

THE
NEW YORK



NEW YORK

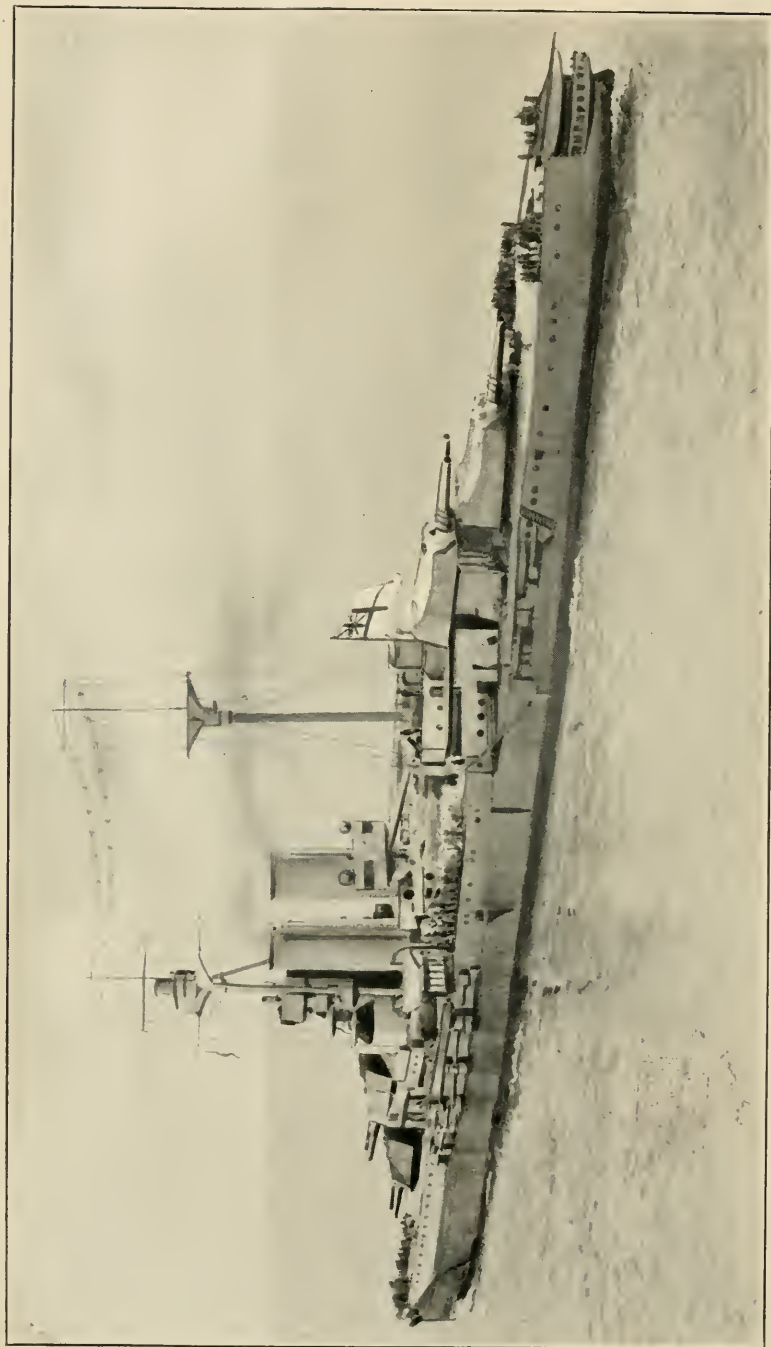


Photo. Albrechtus, Derwentport.]

H.M.S. "QUEEN ELIZABETH."

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BRASSEY'S DISCOUNT

NAVAL ANNUAL,
1915.

G.B.
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CONDUCTED BY
EARL BRASSEY, G.C.B., D.C.L.

EDITED BY JOHN LEYLAND.

WAR EDITION.



1915.

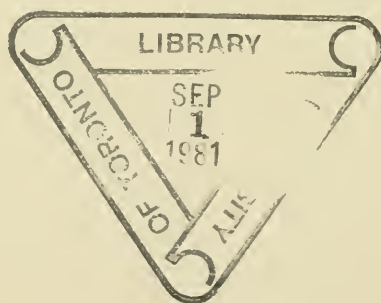
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PREFATORY.

THE circumstances under which the present volume appears may be briefly explained. It seemed desirable that the *Naval Annual* should be issued in this year of War, in which British sea-power is the ruling influence and factor, giving us and our Empire security, enabling us to despatch armies abroad and to organise others at home, constituting also the indispensable link of the armies with their base.

Since the *Naval Annual* was completed, Mr. Balfour has replaced Mr. Churchill as First Lord of the Admiralty, and Admiral Sir Henry Jackson has succeeded Lord Fisher as First Sea Lord.

The war is world-wide, and even as the volume was passing through the press, Italy, on May 23rd, declared hostilities against Austria-Hungary.

Great discretion has been necessary, and has been observed, in preparing the volume. It will be of use to the British service and the British people, but it can in no way assist the enemy. Nothing is included concerning the British and Allied Navies except what is accessible in many official publications, but much light is thrown upon the situation and character of the navies of the enemy.

The *Naval Annual* was founded by Lord Brassey, who for some years undertook the task of production unaided. Later, he was relieved by his son, of whom it may be permitted to say that he has ably discharged his duties as Editor. To-day, Lord Hythe is engaged in the more urgent patriotic duty of enrolling and training men for a Reserve Regiment of Yeomanry, and in other responsible work. Lord Brassey has therefore gladly undertaken once more to superintend the publication of the *Naval Annual*. Its appearance would have been impossible without the valuable assistance of his old friends, Mr. John Leyland, who has edited the volume, and Commander C. N. Robinson, to whom he tenders grateful thanks.

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PART I.

CHAPTER I.

CONSIDERATIONS ON THE CAUSES AND THE CONDUCT OF THE PRESENT WAR.

*Tu regere imperio populos, Romane, memento ;
Hæc tibi erunt artes : pacisque imponere morem,
Parcere subjectis, et debellare superbos.*

WHEN the present war was declared and the call to arms was being made through the length and breadth of the land, the present writer attended many meetings in the part of the country in which he resides. It was endeavoured to explain why we had been forced reluctantly to go to war.

I.

The conflict has not been the outcome of commercial rivalry. The trade of Great Britain and Germany has been advancing in recent years by leaps and bounds. We have run a neck-and-neck race. Competition has not been a disadvantage to either country. Both have prospered. Next to India, Germany has been our best customer. We have been willing buyers, not only of food and raw materials, but of those manufactures in which Germany excels. In many branches the two countries have co-operated in the production of goods in important lines of trade.

II.

Nor should the creation of a fleet necessarily lead to war. Strong Navy. as a military power, Germany could not remain permanently in a position of hopeless inferiority at sea. Naval aspirations are not of recent date. In 1847-48, when universal discontent prevailed in Germany, Prince Hohenlohe, then Imperial Minister at Athens, placed on record his views, in a memoir, published in the first volume of his biography :—"One reason," he says, "for discontent is universally diffused in Germany ; every thinking German is deeply

Prince
Hohen-
lohe.

and painfully aware of it. This is the impotence of Germany among other States. No one will deny that it is hard on a thinking, energetic man to be unable to say abroad—‘I am a German,’ not to be able to pride himself that the German flag is flying from his vessel. And when we study the map, and see how the Baltic, the North Sea, and the Mediterranean break upon our shores, and how no German flag commands the customary salute from the haughty French, surely the hue of shame alone will survive from the red, black and yellow, and mount into our cheeks.”

Navy
Estimates
compared.

Looking to the Navies of France and Russia, Powers in close alliance, and not friendly to Germany, programmes of German construction have not been excessive. Navy Estimates compare as under:—

1905.				1914.			
Germany	.	.	£11,301,370	Germany	.	.	£23,444,129
France	.	.	12,667,856	France	.	.	19,818,052
Russia	.	.	12,392,684	Russia	.	.	26,604,738

BRITISH NAVY ESTIMATES.

1905	.	.	.	.	.	£33,151,141
1914	.	.	.	.	.	51,550,000

VOTED OR ESTIMATED FOR NEW CONSTRUCTION.

1905.				1914-15.			
Germany	.	.	£4,720,206	.	.	£10,316,264	.
France	.	.	4,705,295	.	.	11,772,862	.
Russia	.	.	4,576,370	.	.	11,478,613	.
United States	.	.	8,683,000	.	.	8,443,796	.
Great Britain	.	.	11,368,746	.	.	18,676,080	.

We had cut down expenditure, while Germany pushed steadily forward. We have since made vigorous efforts.

Prince
von
Bülow.

As a first-class Power, Germany was bound to create a fleet. The objects in view are explained by Prince von Bülow in his book on “Imperial Germany,” lately published:—“Our fleet had to be built with an eye to English policy—and in this way it was built. My efforts in the field of international politics had to be directed to the fulfilment of this task. For two reasons Germany had to take up an internationally independent position. We could not be guided in our decisions and acts by a policy directed against England, nor might we, for the sake of England’s friendship, become dependent upon her. Both dangers existed, and more than once were perilously imminent. In our development as a Sea Power we could not reach our goal either as England’s satellite, or as her antagonist. England’s unreserved and certain friendship could only have been bought at the price of those very international plans for the sake of which we had sought British friendship . . .”

The present writer has heard more than once from Admiral von Tirpitz explanations of German naval policy, which could not justly arouse the susceptibilities of an English patriot. "It had never been the ambition of Germany to compete with Great Britain for the supremacy of the seas. Germany had desired—it was a natural desire on the part of a great Power—to possess a fleet which should command the respect of all other nations. Germany could not acquiesce in hopeless inferiority at sea, nor could her great and growing commercial interests be left without naval protection and support. Vast regions of the world were being opened out to trade. Negotiations were in hand from time to time with semi-barbarous states, with which it was impossible to deal without some visible emblem of power. If, for example, negotiations were in hand to secure an open door for merchants in the valley of the Yangtse, reasonable concessions were not to be expected without some show of force in the background. If the United States, France, and England had ships in Eastern waters, and Germany had none, she must depend entirely on the consideration of other countries for participation in any advantages secured. It was wounding to the national pride to fill the rôle of the suppliant." When ships were laid down by Great Britain there had never been a question in Germany. Resentment had only been felt when we did not lay down as many ships as we believed we required, and looked to help from another Power, while turning a cold shoulder to Germany.

Admiral
von
Tirpitz.

It will be generally agreed that the Fleet of England should be strong in every sea, and surely not less in the Mediterranean than elsewhere. Nor can it be contended that failure of resources compels reliance on external aid. The income brought under the review of the Commissioners of Inland Revenue increased in ten years 1903-13 from £903,000,000 to £1,111,000,000.

III.

Let us now consider the reasons why, with one consent, we on our side are engaged in the present war. Few and simple are the considerations on which the people's judgment depends, and by which, in the main, it is safely guided. As Burke has truly said: "The principles of true politics are those of morality enlarged, and I neither now do, nor ever will, admit of any other."

Causes of
the War.

Military influence, from the Franco-German war onwards, has held the German people as it were in a vice. It has been the curse of Germany and the scourge of Europe. The war party had seen Russia coming on in wealth and military strength. They were eager

to cross swords, before a rival, already deemed to be dangerous, had grown too strong. Germany needed the support of Austria, and the aged Emperor was naturally averse to war. He was deeply moved by the assassination of the heir apparent. It was an opportunity not to be lost. Austria insisted upon terms which could not be conceded by Servia without utter loss of national independence. Russia was bound to stand by Servia. Germany stood by Austria; France stood by Russia. England, earnestly desiring peace, was dragged in.

Mr.
Asquith.

In and out of Parliament the British case has been stated by the Prime Minister with convincing argument and moving eloquence. At the Guildhall he rested his appeal to arms on the unanimous voice of the Empire and the civilised world. As our forefathers struggled against the dominion of Napoleon, so were we contending to-day in the cause of freedom. "Never had a people more or richer sources of inspiration. We are fighting as a united Empire in a cause worthy of the highest traditions of our race."

Sir
Edward
Grey.

In Parliament, on August 3rd, Sir Edward Grey delivered a speech which made a profound impression. He asked the House "to approach the present crisis from the point of view of British interests, British honour, and British obligations, free from all passion. The papers to be presented would make it clear how strenuous and genuine and whole-hearted our efforts for peace had been. They would enable people to form their own judgment as to what forces were at work which operated against peace." He explained at length the attitude of the Government at every stage of the negotiations. The feelings which have been roused in the country do not depend on formal negotiations. We shall all concur with Sir Edward Grey when he said that "if a powerful fleet engaged in war came down the English Channel, and bombarded and battered the north-eastern ports of France, we could not stand aside and see all this going on practically in sight of our own eyes, with our arms folded, looking on dispassionately, and doing nothing. He believed that would be the feeling of the country."

Belgium.

Sir Edward Grey set forth in detail the position in regard to Belgium. The international guarantee to that country that its neutrality should be respected was first given by treaty in 1839. It was renewed and confirmed in 1879 by Prince Bismarck, on condition that the neutrality should be respected by other belligerent Powers. When war was declared between France and Germany the Liberal leaders in both Houses of Parliament explained the attitude of the British Government. In the Upper House, Lord Granville used these words:—"To abandon Belgium was a course which the

Earl
Granville.

Government thought it impossible to adopt in the name of the country, with any due regard to the country's honour or the country's interest." In the Commons, Mr. Gladstone spoke with some reserve on the general question of treaty obligations. "He was not able to subscribe to the doctrine of those who hold that the existence of a guarantee is binding, irrespective of changes of circumstances at the time when the occasion for action arises. The great authorities upon foreign policy to whom he had been accustomed to listen—Lord Aberdeen and Lord Palmerston—had never held that view. An existing guarantee was of necessity an important fact, and a weighty element in the case, to which we were bound to give full and ample consideration. There was also this further consideration, the force of which we must all feel most deeply, and that was the common interests against the unmeasured aggrandisement of any Power whatever."

Mr. Gladstone.

The references to the guarantee of Belgian independence in the life of Lord Lyons, by Lord Newton, are of deep interest in this connection. In 1869, when apprehension was aroused by the proposed concessions of railways in Belgium, the note of alarm as to possible annexations was first sounded by the Queen. Her Majesty's views were stated in a letter from General Grey to Lord Clarendon, under date January 14, 1869:—"The Queen had invariably expressed the strongest opinion that England was bound, not only by the obligations of Treaties, but by interests of vital importance to herself, to maintain the integrity and independence of Belgium; and that the best security for these essential objects would be found in the knowledge that any proceedings which seemed to threaten their violation would bring England at once into the field."

Queen Victoria.

This communication was followed by a Memorandum from Mr. Gladstone, giving in the clearest language the British position:—"The suspicion even of an intention to pay less respect to the independence of Belgium than to the independence of England would produce a temper in the country which would put an end to good understanding."

In the United States sympathy with the British cause is widely felt. Let us hear Mr. Roosevelt. As President, and in accordance with the unanimous wish of the American people, he had ordered the signature of the United States to the Hague Conventions of 1899 and 1907. "If those Conventions meant nothing, the signature was a mockery. If they meant a serious sense of obligation to world righteousness, it was the plain duty of the United States, as the trustee of civilisation, to investigate the charges solemnly made, as to violations of the Hague Conventions, and to take whatever action

Mr. Theodore Roosevelt.

might be necessary to vindicate the principles set forth in those Conventions." This is strong language from a representative statesman.

IV.

Mr.
Choate.

What are the main causes of the hostile sentiment in Germany towards England? In an introduction to the American edition of Professor Cramb's lectures on England and Germany, Mr. Joseph Choate writes as follows:—"The real cause [of the present war], as shown by Professor Cramb, is the intense hatred of Germany for England, and her lofty ambition to establish a world empire upon the ruins of the British Empire. Since the days of Frederick the Great, while England, largely by force of arms, has been extending her imperial power all over the world, so that, as justly described by Webster, she has become 'a Power which has dotted over the surface of the whole globe with her possessions and military posts; whose morning drum-beat, following the sun and keeping company with the hours, circles the earth with one continuous and unbroken strain of the martial airs of England,' Germany has remained cooped up within her narrow boundaries, with inadequate access to the sea, and without room for her rapidly increasing population. 'England's mere existence as an Empire has become a continuous aggression' to Germany, and her proud claim to be mistress of the seas a perpetual affront.

"Meanwhile, Prussia, under the lead of the Hohenzollerns, has become the master of all Germany, and, simultaneously with the humiliation of France in 1870, has established the German Empire, which, however, still remains an inland empire. But all the while she has been building up, quietly but steadily, her naval and military power, so as to be ready when the hour should strike, and has succeeded in creating in her army a military machine of boundless numbers, and of almost invincible power, to cope with and to crush if possible the combined forces of all the other nations of Europe."

Members
of Oxford
Faculty of
Modern
History.

Every thinking man must admit that the ambition of Germany to have a share in colonial expansion has, from the force of circumstances, thus far been held in check in a regrettable degree. The members of the Oxford Faculty of Modern History, in their statement of the British case for the declaration of war, have taken a strong line against Germany. Even they have made admissions as to the national aspirations for expansion. "Let us," they say, "remember, in extenuation of Prussia, that she has suffered from two things—geographical pressure, springing from her mid-European situation, and an evil tradition of ruthless conquest, perpetuated

by her Hohenzollern rulers since the days of the Great Elector. Geographical pressure on all sides, has made Prussia feel herself in a state of chronic strangulation, and a man who feels strangled will struggle ruthlessly for breath. . . . It has been easier for England, an island State in the West, exempt from pressure, to think in other terms; and it has been possible for Russia, secure on the East, to think, and to think nobly, as the present Czar has done, of international obligations."

The present writer recalls a conversation many years ago with Sir Henry M. Stanley, then at the height of his fame as a bold explorer—a man essentially of the cosmopolitan order. Sitting beside him at the annual dinner of the Royal Geographical Society, it was inspiring to listen to the glowing language in which he dilated on the greatness of the British Empire, as it then was. He strongly deprecated further extension; we should have too much on our hands. The views of the traveller were fully shared by the leading statesmen of the time. Reluctantly, not always to our own advantage, we have seen our boundaries extending—our responsibilities becoming almost greater than we can bear.

Sir
Henry M.
Stanley.

The list is long of the annexations made in recent years:—1874, Fiji; 1878, Cyprus; 1882, Egypt; 1886, Upper Burma; 1888, New Guinea; 1890, Zanzibar (taken over in exchange for Heligoland); 1902, the Transvaal; 1903, Northern Nigeria.

Annexa-
tions
since 1875.

In each case it was held that annexation was forced upon us, or that policy required it. Sometimes the expansion of trade, sometimes a responsibility, perhaps too readily accepted, for the police of the seas, sometimes the protection of missionaries, has been the moving cause. The latest volume of the encyclopædic history planned by Lord Acton is abundant in relation to these proceedings.

Taking first Fiji. The islands were annexed on the plea that the abuses connected with the labour traffic required regulation and oversight. The commercial interests of Sydney and the fear lest some other Power might anticipate us were further motives to action.

Fiji.

As to Cyprus, it is safe to say that the acquisition of the island has conferred no military, naval, political, or commercial advantage on Great Britain. It was deemed necessary that we should get something in the general scramble at the Congress of Berlin. We had done nothing to help the Turk; we had no claim to a share. We engaged to pay annually to the Porte the largest tribute which the most prosperous year on the island had ever yielded. The Sultan retained the suzerainty of the island. To the diplomatic world it was represented that the Cyprus Convention was designed to secure important objects, involving mutual engagements. We joined the

Cyprus.

Sultan in the defence of his Asiatic dominions against any further Russian attack, and the Sultan promised in return to introduce necessary reforms in consultation with his ally.

The British occupation of Cyprus was the fulfilment of an early dream of Lord Beaconsfield. We recall the description in "Tancred" of a farewell dinner given by the hero to his friends after inspecting the yacht *Basilisk*, moored off Greenwich. The struggle to part from his friend, Lady Bertie, was hard. On her departure, Tancred fell into a deep meditation; he had lingered too long.

"Farewell, a sound which makes us linger."

"The being who would be content with nothing less than communing with celestial powers in sacred climes, standing at a tavern window and gazing on the moonlit mudbanks of the barbarous Thames—a river which neither angel nor prophet had ever visited. Before him, softened by the hour, was the Isle of Dogs. It should at least be Cyprus!"

Egypt.

In 1882 we first occupied Egypt. Our administration of that country has been eminently successful. Under Lord Cromer, and later under Lord Kitchener, the work of civilisation has been continuously carried on. By irrigation works on a colossal scale, a supply of water is assured, even in a thirsty year, over a vast area. Capital is supplied on easy terms to the cultivator by advances from the Land Banks instituted by Lord Cromer. We have done much to improve the condition of the fellaheen. We have established in all classes confidence in the justice of British rule. To the creditors of Egypt punctual payments of interest have been assured. In a word, innumerable benefits of every kind have been conferred. We have not strengthened ourselves as a military power. To-day we are at war with the Sultan. The threatened invasion of Egypt will doubtless be triumphantly overcome. It has been necessary to detain in that country a large force at a time when all our available strength is needed elsewhere. Our occupation of Egypt was encouraged by Prince Bismarck: he knew it would be the occasion of many troubles with France.

The British Protectorate in Egypt was strongly deprecated by statesmen of commanding influence in England in the days when the present writer was young. The project for the Suez Canal was discouraged by Lord Palmerston; he foresaw that we should be the chief users of the Canal. It must lead to commitments in Egypt, and we had already more than enough on our hands.

In this connection, the writer recalls an incident of Parliamentary life in days long ago. In an interval in the proceedings of the House

of Commons, he stood with a small group of interested listeners around Lord Hartington, then leader of the Liberal Party and leader of the House, as he discussed a British Protectorate in Egypt. Lord Hartington was considering the subject as an academic proposition. There was no prospect of such a step at the time; he strongly deprecated it. He held that we should lose the singular advantage of our insular position. We should be dragged into all the conflicts of Continental Europe. As we look across the years to the bombardment of the forts of Alexandria, to the Battle of Tel-el-Kebir, to the tragic fate of General Gordon, avenged in the Battle of Omdurman, and to the invasion of Egypt now threatened, we see now that Lord Hartington—as he then was—not untruly prophesied. We are in Egypt, and we cannot leave it. We have to fulfil our destiny, giving as little occasion of offence as possible to other Powers, and doing as much good as we can to the people of the country.

In 1885 we conquered Upper Burma. The action taken by Lord Dufferin may have been inevitable. The proceedings are characterised by the writer of the chapter on Burma in the Cambridge History as “sufficiently high-handed.”

In New Guinea we had to deal with Germany. Taking advantage of an opportunity when the relations between England and France were strained by contentions as to Egypt, Prince Bismarck initiated a forward colonial policy in Africa and in the Pacific. The Cameroons, a large tract in East Africa, Samoa and other Pacific Islands, and a part of New Guinea were acquired. Our vigorous Britons beyond the sea resented the intrusion of any foreign Power in regions which they had looked upon as spheres of future expansion. Lord Stanley yielded to pressure from Australia. Great Britain annexed the southern part of New Guinea. The island is important chiefly as a field for the self-denying labour of missionaries of many denominations. They have their reward in the spread of civilisation among the native population. The trade of New Guinea is chiefly with Queensland and New South Wales. It is inconsiderable in amount.

Zanzibar was the next addition to the extended dominions of Great Britain. In July 1890 the island of Heligoland was ceded to Germany by an agreement with reference to Zanzibar and the Uganda territories. On this transaction Sir Henry Stanley remarked, in homely but expressive words, that England had “got a new suit in exchange for a trouser button.”

We need not attempt to deal with the Boer War. Every incident is present in the public recollection. The main advantage we have secured from final victory appeals largely to the imperial sentiment. We fly the British flag. Under its ample folds Boer and Briton

Upper
Burma.New
Guinea.

Zanzibar.

South
Africa.

enjoy in unrestricted measure the blessings of liberty and self-government. In a general review it is not necessary to refer to the operations now in progress.

French
Colonies.

Since the Franco-German War, an almost instinctive effort has been made by the French Government in the direction of colonial expansion. Trade with the French colonies has increased since 1870 from 350 millions to nearly two milliards of francs. The colonial population has increased tenfold. In 1886, by the Treaty of Bardo, Tunis became a French protectorate. The commerce of this dependency increased in twenty years from 27 to 200 millions of francs. South of the Sahara, by the construction of railways, a French Empire has been established over a wide area in Central Africa, rich in natural resources, certain to be developed under orderly government. Turning eastward, a protectorate has been established in Madagascar, in Saigon, Annam, and Tonkin. Finally, Morocco has been annexed. The extent of colonial empire thus created under the French flag has been increased to nearly twelve million square kilometres, with a population of fifty millions.

German
Colonial
Expan-
sion.

In Germany the enthusiasm for colonial exploration and conquest is universal. Having secured the position of Germany in Europe, Bismarck embarked on the colonial policy already described. It has not brought territories adapted for European settlement under German protection. The lands within the temperate zone had long before been taken up. They are self-governed, on strong democratic principles. The material gain to Germany of her colonies has been unimportant. It is gratifying to the national pride to hoist the German flag in dominions beyond the seas.

Algeciras
Con-
ference.

We have passed in review the colonial expansion of the great Powers in the last fifty years. The share of Germany has not satisfied national aspirations. In the words of Mr. Stanley Leathes, the writer of the chapter on Great Britain in the Cambridge History, "A serious rift in European harmony created by the Algeciras Conference has not yet disappeared. Official relations have always been correct, but a strong jealousy between England and Germany has grown up, accompanied by mutual suspicions, which were not dispelled by the later understanding with Russia and lesser Powers. The alliance with Japan was resented, as blocking German designs in the Far East. Proposals for a limitation of armaments, made in connection with the Hague Conference of 1907, were not well received, and such proposals are not likely to be well received, so long as Great Britain maintains her claim to the overwhelming maritime superiority which is necessary to her safety."

While it may be agreed that Germany has not unreasonably

sought a place in the sun, it is true to say that in the dominions beyond the sea remaining under the direct authority of the British Crown, in our self-governing colonies, and, above all, in the United States, settlers from all lands enter by the open door. When emigration was more active than it has been of late years, Germans went forth in vast numbers, chiefly to the United States. Everywhere they have been welcomed as capable citizens. Here in England they have had their full share in finance, in commerce, and in industry. Prince von Bülow has rightly said that no important colonial possessions have been gained by England at the expense of Germany. In the Seven Years' War, when we acquired Canada and established our rule in India, we were fighting on the side of Prussia.

We have travelled round the globe. We have traced the expansion of the British Empire in every zone. It has conferred many benefits. In his speech in the House of Commons, in 1833, Lord Macaulay paid a just tribute to the good work done in India in days long past:—"That a handful of adventurers from an island in the Atlantic should have subjugated a vast country divided from the place of their birth by half the globe—a country which at no very distant period was merely the subject of fable to the nations of Europe; a country never before violated by the most renowned of Western Conquerors; a country which Trajan never entered; a country lying beyond the point where the phalanx of Alexander refused to proceed; that we should govern a territory ten thousand miles from us—a territory larger and more populous than France, Spain, Italy, and Germany put together, a territory, the present clear revenue of which exceeds the present clear revenue of any state in the world, France excepted; a territory, inhabited by men differing from us in race, colour, language, manners, morals, religion; these are prodigies to which the world has seen nothing similar. Reason is confounded. We interrogate the past in vain."

Expansion of
British
Empire.

As we look across the years, and to every quarter of the globe, we see vast territories acquired. Everywhere increasing prosperity; everywhere our endeavour to govern justly rewarded in the enthusiastic loyalty of the people. Let us not say that there is no danger in the growing weight of responsibility. Lord Salisbury told us that "England owns, without any consent of the people whatever, more nationalities than she can comfortably count."

V.

When war was declared we took a tremendous leap in the dark. Neither at the Admiralty, nor at the War Office, nor in the Cabinet,

The Army.

was it known, nor could it have been known, how things would go by sea or by land.

We were utterly unprepared for war on the Continent of Europe with the most perfectly organised army which the world has ever seen. It has been the settled policy of Great Britain to keep down the Regular Army to a strength barely sufficient to furnish reliefs for our forces in India and on foreign stations. Belgium was unprepared. A scheme for a large increase in numbers, and improved training and equipment, had been approved by the Belgian Parliament. In deference to financial considerations, it had been decided to add with caution to Estimates. The proposed reforms were in the first stage when Belgium was invaded by the innumerable hosts of Germany. France was unprepared. Serious opposition had been offered to the proposals for extending the term of compulsory service with the colours to three years. Recent debates had revealed a large deficiency in stores, arms, and equipment. In Russia the total military strength in time of peace is given in the "Almanach de Gotha" at 1,384,000. Behind the men with the colours are the reserves. Their numbers are not accurately known. Russia was not prepared. Mobilisation in a vast empire, imperfectly supplied with railways, must be a slow process.

While the Allies were backward, Germany was fully prepared. The strength of the German Field Army of the first line was 750,000; the second line 500,000. Behind the forces with the colours were the strong and well-organised reserves. In 1914 the number of men who had done their military service was put at 5,400,000. The Germans were promptly in the field. Their main forces were concentrated on Belgium. The small army of that country fought magnificently. They were overwhelmed. Their allies were powerless to help.

Pushing on into France, Germany encountered our Expeditionary Force, too few in numbers, in quality superb. Our soldiers of these later days, armed with the rifle, have shown the same grit and courage, the same steadiness under fire, contending with superior numbers, for which their forefathers, the longbow-men of Crecy, Agincourt, and Poitiers, were renowned. The Guards, the Cavalry, the Artillery, the fine old County regiments, have more than sustained, they have enhanced, their grand historic fame. The Territorials, our new force, the creation of Lord Haldane, have stood with unflinching courage shoulder to shoulder with their gallant comrades of the Regular Army.

We have fought hard. We hold our own. Our Allies are doing prodigies of valour in daily conflicts, hotly contested with the enemy.

As "Eye-Witness," writing from headquarters, and Mr. Hilaire Belloc point out, the battles consist of continuous assaults on trenches resembling the Great Wall of China and the Roman Wall in Great Britain. Advances are made on both sides by sap and mine. The conflict is a series of siege operations, conducted on a gigantic scale.

We are making tremendous efforts to reinforce our Army. Compulsory service has been strongly advocated. In men recruited by compulsion it were vain to look for the same uniform quality which we see and admire in those who have voluntarily responded to Lord Kitchener's call. Nor are the numbers lacking. We have as many recruits as we can arm, train, and equip for the field.

Professor Cramb tells us that the hatred of Treitschke for England was in the nature of moral scorn, contempt, and indignation that a great un-warlike Power should be suffered to spread across the world. We were betraying our weakness by pleading with Germany to disarm. Treitschke

"Should England prosper when such things, as smooth
And tender as a girl, all essence'd o'er,

* * * * *

Presume to lay their hand upon the ark
Of her magnificent and awful cause?"

We have put to silence these idle vapourings. We have maintained a front which has never been broken. We may have incurred the hatred of Prussian Germany. In war it is better to be hated than to be despised.

The present war has brought into the field reinforcements from every part of the Empire. Germany had been ill-served by her representatives abroad. The Ambassador in Vienna was anxious for war. The Ambassador in Petrograd had reported that Russia would not mobilise. From London it was reported that we were on the eve of civil war in Ireland. It was believed that South Africa was disaffected, that Australasia was ready to cut the painter, that India was seething with discontent.

India has been swept by a mighty wave of enthusiasm. We have many legions of our Indian fellow-subjects at the front. Canada has sent us 33,000 men. As many more are promised. Gallant Newfoundland, the oldest of our colonies—not rich in men or in money—has sent to our Army and to our Navy a combined force of 2500 men. Australasia has been overflowing with enthusiasm. We shall have a fine army from that far-away part of the Empire. Do-
minions
beyond
Sea.

Having received the strong support of the Dominions beyond sea, at the close of the War we must be prepared for demands for a share in directing the foreign policy of the Empire. The question is not Imperial
Federa-
tion.

new. In June, 1891, the present writer had the honour of introducing to Lord Salisbury, then Prime Minister, a deputation from the Imperial Federation League. They had come to urge the convocation of a second Conference of the self-governing countries of the Empire. Lord Salisbury in his reply admitted that there was a feeling of unrest in the Dominions, an unwillingness to acquiesce precisely in the existing state of things. He pointed to the objections to calling such a Conference as had been proposed, unless we had some definite proposition to make. He thought the time had almost come when schemes should be proposed. Without them we could not get very far. Acting on these suggestions, an influential Committee was constituted, including, among others, Mr. Bryce, Mr. Arnold-Forster, Lord Lamington, and Lord Reay. Then, as now, we had no plan. Nor can any far-reaching proposals of constitutional change be considered until the return of peace. On some points we see clearly. The matters to be dealt with by any Imperial Council which may be constituted must relate to foreign policy and to defence. The charges for defensive preparations must be voted by the representatives of the taxpayers. Those who pay may claim a voice in matters of policy on which there may be a conflict of opinion.

We have already taken some steps in the direction in which it is desirable to go. In recent times, on every grave question affecting their interests, the Dominions are consulted. We have invited their representatives to sit on the Committee of Imperial Defence. We have given them unreservedly our confidence. This is not the time for full discussion of grave problems of Imperial Federation.

One result is certain to follow from consultation as to external policy. Nor would such a result be a thing to be lamented. We should have less of the evils of foreign intervention, so earnestly deplored by Lord Salisbury. In his essay on Lord Castlereagh, he said: "Undoubtedly the arrangements of Vienna were not absolute perfection; nor have they in all cases been proof even for the limited period of forty years against the destructive agencies that prey upon political organisations. All the failures that have taken place have arisen from one cause: the practice of foreign intervention in domestic quarrels. There is no practice which the experience of nations more uniformly condemns, and none which governments more consistently pursue. . . . The history of the last seventy years is strewn with the wrecks of national prosperity which these well-meant interventions have caused."

VI.

The British Fleet has fulfilled its essential purpose. It has preserved our shores from invasion. It has made it possible to send our Expeditionary Force across the Channel unchallenged, and to keep up the strength by continued reinforcement. The commerce of the enemy has been destroyed. A silent pressure has been maintained, which in time must tell. To win a decisive victory was impossible while the enemy remained secure in port. In the early stages of the war there was regrettable delay in clearing the seas of the enemy's cruisers. Speed is an essential quality for such service. We had too many cruisers in commission of little value except for the police of the seas. The British vessels classed in the *Naval Annual* as light cruisers numbered no less than eighty-nine, as against forty-five vessels for Germany. Our list included thirty-six of a speed under 20 knots, as against five only of a similarly ineffective type under the German flag.

The Navy.

Comparing the relative strength in Eastern waters at the outbreak of the present war, the total number of ships in commission were—Great Britain thirty-six, Germany eight. All the German cruisers had a speed of 23 knots and over. The British cruisers of equal speed numbered twelve.

On other foreign stations the Editor of the *Naval Annual*, writing with no anticipation of a state of war, called attention to the need of reinforcement. German light cruisers ranged the Bay of Bengal, the Indian Ocean and the Atlantic, capturing our merchant steamers in large numbers and bombarding Madras. These were not powerful fighting vessels. In speed they had a marked advantage over many vessels which have pursued them. Our squadrons have been reinforced with light cruisers of high speed. The *Emden* has been destroyed by the *Sydney*. The young Australian Navy has been justly congratulated by the Admiralty on this first achievement. The Captain and officers of the *Emden* gallantly did their duty to their country. It was fitting that their swords should be returned.

Light Cruisers.

We have had experience of disaster from the attacks of submarines and from mines. We had ships in our squadrons not fitted to engage more powerful vessels. The fate which befell Sir Christopher Cradock was due to the inferiority of the ships under his command. He might have declined battle. To an officer of his chivalrous and daring nature that alternative was impossible. Not long ago, as a veteran, he rode second in the Grand Military at Sandown, and only lost by a neck. If he had been in command of a gunboat he would have fought.



The actions off Heligoland and, more recently, off the Dogger Bank, the well-timed meeting with Admiral von Spee off the Falklands, the feats of our submarines and aeroplanes, the bombardments on the coast of Belgium and the north-east coast of France, have shown what our Navy can do if it has the chance. Our battle-cruisers, unsurpassed in speed and gun-power, under brilliant commanders, and manned by brave and skilful seamen, have carried our flag triumphantly to victory. This is not the occasion to discuss technical questions, which it will be hereafter the duty of experts to consider.

VII.

Organisa-
tion for
war.

War is not the time for dealing with organisation. The essential is to make use of all existing means. There will be much to consider later on. In the reinforcement of the Navy and the Army, it is safe to say that the work will best be accomplished by men of tried capacity and experience. It were policy to retain Lord Fisher and Lord Kitchener in the places of responsibility which they now fill, until their task is accomplished. Our Navy has suffered from too frequent changes in the constitution of the Board of Admiralty. Now that we have secured good men, let us resolve to keep them. The German Navy is the creation of one capable Minister, Grand Admiral von Tirpitz.

VIII.

Terms of
peace.

It is too soon to treat of peace. The terms must depend on the results of the tremendous conflict in which we are engaged. We shall seek no other advantage than the establishment of peace on conditions which will endure. Mr. Asquith, in his speech at the Guildhall banquet, made clear the terms on which we must insist—"We shall never sheathe the sword, which we have not lightly drawn, until Belgium recovers in full measure all and more than all that she has sacrificed, until France is adequately secured against the menace of aggression, until the rights of the smaller nationalities of Europe are placed upon an unassailable foundation, and until the military domination of Prussia is wholly and finally destroyed. That is a great task, worthy of a great nation. It needs for its accomplishment that every man among us, old or young, rich or poor, busy or leisurely, learned or simple, should give what he has and do what he can."

The country has responded well to the call to arms. The Navy has done nobly. Recruiting for the Army has been a triumph for voluntary enlistment. Men have come forward in full numbers.

Once more, we may regret that when war was declared the Allies were ill prepared. The Germans have been in occupation of Belgium for months. They have dug themselves in deep. The final result depends on the combined efforts of the Allied Powers, standing shoulder to shoulder, contending in a righteous cause. However long it may last, we do not doubt how the War will end.

Mr. Roosevelt has been quoted as a supporter of our cause. He is for moderation in the hour of victory. "Extremists," he said, "in England, France and Russia, talk as if the proper outcome of the present war would be the utter dismemberment of Germany and her reduction to impotence, such as that which followed the Thirty Years' War. To dismember and hopelessly shatter Germany would be a frightful calamity for mankind, precisely as the dismembering and shattering of the British Empire or of the French Republic would be."

The present war is an awful experience of suffering and misery. Yet there is something on the other side.

"God Almighty!
There is some soul of goodness in things evil,
If men observingly distil it out."

At home, and throughout the length and breadth of the Empire, we have seen to what a height of self-sacrifice and devotion a nation may be raised by love of country.

Some months have elapsed since the writing of the above essay, confidentially printed, which, by the desire of the Editor, is here reproduced as the introductory chapter of the *Naval Annual* for 1915. Much has happened in the interval. To chronicle the incidents, to extol the deeds of valour, of which we know too little, would take us far afield. War on a scale far beyond all precedent must teach many lessons. All recent experience has shown the transcendental importance of superiority on the side of *matériel*, but it would not be prudent, at the present time, to discuss the problems of future naval construction.

The writer forbears to offer any comments on the methods of naval warfare to which the enemy has lately had recourse.

. BRASSEY.

CHAPTER II.

THE WORLD WAR.

NARRATIVE OF NAVAL EVENTS AND INCIDENTS.

Compiled chiefly from Official Documents.

FOR nine months now,* a war of unprecedented character, scope, and conduct has convulsed the world. It is being waged in both hemispheres and across all oceans. The British Empire, with its Allies, is engaged in a tremendous struggle, the outcome of which none can predict, but which will surely leave its mark on the civilisation, the industrial progress, and the social and economic conditions of all nations. That it will bring about a re-colouring of the map of the globe is equally certain. During all this momentous period Sea Power has been exerted in the interests of humanity. The British Navy, assisted by those of our Allies, although it has been unable to restrain Germany from crushing Belgium, overrunning a large part of France, and invading Russia, has prevented the violation of the shores of these islands, has secured the continuation of our oversea trade, and has enabled the Empire to come to the assistance of its friends by ensuring the safe transit of an Expeditionary Force to the Continent, and the reinforcement of that force by men, stores, and every provision necessary to its continued effectiveness. At the same time, it has swept the commerce of the enemy from the seas, and by the exercise of economic pressure is slowly but surely producing a strangling effect upon the aims and ambitions of the enemy.

Scope of
the
chapter.

It is the intention here to place on record the naval incidents of the War and the movements and operations of the contending fleets. No entirely satisfactory description of the actions and engagements, and much less of the policy and purpose of strategical dispositions, can yet be compiled for lack of complete information. Nor is it possible to produce a history in the modern sense of that word. A chronicle of the events of the conflict, however, in its many aspects, should fulfil a useful purpose. Accuracy and care have been primary objects, and the narrative has been supplemented, wherever the material is available, by the Admiralty *communiqués*, the official despatches, and letters from officers and men who were eye-witnesses

* The period covered by this review is from the outbreak of hostilities to May 4, 1915.

of the events they describe. No attempt has been made to draw lessons from the incidents of the War, or to criticise or comment on the tactical details of the engagements. Yet the narrative must to some extent, and so far as the facts have been revealed, indicate the influence of maritime strength, and demonstrate the manner in which the potentiality of Sea Power has proved to be the dominating factor of the War.

When an adequate history of the struggle is forthcoming, and all the events are surveyed in their proper perspective, it will contain three important chapters. One of these will be devoted to the story of the renaissance of the British Navy, indelibly associated with the name of Lord Fisher, to whom the country owes a deep debt of gratitude for the many valuable reforms which marked his long period of service at the Admiralty. Another chapter will describe the circumstances which preceded the outbreak of hostilities, including the authorisation by the House of Commons of larger Navy Estimates than this country had ever before in one year devoted to naval defence, and the timely mobilisation of the Fleet. These matters will be connected with the names of Mr. Winston Churchill and his principal naval adviser, Prince Louis of Battenberg. To Lord Fisher the country owes the sufficiency and adequacy of the Navy for its work. To his successors must be given the credit of having the Fleet in all respects ready for action. Much as are to be regretted the immediate circumstances which led to Lord Fisher's return to office as First Sea Lord on October 30, 1914, this change was made with the entire confidence and approval of the country. Nor will the names of the admirals at sea be omitted from this page of history. To Sir Arthur Wilson and Sir George Callaghan, more than to any others, it was due that the standard of the fighting efficiency of the Fleet had never been excelled. Another name which cannot be overlooked is that of Sir Percy Scott, for the energy and determination with which he pressed reforms in gunnery and so improved the marksmanship of the Navy.

The Navy
before the
War.

In a third chapter, the work of the Committee of Imperial Defence must be reviewed, invaluable work which was inaugurated by Mr. A. J. Balfour, and to which the finishing touches were put under the encouragement of Mr. Asquith. Out of the labours of this Committee came the machinery which was found so effectual, when war clouds broke, in the provision of precautionary measures for the prevention of panic, the encouragement of the commercial community, and the modification of the Law of the Realm to meet the novel conditions in which the country found itself. Behind the sure shield of the Fleet, inspired and cheered by the unity of effort

Defence
Com-
mittee.

displayed by the chiefs of all political parties, the patriotic sentiment of the country was aroused, and a well-founded confidence displayed in the security which finds expression in the declaration of policy set forth in the Articles of War:—

“It is upon the Navy that, under the good providence of God, the wealth, safety, and strength of the Kingdom chiefly depend.”

Supre-
macy at
sea.

It is hoped that a concise review such as follows may prove of value to all naval students, and furnish to the future historian material which, as it shows how daily events presented themselves to bystanders, should be of more than ephemeral interest. It has been thought well not to set down every event in its chronological sequence of time, but to group together certain occurrences having a similar relation to phases of sea warfare and the principal theatres of action. Nor has it been considered necessary to set forth the sea strengths of the great Powers which are engaged in the struggle. These will be found tabulated on later pages of the *Naval Annual* as they stood at the outbreak of war. Although it is a hundred years since this country has been engaged in a naval war on such a huge scale, it is a fact to be remembered that our Navy was relatively stronger and better prepared for action than it ever was at the beginning of any of our wars in past times. This gave us an initial advantage which has not been lost, while every month since the war began has seen additions made to our Fleet, increasing its dominating influence. Thus it has been that our supremacy at sea has affected the issues of the conflict, and this even whilst there has been no decisive battle between the main fleets. Sea power has its victories by silent or static pressure as well as its successes by the exercise of dynamic force. It has been the former operating cause which has had, and is still having, a throttling effect upon the economic condition of Germany.

It is well that the prodigious influence on the War exerted by the Fleet should be fully realised, both by our own people and by our Allies. Owing to the presence and latent potentiality of that Fleet, “lost to view amid the northern mists,” we have been able to send to France and Flanders an army of larger dimensions than any heretofore employed by this country. We have been able, also, to raise and train a still larger army for use when the propitious moment arrives. And it is also because that Fleet keeps the seas that the country has been secured from invasion, the danger of famine and financial ruin has been averted, and the social and industrial life of our people has proceeded without dislocation.

We have been able, moreover, to increase our output of the

munitions of war and materially to assist our Allies in the same direction. Further afield, the patriotic aspirations of the Dominions could be given full play, reinforcements from Australia, Canada, and other colonies crossing the seas unmolested, while as the story unfolds itself it will be seen how contingents of Australians and New Zealanders wrenched from Germany her oversea possessions. Throughout the world our ports are free, our commerce still covers the oceans, while the Fleet of the enemy has been forced to withdraw into his fortified harbours, and his merchantmen, numbering nearly 5000 ships, quite one-half of them steamers, have been captured or driven to take refuge in neutral ports. The external commercial activity of Germany has entirely ceased. The completeness of the results of the eight months of sea warfare has been made possible by the protection afforded by the Grand Fleet, in the ships of which our seamen are still eagerly awaiting the opportunity for a battle in which they may emulate the glorious deeds and achievements of their predecessors. Never before has there been such a striking manifestation of the relation of Sea Power to Empire.

It will be unnecessary for the purpose of this survey to say more in regard to the reasons which led Great Britain to embark in the War than was said by Mr. Asquith in a speech at Edinburgh on September 18, 1914. "We are at war," said the Prime Minister, "for three reasons:—

"In the first place, to vindicate the sanctity of treaty obligations, and of what is properly called the public law of Europe; Causes of the War.

"In the second place, to assert and to enforce the independence of free States, relatively small and weak, against the encroachments and the violence of the strong; and,

"In the third place, to withstand, as we believe in the best interests not only of our Empire, but of civilisation at large, the arrogant claim of a single Power to dominate the development of the destinies of Europe."

By an arrangement which proved most fortunate, the usual grand manœuvres of the British Navy in 1914 had been abandoned in favour of a test mobilisation of the reserves. This change of plan, decided upon five months earlier, was carried out on July 15th and the days immediately following, and the First, Second, and Third Fleets, with the torpedo flotillas, assembled at Spithead for an inspection by his Majesty the King. On July 20th, the squadrons and flotillas weighed anchor and proceeded to sea, led by the King in the Victoria and Albert as far as the Nab End Buoy, where the yachts anchored, and the Fleet steamed in procession past them. Test mobilisation.

Admiral Sir George Callaghan was the Commander-in-Chief, and under his direction the vessels proceeded to carry out tactical exercises in the Channel. On these terminating on the 24th, the First Fleet returned to Portland and the Second and Third Fleets to their Home ports. The ten days' training of the reservists in the Third Fleet was completed on July 25th, and the men returned to their civil occupations. The Second Fleet ships prepared to disembark their officers and men who had completed the vessels to full complement from the training establishments. The First Fleet was to have given manœuvre leave. The fact, however, that Austria had been pressing Serbia over the matter of the assassination of the Archduke Franz Ferdinand, and that a state of tension existed between the two nations, although at the same time negotiations were going on, was significant of coming trouble. But it was not until midnight on July 26th that any definite measures of precaution affecting the arrangements of the British Fleet became necessary. At that hour there was issued the following notice by the Admiralty:—

Orders have been given to the First Fleet, which is concentrated at Portland, not to disperse for manœuvre leave for the present. All vessels of the Second Fleet are remaining at their Home ports in proximity to their balance crews.

Austrian
declara-
tion of
war.

Austria-Hungary declared war upon Serbia on July 28th. Immediately upon the opening of hostilities on the Continent, the British Admiralty extended its measures of precaution in order to ensure that, if or when this country should become involved in the conflict, the immediate force of the Navy should be ready to act. It was now that the plans of the Committee of Imperial Defence, and the arrangements of the Admiralty in conjunction therewith, were brought into play swiftly and silently. Not a few vessels but every ship in commission as a fighting unit had her appointed war station to proceed to. This fact was not at once recognised, and it only dawned upon the public as the war progressed, and the situation of some of the squadrons was revealed, how complete and effective had been the arrangements of the authorities and the means of putting them into effect. The only movement on July 29th, or the day after the Austrian declaration of war, which became known to the country at once was the departure of the First Fleet from Portland. As the ships, under the command of Sir George Callaghan, put to sea that morning there was some cheering, and the bands were playing, but otherwise the vessels left their base without the country being aware of the significance of their departure.

About the same time that the forty or more vessels of Sir George Callaghan left Portland, the Fourth Cruiser Squadron, under Rear-

Admiral Sir Christopher Cradock, left Mexico, where it had been for some months owing to the disturbed conditions there; the Mediterranean Fleet, under Admiral Sir Berkeley Milne, returned to Malta from its cruise to the East, the programme of which was cut short; and all over the world, in fact, ships made ready for any emergency. A midshipman of the cruiser *Cumberland*, in a letter quoted in *The Times* of April 30, 1915, gave an indication of what happened throughout the Fleet by the following description of the preparations in that vessel:—

The ship was lying in Cowes, and we had all returned from a peaceful game of cricket at Osborne—the cadets were all turned in, with the hammocks slung on the upper deck, and the ship was settling down to a quiet night—when a slip of paper was taken from the wireless office to the captain. It was a code telegram. Immediately everyone was astir; we had to turn out and go below to be out of the way. The guns were prepared, lyddite shells were fused, warheads were put on the torpedoes. We raised steam for 13 knots, weighed and proceeded to Devonport. There we coaled with all possible speed and took on board extra men. The cadets were sent off to their war stations, twelve remaining on board, and we proceeded at 16 knots to Gibraltar. The news that we had received was that Austria had declared war on Serbia. On the way to Gibraltar we received a wireless message that Germany had declared war on Russia. We coaled at Gibraltar. On the night of August 4th the captain read the declaration of war against Germany amidst tense silence on the quarter-deck. We left Gibraltar that night and spent the next few days preparing the ship for battle.

From July 29th a curtain was drawn over the movements and operations of the fleets at sea, which has only been raised at intervals to reveal the actions with the enemy.

Turning for a moment to the diplomatic events, it will suffice to record here that the effect of the rupture between Austria and Serbia was that Russia notified the mobilisation, as from July 29th, of certain of her forces in the south. On the 31st, Germany demanded that Russia should stop the mobilisation of her forces within twelve hours, and a request was made to France at the same time to state, within eighteen hours, whether or not she would remain neutral in the event of a Russo-German war. Russia replied that it was technically impossible to agree to Germany's demand, but she assured Great Britain that she would on no account begin hostilities if the Germans did not cross her frontier. War was declared by Germany upon Russia on August 1st, and early on the following morning German troops committed the first act of war by invading Luxembourg, a small independent State adjoining Belgium. This led to the British decision to call out the Reserves. It has been shown how the First Fleet, consisting of ships permanently fully manned, had already left for its war station, and how the Second Fleet, also manned by active service ratings, had embarked its balance crews from the shore barracks and training establishments. All that was necessary, therefore, to place the Navy on a war footing was to invite the

Diplo-
matic
rupture.

Reservists to come up to their various depôts for service in the Third Fleet. The notice of mobilisation was addressed to the Royal Fleet Reserve, Immediate Class; Royal Fleet Reserve, Class A; Royal Fleet Reserve, Class B; Royal Naval Reserve, all classes (including Trawler Section); Naval Pensioners; Marine Pensioners; and Royal Naval Volunteer Reserve. The Admiralty gave orders that these classes of Naval Reserve and Naval and Marine Pensioners should be called into actual service. The summons was as follows:—

Mobilisation
orders.

Notice is hereby given by their lordships that all Naval and Marine Pensioners under the age of fifty-five, and all men of the Naval Fleet Reserve and Royal Naval Reserve are to proceed forthwith to the ship or establishment already notified them, or, failing any previous orders, they are to report themselves in person immediately, as shown below, viz.:—Naval and Marine pensioners, including men of Class A, Royal Fleet Reserve, to their pensioner centre officer. Royal Fleet Reserve, Class B, to their registrar at their port of enrolment. Royal Fleet Reserve, Immediate Class, in accordance with instructions already issued. Royal Naval Reserve, all classes, to the nearest registrar of Naval Reserve (superintendent of a Mercantile Marine office). Men of the Royal Naval Volunteer Reserve are all to report themselves immediately to their officer instructor or volunteer mobilising officer, irrespective of whether they have been previously appropriated or not. All men should, if possible, appear in uniform and bring with them their regulation kit, certificate book or Service certificate, and in the case of pensioners their pension identity certificate. Men who, through absence at sea or for other unavoidable cause, are unable to join immediately, are to report themselves as soon as possible. Reasonable travelling expenses will be allowed. By command of the Lords Commissioners of the Admiralty.

So immediate was the response that on the evening of August 3rd the following was issued by the Admiralty:—

The mobilisation of the British Navy was completed in all respects at four o'clock this morning. This is due to the measures taken and to the voluntary response of the Reserve men in advance of the Royal Proclamation which has now been issued. The entire Navy is now on a war footing.

Great
Britain's
position.

On August 4th, Germany took the action which was the primary cause of the entry of Great Britain into the War, viz., the violation of the neutrality of Belgium. On July 31st, the British Foreign Minister had asked both France and Germany whether they were prepared to respect Belgium neutrality, and the former replied in the affirmative the same evening. On August 3rd, however, a German ultimatum was delivered to Belgium, demanding permission to pass troops through her territory; an answer was required in twelve hours or Belgium was to be treated as an enemy. The King of the Belgians telegraphed a personal appeal to King George for diplomatic intervention to safeguard the integrity of Belgium, but on the morning of August 4th Belgian territory was violated at Gemmenich, near Aix-la-Chapelle, and the British Government immediately sent an ultimatum to Germany requiring that her demands upon Belgium should be withdrawn. This ultimatum was to expire at midnight, before which time, however, Germany intimated her refusal to

comply with it, and it was officially announced from the British Foreign Office that a state of war existed between Great Britain and Germany as from 11 p.m. on August 4th.

In Home waters many precautionary measures came into force automatically with the mobilisation of the land and sea forces. Particularly was this the case in regard to harbours and roadsteads of naval importance. Defence areas were indicated by notices to mariners, and traffic within these areas was regulated. Ships of all classes were warned in connection with their movements within these limits, and to a large extent the areas were closed at night. An examination control was established, and precautions were taken for the identification of mercantile traffic using the anchorages at certain times. Some passages, such as the entrance of the Needles, were closed altogether. Points were signified where examination steamers could be found, and signals were arranged to facilitate the examination service; certain routes were also recommended for ships to take in the different localities. The use of wireless telegraphy of any description was prohibited. All ships with the exception of those in the King's service were ordered to take down their aerial wires. Pilotage was made compulsory in certain ports. Other measures of defence included the placing of booms and similar obstructions at the entrances to harbours. All waterways of the ports and the approaches to them were watched by patrol boats. At the same time, all the forts were manned, and any buildings which obstructed the fire of the guns were removed. Armed guards were provided for all magazines. While the naval arsenals were thus put in a state of defence, the work of the Coast-guard on the south and east coasts was supplemented by the military forces, who were engaged in watching the shores in conjunction with the local bodies under the naval authorities.

Precautionary measures.

On the day that war was declared between Great Britain and Germany, it was officially announced that Vice-Admiral Sir John R. Jellicoe had assumed supreme command of the Home Fleets, with the acting rank of Admiral. This appointment was not unexpected, as in the Press on July 23rd it was officially stated that the King had approved of Sir John Jellicoe being nominated to the post of Commander-in-Chief of the Home Fleets, in succession to Admiral Sir George Callaghan, whose three years tenure of the command would have expired at the end of the year. In succession to Sir John as Second Sea Lord of the Admiralty, Vice-Admiral Sir Frederick T. Hamilton's appointment was approved by the King, the change to take effect on September 1st. The outbreak of war obliged an acceleration of these plans. Sir Frederick Hamilton went to the

Naval appointments.

Admiralty two months earlier than had been originally intended, or on July 30th, and his predecessor hoisted his flag on board the battleship *Iron Duke* as Commander-in-Chief on August 4th. The officer chosen as Chief of the Staff to Admiral Sir John Jellicoe was Rear-Admiral C. E. Madden, who on July 29th had been relieved as Rear-Admiral Commanding the Second Cruiser Squadron by Rear-Admiral the Hon. S. A. Gough-Calthorpe, and who, but for the war, would have succeeded Rear-Admiral A. G. H. W. Moore as Third Sea Lord. His appointment was also dated August 4th. It is hardly necessary to say that Admiral Sir John Jellicoe possessed the entire confidence both of the Navy and the nation. On his appointment, King George sent the following gracious message to Sir John:—

The
King's
message.

“At this grave moment in our national history I send to you, and through you to the officers and men of the Fleets of which you have assumed command, the assurance of my confidence that under your direction they will revive and renew the old glories of the Royal Navy, and prove once again the sure shield of Britain and of her Empire in the hour of trial.

“GEORGE R. I.”

In reply to this message of the King to the Fleets, Admiral Sir John Jellicoe sent the following reply:—

“On behalf of the officers and men of the Home Fleet beg to tender our loyal and dutiful thanks to your Majesty for the gracious message, which will inspire all with determination to uphold the glorious traditions of the past.”

The patriotism and self-abnegation with which Admiral Sir George Callaghan acquiesced in the arrangements of the Admiralty Board, and handed over the command afloat at this time to a younger officer, were unanimously commended. Sir George had flown his flag at sea continuously since November 16, 1906, when he hoisted it in the *Illustrious* as Rear-Admiral in the Channel Fleet, and in those eight years—a period of continuous command which was probably unique—he had done much to promote the fighting efficiency and readiness of the Navy in Home waters. On coming ashore, he was appointed for special service on the Admiralty War Staff. He was one of the officers constituting the Court of Inquiry into the escape of the *Goeben* and *Breslau* from Messina. On September 11th, in the vacancy caused by the retirement of Admiral Sir Edmund Poë, he was appointed First and Principal Naval Aide-de-Camp to the King; and on January 1, 1915, he succeeded Admiral Sir Richard Poore as Commander-in-Chief at the Nore.

