in Alligator and Crocodile. Swept for two miles above the wrecks. Dwarf anchored at the limit of swept channel for the night. Could see the Yoss Pt. Battery standing out like a B.P. target—they've cleared all the trees away round it, but could not see if there were any guns in it.

Ivy very busy surveying above the wrecks, to find 20 feet channel for Challenger.

24th.—Swept another mile up the river in Balbus and Walrus.

Dwarf advanced—this is now known as "Advanced Base." Coming down full speed in the afternoon on an ebb tide, ran ashore on a bank about one and a-half miles north-west of Olga Point and stayed there for an hour and a-half.

Work of arming Porpoise going on day and night, she is having two twelve-pounders for ard and one three-pounder aft.

With Challenger at Advanced Base.

25th.—8 a.m. Challenger, who had been working all night getting gear out of the ship, reported her draft as 19ft. 3in. forward and aft. She was allowed to proceed to Advanced Base forthwith, and arrived safely having had only one bump, that being between the wrecks.

8.30 a.m. The Bruix with six French transports arrived. She came in while we were all at breakfast. One or two fellows got up to have a look at her out of the gun port, remarked something about "Damned rum looking craft," sat down again, and thought no more about it. Suddenly as she got

abreast of us all the Froggies start to cheer like maniacs, which took us quite by surprise as no one was standing by for anything of that sort; but we managed to raise a feeble shout of sorts in response.

Porpoise was finished off to-day and successfully carried out her gun trials.

Champs took over the Remus—the apple of his eye.

I carried on sweeping. I can hardly describe my joy at really discovering some mines at last; and I reckon, "although I ses it meself," that it is a case of virtue rewarded, as I have now swept every inch of the channel from the whistle buoy to Doctor Point, a distance of 30 odd miles! The mines caught were destroyed with rifle fire from the boats, or by Dwarf's maxims up in her tops. When any of them detonated, they went up with the h—l of a crash!

As soon as the Ivy came up, they made a signal to me to close, so I went on board and saw the owner and the General. I then got orders to take the A.D.C. up to Duala under a flag of truce to present an ultimatum, which was to the effect that unless the place surrendered within an hour, the Challenger would bombard. About half-way up we saw a boat coming down under the white flag, so I stopped and let her come alongside. The A.D.C. cagged with these fellows in their boat for a quarter of an hour-I was itching to put my oar in, but I came to the conclusion that it was not my job, so contented myself with swearing inwardly at the valuable time which was being wasted. The limit was reached when I heard the A.D.C. agree to go back to Duala with the truculent squareheads and deliver the letter himself. I dragged him back into the P.B. and asked him how long he thought I was going to wait in that perishing river for him to return; and told him that of course once the Germans had got him in their hands, they could waste as much time as they liked before sending a reply. He confessed that that had not occurred to him, but said he did not see what else to do. I asked him to let me settle it up, which he agreed to. I got hold of the truculent little swine who had been doing all the talking and told him that the A.D.C. was not going with him after all. I

further told him I should start the hour from the moment his boat arrived at the pier, and that if he was not back on the pier within the hour I should return to Challenger and the bombardment would start forthwith. I then gave him a most approved military salute, and said that I hoped we should meet again under happier circumstances (a lie for which I hope to be forgiven). The little brute looked damned sick, and after some discussion with his pals shoved off.

I then anchored and sat down to have a thorough inspection of the defences of the place. Challenger then made the following signal by searchlight. "Can you see any forts at Bonaberi." I don't mind saying that it gave me cold feet, there was I anchored under the guns of the town, within rifle range even, and to top everything flying the white flag. I unshackled the inboard end of the cable and got it all up on deck ready for slipping if required.

The squareheads came back within the hour all right, and we returned full speed to Challenger and delivered the answer. Then quite the most amusing event of the day occurred. The General snatched the envelope amidst a breathless silence, tore it open, unfolded the paper, stared hard at it for a few seconds, then looked up and said "Can anyone read German"? The Challenger was searched from truck to keelson, signals were made to Ivy and Dwarf, but always a reply "No." I could have laughed like a fool, but was slightly overawed by the galaxy of gold lace, who did not appreciate the humour of the situation. Eventually the German note had to be signalled to Cumberland for translation, and the much talked of bombardment did not come off after all.

I slept on board the Challenger. The Commander gave me the run of his cabin, lent me pyjamas, and his servant even went so far as to produce a new tooth brush! Challenger had all hands at the guns all night.

In Challenger at Advanced Base.

26th.—The reply to the ultimatum having turned out to be merely hot air, the Challenger started in at daylight and bombarded the town with 6" common and lyddite. The range was

about 6,000 yards, most of the projectiles seemed to burst well, whether much damage was done or not, one could not tell.