The state of preparation of the British Fleet for any action was most conspicuous at the critical moment when it became clear that Germany had determined to force a war upon Europe. Sir Edward Grey stated in the House of Commons on August 3rd, in defining Great Britain's attitude, that fortunately for us the readiness and efficiency of our land and sea forces were never at a higher mark, and never was there a time when confidence was more justified in the power of the Navy to protect our commerce and our shores. Mr. Churchill also told the historic meeting at the Guildhall a month later, "You may rely with good confidence upon the strength and the efficiency of our naval defence. That defence will enable you to live and work and draw the means of life and power from the uttermost ends of the earth. It will give you the time, and it will give you the means, to create the powerful military force which this country must wield before the struggle is brought to its conclusion."

When the emergency came, not only was the Fleet found ready, but its organisation revealed an elasticity in many directions which showed the forethought and thoroughness of recent administration. Thus the reserve ships were mobilised and despatched to their war stations in a remarkably short space of time. They were, too, in an effective condition so far as their material and equipment was concerned. Nor was there any lack of officers and men to man them. Indeed, contrary to the expectations of many, there was a considerable surplus, which, after providing for the needs of all the ships, was eventually used for quite another purpose. It was not only the case, moreover, that crews had to be found for a number of warships. With the declaration of war, hundreds of merchant vessels of various kinds were taken up for service.

The Fleet required many supply ships, colliers, hospital ships, and the like, in addition to the merchant vessels commissioned as auxiliary cruisers, of which the January official "Navy List" showed that no less than eighty were in use in December. As the need arose for the absorption of various classes of ships and craft to perform special duties, so the lists of officers and men were expanded. Lord Sydenham said, in a speech to the Navy League, on March 24th: "One of the most startling features of this War was the employment of the general maritime resources of the country, and the seafaring population drawn upon for dangerous duties had shown great heroism." A great many officers and men were required for the examination and patrol services, for which a demand was made, not in vain, upon yachtsmen and owners of motor boats as well as upon the Mercantile Marine. A "Royal Naval Motor Boat Reserve" was established under the presidency of Admiral Sir Frederick S. Inglefield, and an

The Fleet
ready.

Supply
and
auxiliary
vessels.

English Section and Scottish Section organised. The transport of the Expeditionary Force and of the Dominion troops also required a number of officers and men, and these were forthcoming in such a manner that no delay was occasioned in conveying them to their allotted destinations. Touching upon this transport question in his speech in Parliament on February 15th, Mr. Churchill said: "We have at the present moment a powerful and flexible machinery, which can move whole armies with celerity, wherever desired, in a manner never before contemplated or dreamt of."

Demands
for in-
creased
auxiliary
personnel.

The broadcast manner in which the Germans scattered their mines brought a need for mine-sweeping vessels, in meeting which many hundreds of trawlers and drifters were utilised, and the fishermen and others forming their crews ran into some thousands. Ready, therefore, as the main force of the Royal Navy was found to be on the outbreak of war, and more efficient in point of organisation than had been thought possible by many people, this expansion necessitated a great draft being made on the Merchant Service, on the seafaring community generally, and even on men in civil life. The April issue of the official "Navy List" for 1915 showed that in the Royal Naval Reserve the number of officers allotted temporary commissions were:—Captains (retired admirals, R.N.), 12; Commanders, 19; Lieutenant-Commanders, 19; Lieutenants, 275; Sub-Lieutenants, 791; Chief Engineers, 47; Senior Engineers, 60; Engineers, 361; Assistant-Engineers, 532; Assistant-Paymasters, 128; Skippers, 983; and Telegraphists, 150. In the Royal Naval Volunteer Reserve, the number of officers holding temporary commissions were:—Commanders 6; Lieutenant-Commanders, 31; Lieutenants, 290; Sub-Lieutenants, 524; Midshipmen, 8; Surgeons and Dental Surgeons, 13; Surgeon Probationers, 117; and Fleet-Paymaster, Paymasters, and Assistant Paymasters, 30. These last-named figures do not include the officers holding temporary commissions in the Royal Naval Volunteer Reserve for service in the Motor Boat Reserve, which were:—Commanders, 3; Lieutenant-Commanders, 2; Lieutenants, 122; and Sub-Lieutenants, 151.

The fearlessness, promptitude, and readiness of resource displayed by the Board of Admiralty were further exemplified in the manner in which, unobtrusively and in some cases without public revelation of the fact, they exercised their right of pre-emption over the warships building in Great Britain for foreign governments. This course added several powerful and useful units to the British Fleet. On August 3rd, the Admiralty made the following announcement:—

His Majesty's Government have taken over the two battleships, one completed and the other shortly due for completion, which had been ordered in this country

by the Turkish Government, and the two destroyer-leaders ordered by the Government of Chile. The two battleships will receive the names Agincourt and Erin, and the destroyer-leaders will be called Faulknor and Broke, after two famous naval officers.

The battleships referred to were known up to that time as the Osman I. and Reshadieh. They were constructed by the Armstrong and Vickers firms respectively, and the Osman I. had originally been intended for Brazil as the Rio de Janeiro, the purchase by Turkey taking place in December, 1913, before the vessel's completion. This ship had a main armament of fourteen 12-in. guns, a more numerous battery of such weapons than any other battleship in existence; while the Reshadieh, with ten 13·5-in. guns, resembled the British Iron Duke class. The new destroyer-leaders were of a type rather similar to the British special type destroyer Swift, being of 1850 tons, with 31 knots speed, and armed with six 4-in. guns. Further additions to the Navy of warships constructing for other Powers were made known at subsequent dates. On October 21st, it was officially admitted that three armoured river gunboats built for Brazil by Messrs. Vickers had been taken over by Great Britain, and had been brought into action on the Belgian coast, firing on the right flank of the German Army. "Owing to their light draught," said the *communiqué*, "they have been able to contribute materially to the success of the operations in this district, and they have already abundantly justified their acquisition on the outbreak of war." They were of 1260 tons, with 11½ knots speed, and armed with two 6-in. guns, two 4·7-in. howitzers, and four 3-pounders. Then on November 27th, in his speech in the House of Commons, Mr. Churchill stated that the battleship Almirante Latorre had been acquired from Chile, and renamed the Canada. This vessel was begun in December, 1912, and launched in November, 1913. She was of 28,000 tons, with a main armament of ten 14-in. guns. Furthermore, in the December "Navy List" appeared the names of Botha and Tipperary as those of two new flotilla leaders, which were understood to be sister ships to the Broke and Faulknor. There were six vessels in this class, which were ordered by Chile in September, 1911, and two had been completed and delivered before war broke out, thus the four which were absorbed into the British Navy completed the class.

The attitude of the Dominions when the war clouds gathered was one of ready helpfulness. The Commonwealth Government immediately placed the Royal Australian Navy under the control of the Admiralty, besides offering a military expeditionary force. The Canadian Government also placed at the service of the Admiralty the cruisers Niobe and Rainbow for the purposes of commerce protection, in addition to offering an expeditionary force. Two

Additional
warships.

The
Do-
minions.

submarines which had been constructed in the United States for Chile were also purchased by the Canadian Government, and were commissioned as British vessels for duty on the Pacific coast under the designations of C.C. 1 and C.C. 2. The New Zealand Government placed their Naval Force at the Admiralty's disposal, and, like the Australians, offered a military contingent. In South Africa, Newfoundland, and other parts of the Empire, although the immediate naval assistance given was not of the same character, the local reserve forces mobilised promptly to be ready for any calls upon them; especially was this the case in Newfoundland, whose fishermen in the Royal Naval Reserve responded eagerly to the call, and many of them lost their lives in the auxiliary cruiser *Bayano* when she was torpedoed on March 11th by a German submarine.

THE WAR OF ATTRITION.

Opening
incidents.

The War opened with startling suddenness, revealing long preparation on the part of Germany, and an intention to use to the fullest possible extent the newer weapons of war. The ruthless violation of all international law, which was afterwards so marked a feature of the German method of conducting the campaign, was indicated on the first day of hostilities, though its significance was not appreciated at the moment. A state of war came about between Britain and Germany at 11 p.m. on August 4th, and before noon on August 5th the Germans were already laying mines off the east coast of England, without notifying neutral Powers of the areas in which these mines were being placed, and without complying with the rule that a converted merchant vessel must bear the external marks of a warship, carry the war and not the commercial flag, and, in fact, be duly commissioned for the fighting navy. Shortly after 9 a.m. on August 5th, the liner *Königin Luise* was caught in the act of mine-laying off the Suffolk coast and sunk. The following official notification, the first of an operation of the War, was issued on August 6th:—

The Admiralty announces that the commander of the torpedo flotilla reports that H.M.S. *Amphion* and the Third Torpedo Flotilla sank the German mine-layer *Königin Luise* at noon yesterday. The *Königin Luise* is a passenger vessel of the Hamburg-Amerika Line, of 2163 tons gross tonnage, speed 20 knots, specially fitted as a mine-layer.

The *Amphion*, Captain C. H. Fox, and the Third Destroyer Flotilla thus scored the first success of the War. The destroyers in the Third Flotilla were of the new L type, and those specially mentioned as having taken part in the action were the *Lance*, Commander W. de M. Egerton, which was chiefly instrumental in

sinking the Königin Luise, and the Lark, Commander R. G. Rowley-Conwy, and Linnet, Commander L. W. Jones. The marksmanship on the British side was excellent. From one destroyer four shots were fired, of which one struck the bridge and practically blew it away, the second got home in the bows, and another tore off the propeller. The German fire, on the other hand, was quite ineffective, and no casualties were caused in the British vessels. Thus the first engagement of the War proved the peace standard of gunnery efficiency of the British destroyers to be well maintained in the stress of action.

Before being rounded up and sunk by the British patrol, the Königin Luise succeeded in laying a number of mines, and resorted to a method of dropping them, when pursued, for following ships to run upon, a practice which was to be repeated many times during the War. In particular, a line of mines was laid from Aldeburgh Ridge to lat. 52° 10' deg. N., longitude 2° 25' deg. E. This method proved fatal to the British cruiser Amphion on the succeeding day, causing the first misfortune to our Navy in the conflict. This occurrence was described in detail in the following official *communiqué* issued on August 19th :—

Mine-layer
sunk.

At 9 a.m. on August 5th, H.M.S. Amphion, with the Third Flotilla, proceeded to carry out a certain prearranged plan of search, and about an hour later a trawler informed them that she had seen a suspicious ship throwing things overboard—in an indicated position. Shortly afterwards the mine-layer Königin Luise was sighted steering east. Four destroyers gave chase, and in about an hour's time she was rounded up and sunk. After picking up the survivors, the prearranged plan of search was carried out, without incident, till 3.30 a.m., when the Amphion was on the return course nearing the scene of the Königin Luise's operations. The course was altered so as to avoid the danger zone. This was successfully done till 6.30 a.m., when the Amphion struck a mine. A sheet of flame instantly enveloped the bridge, which rendered the captain insensible, and he fell on to the fore and aft bridge. As soon as he recovered consciousness, he ran to the engine-room to stop the engines, which were still going at revolutions for 20 knots. As all the fore part was on fire, it proved impossible to reach the bridge or to flood the fore magazine. The ship's back appeared to be broken, and she was already settling down by the bows. All efforts were therefore directed towards placing the wounded in places of safety in case of explosion, and towards getting her in tow by the stern. By the time the destroyers closed it was clearly time to abandon the ship. The men fell in for this purpose with the same composure that had marked their behaviour throughout. All was done without hurry or confusion, and twenty minutes after the mine was struck, the men, officers, and captain left the ship. Three minutes after the captain left his ship another explosion occurred which enveloped and threw up the whole fore part of the vessel. The effects showed that she must have struck a second mine which exploded the fore magazine. Debris falling from a great height struck the rescue boats and destroyers, and one of the Amphion's shells burst on the deck of one of the latter, killing two of the men and a German prisoner rescued from the cruiser. The after-part now began to settle quickly, till its foremost part was on the bottom and the whole after-part tilted up at an angle of 45 degrees. In another quarter of an hour this, too, had disappeared. Captain Fox speaks in high terms of the behaviour of the officers and men throughout. Every order was promptly obeyed, without confusion or perturbation.

It was thus early indicated that, in accordance with a policy expressed before the War began, every effort would be made, by the

use of mines and torpedoes, to lessen the preponderance which was possessed by the British Fleet. At the same time, Germany's Fleet would be locked up in its fortified ports until a favourable opportunity occurred for its use. Thus began the war of attrition, or the campaign of wear and tear, which after nine months left the British Fleet with a superiority which had increased rather than diminished, owing not only to the extra ships which had been added to the Navy, as compared with those completed for Germany, but also to the incontestable failure of attempts to bring about the losses which had been hoped for. With regard to the incidents of this war of attrition, although accompanied by distressing loss of gallant lives, the material victims on the British side were almost invariably old vessels of comparatively small military value.

Mine
sweeping.

It was as a result of this policy of mine-laying on a large scale off the East coast, and the consequent danger to traffic, that the Admiralty instituted a system of swept passages, by keeping to which the trade could ensure comparative immunity from the mine danger. Hundreds of trawlers and drifters were taken up for this purpose and converted into mine-sweepers, and these vessels, while engaged in their difficult and perilous task, were protected by small men-of-war from molestation by the lighter cruisers of the enemy. In the earlier days of the War, the light cruisers and destroyers issued from the German ports fairly frequently, and on more than one occasion seized or sank the trawlers at their work. As a result of the meeting of patrols, although no action ensued, a state of affairs characterised in the official *communiqués* as "a certain liveliness" came about. In spite, however, of the necessary movements of the British vessels protecting mine-sweepers, or engaged in scouting and other duties, the losses of such vessels from mines were small.

Speedy
lost.

On September 3rd it was officially stated that "A report from the commanding officer of H.M.S. Speedy states that the steam-drifter Linsdell struck a mine this morning, 30 miles off the East coast, and sank. A quarter of an hour later H.M.S. Speedy also struck a mine and sank." These two vessels, the Amphion and Speedy, were the only victims of mines among British warships of the regular Navy during the first nine months of war. Two auxiliary cruisers, however, were destroyed by this agency, the Viknor and Clan MacNaughton. The former was missed in the last week of January, with all her officers and men. She was formerly the cruising yacht Viking, of 5386 tons, built as the Atrato in 1888, and was renamed Viknor on being commissioned as an armed merchant cruiser on December 12, 1914, by Commander

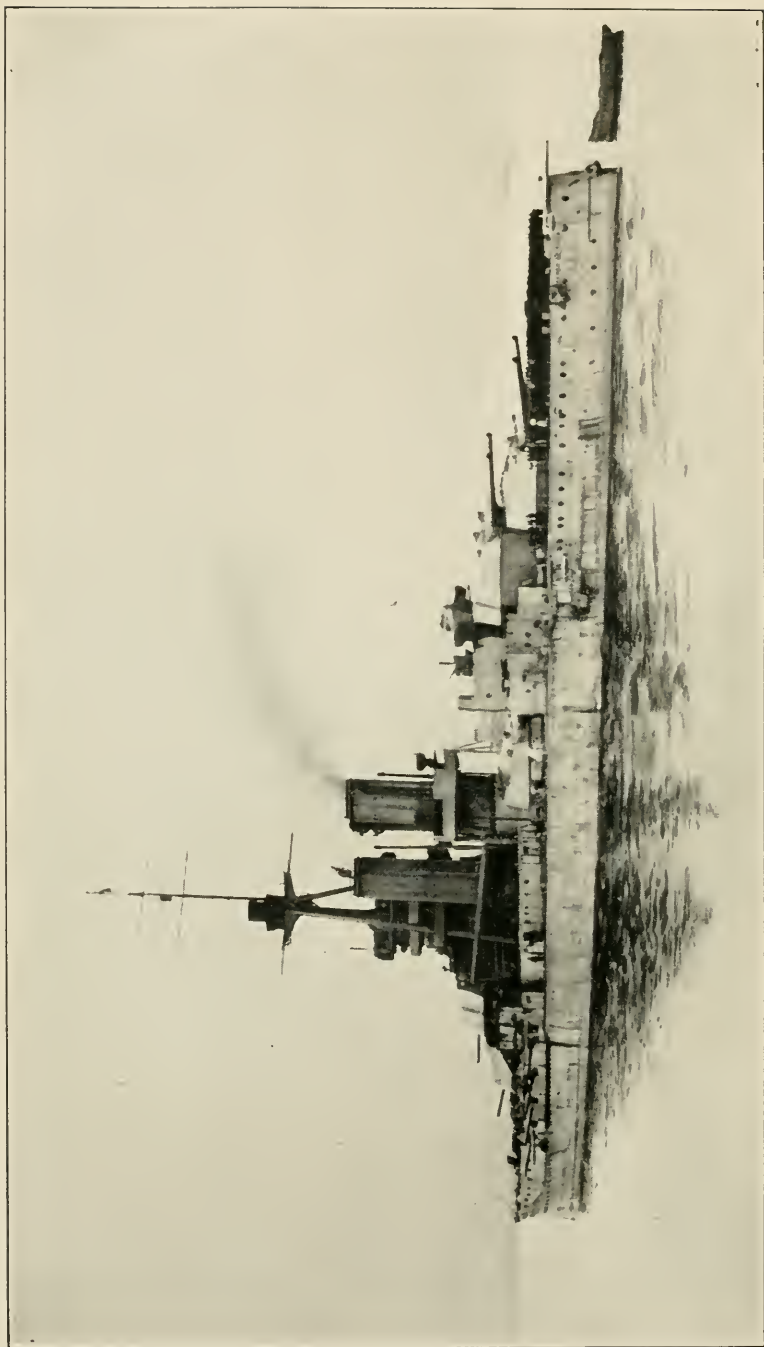


Photo. Cribb.]

H.M.S. "EMPEROR OF INDIA."

E. O. Ballantyne. The Admiralty announced on January 25th that "the cause of her loss is uncertain, but as some bodies and wreckage have been washed ashore on the North Coast of Ireland, it is presumed that during the recent bad weather she either foundered or, being carried out of her course, struck a mine in the seas where the Germans are known to have laid them." The *Clan MacNaughton* was lost within a few days of the *Viknor*. On February 24th the Admiralty announced that this ship, belonging to the *Clan Line* of steamers, of 4985 tons gross, built at Glasgow in 1911, had been missing since February 3rd. "Unsuccessful search was made," said the announcement, "and wreckage, supposed to be portions of this ship, has since been discovered. The last signal received from the *Clan MacNaughton* was made in the early morning of February 3rd, and it is feared that she was lost during the bad weather which prevailed at that time."

Victims of mines were more numerous among trawlers and similar small craft taken up by the Admiralty, as was natural in view of the work upon which they were engaged. In the official "Navy List" for January, in the list of officers and men killed in action, there appeared the names of several who were serving in the trawlers *Princess Beatrice* and *Drumoak*, lost on October 5, 1914, and in the *Mary*, lost on November 5, 1914; while other vessels were lost, but their crews escaped.

The interference with British and neutral merchant shipping by the German mines was no greater in proportion than that with our warships. The policy of the Admiralty of keeping certain important channels swept regularly proved effective, otherwise the safety of the peaceful commerce of all nations would have been jeopardised by what a Cabinet Minister called "this murderous menace." Speaking in the House of Commons on November 27th, Mr. Churchill said, in regard to the danger from mines:—

Mine
danger.

Our enemies have allowed themselves to pursue methods in regard to the scattering of mines upon the highways of peaceful commerce which, until the outbreak of war, we should not have thought would have been practised by any civilised Power. The risks and difficulties which we have had to face from that cause cannot be underrated, but I am glad to tell the House that although we have suffered losses, and, no doubt, will suffer more losses, I think the danger from mining—even unscrupulous and indiscriminate mining—of the open seas is one the limits of which can now be discerned, and which can be, and is being, further restricted and controlled by the very extensive measures which have been and are being taken.

Trawlers and fishing vessels were the worst sufferers, the powerful explosives in the mines blowing them to pieces. Nor did the neutrals receive any better treatment than British craft. It was in connection with the danger to which these vessels were liable that

Admiralty
instruc-
tions.

the following official announcement was published on August 23rd:—

The Admiralty wish to draw attention to their previous warnings to neutrals of the danger of traversing the North Sea. The Germans are continuing their practice of laying mines indiscriminately upon the ordinary trade routes. These mines are not laid in connection with any definite military scheme, such as the closing of a military port, or as a distinct operation against a fighting fleet, but appear to be scattered on the chance of catching individual British war or merchant vessels. In consequence of this policy neutral ships, no matter what their destination, are exposed to the gravest dangers. Two Danish vessels, the steamship *Maryland*, and steamship *Broberg*, have within the last twenty-four hours been destroyed by these deadly engines in the North Sea while travelling on the ordinary routes at a considerable distance from the British coast. In addition to this, it is reported that two Dutch steamers, clearing from Swedish ports, were yesterday blown up by mines in the Baltic. In these circumstances the Admiralty desire to impress not only upon British but on neutral shipping the vital importance of touching at British ports before entering the North Sea in order to ascertain, according to the latest information, the routes and channels which the Admiralty are keeping swept, and along which those dangers to neutrals are reduced so far as possible. The Admiralty, while reserving to themselves the utmost liberty of retaliatory action against this new form of warfare, announce that they have not so far laid any mines during the present War and that they are endeavouring to keep the sea routes open for peaceful commerce.

Losses
due to
mines.

An official list published in the first week of October showed that up to September 23rd fifteen merchant vessels had been destroyed by German mines, eight of them being British, five Danish, one Norwegian, and one Swedish. Similarly, a communication issued by the British Legation at Amsterdam on October 13th, in connection with some discussion on this matter, stated that "sixty persons of neutral nationality have perished" by what was described as a violation of international law, as well as of the laws of humanity. The largest vessel in the Admiralty list was the Danish steamer *Maryland*, of 5136 tons, which was sunk on August 21st off the mouth of the Thames, her people being all saved. In the case of the Wilson liner *Runo*, however, of 1679 tons, which was destroyed off the Tyne on September 5th, 22 lives were lost, owing, it was reported, to a panic among some Russian emigrants. There were 238 passengers on board, the rest being saved by the trawlers *Cameo* and *Euripides*. On September 3rd an official announcement was made that the *Runo*, which "was sunk by a mine in a known mine-field, departed from Admiralty directions, which would have assured her a safe voyage." The Admiralty, in the same announcement, impressed upon all concerned the extraordinary dangers attendant upon such disregard to warning and advice.

The methods by which Germany placed mines around the British coasts were not in conformity with the requirements of international law in any particular. The Hague Convention prohibited the use of, first, anchored mines which do not become innocuous if they should break adrift, and, secondly, mobile or floating mines which do not become harmless within a specified period of time after they have

been dropped. There was evidence to show that the Germans had not taken the necessary precautions to render their mines innocuous after the expiration of the fixed period. Furthermore, as already pointed out, in connection with the sinking of the mine-layer Königin Luise, the vessels chosen to strew them had no proper status as belligerent ships. In support of this point, an official announcement, on August 30, 1914, said:—"The mines off the Tyne were laid 30 miles to seaward, not as part of any definite military operation, nor by German ships of war, but by German trawlers, of which a considerable number appear to have been engaged on this work. The number of one such trawler actually seen to be doing this was 'A E 24 Emden.'"

In the last week of October the remarkable activity of the German mine-layers received fresh illustration by the discovery that a "field" of unknown extent had been laid to the north-west of Ireland. As was pointed out in the Admiralty statement of November 2nd, establishing a "military area" in the North Sea, mines had been scattered indiscriminately in the open sea "on the main trade route from America to Liverpool, *via* the North of Ireland. Peaceful merchant ships have already been blown up, with loss of life, by this agency. The White Star liner Olympic escaped disaster by pure good luck. But for the warnings given by British cruisers other British and neutral merchant and passenger vessels would have been destroyed. These mines cannot have been laid by any German ship of war. They have been laid by some merchant vessel flying a neutral flag, which has come along the trade route as if for the purpose of peaceful commerce, and while profiting to the full by the immunity enjoyed by neutral merchant ships, has wantonly and recklessly endangered the lives of all who travel on the sea, regardless of whether they are friend or foe, civilian or military in character. Mine-laying under a neutral flag, and reconnaissance conducted by trawlers, hospital ships, and neutral vessels, are the ordinary features of German naval warfare." The mines off the north coast of Ireland were discovered by the destruction of the merchant steamer Manchester Commerce on October 26th near Tory Island. Their purpose was to interfere with the free movements of British warships using the North Channel, or perhaps to catch some of the transports bringing the Canadian troops across.

Mine-laying under neutral flag.

The practice of using mines, both fixed and drifting, by the Germans, continued practically without cessation during the first nine months of the War, although in the latter part of this period to a much less degree, owing to the measures taken in connection with the closing of the East Coast ports on September 29th, and the definition

of certain sea areas as from November 5th. As a consequence, neutral vessels found it dangerous to move, except in specified routes, and the number of vessels laying mines considerably decreased. Although our naval authorities described the area off the coast of Kent which they mined on October 2nd, no indication was given by Germans of the localities in which their mines were placed. Hardly a week passed without some merchant ship or trawler being injured or destroyed by German mines. Many of the machines were found miles from the localities in which they had been originally placed, and such mines were still active. The official tables of merchant and fishing vessels lost by hostile action, which were issued weekly from the beginning of March, only showed the British ships affected, and the losses to these from mines were not very numerous. During the first nine months of the War, according to the table corrected up to May 5th, twelve British merchant vessels and twenty-one trawlers and fishing boats were sunk by mines. But the casualties among neutral ships were far larger, and almost all nations whose vessels used the North Sea suffered from this cause.

The sub-
marine.

It will be noticed from the foregoing that a new problem was presented by the German use of mines, both fixed and drifting. Such mines had been employed during earlier wars, notably in that between Russia and Japan, but on nothing like the same scale, nor under the peculiar conditions which ruled in this case. Similarly, a fresh situation was created by the use made of submarines, one that was entirely novel. Speculative writers had suggested before the War that submarines might be used for a variety of purposes, including that of the destruction of commerce, but it was replied to them that international law obliged not only the nationality of a ship to be established, but a proper blockade declared, and various regulations with regard to detention, search, and the safety of the crew complied with. It was manifest, however, quite early in the War, that not only were submarines to be used for the purpose of sinking enemy ships, but also that the Germans had determined upon increasing in every possible way the loss of life attendant upon such disasters. This was shown not only by what occurred at the time of the sinking of the three cruisers of the Cressy class, but in the case of the Hawke, where boats which attempted to save life from rafts were driven away by the German submarines. Later on, this callous disregard of the laws of nations and of humanity was further exemplified in the treatment accorded to the crews of British and neutral merchant ships.

As already described, the protection of mine-sweeping vessels, the patrol work, the business of searching merchant ships for contraband,

and many other duties, necessitated the presence of large numbers of cruisers and small craft in the North Sea. Where these ships, destroyers, etc., were stationed, the bases from which they worked, and their spheres of action, were not, of course, revealed, but every now and again some incident of the War, or the clash of arms, obliged the lifting of the curtain of mystery, and showed these watch-dogs at their calling. Naturally, it was these ships that ran the greatest risk from the German submarines, the danger from which was not at first sufficiently realised, nor all the later precautions taken to meet it. The enemy's boats became active almost as soon as the War began, for in an official statement issued on August 10th it was announced that on the previous day one of the cruiser squadrons of the main fleet had been attacked by German submarines. Fortunately, none of our ships was damaged, but one of the German submarines, U 15, was rammed and sunk by the light cruiser Birmingham, Captain A. A. M. Duff. The mayor of the city so named was congratulated by the Admiralty on the good fortune of its representative ship.

Submarine attacks, with success, by enemy craft began with the destruction of the Pathfinder, Captain F. M. Leake, in the Firth of Forth on September 5th. In regard to the sinking of this vessel, which was at first assumed to have been mined, the Secretary of the Admiralty made the following announcement:—

Path-
finder
tor-
pedoed.

H.M.S. Pathfinder, Captain Francis Martin Leake, struck a mine to-day, at 4.30 p.m., about 20 miles off the East Coast, and foundered very rapidly. The loss of life has probably been heavy. The Pathfinder was a light cruiser of 2940 tons and 25 knots speed, armed with nine 4-in. guns. She was built in 1904.

The Pathfinder was serving as flotilla cruiser of the Eighth Destroyer Flotilla. Her destruction was very complete, only small fragments of wreckage being found by the fishing craft, which were the first to reach the scene of the occurrence. The St. Abbs' coast-guard men gave the earliest intimation that the vessel had been destroyed, and the atmospheric conditions were described as being very clear, affording extreme visibility. Subsequently it became known that it was U 21, Lieutenant-Commander Hersing, which torpedoed the Pathfinder. This boat afterwards gained notoriety by her operations against merchant shipping in the Irish Sea in January and February.

Within three weeks of the loss of the Pathfinder, Germany's submarines made their biggest coup of the first nine months of the War, whether judged by the number of lives lost or the tonnage of the vessels destroyed. This was the sinking of the three cruisers of the Cressy class, on the morning of September 22nd, off the Dutch

coast, by U 9, Lieutenant-Commander Otto Weddigen, an officer who, until he was destroyed with his crew in U 29 in March, was the most successful submarine commander on the German side. On the afternoon of September 22nd the Admiralty announced that the Aboukir, Captain John E. Drummond; the Hogue, Captain Wilmot S. Nicholson; and the Cressy, Captain Robert W. Johnson, had been sunk by a submarine in the North Sea. The Aboukir was torpedoed, and whilst the Hogue and the Cressy had closed, and were standing by to save the crew, they were also torpedoed. Three days later, on September 25th, the Admiralty published the reports of the commanders of the Cressy and Hogue, these being prefaced by the following Memorandum:—

Aboukir,
Hogue,
and Cressy
torpedoed.

The facts of this affair cannot be better conveyed to the public than by the attached reports of the senior officers who have survived and landed in England. The sinking of the Aboukir was, of course, an ordinary hazard of patrol duty. The Hogue and Cressy, however, were sunk because they proceeded to the assistance of their consort, and remained with engines stopped endeavouring to save life, thus presenting an easy and certain target to further submarine attacks.

The natural promptings of humanity have in this case led to heavy losses, which would have been avoided by a strict adherence to military considerations. Modern naval war is presenting us with so many new and strange situations that an error of judgment of this character is pardonable. But it has been necessary to point out, for the future guidance of his Majesty's ships, that the conditions which prevail when one vessel of a squadron is injured in a minefield, or is exposed to submarine attack, are analogous to those which occur in an action, and that the rule of leaving disabled ships to their own resources is applicable, so far as at any rate as large vessels are concerned. No act of humanity, whether to friend or foe, should lead to a neglect of the proper precautions and dispositions of war, and no measures can be taken to save life which prejudice the military situation. Small craft of all kinds should, however, be directed by wireless to close the damaged ship with all speed.

The loss of nearly 60 officers and 1400 men would not have been grudged if it had been brought about by gunfire in an open action, but it is peculiarly distressing under the conditions which prevailed. The absence of any of the ardour and excitement of an engagement did not, however, prevent the display of discipline, cheerful courage, and ready self-sacrifice among all ranks and ratings exposed to the ordeal. The duty on which these vessels were engaged was an essential part of the arrangements by which the control of the seas and the safety of the country are maintained, and the lives lost are as usefully, as necessarily, and as gloriously devoted to the requirements of his Majesty's service as if the loss had been incurred in a general action. In view of the certainty of a proportion of misfortunes of this character occurring from time to time, it is important that this point of view should be thoroughly appreciated. The loss of these three cruisers, apart from the loss of life, is of small naval significance. Although they were large and powerful ships, they belonged to a class of cruisers whose speeds have been surpassed by many of the enemy's battleships. Before the war it had been decided that no more money should be spent in repairing any of this class, and that they should make their way to the sale list as soon as serious defects became manifest.

Parts of the report by Commander Bertram W. L. Nicholson, late of H.M.S. Cressy, dated September 23, 1914, are omitted, but the main points are as follows:—

Sir,—I have the honour to submit the following report in connection with the sinking of H.M.S. Cressy, in company with H.M.S. Aboukir and Hogue, on the morning of September 22nd. Whilst on patrol duty the Aboukir was struck at about 6.25 a.m. on the starboard beam. The Hogue and the Cressy

closed, and took up position—the Hogue ahead of the Aboukir and the Cressy about 400 yards on her port beam. As soon as it was seen that the Aboukir was in danger of sinking, all boats were sent away from the Cressy and the picket boat was hoisted out without steam up. When the cutters full of the Aboukir's men were returning to the Cressy, the Hogue was struck apparently under aft 9·2 magazine, as a very heavy explosion took place immediately after the first explosion. Almost directly after the Hogue was hit we observed a periscope on our port bow about 300 yards off. Fire was immediately opened, and engines put full speed ahead with intention of running her down.

* * * * *
 Captain Johnson then manœuvred the ship so as to render assistance to the crews of the Hogue and Aboukir. About five minutes later another periscope was seen on our starboard quarter. Fire was opened. The track of the torpedo she fired at a range of 500 to 600 yards was plainly visible, and it struck us starboard side just before the after bridge. The ship listed about 10 degrees to starboard and remained steady. Time 7.15 a.m. All watertight doors, dead lights, and scuttles had been securely closed before the torpedo struck ship. All mess tools and tables, shores, and all available timber below and on deck had been previously got up and thrown over the side for saving of life. A second torpedo fired by the same submarine missed and passed about 20 feet astern. About a quarter of an hour after the first torpedo had hit, a third torpedo, fired from a submarine just before starboard beam, hit us in No. 5 boiler-room. Time 7.30 a.m. The ship then began to heel rapidly, and finally turned keel up, remaining so for about 20 minutes before she finally sank at 7.55 a.m. A large number of men were saved by the casting adrift of a pattern three target. The steam pinnace floated out of her crutches, but filled and sank.

The second torpedo which struck the Cressy passed over the sinking hull of the Aboukir, narrowly missing it. It is possible that the same submarine fired all three torpedoes at the Cressy.

The conduct of the crew was excellent throughout. I have already reported the splendid service rendered by Captain Phillips, master of the trawler L. T. Coriander, and his crew, who picked up 156 officers and men.

The report of Commander Reginald A. Norton, late of H.M.S. Hogue, dated September 23, 1914, says:—

Sir.—I have the honour to report as follows concerning the sinking of H.M. ships Hogue, Aboukir, and Cressy:—Between 6.15 and 6.30 a.m. the Aboukir was struck by a torpedo. The Hogue closed the Aboukir, and I received orders to hoist out the launch, turn out and prepare all boats, and unlash all timber on the upper deck. The two lifeboats were sent to the Aboukir, but before the launch could get away the Hogue was struck on the starboard side amidships by two torpedoes at intervals of ten to twenty seconds. The ship at once began to heel to starboard.

* * * * *
 The Aboukir appeared to me to take about 35 minutes to sink, floating bottom up for about five minutes. The Hogue turned turtle very quickly in about five minutes, and floated bottom up for some minutes. A dense black smoke was seen in the starboard battery, whether from coal or torpedo cordite I could not say. The upper deck was not blown up, and only one other small explosion occurred as we heeled over. The Cressy I watched heel over from the cutter. She heeled over to starboard very slowly, a dense black smoke issuing from her when she attained an angle of about 90 degrees. She took a long time from this angle until she floated bottom up, with the starboard screw slightly out of the water. I consider that it was thirty-five to forty-five minutes from the time when she was struck until she was bottom up. All the men in the Hogue behaved extraordinarily well, obeying orders even when in the water swimming for their lives, and I witnessed many cases of great self-sacrifice and gallantry.

A German account of the affair appeared in the *New York World* of October 11th, when the story of the commander of U 9 was allowed to be published by the permission of the German Navy Office. He said:—

It was 10 minutes after 6 in the morning when I caught sight of the cruisers. I was then 18 miles north-westerly off the Hook of Holland. I had travelled

more than 200 miles from my base. I had been going ahead, partly submerged, with about five feet of my periscope showing. Immediately I caught sight of the cruisers I submerged completely and laid my course so as to bring up in the centre of the trio. I got another flash through my periscope before I began action. Then I loosed one of my torpedoes at the middle ship, which I later learned was the Aboukir. There was a fountain of water, a burst of smoke, a flash of fire, and part of the cruiser rose in the air. I submerged at once. The Cressy and the Hogue turned and steamed to their sister ship. As soon as I reached my torpedo depth I sent a second charge at the Hogue. I had scarcely to move out of my position, which was a great aid since it helped to keep me from detection. The attack went true, the Hogue half turned over and then sank. The third cruiser stood her ground as if more anxious to help the many sailors who were in the water than to save herself. When I got within suitable range I sent away my third attack. This time I sent a second torpedo after the first to make a hit doubly certain. My luck was with me again, for the enemy at once began sinking by the head. All the while her men stayed at their guns looking for their invisible foe. They were brave, true to their country's sea traditions. Then she turned turtle.

Hawke,
Hermes,
and Niger
tor-
pedoed.

On October 16th, a fifth British cruiser, the Hawke, was torpedoed with large loss of life. She also fell a victim to U 9. On the 17th, the Admiralty issued the following:—

H.M.S. Theseus (Captain Hugh Edwards, R.N.) was attacked by submarines in the northern waters of the North Sea yesterday afternoon, but was missed. H.M.S. Hawke (Captain Hugh P. E. T. Williams, R.N.) was attacked at about the same time, and was sunk. The following officers, together with 49 men of the crew, have been landed at Aberdeen from a trawler:—Mr. Sidney Austin, boatswain; Mr. James Dennis, gunner; Mr. Harry C. T. Evitt, acting-gunner. The remaining officers and men are missing.

The Hawke was employed upon examination duties in northern Scottish waters, and this particular work entailed large risks from the submarines owing to the circumstance that the ships thus engaged had to lower their boats to carry out the duties of inspection and search. Knowing this, it was the practice of the German submarines to accompany some larger surface vessel which might attract the attention of the examining ship and bring her within reach of the torpedo. Whether this happened in the case of the Hawke seems uncertain, but a vessel under neutral colours was in the neighbourhood just before the misfortune took place, and disappeared without rendering any assistance to the crew. It was on this occasion that the German submarines, by constant attacks, prevented a rescue of a number of the cruiser's men who had sought safety on a raft. Several times the British vessel approached the raft, only to be driven away by the submarine, while each time the number of men clinging to their frail support became fewer.

It may be as well, before returning to the general events which occurred in the North Sea, to give a list of the further losses which have taken place from torpedoes fired by submarines. On October 31st, a sixth British cruiser, the Hermes, Captain C. L. Lambe, which had been recently used as a seaplane carrying ship, was sunk by a torpedo fired by a German submarine in the Straits of Dover as she

was returning from Dunkirk. Nearly all the officers and crew were saved. On November 11th, the *Niger*, Lieutenant-Commander Arthur T. Muir, was torpedoed by a submarine in the Downs and foundered. All the officers and seventy-seven of the crew were saved; fifteen men were killed and two were wounded. The *Niger* was a torpedo gunboat of 810 tons, built in 1892. She was employed in semi-combatant duties. She was the seventh victim of submarine attack, and the last in 1914.

On January 1, 1915, the battleship *Formidable* was sunk in the Channel, whether by mine or submarine was not at once ascertained. In the House of Lords on January 7th, Lord Crewe announced that it was the definite opinion of the Admiralty that the *Formidable* was sunk by two torpedoes fired from a submarine. After the ship had been struck, Captain A. N. Loxley signalled to another ship in the neighbourhood not to stand by to help, but to keep off, because of the danger from the submarine. "That was a very gallant act," said Lord Crewe, "and worthy of the highest traditions of the British Navy." The *Formidable* remained afloat for two hours after being struck by the first torpedo, sinking about 4.30 a.m. Some forty of her crew got ashore at Lyme Regis after rowing in the ship's cutter for 20 hours, and seventy others were rescued in skilful manner by the Brixham trawler *Providence*. No other British men-of-war suffered in this way, until on May 1st the torpedoing of the destroyer *Recruit* brought the average loss of the British Navy from submarine attack up to one vessel per month for the first nine months of the War. This was the first British destroyer to be lost, and by her destruction the total displacement of warships sunk by submarines was raised to 59,545 tons, or at the rate of 6616 tons per month.

Loss of
the *For-
midable*.

The news of the last engagement in the North Sea during the nine months under review was contained in the following *communiqué* issued by the Admiralty on May 2nd:—

A series of small affairs took place in the neighbourhood of the *Galloper* and North Hinder Lightships on Saturday. During the forenoon H.M. destroyer *Recruit* was sunk by a submarine, 4 officers and 21 men being saved by the trawler *Daisy*. At 3 p.m. the trawler *Colombia* was attacked by two German torpedo-boats, who approached her from the westward, and commenced the action without hoisting their colours. The *Colombia* was sunk by a torpedo, only one deck-hand being saved by other trawlers. A division of British destroyers, comprising *Laforey*, *Leonidas*, *Lawford*, and *Lark*, chased the two German vessels, and after a brief running fight of about one hour, sank them both. The British destroyers sustained no casualties. Two German officers and forty-four men were rescued from the sea and made prisoners of war.

Supplementing the above, the Secretary of the Admiralty made, on May 3rd, the following announcement:—

After the destroyer action on Saturday afternoon strenuous efforts were made to rescue the German sailors, Lieut. Hartnoll going into the water himself to

save a German. In consequence, two officers and forty-four men, out of a total of fifty-nine, were picked up. The German prisoners stated that they had sunk a British trawler before being sighted by the *Laforey*, and that they picked up a "two-striped officer," i.e., a lieutenant, and two men. When asked what had become of them, they stated that their prisoners were below, and time was short. It must therefore be concluded that the officer and two men have perished.

Auxiliary
cruiser
Bayano.

One auxiliary cruiser, the *Bayano*, was also sunk by submarine. She was a vessel of 5948 tons, built at Glasgow in 1913, and owned before the War by Messrs. Elders and Fyffes, Ltd., who had a large fleet of steamers engaged in the West Indian trade. She was commissioned for naval purposes early in December by Commander H. C. Carr, and at the time of her loss was engaged on patrol duty. On March 11th, the wreckage of the vessel and bodies were discovered, and circumstances pointed to her having been sunk by an enemy's torpedo. Capt. McGarrick, of the steamship *Castlereagh*, of Belfast, stated that his ship passed that morning through a quantity of wreckage and dead bodies floating in lifebelts. He attempted to search the spot in the hope of saving any men who might still be alive, but was prevented by the appearance of an enemy submarine, which gave chase for about twenty minutes.

Losses of
personnel.

Regarding the number of officers and men lost in these ten cases of submarine attacks, an official statement, published on November 25, 1914, showed that 62 officers and 1397 men went down in the cruisers of the *Cressy* class; 26 officers and 499 men in the *Hawke*; 1 officer and 21 men in the *Hermes*; and 15 men in the *Niger*. In the *Formidable*, about 600 officers and men were lost; in the *Recruit*, 33, and in the *Bayano*, 200; making the total loss about 2854 officers and men. It will be noticed that over 2000 of these were lost in the first half of the period of nine months which is covered by the review. The lessons taught by the early mishaps had been appreciated by the Fleet, with the result that the movements and handling of the British vessels gave fewer chances to the enemy's submarines. High speed, coupled with frequent changes of course, were recognised to be necessary precautions against the attack of the under-water craft. One of the reasons assigned for the inauguration of the "blockade" of the British Isles by Germany on February 18th, when her submarines were ordered systematically to attack commercial vessels, was that by this time they had realised their inability to restrict the movements of our warships or make any diminution in our naval strength. Dealing with the submarine menace in his speech on November 28th, Mr. Churchill said:—

Submarines introduced entirely novel conditions into naval warfare. The old freedom of movement which belonged to the stronger Power is affected and restricted in narrow waters by the developments of this new and formidable arm. There is a difference between military and naval anxieties which the House will appreciate. A division of soldiers cannot be annihilated by a cavalry patrol. But at any moment

a great ship, equal in power as a war unit to a division of an army, may be destroyed without a single opportunity of its fighting strength being realised or a man on board having a chance to strike a blow in self-defence. It is necessary for the safety of this country, for the supply of its vital materials, that our ships should move with freedom and hardihood through the seas on their duties; and no one can pretend that anxiety must not always be present in the minds of those who have the responsibility for their direction. It is satisfactory, however, to reflect that our power in submarines is much greater than that of our enemies; and that the only reason why we are not able to produce results on a large scale in regard to them is that we are so seldom afforded any target to attack.

Thus the events of the first nine months of hostilities showed that the influence and effect of this species of warfare upon the general naval situation were not what the German naval authorities expected. The Admiralty Staff in Berlin were continually disappointed by their failure to impress the imagination of the British public by the ruthless manner in which it was carried out. The motive underlying each successive exhibition of "frightfulness," as the schemes for impressing the British people came to be known, was the same. It was hoped to bring pressure to bear indirectly upon the British Admiralty, so as to induce them to alter their plan of naval campaign and preconceived policy, and thus to afford some opportunity offering possibilities of successful action by the German Fleet. The war of attrition by mines and submarines, the raids on the East Coast by cruisers and airships, and the destruction of life and property in the mercantile marine, were all tried with a similar object. Attention may now be directed to the British part in this war of attrition, for it must not be overlooked that Germany's gains were all offset by mishaps to her own vessels. It has been shown that the extent of the damage done by mine and submarine was so comparatively small as to be almost negligible in any case, but when it is remembered that German vessels also suffered in this campaign of wear and tear, it will be realised that the promoters of it hopelessly failed in their undertaking.

THE NORTH SEA AND BALTIC.

Among the general public, and, indeed, in the case of many naval students, an impression prevailed that one of the earliest incidents of a war between Great Britain and Germany would be a naval battle which would probably be decisive of affairs at sea. In nearly all the pre-War literature, such a battle had been a prominent feature. Linked with this idea of a prompt challenge of British naval strength was a belief that Germany would forestall us in the matter of preparation, and that it would therefore be to her advantage to deliver what the German Emperor is said to have described as a splendid hussar-like stroke, and what in this country had been spoken of as a

bolt from the blue. Some people thought that, at the selected moment, from Germany's point of view such a stroke might prove effective. The majority, however, expected that while the British Fleet might lose heavily, the German would suffer still more so. In any case, there would be no further event of great importance in the North Sea. Whichever way the tide of fortune turned, the war was to be, in the rhetoric of after-dinner speakers, "short, sharp, and decisive."

As far back as 1894, I was permitted to explain in the *Naval Annual* why I thought this assumption ought not to be readily accepted as correct. "Sharp, in the sense of being violent and painful," I wrote, "we may confidently expect that the conflict will be, and, once begun, it can hardly terminate without being decisive, one way or the other, of the continued existence of the British Empire; but why it should necessarily be of short duration has yet to be explained. . . . We have . . . immense and unequalled resources at our back—resources which, if properly utilised, must have an enormous effect in determining the result of a war by sea; but time is needed to utilise them to the fullest advantage and extent. That we shall have the time is at least one of the aims which should be kept in view by those who are responsible for the defence of the Empire." That this aim was kept in view is now as manifest as anything can be, for when the declaration of war came, Germany's naval chiefs were faced with a situation which they had probably not anticipated. To act on the offensive without any preliminary rearrangement of their forces would have been to take a step which was hazardous in the extreme. Hence the advantage of initiative was lost to them.

Nevertheless, it was this belief in an early battle, and in other misconceptions of naval warfare, that led people to ask, "What is the Fleet doing?"—a question more frequently propounded, perhaps, in the early days of the War, and about the time that the Yarmouth and Scarborough raids occurred, than afterwards. Although not frightened, the public were certainly startled by the appearance of German cruisers within gunshot of the East Coast. The expression, "somewhere in the North Sea," used loosely to indicate the whereabouts of the British Fleet, although it had no official sanction, encouraged a notion that the Fleet stood between our coasts and those of Germany and prevented the High Sea Fleet from coming out. The actual conditions were very different. No attempt was made to keep the German Fleet in—the mines in the North Sea were laid by Germany herself, and whatever may have been the situation of the British Fleet, it certainly could not at all times be lying directly in

Popular
miscon-
ceptions.

the path of the would-be raiders. The functions of the patrolling squadrons and flotillas were also misunderstood. Movements and incidents which occur in land warfare were expected to have their analogies at sea, and the disappointment caused by their non-occurrence blinded many people to the marvellous results attained by the Fleet, almost without firing a gun.

If there were such a thing as public opinion in Germany, it is probable that a similar moan would have found expression there. After spending huge sums upon their Fleet, the German people might well wonder why it remained within the shelter of its fortified ports. But the German Fleet has, since the War began, been able to play an important and valuable part in the War. With the Kaiser Wilhelm Canal connecting the North Sea and the Baltic, it has been facing two fronts and protecting two lengths of coastline. It has, therefore, been fulfilling a strategical conception, and may continue to perform this work so long as it remains effective and ready to come out and fight.

Similarly, Russia has had by no means an entirely negligible naval force in the Baltic, and if there were no German Fleet to meet it this force might have been used to convoy troops to the German coast. In any consideration of the plans which have guided the German naval authorities in their conduct of the naval war, the North Sea and the Baltic should be treated as one theatre, the operations in which, at either end of the canal, were part of a single plan and co-ordinated one to the other. Owing, however, to our superiority over the enemy in the elements of naval force, his refusal to accept the challenge of battle has given this country the virtual command of the sea communications, and this, under the protection of the Fleet, has conferred inestimable advantages to the Empire and its Allies. Our people have suffered no scarcity of food. They have been saved from invasion and the violation of their shores. While German maritime commerce has collapsed, the trade of the Allies has continued its course practically unhindered. These are the substantial advantages derived from the possession of a supreme Navy able to dominate the situation.

Baltic and
North
Sea.

It seems necessary to add to this summary of the advantages obtained by a supreme Fleet that if it had been permitted from the beginning of the War to institute a real commercial blockade, not only would German industry have been paralysed, but the enemy would have been deprived of the raw material for the manufacture of munitions of war, and the economic consequence of such a strangulating grip would have helped to shorten hostilities. A further manifestation of the working of sea power as the paramount

factor of the War is found in the way it has secured for us and our Allies time and opportunity to use our wealth and resources in men and material to balance such advantages as Germany obtained in its many years of preparation for the conflict it has forced upon the world.

Heligo-
land
Bight.

Attention may now be drawn to many of the naval incidents which have occurred beyond those already mentioned in what has been described as the war of attrition. Although not a single battleship has been seen beyond a few miles from the German coast, her battle-cruisers have made fugitive raids to their own harm, and without the attainment of any military object, or influencing the progress of the War. On August 18th the following official statement was issued :—

Some desultory fighting has taken place during the day between the British patrolling squadrons and flotillas and German reconnoitring cruisers. No losses are reported or claimed. A certain liveliness is apparent in the southern area of the North Sea.

These movements indicated an intention to begin a species of guerilla warfare, as a number of British trawlers were sunk about this time and their crews captured. Then suddenly came the dramatic *dénouement*. The Admiralty, in a preliminary report on the evening of August 28th, said :—

Early this morning a concerted operation of some consequence was attempted against the Germans in the Heligoland Bight. Strong forces of destroyers, supported by light cruisers and battle-cruisers, and working in conjunction with submarines, intercepted and attacked the German destroyers and cruisers guarding the approaches to the German coast. According to the information which has reached the Admiralty so far, the operation has been fortunate and fruitful. The British destroyers have been heavily engaged with the enemy's destroyers. All British destroyers are reported afloat and returning in good order. Two German destroyers were sunk and many damaged. The enemy's cruisers were engaged by the British cruisers and battle-cruisers. The First Light Cruiser Squadron sank the Mainz, receiving only slight damage. The First Battle-Cruiser Squadron sank one cruiser (Koln class), and another cruiser disappeared in the mist, heavily fired on and in a sinking condition. All the German cruisers engaged were thus disposed of. The Battle-Cruiser Squadron, although attacked by submarines and floating mines, successfully evaded them and is undamaged. The Light Cruiser Squadron suffered no casualties. The British loss of life is not heavy. The commanding officers concerned in this skilfully-handled operation were Rear-Admirals Beatty, Moore, and Christian, and Commodores Keyes, Tyrwhitt, and Goodenough.

Two days later a further description of the engagement was issued by the Admiralty, in which the qualities of the new vessels engaged on the British side were extolled, and the efforts made by the British seamen to save the crews of the German ships, which had been sunk, were described. The total British casualties were reported as eighty-eight killed and wounded, among the former two officers of exceptional merit, Lieutenant-Commander Nigel K. W. Barttelot and Lieutenant Eric W. P. Westmacott. It was further stated that all the British

ships would be fit for service again in a week or ten days. The following passages are taken from this *communiqué* :—

The principle of the operation was a scooping movement by a strong force of destroyers headed by the *Arethusa* to cut the German light craft from home and engage them at leisure in the open sea. The *Arethusa*, leading the line of destroyers, was first attacked by two German cruisers, and was sharply engaged for thirty-five minutes at a range of about 3000 yards (under two miles), with the result that she sustained some damage and casualties, but drove off the two German cruisers, one of which she seriously injured with her 6-in. guns. Later in the morning she engaged at intervals two other German vessels which were encountered in the confused fighting which followed, and in company with the *Fearless* and the Light Cruiser Squadron contributed to the sinking of the cruiser *Mainz*. In these encounters the *Arethusa*'s speed was reduced to ten knots and many of her guns were disabled, and at one o'clock she was about to be attacked by two other cruisers of the German town class (*Mainz*, *Kohn*, etc.), when the Battle-Cruiser Squadron most opportunely arrived and pursued and sank these new antagonists. The success of this operation was due in the first instance to the information brought to the Admiralty by the submarine officers, who have during the past three weeks shown extraordinary daring and enterprise in penetrating the enemy's waters.

It was not until October 21st that the despatches of Vice-Admiral Sir David Beatty and other officers concerning this action were published.* Throughout the Empire, this record of stirring events and gallant deeds was read with pride and satisfaction. The narratives set forth succinctly the achievements and exhibited the enterprise, daring, and resource of those who had been concerned. There was evidence of the skill, coolness, and courage displayed during this engagement. Commodore Tyrwhitt, who commanded the destroyer flotillas in the *Arethusa*, describes the earlier incidents of the action, in which his vessel received considerable damage, after having inflicted with her consorts loss upon the enemy. Sir David Beatty reports the receipt of signals from Commodore Tyrwhitt and Commodore Keyes that they required assistance, and how he ordered the Light Cruiser Squadron to support the torpedo flotillas. This squadron, on coming into action, reduced the *Mainz*, which, with several other German big cruisers, made her appearance. Admiral Beatty now decided that the moment had arrived for the completion of the concerted movement between his battle-cruisers and the smaller vessels. As he says in his despatch, it was evident that to be of any value the support must be overwhelming and carried out at the highest speed possible. He had already frustrated the submarine attack upon his squadron by rapid manœuvring, and he trusted to the high speed of his cruisers and the smoothness of the sea to make further attack of this kind difficult. At half-past eleven, or four and a half hours after the issue was first joined, he worked the battle-cruisers up to full speed and proceeded in the direction of the firing. An hour later he opened fire on a cruiser of the *Kolberg* class, and

Heligo-
land des-
patches.

* These documents are given in Part IV.

then sighted the *Ariadne*, when the *Lion* fired two salvos at her and she disappeared into the mist, burning furiously, and in a sinking condition. Later on, the *Lion* sank the *Köln*, and the rest of the German vessels fled. Noticeable features in this dashing little action were the excellent co-operation of all the classes of vessels concerned, the splendid fighting of the men, the most capable leading, the excellent marksmanship of the gunners, the crushing power of the battle-cruisers, the valuable qualities of the *Arethusa* class, and the new destroyers, with the extraordinary activity of the submarines in a sea engagement. Apart from their material and other losses, the chief importance of the affair rested in the moral effect the sound drubbing they were given had upon the German seamen. It was a long time before they again risked an engagement in force.

Some of the successes of the German submarines have already been described, but in this novel form of warfare, when their much smaller opportunities are remembered, the achievements of the British submarines showed that they were equally ready by skilful handling and resourcefulness to utilise this new product of scientific invention.

Successes
of E 9.

To submarine E 9, commanded by Lieutenant-Commander Max K. Horton, belongs the honour of the first score to a British submarine. Almost under the guns of Heligoland, she attacked the cruiser *Hela*, employed as yacht of the Commander-in-Chief, and torpedoed her. The official account merely recorded the fact on the return of E 9 to Harwich harbour. From another source it was learnt that, early on the morning of September 13th, Lieutenant-Commander Horton's boat, with another submarine, was scouting in German waters when the *Hela* was observed close in to the German coast. Keeping within range under water, and sighting through the periscope, two torpedoes were fired, one of which struck the vessel amidships. The cruiser burst into flames, and sank within an hour, most of her crew being apparently rescued by merchant vessels which were in the neighbourhood. Lieutenant-Commander Horton in the same boat also torpedoed and sank, on October 6th, the German destroyer S 116 off the mouth of the Ems. For his achievements he was awarded the D.S.O. in the *Gazette* of October 21, 1914. The brilliant work of E 9 not only illustrates the deadly nature of the submarine attack under favourable conditions, but also the value of these boats as scouts. The report of Commodore Roger Keyes, issued with the despatches on October 21st,* describes the services performed by the submarines during the first ten weeks of the War. It will be seen that almost directly after the outbreak of war these boats carried out scouting work in the Heligoland Bight,

* See his report in Part IV.

returning with useful information. During the transportation of the Expeditionary Force they maintained day and night, without relief, positions from which they would have attacked the German Fleet had it shown any inclination to interfere with the passage of the transports. The submarines also continually occupied the enemy's waters and reconnoitred his anchorages, and during the engagement in the Heligoland Bight the officers in command of the submarines handled their vessels with coolness and judgment in an area which was occupied by friends as well as foes. Several gallant actions are described by the commodore, most creditable to the commanding officers of the boats, all of whom, and the men under their command, he reports as having performed their duties most admirably. On many other occasions, and especially in the Cuxhaven raid, described later, these submarine boats continued to afford evidence of their value and utility.

From the very beginning of the War, the news which came from the Grand Fleet* was scanty, and very seldom indeed have the Admiralty referred to the doings or whereabouts of the ships under Sir John Jellicoe's command. During the long period of waiting and watching, the seamen, often under most discomforting and strenuous conditions, have been ever expectant of action but deprived of its inspiration. They have, however, borne with patience and endurance the strain upon nerve and muscle occasioned by their work. Mr. Churchill, on more than one occasion, referred to the fact that the health of the Fleet was never better, and it is clear that not only was the news of war received with the greatest enthusiasm, but that both fore and aft in the ships there was a sense of relief from the period of tension which preceded it. The Commander-in-Chief, in a letter which he sent to Lady Jellicoe to be read at a meeting for the wives and families of men afloat, thus spoke of the magnificent spirit which prevailed in the ships under his command:—

Spirit of
officers
and men.

The Navy has not yet as a whole had an opportunity of showing that the old spirit which carried us to victory in the past is with us now, but where our men have had the opportunity of fighting the foe above the water they have shown that they possess the same pluck and endurance as our comrades ashore. Nothing can ever have been finer than the coolness and courage shown in every case where ships have been sunk by mines or torpedoes; discipline has been perfect, and men have gone to their death not only most gallantly, but most unselfishly. One heard on all sides of numerous instances of men giving up on these occasions the plank which had supported them to some more feeble comrade, and I feel prouder every day that passes that I command such men. During the period of waiting and watching they are cheerful and contented in spite of the grey dulness of their lives. I am sure you will tell the wives and children and sisters of our men of the spirit that prevails, and I know that it will make them all desire to show in their own lives that they are dominated by the same spirit to do the best they can for their country, so that they may be worthy of their menkind, of whom it is impossible to say too much.

* See Diary, August 28, 1914, p. 68.

On September 10th the Admiralty issued the following laconic note:—

Yesterday and to-day strong and numerous squadrons and flotillas have made a complete sweep of the North Sea up to and into the Heligoland Bight. The German Fleet made no attempt to interfere with our movements, and no German ship of any kind was seen at sea.

Although this announcement is almost the only reference that has been made since the War began to the movements of the Grand Fleet, it is understood that similar operations have taken place at frequent intervals, and the difficulties and dangers of the movement amid mines and submarines will be realised when the space covered by squadrons and flotillas co-operating in large numbers is recognised. It may be repeated that at no time during the nine months of war has any attempt been made to keep the German Fleet from coming out, and it would be a mistake to suppose that the North Sea had always been covered with lines of patrols. Yet, at the same time, few movements of the enemy can have taken place without the knowledge of the naval authorities. On those occasions when squadrons of the enemy have attempted to cross the intervening waters between their coasts and those of the British Isles, they have always been watched, and only adverse conditions of weather have prevented them from meeting the same fate which befell the light cruisers on August 28th.

German
destroyers
sunk.

An illustration of this constant watchfulness was given by the engagement on October 17th off the Dutch coast. Captain Cecil H. Fox, late of the *Amphion*, in the new light cruiser *Undaunted*, with four destroyers, the *Lance*, *Lennox*, *Legion*, and *Loyal*, was on patrol duty when four German boats were sighted. They proved to be S 115, S 117, S 118, and S 119. These vessels formed the remainder of a half flotilla of five boats which had been scouting off the mouth of the Ems, and of which S 116 had been sunk by submarine E 9 on October 6th. It has been alleged that the *Ophelia*, masquerading as a hospital ship, was scouting for this flotilla at the time she was captured by the British destroyer *Meteor* on October 18th. On sighting the boats, the British vessels at once manœuvred to cut off their retreat, and the action lasted about an hour. All the vessels were sunk, and some of the survivors, to the number of 31, were picked up by the British boats. The *Loyal* was the only one of the British destroyers to be struck by shell fire, and her casualties amounted to one officer and four men wounded.

Belgian
coast.

One of the chief examples of amphibious warfare afforded during the first nine months of the campaign was seen in the use of a number of warships for the bombardment of the right of the German Army's

position on the Belgian coast. In this operation a squadron of semi-obsolete war vessels, as well as the three monitors which were purchased at the beginning of the War, were employed. On October 23rd, the Admiralty announced that on the 18th of that month requests for naval assistance were made by the Allied commanders. In response to this appeal, a naval flotilla, mounting a large number of powerful long-range guns, came into action at daybreak on the 19th off the Belgian coast, supporting the left of the Belgian Army and enfilading the German attack. A heavy bombardment of the German flank was maintained, observation being arranged from the shore by means of naval balloons, and the fire was well-directed and effective against the batteries and heavy guns. Further reports of the work of this naval flotilla assisting the Belgians in Flanders were issued in October and November. This squadron, though never attacked by surface vessels, was continually harried by the enemy's submarines and aeroplanes, and by their siege guns and howitzers, but owing to the skilful handling of the vessels no ship was placed out of action, and the naval losses were comparatively small. To the value of the work King Albert and the Belgian War Minister bore witness. On April 13, 1915, the Admiralty issued the despatch of Rear-Admiral the Hon. Horace L. A. Hood,* reporting the proceedings of the flotilla. In this work the French Navy co-operated, and Rear-Admiral Hood, when it became necessary to send his own ship to England for repairs, hoisted his flag in a French destroyer and led the flotilla into action off Lombartzyde. The greatest harmony and enthusiasm existed between the seamen of the Allied navies. The movements of the German troops along the coast roads from Ostend to Nieuport were checked, and when reinforcements for our Allies arrived, and the country around Nieuport was inundated, the further presence of the flotilla was unnecessary. A correspondent describing this work said :—

Certain ships, however, were used on later occasions as required. They have time after time made the voyage across the North Sea, engaged positions that the Germans had strongly fortified, destroyed batteries, caused great loss of life amongst the enemy's troops, and returned safely to port. These operations have had especial value in the destruction, or partial destruction, at any rate, of the submarine base that the Germans were creating at Zeebrugge. The destruction of German batteries to a radius of several miles inland has also enabled the Allied troops to make appreciable advances. Some of the batteries which were engaged were mounted two or more miles inland, and consisted of heavy guns.

A gratifying feature of the operations also has been the fact that remarkably few casualties have been sustained by the warships, and this in spite of the fact that the destroyers and monitors have frequently been engaged at very close range. The German submarines have on several occasions endeavoured to make their presence felt during these bombardments, but the destroyers have very effectively protected the heavier vessels engaged in the work of destroying the German defences, and have driven off the attacking submarines.

* This document is given in Part IV.

It is a feature well worth noting that the Germans have never attempted to attack the bombarding Fleet from the sea except by submarines. The German Army has not been able to obtain the least assistance from their powerful navy whilst this destruction of positions on their right wing and the disastrous loss of life accompanying it has been proceeding. The fleet of warships was described in an Admiralty message as not of considerable military importance, but it has made its weight felt, and its achievements are exceedingly creditable to officers and men alike.

German
raids.

It has been a marked feature of the policy of Germany to attempt to shake the confidence of the British public, and by acts of "frightfulness" to create an anxious feeling in the country which might interfere with the continued transfer of troops to the seat of war in Flanders and elsewhere. In accordance with this policy, several raids were made upon the English coast in the months of November, December, and January. On the first occasion, an enemy's squadron appeared off the coast of Essex on November 3rd, and fired on the *Halcyon*, a Coastguard gunboat. This vessel reported the presence of the enemy, and various naval movements were made. As a result the German squadron retreated rapidly, shadowed by our ships, and in its retirement the rear-most German cruiser threw out a number of mines. Submarine D 5, running awash, was sunk by the explosion of one of these, and the crew, with the exception of two officers and two men, were drowned.* This abortive raid fulfilled no military purpose, and if it was intended, as may be assumed, to have a moral effect by creating a scare on the East coast, it altogether failed in its object. This visit was the first time that German ships had been seen in the North Sea for over two months.

On December 16th another German cruiser force made a similar raid on the Yorkshire coast, but on this occasion they shelled the towns of Hartlepool, Whitby and Scarborough. The enemy was engaged by the patrol vessels, and a squadron endeavoured to cut them off. The Germans, however, retired, as in the former instance, at full speed, and favoured by the mist succeeded in making good their escape. The patrol vessels suffered some small loss. There were also casualties among the troops and in the land batteries at Hartlepool, and both there and at the other towns damage was done to buildings, and there were a number of deaths and injuries among the civil population. At all three places there was an entire absence of panic, and the Admiralty announced that though they regretted the circumstances, these must not be allowed to modify the general naval policy which was being pursued. The vessels used on both these occasions were the fastest cruisers in the German Navy, and it was no surprise to those who had studied the subject that such vessels

* The names of the drowned in this vessel, as of all officers and men who lost their lives in action during the first seven and a half months of the War, were given in the official "Navy List" for April 1915.

should be able to cross the North Sea at night and turn up by daylight at any point on the East coast not further distant than approximately 300 miles. Numerous as the British patrolling vessels were, they could not have been in sufficient numbers to ensure such a runaway visit being observed. Moreover, no military result of any value could be obtained by such a raid, not could it be performed without considerable risk. Its only consequence in this country was to strengthen the feeling that a nation who conducted warfare in such a brutal fashion must be made to pay the penalty. At the time of the Yarmouth visit the Germans lost the armoured cruiser *Yorck*, which it was supposed was returning from the English coast, though doubt exists on this point. The *Yorck* was stated by the Germans to have struck a chain of mines blocking the entrance to Jähde Bay on the forenoon of November 4th, or the day after the futile descent on Yarmouth. Nearly 400 of her crew were saved, but Captain Behncke, by whom the communication was signed, added that the work of rescue had been difficult owing to a thick fog. The *Yorck* was the first armoured cruiser lost by the Germans in the War. A court-martial sat to investigate the facts of the loss at Wilhelmshaven on December 23rd, and sentenced Captain Pieper to two years' detention in a fortress for disobedience to an order and negligence, while Commander Cleve was sentenced to one year's imprisonment.

These German raids were foolish and unsatisfactory as warfare. They only angered our population, and made more firmer their resolve, but they seem to have whetted the German appetite for blood, for five weeks later another attempt was made of a similar character. On this occasion, destroyers accompanied the Battle-Cruiser and Light-Cruiser Squadrons, which were sighted early on the morning of January 24th by a British patrolling force under Vice-Admiral Sir David Beatty, apparently making for the English coast. As soon as they realised their position, the enemy headed for home at high speed, and were at once pursued by the British squadron. A running fight ensued, and shortly after one o'clock, the *Blücher*, the sternmost ship of the German line, capsized and sank. Two other of the German battle-cruisers, the *Derfflinger* and *Seydlitz*, were seriously damaged, but they were able to continue their flight, and reached an area at which further pursuit was inexpedient. The following preliminary telegraphic report was received from the Vice-Admiral* :—

Battle-cruiser action.

A flotilla of destroyers, patrolling about 7.30 a.m., first sighted and attacked the enemy, whose force, according to reports received, consisted of four battle-cruisers, six light cruisers, and some destroyers. Their positions when sighted were approximately fourteen miles east-south-east of the Battle-Cruiser Squadron.

* The Admiral's despatches, published on March 3, 1915, are given in Part IV.

Orders were given by signal to the destroyer flotilla to chase the enemy and to report their movements, as it appeared they at once commenced to retire to the east-south-east. The battle-cruisers were directed to steer south-east with a view to securing the position and cutting the enemy off if possible. The situation developed by degrees into a stern chase. Speed was worked up to twenty-eight or twenty-nine knots, and the enemy were gradually being overhauled. At about 18,000 yards slow and deliberate firing was opened, and we began to hit at a range of 17,000 yards. Our fire was returned by the enemy. The *Lion* and *Tiger* having drawn ahead of remainder of squadron, were in action alone for some time, and consequently were subjected to the enemy's concentrated fire, more particularly the *Lion*, which ship suffered more as the result. The other vessels as they drew up engaged the enemy. The German flotilla of destroyers was disposed on the starboard beam of their cruisers, and an attack by them was driven off. At about 11 o'clock, unfortunately, a lucky shot damaged one of the *Lion's* feed tanks, causing the port engine to be stopped. At the same time enemy submarines were observed on the starboard bow, and a course was steered in order to avoid them. The *Blücher* was now in a critical condition, with her speed reduced, and the *Indomitabile*, which had now come up, was directed to complete her destruction. The rest of the squadron were directed to attack the rear of the enemy. The *Lion*, with an escort, steered to the north-west, steaming with one engine, and I transferred my flag to one of the destroyers, and subsequently to the *Princess Royal*. Through the damage to the *Lion's* feed tank by an unfortunate chance shot, we were undoubtedly deprived of a greater victory. The presence of the enemy's submarines subsequently necessitated the action being broken off. The result of the action was *Blücher* sunk, and two other battle-cruisers very heavily on fire and seriously damaged. The German prisoners reported that the *Kolberg* had been sunk by over-salvoes from our squadron. Subsequently the starboard engines of the *Lion* also developed trouble from the same cause as the port engines, and the *Indomitabile* took her in tow and brought her into port. The damage to *Lion* and *Tiger* is in neither case serious, and repairs can be completed in a short time. The remainder of the squadron were not hit. The casualties were very slight. The death of Engineer-Captain Taylor, whose services were invaluable, is deeply regretted. The behaviour of the officers and men was only what was expected, and great credit is due to the engine-room staffs for the fine steaming of the squadron.

No further movements of importance occurred in the North Sea, after this raid, during the first nine months of the War. In the place of raids by sea, the enemy took to sending airships over to the English coast, and visited Yarmouth, the Tyne, Essex, and other districts. The attempts upon the fighting fleet having failed, a war upon commerce in home waters was threatened, and will be described in its place. Nor were the operations in the Baltic of large importance. A demonstration was made off Libau on August 2nd, when the *Augsburg* shelled the port. Desultory actions occurred during the next few weeks, in which the Russians sustained no losses, but the Germans suffered by the stranding of the *Magdeburg* in the Gulf of Finland, this cruiser having to be blown up to prevent her being captured. The Headquarters Staff in Petrograd reported, on October 2nd, that during the first two months of war no Russian ship had been lost or damaged, thanks to the incessant efforts of the officers and men in baffling all the German schemes. On October 11th, however, the German submarines were successful in sinking the cruiser *Pallada* in similar circumstances to those in which the British cruiser *Hawke* was lost. The *Pallada* was torpedoed off the Gulf of Finland, and went down with her crew.

* Airship
raids and
other
incidents.

The Admiral Makaroff had been attacked on the previous day without success while engaged in searching a suspicious-looking trawler flying Dutch commercial colours. The good work accomplished by the Russian Navy in the Baltic was the subject of a message of congratulation sent by the Tsar on October 25th to Admiral von Essen. This message expressed "gratitude for your activity in this autumnal season in keeping the sea among dangers from mines and submarines. Thanks to its skill and endurance, the Baltic Fleet had fulfilled successfully its task of guarding the littoral of the capital and in supporting the armies on land."

THE MEDITERRANEAN AND NEAR EAST.

There were only two vessels of the German Navy in Mediterranean waters when war began, the battle-cruiser Goeben and the light cruiser Breslau, both of which had been despatched to Turkish waters in the autumn of 1912. On the morning of August 4, 1914, they appeared off Phillippeville and Bona, two Algerian towns, and bombarded them with slight damage. They were next reported at Messina on August 5th, and left there on the evening of the following day, eluding the British and French vessels awaiting them in the vicinity, and arriving safely in the Dardanelles on August 10th. The light cruiser Gloucester, Captain W. A. H. Kelly, came up with them and opened fire, which was returned by the Breslau, while the Goeben turned and fired a torpedo; but the Gloucester gallantly hung on until recalled, and evidently fearing the arrival of other British ships, the Germans continued their flight. Soon after reaching the Dardanelles, it was announced that they had been bought by Turkey, whose quibbling action in regard to them was described in official papers issued by the Foreign Office on November 1st. The arrival of the two cruisers precipitated Turkey's action in declaring war.

In the Adriatic, the Austro-Hungarian Fleet was effectively contained during the months under review by the Franco-British Fleets under the command of Admiral Boué de Lapeyrère, who, it was officially announced on August 30th, had assumed the supreme command in the place of Sir A. Berkeley Milne. The conduct and disposition of the last-named officer in regard to the Goeben and Breslau was the subject of examination by the Admiralty, who "approved the measures taken by him in all respects." His second-in-command, Rear-Admiral E. C. T. Troubridge, was recalled to England on September 20th for an inquiry to be held into the circumstances of the escape of the German cruisers from Messina, and, as a result of this investigation, which was made by Admirals

The
Adriatic.

Sir Hedworth Meux and Sir George Callaghan, Rear-Admiral Troubridge was tried by court-martial on November 5th and the days following, and on the 12th it was announced that he had been acquitted. Under Admiral Boué de Lapeyrère the Franco-British Fleets have preserved their control of the Adriatic, and have been as unaffected in their strength by the war of attrition pursued by the Austrians as the Grand Fleet in the North Sea. On August 16th a sweep up the Adriatic was undertaken with success, the battleships proceeding along the Italian shores and the cruisers and destroyers along the eastern side, a junction being effected near Cattaro. The only enemy ships seen were the light cruiser Zenta and two destroyers, which attempted flight, but the former was sunk in about fifteen minutes with the greater part of her crew.

Mines were laid early by the Austrians, but no losses were incurred by them among the Allied ships, although they were the means of destroying the Austrian liner Baron Gautsch and the Austrian torpedo-boat No. 19. The submarines of the Austrian Navy were scarcely more successful. They inflicted no loss on the Allied Fleets beyond damaging the battleship Jean Bart, until, on the morning of April 27th, the French armoured cruiser Léon Gambetta was torpedoed at the entrance to the Otranto Straits, going down in ten minutes with the greater part of those on board her, including Rear-Admiral Senès. One Austrian submarine was said to have been sunk by the Waldeck Rousseau on October 17th. On the other hand, a French submarine, the Curie, attempting to enter the harbour of Pola, became entangled in some obstruction and had to come to the surface, when she was captured. This took place on December 28th. The vessel was subsequently renamed the Zenta by the Austrians, after the vessel they had lost.

A bombardment of Cattaro was begun in August, and has continued intermittently, the Montenegrins co-operating in this operation with artillery on Mount Lovtchen. Certain of the islands in the Adriatic were bombarded and occupied by the Allied forces. The operations in this theatre have thus been, on the whole, devoid of important events, but this state of affairs has been, of course, entirely to the advantage of the Allies, whose ascendancy over the Austro-Hungarian Fleet has preserved the freedom of the Mediterranean, and rendered secure the important communications and commercial interests in its waters. French and British troops have been transported in safety from Africa, India, Australasia, and other parts of the world, and it has been a striking fact that no merchant ship of the Allies has been captured or destroyed in the Mediterranean.

War was declared between Great Britain and Turkey on November 5th. Some days before this, the Turco-German cruisers Breslau and Hamidieh had bombarded Russian coast towns and destroyed shipping in the Black Sea, and the result of this provocation was that a Franco-British squadron bombarded the Dardanelles on November 2nd, on which day also the *Minerva* appeared off Akaba, in the Red Sea, and shelled the forts and barracks there. On November 8th the town of Fao, at the mouth of the Shatt-el-Arab, at the head of the Persian Gulf, was bombarded, captured, and a military force landed from India, which, on November 21st, advanced to and occupied the important town of Basra. In the Black Sea there were further engagements between the Turkish vessels, including the *Goeben* and *Breslau*, and the Russian ships, in one of which the *Goeben* was disabled, with the result that the command in those waters passed into the hands of the Russians and remained with them, in spite of some further efforts of the Turks to regain it. Nothing further occurred in this theatre until February 19th, when the Allied Fleets bombarded and destroyed the forts at the entrance to the Dardanelles, a move which indicated that some larger undertaking was in contemplation. On December 11th, however, the British submarine B 11, in effecting a reconnaissance, pushed through the Straits as far as the harbour of Nagara, passing successfully under five rows of mines, and there torpedoed the Turkish battleship *Messoudieh*. For the accomplishment of this dangerous and difficult exploit, her captain, Lieutenant Norman D. Holbrook, was awarded the V.C., and his second-in-command, Lieutenant Sydney T. Winn, the D.S.O. On March 18th a further operation in connection with the forcing of the Straits was put into execution, in the process of which, although the forts were silenced, two British battleships, the *Irresistible* and *Ocean*, were sunk, and one French battleship, the *Bouvet*, with nearly all on board. These losses were caused by floating mines. It was made clear by the occurrences of this day's work that the further prosecution of the undertaking would need the co-operation of an expeditionary force, which has since been landed and employed in the Gallipoli peninsula. The events connected with this enterprise are still proceeding at the moment of writing, and cannot, therefore, be dealt with in detail.

Turkey
enters the
War.

COMMERCE RAIDING AND THE GERMAN COLONIES.

That Germany had made great preparations in advance for a raid on British commerce, when it suited her purpose to go to war, had long been suspected. As soon as hostilities began, clear proof was

afforded of the elaborate and far-reaching arrangements she had made for this object. The cruisers she had on different stations proceeded to their assigned war rendezvous, where they were met by colliers and supply ships from neutral harbours. From these harbours also, as well as from German ports, a number of ocean liners, the fastest vessels of the German mercantile marine, some of which had already their guns on board, left for selected localities on the trade routes. Von Tirpitz and his agents in this country had always denied that these ships carried their armaments in peace-time, but conclusive proof to the contrary was now forthcoming. Several of these liners were converted into raiders on the high seas, and those not already supplied with guns took them from the smaller war vessels which had no effective fighting value. Altogether some twenty commerce destroyers made their appearance in the early days of the War. They were supplied with information as to the movements of the Allied trade by wireless messages from the German merchant ships which had been driven off the seas, and were able to increase their potentiality for mischief by using captured vessels as scouts or decoys.

German
com-
merce-
raiding.

Fortunately, the measures which the Allies were able to take for the protection of their interests afloat reduced the depredations of the raiders and frustrated the German scheme. The British and French squadrons were at once increased, and certain concentrations took place, of which little was revealed. The objects in view were three-fold: (1) to ensure the safety of the trade; (2) to strangle the commerce and capture the colonies of the enemy, thus depriving the raiders of their bases of supply; and (3) to provide safe transit for the transport of troops from the Dominions and India, as well as oversea garrisons. All these objects were successfully achieved, and in the short space of eight months the enemy was forced to admit that the pre-arranged plan of war against commerce by raiding on the oceans had entirely failed.

Of the deadly nature of the menace to shipping from the enemy corsairs and armed merchantmen which were at large evidence was speedily given. The news of the first captures, which included the taking of the City of Winchester by the Königsberg, off Socotra, two days after war began, was not slow in coming, but it made no serious impression upon the mercantile community or the public generally. As part of the work of the Committee of Imperial Defence a scheme of State insurance against war risks had been drawn up, and this was now put into operation. It proved most effective in preventing financial loss, or the speculation that might have followed the fluctuations of the raiders' gains. The Admiralty also, on October 23rd,

explained the measures they had taken to hunt down the commerce destroyers. Over seventy cruisers, not including armed merchantmen, were searching for the corsairs, but it was pointed out at the same time that "the vast expanses of sea and ocean, and the many thousand islands of the archipelagos, offer an almost infinite choice of movement to the enemy's ships." Of the raiders, the most successful was the *Emden*, which started on her cruise from Kiaochau just before war was declared, but fully apprised of what would be required of her. Placing herself on the trade routes to China and Australia, and cruising alternately in the Bay of Bengal and Indian Ocean, she succeeded in sinking seventeen vessels, valued at a little over two millions sterling. She was caught on November 9th at Keeling Island, in the Cocos group, destroying the wireless station, by the *Sydney*, Captain J. C. T. Glossop, of the Royal Australian Navy, and after a stubborn resistance was driven ashore and burnt, with heavy loss. The *Karlsruhe*, another light cruiser, operating in the Atlantic, also sank seventeen steamers, representing a value of a little more than a million and a half sterling. Her end is a mystery, but she is supposed to have been destroyed by an explosion, after a mutiny of her crew, in the West Indies, at the beginning of November. Of the other cruisers, four, including the two armoured vessels *Scharnhorst* and *Gneisenau*, were destroyed in the battle off the Falklands on December 8th, and the *Dresden*, which escaped from that battle, was engaged and sunk by a British squadron off Juan Fernandez on March 14th. None of these cruisers, however, had very much success. Similarly, only two of the armed merchantmen succeeded in making large hauls. The *Kronprinz Wilhelm*, which escaped from New York on the day before American neutrality was proclaimed, sank thirteen ships, of the value of a little over a million sterling; and the *Prinz Eitel Friedrich*, which, like the *Emden*, began her career at Kiaochau, sank eleven vessels, representing about three-quarters of a million sterling. Most of her captures were sailing vessels, including the barque *William P. Frye*, belonging to the United States. These cruisers have been interned at Newport News.

Of the actions at sea which grew out of this attack upon commerce, one must be regarded as a great misfortune for the British Navy. It is essential to the success of such raiding operations that they should be supported by a strong force, capable of acting against the defending squadrons and obliging these to be of a certain strength. When the two armoured cruisers *Scharnhorst* and *Gneisenau* were known to be in the Pacific, a squadron consisting of the *Good Hope*, to which Rear-Admiral Sir Christopher Cradock transferred his flag

The
Colonel
action.

from the Suffolk, with the Monmouth, armoured cruiser, Glasgow, light cruiser, and the Otranto, auxiliary cruiser, proceeded into those waters to co-operate with other squadrons of the Allies in the pursuit of them. It was due to the presence of the battle-cruiser Australia in the Western Pacific that Admiral von Spee, who commanded the German squadron, was forced to cross into South American waters. Here on November 1st he met Admiral Cradock's squadron off Coronel, and an action ensued, in which the two British armoured cruisers were sunk after a most gallant defence. An official report of the action was given by Captain Luce of the Glasgow, which, as well as the Otranto, escaped.*

The
Falkland
Islands
battle.

The British seamen who were lost with Admiral Cradock were speedily avenged. Vice-Admiral Sir F. C. Doveton Sturdee, hitherto Chief of the War Staff, left England on November 11th with the battle-cruisers Invincible and Inflexible. Picking up a number of other vessels in the Atlantic, he arrived at Port Stanley, in the Falkland Islands, on December 7th, when including the two battle-cruisers he had five armoured vessels and two light cruisers under his command, with the battleship Canopus. Early next morning the German squadron came in sight, evidently with the intention of attempting the capture of the islands, and von Spee found, to his great surprise, a superior force awaiting him. The battle which followed is fully described in Admiral Sturdee's despatches.† The Scharnhorst and Gneisenau were sunk by the two battle-cruisers Invincible and Inflexible and the armoured cruiser Carnarvon; the Nürnberg by the armoured cruiser Kent, and the Leipzig by the light cruiser Glasgow; while to the light cruiser Bristol was allotted the task of destroying the transports which accompanied the squadron. This important action not only removed the only force of any material strength which Germany had in the outer seas, but deprived the raiders of the support necessary to the success of their operations, and practically ended the war against commerce.

German
armed
merchant
ships
destroyed.

Two other actions must be mentioned. The Cap Trafalgar, a German armed merchant ship, met on September 14th the Carmania, a British armed merchant ship, and after a brilliant duel, which lasted for an hour and three-quarters, the enemy was sunk. This was the only action of its kind which occurred during the first nine months of the War. The ships were fairly matched, the action was well contested, and the Carmania sustained some damage, but owing to her skilful handling by Captain Noel Grant and the clever marksmanship of her gunners victory was achieved, and lustre was shed

* The Admiralty statement on this action will be found in Part IV.

† These documents are given in Part IV.

on the already bright renown of the British Mercantile Marine. The first of the German armed merchant ships to be destroyed was the Kaiser Wilhelm der Grosse, a 14,000-ton vessel of the Hamburg-Amerika line. This cruiser had been operating on the South Atlantic route, but without very great success, when she was surprised at anchor off the Oro River, on August 26th, by the light cruiser Highflyer, Captain H. T. Buller, and sunk.

With the exploits of the German commerce raiders, the operations connected with the capture of Germany's oversea possessions should be associated. Until these had been occupied, the wireless stations, coaling depôts, and supply establishments they contained could be made use of by the enemy. Measures were taken, therefore, very early in the War to deprive the Germany Navy at large of their benefit. In the Pacific, the German islands were seized by military forces conveyed by warships, the Dominions supplying the troops, while the ships of the Japanese Navy lent valuable assistance both in the convoy of the expeditionary forces and the capture of the islands. Samoa was taken by a New Zealand force, the British flag being hoisted on August 31st. This achievement involved a sea voyage of over 2000 miles, which was accomplished without interruption. Similarly, a force from the Commonwealth of Australia captured on September 12th, after some severe fighting, the town of Herbertshöhe, in the New Pommern Island, the seat of the Governor of German New Guinea, at which the garrisons of the various islands under his control had concentrated. The troops from Australia afterwards occupied the other islands practically without opposition, including Nauroh, with whose capture on September 22nd the last German wireless station in the Pacific fell into British hands.

Pacific
pos-
ses-
sions of
Germany.

As regards the German possessions in Africa, several expeditions of a conjoint naval and military character are still engaged in their conquest. In German East Africa, the principal town of Dar-es-Salaam was shelled by the light cruisers *Astræa* and *Pegasus* on August 8th, the wireless station and the gunboat *Moewe* being destroyed. On September 20th the German cruiser *Königsberg* retaliated by destroying the *Pegasus*, which was surprised when at anchor and under repair in Zanzibar Harbour, the range of the newer guns in the former vessel enabling her to keep out of danger. The crew of the *Pegasus* made a most gallant resistance, lost heavily, and refused to surrender. A month later, the *Königsberg* was herself driven to take shelter in the Rufigi River, where she was shelled by the *Chatham*, *Weymouth*, and, subsequently, the battleship *Goliath*, and rendered useless. After a further bombardment of Dar-es-Salaam, in some operations by the boats of the *Goliath* and

German
East
Africa.

Fox, on November 28th, the gallant conduct of Commander H. P. Ritchie, who, in spite of several wounds, continued to do his duty, won for him the V.C. A blockade of this coast was declared on February 26, 1915.

Other
German
pos-
sessions re-
duced.

In the military operations against German South-West Africa, undertaken by the troops of the Union of South Africa under General Botha, naval assistance has been given, but its nature has not been revealed. Higher up the West Coast operations were undertaken by Franco-British expeditionary forces against the Cameroons, with naval co-operation, the ships taking part including the British cruisers Cumberland and Challenger and gunboat Dwarf, and the French cruiser Bruix, and a blockade of the coast was declared on April 24th. The seaport of Lome, in Togoland, was seized in the first week of the War, and Kamina, containing the long-range wireless station of the colony, was captured some days later, when the enemy's forces surrendered unconditionally.

Kiaochau.

Japan came into the War on our side on August 23rd, and among the other valuable assistance which she has rendered in exterminating the bases of German naval effort in the Pacific, the capture of the province of Kiaochau, with its fortified naval port of Tsingtau, must be included. This place, Germany's principal oversea possession, fell on November 7th, after a ten weeks' attack, to the combined Anglo-Japanese forces engaged. Four days after the expiration of the Japanese ultimatum to Germany, and the consequent declaration of war, a blockade was established, and preparatory measures taken. The landing of an expeditionary force took place in September, and with the fall of the place the remainder of Germany's squadron in the Pacific was taken or destroyed. The only naval loss sustained by the Allied ships in the operations was the destruction of the Japanese cruiser Tacachiko, by a mine. On August 22nd, the destroyer Kennet, whilst chasing a German destroyer, the S 90, approached too close to the batteries at Tsingtau, and sustained a few casualties, the vessel not being materially injured herself.

Antwerp
opera-
tions.

It has been shown how, when the Navy mobilised for war, there was a considerable surplus of men, and on September 7th it was officially announced that naval brigades had been formed of these seamen, stokers, etc., which, together with a marine brigade already existing, would form a Royal Naval Division to be made up to the strength of an infantry division, complete with field hospitals, transport, ammunition column, signal companies, cyclists, motor-cars, and machine guns. Early in October, an urgent call for assistance led to this Division being hurriedly despatched to Antwerp, where it

co-operated with the Belgian Army in the defence of the city, delaying the fall for nearly a week. The move was criticised, but from the despatch of the General Officer Commanding,* it will be seen that this admittedly desperate attempt to bring succour to the Antwerp garrison enabled Field-Marshal Sir John French, by a bold forward movement, and by taking up an extended position, to meet the German advance upon the northern coast of France and prevent its success.

In other ways than by the creation of a Royal Naval Division, direct help has been given to military operations by the despatch to the Continent of some squadrons of aircraft. German military positions at Düsseldorf, Cologne, Friedrichshafen, Brussels, and Hoboken, near Antwerp, were all attacked by naval airmen with considerable skill and success, and in February a series of attacks, in which as many as forty-eight machines co-operated, were delivered upon the submarine bases in the Bruges-Ostend-Zeebrugge district. Many references to the achievements and exploits in which the naval airmen have displayed their talents, resource, and daring will be found in the Diary at the end of this chapter.

THE SUBMARINE "BLOCKADE."

After six months of war, the Allies were faced by a new situation in the operations at sea. One plan after another for reducing the naval forces of this country had been successively tried, and had failed. The earliest plans to reduce the strength of the Fleet under Admiral Sir John Jellicoe, and to hamper its action, were mainly carried out with the use of mines. As already shown, this plan had little success, and was promptly replied to by the action in the Bight and other losses inflicted upon the enemy. Then there followed the coast raids, until a stop was put to these futile efforts by the timely and useful victory of the Battle-Cruiser Squadron under Vice-Admiral Sir David Beatty. There remained only the war upon commerce, where a certain amount of success had been achieved, but the battle off the Falklands, the successive destruction of the raiders, and the effectual prevention of reinforcements reaching the oceans—shown in the case of the *Berlin*, which was forced to intern at Trondhjem—put an end to this menace also. It was then that, having failed in their attempts to lessen the numbers of the fighting fleet, or to injure the commercial activities of the Mercantile Marine, the German Naval Authorities were driven to a still more desperate effort.

On December 22nd Admiral von Tirpitz, in an interview which

* This document is given in Part IV.

was published in the *New York Evening Sun*, proclaimed Germany's intention of declaring a submarine war against hostile merchant vessels. He explained how, by torpedoing every ship which approached any British port, the greater part of the country's food supply might be cut off. Several tentative efforts had already been made in this direction, including the torpedoing of the refugee ship *Amiral Ganteaume*, and during January and February a number of similar attacks upon merchantmen were delivered. One of these had for its target the hospital ship *Asturias*, the attempt on which was but another of the many flagrant violations of International Law and the laws of humanity practised by the Germans. Encouraged by the way in which the destruction of innocent non-combatants was received by the German people, a warning was issued by Captain von Behnke, Deputy Chief of the Admiralty Staff, in the *Reichsanzeiger*, on February 2, 1915, in which all peaceful shipping was urgently warned against approaching the coasts of Great Britain owing to the serious danger it would incur. Two days later the following announcement was issued by the Chief of the Admiralty Staff:—

The
German
"military
area."

The waters around Great Britain and Ireland, including the entire English Channel, are hereby declared a military area. From February 18th, every hostile merchant ship in these waters will be destroyed, even if it is not always possible to avoid thereby dangers which threaten the crews and passengers. Neutral ships will also incur danger in the military area, because, in view of the misuse of neutral flags ordered by the British Government on January 31st, and the accidents of naval warfare, it cannot always be avoided that attacks may involve neutral ships. Traffic northwards around the Shetland Islands, in the east part of the North Sea, and a strip of at least thirty sea miles in breadth along the coast of Holland, is not endangered.

The measure of success attained by the "blockade" thus threatened may be estimated from the fact that during its first nine weeks only thirty-six vessels and six trawlers, belonging to Great Britain, were sunk; while the number of ships using British ports had showed no diminution, but had actually increased—from 1381 in the week ending February 24th to 1519 in the week ending April 21st. Many of these thirty-six vessels had been sunk in circumstances of great atrocity, no notice being given to the crews before the torpedoes were discharged from the submarines; and in some cases the crews and passengers were fired upon in endeavouring to make their escape in boats. The case of the *Falaba* was made specially heinous by the circumstance that five minutes' notice was given to the people on board to take to the boats; but while they were doing so, and before the expiration of the time promised, the torpedo was discharged which sank the vessel. It was stated that the German seamen in *U 28*, which was responsible for this outrage, jeered at the plight of the helpless passengers struggling in the water; but in the face of the testimony of





GERMAN BATTLESHIP "KÖNIG."

survivors on this point Commander Schmidt, in command of the boat, declared on hearing of the report that it was "cruelly unjust to his men, who were crying, not laughing, when the boats capsized and threw the people into the water." Later, and probably owing to their failure to make any great impression on larger ships, the submarines began to commit acts of frightfulness against fishing craft. In regard to one such attack, the Admiralty stated, on April 19th:—"Yesterday a German submarine sank, by a torpedo, the trawler *Vanilla*. The trawler *Fermo* endeavoured to rescue the crew, but she was fired at and driven off. All hands in the *Vanilla* were lost. This killing of fisher-folk for no military purpose should not escape attention. It is the second murder of this character committed within a week. Careful record is kept of these events." When this menace to merchantmen by submarines first made its appearance, its novelty and the fact that it was quite unexpected made it somewhat difficult to deal with. The resourcefulness of the naval authorities, however, was equal to the occasion; and, although their plans were not, of course, revealed, it was clear that they had organised counter measures of an effective nature, for not only was there soon apparent a falling off in the victims of the submarines, but some of the boats themselves were destroyed. A change of venue was necessitated, and the under-water craft which at first pursued their depredations in the English Channel, reappeared in the North Sea, and afterwards around the Irish coast. The spirit in which the British Mercantile Marine met the new peril was one reflecting the highest credit upon the officers and men of that service. An example was set by Captain W. H. Propert, of the steamship *Laertes*, who, when ordered to stop by a submarine off the Dutch coast on February 10th, put on full speed and steered a zig-zag course away from the boat, effecting an escape, although attacked by gunfire and torpedoes. The Admiralty granted the temporary rank of lieutenant, R.N.R., to this master, and he was awarded the Distinguished Service Cross by the King. Other merchant ship captains were similarly honoured for skill and coolness in the face of submarine attack.

In the first ten days of March, two of the German submarines, U 8 and U 12, were run down and sunk, their crews being made prisoners. In view of the fact that these men had been guilty of attacking and sinking unarmed merchantmen, and firing torpedoes at ships carrying non-combatants, neutrals, and women, it was officially announced that the Government could not accord to them the honourable treatment received by other prisoners of war, and they were therefore placed in barracks under special restriction and were not allowed to mingle with other prisoners of war. The loss of some

German
sub-
marines
sunk.

of the early boats may have been partly the cause of the use of the later submarines in the work of commerce destruction. Vessels numbered up to 30 and over were among those engaged in attacking merchantmen during March and April. From the command of U 9 Lieutenant-Commander Otto Weddigen was transferred to U 29, and in this vessel he was lost with all his crew in March. To keep the public acquainted with the actual effect of the losses caused by the "blockade," a weekly table was issued by the Admiralty showing the "British merchant and fishing vessels lost by hostile action since the outbreak of the War." This table did not include the neutral victims, which were almost as numerous as those of the Allies. In the first week of the "blockade," two Norwegian ships, the Belridge and Regin, were sunk, and there were also Swedish, Greek, Dutch, Danish, Portuguese, and other victims, including at least one American vessel, the Gulfight, which was torpedoed off the Scilly Islands without warning on May 1st.

At the end of April there was experienced something of a lull in the situation in Home waters, and an impression prevailed that since the submarine "blockade" had failed in its purpose of cutting off the food supply of the British Isles some new method of a desperate character would be attempted. The progress of the War up to that time had shown how the Germans had persistently tried one plan after another to inflict injury upon us, bringing forward a new scheme as soon as one failed, each in succession being more desperate than the last. Just as the attentions of the submarines were turned to the merchant ships of the Allies when it was found that no impression could be made upon our war fleets, so they were again transferred to neutral ships when the actions of the British naval authorities and shipmasters baffled the under-water craft, the idea being evidently to embroil the neutral nations concerned with Great Britain, on whose policy all the blame was laid. This attempt likewise failing in its purpose, it would not be surprising if another stroke should be tried to re-establish the potency of German submarines in the eyes of the people of the Fatherland, and to impress neutral Powers.

As this record of the first nine months of the War was closed, there was some further indication of activity on the part of the German High Sea Fleet around Heligoland. Whether this was significant of an intention to come out and accept the challenge of battle there was nothing to show. Should a further movement of this kind be decided upon, it will be welcomed nowhere more cordially than by the seamen of the Grand Fleet, who have been so zealously carrying out their arduous and patient vigil in the northern seas.

CHAS. N. ROBINSON.

A DIARY OF THE NAVAL EVENTS OF THE WAR.*

COMPILED BY G. H. HURFORD.

- 1914.
- Aug. 1. War declared between Germany and Russia.
- " 2. Bombardment of Libau by *Augsburg*.
- " 3. Mobilisation of British Navy completed.
- " 4. Turkish and Chilean warships in British yards purchased.
- " 5. War declared between Great Britain and Germany.
- " 6. Sir John Jellicoe appointed Commander-in-Chief of British Home Fleets.
- " 7. *Goeben* and *Breslau* bombarded Bona and Phillippeville.
- " 8. Russian Far East Squadron left Vladivostock.
- " 9. German cruiser *Emden*, four days out from Tsingtau, captured Russian steamer *Rjason* in Japan Sea.
- " 10. *Königin Luise* sunk.
- " 11. *Goeben* and *Breslau* arrived Messina.
- " 12. Dutch steamer *Houtman* stopped by *Geier* in Macassar Straits.
- " 13. *Amphion* sunk by mine.
- " 14. *Königsberg's* first merchant capture, City of Winchester.
- " 15. *Goeben* and *Breslau* left Messina.
- " 16. *Glasgow* and *Bremen* reported off South American coast.
- " 17. Action between *Gloucester* and *Goeben* and *Breslau*.
- " 18. Action between *Bristol* and *Karlsruhe*.
- " 19. Fishing-boat *Tubal Cain* captured off Iceland by *Kaiser Wilhelm der Grosse*.
- " 20. Lome (Togoland) seized by Colonial forces, which proceeded to Kamina wireless station.
- " 21. Three ex-Brazilian gunboats commissioned as British monitors.
- " 22. Attack on Dar-es-Salaam by *Astræa* and *Pegasus*.
- " 23. Antivari bombarded by Austrian vessels.
- " 24. Montenegrin bombardment of Cattaro begun.
- " 25. War declared between France and Austria.
- " 26. Submarine U 15 sunk by *Birmingham*.
- " 27. *Goeben* and *Breslau* arrive in Dardanelles.
- " 28. Two Canadian submarines (C C 1 and C C 2) offered to Admiralty and accepted.
- " 29. Hospital ship offered by women of Canada and accepted.
- " 30. War declared between Great Britain and Austria.
- " 31. Admiralty statement issued re commerce protection and South American trade.
- " 32. *Goeben* and *Breslau* "bought" by Turkey.
- " 33. *Karlsruhe* reported off La Guayra.
- " 34. Baltic lighthouses shelled.
- " 35. Armed steamer *Von Wissmann* surprised and captured by *Guendolen* on Lake Nyasa.
- " 36. Austrian liner *Baron Gautsch* destroyed by mine.
- " 37. *Emden* coaled from *Markomania* at Pagan Island.
- " 38. Liner *Galician*, Capetown for London, held up by *Kaiser Wilhelm der Grosse*.
- " 39. *Dresden's* first merchant capture, Hyades.
- " 40. Nyanga and Kaipara captured and sunk by *Kaiser Wilhelm der Grosse*.
- " 41. Sweep of Adriatic by Franco-British Fleet.
- " 42. Austro-Hungarian cruiser *Zenta* sunk.
- " 43. Japanese ultimatum to Germany.
- " 44. State Insurance scheme for shipping extended to vessels as well as cargoes.
- " 45. *Karlsruhe's* first merchant capture, Bowes Castle.
- " 46. Austrian torpedo-boat 19 sunk by mine.
- " 47. "Desultory fighting" in North Sea.
- " 48. Transport of Expeditionary Force to Continent disclosed.
- " 49. Official account of loss of *Amphion* issued.
- " 50. Danish steamship *Maryland* (5136 tons) sunk by German mine off the Thames.
- " 51. Chaplain of the Fleet's prayer for the Navy issued.
- " 52. Destroyer *Kennet* shelled by Tsingtau batteries.
- " 53. Bombardment of Cattaro by Allied ships begun.
- " 54. War declared between Japan and Germany.
- " 55. Scheme for supplying newspapers to the Fleet organised by London Chamber of Commerce.
- " 56. *Scharnhorst*, *Gneisenau*, *Emden*, and *Geier* met and coaled in Banda Sea, afterwards dispersing.
- " 57. War declared between Austria and Japan.
- " 58. Additional prayer for seamen issued by Archbishop of Canterbury.
- " 59. Holmwood captured by *Dresden*.
- " 60. *Kaiser Wilhelm der Grosse* sunk by *Highflyer*.

* Warships of Great Britain and her Allies in **heavy type**. Warships of Germany and her Allies in *italics*. Warships of neutrals and merchantmen in roman type.

- Aug. 26. Wireless station at Kamina reported destroyed.
Unconditional surrender of Togoland.
- " 27. Royal Marine Brigade landed at Ostend.
German cruiser *Magdeburg* destroyed in Baltic.
- " 28. Term "Grand Fleet" first used by Admiral Jellicoe.
Action in the Heligoland Bight, and destruction of *Mainz*, *Köln*, *Ariadne*, and torpedo craft.
- " 29. New Zealand expedition occupied Samoa.
- " 30. Return home of Admiral Milne from Mediterranean announced.
Dutch steamer *Gehria* reported stopped by *Bremen* off Montevideo.
- " 31. Samoa formally taken possession of and British flag hoisted.
Strathroy captured by *Karlsruhe*.
- Sept. 1. Austrian steamer *Bathori* destroyed in Atlantic.
Bombardment of Puntadostro (Adriatic) by Allied ships.
Removal of Commander Samson's aeroplane camp from Ostend to Dunkirk.
- " 2. Proclamation to stop scare reports issued.
- " 3. *Nürnberg* arrived Honolulu to coal, after 35 days at sea.
Maple Branch captured by *Karlsruhe*.
Speedy sunk by mine.
- " 4. Southport captured by *Geier* at Kusai (Caroline Islands).
Emden coaled from *Markomannia* at Simalur Island.
Japanese destroyer *Shiratake* lost by grounding near Kiaochau.
- " 5. **Pathfinder** sunk by U 21.
Wilson liner *Runo* sunk by mine.
Damaged torpedo craft reported arrived at Kiel.
Aerial defence of England and London assumed by Navy.
- " 6. Aids to navigation on East Coast removed.
Russian steamer *Uleborg* sunk by German light cruisers in North Baltic.
- " 7. Royal Naval Division organised.
Nürnberg cut cable at Fanning Island.
- " 8. **Oceanic** lost off coast of Scotland.
- " 9. September "Navy List" (first number since beginning of the war) issued.
- " 10. *Emden's* first merchant captures, *Indus* and *Lovat*.
Lissa occupied.
Complete sweep of North Sea by Grand Fleet and flotillas announced.
- " 11. Speech by First Lord at London Opera House on naval position.
Reported German occupation of Walfisch Bay.
- " 12. Herbertshohe occupied by Australian forces.
Spreewald and two colliers captured by **Berwick**.
- " 13. Killin and Diplomat captured by *Emden*.
Hela sunk by E 9.
Attempt to sink **Dwarf** by infernal machine at Cameroons.
- " 14. *Trabcock* captured by *Emden*.
Scharnhorst and *Gneisenau* appeared at Apia.
Cap Trafalgar sunk after duel with **Carmania**.
Highland Hope captured by *Karlsruhe*.
Certain Thames channels closed to navigation.
- " 15. *Leipzig's* first merchant capture, *Elsnor*.
Bethania captured and taken to Jamaica.
Report by Mr. Millen on Australian Navy's work in early weeks of war issued.
Australian submarine A E 1 lost by accident.
- " 16. **Dwarf** rammed by *Nachtigall*.
Skirmish between Samson's armed motor-cars and Uhlans near Doullens.
- " 17. Indrani captured by *Karlsruhe*.
Fisgard II. lost off Portland.
- " 18. Clan Matheson captured by *Emden*.
Lidientz Bay entered by South African Force, with naval support.
- " 19. Ortega's escape from German cruiser.
Emden coaled from *Markomannia* off Gulf of Martaban.
Lüderitzbucht occupied.
- " 20. **Pegasus** destroyed by *Königsberg* at Zanzibar.
Two German launches, one with explosive machines, sunk in Cameroons.
Return home of Rear-Admiral E. C. T. Troubridge for inquiry announced.
Maria (Dutch, British cargo) and *Cornish City* captured by *Karlsruhe*.
- " 21. First Lord's declaration at Liverpool.
Nauroh (last Pacific wireless station) captured.
- " 22. Loss of three **Cressys** after submarine attack by U 9.
Collett's air raid on Düsseldorf.
Rio Iquassu captured by *Karlsruhe*.
Emden shelled Madras.
- " 23. Papeete bombarded by *Scharnhorst* and *Gneisenau*.
Cumberland and tenders reconnoitring Mungo Bay.
British military force landed to assist in operations against Kiaochau.
French naval guns and artillery detachments landed for service on Mount Lovtchen.
- " 24. First Lord's interview with *Giornale d'Italia*.
Friedrich Wilhelm Town (German New Guinea) occupied.
Eleonore Woermann arrived Buenos Aires with *Cap Trafalgar's* crew.
- " 25. New Admiralty rules for submarine mishaps and rescue work.
German auxiliary ships *Rhios* and *Itoto* sunk by French gun vessel **Surprise** in Corrieco Bay.
Kronprinz Wilhelm's first merchant capture, *Indian Prince*.
- " 26. Indian Expeditionary Force landed in France.
- " 27. Bardanelles closed by Turkey.
Capitulation of Duala, capital of Cameroons. Nine steamers captured by **Cumberland**.
- " 28. Admiralty list issued of merchant ships lost, corrected to 23rd.
Mine-Sweepers' Fund started.
Two forts at Cattaro reported destroyed.
- " 29. Foreign trawlers stopped using East coast ports.

- Sept. 29. *Emden's* haul of six steamers reported in neighbourhood of Cape Comorin.
 Steamship reported captured by seaplanes off Heligoland.
 " 30. Bankfields sunk by *Leipzig*.
Bremen escorted from Chilean waters by *Almirante Lynch*.
 Oct. 1. **Good Hope**, **Monmouth**, and **Glasgow** passed Magellan Straits for Pacific.
Ortega arrived at Rio, and Southport at Brisbane.
 " 2. Japanese naval brigade landed at Kiaochau.
 Report mine-laying policy announced.
 " 3. Russia reported no ships lost or damaged.
 German steamship *Neckar* arrived Baltimore after seven weeks' wandering in the Atlantic.
 " 4. Voyage to England of Canadian Contingent began.
 " 5. *Fam* captured by *Karlsruhe*.
 " 6. Destroyer S 116 sunk off Ems by E 9.
Nieoto De Larinaya captured by *Karlsruhe*.
 Japanese occupied Jahu.
 " 7. La Correntina captured by *Kronprinz Wilhelm*.
Lynrowan captured by *Karlsruhe*.
 Turkish squadron off Varna and Balchik.
 " 8. Air raids on Düsseldorf and Cologne.
Cervantes captured by *Karlsruhe*.
 " 9. Fall of Antwerp.
Pruth captured by *Karlsruhe*.
 " 11. **Pallada** sunk by submarine.
 Russian official report of German submarine sunk by mine in Baltic.
Condor captured by *Karlsruhe*.
 Official announcement of Naval brigades at Antwerp.
 " 12. Rear-Admiral Hood appointed "Admiral of Dover Patrol," and Rear-Admiral Duff to Fourth Battle Squadron.
 Official account of *Carmania-Cap Trafalgar* duel issued.
 Russian Fleet off Balchik.
 " 13. German Squadron under Prince Henry reported off Aland Islands.
 " 14. Canadian Contingent and escort arrived at Plymouth.
 " 15. *Markomannia*, attached to *Emden*, sunk by **Yarmouth** near Sumatra.
 German sailing-vessel *Komet* captured at Rabaul.
 " 16. **Hawke** torpedoed by U 9.
 " 17. First Lord's message to Royal Naval Division returned from Antwerp.
 Four German destroyers sunk off Dutch coast.
 Austrian submarine reported sunk by **Waldeck Rousseau**.
 Russian mine-laying policy notified.
Tacachiko mined.
Geier at Honolulu for "repairs."
 " 18. E 3 lost off German coast.
 Hospital ship *Ophelia* captured by **Meteor**.
Glanton captured by *Karlsruhe*.
Komet added to Australian Navy as **Una**.
 Official statement instituting Distinguished Service Cross and Medal issued.
 " 19. Bombardment of Belgian coast begun; action off Middelkerke.
 Attack on Japanese cruiser **Chitose** off Kiaochau by German ships at Tsingtau.
 " 20. *Glitra* sunk by U 17 (first merchant ship destroyed by submarine).
 First Lord's telegram acknowledging Japanese assistance in Pacific.
 " 22. Despatches for Heligoland action, submarine and air work, published.
Emden's capture of five more steamers, between 15th and 19th, announced.
 " 23. Admiralty statement *re* commerce protection.
Hurstdale captured by *Karlsruhe*.
 " 24. **Badger** rammed German submarine.
 " 25. Tsar's message of thanks for Russian naval activity.
 Cablegram received from **Good Hope** at Punta Arenas reporting all well on board.
 " 26. French refugee-ship *Amiral Ganteaume* torpedoed without warning in English Channel.
 Manchester Commerce mined off Tory Island.
Van Dyck captured by *Karlsruhe*.
 " 27. **Venerable** in action off Belgian coast.
 Admiralty warning of mines off Irish coast.
 Certain Thames channel's closed to traffic.
Kamasaka Maru (Japanese) captured by *Emden*.
 " 28. **Falcon's** captain killed in action off Belgian coast; casualties also reported between 20th and 31st from **Humber**, **Mersey**, **Severn**, **Brilliant**, **Rinaldo**, and **Vestal**.
 Order exempting enemy reservists afloat from capture rescinded.
Union captured by *Karlsruhe*.
Emden's raid on Penang; sinking of Russian cruiser **Jemchug** and French destroyer **Mousquet**.
 " 29. Russian mine-layer **Prut** sunk by Turks.
Brestau and *Hamidieh* bombarded Theodosia and other coast towns.
 " 30. *Konigsberg* located by **Chatham**.
Rohilla wrecked off Whitby.
 Russian gmbots **Donets** and **Kubanets** lost in Black Sea.
 Prince Louis of Battenberg succeeded by Lord Fisher as First Sea Lord.
 " 31. **Hermes** torpedoed in Straits of Dover.
Venerable again in action off Belgian coast.
 Nov. 1. Action off Coronel, and loss of **Cradock** with **Good Hope** and **Monmouth**.
 " 2. Dardanelles bombarded by Allied Fleet.
Minerva shelled Akala.
 Norwegian steamer *Helicon* stopped by German supply ship *Titania* off Juan Fernandez.
 " 3. Admiral Sir Percy Scott appointed for special service.
 Cruiser raid on Yarmouth; attack on **Halcyon**.
 D 5 sunk by mine laid by German cruisers in retreating.

- Nov. 4. *Fock* mined off *Jahde*.
Vine Branch captured by *Leipzig*.
- " 5. War declared between Allies and Ottoman Empire.
Military area defined in North Sea.
Scaplane 1220 destroyed by Germans near Ostend, two airmen lost.
Kaiser and Prince Henry removed from British " Navy List."
Troubridge court-martial opened at Portland.
- " 7. Fall of Kiaochau.
Geier and steamer *Locksun* interned at Honolulu.
Admiralty letter commending conduct of Captain Kinneir, of *Ortega*.
Carl Lody, formerly in German Navy, shot at the Tower for spying.
Admiral Sturdee appointed afloat; succeeded by Rear-Admiral H. F. Oliver as Chief of War Staff.
- " 8. *Pluton* (Norwegian) and *Poolestar* (Dutch) mined in North Sea.
Military force, covered by *Odin* and *Espicgle*, landed at Fao (Persian Gulf).
- " 9. *Emden* destroyed by *Sydney*.
White Paper issued showing pensions and allowances to families of fighting men.
- " 10. Four Turkish transports sunk by Russians.
Königsberg partly destroyed by *Chatham*, *Weymouth*, and *Goliath*.
- " 11. Admiral Sturdee left England with *Invincible* and *Inflexible*.
Niger torpedoed off Deal.
Japanese torpedo-boat 33 sunk while dragging for mines in Kiaochau Bay.
Armed merchant cruiser *Navara* sunk off River Plate when chased by *Orama*.
- " 12. Acquittal of Rear-Admiral Troubridge announced.
- " 13. German submarine reported rammed by French destroyer in Westende Bay.
Victoria, seaport of Buea (Cameroons) occupied by marines.
- " 14. Admiralty list of ships found sunk at Tsingtau issued.
- " 15. Buea, seat of German government in Cameroons, occupied by marines.
Duke of Edinburgh bombarded Sheikh Seyd, covering troops landing.
Von Spec's squadron left Juan Fernandez for Cape Horn.
Senior Officer for Port of London appointed.
- " 16. King George's visit to Royal Naval Division at Crystal Palace.
German armed merchant-cruiser *Navara* voluntarily sunk off Brazil to avoid capture by *Orama*.
- " 17. *Berlin* interned at Trondhjem.
- " 18. Report from *Glasgow* of Coronel action issued.
Oceanic courts-martial begun at Devonport.
U.S. s. Tennessee's launch fired upon by Turks at Smyrna.
Liban again bombarded, and attempts made to block channels.
Goeben damaged in action with Russian ships off Sevastopol.
- " 19. Admiralty correspondence re *Ortega* published.
German steamer *Karnak* interned at Antofagasta for coaling German warships.
- " 20. Turkish cruiser *Hamidieh*'s bombardment of Tuapse.
- " 21. Air raid on Friedrichshafen and capture of Commander Briggs.
Basra occupied.
- " 23. Anne de Bretagne captured by *Karlsruhe*.
Zeebrugge bombarded by British squadron.
U 18 rammed; crew rescued by *Garry*.
S 124 sunk in collision at southern entrance to Sound.
- " 25. Official casualty list up to date issued, showing total of 7,343, including 4,327 killed.
Primo sunk by U 21.
Karlsruhe reported sunk off Grenada.
- " 26. *Bulwark* destroyed by explosion.
Board of Trade table published showing state of shipping after sixteen weeks of war.
- " 27. Pilotage made compulsory at East coast estuaries; mine defences extended.
Statement in Commons by First Lord on the naval position.
- " 28. Operations at Dar-es-Salaam; Commander Ritchie, of *Goliath*, earned V.C.
- " 30. Scaplane Kiel 82 wrecked off Jutland, and pilot and mechanic interned.
- Dec. 1. *Edgar* class paid off and armed merchantmen substituted.
- " 4. Despatches of Antwerp operations issued.
Bellevue and Mont Agel captured by *Kronprinz Wilhelm*.
Aids to navigation restricted east of Selsey Bill.
- " 5. Firth of Forth closed to fishing operations.
King George's visit to the Front ended.
- " 6. Rio Negro's reported arrival at Kiel from West Indies with part of *Karlsruhe*'s crew.
- " 8. Sturdee's action off Falklands.
- " 9. Operations in Shatt-el-Arab and capture of Qunah.
- " 10. *Goeben*, with *Berk-i-Satret*, made futile bombardment of Batum.
- " 11. *Dresden* arrived Punta Arenas after Falklands battle.
Colchester's escape from German submarine in North Sea.
- " 12. *Friedrich Karl* reported sunk by mine or torpedo in Baltic.
Austrian submarine E 12 reported to have torpedoed *Jean Bart*.
Hamidieh damaged by mine in the Bosphorus.
- " 13. *Dresden* left Punta Arenas.
Messoudieh torpedoed by E 11 in Dardanelles.
- " 15. *Bulwark*'s loss officially stated to be due to accidental ignition of ammunition.
Cormoran interned at Guam.
Russian cruiser *Askold* sank German steamer at Haifa.
- " 16. German cruiser raid on Hartlepool, Whitby, and Scarborough.
Monitor squadron resumed bombardment off Belgian coast.
- " 17. Loss of *Friedrich Karl* officially announced in Petrograd.
Askold sank two Turkish steamers at Beyrout.
Order in Council re pay of Royal Naval Division.
- " 19. Donaldson liner *Tritonia* mined off north coast of Ireland.
Account of operations in Cameroons up to December 13 issued by Colonial Office.
- " 20. Letter of First Lord to Mayor of Scarborough re naval raid.
- " 21. First naval V.C. of the war awarded to Lieutenant N. D. Holbrook, of B 11.