· Carried on sweeping.

The picket boat not being available, transferred sweep to the steam pinnace. Challenger lent me their entire carpenter's staff for the purpose of fitting up the reel. I carried on sweeping with steam pinnace and Dwarf's German steamboat. Some difficulty was experienced with the latter, owing to her small towing capacity, when any strain came on the sweep wire. This difficulty to a great extent was overcome by borrowing one of the Challenger's German boats and lashing her alongside the Dwarf's boat. Two mines were destroyed during the day.

4 a.m. Remus, Porpoise and Marina embarked troops at the Main Base and proceeded up the Lungasi River in order to effect a landing at Pitti and take Duala in the rear. Remus. after going ashore, proceeded up to Pitti and was fired on as she passed Yansoki. She got to within 50 yards of the bank, quite close to the mound at Pitti, without seeing any sign of life; then suddenly the enemy opened a tremendous maxim and rifle fire from very well concealed entrenchments. The bullets went clean through the ½" plates with which Remus had been armoured as a protection against rifle fire. Champs finding it impossible to keep the guns' crews at the 12-pounders while under this fire, withdrew to about 800 vards and then shelled the place for about 20 minutes. D.H. in the Porpoise had arrived by this time, so having silenced the fire, they both advanced again, but encountered no opposition. Accordingly Champs sent Leading Seaman Norman and five black men ashore in the dinghy as a demolition party. They got within 80 yards of the beach, when they suddenly heard a whistle blow in the bush, and a murderous fire was opened on them. Two of the black men were hit, while the other three jumped overboard, Norman having his helmet knocked off by a bullet. Norman behaved splendidly; paddling the boat under the bushes out of sight, he hauled the other three back in the boat. one of whom in the meantime had been hit, and eventually got them all back on board Remus. Remus and Porpoise then proceeded to shell Pitti again and apparently did some

damage, as we heard afterwards that eight white men and two trenches full of black men were found dead. Landing the troops had been a failure on account of the mangrove swamp, so Porpoise and Remus retired, being fired on again as they passed Yansoki. Leading Sig. Brookfield lost his left eye here, a fragment of the same bullet hitting D.H. just below the right eye. Champs was also very lucky as a bullet grazed the top of his head, without hurting him seriously.

Marina in the meantime was high and dry within 1,500 yards of Yansoki, but was eventually got off without any damage, except to the soldiers' nerves, who did not appreciate the situation much—and I don't blame 'em! No. 1 was apparently at the top of his form in the P.B. off Yansoki. According to a soldier, who was in the boat, he stood up in the bows (in full whites) and cursed volubly at each of the other craft in turn—not caring a damn for the rifle bullets, which were coming along pretty thick at the time.

Loss of Remus and Porpoise was one white, eleven black, all more or less seriously wounded.

In Challenger, Advanced Base.

Sunday, 27th.—Carried on sweeping.

Re-swept channel and Challenger's swinging billet off Doctor Point, with two pairs of boats. Reported channel cleared of mines. Challenger moved up to swept anchorage during the afternoon.

No mines were discovered during the day.

Challenger fired a few rounds at daylight.

11 a.m. Went on board Ivy to see the captain. Was told to take de Miremont up in steam pinnace to meet a German boat that was coming down. They came alongside to say that they brought a message from the Acting-Governor stating that Duala surrendered unconditionally. We took the fellows back to the Ivy, where he arranged the details with the General. One of the stipulations was that they should show us the whereabouts of all mines.

There is no doubt in my own mind that the Challenger has absolutely clinched the business, and that unless she had got within "talking distance" we should have had a very nasty job taking the town. It must have been a nasty shock, for the poor misguided idiot who sank all those ships, when he saw the Challenger arrive!

In the afternoon embarked a German Naval Reserve officer, who showed me the leading marks on which he had laid the mines. It bucked me up immensely when he said that they were only two to three feet below the surface at low water; as No. 1 had told me I was to carry on sweeping for them immediately with Balbus (drawing 9 feet) and Walrus (7 feet). It then being low water, I went back to Challenger and told the captain I would rather wait until I could have the steam pinnace (4 feet) and the Dwarf's boat (3 feet), to which I am glad to say he agreed.

Challenger landed 40 marines to take over Duala and half a company of seamen for Bonaberi.