- Dec. 22. Admiral Sir George Callaghan appointed Commander-in-Chief at the Nore, to date January 1, 1915.
23. Interview of Grand Admiral von Tirpitz with *New York Sun* representative, announcing a "submarine blockade" of merchant shipping.
24. German aeroplane reconnoitred over Sheerness.
- Admiral Sturdee arrived at Montevideo.
- Engineer officers absorbed into military branch.
25. Raid on Cuxhaven by seven British seaplanes, supported by submarines and light cruisers.
26. Press accounts received from South America of Falklands action.
- Goeben* seriously damaged by mine in the Bosphorus.
27. Result of *York* court-martial (held December 23) announced in German Press.
28. French submarine *Curie* captured at Pola and re-named *Zenta*.
- American Note on contraband presented to Great Britain.
- Capt. Karl von Müller, late of *Emden*, reported arrived in England as prisoner of war.
29. Revised regulations *re* pensions, etc., to widows and children published in *London Gazette*.
30. Verdict of "Accidental Death" returned at inquest on **Bulwark** victims.
31. Austrian battleship *Viribus Unitis* reported damaged by French torpedo.
- Flight-Commander Hewlett, missing after Cuxhaven raid, reported safe.
- 1915.
- Jan. 1. New Year promotions and honours gazetted.
- Despatches of **Sydney** and *Emden* action, and air raid on Friedrichshafen, published.
- Formidable** sunk by submarine in Channel.
2. Turkish transport *Kozeta* sunk by mine in Bosphorus.
- Raiding operation at Dar-es-Salaam by **Goliath** and **Fox** reported.
3. Flight-Commander Hewlett arrived in England.
4. Turkish transport mined between Sinope and Trebizond.
5. First auction of prize steamers at the Baltic.
6. Action between Russian Fleet and *Breslau* with *Hamidieh*.
- German supply ship (formerly a Woermann liner) captured by **Australia**.
7. Speeches on the naval position in House of Lords by Lords Crewe and Selborne.
- Reply of Great Britain to United States Note on contraband.
- Party landed from **Doris** at Alexandretta.
8. Bombardment of Sinope by Russian Fleet reported.
- Steamship *Dacia*, formerly German, sold in America to Mr. Breitung.
9. January "Navy List" shows exchange of appointments in December between Vice-Admirals Sir Cecil Burney and Sir Lewis Bayly, former becoming second-in-command to Admiral Jellicoe.
10. *Goeben* reported damaged by mines.
11. *Farn* (captured by *Karlsruhe*) arrived San Juan, Porto Rico.
- Brennen* reported arrived at Wilhelmshaven, damaged by mine.
- Interview with Count Reventlow published in *New York World* and *London Daily Chronicle*.
- French official denial of reported submarine attack on **Courbet**.
14. Swakopmund occupied.
15. Canadian Militia Department announced building of eight submarines in Canada.
- Cologne Gazette* supported German submarine blockade plan.
16. Patrol boat **Char** sunk in Downs after collision.
- Story of dummy British warships in German papers.
- Committee formed to provide memorial to Rear-Admiral Sir Christopher Cradock.
19. Zeppelin raid on Norfolk.
- French submarine **Saphir** reported lost in Dardanelles.
20. Reported air raid on Essen.
- Loss of armed merchant vessel **Viknor**.
- German torpedo-boat sunk by Russian submarine off Cape Moen, Denmark.
21. *Durward* sunk off Dutch coast by V 19.
- Turkish gunboat, *Reis* type, sunk by mine in Bosphorus.
22. British air raid on Zeebrugge.
- German air raid on Dunkirk.
- Rear-Admiral Bacon gazetted colonel-second-commandant in Royal Marines.
- Letter of First Lord published informing the *Times of Malaya* that "H.M.S. **Malaya** will play her part in the decisive phases of the naval war."
23. *Goeben* reported under repair at Therapia.
- Dacia* reported stormbound at Galveston.
24. Battle-cruiser action off Dogger Bank, in North Sea, and sinking of *Blücher*.
25. Zeppelin No. 19 destroyed at Libau.
- Gazelle* torpedoed by submarine in Baltic.
26. Fighting east of Kantara.
- Farn* interned at Porto Rico.
27. Preliminary telegraphic report from Vice-Admiral Beatty published.
- Sailing-ships *Isabel Browne*, *Pierre Loti*, and *Jacobsen* sunk by *Prinz Eitel Friedrich*.
28. Conclusion of French Minister of Marine's visit to England.
- American sailing-ship *William P. Frye* sunk by *Prinz Eitel Friedrich* in Atlantic.
30. Steamers *Ben Cruachan*, *Linda Blanche*, and *Kilcorn* sunk by V 21 in Irish Sea.
- Tokomaru* sunk and *Icaria* attacked by torpedo off Havre.
31. *Oriole* lost with all on board (21) while on a passage to Havre; submarine attack assumed.
- Feb. 1. Hospital ship *Asturias* attacked by submarine (unsuccessfully) off Havre.
- German submarine engaged in Irish Sea by *Vandura*.
2. Von Behke's warning to neutrals and others of risks in Channel and North Sea from German submarines and warships operating against transport of troops and war material.
3. Interview with Mr. Churchill published in *Le Matin*.
- Operations on the Suez Canal; **Hardinge**, torpedo-boat 043, and other vessels engaged.
4. Japanese cruiser **Asama** reported ashore near Port Bartolome, Lower California.
5. Bombardment of Batum by *Breslau*.

- Feb. 8 Bombardment of Yalta by *Brestau*.
Full text of German "blockade" notice received by wireless.
- " 10. Escape of *Laertes* from German submarine off Maas lightship.
- " 12. Air raid by 34 machines on submarine bases in Bruges-Ostend-Zeebrugge district.
- " 14. D.S.C. and rank of Lieutenant R.N.R. awarded to Captain Propert, of *Laertes*.
- " 15. Turkish gunboat sunk by a mine in Bosphorus.
- " Speech by Mr. Churchill on the Navy Estimates, House of Commons.
- " 16. Lord Emmott appointed to represent the Navy in House of Lords.
- " Air raid by 48 machines in Bruges-Ostend-Zeebrugge district.
- " 17. Full text of British reply to U.S.A. on contraband question issued.
- " Zeppelin wrecked on Danish island of Faroe; crew interned.
- " 18. German steamer *Holger* arrived Buenos Aires with crews of five victims of *Kronprinz Wilhelm* and was interned.
- " First day of the submarine "blockade." French steamer *Dinorah* damaged by torpedo off Dieppe; no British victims.
- " Text of German reply to U.S.A. on blockade question published.
- " 19. Second day of "blockade." Norwegian steamer *Behlde* damaged by torpedo off Folkestone; no British victims.
- " American ship *Evelyn* mined off Borkum.
- " Text of two Notes to the United States dealing with the Wilhelmina and use of the neutral flag published by the Foreign Office.
- " 20. Third day of "blockade." British steamers *Cambank* and *Downshire* sunk in Irish Sea.
- " 22. Folkestone-Boulogne passenger-boat attacked by German submarine (unsuccessfully).
- " 23. American steamer *Carib* sunk by mine in North Sea.
- " 24. Loss of armed merchant cruiser *Clan McNaughton* officially announced.
- " 26. Blockade of German East Africa announced in *London Gazette*.
- " 27. Dacia seized by French warship and taken to Brest.
- " German submarine rammed by steamship *Thordis* off Beachy Head.
- Mar. 3. Supplement to *London Gazette* issued with Falklands and Dogger Bank despatches.
- " *Askold* joined Allied Fleet at the Dardanelles.
- " 4. Zeppelin L 8 wrecked at Tirlmont.
- " U 8 rammed and sunk off Dover; crew made prisoners.
- " 5. *Thordis* examined at Plymouth and injuries to keel and propeller revealed.
- " Interview of M. Augagneur with Paris correspondent of United Press of America.
- " 6. Bombardment of Smyrna by squadron under Admiral Peisse, with his flag in *Euryalus*.
- " 9. Presence of Royal Naval Division at Dardanelles officially disclosed.
- " 6. Decision announced to segregate submarine prisoners and refuse them honours of war.
- " 10. U 12 rammed and sunk off Firth of Forth by *Ariel*; ten of the crew saved.
- " *Prinz Eitel Friedrich* arrived at Newport News.
- " 12. Loss of armed merchant cruiser *Bayano* officially announced.
- " Admiralty statement issued re *Vanduaara's* engagement with German submarine on February 1.
- " 13. *Amethyst* damaged in action at Dardanelles.
- " 14. *Dresden* caught by *Glasgow*, *Kent*, and *Orama* near Juan Fernandez Island and destroyed; crew saved, some wounded.
- " 15. Terms of British reply to German "blockade" published, announcing stopping of all supplies to and exports from Germany.
- " 16. Vice-Admiral Carden, incapacitated by illness, succeeded in command of Allied Fleet at Dardanelles by Rear-Admiral de Robeck, with acting rank of vice-admiral.
- " German liner *Macedonia* escaped from Las Palmas.
- " 17. German protest to America re treatment of submarine prisoners.
- " 18. German account of *Dresden's* sinking officially circulated by wireless, signed by Captain Boy-Ed.
- " General attack at Dardanelles on forts in Narrows by Allied Fleet; **Irresistible**, **Ocean**, **Bouvet**, and a destroyer sunk.
- " Dutch steamers *Batavier V.* and *Zaandstroom* seized by U 36 and taken to Zeebrugge.
- " *Memel* captured by Russian troops.
- " D.S.C. and rank of Lieutenant R.N.R. granted to Captain Bell, of *Thordis*.
- " 19. Unfavourable weather at Dardanelles, interrupting operations and aerial reconnaissance.
- " 20. Admiralty statement on sinking of *Karlsruhe* in West Indies in November.
- " 21. *Memel* evacuated by Russian troops.
- " Attempt of German liner *Odenwald* to escape from San Juan de Porto Rico.
- " 22. Seizure of Dacia proclaimed valid by French Prize Court.
- " 23. Bombardment of coast and coast villages by seven German battleships and 28 torpedo-boats.
- " 24. Air raid on submarines building at Hoboken, Antwerp.
- " Spring meeting of Institution of Naval Architects held; Admiral Lord Bristol suggested arming of merchantmen against submarine attack.
- " 25. Dutch steamer *Medea* stopped off Beachy Head by U 28 and sunk after removal of crew, who reached Dover in destroyer *Teviot*.
- " U 29 reported sunk with all hands.
- " Second visit of King George to the Fleet (at Harwich).
- " 27. Russian official review of Baltic naval operations.
- " Steamship *Vosges* sunk by gun-fire in Channel after plucky resistance to German submarine.
- " Yeoward liner *Aguila* torpedoed and sunk off Pembroke; nine lives lost.
- " 28. Russian naval attack on outside forts and batteries of Bosphorus.
- " German naval bombardment of Libau.
- " *Falaba* torpedoed in St. George's Channel by U 28 under Commander Schmidt; 112 lives lost.
- " 30. German submarine rammed by French light cruiser.
- " *New York World's* interview with Lieutenant-Commander Hansen, of U 16.
- " 31. German bombardment of Libau.
- April 1. Further air raids on Hoboken and Zeebrugge.
- " Reply of Sir Edward Grey re treatment of submarine prisoners.
- " Three Tyne trawlers sunk by U 10.

- April 2. Two submarines from Antwerp reported sent to Bruges by rail on their way to North Sea.
 U.S.A. Note to Great Britain regarding constriction of Germany.
 3. Turkish cruiser *Meljidieh* destroyed by mine near Ochakov.
 4. Russian barque *Hermes* and British steamer *Olivine* sunk by U 31 in English Channel.
 5. U.S.A. Note to Germany suggesting payment of £45,610, with interest, as reparation for sinking of William P. Frye.
 6. "Note from Berlin" re Falaba disaster issued by Bernstorff in America.
 7. Reported night battle off the Coast of Norway.
 8. Internment of *Prinz Eitel Friedrich* at Newport News.
 9. Tug *Homer* attempted to ram German submarine off Isle of Wight.
 10. Miscellaneous despatches and awards published in *London Gazette*.
 Belgian relief steamer *Harpalyce* torpedoed off Scilly Islands.
 11. *Kronprinz Wilhelm* arrived Newport News.
 Harrison liner *Wayfarer* torpedoed off Scilly Islands.
 12. Presentation at Mansion House to Captain Bell, of Thordis.
 Flotilla leader *Botha* officially reported commissioned for service.
 13. Despatch of Rear-Admiral Hood on Belgian coast operations issued.
 14. Airship raid in Newcastle district.
 Dutch steamer *Katwyck* sunk off Dutch coast without warning.
 Swedish steamer *Folke* torpedoed twenty miles off Peterhead.
 15. Bombardment by Russian Fleet of Kara Burun, inside Tchataldja lines; four steamers and several sailing vessels sunk by Russian destroyers off Anatolian coast; fire exchanged with Zunguladak batteries.
 Four Turkish steamers sunk by Russian destroyers off Anatolian coast.
 16. Airship raid in Essex; bombs on Maldon and other places.
 Anglo-Chilean correspondence re sinking of Dresden published.
 Turkish troops bombarded by French battleship *St. Louis* near El Arish and Gaza.
 17. Submarine E 15 wrecked in Dardanelles and crew captured.
 Greek steamship *Hellisfontos* torpedoed without warning off North Binder.
 Abbreviated quarterly "Navy List" issued.
 British transport *Manitou* attacked in Aegean by Turkish torpedo-boat *Dhair Hissar*, escaped from Smyrna; 51 soldiers drowned.
 German claim of British submarine sunk off Heligoland (unconfirmed).
 18. Trawler *Vanilla* torpedoed while fishing; crew prevented from being rescued by trawler *Ferno*; Admiralty announced that careful record was being kept of such murders.
 Submarine E 15 destroyed by picket boats of *Triumph* and *Maestic*, under Commander Eric Robinson, R.N.
 19. German expression of regret to Holland for sinking of *Katwyck*.
 Japanese warships near American coast officially stated to have been ordered home.
 Correspondence re seizure of Plakat at Tsingtau issued by Foreign Office.
 20. Russian destroyers in Black Sea Bombarded Turkish positions at Arkhaye.
 22. Passenger and mail traffic between Britain and Holland suspended.
 23. German report of High Sea Fleet's advance into English waters.
 24. British blockade of the coast of the Cameroons declared.
 25. Landing of troops at the Dardanelles begun.
 26. French armoured cruiser *Léon Gambetta* torpedoed and sunk by Austrian submarine U 5 in Oranto Straits.
 27. *Kronprinz Wilhelm* interned at Newport News.
 Steamer *Elfride*, last German trader in Pacific, captured by *Encounter*.
 28. American steamer *Cushing* attacked by German air bombs between North Foreland and Flushing.
 29. German warships reported off Belgian coast.
 Treatment of German submarine prisoners described by Dr. Macnamara.
 Dutch warship *Heemskerk* ordered home from Curaçoa.
 30. King's telegram of congratulation to Admiral de Robeck and General Hamilton.
 Dunkirk bombarded by long-range naval gun near Newport.
 Airship raid in Suffolk; bombs on Ipswich and Bury St. Edmunds.
 Macedonia officially reported captured by a British cruiser.
 Russian collier *Svorono* torpedoed off Kerry coast by U 23.
 May 1. Outpost fighting off Dutch coast; trawler *Columbia* and destroyer *Recruit* sunk by submarine; German torpedo boat rammed by Cardiff trawler *Mauri*; two German torpedo boats sunk by British destroyer division.
 Air attack by naval machines on position of German gun bombarding Dunkirk.
 American oil tank steamer *Gulflight* torpedoed off Scilly Isles; captain killed and two men drowned.
 Norwegian steamer *America* torpedoed off Tonsberg.
 Launch of French battleship *Languedoc* at Bordeaux.
 2. Renewed Russian bombardment of outer Bosphorus forts.
 3. Leith trawler *Cruiser* shelled and sunk by submarine; four killed.
 Trial of hospital ship *Ophelia* begun in London Prize Court.
 Admiralty restrictions for yachting and pleasure cruising issued.
 White Paper issued on labour in private shipyards and arsenals.
 Traffic between Britain and Holland resumed after nine days' suspension.
 Admiralty congratulations on conduct of Dominion troops at Dardanelles.
 Seven Hull trawlers sunk by U 14; three other trawlers sunk; three Norwegian and one Swedish steamers sunk; *Mintorne* torpedoed off Scilly, two killed.
 4. American official report on treatment of German submarine prisoners issued.
 Rear-Admiral R. H. S. Bacon's appointment to "important naval post on south coast of England," involving the hoisting of his flag, revealed by the First Lord.

CHAPTER III.

THE ENEMY NAVIES.

THE outbreak of the War appears to have taken the German Navy in some degree by surprise. At least, its preparations for possible hostilities were not so far advanced as those of the Army. There had been miscalculation. Not "for a scrap of paper" was it thought that England would draw the sword. The customary spring manœuvres had taken place in May, concluding early in June. The Fleet then proceeded to Kiel, and was present when the Kaiser Wilhelm Canal, widened and deepened, was inaugurated on June 23rd and 24th, that event coinciding with the visit of a British squadron, the exchange of courtesies, and the enjoyments of the regatta week. Afterwards a portion of the German Fleet cruised on the Norwegian coast and visited some of the ports, the Kaiser being present in the Hohenzollern. When the shadows of impending war were disclosed, the Kaiser promptly returned, and the ships followed to their ports. The completion of the work on the Kaiser Wilhelm Canal was undoubtedly of immense advantage to the German Navy, and the power of transferring naval forces from sea to sea has been of great service to the Germans in the War. The battleships Kaiser and König Albert, with the light cruiser Strassburg, had been making a cruise to West African and South American coasts; but they had returned in May for the inauguration of the canal and the edification of the foreign visitors. Their steaming had been a very fine performance. But the German cruisers were not distributed on war stations for operations against British commerce—many of them were scattered and useless—and the big potential auxiliary cruiser Vaterland and some others of the Hamburg-Amerika and Norddeutscher Lloyd lines were abroad in American ports, and were laid up to save them from capture. There is no evidence to show that the right of converting merchantmen into cruisers on the high seas, which Germany had reserved, proved of the advantage she expected.

Grand Admiral von Tirpitz, at a later date, said, in an interview, that the scattered state of the German cruisers was proof that no preparation for war had been made, though it was obvious that the distribution of the cruiser divisions and individual ships throughout the world, except in the case of the Mediterranean, to which he may have referred, was based on the peace organisation which had existed

for many years. The Balkan Wars had caused a detachment to be made from the High Sea Fleet, and at the outbreak of war the battle-cruiser Goeben and the light cruiser Breslau were in the Mediterranean. This was undoubtedly felt to be a serious danger for the Germans, because the cruisers could not return home, and have been lost to the Fleet. That they fled to the Dardanelles and were transferred to the Ottoman Navy is well known. Though they thereby were instrumental in bringing Turkey into the quarrel, that development, so caused, does not appear to have been any part of a pre-arranged plan of war.

The strategical ideas which underlay the creation and organisation of the German Navy, as expressed by those responsible for both, present a subject of very curious interest. Prince Bülow, in his "Imperial Germany," said that the German Navy was created with the double object (1) of protecting vast commercial interests of world-wide character and growing volume, and (2) of giving the requisite weight to Germany's spoken word. This has always been the view of the uses of the Fleet expressed by German authorities. Prince Bülow argued that Germany's foreign policy and foreign relations, culminating in the provision of a powerful Fleet, were a necessary consequence of her position as a Continental Power of first-rate commercial and industrial importance. The defence of these vast interests, he said, depended on the new arm, and without it German commerce might be snuffed out by Britain at any moment of her own choosing. Indeed, he remarked, this might also have been the fate of the infant Navy shortly after birth, as witness our destruction of the Danish Fleet in 1807. But the risk of an open conflict was not overrated in Berlin. "Ever since the day," said Prince Bülow, "when I undertook the affairs of the Foreign Office, I have been convinced that such a conflict would never come to pass: (1) If we built a fleet which could not be attacked without very grave risk to the attacking party; (2) If we did not, beyond that, indulge in undue and unlimited shipbuilding and armaments, and did not overheat our marine boiler; (3) If we allowed no Power to injure our reputation or our dignity; (4) If we allowed nothing to make an irremediable breach between us and England; that is why I have always repelled any impertinent attack which was likely to hurt our feelings as a nation from whatever quarter it came, but resisted all temptations to interfere in the Boer War, as that would have dealt English self-esteem a wound that would not heal; (5) If we kept calm and cool, and neither injured England nor ran after her."

Prince
Bülow's
ideas.

The commercial interests to which Prince Bülow referred were set forth with some comments in a chapter of the semi-official

volume of "Nauticus" for 1914, with many facts and figures. In 1913 the proportion of sea trade and land trade in imports and exports was as follows:—

	Sea.	Land.
Imports	75 per cent.	25 per cent.
Exports	60 „	40 „

Argu-
ments of
"Nauti-
cus."

The conclusion of "Nauticus" was that German prosperity depended in very large measure upon foreign trade. One-third of the national requirements in animal products and the products of the earth came from abroad, and a relative proportion of the people were, in a measure, dependent on foreign food, two-thirds of which came oversea. The weakness of the country was that it depended largely for food and raw material upon sea-borne supplies, which would be imperilled in war. England and France were increasing their foreign possessions, which they could close to German trade. It was to be feared that the United States, through the opening of the Panama Canal and their policy in Mexico, might supplant a part of German commerce in Central and South America; and England would not hesitate to allow her colonies more or less to check German competition. Germany was successful rather because of her industry, frugality, and ability than of her national resources. How long would this last? Spain, Holland, France and England had made naval wars out of commercial envy; but this had come to an end when England, in the Napoleonic Wars, destroyed all other naval Powers, and secured "commercial monopoly for herself." She had come to regard this monopoly as her right, and thus the expansion of German *Export-imperialism* excited her opposition. Other States were increasing their trade, fleets and colonies, but no Power was regarded with such aversion (*Abneigung*) by England as Germany.

Possible
causes of
hostility.

Not only was England, according to "Nauticus," confronted with the inconvenient growth of German commerce but with the evolution of the powerful German people. Although better relations had arisen "as a consequence of the increase of the German Fleet," Germany's foreign fleet was the Achilles heel of German Empire. "We live in an age of growing commerce and colonial wars. The Boer War, the Spanish-American, the China-Japan, and the Tripoli Wars were all such wars, and were conducted over seas." In 1911, "Nauticus" thinks Germany was brought close to a decision, and any day might reveal a new problem. "What, then, would happen to our foreign trade, of which, in time of peace, two-thirds are carried over sea?"

"Nauticus" continued with a statement of what it considered to be the perils that menaced Germany, and declared that the Fleet, far from being a "luxury" or "sport" for the Germans, was a vital necessity.

Finally, it quoted the Kaiser's well-known sayings: "*Unsere Zukunft liegt auf dem Wasser*," and "*Bitter not tut uns eine starke deutsche Flotte*." It was remarkable to read these plain statements set forth officially, showing potential causes of hostility between the two countries, published a short time before the outbreak of war.

In every official German statement which has been made concerning the objects of naval expansion the German colonies have occupied a prominent place. The Emperor has always held very strong views on the subject, and under his impulsion a great deal was done to extend the influence of Germany throughout the world. Especial importance was attached to the Far East, and the remarkable speech which the Emperor made on the occasion of the departure of Prince Henry—telling him that if anyone interfered with Germany's good right, he was to "ride in with the mailed fist"—is well remembered. One object was to create a chain of coaling stations for the Fleet, and more recently telegraphic cables and wireless stations have linked up the foreign possessions with the home-land.

The distribution of the German Fleet, which is intimately related to these questions, has always been a subject of much discussion and controversy. The Navy having been created to increase the prestige and secure the objects of a *Weltreich*, a world-wide distribution was necessary, and was provided for. This point was not clearly recognised by the Reichstag in the old days before the Navy Law of 1900, and it was no uncommon thing to find a few cruisers struck out of the annual programmes. When the Law of 1900 was introduced, the Reichstag made it a condition that certain armoured and other cruisers, intended for foreign service, should be excluded. Admiral von Tirpitz consented, but said that in due time he would ask for them again; and he was as good as his word, for they appeared (except the small cruisers which had also been refused) in the amendment of 1906. The armoured cruisers were changed into battle-cruisers; but, though originally proposed for foreign service, they were now definitely intended to form part of the High Sea Fleet, and the foreign fleet had yet to be created. Admiral von Tirpitz, speaking on the second reading of the German Navy Estimates, February 20, 1914, expressed his mind on this subject:—

Foreign
service
cruisers.

There is no doubt whatever, he said, that the political and economic advantage of the appearance of our ships abroad is in many cases not fully appreciated. We need only ask the Germans who live abroad. They will confirm the fact to the full. It is not only an economic and political necessity for us to bestir ourselves in the foreign service, but it is also a military necessity. A great Navy must be in constant touch with the ocean and with ocean conditions. If in recent years we have not achieved this in the measure we could have desired, it has been due to circumstances which I need not discuss more closely. We needed a concentration in home waters corresponding to the circumstances. We must, however, be more active with our Navy abroad. The point is that the number of our ships abroad (*Auslandsflotte*) contemplated by the Navy Law has not yet been reached.

The existing armoured cruisers were meanwhile deemed suitable for distant employment, and the Scharnhorst and Gneisenau were sent out to Kiao-chau. The squadron based on that place was the most important of all Germany's naval forces on foreign stations, and attached to it were several river gunboats for the Yang-tse. What would be the situation of Germany, it was asked, if, in the presence of China, she had no force, nor show of force, behind her demands? In the light of the events of the present war, which has seen all the German cruisers on foreign service destroyed or interned, it might seem that the armoured cruisers, at least, would have been of greater service at home. But naval forces have a function in peace as well as in war, and the squadron in the Far East was the sign of Germany's prestige and power. It is indeed difficult to see how the Germans could have done otherwise than station a considerable force, even with their limited means, in that part of the world, and the destruction of the squadron and loss of the possession were the inevitable consequence of Germany being engaged in war with the great Sea Power.

Objects
of the
German
Navy.

The strategy which underlies, or has underlain, the character, organisation and use of the German Fleet is of such absorbing interest in view of the events of the War that no excuse is required for dwelling upon it. No German officer possessing any authority has ever expressed himself on the question, except in the broadest sense, implying Germany's object to hold her place in the world, as stated by Admiral von Tirpitz, to extend her possessions and influence, and to protect her commerce and industries. The actual service upon which the Fleet would be employed has always been obscure, and the Germans themselves have never had a clear conception of the strategy by which their objects were to be attained. In the days of Prince Adalbert, sixty years ago, there were no plans except for the maintenance of a local defence Fleet, with certain vague conceptions of the need of defending ocean-borne commerce. The schemes did not go beyond the creation of a second-class fleet, though in the seventies of the last century there became evident a certain desire to do more, originating chiefly from the colonial expansion which began in the latter years of the Chancellorship of Bismarck.

From that time onward it is possible to trace the growth of ideas. There was the scheme of a sallying fleet (*Ausfallsflotte*), which was expressed in the preamble of the Law of 1888—a fleet which should do what damage it could and then return. The fleet would still be a second-class fleet, depending for any success on striking sudden and unconnected blows. This plan was superseded by larger schemes

in subsequent years, and was thought no longer to exert any influence on the conceptions of German strategy. But the War has shown that this was not the case. Admiral Hipper's abortive attempt to bombard Yarmouth, and his later shelling of Scarborough, Whitby, and Hartlepool with his squadron of battle and armoured cruisers, were entirely in conformity with the idea of the "sallying fleet."

The next idea, which was announced in the preamble of the Law of 1900, was that of the "principle of risk," and *Risikogedanken*—that is notions of creating such a fleet that the greatest naval Power would not venture to cross swords with Germany because her own position would be imperilled—had a really wonderful effect in bringing about German naval expansion. This new point of view has been attributed correctly to Grand Admiral von Tirpitz, and upon the resulting conceptions of strategy the modern German Navy has been created and organised.

But, in practice, we are confronted with the fact that nothing which was expected to happen has happened. The greatest naval Power, being challenged, did not hesitate to take action, and her position, instead of being weakened or endangered, is strengthened. The truth is, of course, that in naval strategy only superiority can win. The inferior fleet cannot expect to be victorious over the superior. There has been, it must be recognised, a serious complication for the Germans. In the naval sphere, as in the military, they have had to fight on two fronts. The Baltic has always been a great preoccupation for them, and the Kaiser Wilhelm Canal could not enable a fleet to be in two places at once. This difficulty has grown within recent years owing to the rise and pronounced regeneration of the Russian Navy.

From these conditions, and chiefly from the former, a weaker defensive line of strategy appears to have been imposed upon Germany, and the plan of the sallying fleet has been brought into prominence again. This may be said without attempting to forecast the future action of the German Fleet. Grand Admiral von Tirpitz, in an interview, stated that the German Fleet would not be so foolish as to engage the British Fleet at a disadvantage. The strategy of attrition was conceived as offering some prospect of giving the advantage sought, but it has completely failed. The submarine campaign was instituted mainly to take part in attempts to advance the same end. The inability of the Navy to take action has driven Germany to strange courses, and the submarine attack on commerce, and even on passenger vessels, and the raids of aeroplanes and airships, are all proofs that Germany has been driven back on

The
 "sally-
 ing" and
 defensive
 Fleet.

the original conception of her Fleet as an inferior and second-class fleet. It has been hoped by some means to divide the British Grand Fleet, and not improbably the desperate attempts which have been made to reach Calais have been inspired by this idea. A German army on the seacoast would be powerless to act. Sea command would be necessary for its operations, but it may have been conceived possible to bring up big guns of long range, thus to do some damage, and, perhaps, to disturb the strategic distribution of the Fleet.

Bernhardi

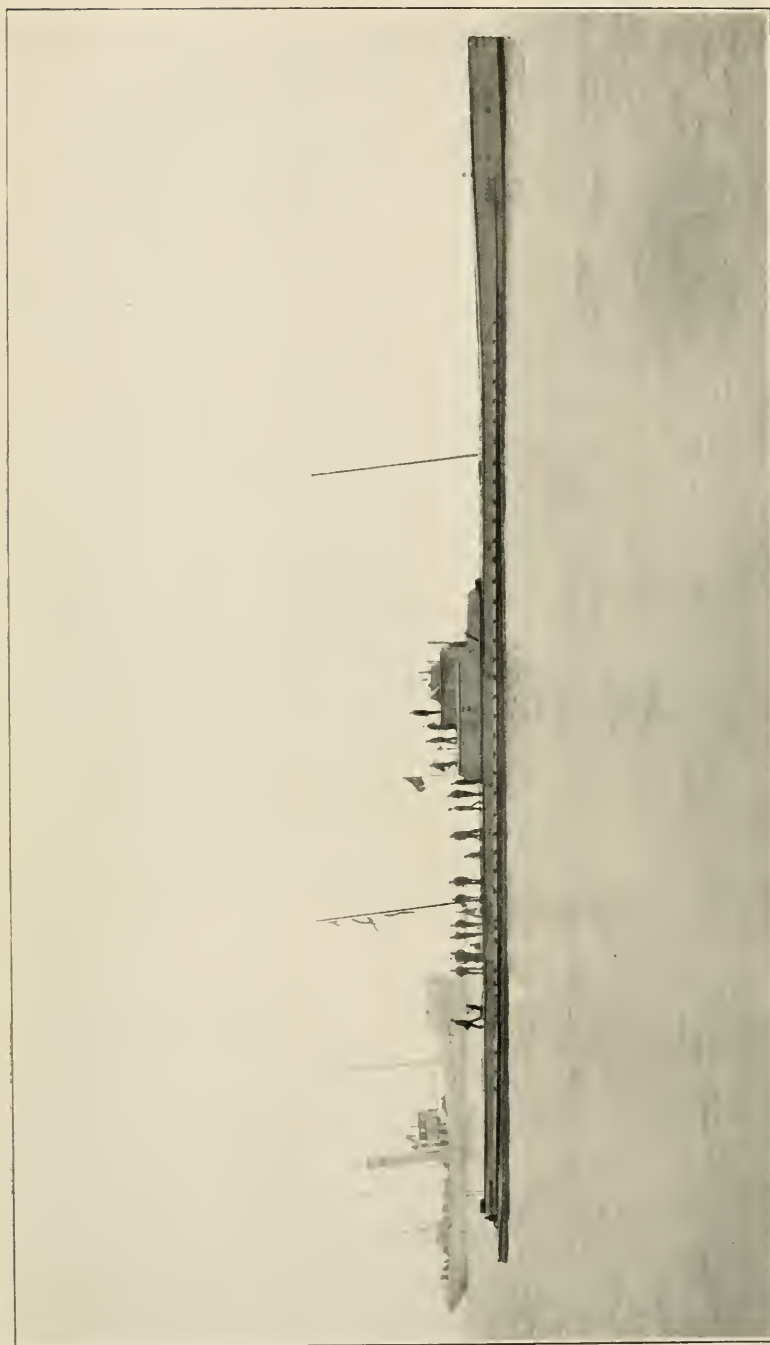
General von Bernhardi, though he disavows any official inspiration or naval knowledge, nevertheless expresses ideas in his notorious book, "Germany and the Next War," which correspond closely to the policy which Germany has adopted and the successes she has hoped to attain. He betrays the soldier's faith in the value of coast fortifications. He says:—

We must not forget that it will not be possible for us for many years to attack on the open sea the far superior English fleet. We may only hope, by the combination of the fleet with the coast fortifications, the air-fleet, and the commercial war, to defend ourselves successfully against this our strongest opponent. The enemy must be wearied out and exhausted by the enforcement of a blockade, and by fighting against all the expedients which we shall employ for the defence of our coast; our fleet, under the protection of these expedients, will continually inflict partial losses on him, and thus gradually we shall be able to challenge him to a pitched battle on the high seas. These are the lines that our preparation for war must follow. Strong coast fortresses as a base for our fleet, from which it can easily and at any moment take the offensive, and on which the waves of the hostile superiority can break harmlessly, is the recognised and necessary preliminary for this class of war. Without such a trustworthy coast fortress, built with a view to offensive operations, our fleet could be closely blockaded by the enemy, and prevented from any offensive movements. Mines alone cannot close the navigation so effectively that the enemy cannot break through, nor can they keep it open in such a way that we should be able to adopt the offensive under all circumstances. For this purpose permanent works are necessary which will command the navigation and allow mines to be placed.

It will now be useful to set forth briefly the recent steps by which the German Fleet has been expanded, and to say something about its material character. As everyone knows, the modern German Navy came into existence through the operation of a series of Navy Laws or amendments to Navy Laws. The two great instruments have been the Laws of 1898 and 1900, and the amendments to the latter. Expansion in the number of ships and vessels of all classes went on hand in hand with the increase of the *personnel*, developments in organisation, and the augmentation of all kinds of resources.

Stages of
Naval ex-
pansion.

A tabular statement will best show the stages of expansion, so far as they have been defined by law. It will be observed that the one great object has been to add to the strength of the sea-going fleet, and that not only have the old coast-defence ships gone, but that the



*By favour of Mr. A. T. Beach,
Editor "Correspondent," New
York American.*

GERMAN SUBMARINE "U 36."

(Showing the boat in surface trim, with hinged masts and gun in position.)
Photograph taken during the capturing of the Batavier V, and Zaandvroom.

material reserve was, as a measure of expediency, absorbed in the active formations.

	1898	1900	1906	1912
Fleet Flagships	1	2	2	1
Battleships	16	32	32	40
	(2 squadrons)	(4 squadrons)	(4 squadrons)	(5 squadrons)
Coast-Defence Ships	8	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
Battle Fleet Cruisers :				
Large	2	4	8	12
Small	8	16	24	30
Foreign Service Cruisers :				
Large	5	10	8	8
Small	5	10	10	10
Material Reserve :				
Battleships	2	4	4	<i>Nil</i>
Large Cruisers	1	2	4	<i>Nil</i>
Small Cruisers	2	4	4	<i>Nil</i>

It must be observed that when the Germans spoke of "large cruisers," they meant armoured cruisers, such as the *Yorck*, *Gneisenau*, and *Blücher*, but that when armoured cruisers ceased to be built, and "Dreadnoughts" began to take their place, the term "large cruisers" implied battle-cruisers, such as the *Von der Tann*, first of the class to be built, and the *Seydlitz*, last completed of the class, carrying the biggest gun. There were to be forty-one battleships and twenty large cruisers, these, of course, including many pre-Dreadnoughts, but also super-Dreadnoughts, and in effect the Law, by its system of obsolescence, proposed to give Germany at any time sixty-one of the most powerful ships which could be brought into existence by a regular system of building from year to year. Before the War the High Sea Fleet consisted of four battle squadrons, three of them in full commission, and a beginning was to be made in the creation of a fifth squadron. In order to bring about this arrangement, three additional battleships were required, one being provided in 1913, known as *T*, which was laid down at the Howaldt Yard, Kiel, another being intended to be laid down in 1916, and a third at some undetermined date. Of the two last-named nothing is known.

The small or light cruisers were intended partly to act as scouting vessels with the Red Sea Fleet, but mainly for foreign service and the attack upon commerce. The operations of the *Dresden*, *Karlsruhe* and *Königsberg* were typical of their objects in the latter sphere.

The establishment of destroyers was 144, twelve being built in each year, and seven destroyer flotillas had been placed in commission.

The submarines were to be seventy-two in number, and six were to

be built in each year. In 1913 twenty-four submarines were kept in commission, but a number of these were of the earlier types. In the spring of 1914, before the War, the Germans had twenty-eight submarines in existence. Little was heard of this branch of the German service, which was located with headquarters at Kiel, under a flag officer, for, as the *Norddeutscher Allgemeine Zeitung* remarked, "this department of the Navy did its work without desiring publicity."

Sub-
marines.

The Germans began late in building vessels of this class, but rapid progress has been made, and submarines were built which displace from 800 to 1000 or 1200 tons, have a surface speed of 18 knots, if not more, and a range of 4000 miles. How far these vessels have cruised in the recent months of the War is well known. Submarines were put in hand in considerable numbers, several which were building in Germany for foreign Powers were taken over, and at Hoboken, near Antwerp, an establishment for building submarines, which was raided by British airmen, was set at work, probably with much special material sent from Germany. The work has gone on with great rapidity, and vessels of increasing power have been sent to sea. The numerical denomination of submarines actually known goes up to about forty, and there is reason to believe that some of the earlier numbers have been given to modern substitutes.

Their
guns.

The Krupps fit to submarines guns of 2·95-in. and 1·456-in. calibre. The first-named weighs 1895 lb. Under water the weapon is concealed in a deck compartment, which is said not to be water-tight, the steel containing a large proportion of nickel to prevent corrosion. The gun can be raised in 20 seconds and returned in the same time, though it is questionable whether fire can be opened within less than a minute or two, or the cover be closed so rapidly as this figure would indicate. Three men serve the gun: the gunner in charge, a man at the breech, and a man who loads. When the cover of the compartment is opened and a bolt withdrawn, the gun with its mounting is brought up into the vertical position by the action of a spring and held there with spring catches. The gun body is surrounded with a cradle which pivots round its trunnions in the brackets of the gun support. It is fitted with the recoil cylinder and running-out springs. The gun can be elevated to different angles and trained laterally. A larger gun has the base of its mounting fixed in the hull, and has to be brought up and mounted before being ready for action. This necessarily occupies much longer time.

Their
engines.

Great attention is directed to the propulsion and range of German submarines, and I am indebted to Mr. A. P. Chalkley, editor of *The Motor Ship and Motor Boat*, for some notes on the subject. For the propulsion on the surface of German submarines, apart from one

or two of the very earliest craft, Diesel engines are exclusively employed. As is probably well known, the principle upon which these machines operate differs from that of the petrol or paraffin motor, in that pure air is drawn into the cylinder on the suction stroke, is compressed on the compression stroke, and the fuel is only injected (by means of a blast of highly compressed air) when the maximum compression pressure is almost attained. The heat of the compressed air, and the atomised state in which the fuel is injected, cause very efficient combustion of the oil, and permit of heavy and cheap fuels being employed.

There are practically only two firms in Germany making engines for submarines, these being Krupps, who construct them at Kiel, and the M.A.N. (Maschinenfabrik Augsburg-Nürnberg), who build motors both at Nuremburg and Augsburg, the two-cycle type being manufactured at the former works and the four-cycle at the latter. Standard machines are built by the two firms, and the type of motor which has been most commonly employed in the latest submarines is one developing 900 b.h.p. at about 400 to 450 r.p.m. With each submarine two motors of this size are installed, and the speed attained by the boat is usually about 16 knots with the engines working at full power. Latterly, however, some motors of about 1250 b.h.p. have been constructed, but the results of these in operation are unknown.

All the motors are directly reversible by means of compressed air, the various valves being set in their correct position for running astern by turning the camshaft through an angle relative to the crankshaft, or else moving the camshaft longitudinally. In the case of the motors built by Krupps, six-cylinder machines are adopted, with a scavenging pump at each end and two air compressors in the centre for the supply of air for injecting the fuel into the combustion chambers and also for starting up the engines. All the cylinders are carried on the same bedplate, so that the motor is somewhat long. In each cylinder head are five valves, these being the fuel inlet valve, the starting air valve, and three scavenging air valves for the admission of the scavenging air which clears out the exhaust gases from the cylinder and leaves it filled with pure air for the compression stroke.

The Nuremburg engine is an eight-cylinder machine, but in this case the two air compressors are at the end, and there is a separate scavenging pump for each working cylinder arranged beneath it, the main piston being stepped so as to form the piston of the scavenging pump. This arrangement naturally makes a somewhat higher engine, but the length is reduced. The motor develops 900 to 950 b.h.p. when turning at 450 r.p.m., and the cylinders are 310 mm. bore with a stroke of 340 mm.

In both these types of machines many modifications are made from ordinary Diesel engine practice, owing chiefly to the high speed of rotation and the small available space. For instance, the valves are inclined to the cylinder head, which is not usual in ordinary motors, and the camshaft is arranged well over the top of the cylinder somewhere near the centre. Manganese bronze is used largely in the construction of the engines, chiefly in order to reduce the weight whilst maintaining sufficient rigidity and strength. The result is, on the whole, very successful, since the engines only weigh 20 to 22 tons complete. One of the main difficulties encountered in the design of the motors is that of maintaining the pistons sufficiently cool, and with the machines in question it is usual to employ oil cooling, the oil being pumped through the hollow connecting rod to the body of the piston at a pressure at about 30 to 40 lb. per square inch.

The four-cycle Diesel motors built for German submarines at the Augsburg works of the M.A.N. are constructed with six or eight working cylinders and two vertical air compressors driven direct off the crankshaft. Scavenging air pumps are, of course, unnecessary in this case, since the motors operate on the four-cycle principle. This type of engine is also directly reversible, compressed air being employed for the purpose as in the other cases. The Augsburg machine has a slight advantage over the others in fuel consumption which is something under half a pound of oil per b.h.p. hour, or rather less than 900 lb. of oil per hour for the whole submarine when travelling at full speed. This low fuel consumption accounts for the high range of action of modern submarines, since it is possible to carry sufficient fuel for a range of about 3000 miles without any incursion into the storage or other spaces in the submarine.

Officers
and men.

The man is more than the machine, and now we turn to the *personnel* of the German Navy. Undoubtedly, before the War, a very great strain had been imposed upon the system and organization. Officers require years to train, and men cannot be trained in a day. About seventy per cent. of the latter come into the Navy every year, and of these only one half are from the seafaring or semi-seafaring population. The expansion of the Fleet made it extremely important to make most strenuous efforts to complete numbers and train the men. No doubt the laying up of mercantile ships in the harbours of Germany has placed large numbers of men and some officers, many of them belonging to the *Seewehr*, or trained reserve, at the disposal of the authorities, and probably the complements of some of the ships, which were in a higher scale than in our own Navy, have been reduced in order to provide for other ships. What ships are now in

commission is not fully known, but before the War some of the older vessels had gone out of commission, and their complements had been used to provide for the new ships of the Fleet. In the last resort men can be drawn from the *Landsturm* for the naval service. At the beginning of last October the new contingent would come into the Fleet in the ordinary course, and the officers have been employed in training them all the winter.

The question of the officers themselves is more difficult. There has been a call, and must be an increasing demand, for young officers, especially for the sea and air service. But there is ordinarily no promotion from the lower deck to the quarter deck. There has been no system analogous to that of our "mates." The German Navy is an aristocratic service, and generally, as Captain von K hlwetter said in the *Naval Annual* in 1913, the officers "occupy a particularly privileged position as regards the reigning princes and the State and society." They are undoubtedly a particularly efficiently trained corps and possess very high professional and scientific attainments. Indeed, no Naval officers approach in their qualities so near to our own as the officers of the German Navy. The writer has known many of them, and would like to place on record his conviction that there is not one of those he has met of whom it would be possible to believe that he would willingly sink merchant vessels or liners carrying innocent civilian lives. The Kaiser once exhorted the corps of Naval officers to keep honour as their "most precious jewel." "To keep it pure and free from reproach must remain the most holy duty of the whole profession." In the light of what has happened, it is interesting to place on record this very characteristic utterance.

But, as has been said, the exclusive character of the corps of German officers presents a difficulty when expansion is required. Promotion from the lower deck is hardly possible. Recently it was, indeed, stated that preparations were being made to institute a body of *Marine Leutnants*, being, probably, promoted warrant-officers, but they were to be distinct from the *Leutnants zur See*. The school at M rwik, near Flensburg, cannot produce all the young officers required, and extraordinary measures must certainly be in course of organisation. Few of the Reserve naval officers, who come from the *Seewehr*, are in the youthful vigour necessary for submarine and air service, and it is probable that many of the "one-year volunteer" class, who are drawn from a higher stratum of life, are being trained for the officer corps. Probably the provision of engineer officers does not present the same difficulty, a high social standard not being required for them, and they are, indeed, to a large extent a class apart from the executive officers.

Problems
for the
Germans.

The
Austro-
Hun-
garian
Navy.

Little can be said concerning the navies of Germany's allies. The Austro-Hungarian Fleet has played an inconsiderable part in the War. Pola, Sebenico and Cattaro have practically been blockaded, and the big Austrian ships have not appeared in the open. Apparently they have adopted the sedentary strategy of the German High Sea Fleet, remaining "in being" but not acting effectively.

The torpedo cruiser Zenta was sunk early in the War off Antivari. The most notable incident in the hostilities was the action of Lieut. Georg Ritter von Trapp, who in submarine No. 5, a boat of 235-500 tons, built at Fiume in 1900, issued from the shelter of the islands, passed through the Strait of Otranto, and torpedoed the French armoured cruiser Léon Gambetta in the Ionian Sea.

The demands of the Army have evidently interfered with the further expansion of the Navy which was projected by Count Montecuccoli and his successor, Admiral Haus. Of the Dreadnoughts, the Viribus Unitis, Tegetthoff, and Prinz Eugen have been completed, but it is uncertain whether the fourth of the class, Szent Istvan, which has been built at Fiume, has yet joined them. Three others, much more powerful, were to be built, but it is very doubtful whether they have been begun.

Three light cruisers (Novara, Saida and Helgoland, 4800 tons), have been completed, and three others were put in hand. One of them was building at Monfalcone, where the building slip, either as the result of accident or malicious damage, broke down, and injured the vessel considerably. Of the actual situation of these three additional cruisers nothing is known.

The six destroyers of the Tatra class, 787 tons, are in the service, and no doubt progress has been made with several of the seventeen smaller boats, 246 tons, which were to be built at Trieste, Fiume and Monfalcone.

There were six submarines of the smaller classes, and eight others were ordered, said to be of 1000 tons, provided with five tubes and guns. Six of the latter were being built at the Germania yard, Kiel, and two of them may have reached Pola before the outbreak of war; but either four or six of these powerful boats have probably joined the German Navy. They are evidently of the class which can navigate at something like 20 knots on the surface, and have a range of 4000 miles. On the other hand, it has been stated that German submarines, doubtless of the best class, have entered the Mediterranean, and they may have reached the Adriatic. It is also believed that some submarines have been sent overland by rail, each in four sections. The Austrians have in addition acquired the

French submarine Curie, which they caught outside Pola harbour. She has received the name of Zenta.

The other ally of Germany is Turkey, and the Ottoman Navy, in the year before the War, promised to become a very respectable force. Powerful ships were put in hand, and the Navy was in process of reorganisation under the impulsion of Admiral Limpus and a staff of British officers. At the outbreak of hostilities the fine battleships Osman I. and Reshadieh, which were completing respectively at Elswick and Barrow, were taken over for the British Navy, under the customary clauses in the contracts, and received the names of Agincourt and Erin. The dockyards were to have been reorganised with the co-operation of British contractors. Turkey's expansion was in full progress, with fear of Greece as its cause.

Ottoman
naval
forces.

But when war broke out the scene changed entirely. The Turks were already under German military influence, and when the Goeben and Breslau escaped to the Dardanelles, the Porte threw in its lot with the central Powers, and the occupation of Constantinople became a military object of the Allies. The Goeben was a fine battle-cruiser, but she was injured by touching a mine, or otherwise, and has played no useful part in the operations. Though, with the Breslau, she has been seen in the Black Sea, the command of those waters soon fell to the Russians. More important, probably, to the Turks than the addition of the two cruisers to her navy was the accession of German professional skill to their service. Probably the destroyers, one of which sank the Goliath inside the Dardanelles, on the night of May 12th, were commanded by German officers. The Turks have lost the old battleship Messoudieh by torpedo attack (B 11, Lient. Holbrook, V.C.) in the Dardanelles, and the Medjidieh by mine in the Black Sea.

Exclusive of the two German vessels, the Ottoman Navy, by these losses, was reduced to the two old battleships which were bought some years ago from the Germans, another old armoured ship, a few cruisers, and about eight useful destroyers.

JOHN LEYLAND.

CHAPTER IV.

THE UNITED STATES NAVY.

IT is impossible to treat the Navies of the Powers in this edition of the *Naval Annual* in the manner adopted in previous volumes. The Allied Navies are seen in their actions in Chapter II., and in tables and diagrams based on officially published authorities in Part II. Of the Enemy Navies little can be said in illustration of their development, but their policy is of real importance, and Chapter III. is devoted to them, and, of course, mainly to Germany. In view of the Italian declaration of War against Austria-Hungary, May 23rd, nothing can be said prudently concerning the Italian Navy. Moreover, there might be little to report, except that the inquiries into administration and organisation have borne good fruit, and that progress has been made with the programme. Of the lesser Navies there is not much to record. Generally, the programmes which were described in the *Naval Annual* last year are making halting progress, the chief developments being in the expansion of the flotillas.

There remains the Navy of the United States, concerning which it will be useful to show the progress and explain the policy.

The battleships Texas and New York, first to carry 14-in. guns, have been completed, and the Oklahoma and Nevada are very far advanced. In the Votes of 1913 one battleship was provided for, the Arizona (No. 39), which is building at the New York Navy Yard, and is a sister of the Pennsylvania, 31,400 tons, twelve 14-in., twenty-one 5-in. guns. The Pennsylvania was launched March, 1915. In 1914 the programme adopted included two battleships, but later in the year Congress authorised the sale of the old Mississippi and Idaho to Greece, and a third battleship was authorised to be built, thus making three for the year. These are to be named Mississippi, Idaho, and California, the armoured cruiser California having been renamed San Diego. These new ships will be called the California class, and will in all general respects be sisters of the Pennsylvania, though 600 tons heavier, and having the secondary armament differently grouped, in order, according to the Naval Secretary, to make them "available for defence against torpedo-boat destroyers irrespective of any conditions of weather." The ships will be conveniently

Battle-
ships.

fitted, and the crew of each will have a reception-room where they can welcome their friends. The California will be built at the New York Navy Yard, the Idaho by the New York Shipbuilding Co., and the Mississippi by the Newport News Shipbuilding Co. All the battleships from the Pennsylvania onward are oil-driven.

Two other battleships of the same class are in the new programme. The Secretary of the Navy said in his last annual report that the General Board were convinced that, while submarines will play a large part, they do not replace larger vessels, and therefore the Board recommended four battleships, with destroyers, submarines, and auxiliaries.

Ship-
building
policy.

The General Board reiterates the opinion it has always held that "command of the sea can only be gained and held by vessels that can take and keep the sea in all times and in all weathers and overcome the strongest enemies that can be brought against them." It declares, "other types are valuable and have their particular uses," but "the backbone of any navy that can command the sea consists of the strongest sea-going, sea-keeping ships of its day, or, of its battleships." The opinion of the General Board as given in their annual report, based upon study, investigation, and observation, is entitled to great weight. The department feels that it is upon safe ground in looking to the Board to prescribe the character of the ships to be constructed. The large increase in submarines is most desirable, but nothing in the present war has disproved their faith in the modern Dreadnought. The fact that there has been no encounter between these powerful ships does not justify the conclusion that their further construction should be discarded in favour of the smaller craft which has astonished the world by its ability to sink cruisers and other craft, giving its severest and most fatal blows before its presence is discovered. It may be that naval engagements later on will teach lessons that will change expert opinion, but as long as the bulk of the ablest naval officers believe the increase of the Navy should embrace, in fair proportion, the Dreadnought, the destroyer, and the submarine, the Secretary would not feel warranted in recommending a widely different programme of construction.

No cruisers of any kind are being built for the United States Navy, but there is a large destroyer programme. The Cassin, Duncan, Aylwin, Benham, Parker, Balch, McDougal, and two or three others have been completed. These belong to the programmes of 1911 and 1912, there being fourteen in all. They are vessels of 1050 tons and 30 knots speed. The Cushing and some others have been launched. Six others were voted in 1913—Tucker, Conyngham, Porter, Wordsworth, Jacob Jones, and Wainwright—and six are in the new programme.

Destroy-
ers.

On the subject of submarines the Naval Secretary reported as follows:—

Sub-
marines.

In view of the demonstrated power of the submarine, I would impress upon Congress the importance of making a larger increase in the submarine craft, appropriating generously therefor without reducing the appropriations for other craft. The estimates for these were reduced to the minimum. That our Navy has not neglected the construction of submarines will be seen by a comparison of our strength in this craft with that of foreign navies. It is roughly estimated that there are built or building for the various navies the following number of submarines: England, 84; France, 76; United States, 51; Germany, 31; Japan, 17. This estimate was made in July of this year (1914).

Eight or more submarines were provided for in 1914, and the same number appear in the new programme, seven of them to be of coast-defence type and one of sea-going type. Submarines H 1 to 3, K 1 to 6, and G 4, as well as some others, have been completed. The H boats displace 350-400 tons and have four torpedo tubes. The speed is 14 knots on the surface and 11 knots submerged. The K boats are a little larger (390-530 tons) and have half a knot more surface speed. The L and M boats, which are coming on rapidly, displace 750 tons on the surface.

Submarine F 4, which was quite new, was lost at Honolulu, March 25, 1915, with all her complement of twenty-five officers and men. She dived and did not rise again.

Aircraft.

In the course of his report the Naval Secretary enforced the importance of aeronautics. A board of experienced officers had recommended the establishment of the flying school at Pensacola, Florida, and aeroplanes were being built and others procured from abroad.

Aircraft have demonstrated in the present war in Europe that no military arm is complete which lacks them. They will not replace vessels of war, but will extend the field of operations to the air as well as on the surface of and underneath the water. The recent wars have demonstrated the inestimable importance of scouting, and the day is not far distant when a modern Maury will chart the currents of the air as that great naval officer charted the currents of the ocean. Aircraft on the land prevent surprises of the character which have determined most military victories. They provide the best means for discovering submarine mines, and have now become an indispensable naval adjunct. We are but in the infancy of aircraft. The development in the manufacture of these craft in this country needs to be stimulated, and the success of this arm of the military service abroad will be a mighty stimulus to American manufacturers.

A strong recommendation has been made for the institution of a State armament factory, and the Secretary of the Navy supported this, and adverted in derisive terms to the circumstance that the three concerns which tender for armour plating made identically the same tenders to a cent.

Erosion of
guns.

Some interesting points appear in the annual report of the Chief of the Bureau of Ordnance. He says that the Bureau is still continuing its investigations on the subject of erosion, and systematic collection of data is being made, in addition to minor improvements in type of rifling and shell bands.

Director
firing.

Director control was first tried in the Delaware, and other trials were made at regular target practice in which the score of that ship could be compared with those of the other competing vessels. "A careful study of the scores indicates that the idea possesses value, although not to so great an extent as was claimed by some enthusiasts." In consequence, director installations have been authorised for the Michigan, Wyoming, Utah, North Dakota, South Carolina, and New

Hampshire, in addition to the Delaware, already installed. It is proposed to extend this authority to the Arkansas, Florida, New York, and Texas. If the experiment in the New Hampshire proves satisfactory, the installation may be placed in all pre-Dreadnoughts. These installations are additional, and do not affect the individual handling of the guns.

The following is a report of the Chief of the Bureau of Ordnance on the subject of torpedo net-cutters :—

Torpedo
nets and
cutters.

The torpedo station has developed a satisfactory net-cutter which will operate at almost any degree of obliquity with the net, and these net-cutters are being manufactured for all long-range destroyer torpedoes and for all torpedoes for the new submarines. The Bureau has not yet purchased the torpedo nets for the Oklahoma and Nevada and subsequent battleships, but has been experimenting with net-cutters and with nets with a view to determining, if possible, the kind of net that would be most effective. The possession of a successful net-cutter again places in doubt the value of the torpedo net. However, some percentage of failures will occur with almost any device, and it is probable that the best net-cutter will have its share. This places the net in somewhat the same position that armour occupies—that it will not invariably keep out all shell, but that it will have a certain percentage of success—and the question arises as to whether the net is worth the sacrifice made for its use. While the value of this torpedo defence would be greatly enhanced by having a double net, the inner net must be carried so close to the skin of the ship as to render it vulnerable to the large explosive charges now used in modern torpedoes.

Whatever part the United States Navy might be called upon to play, there is reason to believe that it would be ready. A demonstration of the all-round efficiency was given when the orders to Mexico were issued. When Rear-Admiral Badger, Commander-in-Chief, received his orders, he said: "I do not know what we will be called upon to do, but we are ready." Within twenty-four hours the ships were ready, and hurried to the Gulf. It was a subject of congratulation that everything was so smartly done. There were tens of thousands of tons of coal, supplies, provisions, ammunition, and war equipment to be put on board, innumerable administrative details to be attended to, and a score of ships to be put in readiness, but almost before the country realised the purport of the orders, the work of preparation had been ended and the ships were *en route* to their destination.

JOHN LEYLAND.

THOUGHTS ON THE PRESENT AND THE FUTURE.

A POSTSCRIPT TO CHAPTER I.

AN essay, which was privately printed, appears, by desire of the Editor, as an introductory chapter to the present volume of the *Naval Annual*. Three months have elapsed. Let us briefly review the present position.

I.

Our Navy still holds, unchallenged, the command of the high seas. In narrow waters, as Sir Percy Scott predicted, the under-water attack has proved a formidable danger. Battleships have been sunk. The loss of the *Lusitania* has stirred public feeling throughout the civilised world. The disaster may have far-reaching effects. The Government of the United States has addressed remonstrances to Germany, in terms which might have been followed by a declaration of war. It is seen that armed intervention would do no good. America may, and will, help us in other ways. By intense vigilance, vast armies have been sent across the seas in safety. The mercantile vessels destroyed have been, for the most part, of limited size and speed. The attacks on fishing-boats are contemptible.