28th.—5 a.m. Went up to Duala in Challenger's boat to try and extract the steam pinnace from No. 1, who had taken her the previous night to Bonaberi. Found steam pinnace at Duala on arrival, so I went straight over to Bonaberi and saw No. 1. He told me that he had had a perfectly filthy night, bitten by mosquitoes, etc.—so I suppose he is a snip for malaria. I gave Remus her orders to proceed to Duala and embark the native troops who were going to take over Remus's German prisoners. The transports Lokoga and Niger were just arriving when I got back.

At 10 a.m. carried on sweeping.

I carried on sweeping on the southern side of the channel with steam pinnace and two German steamboats. I swept on leading marks, and picked up a big bunch of mines in one sweep, which I destroyed. I am uncertain whether there were nine or ten.

Later in the forenoon the Challenger's kite, which was being used in Dwarf's boat, stuck on the mud off Doctor Point.

In attempting to tow it out, Dwarf's maxim gun was lost overboard. I reported this officially to the Commander of H.M.S. Challenger, and buoyed the end of the kite with a Reindeer buoy. Total mines destroyed during the day amounted to nine or ten.

No. I released all the English prisoners in the Hans Woermann during the day, who were naturally perfectly delighted, having had none too good a time.

The Captain, Child, Percival and staff are all going to live at Duala now, and Fitzpatrick is going to get the dockyard under way. There are nine big German steamers beyond Bonaberi all in first-rate condition. The Herzogin Elizabeth has been sunk further up.

29th.—Carried on sweeping at daylight.

Using the same boats. Having thoroughly swept the southern side, both up and down, and across the river, I reported it clear of mines at noon.

In the afternoon, I picked up 11 mines to the northward of the channel. Of these I destroyed three, sank six in shallow water, leaving one afloat as mark buoy. The remaining mine I picked up just as it got dark, so was forced to leave it afloat for the night.

I was very rude to Vigilant, who passed right over the unswept part of the minefield. She had most of the General's Staff on board, who not unnaturally did not get at all enthusiastic, when Hall advanced as an excuse that he had been that way before. The fact remains that I picked up 11 mines in that part of the river over which Vigilant passed!

British and French troops are being rapidly sent up to Duala in the smaller transports.

Four hundred prisoners were sent off to Lagos in the Elmina, they were all searched by the M.A.A. as they came over the side, one man being found with £2,400 on him. All the money above £5 per man was confiscated. Champs spent a profitable day in the Remus collecting prisoners and pushing them on board the Boma.

In Challenger.

30th.—Carried on sweeping. Having obtained permission from Challenger to countermine the mines left in shallow water, I got hold of Mr. Rogers, gunner (T) (old ship of mine in Hibernia), and went over in the steam pinnace to have a look at the mine I had left afloat the previous even-

ing. On getting close I saw the head of one mine sticking out of the water. Not knowing where the rest were, I decided that discretion was the better part of valour and withdrew. that moment I sighted a native canoe going alongside Challenger, so back we went, chucked the natives out and borrowed it for a short time. Having got fairly close to the mines again, Mr. Rogers, one able seaman and I, got into the canoe for a dummy run. For the first two or three minutes we could only turn round in circles, besides which there seemed every prospect of having a bath. We got used to it after a bit and paddled up to inspect the floating mine. Having satisfied myself that it would carry a $16\frac{1}{4}$ lbs. tin of guncotton, we had a five minutes' dummy run by stop watch to see if we could get far enough away in the time. That being all right we went back to the steam pinnace for the 16½ tin, pistol and safety fuse, of which unfortunately we only had five minutes' worth. should have felt much safer with 15 minutes, but we thought it wasn't worth going back to Challenger again. We made fast the tin to the mine, Mr. Rogers fired the fuse, then we all three dug out for daylight. I had one awful moment which I shan't forget in a hurry; as we turned round, I looked at the mine and saw the smoke of the burning fuse streeking along the water towards the mine at a rate of knots; for a second or two I thought that Mr. Rogers had made a mistake in the fuse and had put on a quick burning one instead of a slow burning one; and that the whole outfit would blow up in a matter of seconds instead of minutes. I realised after a little while, that the fuse which is supplied in a small coil, was merely coiling itself up again after being straightened out! We got well away in four minutes, during which time I can honestly say I pulled harder than I ever have before, and in four and a half minutes the whole box of tricks went up with a terrific explosion, throwing iron and wood and mud well over 100 feet into the air.