By the formidable power of the torpedo, invasion of this country may be made impossible. With the flotillas of various vessels, destroyers, submarines, and mine-layers which the Admiralty are creating, and which must be continually maintained and kept up to date, not a man could be landed on our shores. How different the conditions from those with which Pitt and the statesmen and commanders of the elder day had to deal. The subject has an important bearing on the general policy with regard to the defence of these Islands.

Let us now consider the military situation. We and our Allies have poured out blood and treasure as never before in the history of the world. Never has such heroism been displayed. Never have armies fought so desperately and so long. Never has warfare been so barren of results in victory or defeat. We have two gains of priceless value. We have proved ourselves once more a martial race, not enervated in body or in spirit by the march of civilisation. The Empire has been strengthened beyond measure by the loyal enthusiasm of our Dominions beyond the Sea.

France and Russia, our brave and faithful Allies, have done their part. Italy has now come in. Roumania may follow. We must

continue our efforts. We have still much to do to make our second Army efficient for the field, in equipment, arms, and training. Our soldiers have won the admiration of the enemy.

The Germans are still fighting with tenacity. The honour of their nation is deeply stained by brutality, and by methods of warfare which have destroyed all the chivalry that once distinguished the profession of arms. Nothing can be pleaded in excuse. It may be that Germany is approaching a situation of dire difficulty in recruiting for her armies. We may not be far from the time when a word spoken in season from a position of responsibility would have a telling effect. The re-arrangement of the map of Europe, which must be undertaken as a consequence of the present war, will demand the ablest statesmanship.

It is not necessary to write of the recent changes in the Ministry, or to dwell on points which are obvious, such as the need for munitions and the abiding necessity of a strong army with the colours and in reserve. Let us never again disarm.

II.

Looking to the future, the true aim for British Statesmen should be to make our country great, as the Motherland of that grand Colonial Empire which we have inherited from our forefathers. Within the narrow limits of these islands it is not possible to compete in population and in natural resources with the vast territories of the Continental Powers. In Canada and in Australasia there is no limit to possible expansion. Nor need we fear disruption. The bonds which unite the Motherland and the Daughter-states rest on a broad foundation. At the opening of the first Colonial Conference, held at Ottawa in 1897, it was finely said by Sir John Thompson, then Premier of Canada: "On this happy occasion these delegates assemble after long years of self-government in their several countries—years of greater progress and development than the colonies of any Empire have yet seen in the past. We have met, not to consider the prospect of separation from the Mother Country, but to plight our faith anew to each other as brethren, and to plight anew with the Motherland that faith which has never yet been broken or tarnished. Your Majesty's reign has, under divine Providence, endured for half a century, and, amidst revolutions and changes of dynasty and systems of government in other countries, the principles of the laws of your predecessors for a thousand years still offer to your subjects that safety and prosperity, and to the Empire that stability, which claim the admiration of the world."

In the years that have elapsed since the Conference was held at Ottawa, our brethren beyond Sea have given many proofs of loyal attachment. There was no fear of separation during my residence of five years—five happy years—in Australia. Nowhere could we look for more loyal demonstrations than those in Melbourne on the occasion of the Diamond Jubilee of Queen Victoria. The Irishmen were conspicuous with their green scarves in every procession. I was serving in Australia when the first contingents were despatched to South Africa. We were eye-witnesses of those moving scenes. There was the same disinterested patriotism, the same loyalty to the old flag, in Free Trade Sydney as in Protectionist Victoria. It was no question of tariffs. Men do not lay down their lives in battle for a 2s. a quarter duty on corn. When the reverses came in South Africa, and the Empire needed help from all her sons, with one heart and one voice they responded to the call. They were moved by no sordid considerations—*Amor patriæ ratione valentior*. The people had carried into their new homes beneath the Southern Cross an undying love for the old country. They were inspired by the same feelings which, in an early age of the world, were kindled in the Greek Colonies by sacred fire, brought from the parent state, and kept for ever burning.

And now, in the greatest crisis through which we have ever passed, the Dominions beyond Sea have come to our aid, with a courage, loyalty, and devotion such as has never been seen in any nation or in any former age. Canada has put 50,000 men into the field. In battle they have displayed unflinching heroism. Canada has promised us, if the need should arise, 250,000 more men. Australia has promised a contingent of 100,000 men. Some 20,000 are already in the field. They have assured the safety of Egypt. They have fought magnificently—unhappily with heavy loss—on the Peninsula of Gallipoli.

The British Empire of the coming age will be powerful, but not aggressive. The Governments beyond Sea will demand, and justly demand, a voice in Imperial policy. Action will be prompted for mutual defence. The Dominions will be slow to move in foreign quarrels. They will listen to the warnings of Lord Salisbury, where he said, "All the failures that have taken place have arisen from one cause—the practice of intervention in domestic quarrels. There is no practice which the experience of nations more uniformly condemns, and none which Governments more consistently pursue." The policy here recommended is not ignoble. To preside, as the Motherland, over an Empire on which the sun never sets is to hold a place in the world which should satisfy the loftiest ambition. BRASSEY.

PART II.

LIST OF BRITISH AND FOREIGN SHIPS.

BRITISH AND FOREIGN AIRSHIPS.

ENEMY AIRSHIP SHEDS.

PART II.

LIST OF BRITISH AND FOREIGN SHIPS.

[In preparing these lists, the ships which are known to have been lost are given in special type with footnotes indicating their destruction. The ships of the Allies are given from the latest official lists.]

A reference is now given in the ship tables to the plates in which diagrams of the ships appear.

THE following abbreviations are used throughout the Alphabetical List:—

a.c. Armoured cruiser.	g.v. Gun-vessel.
a.g.b. Armoured gunboat.	h.s. Harveyised or similar hard-faced steel.
b. Battleship.	k.s. Krupp steel.
b.cr. Battle-cruiser.	shd. Sheathed.
l.cr. Light cruiser.	p. Protected.
Flot. ldr. Flotilla leader.	t. Turret-ship (in class column).
c.d.s. Coast-defence ship.	s. Speed and I.H.P. at trials (in speed and I.H.P. columns).
comp. (in armour column). Compound or steel-faced armour.	
cr. Cruiser.	
A.A. Anti-aircraft guns.	t.c.r. Torpedo-cruiser.
d.v. Despatch vessel.	to.g.b. Torpedo-gunboat.
g.b. Gunboat.	
l. Light guns under 15 cwt., including boats' guns.	
m. Machine guns.	
sub. Submerged torpedo tube.	
A. Armstrong guns.	K. Krupp guns.

The following abbreviations are used to distinguish the various types of boilers:—

W.T. Water-tube boilers, where the type is not known.	My. Myabara.
B. Belleville.	Nic. Niclausse.
Bl. Blechynden.	Nor. Normand.
B. & W. Babcock and Wilcox.	N.S. Normand-Sigaudy.
D'A. D'Allest.	R. Reed.
D. Dürr.	T. Thornycroft.
E. Earle.	T.S. Thornycroft-Schulz.
Ex. Express.	W.F. White-Forster.
Du T. Du Temple.	Y ¹ . Yarrow small tube.
L. Laird.	Y ² . Yarrow large tube.
L.N. Laird-Normand.	V.E. Vickers Express.
M. Mumford.	cyl. Cylindrical.

The following abbreviations distinguish types of turbines:—

P.T. Parsons.	C.T. Curtis.
S. Schneider.	

GREAT BRITAIN.—Armoured Ships.

26

Class	NAME.	Displacement.	Length.	Beam.	Draught.	Indicative Horse- Power.	Where Built.	Makers of Engines.	Date of Lanchn.	Cost.	Hull.	Deck.	Side above Belt.	Bulkhead.	Gun Position.	Second- ary.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
a.e.	<i>Aboukir</i> (1)	12,600	440	69½	24½	21,375 B.	Govan	Fairfield	1900 1902	£ 751,118	in. 6-2	in. 3-1½	in. ..	in. 5	in. 6	in. 5	2 9-2-in., 12 6-in., 12 12-pr., 3 3-pr., 8 m., 2 l.	2	21-6 t	800 755 1600	
a.e.	<i>Achilles</i> Pl. 14.	13,550	480	73½	27	23,275 Y2 & cyl.	Elswick	Hawthorn	1905 1907	1,191,103* K.S.	in. 6-4	in. 3	in. 3	in. 6	in. 6	in. 6	6 9-2-in., 4 7-5-in., 24 3-pr., 2 m.	3	23-27 t	1000 704	
b.	<i>Africa</i> Pl. 8.	16,350	425	78	26½	18,698 B. & W. & cyl.	Chatham	J. Brown	1905 1906	1,461,429*	9	2-1	8-7	12	12-6	7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., & m.	4	18-95 t	350 825 2150	
b.	<i>Agamemnon</i> Pl. 8.	16,500	410	79½	27	17,285 Y2	Dalmuir	Hawthorn Leslie	1906 1908	1,651,283*	12-6 K.O.	2	8	8	12	7	4 12-in., 10 9-2-in., 24 12-pr., 2 3-pr., & 5 m.	5	18-75 t	900 865 2500	
b.	<i>Agincourt</i> (ex-27,500 Osman I.) Pl. 4.	637	89	27	27½	32,000 B. & W.	Elswic	Vickers P.T.	1913 1914	..	9-4 K.S.	2-1	..	6	9	6	14 12-in., 20 6-in., 10 12-pr.	3	22 sub.	1500 1100 500	
b.	<i>Ajax</i> Pl. 3.	23,000	555	89	27½	28,000 B. & W.	Greenock	Scott P.T.	1912 1913	1,937,631 *	12-6	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr.	3	22 t	900 900	
b.	<i>Audacious</i> Pl. 3.	23,000	555	89	27½	28,700 Y2	Birkenhead	Cannell P.T.	1912 1913	1,965,307 *	12-6	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr.	3	22 t	900 900	
b.	<i>Albemarle</i> Pl. 9.	14,000	405	75½	24½	18,296 B.	Chatham	Thames Ironworks	1901 1903	1,049,835	7-3 K.S.	2-1	7	7	11	6	4 12-in., 12 6-in., 10 12-pr., 2 3-pr., & m.	4	18-6 t	900 750 2000	
b.	<i>Albion</i> Pl. 10.	12,950	390	74	26	13,885 B.	Blackwall	Maudslay	1898 1902	858,745	6-2 H.N.	3-1	6	12-8	12-6	5	4 12-in., 12 6-in., 10 12-pr., 6 3-pr., & m.	4	17-8 t	800 700 2300	
a.e.	<i>Antrim</i> Pl. 15.	21,604 Y & cyl.	..	..	..	21,604 Y & cyl.	Glydebank	J. Brown	1903 1905	906,335*	6-2	2-3	..	4½	6	6	1 7-5-in., 6 6-in., 20 3-pr., 2 m.	2	22-38 t	800 655 1950	
a.e.	<i>Argyll</i> Pl. 15.	10,850	450	68½	25	21,190 B. & W. & cyl.	Greenock	Greenock Pondry	1901 1906	906,308*	6-2 H.N.	2-3	..	4½	6	6	1 7-5-in., 6 6-in., 20 3-pr., 2 m.	2	22-38 t	800 655 1950	

<i>a.c.</i>	<i>Bacchante</i> <i>Pl. 17.</i>	12,000	440	69½	26½	21,520	Clydebank J. Brown B.	1901 1902 787,230	6-2	3 1½	5 H.N.	6 K.S.	5	2 9-2-in., 12 6-in., 12 12-pr., 3 3-pr., 8 M., 2 L.	2 21-75 800 t	755
<i>b.</i>	<i>Barham</i> [†]	27,500	600	90½	28¾	60,000	Clydebank J. Brown P.T.	Bldg.	13	..	..	10	..	8 15-in., 12 6-in.,	.. 25	Oil ..
<i>b.</i>	<i>Bellerophon</i> <i>Pl. 7.</i>	18,600	490	82	27	23,000	Portsmouth Fairfield B. & W.	1907 1909 1,765,312*	11-6	4 ..	8	11 K.C.	..	10 12-in., 16 4-in., 4 3-pr. & M.	3 21-80 900 t	780
<i>b.</i>	<i>Benbow</i> <i>Pl. 1.</i>	25,000	580	90	28	29,000	Palnauir, Beadmore P.T.	1913 .. 2,027,115	12	..	9-8	..	..	10 13-5-in., 12 6-in., 2 3-in., A.A., 1 3-pr.	1 21 900	..
<i>a.c.</i>	<i>Berwick</i> <i>Pl. 16.</i>	9800	440	66	24½	22,681	W. Beard, Humphrys more & Co.	1902 1903 750,984	4-2	2½	..	5-4 N.S.	4	14 6-in., 8 12-pr., 3 3-pr., 9 M.	2 23-61 800 t	537
<i>a.c.</i>	<i>Black Prince</i> <i>Pl. 15.</i>	13,550	480	73½	27	23,939	Blackwall Thames Ironworks	1904 1906 1,193,414*	6-1	3 ¾-1	6	6	6	6 9-2-in., 10 6-in., 20 3-pr., 2 M.	3 23-65 1000 t	704
<i>b.</i>	<i>Britannia</i> <i>Pl. 8.</i>	16,350	425	78	26¾	18,725	Portsmouth Humphrys B. & W. & Cy.	1904 1906 1,450,757*	9	2-1	8-7	12 H.S.	7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., M.	4 18-74 950 t	825
<i>b.</i>	<i>Butwark</i> (2)	15,000	400	75	26¾	15,000	Devonport Hawthorn B.	1899 1902 997,846	9	3-2	3	12 H.S.	6-2	4 12-in., 12 6-in., 16 12-pr., 2 3-pr., & M.	4 18-15 900 t	781
<i>b.</i>	<i>Cæsar</i> <i>Pl. 11.</i>	14,900	390	75	27½	12,000	Portsmouth Maudslay	1896 1897 885,212	9	4-2½	9	14-9 H.S.	6	4 12-in., 12 6-in., 16 12-pr., 1 3-pr., 2 M., 2 L.	5 18-7 900 t	757
<i>b.</i>	<i>Canada</i> (ex At- mirante Latorre) <i>Pl. 2.</i>	28,000	625	92	28¾	37,000	Elswick J. Brown P.T.	1913 1915 ..	9 6	4-2½	1½	10 ..	6	10 14-in., 16 6-in., 1 3 in., N M.	1 23 1200 1000 (sub.)	2000
<i>b.</i>	<i>Canopus</i> <i>Pl. 10.</i>	12,950	390	74	26	13,500	Portsmouth Greenock Foundry	1897 1899 866,516	6	3-1	6	12 H.N.	5	4 12-in., 12 6-in., 10 12-pr., 6 3-pr., & M.	4 18-5 800 t	700
<i>a.c.</i>	<i>Carnarvon</i> <i>Pl. 15.</i>	10,850	450	63½	25	21,489	Devonport Humphrys Nico & Cy.	1903 1905 890,840*	6-2	2-¾	..	4½ K.S.	6	4 7-5-in., 6 6-in., 20 3-pr., 2 M.	2 23-3 800 t	655
<i>b.</i>	<i>Centurion</i> <i>Pl. 3.</i>	23,000	555	89	27¾	28,200	Devonport Hawthorn P.T.	1911 1913 1,939,618*	12-6	..	9	10	..	10 13-5-in., 16 4-in., 1 3-pr., 2 M.	3 22 900 t	900
<i>a.c.</i>	<i>Cochrane</i> <i>Pl. 14.</i>	13,550	480	73½	27	23,654	Govan Fairfield Y ² & Cy.	1905 1907 1,193,121*	6-4	3 ¾-1	6	6	6	6 9-2-in., 4 7-5-in., 24 3-pr., 2 M.	3 23-29 1000 t	704
<i>b.</i>	<i>Collingwood</i> <i>Pl. 7.</i>	19,250	500	84	27	24,500	Devonport Hawthorn P.T.	1908 1910 1,731,640*	10-6	4 ¾-1½	8	..	9	10 12-in., 18 4-in., 1 3-pr., 5 M.	3 21-5 900 t	724
<i>b.</i>	<i>Colossus</i> <i>Pl. 6.</i>	20,000	510	85	27	25,000	Greenock Scott P.T.	1916 1911 1,672,663*	11-3	2½	8	..	11	10 12-in., 16 4-in., 4 3-pr., 5 M.	3 21-5 900 t	780

* Total estimated cost of ship including guns.
(1) Sunk by submarine in North Sea, September 24, 1914.
(2) Blown up by accidental explosion in Midway, November 26, 1914.

† Particulars modified.

GREAT BRITAIN.—Armoured Ships—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Cost.	Armour.						Armament.		Speed.	Coal.	Complement.
											Belt.	Deck.	Side above belt.	Bulkhead.	Heavy Guns.	Second Gun Position.	Guns.	Torped. Tubes.			
b.	Commonwealth <i>Pl. 8.</i>	16,350 tons.	425 ft.	78 ft.	26 $\frac{3}{4}$ ft.	18,538 B. & W. & cyl.	Govan	Fairfield	1903	£1,481,811*	in. 9	2-1	in. 8-7	in. 1 $\frac{1}{2}$	in. 12-6	in. 7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., M.	4	knots. 19-01 t 2150	950	825
b.	Conqueror <i>Pl. 3.</i>	22,500	545	85 $\frac{1}{2}$	27 $\frac{1}{2}$	29,835 B. & W.	Dalmuir	Beardmore P. T.	1911	1,885,295*	12	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr., 5 M.	3	22-12	900	800
a.e.	Cornwall <i>Pl. 16.</i>	9800	440	66	24 $\frac{1}{2}$	22,639 B. & W.	Pembroke	Hawthorn	1902	756,274	4-2 H.S.	2- $\frac{3}{4}$	..	5	5-4 N.S.	4 N.S.	14 6-in., 8 12-pr., 3 3-pr., 9 M.	2	23-68 t 1600	800	537
b.	Cornwallis <i>Pl. 9.</i>	14,000	405	75 $\frac{1}{2}$	26 $\frac{1}{2}$	18,238 B.	Blackwall	Thames S. Co.	1901	1,030,302	7 K.S.	2-1	7	14 K.S.	11-6 K.S.	6 K.S.	4 12-in., 12 6-in., 10 12-pr., 2 3-pr., & M.	4	18-9 t 2000	900	750
a.e.	Cressy (I) s. bld. <i>Pl. 16.</i>	12,000	440	69 $\frac{1}{2}$	26 $\frac{1}{2}$	21,240 B.	Govan	Fairfield	1899	749,324	6 K.S.	3-2	..	5	6 K.S.	5 K.S.	2 9-2-in., 12 6-in., 12 12-pr., 3 3-pr., 8 M., 2 L.	2	20-79 t 1600	800	755
a.e.	Cumberland <i>Pl. 16.</i>	9800	440	66	24 $\frac{1}{2}$	22,000 B.	Glasgow	London & Glasgow Co.	1902	718,168	4-2 K.S.	2- $\frac{3}{4}$	..	5	5-4 N.S.	4 N.S.	14 6-in., 8 12-pr., 3 3-pr., 9 M.	2	23-68 t 1000	800	537
a.e.	Defence <i>Pl. 14.</i>	14,600	490	74 $\frac{1}{2}$	26	27,570 Y $\frac{2}{2}$	Pembroke	Scotts S. & E. Co.	1907	1,382,744*	6-4	1- $\frac{1}{2}$	3	..	8	7	4 9-2-in., 10 7-5-in., 16 12-pr., 5 M.	5	23-5 t	1000	850
a.e.	Devonshire <i>Pl. 15.</i>	10,850	450	68 $\frac{1}{2}$	25	21,475 Ntc. & cyl.	Chatham	Thames Ironworks	1904	850,877*	6-2	2- $\frac{3}{4}$	..	4 $\frac{1}{2}$ K.S.	6 N.S.	6	4 7-5-in., 6 6-in., 20 3-pr., 2 M.	2	22-97 t 1600	800	655
b.	Dominion <i>Pl. 8.</i>	16,350	425	78	26 $\frac{3}{4}$	18,438 B. & W. & cyl.	Barrow	Vickers	1903	1,452,190*	9 K.S.	2-1	8-7 K.S.	12 K.S.	12-6 K.S.	7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., M.	4	19-5 t 2150	950	825
a.e.	Donegal <i>Pl. 16.</i>	9800	410	66	24 $\frac{1}{2}$	22,173 B.	Govan	Fairfield Co.	1902	715,947	4-2 K.S.	2- $\frac{3}{4}$	..	5	5-4 K.S.	4 K.S.	14 6-in., 8 12-pr., 3 3-pr., 9 M.	2	23-56 t 1600	800	537
a.e.	Drake <i>Pl. 16.</i>	14,100	500	71	26	31,450 B.	Pembroke	Humphrys	1901	1,002,977	6 K.S.	3-2	..	5	6-5 K.S.	5 K.S.	2 9-2-in., 16 6-in., 12 12-pr., 3 3-pr., 2 M.	2	24-11 t 2500	1250	900
b.	Dreadnought <i>Pl. 7.</i>	17,900	490	82	26 $\frac{1}{2}$	27,500 B. & W.	Portsmouth	Vickers P. T.	1906	1,813,100*	K.C.	2- $\frac{1}{2}$ 1- $\frac{3}{4}$	8	..	11	..	10 12-in., 24 12-pr. Q.F., 5 M.	5	21-85 t 2700	900	770
a.e.	Duke of Edinburgh <i>Pl. 15.</i>	13,550	480	73 $\frac{1}{2}$	27	23,685 B. & W. & cyl.	Pembroke	Hawthorn Leslie	1904	1,201,687*	6-4-3 K.S.	3-1	6	6	6	6	6 9-2-in., 10 6-in., 20 3-pr., 2 M.	3	22-84 t	1000	704

<i>b.</i>	Duncan	<i>Pl.</i> 9.	14,000	405	75½	26½	18,222	Blackwall Thames S. Co.	1901 1903 1,023,147	7	2-1	7	14	11-6	6	4 12-in., 12 6-in., 10 12-pr., 2 3-pr., & M.	4	18-9	900 750
<i>b.</i>	Emperor of India	<i>Pl.</i> 1.	25,000	580	90	28	29,000	Barrow . Vickers	1913 .. 2,020,017	12	..	9-8	..	..	..	10 13-5-in., 12 6-in., 2 3-pr., A.A., 1 3-pr.	4	21	900 ..
<i>b.</i>	Erin	<i>Pl.</i> 5.	23,000	525	91	..	31,000	Barrow . Vickers	1913 1914 ..	12-6	3	9-8	12	12	5	10 13-5-in., 16 6-in.,	5	21	.. ..
<i>a.e.</i>	Essex	<i>Pl.</i> 16.	9,800	410	66	24½	22,000	Pembroke J. Brown	1901 1903 739,946	4-2	2-3	..	5	5	4	14 6-in., 8 12-pr., 3 3-pr., 8 M., 2 L.	2	22-79	800 537
<i>a.e.</i>	Euryalus	<i>Pl.</i> 17.	12,000	440	69½	26½	21,318	Barrow . Vickers	1901 1904 782,901	6	3-2	2	5	6	5	2 9-2-in., 12 6-in., 12 12-pr., 3 3-pr., 8 M.	2	21-63	800 755
<i>b.</i>	Exmouth	<i>Pl.</i> 9.	14,000	405	75½	26½	18,346	Birkenhead Laird	1901 1903 1,032,409	7	2-1	7	14	11-6	6	4 12-in., 12 6-in., 10 12-pr., 2 3-pr., & M.	4	19-0	900 750
<i>b.</i>	Formidable (2)	<i>Pl.</i> 9.	15,000	400	75	26½	15,000	Portsmouth Earle	1898 1901 1,022,745	9	3-2	2	12	12-5	8	4 12-in., 12 6-in., 16 12-pr., 2 3-pr., & M.	4	18-13	900 781
<i>b.</i>	Glory	<i>Pl.</i> 10.	12,950	390	74	26	13,500	Birkenhead Laird	1899 1901 841,014	6	3-2	6	12	12-5	5	4 12-in., 12 6-in., 10 12-pr., 6 3-pr., & M.	4	18-12	800 700
<i>b.</i>	Goliath (3)	<i>Pl.</i> 16.	12,950	390	74	26	13,500	Chatham. Penn	1898 1900 866,006	6	3-2	..	5	6-5	5	2 9-2-in., 16 6-in., 12 12-pr., 3 3-pr., 2 M.	2	23-5	1250 900
<i>a.e.</i>	Good Hope (4)	<i>Pl.</i> 16.	14,100	500	71	26	31,071	Govan . Fairfield	1901 1902 990,759	6	3-2	..	5	6-5	5	4 7-5-in., 6 6-in., 20 3-pr., 2 M.	2	23-47	800 655
<i>a.e.</i>	Hampshire	<i>Pl.</i> 15.	10,850	450	68½	25	21,508	Elswick . Hawthorn.	1903 1905 866,527*	6-2	2-3	..	5	5-4	..	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 2 M., 2 L.	5	18-0	900 757
<i>b.</i>	Hannibal	<i>Pl.</i> 11.	14,900	390	75	27½	12,000	Pembroke Harland	1896 1897 906,799	9	4-2½	9	14-9	14-6	6	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 2 M., 2 L.	5	18-0	900 757
<i>b.</i>	Hercules	<i>Pl.</i> 6.	20,000	510	85	27	25,700	Jarrow . Palmer	1910 1911 1,660,950*	11-3	2½	8	..	11	..	10 12-in., 16 4-in., 4 3-pr., 5 M.	3	21-5	900 780
<i>b.</i>	Hibernia	<i>Pl.</i> 8.	16,350	425	78	26½	18,000	Devonport Harland & Wolff	1905 1906 1,444,828*	9	2-1	8-7	12	12-6	7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., & M.	4	19-0	950 825
<i>b.</i>	Hindustan	<i>Pl.</i> 8.	12,000	440	69½	26½	21,432	Clydebank J. Brown	1903 1905 1,454,526*	9	2-1	18-7	12	12-6	7	2 9-2-in., 12 6-in., 12 12-pr., 3 3-pr., 8 M., 2 L.	2	22-6	800 755
<i>a.e.</i>	Hogue (5)	<i>Pl.</i> 8.	12,000	440	69½	26½	21,432	Barrow . Vickers	1900 1902 749,809	6	3	2	5	6	5	4 12-in., 12 6-in., 12 12-pr., 3 3-pr., 8 M., 2 L.	2	22-6	800 755

* Total estimated cost of ship including guns.

(1) Sunk by submarine in North Sea, September 22, 1914.

(2) Sunk by submarine in English Channel, January 1, 1915.

(3) Torpedoed by Turkish destroyer Mançonet i-Millet in the Dardanelles, May 12, 1915.

(4) Sunk in action of Coronel, November 1, 1914.

(5) Sunk by submarine in North Sea, September 22, 1914.

GREAT BRITAIN.—Armoured Ships—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Cost.	Armour.				Armament.			Complement.		
		tons.	ft.	ft.	ft.					£	Belt.	Deck.	Side above Belt.	Bulkhead.	Gun Position.	Guns.	Torpedo Tubes.	Speed.	Coal	
b.	Illustrious <i>Pl. 11.</i>	14,900	390	75	27½	12,000	Chatham	Penn	1896 1898	894,585	in. 9	in. 4-2½	in. 9	in. 14-9	in. 14-6	6	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 2 m., 2 l.	5	knots. 16·5	900 757
b.	Implacable <i>Pl. 10.</i>	15,000	400	75	26½	15,000	D'port	Laird	1899 1902	989,116	9	3-2	2	12	12-5	6	4 12-in., 12 6-in., 16 12-pr., 2 3-pr., & m.	4	18·2	900 781
b.	Irresistible (1)					B.	Chatham	Maudslay	1898 1901	1,048,136	K.S.			K.S.	K.S.			2000		
b.e.	Invincible	17,250	530	78½	26	11,000	Elswick.	Humphrys P.T.	1907 1909	1,768,995*	7-4	..	3	..	7	..	8 12-in., 16 4-in., 5 m.	5	26	1000 780
b.e.	Inflexible					Y ²	Clydebank	J. Brown P.T.	1907 1908	1,728,229*	K.C.									
b.e.	Indomitable <i>Pl. 13.</i>	18,750	555	80	26½	43,000	Govan	Fairfield P.T.	1907 1908	1,761,080*	7-4	..	3	..	7	..	8 12-in., 16 4-in., 1 3-pr., 5 m.	2	25	1000 790
b.e.	Indefatigable <i>Pl. 13.</i>	25,000	580	90	28	30,000	Portsmouth	Cannell Laird P.T.	1912 1914	2,080,918	12	..	9-8	..	..	..	10 13-5-in., 12 6-in., 2 3-in., A.A., 4 3-pr.	4	22	990 ..
b.	Iron Duke <i>Pl. 1.</i>	14,900	390	75	27½	12,000	Clydebank	Thomson P.T.	1895 1897	902,011	9	4-2½	9	14-9	14-6	6	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 2 m., 2 l.	5	18·1	900 757
a.e.	Jupiter <i>Pl. 11.</i>	9800	410	66	21½	21,000	Portsmouth	Hawthorn	1901 1903	700,283	4-2	2-¾	..	5	5-4	4	14 6-in., 8 12-pr., 3 3-pr., 8 m., 2 l.	2	21·7	800 537
a.e.	Kent	16,350	425	78	26½	18,138	Devonport	Harland	1903 1905	1,473,215*	9	2-1	8-7	12	12 6	7	4 12-in., 4 9-2-in., 10 6-in., 12 12-pr., 12 3-pr., m.	4	19·04	1500 825
b.	King Edward VII. <i>Pl. 16.</i>					B. & W. & cyl.					K.S.		K.S.	K.S.	N.S.			1200		
b.	King George V. <i>Pl. 8.</i>	23,000	555	89	27½	28,005	Portsmouth	Parsons P.T.	1911 1912	1,965,413*	12 6	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr.	3	22	900 900
a.e.	King Alfred <i>Pl. 16.</i>	14,100	500	71	26	30,893	Barrow	Vickers	1901 1903	978,125	6-5-1 2½	1	5	6-5	5	5	2 9-2 in., 16 6-in., 12 12-pr., 3 3-pr., 2 l.	2	23·16	1250 900
a.e.	Leviathan. <i>Pl. 16.</i>					31,203	Clydebank	J. Brown		1,012,559	K.S.		K.S.	K.S.	K.S.			23·28	2500	

<i>a.e.</i>	<i>Lancaster</i>	<i>Pl. 16.</i>	9800	110	66	21½	22,000	Elswick	Hawthorn	1902	1901	732,838	4-2	2-¾	5	5-4	4	14 6-in., 8 12-pr., 3 3-pr., 9 m.	2	24-01	800	537	
<i>b.e.</i>	<i>Lion</i>	<i>Pl. 12.</i>	26,350	630	88½	28	75,685	Devonport	Nickers	1910	1912	2,086,458*	9	..	6	9	..	8 13-5-in., 16 4-in., 4 3-pr., 5 m.	2	28-5	3000	980	
<i>b.</i>	<i>London</i>	<i>Pl. 10.</i>	15,000	400	75	26½	15,000	Portsmouth	Earle	1899	1902	1,036,393	9	3-2	2	12-5	6	4 12-in., 12 6-in., 16 12-pr., 2 3-pr., & m.	4	18-1	900	781	
<i>b.</i>	<i>Lord Nelson</i>	<i>Pl. 8.</i>	16,500	410	79½	27	16,750	Jarrow	Palmer	1906	1908	1,654,038*	12-6	..	8	8	12	4 12-in., 10 9-2-in., 24 12-pr., 2 3-pr., 5 m.	5	18-9	900	747	
<i>b.</i>	<i>Malaya</i>	<i>Pl. 7.</i>	27,500	600	90½	28¾	..	Walker	WallSEND, Bag.	..	..	13	..	..	..	10	..	8 15-in., 12 6-in.	..	25	Oil	..
<i>b.</i>	<i>Magnificent</i>	<i>Pl. 11.</i>	14,900	390	75	27½	12,000	Chatham	Penn	1891	1895	908,789	9	4-2½	9	14-9	14-6	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 2 m., 2 l.	5	17-6	900	757	
<i>b.</i>	<i>Majestic (2)</i>	<i>Pl. 11.</i>	14,900	390	75	27½	12,000	Portsmouth	Barrow	1895	1895	916,382	9	..	..	..	..	10 13-5-in., 12 6-in., 2 3-in., A.A., 4 3-pr.	4	22	900	..
<i>b.</i>	<i>Mars</i>	<i>Pl. 11.</i>	14,900	390	75	27½	12,000	Birkenhead	Laird	1896	1897	902,402	11-8	..	..	..	..	4 9-2-in., 10 7-5-in., 16 12-pr., 5 m.	5	23-01	1000	850
<i>b.</i>	<i>Marlborough</i>	<i>Pl. 11.</i>	25,000	580	90	28	29,000	Devonport	Hawthorn	1912	1911	2,013,437	12	..	9-8	..	..	10 13-5-in., 12 6-in., 2 3-in., A.A., 4 3-pr.	4	22	900	..
<i>a.e.</i>	<i>Minotaur</i>	<i>Pl. 11.</i>	14,600	490	74½	26	27,856	Devonport	Harland & Wolff	1906	1908	1,438,065*	6-4	1-½	6	..	8	7	4 9-2-in., 10 7-5-in., 16 12-pr., 5 m.	5	23-01	1000	850
<i>b.</i>	<i>Monarch</i>	<i>Pl. 3.</i>	22,500	515	88½	27½	28,555	Elswick	Hawthorn	1911	1912	1,886,912*	12	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr.	3	21-88	900	800
<i>a.e.</i>	<i>Monmouth (3)</i>	<i>Pl. 11.</i>	9800	410	66	24½	22,000	Glasgow	London & Glasgow	1901	1903	979,591	4-2	2-¾	4	5	5-4	4 14 6-in., 8 12-pr., 3 3-pr., 8 m., 2 l.	2	22-58	800	537	
<i>a.e.</i>	<i>Natal</i>	<i>Pl. 11.</i>	13,550	480	73½	27	23,592	Barrow	Shipb'g. Co	1905	1907	1,218,244*	6-4	3-1	6	6	6	6 9-2-in., 4 7-5-in., 24 3-pr., 2 m.	3	23-33	1000	704	
<i>b.</i>	<i>Neptune</i>	<i>Pl. 6.</i>	19,900	510	85	27	27,721	Portsmouth	Harland & Wolff	1909	1911	1,715,258*	11-3	2½	8	..	11	..	10 12-in., 16 4-in., 4 3-pr., 5 m.	3	21-78	900	780
<i>b.e.</i>	<i>New Zealand†</i>	<i>Pl. 13.</i>	18,800	555	80	26½	46,891	Govan	Fairfield	1911	1912	(‡)	..	..	..	..	..	8 12-in., 16 4-in., 1 3-pr., 5 m.	2	25	1000	780
<i>b.</i>	<i>Ocean (1)</i>	<i>Pl. 13.</i>	12,950	390	74	25½	13,500	Devonport	Hawthorn	1898	1900	883,778	6	2-1	6	12	12-5	5	4 12-in., 12 6-in., 10 12-pr., 6 3-pr., & m.	4	18-74	800	700
<i>b.</i>	<i>Orion</i>	<i>Pl. 3.</i>	22,500	545	88½	27½	29,108	Portsmouth	WallSEND	1910	1911	1,918,773*	12	..	9	..	10	..	10 13-5-in., 16 4-in., 1 3-pr., 5 m.	3	21-02	900	800

* Estimated cost of ship including guns.
 † By arrangement with John Brown & Co.
 ‡ Built at the charge of the New Zealand Government.
 (1) Sunk by mine in the Farnhamelles, March 18, 1915.
 (2) Torpedoed at the Farnhamelles, May 27, 1915.
 (3) Sunk by mine in the Farnhamelles, March 18, 1915.
 (4) Sunk by mine in the Farnhamelles, March 18, 1915.
 (5) Particulars medicinal.

Class	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Completion.	Cost.	Armour.				Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
											Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.			
		tons.	ft.	ft.	ft.					£	in.	4-2½	in.	in.	in.	in.	knots.	tons.	
b.	Prince George <i>pl. 11.</i>	14,930	330	75	27½	12,000	Portsmouth	Humphrys	1895	895,504	9	4-2½	9	14-9	14-6	6	18·3	900	757
b.	Prince of Wales <i>pl. 10.</i>	15,030	400	75	26¾	15,000	Chatham	Greenock	1902	1,114,079	9	2-1	3	12	12-6	6-2	18·0	900	781
b.c.	Princess Royal <i>pl. 12.</i>	26,350	660	88½	28	76,510	Barrow	Foundry Vickers	1911	2,092,214*	9	..	6	..	9	..	28·5	3,000	980
b.c.	Queen Mary <i>pl. 12.</i>	27,000	660	89	28	78,700	Jarrow	J. Brown	1912	2,078,491*	9	..	6	..	9	..	28	3,000	1,000
b.	Queen Elizabeth <i>pl. 10.</i>	27,500	600	90½	28¾	60,000	Portsmouth	WallSEND	1913	..	13	..	..	..	10	..	25	OH	..
b.	Queen Ramillies <i>pl. 10.</i>	15,000	400	75	26¾	15,000	Devonport	Harland & Wolff	1902	1,074,909	9	2-1	3	12	12-6	6-2	18·39	900	781
b.	Resolution <i>pl. 10.</i>	25,750	580	..	..	..	Dalmuir	Beardmore, P.T. Palmer	..	..	13	..	..	..	10	..	21	..	..
b.	Revenge <i>pl. 10.</i>	25,750	580	..	..	..	Jarrow	Palmer	..	..	13	..	..	..	10	..	21	..	..
b.	Royal Oak <i>pl. 10.</i>	25,750	580	..	..	..	Barrow	Vickers	..	..	13	..	..	..	10	..	21	..	..
b.	Royal Sovereign <i>pl. 10.</i>	25,750	580	..	..	..	Devonport	Haythorn	..	..	13	..	..	..	10	..	21	..	..
a.c.	Roxburgh <i>pl. 15.</i>	10,850	450	68½	25	22,102	Glasgow	London & Glasgow	1904	862,077*	6-2	2-3	..	4½	6	6	23·63	800	655
b.	Russell <i>pl. 9.</i>	14,600	405	75½	26½	18,229	Jarrow	Palmer	1901	1,037,995	7	2-1	7	14	11-6	6	19·3	900	750
b.	St. Vincent <i>pl. 7.</i>	19,250	500	84	27	21,500	Portsmouth	Scott's S.	1908	1,754,615*	10	3-1½	8	..	9	..	21·9	900	780
a.c.	Shannon <i>pl. 14.</i>	14,600	400	75½	25	28,553	Chatham	Humphrys	1906	1,423,410*	6-4	1-½	3	..	8	..	22·49	950	850
a.c.	Suffolk <i>pl. 16.</i>	9800	440	66	24½	22,000	Portsmouth	Humphrys	1903	722,681	4-2	2-3	..	5	5-4	4	24·7	800	537
						Nic.					K.S.			K.S.	K.S.			1,600	

a.e.	Sutlej	shd. 12,000 Pl. 17.	440	69½	26½	21,261 B.	Clydebank J. Brown	1899	1902	755,630	6	3-2	..	5 K.S.	6 K.S.	5 K.S.	2 9-2-in., 3 3-pr., 8 m., 2 l.	2	21-77 t	800 1000	755
b.	Superb	Pl. 7.	18,600	490	82	27	Elswick B. & W.	1907	1909	1,600,446*	11-1	..	8	..	11 K.C.	..	10 12-in., 16 4-in. B.L., 4 3-pr., 5 m.	3	21-6 t	900 870	
b.	Temeraire.	Pl. 7.					Devonport P. T.	1907	1909	1,743,955*	K.C.	8 13 5-in., 12 6-in.	..	22-07 t	3000	..
b.e.	Tiger ¶		28,000	660	90½	28½	Clydebank J. Brown (C. T.)	1913	28	3000	..
b.	Swiftsure	Pl. 9.	11,800	436	71	24½	Elswick Tennant	1903	1904	845,036	7	3	7	..	10	7	4 10-in., 14 7-5 in., 14 14-pr., 4 6-pr., & m.	2	19-6 t	800 700	
b.	Triumph (1)						Barrow Vickers	1903	1904	845,479	2000
b.	Thunderer	Pl. 3.	22,500	545	88½	27½	Blackwall Thames B. & W.	1911	1912	1,889,920*	12	..	9	..	10	..	10 13-5-in., 16 4-in., 4 3-pr., 5 m.	3	21	900 800	
b.	Valiant ¶		27,500	600	90½	28½	Govan P. T.	1909	1910	1,607,781*	13	10	..	8 15-in., 12 6-in.	..	25	Oil	..
b.	Vanguard	Pl. 7.	19,250	500	84	27	Barrow Vickers	1909	1910	1,607,781*	10	3-1½	8	..	9	..	10 12-in., 18 4-in., 4 3-pr., 5 m.	3	22-1 t	900 721	
b.	Venerable.	Pl. 10.	15,000	400	75	26½	Chatham Maudslay	1899	1902	1,092,753	7	4-2½	3	14	11-6	6-2	4 12-in., 12 6-in., 16 12-pr., 2 3-pr., & m.	4	18-3 t	900 781	
b.	Vengeance	Pl. 10.	12,950	390	74	26	Barrow Vickers	1899	1901	836,417	6	2-1	6	12	12-6	5	4 12-in., 12 6-in., 10 12-pr., 6 3-pr., & m.	4	18-5 t	800 750	
b.	Victorious	Pl. 11.	14,900	390	75	27½	Chatham Hawthorn	1895	1897	885,212	9	3-2½	9	14-9	14-6	6	4 12-in., 12 6-in., 16 12-pr., 4 3-pr., 8 m., 2 l.	5	18-7 t	900 757	
a.e.	Warrior	Pl. 14.	13,550	480	73½	27	Pembroke Wallend	1905	1907	1,186,395* 6-4-3	6-4-3 K.S.	3-1	6	6	6	6	6 9-2-in., 4 7-5 in., 24 3-pr., 2 m.	3	22-9 t	1000 701	
b.	Warspite ¶		27,500	600	90½	28½	Devonport Hawthorn	1913	13	10	..	8 15-in., 12 6-in.	..	25	Oil	..
b.	Zealandia. (ex New Zealand.)	Pl. 8.	16,350	425	78	26½	Portsmouth Nico & Cyl.	1901	1905	1,424,373*	9	2-1	8-7	12	12-6	7	4 12-in., 4 9-2 in., 10 6-in., 1 2 12-pr., 12 5-pr., m.	4	18-5 t	950 825	

* Total estimated cost of ship, including guns.

¶ Particulars unofficial.

(1) Torpedoed and sunk in the Gulf of Suez, May 26, 1915.

GREAT BRITAIN.—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Tonight.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Rate of Completion.	Cost.	Armour.	Armament.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.						£	Belt. Deck.	Guns.	knots.		
P. 3rd cl. Cr.	Active	3440	385	41½	13½	18,000	Pembroke	Hawthorn. P.T.	1911	1911	272,977*	in.	10 4-in. B.L., 4 3-pr. and m.	26.0 t	350	320
"	<i>Amphion</i> (1)	3440	385	41½	13½	18,800	Pembroke	Parsons P.T.	1911	1913	277,781*	..	10 4-in. B.L., 4 3-pr. and m.	25.5 t	350	320
Scout.	Adventure	2670	374	38½	13½	15,850	Elswick	Hawthorn.	1904	1905	270,263	2	9 4-in. . . .	25.42 t	227	268
"	Amethyst.	3000	360	40	14½	14,200	Elswick	Parsons P.T.	1903	1905	228,426	..	12 4-in., 8 3-pr., m. . .	23.42 t	300	296
P. 1st cl. Cr.	Amphitrite	11,000	435	69	25½	18,000	Barrow	Vickers	1898	1900	552,795	4	16 6-in., 12 12-pr., 3 3-pr., 2 m.	20.75 t	1000	677
"	Argonaut.	shd. 11,000	435	69	25½	18,000	Govan	Fairfield	1898	1900	543,756	4	16 6-in., 12 12-pr., 3 3-pr., 2 m.	20.75 t	1000	677
L. Cr.	Arethusa†	3,750	410	39	13½	30,000	(Chatham Fairfield Devonport Parsons)		1913	1913	..	3	2 6-in., 8 4-in. . . .	20	011	..
"	Aurora†								1913							
P. 3rd cl. Cr.	Astræa	4360	320	49½	19	9112	Devonport	Devonport	1893	1894	254,217	2-1	2 6-in., 8 47-in., 8 6-pr., 1 3-pr., m.	19.75 t	400	312
Scout.	Attentive	2670	374	38½	13½	16,212	Elswick	Hawthorn.	1904	1906	270,263	2	9 4-in. . . .	25.88 t	227	268
P. 3rd cl. Cr.	Bellona	3360	385	41½	13½	18,000	Pembroke	Fairfield P.T.	1909	1910†	283,038*	½-1	6 4-in. B.L., 4 3-pr. and m.	25.9 t	450	263
P. 2nd cl.	Birmingham	5440	420	49-10	15-10	26,500	Elswick	Hawthorn.	1912	1914	333,437*	..	9 6-in., 4 3-pr. . . .	25.5 t	650	..
P. 3rd cl. Cr.	Blanche	3250	385	41½	13½	18,542	Pembroke	Hawthorn. P.T.	1909	1910	288,482*	..	10 4-in. B.L., 4 3-pr. and m.	25.67 t	350	292

"	"	Blonde	3350	385	41½	13½	18,770 Y.	Pembroke Cannell Laird P.T.	1910	267,754*	..	..	10 4-in. B.L., 1 3-pr., and M.	2	25-43 _l	350	292
"	"	Bodicea	3300	385	41	13½	18,000 Y.	Pembroke J. Brown P.T.	1908	330,631* ½-1	..	..	6 4-in. B.L., 4 3-pr., and M.	2	25-75 _l	450	263
P. 2nd cl. Cr.	Bristol		4800	430	47	15½	24,529 Y.	Clydebank J. Brown C.T.	1910	364,953* 2-¾	..	..	2 6-in., 10 4-in. B.L., 4 M.	2	26-84 _l	650	376
Flot.ldr.	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{	{
	Botha		1850	320	32½	11-1	27,000 East	White	1913	..	..	..	6 4-in., 2 M.	3	31	500	160
	Broke																
1. Cr.	Calliope†																
"	Caroline†																
"	Carysfort†																
"	Champion†																
"	Cleopatra†		3800	420	39	15½	30,000	Newcastle Cannell Laird (Hawthorn)	1914	..	3	..	2 6-in., 8 4-in.	..	29	Oil	..
"	Comus†																
"	Conquest†																
"	Cordelia†																
P. 2nd cl. Cr.	Challenger		5880	355	56	21½	12,500 B.&W.	Wallsend Eng'g Co.	1902	360,194	3-2	..	11 6-in., 8 12-pr., 3-pr., 2 M.	2	21-0	500	451
P. 3rd cl. Cr.	Charybdis	sl. d.	4360	320	49½	19	9000	Sheerness Earle	1893	211,029	2-1	2	26-in., 8 47-in., 8 6-pr., 1 3-pr., M.	3	19-5	400	312
P. 2nd cl. Cr.	Chatham		5400	430	49½	15½	25,901 Y.	Chatham, Thames Ironworks P.T.	1911	349,358*	3	..	8 6-in., 4 3-pr., 4 M., 1 L.	2	25-5	650	400
"	Crescent	sl. d.	7700	360	60	23½	12,000	Portsmouth Penn P.T.	1892	392,453	5-1	6	1 9-2-in., 12 6-in., 12 6-pr., 5 3-pr., M. (1 sub.)	2	19-7	850	560
"	Dartmouth		5250	430	48½	15½	23,467 Y.	barrow Vickers P.T.	1911	329,406* 2-¾	..	..	8 6-in., 4 3-pr., 4 M.	2	25-9 _l	650	390
P. 3rd cl. Cr.	Diamond		3000	360	40	14½	10,066 N. L.	Birkenhead Laird	1901	231,010	..	..	12 4-in., 8 5-pr., M.	2	22-17 _l	300	296

* Total estimated cost of ship including guns.

† Particulars modified.

(1) Sunk by mine in the North Sea, August 6, 1914.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Date of Completion.	Cost.	Armour.			Armament.		Speed.	Coal.	Complement.
												Belt.	Deck.	Gun Position.	Guns.	Torpedo Tubes.			
P. 2nd cl. Cr.	Diana	shd. 5600	350	54	21	ft.	Govan	Fairfield	1895	1898	£ 253,009	in.	in.	in.		3	knots.	550	449
"	Dido	shd. 5600	350	54	21	ft.	Glasgow	London and Glasgow Co.	1896	1898	254,190	2½	3	3	11 6-in., 8 12-pr., 1 3-pr., 5 M., 1 L.	3 (2 sub.)	19.5	550	449
"	Doris	shd. 5600	350	54	21	ft.	Barrow	Vickers	1896	1898	256,306								
P. 2nd cl. Cr.	Dublin	shd. 5400	430	49-10	15½	ft.	Dalmuir	Beardmore P. T.	1912	1913	337,565*	3			8 6-in., 1 12-pr., 4 3-pr., 4 M., 1 L.	2	25.5	650	400
"	Eclipse	shd. 5600	350	53	20½	ft.	Portsmouth	Portsmouth	1894	1897	276,313	1½-3		3	5 6-in., 6 4 7-in., 8 12-pr., 1 3-pr., 5 M., 1 L.	3	19.5	550	456
"	Edgar	shd. 7350	360	60	23½	ft.	Devonport	Fairfield	1890	1893	410,980	5-1		6	2 9-2-in., 10 6-in., 12 6-pr., 5 3-pr., M.	4	20.5	850	544
"	Endymion	shd. 7350	360	60	23½	ft.	Hull	Earle	1891	1894	375,350	5-1		6	2 9-2-in., 10 6-in., 12 6-pr., 5 3-pr., M.	2	20.5	850	544
P. 1st cl. Cr.	Europa	shd. 11,000	435	69	26	ft.	Clydebank	Thomson B.	1897	1899	564,690	4-2½		4½-2	16 6-in., 12 12-pr., 3 3-pr., 2 M.	2	20.5	1000	357
P. 2nd cl. Cr.	Falmouth	shd. 5250	430	48½	15½	ft.	Dalmuir	Beardmore P. T.	1910	1911	337,473*	2-¾			8 6-in., 4 3-pr., 4 M.	2	25.5	650	390
Fleet. Id.	Faulknor	shd. 1850	320	32½	11-1	ft.	E. Cowes	White	1913	1914					6 4-in., 2 M.	3	31	500	160
P. 3rd cl. Cr.	Fearless	shd. 3440	385	41.6	13-19	ft.	Pembroke	Beardmore P. T.	1912	1913	269,855				10 4-in., 4 3-pr.		25.5	350	320
"	Fox	shd. 4360	320	49½	19	ft.	Portsmouth	Portsmouth	1893	1895	245,571	2-1		2	2 6-in., 8 4-7-in., 1 12-pr., 13 6-pr., 3-pr., M.	3	19.5	400	312

Scout	Foresight.	2850	360	39	14	14,277 T. 15,018 T.	Govan.	Fairfield.	1904	1905	(285,672) 285,326	1½	9 4-in.	2	(25.12) 25.15 t	250	268
"	Forward.																
L. Cr.	Galatea†	3750	410	39	13½	30,000	Dalmuir.	Beardmore	1914	..	..	3	2 6-in., 8 4-in.	2	29	Oil	..
P. 2nd cl. Cr.	Gibraltar	7700	360	60	23¾	12,000	Glasgow.	Nupier	1892	1894	373,236	5-1	2 9-2-in., 10 6-in., 6-pr., 5 3-pr., M.	2	19.7	850	544
"	Glasgow	4800	430	47	15¼	22,472 t	Govan.	Fairfield P. T.	1909	1910	(354,884*) (353,856*)	2-¾	2 6-in., 10 4-in., 12-pr., 4 3-pr.	2	(25.8) t	650	376
"	Gloucester					23,757 t	Dalmuir	Beardmore P. T.									
"	Grafton	7350	360	60	23¾	12,000	Blackwall	Humphrys	1892	1894	372,890	..	2 9-2-in., 10 6-in., 6-pr., 5 3-pr., M.	2	20.0	850	560
"	Hawke (1)	7350	360	60	23¾	12,000	Chatham.	Fairfield	1891	1893	400,702	5-1	2 9-2-in., 10 6-in., 6-pr., 5 3-pr., M.	2	20.0	850	544
"	Hermes (2)	5600	350	54	20½	10,000 B. & W.	Govan.	Fairfield	1898	1900 1902	281,776						
"	Highflyer	5600	350	54	20½	10,000	Govan.	Fairfield	1898	1900	280,182	1½-3	11 6-in., 8 12-pr., 3-pr., 2 M.	2	20.0	600	456
"	Hyacinth	5600	350	54	20½	10,000	Glasgow. B.	London and Glasgow Co.	1898	1901	288,595						
P. 3rd cl. Cr.	Hermione	4360	320	49½	13	9000	Devonport	Thomson	1893	1895	223,324	2-1	2 6-in., 8 4-7-in., 6-pr., 1 3-pr., M.	3	19.5	400	312
Monitor	Humber	1250	265	49	1½	..	Barrow	Vickers	1913	1911	..	..	2 6-in., 2 4-7-in. Howitz- ers, 1 3-pr., 6 M.	..	11½	..	100
T. G. B.	Hussar	1070	250	30½	9	3500	Devonport	Hawthorn.	1894	1895	72,313	..	1 4-7-in., 2 6-pr., M.	5	19.0	100	120
L. Cr.	Inconstant†	3750	410	39	13½	30,000	Dalmuir.	Beardmore	Bldg.	..	..	3	2 6-in., 8 4-in.	2	29	Oil	..
P. 2nd cl. Cr.	Isis	5600	350	54	21	9600	Glasgow.	London and Glasgow Co.	1896	1898	253,733						
"	Junco	5600	350	54	21	9600	Barrow	Vickers	1895	1898	256,106	2½	11 6-in., 8 12-pr., 3-pr., 5 M., 1 L.	3*	19.5	550	449

* Total estimated cost of ship, including guns.

(1) Sunk by submarine in North Sea, October 16, 1911.

† Particulars unofficial.

(2) Sunk by submarine in Straits of Dover, October 31, 1914.

Class.	NAME	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Makers of Engines.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
												Belt.	Deck.					
P. 2nd cl Cr.	Liverpool .	4800	430	47	15½	24,614	Barrow Y.	Vickers P.T.	1909	1910	344,871*	in.	2 ¾	2 6-in., 10 4-in. B.L., 4 3-pr.	2	26½	650	376
"	Lowestoft .	5440	430	49	15	22,000	Chatham.	Fairfield	1913	1914	375,162	..	..	2 6-in., 4 3-pr.	2	25.5	650	..
Monitor	Mersey .	1250	265	49	14½	..	Barrow	Vickers	1914	1914	..	..	..	2 6-in., 2 4-7-in. Howitzers, 4 3-pr. 6 M.	..	11½	..	100
"	Minerva .	5600	350	53	20½	9600	Chatham.	Chatham	1895	1897	275,331	1½-3	1½-3	11 6-in., 8 12-pr., 1 3-pr., 5 M., 1 L.	3	19.5	550	116
"	Newcastle	4800	430	47	15½	24,643	Elswick Y.	Walsend Engineering Co. P.T.	1909	1910	352,610*	2 ¾	2 ¾	2 6-in., 10 4-in. B.L., 4 3-pr.	2	26½	650	376
"	Nottingham	5440	430	49	15	22,000	Pembroke	Hawthorn	1912	1914	379,013*	..	..	2 6-in., 4 3-pr.	2	25.5	650	..
P. Scout	Pathfinder (1)	2940	370	38½	14	17,176 { L.N. 16,460	Birkbhd	Laird	1904	1905	273,147 { 273,523	1½-¾	1½-¾	9 4-in.	2	25.34 t { 25.06 t	300	268
"	Patrol .																	
P. 3rd cl Cr.	Pegasus (2)	2135	300	36½	17	7000	Jarrow R.	Palmer	1897	1899	134,919	..	..	..	..	..	..	..
"	Pelorus .	2135	300	36½	17	7000	Sheerness Nor.	Thomson	1896	1897	154,315	..	..	..	..	..	..	..
"	Psyche .	2200	305	36½	17½	7000	Devonport T.	Devonport	1898	1900	156,890	2	2	8 4-in., 8 3-pr., M.	2	20.0	250	234
"	Proserpine	2135	300	36½	17	7000	Sheerness T.	Devonport	1896	1899	165,020	..	..	..	..	..	..	..
"	Pyramus	2135	300	36½	13½	7000	Jarrow R.	Palmer	1897	1900	135,249	..	..	..	..	..	517	..

L. Cr.	Penelope †	3750	110	39	13½	30,000 Barrow	Vickers	Bldg.	..	3	..	2 6-in., 8 4-in.	..	2	29	Oil	..	
L. Cr.	Phaeton †	3750	410	39	13½	30,000 Barrow	Vickers	Bldg.	..	3	..	2 6-in., 8 4-in.	..	2	29	Oil	..	
P. 3rd cl. Cr.	Philomel	2575	265	41	15½	7500 Devonprt	Earle	1890	1892	163,699	2-1	2	8 4-7-in., 8 3-pr., M.	..	2	19-0	300	217
P. 2nd cl. Cr.	Royal Arthur shd.	7700	360	60	27¾	12,000 Portsmouth	Maudslay	1891	1893	412,033	5-1	6	1 9-2-in., 12 6-in., 12 6-pr., 5 3-pr., M. (2 sub.)	..	2	19-7	850	567
L. Cr.	Royalist †	3400	410	39	12½	30,000 Palmuir	Beardmore	Bldg.	..	..	3	..	2 6-in., 8 4-in.	..	2	29	Oil	..
P. 3rd cl. Cr.	Sapphire	3000	360	40	14½	10,200 Jarrow	Palmer	1904	1905	226,277	..	..	12 4-in., 8 3-pr., M.	..	2	22-45	300	296
"	Sappho	3400	300	43	16½	9861 Poplar	Penn	1891	1893	176,813	2-1	2	2 6-in., 6 4-7-in., 8 6-pr., 1 3-pr., M.	..	4	20-47	400	273
P. Scout	Sentinel	2895	360	40	14½	17,488 Barrow	Vickers	1904	1905	276,341	1½-½	..	9 4-in.	..	2	25-07	205	268
Monitor	Severn	1250	265	49	4½	Nor. V.E. Barrow	Vickers	1913	1914	..	..	..	2 6-in., 2 4-7-in., Howitzers, 4 3-pr., 6 M.	..	..	11½	..	100
P. 3rd cl. Cr.	Sirius	shd., 3600	300	43¾	17½	9000 Elswick	Maudslay	1890	1892	190,991	2-1	2	2 6-in., 8 4-7-in., 8 6-pr., 1 3-pr., M.	..	4	19-75	400	273
P. Scout	Skirmisher	2895	360	40	14½	17,053 Barrow	Vickers	1905	1905	276,579	1½-½	..	9 4-in.	..	2	25-19	205	268
P. 2nd cl. Cr.	Southampton	5400	430	49-10	15¾	25,000 Clydebank	J. Brown C.T. Y.	1912	1913	336,463*	3	..	8 6-in., 4 3-pr., 4 M., 1 L.	..	2	25-5	650	400
Flot. ldr.	Swift.	1800	345	34½	10½	30,000 Birkenhead	Cannell Laard	1907	1909	241,595*	..	..	4 4-in.	..	..	35-25	180	150
P. 2nd cl. Cr.	Talbot	shd., 5600	350	53½	21	9600 Devonprt	Devonport	1895	1897	263,699	1½-3	3	11 6-in., 8 12-pr., 3-pr., 5 M., 1 L. (2 sub.)	..	3	19-5	550	412
P. 1st cl. Cr.	Terrible	shd., 14,200	500	71	27	25,000 Glasgow	Thomson B.	1895	1898	708,619	3-6	6	2 9-2-in., 16 6-in., 14 12-pr., 12 3-pr., 9 M.	..	4	22-4	1500	810

* Total estimated cost of ship, including guns.

(1) Sunk by submarine in Firth of Forth, September 5, 1914.

† Particulars modified.

(2) Sunk by *Königsberg* at Zanzibar, September 29, 1914

GREAT BRITAIN.—Cruising Ships, &c.—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Date of Completion.	Armour.		Armament.		Speed.	Coal.	Complement.
											Cost.	Gun Position.	Guns.	Torpedo Tubes.			
P 2nd cl Cr.	Theseus	7350	360	60	23½	12,000	Blackwall	Maudslay.	1892	1894	£ 370,389	in. 6	2 9-2-in., 10 6-in., 12 6-pr., 5 3-pr., M.	2 (2 sub.)	knots. 20·0	tons. 850	544
Flot.ldr.	Tipperary	1850	320	32½	11·1	27,000	E. Cowes.	White	1911	1911	..	..	6 4-in., 2 M.	3	31	500	160
P 3rd cl Cr.	Topaze	3000	360	40	14½	9860	Birkenh'd Laird	..	1903	1905	242,441	..	12 4-in., 8 3-pr., M.	2	22·1	300	296
L. Cr.	Undaunted†	3750	410	39	13½	30,000	Govan	Fairfield	1914	..	..	..	2 6-in., 8 4-in.	2	29	..	..
P 2nd cl Cr.	Venus	5600	350	54	21½	9600	Govan	Fairfield	1895	1898	254,184	2½	11 6-in., 8 12-pr., 1 3-pr., 5 M., 1 L.	3 (2 sub.)	19·5	550	449
"	Vindictive	5750	320	54	20½	10,000	Chatham	Chatham	1897	1897	282,879	1-2	10 6-in., 8 12-pr., 1 3-pr., 5 M., 1 L.	2	20·1	500	429
"	Weymouth	5250	430	48½	15½	22,000	Elswick	Parsons	1910	1911	337,738*	N.S.	8 6-in., 4 3-pr., 4 M.	2	25·5	650	390
"	Yarmouth					Y.	Glasgow	P. T. London & Glas. Co. C. T.	1911	1912	353,238*	2½					

* Total cost, including guns.

† Particulars unofficial.

River Gunboats.—Robin, Nightingale, Snipe, Sandpiper (1897), 85 tons; Woodcock, Woodlark (1898), 150 tons; 2 6-prs., 4 Maxims; Kinsha (1901), 616 tons; Teal, Moorhen (1902), 180 tons, 2 6-prs., 13 knots; Widgeon (1905), 195 tons. *Despatch Vessel*.—Alacrity (1885), 1,650 tons. *Torpedo Gunboats* (some serving as mine sweepers).—Circe, Gossamer, Dryad, Halcyon, Harrier, Jason, Leda, Niger, Seagull, Skipjack, Spanker, Speedwell, and Speedy.

There are now on the effective list a large number of warships which had been struck off at different times or even passed into the sale list. They are being used for various purposes as indicated by the official communications. Many more vessels are employed on special service than were published in the *Naval Annual* of last year; and the "Navy List," of April, 1915, contained a nominal list of some 1,360 vessels taken up for Admiralty service. The work upon which these vessels are engaged is not indicated in that "Navy List," but in those issued earlier in the year it was shown that some had been armed as auxiliary cruisers for the protection of commerce, others were employed on patrol duties, including a number of motor boats, and others were hospital ships, supply ships, &c., while some thousands of trawlers and drifters are being used in connection with the examination service, the mine-sweeping flotillas, and many other duties made necessary by the war.

The following vessels are employed on special service:—Assistance, Cyclops, and Reliance, fleet repair ships; Woolwich, Diligence, Blake, Blenheim, Hecla, Leander, St. George, and Tyne, torpedo depot ships; Maidstone, Adamant, Alecko, Arrogant, Bonaventure, Forth, Mercury, Pactolus, Thames, Vulcan, Dolphin, Onyx, Antelope, Hebe, Sharpshooter, and Hazard, submarine depot ships; Aquarius, distilling vessel; Iphigenia, Apollo, Naiad, Intrepid, Andromache, Latona, and Thetis, mine-laying vessels; and Seaflower, Seamen, Sparrow, Spider, and Driver, steam-trawlers for mine-sweeping duties, purchased April, 1909.

Defence Forces of the Dominions.

AUSTRALIA.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Maker of Engines.	Date of Launch.	Date of Completion.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.	
											Cost.	Gun Position.	Guns.	Torpedos.					
																			Belt.	Deck.
L.C.	Australia	18,800 tons.	55½ ft.	80 ft.	26½ ft.	48,000	Clydebank	J. Brown & Co.	1911	1913	£ ..	m. ..	in. ..	8 12-in., 16 4-in., 5 M.	2	Knots, 25·0	1000	790	
P. 2nd cl. Cr.	Melbourne	5400	430	19½	15½	25,500	(Birkenhead Glasgow Co. Sydney)	P.T.	1912	1913	..	..	..	8 6-in., 4 3-pr., 4 M., 1 l.	2	25·5	..	..
"	Sydney							Laird	1912	1913									
"	Brisbane							London & Glasgow Co.	1912	1913									
"	Encounter	5880	35½	56	20½	12,500	Devonport Dockyard	Devonport Dockyard	1903	1906	370,275	3-2	3-2	11 6-in., 9 12-pr., 1 3-pr., 2 M.	2	20·75	600	454	
L. Cr.	Pioneer	2200	305	36½	13½	7000	Chatham.	Fairfield	1899	1900	148,894	2	2	22 8 4-in., 11 3-pr., M.	2	20·0	250	234	
CANADA.										1897	1899	16 6-in., 12 12-pr., 3 3-pr., 2 M.	2	20·5	1000	600
P. 1st cl. Cr.	Niobe	11,000	435	69	26	16,500	Barrow	Vickers	1897	1899	..	..	..	2 6-in., 6 4-7-in., 8 6-pr., 1 3-pr., 4 M., 1 l.	4	19·7	400	273
P. 2nd cl. Cr.	Rainbow	3600	300	43½	17½	9000	Jarrow	Palmer	1891	1893	..	..	..	..	..	..	..	..

Both the Royal Australian Navy and Royal Canadian Navy have been amplified since the war. **Kurumba** (oil supply ship) and **Platypus** (submarine depot ship) are building in Great Britain for the former, to which the German sailing vessel **Komet** was captured and added as the **Una**.

ARGENTINE REPUBLIC.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-power.	Where Built.	Date of Launch.	Cost.	Armour.				Armament.			Speed.	Coal.	Complement.
										Belt.	Deck.	Side above belt.	Bulkhead.	Heavy Guns.	Second-ary.	Guns.	Torpedo Tubes.		
a.c.	Garibaldi .	6732	328 5 $\frac{3}{4}$	24	13,384	13,384	Sestri Ponente	1895	£ 1896752,000	6-3 H.S.	1 $\frac{1}{2}$ H.S.	6 H.S.	6 H.S.	in. H.S.	in. H.S.	2 10-in., 10 6-in., 4 2-2-in., 2 M.	2	19·9 t	1000 500
a.c.	General Belgrano .	7069	328 5 $\frac{3}{4}$	24	13,000	13,000	Leghorn	1897	1899 696,700	6-3 H.S.	1 $\frac{1}{2}$ H.S.	6 H.S.	6 H.S.	6 H.S.	6 H.S.	2 10-in., 14 6-in., 4 2-2-in., 2 L., 2 M.	4	20·1 t	1000 500
a.c.	General San Martin	6773	328 5 $\frac{3}{4}$	24	13,000	13,000	Leghorn	1896	1898 688,200	6-3 H.S.	1 $\frac{1}{2}$ H.S.	6 H.S.	6 H.S.	6 H.S.	6 H.S.	4 8-in., 10 6-in., 6 4-7-in., 2 L., 2 M.	4	19·8	1100 500
c.d.s.b.	Independencia .	2336	230 4 $\frac{1}{4}$	13	3000	3000	Birkenhead	1891	1893 176,000	8 comp.	2	..	8 comp.	8 comp.	..	2 9-4-in., 4 4-7-in. (A), 4 3-pr. (A), 4 M.	..	14·4 t	340 225
c.d.s.b.	Libertad .	2336	230 4 $\frac{1}{4}$	13	3000	3000	Birkenhead	1890	1892 176,000	8 comp.	2	..	8 comp.	8 comp.	..	2 9-4-in., 4 4-7-in. (A), 4 3-pr. (A), 4 M.	..	14·4 t	340 225
b.	{ Moreno . Rivadavia Pl. 18.	{ 39,500 27 $\frac{1}{2}$ B. & W. Curtist.	{ 585 98 27 $\frac{1}{2}$ B. & W. Curtist.	{ 27,000* 585 98 27 $\frac{1}{2}$ B. & W. Curtist.	{ 39,500 27 $\frac{1}{2}$ B. & W. Curtist.	{ 39,500 27 $\frac{1}{2}$ B. & W. Curtist.	{ Camden, N.J. (N.Y.S. Co.) Quincy, Mass.	1911	1914 2,200,000	12-10 3-2 K.S.	9-6 K.S.	9-6 K.S.	9 K.S.	12-9 K.S.	6 K.S.	12 12-in., 12 6-in., 16 4-in., 10 smaller.	2	22·5 t	1800 1046 4000
a.c.	Pueyrredon .	6773	328 5 $\frac{3}{4}$	24	13,000	13,000	Sestri Ponente	1898	1901 782,000	6-3 H.S.	1 $\frac{1}{2}$ H.S.	6 H.S.	5 H.S.	6 H.S.	6 H.S.	2 10-in., 10 6-in., 6 4-7-in., 4 2-2-in., 2 M.	4	20·1 t	1000 500

* Normal; 30,000 tons full load; oil fuel 600 tons.

ARGENTINE REPUBLIC.—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour. Deck.	Armament. Guns.	Torpedo Tubes.	Speed.	Coal.	Complement.	
<i>cr.</i>	Buenos Aires	tons. 4780	ft. 396	ft. 47½	ft. 19	17,000	Elswick	1895	1895	£ 383,000	in. ..	in. 4½	2 8-in. (A.), 4 6-in., 6 4½-in.	3	knots. 23·2	tons. 1000	429
<i>to.g.b.</i>	Espora	520	210	25	8	3500 Y	Birkenhead	1890	1891	..	..	2 3-in., 4 1·8-in., 2 M.	5	20·0	180	124
<i>to.g.b.</i>	Paraná	1000	240	32½	7½	..	Elswick	1908	1909	..	1	3-2* 2 6-in. Howitzers, 6 12-pr., 8 M., 4 12-pr. field.	..	15·0	120	150	
<i>to.g.b.</i>	Patria	1070	250	31	10	4500	Birkenhead	1893	1894	87,000	..	2 4·7-in., 4 8-pr., 2 3-pr., 2 M.	5	20·75	288	159	
<i>to.g.b.</i>	Rosario	1000	240	32½	7½	..	Elswick	1908	1909	..	1	3-2* 2 6-in. Howitzers, 6 12-pr., 8 M., 4 12-pr. field.	..	15·0	120	150	

* Side.

The training-ship (cruiser) Presidente Sarmiento, 2750 tons, 2000 I.H.P. (locomotive and Niclausse boilers), and 13 knots speed, with 19 guns and three torpedo tubes; launched by Messrs. Laird, 1897. There are also the old cruisers Veinte-y-Cinco de Mayo, 3200 tons, and Nueve de Julio, 3570 tons, completed at Elswick 1902, and several small gunboats.

AUSTRIA-HUNGARY.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.			Armament.	Torped. Tubes.	Speed.	Coal.	Complement.
										Belt.	Deck.	Side above belt.	Bulkhead.				
b.	Arpád { Babenberg	8208 35½	65½	23½	ft.	15,000 H.	Trieste	1901 1903 1902 1904	650,900 667,000	in. 8½	in. 2½	in. 4	in. 8	in. 5	10	19-6 t	500 638 840
c.d.s.	Budapest.	5462 305	55½	21	ft.	9185 B.	Trieste	1896 1897	400,600	10½ H.S.	2½	3½ H.S.	8	3½	4	17-8 t	500 150
b.	Erz. Friedrich	10433 300½	72½	24½	ft.	18,130 t	Trieste	1904 1906 1903 1905	912,500	8½ K.S.	3	5	8	7	2	20-36 t	1315 875
b.	Erz. Karl Erz. Ferdinand Max Pl. 20.	14226 450½	80½	26½	ft.	20,600 Y. t	Trieste	1908 1910	..	9-7½ K.S.	2	6	6	8	3	20-6 t	750 816
b.	Habsburg. Pl. 20.	8208 35½	65½	23½	ft.	15,000 B.	Trieste	1900 1902	626,000	8½ H.S.	2½	4	8	5	2	19-6 t	500 638
a.c.	Kaiserin Maria Theresia	5187 351	52½	21½	ft.	9755	Trieste	1893 1895 1910	304,187	4 H.S.	2	..	4	4	4	19-0 t	740 502
a.c.	Kaiser Karl VI. Pl. 21.	6151 367½	56	20½	ft.	12,800 B.	Trieste	1898 1900	429,000	10 H.S.	1½	6	8	6	4	20-7 t	800 535
c.d.s.	Monarch.	5550 305	55½	21	ft.	8900	Pola.	1895 1896	399,062	10½ H.S.	2½	3½	8	3½	4	17-4 t	500 450
b.	Prinz Eugen Pl. 19.	20000 495	80½	27	ft.	25,000 P. tur. Y.	Trieste	1912 1915	2,500,000	11-4½ K.S.	2½	6	..	12	6	20-5 t	900 1000
b.	Radetzky Pl. 20.	11226 450½	80½	26½	ft.	20,000 Y.	Trieste	1909 1911	..	9-7½ K.S.	2	6	6	10	8	20-5 t	750 816
a. c.	St. Georg. Pl. 21.	7185 383½	61½	21½	ft.	15,270 t, Y.	Pola.	1903 1906	581,583 8½-6½	8½-5½ K.S.	1½	5	7	6	2	22 t	1000 628
b.	(Szent Istvan) Tegetthoff	20000 495	89½	27	ft.	25,000 A.E.G. tur.	Finnce Trieste	1914 1915 1912 1913	2,500,000	11-4½ K.S.	2½	6	..	12	6	20-7 t	900 1000
c.d.s.	Viribus Unitis Pl. 19.	5550 305	55½	21	ft.	8480 P. tur. Y.	Trieste	1911 1913	297,850	10½ H.S.	2½	3½	8	10½	4	17-6 t	500 150
b.	Wien. Pl. 20.	14226 450½	80½	26½	ft.	20,000 Y.	Trieste	1897 1897 1910 1911	..	9-7½ K.S.	2	6	6	10	8	20-5 t	750 816
b.	Zrinyi Pl. 20.	14226 450½	80½	26½	ft.	20,000 Y.	Trieste	1910 1911	..	9-7½ K.S.	2	6	6	10	8	20-5 t	750 816

The anti-bellum programme included four battleships of 24,500 tons, but these have not been begun. There were six armoured river monitors, Bodrog, Körös, Leitha, Maros, Szamos, and Temes, of 300-437 tons displacement, but the last-named was sunk in the River Save, October 23rd, 1914. Two others were completed in 1914.

Class.	NAME.	Displacement.	Length.	Beam.	Fraught.	Indicated Horse Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.	Y. tur.				£	Deck.	Guns.		knots.	tons.	
<i>to. cr.</i>	Admiral Spaun*	3500	416 $\frac{3}{4}$	42	15 $\frac{1}{2}$	21,000	Pola	1909	1910	..	in. 1	in. ..	2	26.0	450	320
<i>to. cr.</i>	Aspern .	2362	301 $\frac{3}{4}$	39 $\frac{1}{2}$	14 $\frac{1}{2}$	7300	Pola	1899	1901	155,000	2	8 4.7-in., 8 1.8-in., 4 m.	1	20.0	470	305
<i>to. cr.</i>	Helgoland*	3500	416 $\frac{3}{4}$	42	15 $\frac{1}{2}$	25,000	Monfalcone	1912	1911	..	1	9 3.9-in., 4 smaller	2	27.0	450	320
<i>cr. 2nd cl.</i>	Kaiserin Elizabeth (1)	4000	321 $\frac{1}{2}$	47 $\frac{1}{2}$	18 $\frac{1}{2}$	8000	Pola	1890	1892	..	2 $\frac{1}{2}$	2 9.4-in. (K.), 6 5.9-in. do., 13 1.8-in., 4 m., 2 l.	5	19.0	660	418
<i>cr. 2nd cl.</i>	Kaiser Franz Josef I.	3666	321 $\frac{1}{2}$	47 $\frac{1}{2}$	18 $\frac{1}{2}$	8000	Trieste	1889	1891	..	2 $\frac{1}{2}$	2 9.4-in. (K.), 6 5.9-in. do., 16 1.8-in., 2 l.	5	19.0	660	426
<i>to. g. b.</i>	Magnet .	502	220	26 $\frac{3}{4}$	8	5000	Elbing	1896	1899	51,052	..	6 1.8-in.	3	26.0	105	80
<i>to. cr.</i>	Novara*	3500	416 $\frac{3}{4}$	42	15 $\frac{1}{2}$	25,000	Finnø	1913	1911	..	1	9 3.9-in., 4 smaller	1	27.0	450	320
<i>to. cr.</i>	Saida*	3500	416 $\frac{3}{4}$	42	15 $\frac{1}{2}$	25,000	Monfalcone	1912	1911	..	1	9 3.9-in., 4 smaller	1	27.0	450	320
<i>to. g. b.</i>	Satellit .	581	220	26 $\frac{3}{4}$	9 $\frac{1}{2}$	4000	Elbing	1893	1893	..	1 $\frac{1}{2}$	1 2.8-in., 8 1.8-in.	..	21.87	76	84
<i>to. cr.</i>	Szigetvár .	2313	301 $\frac{3}{4}$	39 $\frac{1}{2}$	14 $\frac{1}{2}$	7300	Pola	1899	1901	155,000	2	8 4.7-in., 8 1.8-in., 4 m.	1	20.0	470	305
<i>to. g. b.</i>	Trabant .	522	220	23	8 $\frac{1}{2}$	3500	Trieste	1890	1891	..	..	2 2.8-in., 8 1.8-in.	1	20.0	..	84
<i>to. cr.</i>	Zenta (2)	2264	301 $\frac{3}{4}$	39 $\frac{1}{2}$	12 $\frac{1}{2}$	7300	Trieste	1897	1899	143,780	2	8 4.7-in., 8 1.8-in., 4 m.	1	20.9	470	305

* 21 in. side armour and 2 in. bulkhead.

(1) Kaiserin Elizabeth sunk at Tsingtau on the surrender, October 27th, 1914.

(2) Zenta sunk by a French squadron off Antivari, August 16th, 1914.

The programme of 1914-15 included three cruisers of 4800 tons. It is believed that one of them has been completed. Three small cruisers were building for China at Monfalcone, and have been, or will be, taken over by the Austro-Hungarian Navy.

Mining vessel, Chimaloon, 1000 tons. Pelikan, 2431 tons, submarine tender. Donau, training corvette (2507 tons). A submarine depot and salvage vessel, 950 tons, 15 knots. Tender and repair ship for flotillas, Gaea (ex Fürst Bismarck). Fleet colliers, Pola and Teutob, 7000 tons.

BRAZIL.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-power.	Where Built.	Date of Launch.	Date of Completion.	Armour.				Armament.		Torped. Tubes.	Speed.	Coal.	Complement.
										Belt.	Deck.	Side above Belt.	Bulkheads.	Heavy Guns.	Second-ary.				
<i>c.d.s., t.</i>	Marshal Deodoro	3112 287½	48	13½	13½	3400 D.A.	La Seyne	<div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 5px;">{</div> <div> 1898 1900 1899 1901 </div> </div>	..	13½-4	1½	..	..	8	3	2 9-4-in., 4 4-7-in., 2 m., 4 6-pr., 2 1-pr.	2	15-0	236 200
<i>c.d.s., t.</i>	Marshal Floriano									U.S.				U.S.	U.S.	(sub.)			
<i>b.</i>	Minas Geraes <i>17, 22.</i>	19, 281 500	83	25	27, 212	212 Elswick		1908 1900	1,821,400 9-6-4	K.S.	2	9-6-4	9	12-8	9	12 12-in., 22 4-7-in., 8 3-pr.	4	21-4	900 900
						B.&W.						K.S.		K.S.	K.S.		2400		
<i>b.</i>	São Paulo <i>17, 22.</i>	19, 281 500	83	25	28, 645	Barrow		1909 1910	1,821,400 9-6-4	K.S.	2	9-6-4	9	12-8	9	12 12-in., 22 4-7-in., 8 3-pr.	4	21-6	900 900
						B.&W.						K.S.		K.S.	K.S.		2400		

Also river monitors Maranhão and Pernambuco, built at Rio de Janeiro.

The battleship *Rio de Janeiro*, 27,500 tons, built at Elswick, was to have been sold to the Ottoman Government under the name of *Osman I.*, but on the outbreak of war was added to the British Navy, and named *Agincourt*. A substitute ship for the Brazilian Navy, to be named *Riachuelo*, and to mount eight 15-in., fourteen 6-in., and sixteen 4-in. guns, is intended to be built by Messrs. Armstrong.

Three armoured shallow-draught monitors, built at Barrow under the names of *Javary*, *Medeira*, and *Solimões*, were taken over for the British Navy, and remained in the Humber, Mersey, and Severn. They have been employed in operations on the Belgian coast.

BRAZIL.—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Year of Completion.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.					£	Deck.	Guns.		knots.	tons.	
<i>cr.</i>	Bahia . . .	3100	380	39	13½	17,500	Elswick	1909	1910	328,500	3-1½	10 4-7-in., 8 1-8-in.	2	27-0	650	240
"	Barroso . . .	3600	330	43½	16½	7500	Elswick	1896	1897	..	3	4½ 6 6-in., 4 4-7-in., 10 6-pr., 4 1-pr., 4 M.	3	20-0	700	300
"	Benjamin Constant . . .	2707	236	46	18	2800	La Seyne	1892	1894	..	2	4 6-in., 8 4-7-in., 8 M., 4 l.	4	14-0	260	287
"	Republica * . . .	1300	210	35	13	750	Elswick.	1892	1894	..	2-1	6 4-7-in., 4 6-pr., 6 M.	4	17-0	170	160
"	Rio Grande do Sul . . .	3100	380	39	13½	17,500	Elswick	1909	1910	328,500	..	10 4-7-in., 8 1-8-in.	2	27-4	650	260
<i>to.cr.</i>	Tamoyo . . .	1063	269	28½	9½	6500	Kiel	1898	1900	..	..	4½ 2 4-1-in., 6 2-2-in., 2 1-4-shields in., 2 M.	3	23-0	293	110
"	Timbira . . .	1014	249½	30½	10½	7000	Kiel	1896	1897	..	½	4½ 2 4-1-in., 6 2-2-in., 2 1-4-shields in., 2 M.	3	22-5	250	110
"	Tupy . . .	1014	249½	30½	10½	7000	Kiel	1896	1897	..	½	4½ 2 4-1-in., 6 2-2-in., 2 1-4-shields in., 2 M.	3	22-5	250	110

Eleven screw gunboats, 200 tons to 400 tons, and four 12-knot river gunboats built at Poplar. Two river gunboats built by Messrs. Yarrow were sent out in sections, 1907.

Almirante Tamandare (launched 1890), 4660 tons, gunnery ship. Tiradentes (189), 800 tons, training ship.

* Converted into a mine-layer.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-power.	Where Built.	Date of Launch.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
b.	Almirante Cochrane *	28,000 625	ft. 92	ft. 28½	17,000	Walker	Bilg.	..	£	in.	in.	in.	in.	in.	tons.
a.c.	Almirante O'Higgins	8,500 411½	62½	22	16,000	Elswick	1897	1898	..	in.	in.	in.	in.	in.	tons.
b.	Capitão Prat	5,981 328	60½	21½	12,000	La Seyne	1890	1893	391,000	12	3	4	10½	2	775 480
a.c.	Esmeralda	7,020 436	53½	22½	16,000	Elswick	1896	1897	..	6	2	..	4½	..	1350 500
										H.S.	H.S.	Shields			

* Sister of British battleship Canada.
Capitão Prat reconstructed.

Almirante Latorre, 28,000 tons, then under completion by Messrs. Armstrong, was taken over for the British Navy at the outbreak of war and renamed Canada.

Cruising Ships, &c.

Class	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
cr	Blanco Encalada	4400	370	46½	18½	14,500	Elswick	1893	1894	..	in.	in.	in.	in.	in.	tons.
"	Chacabuco	4500	360	46	18	15,750	Elswick	1901	1903	..	4½-1½	2 8-in., 10 6-in., 12 3-pr., 10 1-pr.*	5	22-78	900	427
"	General Baquedano (Training)	2330	240	45½	18	1500	Elswick	1898	1900	..	..	2 8-in., 10 4-7-in., 16 1-8-in., 2 M., 1 L.	5	23-0	1000	350
"	Ministro Zenteno	3600	330½	43½	16½	6500	Elswick	1896	1898	..	..	4 4-7-in., 2 12-pr., 2 6-pr., 2 M., 1 L.	1	13-7	300	302
"	Presidente Errázuriz	2047	268	35½	19½	5400	La Seyne	1890	1892	..	3½	8 6-in., 10 6-pr., 4 1-pr.*	3	20-0½	800	280
"											..	4 6-in. (Canet), 2 5-in., 4 2-2-in., 6 M.	3	19-0	200	171

* Armstrong.

Two Gunboats of 145 tons displacement and one of 180 tons.

Two Botilla leaders building in England were taken over at the outbreak of war and added to the British Navy with the names of Broke and Faulknor.

CHINA.—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse Power.	Where Built.	Date of Launch.	Date of Completion.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
										Cost.	Deck	Guns.	Guns.				
cr.	Chao Hao	2750	330	42	13½	6000	Elswick	1911	1912	..	¾ in.	2 6-in., 4 4-in., 2 3-in., 3-pr., 2 l.	2 6-in., 4 4-in., 2 3-in., 3-pr., 2 l.	2	22·0	150	330
to g.b.	Fei-Ying	837	257½	28½	12½	4500	Stettin Y.	1895	1895	..	..	2 2 4-in., 6 3 4-in., 4 smaller	2 2 4-in., 6 3 4-in., 4 smaller	3	21·8	75	90
cr.	Hai-Chi.	4300	396	46½	18½	17,000	Elswick	1898	1899	..	5	2 8-in., 10 4 7-in., 4 1 4-in., 6 m.	2 8-in., 10 4 7-in., 12 3-pr., 4 1 4-in., 6 m.	5	24·0	300	374
"	Hai-Shen							1898	1898								
"	Hai-Shew	2303	314½	41	16	8000	Vulcan Stettin	1897	1898	..	3	3 6-in. (K.), 8 4-in., 6 1 4-in., Hotchkiss, 6 m.	3 6-in. (K.), 8 4-in., 6 1 4-in., Hotchkiss, 6 m.	3	20·7	220	244
"	Hai-Yung							1897	1898	..	..			(1 sub.)	1	500	
to cr.	Kien-Wei	801	256	26½	10½	7000	Poochow	1900	1902	..	..	1 3 9-in., 3 2 5-in., 6 1 4-in.	1 3 9-in., 3 2 5-in., 6 1 4-in.	2	22·5	360	300
"	Kien-Gnan					N.S.	Poochow	1899	1902	..	..				
g.b.	Tehu-Tai	552	..	..	..	..	Kobe	1906	1908	..	..	2 4 7-in., 2 12-pr.	2 4 7-in., 2 12-pr.	..	13·0	..	..
cr.	Ying Swei	2500	330	42	13	6000	Barrow	1911	1912	..	¾	2 6-in., 4 4-in., 2 3-in., 3-pr., 2 l.	2 6-in., 4 4-in., 2 3-in., 3-pr., 2 l.	2	22·0	150	330
										..						550	

Yung-Fung, Yung-Chiang, Yung Hsiang, 800 tons, 13·5 knots, one 4-in. and smaller guns, Yungtze gunboats, built in Japan, 1912. Two river gunboats of 150 tons built at the Germania Yard, Kiel. At the Kawasaki Yard, Kobe, the Kiang Heng, Jsu Jiang, and other small cruisers, or gunboats, have lately been built. Admiralty yacht Wufeng, 500 tons, 14 knots, built at Kiao-chau. The cruiser Fei-Hung, 2600 tons, built at Caunden, N.J., has been sold to Greece. The Kiangnan Dock Co. is building two cruisers, 750 tons, Fei-Hu and Fei-Lung; also the river gunboats Chiangying and Chiangni, 140 tons.

DENMARK.—Armoured Ships.

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Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Belt.	Deck.	Side above Belt.	Bulkhead.	Gun Position.	Heavy Guns.	Second-ary.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
<i>c.d.s., t.</i>	Herluf Trolle	tons, 3415 271	ft. 50	16½	4200	T.	Copenhagen	1899	1901	£ ..	in. 8-4	2	in. 7	in. ..	in. 6	in. 6	in. 6	2 9·4-in., 4 5·9-in., 10 2·2-in., 8 smaller.	3 (sub.)	knots, 16·0	tons, 250	250
<i>c.d.s., t.</i>	Iver Hvitfeldt	3208 242	49½	18	5100	T.	Copenhagen	1886	1889	200,000	12	2	U.S. ..	9½	8	U.S. ..	..	2 10·2-in. (K.), 10 6-pr., 8 m.	4 (1 sub.)	15·6	250	298
<i>c.d.s., t.</i>	Niels Juel	3675 274½	51½	16½	4600		Copenhagen	1915	..	..	3-4	2	..	..	7	6	6	2 9·4-in., 4 5·9-in., 18 smaller	4 (sub.)	16	250	250
<i>c.d.s., t.</i>	Olfert Fischer	3415 271	50	16½	4200		Copenhagen	1903	1905	..	8-4	2	7	..	6	6	6	2 9·4-in., 4 5·9-in., 10 2·2-in., 8 smaller.	3 (sub.)	16·0	250	250
<i>c.d.s., t.</i>	Peder Skram	3543 274½	51½	16½	4600		Copenhagen	1908	1909	..	8-4	2	..	..	7	6	6	..	4 (sub.)	16·5	250	250
<i>c.d.s., t.</i>	Skjold	2115 226½	38	13½	2200	T.	Copenhagen	1896	1899	..	9	2	..	7	8	4½	4½	1 9·4-in., 3 4·7-in. (K.), 1 8-in., 1 m.	4 (K.)	13·0	280	210

DENMARK.—Cruising Ships, &c.

Class.	NAME.	Displacement.		Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.							Cost.	Deck.	Gun Position.	Guns.				
3rd cl. cr.	Geiser .	1260	257½	27½	11½	3000 T.	Copenhagen	1892	1893	£ ..	in. 1½	in. ..	2 4·7-in., 4 3·4-in., 6 m.	4	17·1 t	125 tons.	155
"	Heimdal .	1260	257½	27½	11½	3000 T.	Copenhagen	1894	1896	..	1½	..	2 4·7-in., 4 3-pr., 6 m.	4	17·5	125	155
"	Hekla .	1260	233	32½	11½	3000 T.	Copenhagen	1890	1893	..	1½	..	2 6-in., 4 2·2-in., 6 m.	4	17·0	125	155

Two obsolete cruisers, Flyen (2580 tons) and Valkyrien (2854 tons).

FRANCE.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-power.	Where Built.	Date of Launch.	Cost.	Armour.			Armament.		Speed.	Coal.	Complement.	
										Belt.	Deck.	Side above belt.	Buttress.	Gun Position.				Gun.
a.c.	Aube (Amiral) <i>Pl. 30.</i>	9856 453	64½	24½	22, 155	St. Nazaire	1902	1904	973,440	6-4	2	5-2	in.	7½	6½-5 in., 2 7-6-in., 8 6-4-in., 6 3-9-in., 20 small Q.F. and M.	2	21-9	970 615
l.	Béarn <i>Pl. 23.</i>	24,830 374½	88½	29	36,000	La Seyne	1896	..	12½ 7	2½	7	..	12½	12 13-4-in., 4 3-pr., 24 5-5-in., 4 3-pr.	(sub.)	21-0	900 998	
b.	Bouvet (1). <i>Pl. 23.</i>	12,007 401½	70½	27½	14,000	Lorient	1896	1898	1,100,770	15½-8	3½	4	..	14½	2 12-in., 2 10-8-in., 8 5-5-in., 8 3-9-in., 19 small Q.F. and M.	2	18-2	621 621
b.	Brennus	11,190 361	67	26½	14,000	Lorient	1891	1893	991,767	15½	4	4½	..	17½	3 13-4-in., 10 6-4-in., 23 small Q.F. and M.	4	17-1	800 696
b.	Bretagne <i>Pl. 21.</i>	23,177 516	88½	29	29,000	Brest	1913	1915	2,589,439	11-7	2½ 1½	comp.	7	10½	10 13-4-in., 22 5-5-in., 8 small Q.F. and M.	4	20-0	900 1167
a.c.	Bruix	4735 365½	46	19½	9049	Rochefort	1894	1896	409,622	3½-2½	2	3½	..	3½	2 7-6-in., 6 5-5-in., 4 2-5-in., 4 1-8-in., 4 1-4-in., M.	4	18-3	406 391
b.	Carnot <i>Pl. 20.</i>	11,954 382½	70½	27½	16,300	Toulon	1894	1897	1,070,088	17½-9	2½	4	..	14½	2 12-in., 2 10-8-in., 8 5-5-in., 4 2-5-in., 16 1-8-in., M.	2	17-86	705 625
b.	Charlemagne <i>Pl. 28.</i>	11,108 385½	66½	27½	14,500	Brest	1895	1898	1,096,432	15½	3½	3	..	15½	10 1-4-in., and M.	2	18-1	680 631
b.	Charles Martel. <i>Pl. 28.</i>	11,693 392½	71	27½	14,996	Brest	1893	1897	1,092,830	17½	3½	4	..	15½	12-in., 2 10-8-in., 8 5-5-in., 4 2-5-in., 14 1-8-in., 5 1-4-in., M.	2	18-1	677 632
a.c.	Charner (Amiral)	4702 348	46	19½	8300	Rochefort.	1895	1895	353,200	3½-2½	2	3½	..	3½	2 7-6-in., 6 5-5-in., 14 small Q.F. and M.	4	18-2	413 375
a.c.	Condé <i>Pl. 30.</i>	9856 453	63½	24½	22,175	Lorient	1902	1904	863,739	6-4	2	5-2	..	7½	2 7-6-in., 8 6-4-in., 6 3-9-in., 16 1-8-in., 6 1-4-in., M.	2	21-4	970 615
b.	Condorcet. <i>Pl. 26.</i>	18,028 476	84	27	22,500	St. Nazaire	1909	1911	2,165,200	10-8	2½	8½	..	12	8½ 4 12-in., 12 9-4-in., 16 12-pr., 8 3-pr., 2 1-pr.	2	19-8	900 690
b.	Courbet <i>Pl. 25.</i>	23,100 546	88½	29	28,000	Lorient	1911	1913	2,508,388	11-7	2½ 1½	7	7	10½	12 12-in., 22 5-5-in., 4 3-pr.	4	20-0	900 998
b.	Danton <i>Pl. 26.</i>	18,028 476	84	27	22,500	Brest	1909	1911	2,068,000	10-8	2½	8½	..	12	8½ 4 12-in., 12 9-4-in., 16 12-pr., 8 3-pr., 2 1-pr.	2	20-18	900 690
b.	Démocratie <i>Pl. 26.</i>	14,635 438½	79½	27½	14,190	Brest	1904	1907	1,473,180	11-7	2½	8	..	12	6 4 12-in., 10 7-6-in., 26 1-8-in., 2 1-4-in., M.	2	19-44	905 793

(1) Sunk by mine in the Dardanelles, March 18, 1915.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where built.	Date of Launch.	Cost.	Bell.	Deck.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.	ft.			£	in.	in.	Bulkhead.	Gun Position.	Sec-ond-ary.			
		shd.	ft.	ft.	ft.	ft.				in.	in.	in.	in.	in.	knots.	tons.	
		ft. 31.	ft. 31.	ft. 31.	ft. 31.	ft. 31.				ft. 31.	ft. 31.	ft. 31.	ft. 31.	ft. 31.	ft.	ft.	
a.e.	Desaix	7578	424½	58½	24½	17,715	St. Nazaire	1901	1903	762,759	2½	..	..	..	21.7	880	531
b.	Diderot	18,028	476	84	27	22,500	St. Nazaire	1909	1911	2,167,000	2½	8½	12	8½	19.75	960	690
a.e.	Dupetit-Thouars	9367	452½	63½	24½	22,000	Toulon	..	1901	1905	831,839	6	6	3½	22.5	1020	610
a.e.	Dupleix	7578	426½	58½	24½	17,100	Rochefort	1900	1903	652,354	2½	..	..	..	21.0	880	531
a.e.	Edgard Quinet	13,780	515	70½	27½	39,803	Brest	1907	1911	1,307,536	2½-1½	5 2	4½	8	23.9	1242	738
a.e.	Ernest Renan	13,427	515	70½	26½	37,500	St. Nazaire	1906	1909	1,410,000	2	5 3	4½	6	25.5	1354	674
b.	Flandre	24,830	574½	88½	28½	34,800	Brest	..	2,589,439	12½	7	..	12½	7	21.0	900	1100
b.	France	23,100	516	88½	29	28,000	St. Nazaire	1912	..	2,603,920	2½-1½	7	10½	7	20.0	900	998
b.	Gascogne	24,830	574½	88½	28½	34,800	Lorient	..	2,589,439	12½	7	..	12½	7	21.0	900	1100
b.	Gaulois	11,105	385½	66½	27½	14,500	Brest	1896	1899	1,093,925	3½-1½	3	15½	3	18.0	680	632
a.e.	Gloire	9856	453	63½	24½	20,500	Lorient	1900	1904	883,269	2	5 2	..	7½	21.0	970	615
a.e.	Gueydon (Amiral)	9367	459	63½	24½	20,200	Lorient	1899	1902	817,994	6-3½	..	6	3½	21.0	1020	610
b.	Henri IV.	8807	354½	72	23	11,500	Cherbourg	1899	1902	801,248	11-7	..	11½	5	17.2	735	464
b.	Jauréguiberry	11,637	364	72½	27½	15,800	La Seyne	1893	1896	1,069,536	17½	4	..	14½	18.07	700	625
							D'A.										

8 1-4-in. 8 m.

<i>b.</i>	Jean Bart <i>Pl. 25.</i>	. 23, 100 546	88½	29	28,000 Brest H. tur.	. 1911 1913 2,528,888	11 7	2½ 1½	7	10½	7	12 12-in., 22 5·5-in, 4 3-pr.	4	20·0	900	1928
<i>a.c.</i>	Jeanne d'Arc <i>Pl. 32.</i>	. 11, 092 477½	63½	26½	28,000 Toulon Guyot	. 1899 1903 875,817	6-3	2-2	3	6	5	2 7·6-in., 14 5·5-in., 16 1·8-in., 8 1·4 in., 2 M.	2	21·7	1400	626
<i>"</i>	Jules Ferry <i>Pl. 30.</i>	. 12, 351 480½	70½	27	28,753 Cherbourg Guyot	. 1903 1906 1,169,940	6½ 4	2	5-3	6	5	4 7·6-in., 16 6·4-in., 22 1·8-in., 2 1·4-in.	2	22·8	1320	728
<i>"</i>	Jules Michelet.	. 12, 370 480½	70½	27	27,700 Lorient Guyot	. 1903 1908 1,204,107	6 4	2	5-3	6	5	4 7·6-in., 12 6·4-in., 24 1·8-in., 2 1·4-in.	2	23·2	1320	721
<i>b.</i>	Justice <i>Pl. 26.</i>	. 14, 635 438½	79½	27½	18,548 La Seyne Nie. t.	. 1904 1907 1,670,385	11-7	2½	8	12	6	4 12-in., 10 7·6-in., 26 1·8-in., 2 1·4-in.	2	19-43	965	793
<i>a.c.</i>	Kléber <i>Pl. 31.</i>	. shd. 7578 426½	58½	24½	18,000 Bordeaux Nie.	. 1902 1904 770,320	4-3	2½	..	3½	..	8 6·4-in., 4 3·9-in., 10 1·8-in., 4 1·4-in.	2	21·2	880	531
<i>b.</i>	Languedoc <i>Pl. 23.</i>	. 24, 830 574½	88½	28½	34,800 Bordeaux S.	. 1915 .. 2,642,439	12½ 7	2½	7	12½	7	12 13·4-in. (3 turrets), 24 5·5-in., 2 1·4-in.	6	21·0	900	1100
<i>a.c.</i>	Leon Gambetta <i>(1)</i>	. 12, 351 480½	70½	27	27,500 Brest Nie.	. 1901 1904 1,169,940	6½ 4	2	5-3	6	5	4 7·6-in., 16 6·4-in., 22 1·8-in., 2 1·4-in.	2	23·06	1320	728
<i>b.</i>	Lorraine <i>Pl. 24.</i>	. 23, 177 546	88½	29	29,000 St. Nazaire tur. S. & cyl.	. 1913 1915 2,642,439	11-7	2½ 1½	7	10½	7	10 13·4-in., 22 5·5-in., 8 small Q. F. & M.	4	20·0	900	1167
<i>a.c.</i>	Marseillaise <i>Pl. 30.</i>	. 9856 453	63½	24½	20,500 Brest B.	. 1900 1903 881,270	6 4	2	5-2	..	7½	2 7·6-in., 8 6·4-in., 6 3·9-in., 2 2·5-in., 18 1·8-in., 6 1·4-in.	2	21·0	970	615
<i>b.</i>	Masséna	. 11, 735 384½	66	27	13,500 St. Nazaire D'A.	. 1895 1898 1,100,400	17½-9½	3½	4	16	15½	4 12-in., 2 10·8-in., 8 5·5-in., 8 3·9-in., 12 1·8-in., 12 1·4-in.	2	17·1	630	642
<i>b.</i>	Mirabeau <i>Pl. 26.</i>	. 18, 028 476	84	27	22,500 Lorient H. tur.	. 1909 1911 2,032,000	10-8	2½	8½	12	8½	4 12-in., 12 9·4-in., 16 12-pr., 8 3-pr., 2 1-pr.	2	19·73	960	630
<i>a.c.</i>	Montcalm. <i>Pl. 31.</i>	. 9367 452½	63½	24½	19,600 La Seyne N.S.	. 1900 1902 902,809	6	2	3½	6	6	2 7·6-in., 8 6·4-in., 4 3·9-in., 16 1·8-in., 6 1·4-in.	2	21·0	1020	612
<i>b.</i>	Normandie <i>Pl. 23.</i>	. 21, 830 574½	88½	28½	34,800 St. Nazaire L.	. 1914 .. 2,642,439	12½ 7	2½	7	12½	7	12 13·4-in. (3 turrets), 24 5·5-in., 4 3-pr.	6	21·0	900	1100
<i>b.</i>	Paris. <i>Pl. 25.</i>	. 23, 100 546	88½	29	28,000 La Seyne N. tur.	. 1912 .. 2,603,920	11-7	2½ 1½	7	10½	7	12 12-in., 22 5·5-in., 8 3-pr., Q. F. & M.	4	20·0	900	998

(1) Sunk by Austro-Hungarian submarine No. 5 outside the Strait of Otranto, April 27, 1915.

FRANCE.—Armoured Ships—continued.

Class.	NAME.	Displacement.		Length.	Beam.	Draught.	Indicated Horse-Power.	Where built.	Date of Launch.	Cost.	Armour.		Armament.				Complement.		
		Belt.	Deck.								Slide above Belt.	Bulkhead.	Heavy Guns.	Gun Position.	Torpedo Tubes.	Speed.		Coal.	
b.	<i>Patrie</i> . <i>Pl. 27.</i>	14,635	438½	79½	27½	17,859	La Seyne	1903	1906	1,674,870	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							t.Nic.			£	11-7	2½	8	..	12	6	2	19-12	905
b.	<i>Provence</i> . <i>Pl. 24.</i>	23,177	546	88½	29	29,000	Lorient	1913	1915	2,600,195	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							tur.				11-7	2½	7	7	10½	7	4	20-0	900
b.	<i>République</i> . <i>Pl. 27.</i>	14,635	438½	79½	27½	19,026	Brest	1902	1906	1,523,136	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							t.Nic.				11-7	2½	8	..	12	6	2	19-15	905
b.	<i>Saint Louis</i> . <i>Pl. 28.</i>	11,090	385½	66½	27½	14,500	Lorient	1896	1900	1,080,997	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							B.				15½	3½	3	..	3-15½	3	2	18-0	820
b.	<i>Suffren</i> . <i>Pl. 27.</i>	12,527	411½	70½	27½	16,500	Brest	1899	1903	1,195,564	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							Nic.				12-8	2½	5-3	..	12	6-5	2	18-0	1100
b.	<i>Vergniaud</i> . <i>Pl. 26.</i>	18,028	476	84	27	22,500	Bordeaux	1910	1911	2,165,200	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							N. tur.				10-8	2½	8½	..	12	8½	2	19-67	960
b.	<i>Vérité</i> . <i>Pl. 26.</i>	14,635	438½	79½	27½	20,433	Bordeaux	1907	1908	1,661,409	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							t. B.				11-7	2½	8	..	12	6	2	19-26	905
a.c.	<i>Victor Hugo</i> . <i>Pl. 30.</i>	12,351	480½	70½	27	28,486	Lorient	1904	1907	1,229,932	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							t. B.				6½-4	2	5-3	6	8	5	2	22-5	1320
b.	<i>Voltaire</i> . <i>Pl. 26.</i>	18,028	476	84	27	22,500	La Seyne	1909	1911	2,163,200	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							B. tur.				10-8	2½	8½	..	12	8½	2	20-66	960
a.c.	<i>Waldeck-Rousseau</i>	13,780	515	70½	27½	36,110	Lorient	1908	1911	1,301,380	in.	in.	in.	in.	in.	in.	in.	in.	tons.
							Nic. t.				6½-3½	2½	5	4½	6	5½	2	23-10	1242
																			tons.

Battleships Tourville, Lille, Lyon, Duquesne to be built under the Fleet Law; intended date of commencement was October, 1911; proposed armament, 16 13-4-in. guns in four turrets.

Pothuan, 5374 tons, gunnery training ship; Latouche-Tréville, 4681 tons, tender to gunnery ship.

FRANCE.—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
										Deck.	Gunn Position.	Guns.	Guns.				
3rd cl. <i>cr.</i>	Cassard .	tons. 3890	ft. 325½	ft. 45	ft. 20½	10,143 D.A.	Cherbourg	1896	1898	£ 318,712	in. 2 3 shield	6 6¼-in., 4 3-9-in., 10 1-8-in., 3 1-4-in., 2 m.	10 1-8-in.	2	knots. 19·8 t	tons. 630	385
2nd cl. <i>cr.</i>	Châteaurenault	shd. 7898	442½	55½	24½	24,300 t. N.S.	La Seyne	1898	1902	606,656	2½ shield	2 2 6-4-in., 6 5-5-in., 10 1-8-in.	10 1-8-in.	2	24·19 t	1400 2100	625
<i>g. v.</i>	Décidée .	655	184½	26¼	12¼	1000 Nic.	Lorient .	1899	1900	54,100	..	2 3-9-in., 4 2-5-in., 4 1-4-in.	4 1-4-in.	..	13·0	99	99
2nd cl. <i>cr.</i>	D'Entrecasteaux	shd. 7995	383½	58½	25½	13,500	La Seyne	1896	1898	667,740	4 U.S.	2 9-4-in., 12 5-5-in., 12 1-8-in.	12 5-5-in.	2	19·2 t	650	521
3rd cl. <i>cr.</i>	Descartes .	shd. 3970	326	42¼	21¾	9000 P.	St. Nazaire	1894	1896	334,725	1½	4 6-4-in., 10 3-9-in., 8 1-8-in., 4 1-4-in.	8 1-8-in.	2	21·0 t	552	386
"	D'Estrées .	shd. 2421	311½	39¼	17¾	8500 Nor.	Rocheport	1897	1900	208,200	1½	2 5-5-in., 4 3-9-in., 8 1-8-in., 2 1-4-in.	8 1-8-in.	..	20·5 t	345 480	234
"	Du Chayla .	shd. 3890	325½	45	20½	10,009 D.A.	Cherbourg	1895	1897	315,835	3 shield	2 6 6-4-in., 3-9-in., 10 1-8-in., 3 1-4-in., 2 m.	10 1-8-in.	2	20·2 t	624	385
<i>to. g. b.</i>	Dunois .	889	256	27¼	12¾	7000 N.S.	Cherbourg	1897	1898	123,383	..	6 2-5-in., 6 1-8-in.	6 1-8-in.	..	23·0	137	128
3rd cl. <i>cr.</i>	Friant .	3882	308½	43½	20¾	9000 Nic.	Brest	1893	1895	308,750	3	6 6-4-in., 4 3-9-in., 8 1-8-in., 6 1-4-in.	8 1-8-in.	2	18·19	587	358

FRANCE.—Cruising Ships, &c.—continued.

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Class.	NAME.	Displacement.		Length.	Beam.	Draft.	Indicated Horse Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	shd.	ft.	ft.	ft.						Deck.	Gun Position.	Guns.					
2nd cl. <i>c.</i>	Guichen .	8151		436½	54½	24½	24,000 D'A.	St. Nazaire	1897	1899	£ 611,945	2½	in.	2	6·4-in., 6 5·5-in., 10 1·8-in.	2	23·0	1460	625
"	Jurien de la Gravière	5595	shd.	440	43½	22	17,000 Guyot	Lorient	1899	1901	475,979	3	..	8	6·4-in., 12 1·8-in.	2	22·9	600	511
<i>g. v.</i>	Kersaint .	1223	shd.	226	34½	15	2200	Rocheport	1897	1898	107,933	..	..	1	5·5-in., 5 3·9-in., 7 1·4-in.	..	15·0	199	110
<i>to, g. b.</i>	La Hire .	889		256	27½	12½	7000 N.S.	Cherbourg	1898	1899	123,383	..	..	6	2·5-in., 6 1·8-in.	..	23·0	137	128
3rd cl. <i>c.</i>	Lavoisier .	2285		330½	34½	17½	6400 B.	Rocheport	1897	1899	202,024	1½	2 shield	2	4 5·5-in., 2 3·9-in., 8 1·8-in., 2 1·4-in., 4 m.	2	20·0	226	248
<i>g. v.</i>	Surprise	617		184½	24½	12½	853 Z.	Havre	1895	1896	50,954	..	..	2	3·9-in., 4 2·5-in., 4 1·4-in.	..	13·4	73	99
<i>g. v.</i>	Zélee (1) .	554		185½	26	10½	1000 Nic.	Rocheport	1899	1900	..	..	..	2	3·9-in., 4 2·5-in., 4 1·4-in.	..	13·0	80	75

(1) Zélee, sunk by gunfire, October 28, 1914.

Two cruiser-scouts, 6000 tons, and three of a new class, *conducteurs d'escadrilles*, 4500 tons, were to be built. In addition are the cruisers *Brix*, 4735 tons, *Charnier*, 4702 tons, and *Cosmao*, *Forbin* and *Surcouf*, 1450 tons (1888-1895); also several gun vessels and river gunboats. Nine-layers *Pluton* and *Cerberus*, 560 tons, 6000 I.H.P., 20 knots; another laid down, 1914. Converted mining vessels, *Cassini*, 966 tons; *Casablanca*, 971 tons; *Flamberg*, 300 tons. *Gimboat Babin*, 214 tons; another provided for. Eight converted mine-sweepers. *Ronde*, 5984 tons, depot ship for balloons and aeroplanes. MERCHANT AUXILIARY CRUISERS.—*la France*, 22,500 register tons, 23½ knots, *Touraine*, 8429 register tons, 19·5 knots, *Lorraine*, 11,869 register tons, 21 knots, *Savoie*, 11,200 register tons, 22½ knots, and *Provence*, 13,750 register tons, 22 knots, of the *Compagnie Générale Transatlantique*, and some other vessels; also the *Amazon*, *Magellan*, *Tonkin*, and other 17 and 17½ knot boats of the *Messageries Maritimes*, and the *Birdigala*, 18 knots, and *Lutetia*, 20·5 knots, of the *Sud Atlantique* line.

GERMANY.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse Power.	Where Built.	Date of Launch.	Cost.	Belt.	Deck above Belt.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.				£	in.	in.	in.	in.	in.	knols.		
a. c.	<i>Blücher</i> (1)	15,550 499	80½	24½	24½	43,886	Kiel	1908	1,250,000	6	6	6	12 8-2-in., 8 5-9-in., 16 3-4-in., 3 L.	4 25-3	900	888	
b.	<i>Braunschweig</i> Pl. 38.	12,997 398½	73½	24½	24½	16,000	Germany	1902	1,157,500	9-4	3	6	4 11-in., 14 6-7-in., 18 3-4-in., 4 M.	6 18-0	700	660	
b. cr.	<i>Derfflinger</i> *	28,000 700	96	27	100,000	Hamburg	(P. tur.) (Blohm & Voss)	1913	1915	7	..	..	8 12-in., 12 5-9-in., 12 3-4-in.	4 27-0	1600†	..
b.	<i>Deutschland</i> Pl. 37.	13,040 398½	72¾	24½	24½	16,939	Germany	1904	1,214,000	9½-4	3	8	4 11-in., 14 6-7-in., 22 6 18-5	6	700	736	
b.	<i>Elsass</i> Pl. 38.	12,997 398½	72¾	24½	24½	16,812	Danzig	1903	1,157,500	9-4	3	6	4 11-in., 14 6-7-in., 18 6 18-7	6	800	660	
b.	<i>Friedrich der Grosse</i> Pl. 35.	24,310 564½	95½	27½	27½	28,000	Hamburg	1911	1912	13½-5	3	7	10 12-in., 14 5-9-in., 12 3-4-in., 1 L.	5 22-4	1000	1073	
a. c.	<i>Friedrich Karl</i> (2)	8858 393½	65½	24	24	17,760	Hamburg	1902	875,000	4	2	6	4 8-2-in., 10 5-9-in., 12 3-4-in., 3 1-4-in.	4 20-5	950	504	
"	<i>Fürst Bismarck</i>	10,520 393½	66½	26	26	14,000	Kiel	1897	1900	7¾	3	..	4 9-4-in., 12 5-9-in., 10 3-4-in., 3 1-4-in.	6 19-0	1000†	565	
"	<i>Gneisenau</i> (3)	11,420 449½	70¾	24½	24½	28,806	Bremen	1906	1908	6-3	2	6-4½	6 8 2-in., 6 5-9-in., 20 3-4-in., 14 smaller.	4 23-8	800†	764	
b. cr.	(Goeben) (4)	22,640 610½	96	27	70,000	Hamburg	(P. tur.) (Blohm & Voss)	1911	1912	7½-1	..	..	5 10 11-in., 12 5-9-in., 12 3-4-in.	4 28-6	1000	1013
b.	<i>Grosser Kurfürst</i> Pl. 34.	26,575 580	97	27½	35,000	Hamburg	(Vulcan)	1913	1914	14-6	3	8	10 12-in., 14 5-9-in., 12 3-pr.	5 23-0	1500	1150	
b.	<i>Hannover</i>	13,040 398½	73¾	25½	22,492	Wilhelms-	haven	1905	1,157,500	9½-4	3	8	4 11-in., 14 6-7-in., 20 3-4-in., 4 M.	6 19-16	700	736	
b.	<i>Helgoland</i>	22,500 546	93½	26½	28,000	Kiel	haven	1909	1911	11½-4	..	..	6 12 12-in., 14 5-9-in., 11 3-4-in., 4 L.	6 20-5	900	1107
b. cr.	<i>Hertha</i> (Ersatz)* Pl. 36.	28,000 700	96	27	100,000	Wilhelms-	Edg.	..	..	7	..	..	8 12-in., 12 5-9-in., 12 3-4-in.	4 27-0	3000	..
b.	<i>Hessen</i>	12,997 398½	73¾	24½	24½	16,000	Kiel	1903	1,157,500	9-4	3	6	4 11-in., 14 6-7-in., 18 3-4-in., 4 M.	6 18-0	800	660	
b.	<i>Kaiser</i> Pl. 35.	24,210 564½	95½	27½	27½	28,000	Kiel.	1911	1912	13½-5	3	7	10 12-in., 14 5-9-in., 12 3-4-in., 4 L.	5 23-6	1000	1073	

* Dimensions doubtful.

† Also liquid fuel.

‡ Exclusive of armament.

(1) *Blücher*, sunk off the Dogger Bank, January 24, 1915.

(2) *Friedrich Karl*, sunk by mine, December, 1914.

(3) *Gneisenau*, sunk in the Falkland Isles battle, December 8, 1914.

(4) *Goeben*, transferred with her officers to the Turks. See p. 158.

GERMANY.—Armoured Ships—continued.