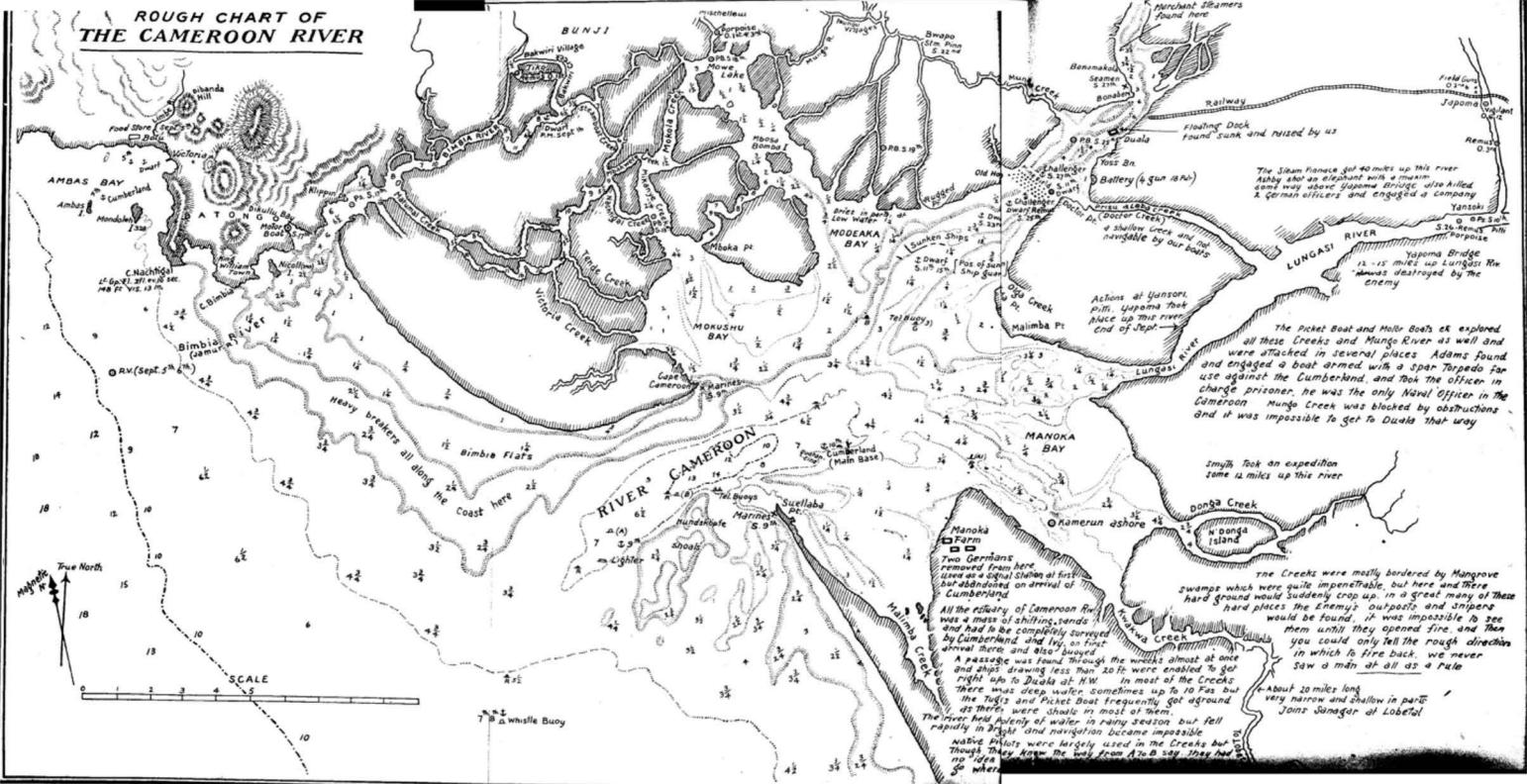
The Ivy brought the Dreadnought up harbour at noon and turned her over to the Challenger. She is a 300 ton lighter, which has been specially strengthened and armoured in order to take a 6'' gun.

Returned to Cumberland in the evening.

Having thoroughly swept up and down and across the river, I reported at 4.30 p.m. that the river was clear of mines. The total number of mines accounted for is 31 for certain and probably 33 (vide numbers destroyed on 25th and 28th September).

I am not sorry it's over, as I have been at it for eight days running, and was getting a trifle bored with it.

All the troops not required at the base for one or two small expeditions are now at Duala.



ON SECURING SHIPS ALONGSIDE ONE ANOTHER.

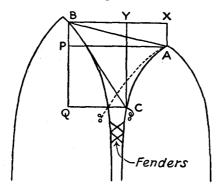
It seems to me that the widely-accepted practice of passing the first line from the forecastle-head of the moving ship to the eyes of the stationary one, and then another from stern to stern and heaving alongside broadside on, is not the best way, and I shall endeavour to prove this proposition by principles of mechanics.