Class.	NAME.	Displacement.		Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.				Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.	ft.				£	Belt.	Deck.	Side.	Bulkhead.	Heavy Guns.	Second-ary.	Guns.			
b.	Kaiser Barbarossa						13,000 C.&T.	Danzig	1900	962,500	in. 11½	3	in. 3	in. 11½	in. 9½	6	4 9-4-in., 3 4-in., 12 1-4-in., 8 M.	12 5 18-0	tons. 650 1050+	700
b.	Kaiser Friedrich III.						13,000 C.&T.	Wilhelms-haven	1896	1899	H. N. S.	..	..	..	..	..	..	..	..	..
b.	Kaiser Wilhelm II.						13,000 C.&T.S.	Wilhelms-haven	1897	1900	962,500	in. 11½	3	..	..	6	4 9-4-in., 3 4-in., 12 1-4-in., 8 M.	12 5 18-0	tons. 650 1050+	700
b.	Kaiser Wilhelm der Grosse.						13,000 C.&T.S.	Germania.	1899	1901	H. N. S.	..	..	..	..	..	..	..	..	..
b.	Kaiser Karl der Grosse						13,000 C.&T.S.	Hamburg. (Blohm & Voss)	1899	1902	H. N. S.	..	..	..	..	..	..	..	..	..
b.	Kaiserin.	24,310 564½	95½	27½	28,000 (Gn.)	27½	28,000 (Gn.)	Kiel	1911	1913	133½	5	3	7	12	7	10 12-in., 14 5-9-in., 3 4-in., 4 L.	12 5 21-0	1000 1073	
b.	König	26,575 580	97	27½	35,000 T.S.	27½	35,000 T.S.	Wilhelms-haven	1913	1914	2,500,000	14 6	3	8	14	..	10 12-in., 14 5-9-in., 3 4-in., 2 M.	12 5 23-0	1500 1150	
b.	König Albert.	24,310 564½	95½	27½	28,000 T.	27½	28,000 T.	Danzig (Schichau)	1912	1913	133½	5	3	7	12	7	10 12-in., 14 5-9-in., 3 4-in.	12 5 21-0	1000 1073	
b.	Kronprinz	26,675 580	97	27½	35,000 T.	27½	35,000 T.	Kiel (Ger- mania)	1914	1915	2,500,000	14 6	3	8	14	..	10 12-in., 14 5-9-in., 3 4-in., 2 M.	12 5 23-0	1500 1150	
b.	Lothringen	12,397 398½	73½	24½	16,950 W.T.&C.	24½	16,950 W.T.&C.	Schichau (Danzig)	1904	1906	1,157,500	9-4	3	6	10-6	6	4 11-in., 14 6-7-in., 3 4-in., 4 M.	18 6 18-54	800 600	
b. ex.	Lützow*	28,000 700	96	27	100,000 P.T.	27	100,000 P.T.	Danzig (Schichau)	1913	1915	..	7	..	..	10	..	8 12-in., 12 5-9-in., 3 4-in.	12 4 27-0	1600+	..
b.	Markgraf	26,575 580	97	27½	35,000 T.S.	27½	35,000 T.S.	Bremen (Weser)	1913	1915	2,500,000	14 6	3	8	14	..	10 12-in., 14 5-9-in., 3 4-in., 2 M.	12 5 23-0	1500 1150	
b.	Mecklenburg	11,611 393½	68½	24½	14,000 C.T. & S.	24½	14,000 C.T. & S.	Stettin (Vulcan)	1901	1903	1,063,250	9-4	3	5½	10	6	4 9-4-in., 18 5-9-in., 3 4-in., 4 M.	12 6 18-1	700 715	
b. ex.	Moltke	22,610 610½	96	27	86,000 (P. tur.)	27	86,000 (P. tur.)	Hamburg (Blohm & Voss)	1910	1911	..	7½	1	..	8	5	10 11-in., 12 5-9-in., 3 4-in.	12 4 28-1	1000 1013	
b.	Nassau	18,600 452	89	26½	25,800	26½	25,800	Wilhelms-haven	1908	1909	1,825,000	11½-4	..	..	12	..	12 11-in., 12 5-9-in., 3 4-in., 1 L.	16 6 20-7	950 961	
b.	Oldenburg	22,500 516	93½	26½	28,000	26½	28,000	Danzig (Schichau)	1910	1912	..	11½-4	..	..	11	6	12 12-in., 14 5-9-in., 3 4-in., 4 L.	14 6 22-2	900 1107	

b.	Ostfriesland	Pl. 36.	22,500 546	93½	263½	31,000	Wilhelms- haven	1909 1911	..	11½-4	..	..	..	11	6	12	12-in., 11 5-9-in., 4 L.	11	6	22-2	900	1107
b.	Pommern	Pl. 37.	13,010 398½	72½	25½	20,400	Stettin (Vulcan)	1905 1907 1,214,000	9½-4	..	3	8	6	10-6	6½	4	11-in., 11 6-7-in., 20 3-4-in., 4 L.	20	6	19-21	700	736
b.	Posen	Pl. 37.	18,600 452	89	26½	25,000	Kiel (Ger- manic)	1908 1910 1,825,000	11½-4	..	..	..	..	12	..	12	11-in., 12 5-9-in., 16 3-4-in., 4 L.	16	6	20-5	950	961
b.	Preussen.	Pl. 38.	12,997 389½	73½	24½	18,374	Stettin W.T.&C.	1903 1905 1,157,500	9-4	3	6	6	6	10-6	6	4	11-in., 14 6-7-in., 12 3-4-in., 12 1-4-in., 8 M.	12	6	18-6	800	680
a. c.	Prinz Adalbert	Pl. 42.	8858 393½	65½	24	17,650	Kiel.	1901 1903 885,000	4	1½	3	3	6	6	4	8	2-in., 10 5-9-in., 12 4-4-in., 3 1-4-in., 4 M.	12	4	20-3	950	504
a. c.	Prinz Heinrich	Pl. 42.	8759 396	61½	25½	15,700	Kiel	1900 1902 730,000	4	2½	4	..	..	6	4	2	9-4-in., 10 5-9-in., 10 3-4-in., 3 1-4-in., 4 M.	10	4	20-0	950	528
b.	Prinz-Regent Luitpold	Pl. 35.	24,310 564½	95½	27½	28,000	Kiel (P. tur.)	1912 1913 ..	13½-5	3	7	..	..	12	5	10	12-in., 11 5-9-in., 12 3-4-in., 11 3-4-in., 4 L.	12	5	21-0	1000	1073
b.	Rheinland	Pl. 37.	18,600 452	89	26½	25,000	Stettin (Vulcan)	1908 1910 1,825,000	11½-4	..	..	..	..	12	..	12	11-in., 12 5-9-in., 16 3-4-in., 4 L.	16	6	20-0	950	961
a. c.	Roon	Pl. 37.	9350 403½	65½	24	20,625	Kiel.	1903 1905 875,000	4-3	2½	6	4	6	6	4	4	8-2-in., 10 5-9-in., 14 3-4-in., 3 1-4-in.	14	4	21-17	750	638
a. c.	Scharnhorst (1)	Pl. 37.	11,420 449½	70½	24½	27,750	Hamburg (Blohm & Voss)	1906 1908 ..	6-3	2	6-4½	..	..	6½	4	8	8-2-in., 6 5-9-in., 20 3-4-in., 11 smaller	20	4	22-5	800½	764
b.	Schlesien	Pl. 37.	13,010 398½	72½	25½	16,930	Schichau (Germania)	1906 1908 1,214,000	9½-4	3	8	6	..	11-6	6½	4	11-in., 14 6-7-in., 20 3-4-in., 4 L.	20	6	19-5	700	736
b.	Schleswig-Holstein	Pl. 37.	13,010 398½	72½	25½	16,930	Wilhelms- haven	1901 1903 1,061,250	9-4	3	5½	6	..	10-6	6	6	9-4-in., 18 5-9-in., 12 3-4-in., 12 1-4-in., 8 M.	12	6	18-0	700	715
b. er.	Seydlitz	Pl. 40.	24,640 656	93½	27	100,000	Hamburg (Blohm & Voss)	1912 1913 ..	11-1	2	7	8½	..	11	7½	10	11-in., 12 5-9-in., 12 3-4-in., 3 1-4-in.	12	4	29-2	1100	..
b.	T.*	Pl. 39.	..	..	..	..	Kiel (Howaldt)	1914 ..	..	..	..	..	..	..	..	8	15-in., 16 5-9-in., many 3-4-in.	many	..	..	..	..
b.	Thüringen	Pl. 36.	22,500 546	93½	263½	31,000 L.	Bremen (Weser)	1909 1911 ..	11½-4	..	..	..	..	11	6	12	12-in., 14 5-9-in., 11 3-4-in., 4 L.	11	6	21-07	900	1107
b. er.	Von der Tann (2)	Pl. 36.	18,700 561	87	26½	71,500	Hamburg (Blohm & Voss)	1909 1911 1,833,000	6	..	..	..	..	..	6	8	11-in., 10 5-9-in., 16 3-4-in., 3 1-4-in.	16	4	27-6	1000	910
b.	Westfalen	Pl. 37.	18,600 452	89	26½	26,792	Bremen (Weser)	1908 1909 1,825,000	11½-4	..	..	..	..	12	..	12	11-in., 12 5-9-in., 16 3-4-in., 4 L.	16	6	20-2	950	961
b.	Wettin	Pl. 38.	11,611 393½	68½	24½	14,000	Schichau Wilhelms- haven	1901 1902 1,071,250	9-4	3	5½	6	10	6	4	9-4-in., 18 5-9-in., 12 3-4-in., 12 1-4-in., 8 M.	12	6	18-0	700	715	
b.	Wittelsbach	Pl. 38.	11,611 393½	68½	24½	14,000	Wilhelms- haven	1900 1902 1,071,250	9-4	3	5½	6	10	6	4	9-4-in., 18 5-9-in., 12 3-4-in., 12 1-4-in., 8 M.	12	6	18-0	700	715	
b.	Wörth (Ersatz)*	Pl. 39.	..	..	..	..	Danzig (Schichau)	1914 ..	..	..	..	..	..	..	..	8	15-in., 16 5-9-in., many 3-4-in.	many	..	..	..	..
a. c.	Yorck (3)	Pl. 39.	9350 403½	65½	21	20,290	Hamburg (Blohm & Voss)	1904 1905 875,000	4	3	6	4	6	6	4	8-2-in., 10 5-9-in., 11 3-4-in., 3 1-4-in.	11	4	21-1	750	638	
b.	Zähringen	Pl. 38.	11,611 393½	68½	24½	15,000	Kiel (Ger- manic)	1901 1902 1,071,250	9-4	3	5½	6	10	6	1	9-4-in., 18 5-9-in., 12 3-4-in., 12 1-4-in., 8 M.	12	6	19-0	650	715	

(1) Scharnhorst, sunk in the Falkland Isles battle, December 8, 1914.
 (2) Von der Tann, believed to have been sunk.
 (3) Yorck, sunk by German mine in the Baltic, November 3, 1914.
 The programme for 1914 included a battleship to replace the Kaiser Friedrich III., which was ordered in May at the Germania Yard, Kiel, also a battle-cruiser nominally to replace the protected cruiser Victoria Louise. Battle-cruiser Schamis, 19,200 tons, building at Stettin, partly completed at outbreak of war, situation uncertain. See p. 136.
 There are also the old battleships Brandenburg and Wörth, 9874 tons (1891-92). The following coast-defence armouredclads, 4000 tons, launched 1889-95, are still on the list: Siegfried, Beowulf, Frithjof, Hildebrand, Heindahl, Hagen, Odin, Aegir.

GERMANY.—Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.	Gun Position.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.					£	in.	in.			knots.	tons.	
3rd cl. cr.	Amazona	. shd. 2618	328	38½	16	8000 T.S.	Kiel (Germania)	1900	1901	247,000	2	..	10 4'-1-in., 14 M.	2 (sub.)	21·5	560	275
"	Arcona	. shd. 2657	328	38½	16	8000 T.S.	Bremen (Weser)	1902	1903	254,500	2	..	10 4'-1-in., 14 M.	2 (sub.)	21·0	700	281
"	Ariadne (1)	. shd. 2618	328	38½	16	8000 T.S.	Bremen (Weser)	1900	1901	247,000	2	..	10 4'-1-in., 14 M.	2 (sub.)	22·0	560	275
"	Augsburg	. . 4280	401½	46	16½	29,000 (cur.)	Kiel	. 1909	1910	..	2	..	12 4'-1-in., 4 2'-1-in., 4 M.	2 (sub.)	27·0	400	379
"	Berlin.	. shd. 3200	341	43½	16½	11,000 T.S.	Danzig	. 1903	1905	254,500	2	..	10 4'-1-in., 14 M.	2 (sub.)	23·2	800	303
"	Bremen	. . 3200	341	43½	16½	10,000 T.S.	Bremen (Weser)	. 1903	1904	254,500	2	..	10 4'-1-in., 14 M.	2 (sub.)	23·0	800	303
"	(Breslau) (2)	. . 4500	446½	41½	16½	33,482 A.E.G.	Stettin (Vulcan)	. 1911	1912	..	2	(4-2½ side)	12 4'-1-in., 2 M.	2 (sub.)	27·5	1200	373
"	Danzig	. . 3200	341	43½	16½	10,000 T.S.	Danzig	. 1905	1907	254,500	2	..	10 4'-1-in., 14 M.	2 (sub.)	23·0	800	303
"	Dresden (3)	. . 3514	364	44½	15½	15,000 (cur.)	Hamburg	. 1907	1908	..	2	..	12 4'-1-in., 4 2'-1-in., 4 M.	2 (sub.)	27·0	400	361
g.h.	Eber	. . 977	206½	30½	10½	1300 T.S.	Danzig	. 1903	1904	91,000	..	..	8 3'-4-in., 6 1'-4-in., 2 M.	..	13·0	240	120
3rd cl. cr.	Emden (4)	. . 3544	364	44½	15½	15,000 (cur.)	Danzig	. 1908	1909	..	2	..	10 4'-1-in., 4 2'-1-in., 4 M.	2 (sub.)	25·0	400	361
"	Frauenlob	. shd. 2657	328	38½	16	8000 T.S.	Bremen (Weser)	. 1902	1904	254,500	2	..	10 4'-1-in., 14 M.	2 (sub.)	21·0	700	281
2nd cl. cr.	Freyja (training)	. . 5569	344½	57	20½	10,000 Nic.	Danzig	. 1897	1898	..	4	4	8'-2-in., 6 5'-9-in., 14 3'-4-in., 4 M.	3 (sub.)	19·5	825	208
3rd cl. cr.	Gazelle	. shd. 2603	328	38½	16½	6400 Nic.	Kiel (Germania)	. 1898	1898	225,000	2	..	10 4'-1-in., 14 M.	3 (sub.)	18·0	560	636
"	Gefion	. . 3705	344½	42½	20½	9000	Danzig (Schichau)	. 1893	1894	..	1½	..	10 4'-1-in., 6 2'-1-in., 4 M.	2	19·0	780	296
"	Gefion (Vrsatz)*	. . 5000	..	..	..	45,000	Stettin (Vulcan)	. 1914	1915	..	..	..	..	..	..	..	..
3rd cl. cr.	Graudenz*	. . 5000	456	45	17	30,000 I.T.	Kiel (Germania)	. 1913	1913	..	2	(4-2½ side)	12 4'-1-in., 2 M.	2 (sub.)	27·5	1400	373

3rd cl. <i>cr.</i>	Hamburg	. . .	shd.	3200	341	43½	16½	11,500	Stettin (Vulcan)	. . .	1903	1904	254,500	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	23-28	800	303	
2nd cl. <i>cr.</i>	Hansa (training)	. . .	shd.	5791	345½	57½	21½	10,000	Stettin (Vulcan)	. . .	1898	1899	..	4	4	2 8'-2-in., 8 5'-9-in., 3'-4-in., 4 M.	. . .	4	(sub.)	10	19-5	825	636	
3rd cl. <i>cr.</i>	Hela (Bresitz)*	. . .	. . .	..	..	..	..	45,000	Kiel	. . .	1914	1915	..	..	..	..	..	..	..	..	..	..
2nd cl. <i>cr.</i>	Hertha (training)	. . .	5569	344½	57	21½	10,000	Stettin (Vulcan)	. . .	1897	1898	..	..	4	4	2 8'-2-in., 6 5'-9-in., 3'-4-in., 4 M.	. . .	4	(sub.)	14	19-5	825	636
<i>g. b.</i>	Itis (5)	. . .	shd.	881	203½	29½	10½	1300	Danzig (Schichau).	. . .	1898	1898	100,000	..	..	8 3'-4-in., 6 1'-4-in., 2 M.	. . .	..	..	..	13-5	165	126
<i>b.</i>	Jaguar (6)	. . .	shd.	900	203½	29½	10½	1300	Danzig (Schichau).	. . .	1898	1899	90,000	..	..	8 3'-4-in., 6 1'-4-in., 2 M.	. . .	..	..	..	13-5	165	126
2nd cl. <i>cr.</i>	Kaiserin Augusta	shd.	5956	387	52½	23	14,000	Kiel (Germania)	. . .	1892	1896	..	..	3½	..	12 5'-9-in., 8 3'-4-in., 4 M.	. . .	3½	(1 sub.)	3	21-0	850	439
3rd "	Karlsruhe (7)	. . .	1820	456	45	17	26,000	Kiel (Germania)	. . .	1912	1913	..	..	2	(4-2½ side)	12 4'-1-in., 2 M.	. . .	2	(sub.)	2	27-0	1100	373
"	Kolberg (8)	. . .	4232	388½	46	16½	20,000	Danzig (Schichau).	. . .	1908	1910	..	..	2	..	12 4'-1-in., 4 2'-1-in., 4 M.	. . .	2	(sub.)	2	25-5	400	379
"	Köln (9)	. . .	4280	401½	46	16½	20,000	Kiel (Germania)	. . .	1909	1910	..	..	2	..	12 4'-1-in., 4 2'-1-in., 4 M.	. . .	2	(sub.)	4	27-2	400	379
"	Königsberg (10)	. . .	3350	354½	43½	15½	13,200	Kiel	. . .	1906	1907	..	..	2	..	10 4'-1-in., 8 2'-1-in., 4 M.	. . .	2	(sub.)	2	23-5	400	322
"	Leipzig (11)	. . .	3200	341	43½	16½	11,000	Bremen (Weser)	. . .	1905	1906	254,500	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	23-0	800	303	
"	Lübeck	. . .	3200	341	43½	16½	14,000	Stettin (Vulcan)	. . .	1904	1906	254,500	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	23-0	800	303	
<i>g. b.</i>	Luchs	. . .	962	206½	30½	10½	1300	Danzig	. . .	1899	1900	91,000	..	2	..	8 3'-4-in., 6 1'-4-in., 2 M.	. . .	2	..	..	13-5	240	126
3rd cl. <i>cr.</i>	Magdeburg (12)	. . .	4500	416½	44½	16½	29,904	Bremen (Weser)	. . .	1911	1912	..	..	2	(4-2½ side)	12 4'-1-in., 2 M.	. . .	2	(sub.)	2	27-6	1200	373
"	Mainz (13)	. . .	4232	388½	46	16½	20,000	Stettin (Vulcan)	. . .	1909	1910	..	..	2	..	12 4'-1-in., 4 2'-1-in., 4 M.	. . .	2	(sub.)	2	28-0	400	379
"	Medusa	. . .	shd.	2618	328	38½	16	8000	Bremen (Weser)	. . .	1900	1901	247,000	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	22-0	560	275
"	München	. . .	shd.	3200	341	43½	16½	11,000	Bremen (Weser)	. . .	1904	1905	254,500	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	23-4	800	303
"	Niobe	. . .	shd.	2603	328	38½	15	8000	Bremen (Weser)	. . .	1899	1901	217,500	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	20-0	560	275
"	Nymphe	. . .	shd.	2618	328	38½	15	8000	Kiel (Germania)	. . .	1899	1901	217,500	..	2	..	10 4'-1-in., 14 M.	. . .	2	(sub.)	2	20-0	560	275
3rd cl. <i>cr.</i>	Nürnberg (14)	. . .	3396	354½	43½	15½	13,200	Kiel	. . .	1906	1908	..	..	2	..	8 3'-4-in., 6 1'-4-in., 2 M.	. . .	2	..	..	23-5	400	322
<i>g. b.</i>	Panther	. . .	962	206½	30½	10½	1300	Danzig	. . .	1901	1902	91,000	..	..	..	8 3'-4-in., 6 1'-4-in., 2 M.	. . .	..	(sub.)	..	13-5	240	130

* Particulars unknown or doubtful.

(1) *Vladiv*, sunk in the Heligoland fight, August 28, 1914. (2) *Breslau*, transferred with her officers to the Turks. See p. 159. (3) *Breslau*, sunk by the Glasgow of Juan Fernandez, March 11, 1915. (4) *Köln*, destroyed by the Sydney at Cocos Island, November 9, 1914. (5) & (6) *Itis* and *Jaguar*, sunk at Tsingtau. (7) *Karlsruhe*, sunk in the West Indies. (8) *Kolberg*, believed to have been sunk at the Dogger Bank. (9) *Köln*, sunk in the Heligoland fight, August 28, 1914. (10) *Königsberg*, destroyed in the Rüdiger River, November, 1914. (11) *Leipzig*, sunk in the Falkland Islands battle, December 8, 1914. (12) *Magdeburg*, sunk in the Baltic, August 17, 1914. (13) *Mainz*, sunk in the Heligoland fight, August 28, 1914. (14) *Nürnberg*, sunk in the Falkland Islands battle, December 8, 1914.

GERMANY.—Cruising Ships—continued.

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Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
											Deck.	Gun Position.					
1st cl. <i>cr.</i>	Regensburg*	shd. 5000	456	45	17	30,000	Bremen (Weser)	1912	1914	£	in.	in.	12 4- <i>I-in.</i> , 2 M.	2	27.0	1100	373
"	Rostock	" 4820	456	45	17	26,000	Kiel (Howaldt)	1912	1913	"	2	(side)	12 4- <i>I-in.</i> , 2 M.	2	29.2	1400	373
"	Stettin	" 3386	354½	43½	15½	13,200	Stettin (Vulcan)	1907	1907	"	2	(side)	10 4- <i>I-in.</i> , 8 2- <i>I-in.</i> , 4 M.	2	23.5	400	322
"	Strassburg.	" 4500	446½	44½	16½	22,300	Wilhelmshaven	1911	1912	"	2	(side)	12 4- <i>I-in.</i> , 2 M.	2	27.0	1200	373
"	Stralsund	" 4500	446½	44½	16½	23,000	Bremen (Weser)	1911	1912	"	2	(side)	12 4- <i>I-in.</i> , 2 M.	2	28.3	1200	373
"	Stuttgart	" 3386	354½	43½	15½	13,200	Kiel	1906	1908	"	2	(side)	10 4- <i>I-in.</i> , 8 2- <i>I-in.</i> , 4 M.	2	23.3	400	322
"	Thetis.	shd. 2618	344½	38½	16	8000	Danzig.	1900	1901	247,000	2	"	10 4- <i>I-in.</i> , 14 M.	2	21.8	560	275
<i>g. b.</i>	<i>Tiger</i> (1)	" 962	203½	29½	10	1300	Danzig.	1899	1900	"	"	"	8 3-4- <i>in.</i> , 6 1-4- <i>in.</i> , 2 M.	"	13.5	240	126
3rd cl. <i>cr.</i>	Undine	shd. 2657	328	38½	16	8000	Kiel (Howaldt)	1902	1904	254,500	2	"	10 4- <i>I-in.</i> , 14 M.	2	21.0	700	281
2nd cl. <i>cr.</i>	Victoria Luise (trng.)	5569	344½	57	21½	10,000	Bremen (Weser)	1897	1898	"	4	4	2 8-2- <i>in.</i> , 6 5-9- <i>in.</i> , 14	3	19.5	825	465
"	Vineta (training).	5791	345½	57½	21½	10,000	Danzig.	1897	1899	"	4	4	2 8-2- <i>in.</i> , 8 5-9- <i>in.</i> , 10	3	19.5	825	465

* Particulars doubtful.

(1) *Tiger*, sunk at Tsingtan. The *Cormoran*, *Greif*, and *Luchs*, two river gunboats, *Vierling* and *Tengstern*, intended or sold; old gun vessel *Mäwe*, sunk, August 9, 1914; old small cruiser *Helg*, sunk by submarine E-9, near Heligoland, September 13, 1914.

Two cruisers, 4300 tons, were building at Relling for the Russian Navy, and have doubtless been taken over for the German Fleet. See p. 153.

The Imperial Yacht *Hohenzollern*, 4187 tons, 9460 I.H.P., 22 knots, carries 3 4-1-in., 12 1-9-in. q.r. and 4 M. A new Imperial yacht is in hand. Cruisers *Seeadler* and *Kondor* (1550 and 20 tons), 1892-94. The mining vessels *Nautilus* and *Albatross* (2000 tons). Gunboat *C.*, completed at Danzig, 1150 tons, 14 knots, 4 1-2 in., 1 M. Gunnersy tenders *Drache* and *Delphin*, 765 tons, 15 knots. Submarine salvage vessel *Vulkan*; another begun in 1912.

Merchant Cruisers (Auxiliaries to the German Navy).

To what Company belonging.	Name of Ship.	Register Tonnage.	Length.	Beam.	Draught of Water.	Indicated H.P.	Ocean Speed.	When Built.	Armament.
		tons.	ft. in.	ft. in.	ft. in.		knots.		
North German Lloyd	Kronprinzessin Caecilie .	19,500	678 0	72 0	29 0	45,000	23½	1906	The armament is of 6-in. and smaller quick-firers.
	Kaiser Wilhelm II. .	19,500	678 0	72 0	29 0	45,000	23½	1901	
	Kronprinz Wilhelm .	14,800	640 0	66 0	26 3	30,000	23	1901	
	<i>Kaiser Wilhelm der Grosse</i> (1)	14,349	625 0	66 0	27 0	30,000	23	1897	
	George Washington .	26,000	..	..	..	20,000	19	1908

(1) Kaiser Wilhelm der Grosse sunk by the Highflyer, Aug. 26, 1914.

The Hamburg-America liners Imperator and Vaterland are classified as auxiliary cruisers. Many other vessels of less than 17 knots speed were in the list, including the Prinz Friedrich Wilhelm (16,900 register tons) and the Berlin (17,000 register tons), 18 knots.

The Berlin was interned at Trondhjem, Nov. 17, 1914. Prinz Eitel Friedrich and Kronprinz Wilhelm interned, Newport News. Many other vessels were taken over at the beginning of the war and converted into auxiliary cruisers and mine-layers. The Cap Trafalgar was sunk in a duel with the Carnarua, Sept. 14, 1914. The Königin Luise, mine-layer, was sunk by the Birmingham, Aug. 3, 1914. The Holo, Rhos, Markomannia, and Soden have been sunk, and the Spreewald, Bellamia, Grecia, Ophelia, and others captured.

Class.	NAME.	Displacement.		Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.	
		tons.	ft.								Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.				Guns.	Torpedo Tubes.
a.c.	Giorgios Averoff <i>Pt. 33.</i>	9556	425½	63½	24½	20,000	Leighorn B (Orlando)	1910	1911	1,100,000	8-3½ K.S.	1½	7	7	in.	in.	4 9-2-in., 8 7-5-in., 16 3-in., 8 1-8-in.	knots. 24-0	700	..
b.	Hydra .	4808	334½	51¾	23½	7000	St. Nazaire La Seyne .	1889	1891	..	11¾-4 K.S.	2½	3	..	13½	..	3 10-6-in. Canet, 5 5-9- in., 1 3-9-in., 8 2-5-in., 4 1-8-in., 12 1-4-in.	1600 17-0	600	400
b.	Kilkis <i>(ex Mississippi)</i>	13,000	375	77	24½	13,607	Philadelp ^{ia} B.&W.	1905	1908	616,360	9-4 K.S.	3½-1	7	7	10-7½ K.S.	6	4 12-in., 8 8-in., 8 7-in., 12 3-in., 6 3-pr., 10 smaller	17-1	600	725
b.	Lemnos <i>(ex Idaho)</i>	4308	334½	51¾	23½	7000	Havre . La Seyne .	1890	1892	..	11¾-4 K.S.	2½	3	..	13½	..	3 10-6-in. Canet, 5 5-9-in., 1 3-9-in., 8 2-5-in., 4 1-8-in., 12 1-4-in.	17-0	600	400
b.c.	Salamis (1) .	19,200	571	82	25½	40,000	Stettin (Vulcan) (tur.)	1914	..	1,240,000	10 K.S.	2½	7	..	10	7	8 14-in., 12 6-in., 12 12-pr. 1-8-in., 12 1-4-in.	23	..	..
b.	Spetsai .	4308	334½	51¾	23½	7000	Havre . La Seyne .	1889	1891	..	11¾-4 K.S.	2½	3	..	13½	..	3 10-6-in. Canet, 5 5-9- in., 1 3-9-in., 8 2-5-in., 4 1-8-in., 12 1-4-in.	17-0	600	400

(1) Probably taken over by the German government. At the outbreak of war the framing of the ship was about seven-eighths completed, the armour of two barbettes was nearly erected, and some of the casemate armour had been delivered by the Vulcan works.

GREECE.—Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
													Guns.					
g.	Acheloos	420	130	24½	11½	400	Blackwall	1884	1885	£	in.	in.	2 3-7-in. (K.), 3 M.,	..	..	10-0	50	..
"	Alphios	420	130	24½	11½	400	Blackwall	1884	1885	..	..	..	2 3-7-in. (K.), 3 M.,	..	..	10-0	50	..
"	Eurotas	420	130	24½	11½	400	Dumbarton	1884	1885	..	..	..	2 3-7-in. (K.), 3 M.,	..	..	10-0	50	..
core.	Staktirea	1000	216½	29½	18	2400	England	1885	1886	..	..	..	2 3-9-in. (K.), 2 M.,	..	..	14-5	100	..
cr.	Helli (ex Ret-Hung)	2600	330	42	13	6500	Camden, N.J.	1912	1914	240,000	¾	..	2 6-in., 4 4-in., 2 12-pr., 6 3-pr.	2	..	22-5	..	..

Torpedo depot-ship.—Kanaris, 1100 tons, 500 I.H.P., 2 3-9-in. (Krupp) guns, 14 knots speed. Mine-layers Aigialia, Monemvasia. Nauplia.

ITALY.—Armoured Ships.

Class.	NAME.	Displacement.		Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Completion.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.	
		tons.	ft.								Belt.	Deck.	Side above Belt.	Bulkhead.	Gun Position.	Guns.				Torpedo Tubes.
a.c.	Amalfi <i>Pl. 47.</i>	9956	429½	68½	24½	ft.	20,800	Genoa (Olegero)	1908	880,000	in. 8-3½	ins. 1½	ins. 7	ins. 7-6	ins.	4 10-in., 87-5-in., 16 3-in., 2 m.	3 (sub.)	knots. 23-6	tons. 700	687
b.	Ammiraglio di St. Bon <i>Pl. 47.</i>	9645	344½	69½	24½		13,500	Venice	1897	1901	9½-4	3-1½	6	9½	6	4 10-in., 86-in., 8 4-7-in., 2 2-9-in., 8 2-2-in., 12 2-2-9-in., 2 m.	4	18-3	1500	548
b.	Benedetto Brin <i>Pl. 16.</i>	13,214	426½	78½	27½		20,400	Castellammare	1901	1905	6-2	3	6	8	6	4 12-in., 4 8-in., 12 6-in., 1-4-in., 2 m.	4	19-5	1000	811
a.c.	Carlo Alberto	6396	325	59	23		13,220	Spezia	1896	1898	6-4½	1½	6	6	4½	16 3-in., 8 1-8-in., 4 m. (sub.)	4	19-2	2000	500
b.	Conte di Cavour <i>Pl. 15.</i>	22,310	557	92	28		21,000	Spezia	1911	1915	9½-4½	1½	6	6	9½	12 6-in., 18 4-7-in., 14 12-pr., 6 1-8 m.	3 (sub.)	22-5	1000	999
b.	Dante Alighieri <i>Pl. 15.</i>	19,100	565	85	27½		35,000	Castellammare	1910	1912	9½-4½	1½	6	6	10	12 12-in., 20 4-7-in., 13 12-pr., 6 1-8 m.	3 (2 sub.)	23-8	1000	900
b.	Doria (Andrea) Dulio (Cino) <i>Pl. 41.</i>	23,025	570	91	29		21,000	Spezia	1913	..	10½-6	1½	6	6	9½	13 12-in., 16 6-in., 14 12-pr., 6 1-8 m.	3 (sub.)	23	1000	1000
b.	Emanuele Filiberto <i>Pl. 47.</i>	9615	344½	69½	24½		13,500	Castellammare	1897	1901	9½-4	3-1	6	6	9½	4 10-in., 86-in., 8 4-7-in., 2 2-9-in., 8 2-2-in., 12 1-4-in., 2 m.	4	18-3	600	536
a.c.	Francesco Ferruccio <i>Pl. 48.</i>	7294	314	59½	23½		13,500	Venice	1902	1904	6-3	1½	6	5	6	10 10-in., 2 8-in., 14 6-in., 10 2-9-in., 6 1-8-in., 2 m.	4 (sub.)	20-0	655	540
b.	Francesco Morosini* <i>Pl. 48.</i>	28,000	670	98	..		18,000	Leghorn (Orlando)	1898	..	13-7	2	..	10	6	8 15-in., 20 6-in., 20 12-pr., 2 m.	..	25-0	61	1300
a.c.	Giuseppe Garibaldi <i>Pl. 18.</i>	7294	314	59½	23½		14,713	Sestri-Ponente	1899	1901	6-3	1½	6	5	6	10 10-in., 2 8-in., 14 6-in., 10 2-9-in., 6 1-8-in., 2 m.	4 (sub.)	20-0	655	540
b.	Giulio Cesare	22,310	557	92	28		34,000	Sestri-Ponente	1911	1914	9½-4½	1½	6	6	9½	13 12-in., 18 4-7-in., 11 12-pr., 6 1-8 m.	3 (sub.)	23-0	1000	999
b.	Leonardo da Vinci <i>Pl. 18.</i>	22,310	557	92	28		14,713	Sestri-Ponente	1899	1901	6-3	1½	6	5	6	10 10-in., 2 8-in., 14 6-in., 10 2-9-in., 6 1-8-in., 2 m.	4 (sub.)	23-0	1000	999
a.c.	Marco Polo	4511	327	48½	19½		10,513	Castellammare	1892	1894	4	1	4	4	4	6 5-9-in., 1 4-7-in., 6 2-9-in., 2 1-4-in., 2 m.	4	19-0	600	305

¹ Particulars uncertain. Three others were provided for in 1913. The names assigned to these ships are: Caracciolo (Castellammare), Cristoforo Colombo (Ansaldo), and Marcantonio Colombo (Olegro).

Class.	NAME.	Displacement.			Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.				Armament.		Torpedo Tubes.	Speed. <i>t</i> val.	Complement.		
		tons.	ft.	ft.								Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.				Guns.	
<i>b.</i>	<i>Napoli</i>	{ 12,425 435½ }	{ 75½ }	{ 27½ }	{ 20,000 Castellammare B. & W. }	{ 1905 1909 }	{ 1,120,000 }	{ 9½-4 }	{ 2 }	{ H.S. }	{ H.S. }	{ H.S. }	{ H.S. }	{ H.S. }	{ H.S. }	{ H.S. }	{ H.S. }	{ 2 12-in., 12 8-in., 12 3-in., 12 1-8-in. }	{ 2 }	{ 22-0 }	{ 1000 }	{ 711 }
	<i>Regina Elena</i>																					
<i>a.c.</i>	<i>Pisa</i>	9956 429½	63½	24½	18,000 Leghorn B.	1907 1909 (Orlando)	..	8 3½	1½	7	7	7	7	7	7	7	7	4 10-in., 8 7-5-in., 16 3-in., 2 M.	16 3	23-0	700	687
<i>b.</i>	<i>Regina Margherita</i>	13,214 426½	78½	27½	20,664 Spezia Nic.	1901 1904	..	6	3	6	8	8	8	8	8	8	8	4 12-in., 4 8-in., 12 6-in., 16 3-in., 8 1-8-in., 4 M.	4	20-2	1000	811
<i>b.</i>	<i>Re Umberto</i>	13,673 400	76½	28½	19,500 Castellammare	1888 1893	1,058,500	4	3	4	2½	18	..	..	..	..	..	4 67-ton (A.), 8 6-in., 16 4-7-in., 2 9-in., 15 2-2-in., 14 1-4-in., 2 M.	5	19-0	1200	785
<i>b.</i>	<i>Roma</i>	12,425 435½	73½	27½	20,000 Spezia B. & W.	1907 1909	1,120,000	9½-4	2	8	8	8	8	8	8	8	8	2 12-in., 12 8-in., 12 3-in., 12 1-8-in.	2	22-0	1000	711
<i>a.c.</i>	<i>San Giorgio</i>	{ 9832 429½ }	{ 68½ }	{ 24½ }	{ 18000 }	{ 1908 1910 }	{ .. }	{ 8 3½ }	{ 1½ }	{ 7 }	{ 7 }	{ 7 }	{ 7 }	{ 7 }	{ 7 }	{ 7 }	{ 7 }	{ 4 10-in., 8 7-5-in., 16 3-in., 8 1-8-in. }	{ 3 }	{ 22-5 }	{ 700 }	{ 613 }
	<i>San Marco</i>																					
<i>b.</i>	<i>Sardegna</i>	13,640 411	76½	28½	19,650 Spezia <i>t</i>	1890 1895	1,057,440	4	3	4	2½	14½	comp.	..	..	..	..	4 67-ton (A.), 8 5-9-in., 16 4-7-in., 2 2-9-in., 20 2-2-in., 10 1-4-in., 2 M.	5	20-1	1200	785
<i>b.</i>	<i>Sicilia</i>	13,087 400	76½	28½	19,500 Venice	1891 1895	1,050,000	4	3	4	2½	18	comp.	..	..	..	..	4 67-ton (A.), 8 5-9-in., 16 4-7-in., 2 2-9-in., 20 2-2-in., 10 1-4-in., 2 M.	5	19-2	1200	785
<i>a.c.</i>	<i>Varese</i>	7294 314	59½	23½	13,500 Leghorn B.	1899 1901 (Orlando)	..	6-4½	1½	6	5	6	6	6	6	6	6	1 10-in., 2 8-in., 14 6-in., 10 2-9-in., 6 1-8-in., 2 M.	4	20-0	650	500
<i>a.c.</i>	<i>Vettor Pisani</i>	6396 325	59	23	13,000 Castellammare	1895 1897	..	6 1½	1½	6	..	..	..	..	..	..	..	12 6-in., 6 4-7-in., 2 2-9-in., 10 2-2-in., 10 1-4-in., 2 M.	4	20-0	600	504
<i>b.</i>	<i>Vittorio Emanuele III</i>	12,425 435½	73½	27½	20,000 Castellammare	1904 1907	1,120,000	9½-4	2	8	8	8	8	8	8	8	8	2 12-in., 12 8-in., 12 3-in., 12 1-8-in.	2	22-0	1000	711

ITALY.—Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Armour.		Armaments.		Torpedo Tubes.	Speed.	Coal.	Complement.
										Cost.	Deck.	Gun Position.	Guns.				
<i>to.cr.</i>	Agordat	. 1292	287 $\frac{1}{2}$	30 $\frac{1}{2}$	11	8000	Castellammare	. 1899	1901	£	in.	in.	4 4-7-in., 8 2-2-in., 2 1-4-in.	2	knots.	tons.	158
										..	1	..			22-0	160	
<i>to.g.h.</i>	Aretusa	. 833	230	26 $\frac{3}{4}$	11 $\frac{3}{4}$	4420	Leghorn (Orlando)	. 1891	1892	72,920	1	..	1 4-7-in., 6 2-2-in., 3 1-4-in.	6	20-7 $\frac{1}{2}$	120	111
3rd cl. <i>cr.</i>	Basilicata	} 2160	..	..	..	4000	Castellammare	. 1895	..	..	1	..	6 6-in., 6 12-pr., 2 6-pr., 2 M.	..	16-5	500	..
"	Campania																
"	Calabria	. 2452	249 $\frac{1}{2}$	42	16 $\frac{3}{4}$	4094	Spezia	. 1894	1897	183,120	2	..	6 4-7-in., 10 smaller	2	16-4	500	257
<i>to.cr.</i>	Coatit	. 1292	287 $\frac{1}{2}$	30 $\frac{1}{2}$	11	8160	Castellammare	. 1899	1901	..	1	..	4 4-7-in., 8 2-2-in., 2 1-4-in.	2	21-1	160	158
3rd cl. <i>cr.</i>	Elba*	. shd.	272 $\frac{1}{2}$	40 $\frac{3}{4}$	16 $\frac{1}{2}$	7471	Castellammare	. 1893	1895	200,000	2	4 $\frac{1}{2}$	6 4-7-in., 4 2-2-in., 2 1-4-in., 1 M.	2	17-9	500	272
"	Etruria	. 2245	262 $\frac{1}{2}$	39 $\frac{1}{2}$	16 $\frac{1}{2}$	7585	Leghorn (Orlando)	. 1891	1893	183,120	2	4 $\frac{1}{2}$	4 5-9-in., 6 4-7-in., 1 2-9-in., 8 2-2-in., 10 1-4-in., 2 M.	2	19-8 $\frac{1}{2}$	400	257
<i>g.v.</i>	Governolo	. 1235	185	33 $\frac{3}{4}$	15 $\frac{3}{4}$	1100	Venice	. 1894	1896	58,440	..	..	4 4-7-in., 4 2-2-in., 2 1-4-in., 2 M.	..	13-0	200	131
<i>to.g.h.</i>	Iride	. 931	229 $\frac{1}{2}$	27	10 $\frac{1}{2}$	4243	Castellammare	. 1891	1892	72,920	1	..	1 4-7-in., 6 2-2-in., 3 1-4-in.	6	19-6	120	111
3rd cl. <i>cr.</i>	Libia	. 3690	311 $\frac{1}{2}$	47	..	12,500	Genoa (Ansaldo)	. 1912	1913	..	1 $\frac{1}{2}$	..	2 6-in., 8 4-7-in., 14 smaller.	2	22-0	630	300

* Ballooning service.

ITALY.—Cruising Ships—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Armour.		Armament.		Torpedo Tubes.	Speed.	Coal.	Complement.
										Cost.	Deck.	Guns.	Guns.				
3rd cl. cr.	Liguria . .	2245	262½	39½	16½	7677 t	Sestri (Ansaldo)	1893	1894	183,120	in. 4½	2 5-9-in., 6 4-7-in., 2 3-in., 2 2-in., 4 smaller	2 5-9-in., 6 4-7-in., 2 3-in., 2 2-in., 4 smaller	2	knots. 19·6	430	257
Scout	Marsala . .	3400	460	42½	13½	22,500 Pair, bl.	Castellammare	1912	..	..	1½	6 4-7-in. and 6 12-pr., mining equipment	6 4-7-in. and 6 12-pr., mining equipment	2	28·0	800	240
4th g. b.	Minerva . .	833	246	27½	11½	4800 W.T.	Sestri (Ansaldo)	1892	1893	72,720	1	1 4-7-in., 6 2-2-in., 3 1-4-in.	1 4-7-in., 6 2-2-in., 3 1-4-in.	5	21·0	120	111
Flot. ldr.	Mirabello . .	1500	..	..	..	..	Sestri (Ansaldo)	Bldg.	..	..	..	6-in. guns.	6-in. guns.	..	32·0	..	..
Scout	Nino Bixio . .	3400	460½	42½	13½	22,500 Bl, cur. l.	Castellammare	1911	..	..	1½	6 4-7-in. and 6 12-pr., mining equipment	6 4-7-in. and 6 12-pr., mining equipment	2	28·0	800	240
3rd cl. cr.	Puglia . .	2498	269	41	16½	7000	Taranto.	1898	1901	200,000	4½	4 5-9-in., 6 4-7-in., 1 2-9-in., 8 2-2-in., 8 1-4-in., 2 m.	4 5-9-in., 6 4-7-in., 1 2-9-in., 8 2-2-in., 8 1-4-in., 2 m.	2	20·0	650	257
Scout	Quarto . .	3220	432	42½	13½	29,000 Pair, bl.	Venice . .	1911	1912	..	1½	6 4-7-in. and 6 12-pr., mining equipment	6 4-7-in. and 6 12-pr., mining equipment	2	28·6	450	240
Flot. ldr.	Raccia (C. A.) [*]	1500	..	..	..	..	Sestri (Ansaldo)	Bldg.	..	..	..	6-in. guns	6-in. guns . . . . .	..	32·0	..	..
"	Riboty (Augusto).	1500	..	..	..	..	Sestri (Ansaldo)	Bldg.	..	..	..	6-in. guns	6-in. guns . . . . .	..	32·0	..	..
g. v.	Sebastiano Caboto	800	250	31½	9	2000	Palermo . .	1912	..	..	..	6 12-pr., 4 m.	6 12-pr., 4 m.	..	13·0	100	..

* Three others are also building.

Etna (3474 tons), converted into a training ship. (Gioia, Montebello, Partenope and Tripoli, mining vessels. *Subsidised auxiliary cruisers and despatch vessels*.—Nord America (La Velce S.S. Co.), Regina Margherita, Galileo Galilei, Marco Polo, Umberto I., Cristoforo Colombo, Elettrico, Candia, Malta, Parseo, Orione, and some others (Navigazione Generale), Messina and Siracusa (19½ knots), Catania and Palermo (23 knots), Principessa Matilde (18½ knots) Italian Lloyd. The armament of these vessels is 2-2-in. q. r. and 4 1-4-in. m. The coal and liquid fuel transports Bronte and Sterope (9490 tons) are completed. Oil tankers Givoe and Nettuno, 6000 tons capacity, and five of 760 tons capacity, building. Anteo, submarine salvage vessel, lifting power 400 tons, completed at Solichum. Provision is made for a river grumbat. Lagoon grumbats Brondolo and Marghera. A surveying vessel, Ammiraglio Magnaghi, 1800 tons, 14 knots, has been completed. Small vessels, Capitano Verri (*ex-Theta*) and Bengazi (*ex-Derna*) captured from the Turks.

JAPAN.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.			Armament.			Speed.	Coal.	Complement.
										Belt.	Deck.	Side above Belt.	Bulkhead.	Gun Position.	Guns.				Torpedo Tubes.
		tons.	ft.	ft.	ft.					in.	in.	in.	in.	in.		knts.	tons.	
a.c.	Adzuma	9436	431½	59½	24½	17,000 B.	St. Nazaire	1899 1901	..	7-3½ H. S.	3	5 H. S.	..	6 H. S.	4 8-in., 12 6-in., 8 1-8-in.	5 (4 sub.)	20-0	600 482
b.	Aki	19,800 <i>Pl. 49.</i>	400	83½	27½	24,000 My. tur.	Kure	1907 1911	..	9-5 K. S.	2-3	8	..	9	4 12-in., 12 10-in., 8 6-in., 8 12-pr., 8 1. and M.	5 (sub.)	20-5	940
"	Asahi	14,765 <i>Pl. 53.</i>	400½	75½	27½	16,000 B.	Clydebank	1899 1900	..	9-4 H. S.	4-2½	6 H. S.	12	14 H. S.	4 12-in., 14 6-in., 20 12-pr., 8 3-pr., 4 2½-pr.	4 (sub.)	18	700 750
a.c.	Asama	9885 <i>Pl. 57.</i>	408	67	24½	19,000 t	Elswick	1898 1899	..	7-3½ H. S.	2	5 H. S.	..	6	4 8-in., 14 6-in., 12-pr., 8 2½-pr.	5 (4 sub.)	22-1	600 482
"	Aso (ex Bayan)	7726 <i>Pl. 56.</i>	443	55½	22	17,400 My. t.	La Seyne	1900 1902	..	8-3 K. S.	2	3 K. S.	..	7 K. S.	2 8-in., 8 6-in., 22 small, 1. and M.	2 (sub.)	22	750 570
b.	Fuji	12,649	374	73	26½	14,000	Thames	1896 1897	..	18-6 H. S.	4-2½	4 H. S.	..	14 H. S.	4 12-in., 10 6-in., 20 3-pr., 4 4½-pr.	5 (4 sub.)	19-2	1100 600
b.	Fuso*	31,000	..	..	..	45,000 tur.	Kure	1911	..	12 K. S.	..	..	..	12 K. S.	12 14-in., 16 6-in., 4 12-pr.	..	22-5	..
b.c.	Haruna	27,500	704	92	27½	61,000 My. P. t.	Kobe (Kawasaki)	1913	..	10 K. S.	2½	..	..	10 K. S.	8 14-in., 16 6-in., 18 smaller and M.	8 (sub.)	27	1000 1100
"	Hiyei	<i>Pl. 54.</i>	..	..	..	My. P. t.	Yokosuka	1912	..	..	..	..	..	..	..	..	..	3000
b.	Hizen (ex Retvizan)	12,700	374	72½	25	16,000 My.	Philadelphia	1900 1902	..	9-4 K. S.	4	6-2 K. S.	9	10 K. S.	4 12-in., 12 6-in., 20 3-pr., 6 1-pr.	2	18-0	800 778
a.c.	Ibuki	14,620	450½	75½	26½	27,000 My. tur.	Kure	1907 1909	..	7-4 K. S.	2	5 K. S.	..	9 K. S.	4 12-in., 8 8-in., 14 4-7-in., 3 1-8-in., 2 1., 4 M.	3 (sub.)	22	2000 820
b.	Idzumo	9750	400	68½	24½	17,300 B. t.	Elswick	1899 1900	..	7-3½ H. S.	2½	5 H. S.	..	6 H. S.	4 8-in., 14 6-in., 12 12-pr., 8 2½-pr.	4 (sub.)	22-0	600 672
"	Iwate	..	..	..	..	..	..	1900 1901	..	..	..	..	..	..	..	..	..	1412
a.c.	Ikoma	13,750	440	75	26	22,670 My.	Kure	1906 1908	..	7-5 K. S.	1½	..	..	7 K. S.	4 12-in., 12 6-in., 12 4-7-in., 2 1-8-in., 2 1., 4 M.	3 (sub.)	21-0	600 817
																	2-00	

* Particulars uncertain.

JAPAN.—Armoured Ships—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Tons.	Draft.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.				Armament.			Torpedo Tubes.	Speed.	Coal.	Complement.
											Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.	Guns.				
b.	Iwami (<i>ex Orel</i>) Pl. 51.	13,516	377½	76	26	16	16,000 St. Petersburg My. (Galmey)	1902	1904	£	9-4 K.S.	2½-1½	6 K.S.	9 K.S.	10 K.S.	6 K.S.	4 12-in., 6 8-in., 21 3-in., and smaller.	3 (2 sub.)	18-0	800 2000	740
b.	Kashima Pl. 50.	16,400	425	78½	27	17	280 Elswick Nie.	1905	1906	..	9-4 K.S.	3-2½	6	6	9 K.S.	6 K.S.	4 12-in., 4 10-in., 12 6-in., 12 12-pr., 3 3-pr., 6 M., 21.	5 (sub.)	19-2	750 2150	980
a.r.	Kasuga Pl. 56.	7630	314	59½	24½	14	900 Sestri Ponente	1902	1904	760,000	6 H.N.S.	1½	6 H.N.S.	6 H.N.S.	6 H.N.S.	6 H.N.S.	1 10-in., 2 8-in., 14 6-in., 10 3-in., 6 18-in., 2 M.	4	20-0	600 1150	500
	Katori Pl. 50.	15,950	420	78	27	18	500 Barrow t. Nie.	1905	1906	..	9-5 K.S.	3-2	6	6	10 K.S.	6 K.S.	4 12-in., 4 10-in., 12 6-in., 10 12-pr., 3 3-pr., 6 M., 21.	5 (sub.)	19-5	750 1800	980
b.	Kawachi Pl. 49.	20,800	500	84	28	26	500 Kure tar.	1910	1912	..	12-9½ K.S.	2½	9 K.S.	..	12 K.S.	6 K.S.	12 12-in., 10 6-in., 8 4-7-in., 16 small, 1 and M.	5 (sub.)	20-5	900 2500	960
b.e.	Kirishima Pl. 54.	27,500	704	92	27½	64	000 Nagasaki My P. L. (Mitsubishi)	1913	..	..	10-4 K.S.	2½	..	..	10 K.S.	..	8 14-in., 16 6-in., 18 smaller and M.	8 (sub.)	28-0	1000 3500	1100
	Kongo Pl. 51.	27,500	704	92	27½	64	000 Barrow V. P. L.	1913	1913	2,500,000	10-4 K.S.	2½	..	..	10 K.S.	..	8 14-in., 16 6-in., 5 M., 16 smaller	8 (sub.)	25-0	1000 3500	1100
a.e.	Kurama Pl. 55.	14,620	450½	75½	26½	27	000 Yokosuka My.	1907	1911	..	7-4 K.S.	2	5 K.S.	..	9 K.S.	..	4 12-in., 8 8-in., 14 4-7-in., 3 18-in., 2 L., 4 M.	3 (sub.)	22-0	2000	820
b.	Mikasa Pl. 55.	15,362	400	76	27½	16	431 Barrow L.	1900	1902	..	9-4 H.N.S.	3	6 H.N.S.	12 H.N.S.	14 H.N.S.	6 H.N.S.	4 12-in., 4 10-in., 10 6-in., 20 small	4 (sub.)	18-5	700 1520	935
a.d.	Mishima (<i>ex Senjivine</i>)	4792	265	52½	17	500	St. Petersburg My.	1891	1895	410,000	10	3	..	..	7-8	..	1 10-in., 1 4-7-in., 6 18-in., 8 M.	1	16-0	400	318

a.c.	Nisshin	Pl. 56.	7630	344	59½	24½	13,500	Sestri Ponente	1903	1904	760,000	6	1½	6	6	6	6	4 8-in., 14 6-in., 6 1-8-in., 2 m.	4	20-0	600	500
											u. n. s.			u. n. s.	u. n. s.	u. n. s.				1159		
c.d.	Okinoshima (ex Apraxine)		4126	277½	52½	17½	5757	St. Petersburg (New Admiralty)	1896	1898	..	10	3	..	..	7½	3 10-in., 4 4-7-in., 12 1-8-in., and smaller	4	15-0	215	318
											u. s.					k. s.						
b.	Sagami (ex Peresviet)	Pl. 52.	12,674	401½	71½	26	15,060	St. Petersburg (Baltic)	1898	1901	..	9-7	2½	6	9	9	6 1 10-in., 10 6-in., 20 12-pr., and smaller	2	18-0	800	732	
							My.				u. s.	u. s.	u. s.	u. s.	u. s.	u. s.		(sub.)	2656			
b.	Satsuma	Pl. 50.	19,350	450	83½	27½	19,370	Yokosuka My.	1906	1910	..	9-5	2-3	8	..	9	6 12-in., 12 10-in., 12 1-7-in., 4 12-pr., 8 1. and m.	5	18-5	1000	940	
											k. s.							(sub.)	2500			
b.	Settsu	Pl. 49.	20,800	500	84	28	26,500	Yokosuka tur.	1911	1912	..	12-9½	2½	9	..	12	6 12 12-in., 10 6-in., 8 4-7-in., 16 small, 1. and m.	5	20-5	900	960	
											k. s.					k. s.		(sub.)	2500			
b.	Shikishima	Pl. 53.	14,850	400	75½	26½	16,355	Thames B.	1898	1899	..	9-4	4-2½	6	12	14	6 12-in., 14 6-in., 20 12-pr., 8 3-pr., 4 2½-pr., 8 m.	5	18-3	700	741	
											u. n. s.	u. n. s.	u. n. s.	u. n. s.	u. n. s.	u. n. s.		(4 sub.)	1722			
b.	Suo (ex Pobieda)	Pl. 52.	12,674	101½	71½	26	14,500	St. Petersburg My.	1900	1901	..	9½-4	2½	9	9	9	6 10-in., 10 6-in., 22 12-pr., and smaller	2	18-0	800	732	
											u. s.	u. s.	u. s.	u. s.	u. s.	u. s.		(sub.)	2656			
b.	Tango (ex Poltava)	Pl. 53.	10,960	367½	69	26	11,255	St. Petersburg My.	1894	1898	1,098,000	15½	3½	4	9	10	6 12-in., 12 6-in., 11 smaller	2	16-0	900	700	
																u. s.						
a.c.	Tokiwa	Pl. 57.	9850	408	67	24½	20,556	Elswick t.	1898	1899	..	7-3½	2	5	..	6	6 8-in., 14 6-in. (A.), 12 12-pr., 8 2½-pr.	5	23-0	600	500	
											u. s.	u. s.	u. s.	u. s.	u. s.	u. s.		(4 sub.)	1409			
"	Tsukuba	Pl. 55.	13,750	440	75	26	23,260	Kure My.	1905	1907	..	7-5	1½	..	..	7	6 12-in., 12 6-in., 12 4-7-in., 2 1-8 in., 2 1., 4 m.	3	21-0	600	817
											k. s.					k. s.		(sub.)	2000			
"	Yakumo		9850	407½	64½	23½	16,000	Stettin B.	1899	1901	..	7-3½	2½	5	..	6	6 8-in. (A.), 12 6-in., 12 12-pr. (A.), 8 2½-pr.	5	20-0	600	500	
											u. s.	u. s.	u. s.	u. s.	u. s.	u. s.		(4 sub.)	1100			
b.	Yayeyama		31,000	..	..	..	45,000	Kobe tur.	..	..	..	12	..	..	..	12	12 14-in., 16 6-in., 4 12-pr.	..	22-5	..	..
											k. s.					k. s.						

Iki (ex Nicolai I.), 9672 tons (1888). 2 12-in., 4 9-in., 8 6-in., gunnery ship.

Two additional battleships of the Fuso class have been laid down at Yokosuka and the Mitsubishi yard, Nagasaki, respectively.

JAPAN.—Cruising Ships, &c.