I advocate, instead, taking the first line, from the forecastle-head of the moving ship to the foremost "spring pipe" or fair lead on the after part of the forecastle of the stationary one, forming a back-spring; by steaming against which, with the helm over, her stern must come in. As soon as possible a second hawser should be passed from the spring-pipe (or well-deck-pipe as it is called in Merchant ships) of the moving ship, as far forward as possible in the stationary one—in through the hawse pipe if possible, and an after back-spring from the stern of the moving ship to the after spring-pipe or fairlead of the other. Take in the slack of these two until the ship is alongside in the desired position, and then get out a fourth hawser from the after spring-pipe (or well-deck-pipe) of the moving ship, to the stern of the other.

I know that this is almost a revolutionary idea, for I believe that most masters of colliers—for instance—and many naval officers are firmly imbued with the idea that the proper thing to do is to haul alongside broadside-on, and secure by multiplying the number of parts forward and aft.

But even as we have progressed from sail to steam, it is just possible that there is still something to learn, and I suggest that this method illustrates the advantages of science over bruteforce, as a ship moves more easily in line with her keel than athwart it, and it is easier to work the engines than capstans or winches.

Now for the proof: -



Note.—BC has been made equal to BA, representing the same tension in either hawser before parting.

This diagram is supposed to represent the bows of a battleship (on the left) with a collier alongside the starboard side.

The line BA represents the bow line as generally passed, and CB the spring as I recommend. By employing the "Parallelogram of Forces" and resolving the stress in the hawsers into the fore and aft (the most useful) and athwartship directions, the diagram shows the great difference between the lengths of AX and CY. Quod erat demonstrandum.

If the ships are rolling, no amount of lashings will stop them, but will only carry away the ropes or tear out the bollards. Therefore, it is no good trying.

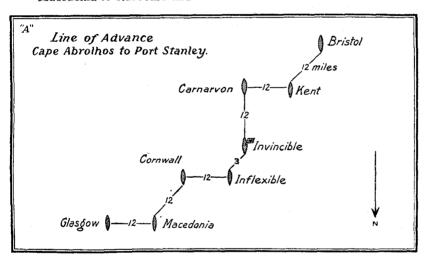
In the above diagram, I have indicated the back-spring i.e. the first line, by a dotted line, so as not to complicate the figure.

CORRESPONDENCE.

I have received the following corrections to articles in the May number.

Art. 7. (2). Plan A.

The distance between the Invincible and Inflexible was 3' not 12', so as to be within easy supporting distance of each other should the German squadron be met, while covering as broad a front as possible with the squadron. The Glasgow was the port wing ship and the Macedonia to starboard and inside of her.



Art. 7. (1).

Page 241, par. 2, lines 6 to 10, after "Pacific" should read,— "round C. Horn, meeting Monmouth, Glasgow, and Otranto at Vallenar Roads, Chile; at same time leaving orders for Canopus to escort colliers to that place, and thence proceed to Felix Island. Page 242, par. 1, lines 2 and 3. Instead of 200 read 240.

Par. 4, lines 4 and 5, after "Defence," delete to "Flag," and instead read "who had been guarding the entrance to the River Plate."

Page 243, line 3, after "attack," read, "This she did most thoroughly and effectively in spite of having to contend with great difficulties."

Par. 2, line 2, instead of "Navarra" read "Navarro."
Par. 6, line 5, instead of "Cruisers" read "A cruiser."
Page 244, par. 3, line 3, instead of "our" read "the tripod."

Page 244, par. 3, line 3, instead of our read the tripod.

Page 245, par. 2, lines 4 and 5, after "fire at" insert "a," delete "immense" and delete "(nearly 10 land miles)."

Lines 7 and 8 delete "which weigh 840 lbs."

Par. 5, line 2, instead of "shore wireless had signalled," read "the Canopus signalled by wireless."

Lines 5 to 10, and page 246, lines 1 and 2, after "enemy's transports," delete to end of paragraph and substitute, "Two of these ships proved to be colliers and were accordingly sunk, but the third ship, presumed to be the transport Seidlitz conveying German volunteers, escaped."

Page 246, par 1, delete lines 1 and 2.

Page 247, par. 1, line 12, delete "as one heard the shell fall around us" and substitute, "on hearing the shells whistling past me."

HON. EDITOR.

Erratum.—List of Members, p. 8, Williams, E. L., Lieut. Initials should be E. S.

NOTICES OF BOOKS.

THE UNITED STATES NAVAL INSTITUTE PROCEEDINGS for March-April, 1915, contains an interesting account of the exploits of the Emden; also the Institute Prize Essay for 1915, on "The Rule of Doctrine in Naval Warfare," and several other essays of considerable interest.