111

Class.	NAME.	Displacement.			Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Speed.	Coal.	(Complement.
		tons.	ft.	ft.									Deck.	Gun Position.	Guns.	Torpedo Tubes.			
Ler.	Akashi	2800	295½	41½	16½	ft.	8500	Yokosuka.	1897	1898	£ 327,000	in. 2	in. 4½ shield	2 6-in. (A.), 6 4-7-in., 3-pr., 2 2½-pr., 4 m.	10	2	knots, 20-0	tons, 200 544	300
"	Akitsushima	3150	302	42½	18½	ft.	8400	Yokosuka.	1892	1893	..	3	..	4 6-in., 6 4-7-in., 10 3-pr.	4	4	19-0	..	330
t.g.b.	Chihaya	1250	273	31½	10	ft.	5500 Nor.	Yokosuka.	1900	1901	..	..	..	2 4-7-in., 4 12-pr.	..	2	21-0	123 344	170
Ler.	Chitose	4992	395	49	18	ft.	15,500	San Francisco	1898	1899	205,200	4½	4½ shield	2 8-in., 10 4-7-in., 12 12-pr., 6 2½-pr.	4	4	22-5	350 1000	405
"	Hashidate	4277	295	50¾	21½	ft.	5400 My.	Yokosuka.	1891	1893	..	2	12	1 12-5-in. (Canet), 11 4-7-in., 5 6-pr., 11 3-pr., 6 m.	2	2	17-0	400	350
"	Hirado	4950	410	46½	16¾	ft.	22,500 P. tur.	Kobe	1911	1912	..	2½	..	8 6-in., 4 3-in., 4 m.	..	3 (sub.)	26	500 1000	399
"	Itsukushima	4277	295	50¾	21½	ft.	5400 My. B.	La Seyne.	1891	1893	..	2	12	1 12-5-in. (Canet), 11 4-7-in., 5 6-pr., 11 3-pr., 6 m.	2	2	17-0	400	350
"	Kasagi	4503	374½	48¾	19	ft.	15,492	Philadelphia	1898	1899	205,200	4½-1¾	4½ shield	2 8-in., 10 4-7-in., 12 12-pr., 6 1-8-in.	4	4	22-7 t	350 1000	405
Scout	Mogami	1329	300	31½	9¾	ft.	8000 turbines	Sasebo	1907	1908	..	2½	..	2 4-7-in., 4 12-pr.	..	2	23-0	..	180
Ler.	Niitaka	3120	235½	44	16½	ft.	10,000 Nic.	Yokosuka.	1902	1905	..	2½	..	6 6-in., 10 3-in., 4 2½-pr.	..	..	20-0	600	320
"	Otowa	3000	321	42½	..	ft.	10,000 My.	Yokosuka.	1903	1904	..	2	..	2 6-in., 6 4-7-in., 4 12-pr., 2 m., 2 l.	..	..	20-0	600 875	310

<i>g.b.</i>	Saga	785	..	..	1600	Sasebo	1912	1913	..	..	1 4-7-in., 3 3-in., 3 M.	..	15	..
<i>cr.</i>	Shikuma	4950	440	46½	16½	22,500 Sasebo Cur. L. My.	1911	1912	..	2½	8 6-in., 4 3-in., 4 M.	..	3 (sub.)	500 1000
"	Soya (<i>ex</i> Varyag)	6500	420	52	20¾	20,000 Philadelphia My.	1899	1900	..	3	12 6-in., 12 12-pr., 6 3-pr.	..	3 (sub.)	770 1250
"	Suma	2657	306¾	40	16½	8500 Yokosuka	1896	1898	237,000	2 shielded	4½ 4 M.	..	2	200
<i>t.g.b.</i>	Tatsuta	875	240	27½	13	5500 Elswick	1894	1894	..	..	2 4-7-in., 4 3-pr.	..	2	200
<i>cr.</i>	Tone	4035	400	48½	16¾	15,000 Sasebo My.	1907	1908	..	2-3	2 6-in., 10 4-7-in., 2 12-pr., 21.	..	3	750 1000
<i>Scout</i>	Tsugaru (<i>ex</i> Pallada)	6630	413½	55¾	21	11,610 St. Petersburg (Galerney) My.	1899	1901	..	2½	8 6-in., 20 12-pr., 8 1-pr.	..	4	900 1400
<i>cr.</i>	Tsushima	3420	235½	44	16½	10,000 Kure Nie.	1902	1901	..	2½	6 6-in., 10 3-in., 1 2½-pr.	..	..	600
<i>g.b.</i>	Uji	620	180½	27¾	10	1000 Kure B.	1903	1905	..	..	4 12-pr., 3 M.	..	..	100
<i>cr.</i>	Yahagi	4950	440	46½	16¾	22,500 Nagasaki P. tur. My.	1911	1912	..	2½	8 6-in., 4 3-in., 4 M.	..	3 (sub.)	500 1000
"	Yodo	1230	280	32	9¾	6500 Sasebo	1908	1909	..	..	2 4-7-in., 4 12-pr.	..	2	180

Submarine depot ships Toyoshiki, 4,120 tons, 2 4-7-in. guns, and Kerasaki (*ex* Elaterinoslav), 10,500 tons, 5 light guns.
 Repair ship Kwanto Maru. Training vessels Anagi, Maja, Manju, Kangu, Iwaki, Tauru, Teukushi. Amakusa, mining vessel (*ex* Amur).
 Mercantile auxiliaries: Umegaki Maru, Sakaki Maru, Sakura Maru, 3200 tons, 21 knots; Tsijo Maru, 13,400 tons, 20 knots.
 Also the gunboats Toha, 250 tons; Fushimi, 180 tons; and Sumida, 126 tons.
 The old cruiser Takachiko, 3,700 tons, was sunk by a German mine in Kiao-chau Bay, Oct. 17, 1914.

NETHERLANDS.—Armoured Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch-Completion.	Cost.	Armament.				Armament.		Speed.	Coal.	Complement.
										Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.				Second-ary.	Torpedo Tubes.
<i>a.g.b.</i>	Brinio	tons	ft.	ft.	ft.				£	in.	in.	in.	in.	in.	in.	knots.	tons.	
"	Bruno	520	171	28	9½	1200	Amsterdam .	1912 . 1913	..	2 K.S.	3 4	..	..	..	..	16	Oil	49
"	Frisko																	
<i>c.d.s.</i>	De Ruyter <i>Pl. 58.</i>	5014	316½	51½	21½	6377 <i>t.</i>	Amsterdam .	1900 1904	347,500	6-4 H.N.S.	2	..	..	10 H.N.S.	3	29-4-in., 4-5-9-in., 10 2-9-in., 4 1-4-in.	3 2 sub.	680 444
"	Evertsen	3464	282½	47	16½	4735	Flushing .	1894 1896	..	6-4 H.S.	2	..	..	9½ H.S.	3	38-2-in., 2-5-9-in., 6-2-9-in., 8 1-4-in.	3	280 268
"	Hertog Hendrik <i>Pl. 58.</i>	5041	316½	51½	21½	6000 Y.	Amsterdam .	1902 1903	347,500	6 H.N.S.	2	..	..	10 H.N.S.	3	29-4-in., 4-5-9-in., 10 2-9-in., 4 1-4-in., 2 l.	3	680 444
"	Jacob van Heemskerck	5211	316½	51½	21½	6000 Y.	Amsterdam .	1906 1908	347,500	6-4 H.N.S.	2	..	..	10 H.N.S.	3	29-4-in., 6-5-9-in., 10 12-pr., 4 1-4-in., 2 l.	3 2 sub.	680 441
"	Koningin Regentes <i>Pl. 58.</i>	5014	316½	51½	21½	7290 Y.	Amsterdam .	1900 1902	347,500	6-4 H.N.S.	2	..	..	10 H.N.S.	3	29-4-in., 4-5-9-in., 6-2-9-in., 4 1-4-in., 2 l.	3 2 sub.	680 444
"	Kortenaar	3464	282½	47	16½	4400	Amsterdam .	1894 1896 1909	..	6 H.S.	2	..	..	9½ H.S.	3	38-2-in., 2-5-9-in., 6-2-9-in., 8 1-4-in.	3	280 260
"	Marten Tromp <i>Pl. 58.</i>	5211	316½	51½	21½	6377 <i>t.</i>	Amsterdam .	1901 1906	347,500	6-4 H.N.S.	2	..	..	10 H.N.S.	3	29-4-in., 4-5-9-in., 10 2-9-in., 4 1-4-in.	3 2 sub.	680 444
"	Piet-Hein	3461	282½	47	16½	4736 <i>t.</i>	Rotterdam .	1891 1896	..	6 H.S.	2	..	..	9½ H.S.	3	38-2-in., 2-5-9-in., 6-2-9-in., 8 1-4-in.	3	280 260
"	Reinier Claeszen	2410	229½	44½	15	350	Amsterdam .	1891 1892	..	4½-2 comp.	3	..	..	11 comp.	6	18-2-in. (K.), 1 6-6-in., 1 2 2-9-in., 4 1-9-in., 3 1-4-in.	2 <i>t.</i>	88 160
"	De Zeven Provinciën	6525	339½	56	20½	7500 Y.	Amsterdam .	1909 1910	..	6-4 K.S.	2	..	..	10 K.S.	..	2 11-in., 4-5-9-in., 10 12-pr.	..	700 440

A battleship or battle-cruiser of Dreadnought type is intended to be built for service in the Dutch East Indies, and a second ship of the class is contemplated.

NETHERLANDS.—Cruising Ships.

(I) denotes vessels of the Dutch Indian Navy.)

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Speed.	Coal.	Complement.
											Deck.	Gun Position.	Guns.	Torpedo Tubes.			
cr.	Friesland .	3847	307	49	17½ ft.	17½ 10,000 Y.	Rotterdam .	1896	1898	£ 285,700	2	inches.	2 5·9-in., 6 4·7-in., 4 2·9-in., 8 1·4-in., 4 smaller.	4	19·8	400	333
"	Gelderland.	3969	310½	49	17½ ft.	17½ 10,000 Y.	Feijenoord .	1898	1900	..	2½	..	2 5·9-in., 6 4·7-in., 4 2·9-in., 8 1·4-in., 4 M.	4	20·0	850	333
"	Holland .	3847	307	49	17½ ft.	17½ 10,000 Y.	Amsterdam .	1896	1898	285,700	2	..	2 5·9-in., 6 4·7-in., 4 2·9-in., 8 1·4-in., 4 M.	4	19·6	400	333
g r.	Koetel (I) .	778	179	30½	11½ ft.	1412	Amsterdam .	1898	1899	..	..	..	3 4·7-in., 2 2·9-in., 4 1·4-in.	..	13·0	120	97
cr.	Noord-Brabant .	3969	310½	49	17½ ft.	17½ 10,000 Y.	Flushing .	1899	1901	..	2½	..	2 5·9-in., 6 4·7-in., 4 2·9-in., 4 1·4-in., 4 M.	4	20·0	850	333
cr.	Sumatra (I) .	1693	229½	37	14	3750	Amsterdam .	1890	1892	..	1½	..	1 8·2-in., 1 5·9-in., 2 4·7-in., 1 2·9-in., 4 3-pr., 2 M.	1	17·0	225	183
"	Utrecht .	3969	310½	49	17½ ft.	17½ 10,000	Amsterdam .	1898	1900	..	2½	..	2 5·9-in., 6 4·7-in., 4 2·9-in., 4 1·4-in., 4 M.	4	20·0	850	333
"	Zeeland .	3847	307	49	17½ ft.	17½ 10,589 Y.	Flushing .	1897	1898	285,700	2	..	2 5·9-in., 6 4·7-in., 4 2·9-in., 8 1·4-in., 4 M.	4	19·4	400	333

About 22 gun-vessels of small value are in home waters. Gun-vessels of the Indian Navy : Mataram (797 tons), 1897 ; Serdang (797 tons), 1898 ; Edi (787 tons), 1898 ; Glatik (417 tons), 1894 ; Havik, Snip, Spervier, Kwartel, Favant, and Valk, launched between 1894 and 1903 ; Argus and Cycloep (438 tons), 1893, many older. Hydrograaf, surveying ship. Surveying vessels in the East Indies : Porneo, 787 tons, Lombok and Sumbawa, 591 tons. Mine-layers in the East Indies : Assahui, 787 tons, Siboga, 778 tons. Two (670 tons, 10 knots) mine-layers, Medusa and Hydra, launched 1911, 3 3-in. guns, 65 mines. A mother ship for submarines has been built.

Class.	NAME	Displacement.	Length.	Beam	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
											Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Second-ary.				Gnn Position.	Guns.	Torpedo Tubes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
c.d.s.	{Bjoergvin {Nidaros	3400	295½	50	16½	4500	Elswick	Bldg.	..	£	in.	7	2	in.	8	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Speed.	Coal.	Complement.
		tons.	ft.	ft.	ft.					£	Deck.	Gnn Position.	Guns.	Torpedo Tubes.	knots.	tons.	
<i>g.b.</i>	Æger.	387	108½	29½	8	450	Horten	1892	1893	..	1½	in.	1	8·2-in., 1 2·7-in., 2 1·9-in.	..	9·0	43
<i>g.v.</i>	Frithjof	1349	216½	32½	13½	300	Horten	1896	1898	..	..	..	2 4·7-in., 4 2·9-in., 4 1·4-in., 2 1.	3	15·0	120	156
<i>g.b.</i>	Heimdal	620	167½	26½	11½	700	Christiania	1892	1893	..	..	..	4 2·5-in.	..	12·0	92	62
<i>g.v.</i>	Viking	1095	203½	30½	13	2000	Horten	1891	1892	..	1½	..	2 5·9-in. (A.), 4 2·5-in., 4 1·4-in., 2 M.	3	15·0	140	156

Eleven Gunboats, of 189 to 280 tons, and of 180 to 450 I.H.P., armed with one large gun and machine guns.

PORTUGAL.—Armoured Ship.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.					Armament.			Speed.	Coal.	Complement.
											Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Gun Position.	Second-ary.	Guns.				Torpedo Tubes.
b.	Vasco da Gama	2972 tons.	233 ft.	40 ft.	18½ ft.	6000 W.T.	Blackwall Leghorn	1876, 1878	1903	£ 132,000 93-4	in.	in.	in.	in.	7½ K.S.	..	2 8-in., 4 4-7-in., 2 2-5-in., 2 1-pr., 4 M. (sub.)	knots 15-0	300 tons.	218	

Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Armament.		Speed.	Normal Coal Supply.	Complement.
		tons.	ft.	ft.	ft.					£	Deck.	Gun Position.	Guns.	Torpedo Tubes.	knots.	tons.	
cr.	Adamastor	1962	250	35	14	4000	Leghorn	1896	1897	..	in.	in.	2 5-9-in., 4 4-7-in., 4 2-2-in., 4 M.	3	18-0	270	232
"	Almirante Reis (ex Dom Carlos I.)	4100	360	46½	17½	12,500	Elswick Y.	1898	1899	..	4	..	4 5-9-in. (A.), 8 4-7-in., 12 3-pr., 6 1-pr., 4 M.	5 (3 sub.)	22-0	1000	260
g.e.	Dom Luiz I.	710	151	27½	13½	512	Lisbon	1895	1896	..	..	..	4 4-1-in., 3 2-5-in., 3 M.	..	9-9	100	120
"	Patria	620	196½	27½	8½	1800	Lisbon	1903	1905	..	..	..	4 4-in., 6 1-8-in.	..	15-0	..	160
cr.	Republica. (ex Rainha Amelia)	1640	246	36	14½	5000	Lisbon	1899	1901	..	1	..	4 5-9-in., 2 3-9-in., 2 3-pr., 4 M.	2	20-6	300	250
"	São Gabriel	1772	246	35½	14½	4000	Havre	1898	1899	..	1½	..	2 5-9-in. (Canel), 4 4-7-in., 8 1-8-in., 2 M.	1	17-5	500	200

Two cruisers of 2500 tons and 20 knots, 2 6-in. and 6 4-in. guns, are proposed. There are several small gunboats for Mozambique and Timor, and some river-gunboats. Nine-layer, Vulcano, 110 ft. long, 19 ft. 6 in. beam, 400 I.H.P., 12 knots, launched by Thornycroft, 1905.

RUSSIA.—Armoured Ships. (B.S., Black Sea Fleet.)

150

Class.	NAME	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Completion.	Cost.	Armour.				Armament.			Speed.	Normal Coal Supply.	Complement.	
											Belt.	Deck.	Side above Belt.	Bulkheads.	Gun Position.	Guns.	B.L.G. are of Russian Krupp pattern.				Torpedo Tubes.
a.e.	Admiral Makaroff	7887 tons.	443 ft.	75½ ft.	23 ft.	19,000 B.	La Seyne	1906	1908	£	in. 6½-4 K.S.	in. 2	in. 3 K.S.	in. 6½ K.S.	in. 5½ K.S.	in. 3 K.S.	28-in., 8 6-in., 20 12-pr., 4 6-pr., 6 l. and m.	2 sub.	22½	750 tons.	573 1020
b.	Alexander III (Imperator), B.S. Pl. 50.	22,500	551½	89½	27½	26,500 tur.	Nikolaieff (Ivanoff)	1914	..	..	12 K.S.	3	8 K.S.	..	12 K.S.	5 K.S.	12 12-in., 20 5-in.	4 sub.	21·0	3000	..
b.	Andrei Pervozvannyi (Imperator), B.S. Pl. 61.	17,400	429½	79½	28½	17,600 B.	St. Petersburg (Galerney)	1906	1910	1,170,000	11-6 K.S.	2½	5 K.S.	..	12 K.S.	7 K.S.	4 12-in., 14 8-in., 12 4-7-in., 14 smaller	3 sub.	18·0	1500	933
a.e.	Bayan	7887	413	75½	23	16,500 B.	St. Petersburg (New Admiralty)	1907	1910	..	6½-4 K.S.	2	3 K.S.	6½ K.S.	5½ K.S.	3 K.S.	28-in., 8 6-in., 20 12-pr., 1 6-pr., 6 l. and m.	2 sub.	21·0	750	573 1020
b.e.	Borodino	32,200	749½	99½	..	66,000 Y. T.	St. Petersburg (New Admiralty)	Bldg. ..	..	..	12 K.S.	..	..	..	..	..	12 14-in., 21 5-1-in., 4 3-pr.	..	27	..	..
b.	Cesarevitch Pl. 62.	12,912	388½	76½	26½	16,500 B.	La Seyne	1901	1903	..	9½-4 K.S.	2½	6 K.S.	9 K.S.	10-11 K.S.	6½ K.S.	4 12-in., 12 6-in., 20 3-in., 6 1-4-in., 4 m., 2 l.	2 sub.	19·6	900	732 1350
b.	Ekaterina II, B.S. Pl. 50.	22,500	551½	89½	27½	26,500 tur.	Nikolaieff (Belgian Co.)	Bldg. ..	..	..	12 K.S.	3	8 K.S.	..	12 K.S.	5 K.S.	12 12-in., 20 5-in.	4 sub.	21·0	3000	..
b.	Evstafi (Sviatoi), B.S. Pl. 61.	12,733	372½	72½	27	10,600 B.	Nicolaieff	1906	1911	..	9-3 K.S.	2½	6 K.S.	7 5 K.S.	10 K.S.	5 K.S.	4 12-in., 4 8-in., 12 3-in., 6 smaller, 6 m., 2 l.	3 sub.	16	670	731 1400
b.	Gangut Pl. 60.	23,000	590½	87	27½	42,000 Y. tur.	St. Petersburg (New Admiralty)	1911	..	..	11-4 K.S.	3	8 K.S.	4 K.S.	11½ K.S.	5 K.S.	12 12-in., 16 4-7-in., 4 3-pr., 8 m.	4 sub.	23	1200	..
a.e.	Gromoboi Pl. 65.	13,220	473	68½	26	15,500 B.	St. Petersburg (Baltic)	1899	1900	..	6 K.S.	3	4½ U.S.	6 U.S.	6 K.S.	4½ U.S.	4 8-in., 22 6-in., 20 3-in., 11 small q.r. and m.	4 sub.	20·0	5000	814 855
b.	Ioann Zlatoust, B.S. Pl. 61.	12,733	372½	72½	27	10,600 B.	Sebastopol	1906	1910	..	9-3 K.S.	2½	6 K.S.	7-5 K.S.	12-10 K.S.	5 K.S.	4 12-in., 4 8-in., 12 6-in., 14 3-in., 10 smaller, 6 m., 2 l.	5 sub.	16·0	670½	636 1400
b.e.	Ismail	32,200	749½	99½	..	66,000 Y. tur.	St. Petersburg (Baltic)	Bldg. ..	..	..	12 K.S.	..	..	..	..	..	12 14-in., 21 5-1-in., 4 3-pr.	..	27	..	..
b.e.	Kimburn	32,200	749½	99½	..	66,000 Y. tur.	St. Petersburg (Baltic)	Bldg. ..	..	..	12 K.S.	..	..	..	..	..	12 14-in., 21 5-1-in., 4 3-pr.	..	27	..	..

<i>a.g.b.</i>	<i>Khrabry</i>	<i>1735 229</i>	<i>41½</i>	<i>11</i>	<i>3000</i>	<i>St. Petersburg</i> (New Admiralty)	<i>1895</i>	<i>1896</i>	<i>5</i>	<i>1½</i>	<i>..</i>	<i>3½</i>	<i>..</i>	<i>..</i>	<i>2 8-in., 8 Q.F.,</i>	<i>2</i>	<i>15-0</i>	<i>100 120</i>
<i>b.</i>	<i>Maria</i> (Imperatrice), <i>B.S.</i> <i>Pl. 59.</i>	<i>22,500 551½</i>	<i>89½</i>	<i>27½</i>	<i>24,500</i>	<i>Nicolaieff</i> (Ivanoff)	<i>1913</i>	<i>..</i>	<i>..</i>	<i>3</i>	<i>8</i>	<i>..</i>	<i>12</i>	<i>5</i>	<i>12 12-in., 20 5-in.,</i>	<i>4</i>	<i>21-0</i>	<i>3000</i>
<i>b.c.</i>	<i>Navarin</i>	<i>32,200 749½</i>	<i>99½</i>	<i>..</i>	<i>60,000</i>	<i>St. Petersburg</i> (New Admiralty)	<i>1906</i>	<i>1910</i>	<i>63½</i>	<i>2</i>	<i>3</i>	<i>6½</i>	<i>5½</i>	<i>..</i>	<i>12 14-in., 21 5-1-in.,</i>	<i>..</i>	<i>27</i>	<i>..</i>
<i>a.c.</i>	<i>Pallada</i> (1)	<i>7900 443</i>	<i>75½</i>	<i>23</i>	<i>16,500</i>	<i>St. Petersburg</i> (New Admiralty)	<i>1906</i>	<i>1910</i>	<i>9-3</i>	<i>2½</i>	<i>6</i>	<i>7-5</i>	<i>12-10</i>	<i>5</i>	<i>2 8-in., 8 6-in., 20 12-pr.,</i>	<i>2</i>	<i>21-0</i>	<i>750 573</i>
<i>b.</i>	<i>Panteleimon, B.S.*</i> (<i>ex Potemkine</i>) <i>Pl. 63.</i>	<i>12,582 372½</i>	<i>72½</i>	<i>27</i>	<i>10,600</i>	<i>Nicolaieff</i>	<i>1900</i>	<i>1902</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>4 6-pr., 6 1. and M.</i>	<i>sub.</i>	<i>1020</i>	<i>6704 636</i>
<i>b.</i>	<i>Pavel I (Imperator)</i> <i>Pl. 61.</i>	<i>17,400 429½</i>	<i>79½</i>	<i>28½</i>	<i>17,600</i>	<i>St. Petersburg</i> (Baltic)	<i>1907</i>	<i>1911</i>	<i>11-6</i>	<i>2½</i>	<i>5</i>	<i>..</i>	<i>12</i>	<i>7</i>	<i>4 12-in., 14 8-in., 12</i>	<i>3</i>	<i>18-0</i>	<i>1500 933</i>
<i>b.</i>	<i>Petropavlovsk</i>	<i>23,000 590½</i>	<i>87</i>	<i>27½</i>	<i>42,000</i>	<i>St. Petersburg</i> (Baltic)	<i>1911</i>	<i>..</i>	<i>11-4</i>	<i>3</i>	<i>8</i>	<i>11½</i>	<i>5</i>	<i>5</i>	<i>12 12-in., 16 4-7-in., 4</i>	<i>4</i>	<i>23-0</i>	<i>1200</i>
<i>b.</i>	<i>Poltava</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>St. Petersburg</i> (New Admiralty)	<i>1911</i>	<i>..</i>	<i>2,800,000</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>3-pr., 8 M.</i>	<i>sub.</i>	<i>3000</i>	<i>..</i>
<i>a.c.</i>	<i>Rossia</i>	<i>12,195 480</i>	<i>68½</i>	<i>26</i>	<i>18,420</i>	<i>St. Petersburg</i> (B.)	<i>1896</i>	<i>1897</i>	<i>10-5</i>	<i>2½</i>	<i>4</i>	<i>6</i>	<i>2</i>	<i>2</i>	<i>4 8-in., 22 6-in., 31</i>	<i>2</i>	<i>20-0</i>	<i>2500 725</i>
<i>b.</i>	<i>Rostislav, B.S.</i> <i>Pl. 65.</i>	<i>8880 341</i>	<i>66½</i>	<i>24</i>	<i>8700</i>	<i>Nicolaieff</i>	<i>1896</i>	<i>1900</i>	<i>15½-8</i>	<i>2-3</i>	<i>5</i>	<i>15½</i>	<i>15½</i>	<i>6</i>	<i>smaller Q.F. & M.</i>	<i>2</i>	<i>16-0</i>	<i>\$550 824</i>
<i>a.c.</i>	<i>Rurik</i>	<i>15,170 490</i>	<i>75</i>	<i>26</i>	<i>19,700</i>	<i>Barrow</i>	<i>1906</i>	<i>1907</i>	<i>6-3</i>	<i>1½</i>	<i>3</i>	<i>3</i>	<i>8</i>	<i>7</i>	<i>16 small & M.</i>	<i>sub.</i>	<i>800</i>	<i>..</i>
<i>b.</i>	<i>Sevastopol</i>	<i>23,000 590½</i>	<i>87</i>	<i>27½</i>	<i>42,000</i>	<i>St. Petersburg</i> (B.)	<i>1911</i>	<i>..</i>	<i>11-4</i>	<i>2</i>	<i>8</i>	<i>11½</i>	<i>5</i>	<i>5</i>	<i>4-7-in., 8 8-in., 20</i>	<i>2</i>	<i>21-0</i>	<i>1200 800</i>
<i>b.</i>	<i>Sinope, B.S.</i> <i>Pl. 60.</i>	<i>10,180 331</i>	<i>69</i>	<i>26½</i>	<i>13,000</i>	<i>Sebastopol</i>	<i>1887</i>	<i>1890</i>	<i>16-11</i>	<i>3</i>	<i>14</i>	<i>12</i>	<i>14</i>	<i>..</i>	<i>12 12-in., 16 4-7-in., 4</i>	<i>4</i>	<i>23-0</i>	<i>1200</i>
<i>b.</i>	<i>Slava</i>	<i>13,516 367½</i>	<i>76</i>	<i>26</i>	<i>16,000</i>	<i>St. Petersburg</i> (B.)	<i>1903</i>	<i>1905</i>	<i>comp.</i>	<i>4</i>	<i>comp.</i>	<i>9</i>	<i>10</i>	<i>6</i>	<i>3-pr., 8 M.</i>	<i>sub.</i>	<i>3000</i>	<i>886 325</i>
															<i>6 M.</i>	<i>7</i>	<i>16-75</i>	<i>886 325</i>
															<i>4 12-in., 12 6-in., 31</i>	<i>sub.</i>	<i>2000</i>	<i>1250 740</i>

(1) *Pallada*, sunk by submarine in the Baltic, Oct. 11, 1914.* *Panteleimon*, reported to have been sunk by Turkish submarine near the Bosphorus, May 22nd.

† And liquid fuel.

A battleship or battle-cruiser, to be named *Ivan Grosnyi*, and to be built by the Russian shipbuilding Company at Nicolaieff, was in the programme of 1911. Also in the Black Sea are the old battleships *Tri Sviatitelia* (13,400 tons), 1893, and *Georgi Pobiedonosetz* (11,000 tons), 1892.

RUSSIA.—Cruising Ships, &c. (B.S., Black Sea Fleet.)

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.		Guns.	Torpedo Tubes.	Speed.	Coal.	Complement.
											Deck.	Gun Position.					
3rd cl. cr.	Almaz	tons. 3285	ft. 325	ft. 43½	ft. 17½	7500 B.	St. Petersburg (Baltic)	1903	1904	£ ..	ins. 2½	5-3½ K.S.	3 4-7-in., 8 1-8-in., 2 1-4-in., 2 M.	6	knots. 19-0	tons. 500	340
2nd cl. cr.	Askold	5905	426½	49½	20½	20,420 T.S.	Kiel (Germania)	1900	1901	..	3	4	12 6-in., 12 3-in., 6 1-8-in., 8 smaller Q.F. and M. (2 sub.)	6	23-8 t	720 1100	500
"	Aurora	6731	413½	55½	21	11,610 B.	St. Petersburg (Galermy)	1900	1903	..	2½	..	8 6-in., 20 3-in., 8 smaller Q.F. and M. (2 sub.)	3	20-0	900 1400	422
g.b.	Bobr	875	215½	35½	9	800	St. Petersburg (New Admiralty)	1907	1908	..	..	..	2 4-7-in., 4 12-pr., 3 M.	1	12-0	60	170
2nd cl. cr.	Bogatyr	6675	416½	54½	20½	19,500 Nor.	Stettin (Vulcan)	1901	1902	..	2	5 N.S.	12 6-in., 12 3-in., 6 1-8-in., 8 smaller Q.F. and M. (2 sub.)	4	24-0 t	720 1100	580
"	Boutakoff (Admiral)	7600	519½	50	18	55,000 C.T.	Putiloff	Bldg.	..	..	1	3 side	16 5-1-in., 5 9-pr., 4 M.	..	32	..	..
"	Diana (Submarine depot)	6630	413½	55½	21	11,610 B.	St. Petersburg (Galermy)	1899	1902	..	2½	..	10 6-in., 20 3-in., 18 smaller Q.F. and M. (2 sub.)	3	20-0	900 1400	422
g.b.	Gilyak	875	215½	35½	9	800	St. Petersburg (New Admiralty)	1906	1908	..	..	..	2 4-7-in., 4 12-pr., 3 M.	1	12-0	60	170
2nd cl. cr.	Grieg (Admiral)	7600	519½	50	18	55,000 C.T.	Reval	Bldg.	..	..	1	3 side	16 5-1-in., 5 9-pr., 4 M.	..	32	..	..
3rd cl. cr.	Jemchug (1)	3130	347½	41½	16	17,000 Y	St. Petersburg (Nevsky)	1903	1904	..	2	..	8 4-7-in., 6 1-8-in., 6 smaller Q.F. and M.	2	23-0	600	340
"	Kagul, B.S. (ex-Otchakoff)	6675	439	54½	20½	19,500 Nor.	Sebastopol	1902	1905	..	2¾	5-3½ K.S.	12 6-in., 12 3-in., 14 2 sub. smaller	2 sub.	23-0	720 1100	570
to g.b.	Kazarsky, B.S.	400	190	24	8½	3500	Elbing	1890	1891	32,500	..	..	9 1-8-in. (Hotchkiss)	2	23-0	90	60

<i>g.b.</i>	Koreiets	875	215½	35¾	9	800	St. Petersburg (New Admiralty)	1906	1908	..	..	2 4-7-in., 4 12-pr., 3 m.	1	12-0	60	170
2nd cl. <i>cr.</i>	Lazareff B.S.	7600	519¾	50	18	55,000 C.T.	Nikolaieff	Bldg.	..	1	3 (side)	16 5-1-in., 5 9-pr., 4 m.	..	32	..	..
"	Nakhimoff B.S.															
3rd cl. <i>cr.</i>	(Mouravieff Amour- sky *)	4300	401¾	46	16½	27,400 T.	Elbing (Schichan)	1914	..	1	3 (side)	8 5-1-in., 4 9-pr.	5	27-5	1000	..
	(Novelskoi (Admiral)*)															
2nd cl. <i>cr.</i>	Oleg Pl. (66)	6675	439¾	54½	20½	19,500 Nor.	St. Petersburg (New Admiralty)	1903	1904	..	2½	12 6-in., 12 3-in., smaller, Q.F., & m.	2 (sub.)	23-0	600	340
"	Pamyat B.S. (ex-Kagul)	6675	439	54½	20½	19,500	Nicolaieff	1903	1907	..	2½	12 6-in., 12 3-in., smaller, Q.F., & m.	2 (sub.)	23-0	720	..
<i>g.b.</i>	Sivoutch	875	215½	35¾	9	800	St. Petersburg. (New Admiralty)	1906	1908	..	..	2 4-7-in., 4 12-pr., 3 m.	..	12-0	60	170
2nd cl. <i>cr.</i>	Spiridoff (Admiral)	7600	519¾	50	18	55,000 C.T.	Putiloff (Reval)	Bldg.	..	1	3 (side)	16 5-1-in., 5 9-pr., 4 m.	..	32	..	..
"	Svietlana															

(1) Sunk by the Emden at Penang, Oct. 28, 1914. The gunboats Donetz and Kulandz were sunk near Odessa, Oct. 30, 1914. (There are two other vessels of the same class, Toretz and Uraletz.)

* These cruisers, which were completing in Germany at the outbreak of the War, have doubtless been taken over for the German Navy. Two light cruisers for the Black Sea were in the programme of 1914, to be built by the Russian Shipbuilding Co., Nikolaioff.

Okean, *coal transport*, 12,000 tons, 18 knots, launched at Kiel, 1901. Torpedo transports and mining vessels Minin, General Admiral, Gierzog Edinburgski, Volga, Bakan, Yenetski, Amur, Ladoga, Narova, and Onega. Eight river gunboats (946 tons) built for the Amur, Grosa, Shikwal, Shitorn, Taifun, Suerish, Urgan, Vichri, Vjuga. Ten 200-ton gunboats for the same service. Gunboats for the Caspian, Kars and Ardagan, completed 1911. Rynda (1885), 3508 tons, training ship. Submarine salvage vessel Volehoff, 2400 tons, 1000 tons lift, Diesel engines, 10 knots.

VOLUNTIER FLEET.—Saratoff, 8556 reg. tons, Petersburg, 9252 reg. tons, Kherson, 10,225 reg. tons, Don, 8430 reg. tons, Kuban, 8480 reg. tons, Smolensk, 11,850 reg. tons, Terek, 7241 reg. tons, all of 18½ or greater speed. Vessels of the Black Sea Shipping Company are available for transport purposes.

SPAIN.—Armoured Ships.

Class	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Deck.	State above Deck.	Bulkhead.	Gun Position.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
b.	Alfonso XIII. <i>pl. 67.</i>	tons. 15,460	ft. 435	ft. 78½	ft. 25½	15,300Y. P. tur.	Ferrol	1913	..	£	in. 9-4	in. 6-5	in. 6-3	in. 10	in. 6	8 12-in., 20 4-in., 2 3-pr., 2 1., 2 M.	3	knots. 19·5	tons. 800	700
a.c.	Cataluña	6889	347½	61	21¾	15,000	Cartagena	1900	1903	600,000	12-10	..	12	10½	..	2 9-4-in., 8 5-5-in., 8 6-pr., 2 1.	5 sub.	19·5	1200	484
"	Emperador Carlos V. <i>pl. 67.</i>	9089	380	67	25	18,500	Cadiz (Vea Murguia)	1895	1898	734,000	2	6½-2	..	10	2	2 11-in. (Hontoria), 8 5-5-in., 4 3-9-in., 2 2-7-in., 4 2-2-in., 6 M.	6	20·0	1200	535
b.	España <i>pl. 67.</i>	15,460	435	78½	25½	15,300Y. P. tur.	Ferrol	1912	1913	..	9-4	6-5	6-3	10	6	8 12-in., 20 4-in., 2 3-pr., 2 1., 2 M.	3	20·0	800	700
b.	Jaime I.* <i>pl. 67.</i>							1914	..	..	K.S.	K.S.	K.S.	K.S.	K.			19·5	1900	
b.	Pelayo	9744	330	66	25	9000 Nic.	La Seyne	1887	1890	..	17¾	4	..	19½	4	2 12-5-in., 2 11-in., 9 5-5-in., 6 smallet, 12 M.	7	16·0	800	600
a.c.	Princesa de Asturias	6889	347½	61	21¾	15,000	Carraca	1896	1902	600,000	12-10	2	12	10½	..	2 9-4-in., 10 5-5-in., 8 6-pr., 2 1.	5	18·0	1200	500

* Two others of the class are projected.

SPAIN.—Cruising Ships.

Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.		Armament.		Speed.	Coal.	Complement.
										Deck.	Gun Position.	Guns.	Torpedo Tubes.			
<i>g.b.</i>	Bonifaz . . .	800	200	30	..	1100 Y	Cartagena	1912 1913	£ ..	Ins. ..	..	4 3-in., 2 M.	..	knots. 13·0	..	..
<i>to.g.b.</i>	Don Alvaro de Bazán .	810	233	26½	22	2500	Ferrol .	1897 1899	..	..	..	2 4·7-in. (Hontoria), 4 1·6-in., 2 M.	4	19·0	..	110
"	Doña María de Molina .	810	233	26½	22	2500	Ferrol .	1896 1898								
<i>cr.</i>	Extremadura . . .	2030	290	36	14	7000 T	Cádiz .	1900 1902	..	2	..	8 4-in. (Vickers), 4 2·2-in., 2 1·4-in., 1 L.	2 ..	20·0	430	246
<i>g.b.</i>	Launia . . .	800	200	30	..	1100 Y	Cartagena	1912 1913	..	..	..	4 3-in., 2 M.	..	13·0	..	..
"	Laya . . .															
<i>to.g.b.</i>	Marqués de la Victoria .	810	233	26½	22	2500	Ferrol .	1897 1900	..	..	..	2 4·7-in. (Hontoria), 4 1·6-in., 2 M.	4	19·0	..	110
<i>g.b.</i>	Recalde . . .	800	200	30	..	1100 Y	Cartagena	1911 1912	..	..	..	4 3-in., 2 M.	..	13·0	..	..
<i>cr.</i>	Reina Regente . . .	5287	337	529	19½	6500 W.T.	Ferrol .	1906 1908	..	..	3	10 5·5-in., 12 2·2-in., 2 L., 8 M.	3	20·0	1200	497
"	Rio de la Plata . . shd.	1773	246	35½	15	7100 N.S.	Havre .	1898 1899	..	..	1	2 5·5-in., 4 3·9-in., 4 2·2-in., 6 M.	2	20·0	270	213

Hernán Cortés, Vaseo Nuñez de Balboa, Marqués de Molins, Ponce de León, MacMahon, Perla, Nueva España and Temerario, gun-vessels.
The new programme provides for four light cruisers, six destroyers, 20 submarines and other vessels.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.	
		tons.	ft.	ft.	ft.					£	Belt.	Deck.	Slide above Belt.	Bulkbread.	Heavy Guns.	Gun Position.	Torpedo Tubes.	knots.	tons.	
<i>c.d.s., t.</i>	Aeran <i>Pt. 68.</i>	3612	287	49½	16½	6500 Y.	Gothenburg	1901	1902	..	7 K.S.	1½	..	..	7½ K.S.	5 K.S.	2 8'-2-in., 2 1'-4-in., 2 M.	2 sub.	17·2 f	250
"	Dristigheten <i>Pt. 69.</i>	3445	285	48½	16	5400 Y.	Gothenburg	1900	1901	..	8 K.S.	1½	..	..	8 N.S.	3¾ K.S.	2 8'-2-in., 2 M.	2 sub.	16·5	300
<i>a.c.</i>	Fylgia	4100	377½	48¾	16	12,440 Y. t	Stockholm	1905	1907	385,700	4 K.S.	2	..	..	5 K.S.	5 K.S.	8 5'-9-in., 14 2'-2-in., 3 1'-4-in.	2 sub.	22·5 f	321
<i>c.d.s., t.</i>	Göta	3238	258½	48	16¾	4750	Gothenburg	1890	1891	..	11½-8	2	..	..	7½ H.S.	5 H.S.	1 8'-2-in., 2 1'-4-in.	3 sub.	16·0	240
"	Manligheten <i>Pt. 68.</i>	3612	287	49½	16½	7400 Y.	Malmö	1902 1904	1906	..	7 K.S.	1½	..	..	7½ K.S.	5 K.S.	2 8'-2-in., 2 1'-4-in., 2 M.	2 sub.	17·0	250
"	Njord	3445	278½	48½	17½	5350	Gothenburg	1898	1899	..	9½ H.N.S.	1½	..	..	9½ H.N.S.	4 H.N.S.	2 9'-8-in., 6 4'-7-in., 10 2'-2-in., 4 M.	1	16·5	275
"	Oden	3445	278½	48½	17½	5330	Stockholm	1896	1898	..	9½ H.N.S.	1½	..	..	9½ H.N.S.	4 M.	2 9'-8-in., 4 4'-7-in., 10 2'-2-in.	1	16·5	275
"	Oscar II <i>Pt. 68.</i>	4203	313¾	49½	16¾	8500 Y.	Gothenburg	1905	1907	..	6 K.S.	2	6 K.S.	6 K.S.	7½ K.S.	5 K.S.	2 8'-2-in., 2 1'-4-in., 2 M.	2 sub.	18·0	326
"	Svea	3051	248½	49½	17	3640	Gothenburg	1886	1887	..	11½-8	2	..	..	7½ H.S.	5 H.S.	1 8'-2-in., 2 1'-4-in.	1	14·7	268
<i>a.c.</i>	Sverige <i>Pt. 69.</i>	7100	390½	61	21½	20,000 tur. Y.	Stockholm	1904 1905	..	666,000	8-6 K.S.	1½	4 K.S.	..	8 K.S.	5 K.S.	4 11-in., 8 6-in., 6 12-pr., 4 1-pr.	2 sub.	22·0	450
<i>c.d.s., t.</i>	Tapperheten <i>Pt. 68.</i>	3612	287½	49½	16½	6000 Y.	Malmö	1901	1904	..	7 K.S.	1½	..	..	7½ K.S.	5 K.S.	2 8'-2-in., 2 1'-4-in., 2 M.	2 sub.	16·5	250
"	Thor	3445	278½	48½	17½	5350	Stockholm	1898	1899	..	9½ H.N.S.	1½	..	..	9½ H.N.S.	3¾ K.S.	2 9'-8-in., 6 4'-7-in., 10 2'-2-in., 4 M.	1 sub.	16·5	275
"	Thule	3248	260¾	48	16¾	4740	Stockholm	1892	1894	..	11½-8	1½	..	..	7½ H.S.	5 H.S.	1 8'-2-in., 2 1'-4-in.	2 sub.	16·2	250
"	Wasa <i>Pt. 68.</i>	3612	287	49½	16½	6000 Y.	Stockholm	1901	1893	..	7 K.S.	1½	..	..	7½ K.S.	5 K.S.	2 8'-2-in., 2 1'-4-in., 2 M.	2 sub.	16·5	250

SWEDEN.—Cruising Ships, &c.

Class.	NAME	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
<i>torq.b.</i>	Claes Horn	787	222 ft.	27 ft.	10½ ft.	3600	Stockholm	1899	1900	..	..	2 4·7-in., 4 2·2-in.	1 sub.	knots. 20·0	120	110
"	Claes Uggla	787	232	27½	8¾	4500 Y.	Stockholm	1900	1901	..	..	2 4·7-in., 4 2·2-in.	1	20·5	120	110
<i>torq.b.</i>	Jacob Bagge	787	222	27	10½	3970	Malmö	1898	1899	..	..	2 4·7-in., 4 2·2-in.	1 sub.	19·5	120	110
	Örnen					4100	Gothenburg	1896	1897	..	..	2 4·7-in., 4 2·2-in.	1 sub.	19·5	120	110
"	Psilander	787	232	27½	8¾	4500 Y.	Stockholm	1900	1901	..	..	2 4·7-in., 4 2·2-in.	1 sub.	20·5	120	110

Four gunboats of 190 to 200 tons, and about 130 I.H.P. each, and carrying 1 5-in. R.L.R. and 2 m.

TURKEY.—Armoured Ships.

Class.	NAME	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.		
											Belt.	Deck.	Side above Belt.	Bulkhead.	Heavy Guns.	Second-ary.				Guns.	Torpedo Tubes.
c.b.	Assar-i-Tewfik	tons. 4613	ft. 272½	ft. 52½	ft. 25	3560	La Seyne	1868	1870 1906	£ ..	in. 8	in. ..	in. ..	in. 6	in. ..	3 5·9-in., 7 4·7-in., 6 6-pr.	..	knots. 13·0	tons. 400	300	
b.	Kheyr-ed-Din Bar-barossa *	9901	354½	65	24½	9000	Wilhelmshaven	1891	1894	450,000	15¾ comp.	2½	..	11¾ comp.	1½	6 11-in., 8 4·1-in., 8 3·4-in., 4 M.	3	17·0	630 1000	..	
b.	Messoudieh (1)	9120	331½	59	25½	11,000 Nic.	Thames Genoa	1874	1876 1901	..	12	1	12	..	6-9	12	2 9·2-in., 12 6-in., 14 3-in., 10 6-pr., 2 3-pr., 2 1.	..	17·5 t	1100	600
b.	Turgut Reis †.	9901	354½	65	24½	9000	Stettin (Vulcan)	1891	1893	450,000	15¾ comp.	2½	..	..	11¾ comp.	1½	6 11-in., 8 4·1-in., 8 3·4-in., 4 M.	3	17·0	630 1000	..
b.e.	Yavuz Selim (ex Goeben) Pl. 41.	22,640	610½	96	27	70,000 P. tur.	Hamburg (Blohm & Voss)	1911	1912	..	7½-4 K.S.	..	..	..	8 K.S.	5	10 11-in., 12 5·9-in., 12 3·4-in.	4	28·6 t.	1000 3100	1013

(1) Torpedoed in the Barchinies by B11, Dec. 13, 1914.

* Ex Kurfürst Friedrich Wilhelm.

† Ex Weissenburg.

The battleships Osman I. (ex Rio de Janeiro) and Reshadieh, building respectively at Elswick and Barrow, were taken over for the British Navy on the outbreak of war, and are named Agincourt and Erin.

The Yavuz Selim and other Turkish ships have a proportion of German officers and ratings engaged in specialist duties. The German Admiral Souchon is in command.

TURKEY—Cruising Ships, &c.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.	Armament.	Torpedo Tubes.	Speed.	Coal.	Complement.
<i>to. cr.</i>	<i>Berk-i-Satvet</i> *.	tons. 740	ft. 262½	ft. 27½	ft. ..	5100	Kiel (Germania)	1906	1907	..	in. ..	..	..	..	..
<i>cr.</i>	<i>Hamidieh</i> .	3800 <i>19. 70.</i>	340	47½	16	12,500 Nic.	Elswick	1903	1904	..	4-1½	..	22-2 t	600	300
<i>to. cr.</i>	<i>Heibetnuma</i> .	1960	226	37	14	2500 ind.	Turkey	1890	1893	..	..	..	14-0	..	..
<i>g. v.</i>	<i>Lutfi-Hamayoun</i> .	1313	210	35	14	2800	Turkey	1892	1894	..	..	..	13-0	..	..
<i>cr.</i>	<i>Midillieh</i> (ex Breslau) .	4500	416½	44½	16½	33,482 A.E.G. t.	Stettin (Vulcan)	1911	1912	..	2	(4-2½ side)	27-5 t	1200	373
<i>cr.</i>	<i>Medjidieh</i> (1) .	3432	331½	42	16	12,000 Nic.	Philadelphia	1903	1904	..	4-1½	..	22-2	600	300
<i>to. cr.</i>	<i>Peik-i-Shevket</i> .	740	262½	27½	..	5100	Kiel (Germania)	1906	1907	..	..	..	22	240	..
"	<i>Pelenk-i-deria</i> .	840	230½	31	16½	5000	Kiel (Germania)	1890	1891	..	..	..	20-0	..	111

(1) *Medjidieh*, sunk by mine off Russian Black Sea coast, April 3, 1915.

* *Berk-i-Satvet*, or another of its class, sunk in the Dardanelles by E 14, Lieut.-Commander E. C. Boyle, R.N., V.C., April, 1915; also, in the Sea of Marmora, two transports and a gunboat, in May.

Seven 14-knot gunboats (510-420 tons) built in France (1912-13). About 20 other gunboats of various classes. Mine-layer *Nusrat*, 380 tons, 15 knots, built Germania Yard, Kiel, 1912.

Seven gunboats, 560 tons, 11 knots, were built recently in France, and one of them, *Burak Reis*, was senttled to avoid capture in the Black Sea, April 3, 1915.

UNITED STATES.—Armoured Ships.

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Class.	NAME.	Displacement.	Length.	Beam.	Draft.	Indicated Horse-Power.	Where Built.	Date of Launch.	Cost.	Armour.				Armament.		Speed.	Coal.	Complement.
										Belt.	Deck.	Side above belt.	Bulkhead.	Heavy Guns.	Gun Position.			
		tons.	ft.	ft.	ft.	t.			\$	in.	in.	in.	in.	in.	in.	knots.	tons.	
b.	Alabama. <i>Pl. 77.</i>	11,565 368	72½	26	11,207	Philadelphia	1898	1900	544,539	16½-4	2½-4	5½	12	15	6	17-0	800	592
b.	Arizona. <i>Pl. 71.</i>	31,400 600	97	28½	31,500	New York	1898	1900	1,485,000	14	3	..	..	18	..	21-0	2914	..
b.	Arkansas. <i>Pl. 74.</i>	26,000 554	93½	28½	28,533	Camden, N.J.	1911	1912	964,000	11-5	3	..	8-6	11	6½	21-0	1650	1115
a. c.	Brooklyn.	9215 500	62	26½	18,425	Philadelphia	1895	1896	613,583	3	6-3	4	..	8	5½	22-2	900	718
b.	California. <i>Pl. 71.</i>	32,000 600	97	28½	31,500	New York	1898	1900	1,485,000	14	3	..	..	18	..	21-0	2914	..
"	Charleston	9700 424	66	25½	27,500	Newport	1904	1906	563,030	4	3	4	..	4	..	22-0	650	664
"	Colorado. <i>Pl. 78.</i>	13,680 502	63½	24½	26,837	Philadelphia	1903	1905	756,000	6-3½	4	5	4	6	5	22-2	900	829
b.	Connecticut. <i>Pl. 76.</i>	16,000 450	76½	26½	20,525	Camden, N.J.	1904	1906	819,300	11½	3	8	7	10	7	18-8	900	803
b.	Delaware. <i>Pl. 75.</i>	20,000 510	85½	27	29,025	Newport	1903	1910	817,300	11	..	10-8	..	11	5	21-5	1600	927
b.	Florida. <i>Pl. 75.</i>	21,825 510	88½	27	27,036	New York	1910	1911	1,280,000	11	..	10	..	11	5	21-0	1000	1014
Super- posed turrets.	Georgia. <i>Pl. 76.</i>	14,948 435	70½	23½	25,088	Bath, Me.	1904	1906	737,700	11-4	3	6	6	11	6	19-2	900	812
b.	Idaho. <i>Pl. 71.</i>	32,000 600	97	28½	31,500	Camden, N.J.	1898	1901	533,237	14	3	..	..	18	..	21-0	2911	..
b.	Illinois. <i>Pl. 77.</i>	11,565 368	72½	26	12,757	Newport	1898	1901	533,237	16½-4	2½-4	5½	12	15	6	17-45	800	686

<i>b.</i>	Iowa	11,340 360	72½ 26½	11,933	Philadelphia	1896 1897	618,514	14	2½	5	12	15	8-6	4 12-in., 8 8-in., 10 4-in., 4 6-pr., 6 M., 2 L.	17.1	625 520
"	Kansas	16,000 450	77 26½	19,515	Camden, N.J.	1905 1907	855,850	8-11	3-4½	8	7	10	7	4 12-in., 8 8-in., 12 7-in., 20 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 18.1	900 854
		<i>Pl. 76.</i>		B. & W.				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	(sub.)	2200	
<i>super- posed batteries</i>	Kearsarge Kentucky	11,520 368	72½ 25½	{ 11,788 } { 12,179 }	Newport	1898 1899	462,345	16½-4	2½-5	5½	..	15	9	4 13-in., 4 8-in., 18 5-in., 18 small L. and M.	{ 1 16.8 } { .. 16.9 }	410 690 1500 1686
<i>b.</i>	Louisiana	16,000 450	76½ 26½	20,718	Newport	1904 1906	819,300	11 8	3	8	7	10	7	4 12-in., 8 8-in., 12 7-in., 20 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 18.8	900 803
"	Maine	12,500 388	72½ 25½	15,633	Philadelphia	1901 1902	592,828	11-4	2½-4	6	10	12	6	4 12-in., 16 6-in., 6 3-in., 8 3-pr., 6 1-pr., 2 M., 2 L.	2 18.0	1000 551
		<i>Pl. 77.</i>		Nie.				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	1800	
<i>a.c.</i>	Maryland	13,680 502	69½ 24½	28,059	Newport	1903 1905	756,400	6-3½	4	5	4	6	5	4 8-in., 14 6-in., 18 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	2 22.4	900 829
<i>b.</i>	Michigan	16,000 450	80½ 24½	16,310	Camden, N.J.	1908 1909	700,000	11-9	3	8	10	10-8	8	12-in., 22 3-in., 2 3-pr., 12 M., 2 L.	2 18.8	900 669
		<i>Pl. 75.</i>		B. & W.				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	2200	
<i>a.c.</i>	Milwaukee	9700 424	66 25½	24,166	S. Francisco	1904 1906	580,500	4	3	4	..	4	..	14 6-in., 18 14-pr., 12 3-pr., 12 1-pr., 10 M., 2 L.	2 22.2	650 664
<i>b.</i>	Minnesota	16,000 450	77 26½	20,235	Newport	1905 1907	844,500	8-11	3-4½	8	7	10	7	4 12-in., 8 8-in., 12 7-in., 20 3-in., 12 3-pr., 8 1-pr., 4 M., 2 L.	4 18.8	900 881
"	Mississippi	32,000 800	97 28½	31,500	Newport	1842. ..	1,485,000	14	3	..	..	18	..	12 14-in., 22 5-in., 10 small L. & M., 4 21.0	2914	..
		<i>Pl. 71.</i>		<i>t V.</i>				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	Oil	
"	Missouri	12,500 388	72½ 25½	15,845	Newport	1901 1903	592,828	12-4	2½-4	6	10	12	6	4 12-in., 16 6-in., 6 3-in., 8 3-pr., 4 1-pr., 2 M., 2 L.	2 18.1	1000 551
		<i>Pl. 77.</i>		T.				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	1836	
<i>a.c.</i>	Montana	14,500 502	72½ 25	27,338	Newport	1906 1908	970,630	5-3	3	5	6	9	5	10-in., 16 6-in., 22 3-in., 12 3-pr., 4 1-pr., 4 M., 2 L.	4 22.2	900 845
		<i>Pl. 78.</i>		B. & W.				K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	2000	
<i>Super- posed batteries.</i>	Nebraska	14,948 435	76½ 23½	21,283	Seattle.	1904 1907	767,212	11-4	3	6	6	11	6	4 12-in., 8 8-in., 12 6-in., 12 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 19.1	900 812
<i>b.</i>	Nevada	27,530 575	95 25½	35,000	Quincy,	1911 ..	2,200,000	13½	8 1½	3	13½	8	13½	10 14-in., 21 5-in., 10 small L. & M., 4 20.5	1300	..
		<i>Pl. 72.</i>		Cur. tur.	Mass.			K.S.	K.S.	K.S.	K.S.	K.S.	K.S.	sub.	2000	
<i>b.</i>	NewHampshire	16,000 450	77 26½	19,100	Camden, N.J.	1906 1908	1,600,000	9-4	3	7	7	12	7	4 12-in., 8 8-in., 12 7-in., 12 3-in., 12 3-pr., 4 1-pr., 4 M., 2 L.	4 18.2	900 916
		<i>Pl. 76.</i>		B. & W.			(Total)	K.S.		K.S.	K.S.	K.S.	K.S.	sub.	2350	

* The sums given in this column are exclusive of the cost of armour and armament according to the system of making appropriations in the estimates. † Mean draught.

UNITED STATES.—Armoured Ships—continued.

Class.	NAME.	Displacement.	Length.	Beam.	Draught.	Indicated Horse Power.	Where Built.	Date of Launch.	Cost. *	Belt.	Deck.	Slide above Belt.	Bulkhead.	Heavy Guns.	Gun Position.	Armament.	Torpedo Tubes.	Speed.	Normal Coal Supply.	Complement.	
Super-posed turrets.	New Jersey <i>Pl. 76.</i>	14,948 435	76½	23½	23½	23,089 B. & W.	Quincy, Mass.	1904	1906 639,680	11-4 K.S.	3	6	6	in. K.S.	in. K.S.	6	4 12-in., 8 8-in., 12 6-in., 12 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 sub.	19-4 t	900 1900	812
	New York <i>Pl. 73.</i>	27,000 573	95½	28½	28½	35,000 +	New York	1912	1914 ..	12-4 K.S.	3	9	10	14-8 K.S.	6	10 14-in., 21 5-in., 10 small L. & M.	4 sub.	21-0 sub.	2200 2850	1014	
a.e.	North Carolina <i>Pl. 78.</i>	14,500 502	72½	25	25	29,785 B. & W.	Newport News	1906	1908 370,630½	5-3 K.S.	3	5	9	9 K.S.	5	4 10-in., 16 6-in., 22 3-in., 12 3-pr., 4 1-pr., 4 M., 2 L.	4 sub.	22-18 t	900 3000	845	
b.	North Dakota <i>Pl. 75.</i>	20,000 510	85	27	27	31,826 Cur. tur	Quincy, Mass.	1908	1910 839,500	11 K.S.	..	10-8 K.S.	..	11 K.S.	5	10 12-in., 14 5-in., 2 3-pr., 2 L., 12 M.	2 sub.	21-6 t	1000 2500	960	
b.	Ohio <i>Pl. 77.</i>	12,500 388	72½	25½	25½	16,220 T.	S. Francisco.	1901	1904 535,705	11-4 K.S.	3-4	6	10	12 K.S.	6	4 12-in., 16 6-in., 6 3-in., 8 3-pr., 6 1-pr., 2 M., 2 L.	2 sub.	17-8 t	1000 2144	521	
b.	Oklahoma <i>Pl. 72.</i>	27,500 575	95	28½	28½	35,000	New York	1914 ..	2,200,000	13½-8 K.S.	1½-3	13½-8 K.S.	13½ K.S.	18-16 K.S.	5	10 14-in., 21 5-in., 10 small L. & M.	4 sub.	20-5 sub.	1300 2000	..	
b.	Pennsylvania <i>Pl. 71.</i>	31,400 600	97	28½	28½	31,500 t Y.	Newport News	1915 ..	1,485,000	14 K.S.	3	..	..	18 K.S.	..	12 14-in., 22 5-in., 10 small L. & M.	4 sub.	21-0 sub.	2914 Oil	..
a.e.	Pittsburg <i>Pl. 78.</i>	13,680 502	69½	24½	24½	28,600 Nic.	Philadelphia	1903	1905 739,310	6-3½ K.S.	4	5	4	6 K.S.	5	4 8-in., 14 6-in., 18 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	2 sub.	22-4 t	900 2000	829	
Super-posed	Rhode Island <i>Pl. 76.</i>	14,948 435	76½	23½	23½	20,310 +	Quincy, Mass.	1904	1906 639,680	11-4 K.S.	3	6	6	11 K.S.	6	4 12-in., 8 8-in., 12 6-in., 12 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 sub.	19-0 t	900 1900	812	
a.e.	San Diego <i>(ex California)</i> <i>Pl. 78.</i>	13,680 502	69½	24½	24½	29,381 B. & W.	S. Francisco.	1904	1907 756,000	6-3½ K.S.	4	5	4	6 K.S.	5	4 8-in., 14 6-in., 18 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	2 (sub.)	22-2 t	900 2000	829	
a.e.	Saratoga <i>(ex New York)</i> <i>Pl. 78.</i>	8200 380½	64½	27½	27½	17,075	Philadelphia	1891	1893 613,377	4 H.S.	2½	..	..	6½ H.S.	5-4	4 8-in., 10 5-in., 8 12-pr., 4 3-pr., 4 M.	..	21-0 t	750 1334	498
a.e.	St. Louis	9700 424	66	25½	25½	27,264 B. & W.	Philadelphia (Cramp)	1905	1906 563,030	4 K.S.	3	4-3	..	4 K.S.	..	14 5-in., 18 14-pr., 12 3-pr., 12 1-pr., 10 M., 2 L.	..	22-3 t	650 1500	664	
b.	South Carolina <i>Pl. 73.</i>	16,000 450	80½	24½	24½	18,337 B. & W.	Philadelphia (Cramp)	1908	1909 700,000	11-9 K.S.	3	8	10	10-8 K.S.	8	8 12-in., 22 3-in., 2 3-pr., 12 M., 2 L.	2 sub.	18-9 t	900 2200	669	

a.c.	South Dakota <i>Pl. 73.</i>	13,680,502	69½	24½	28,598 B. & W.	S. Francisco.	1901	1907	770,570	6-3½	4	5	4	6	5	4 8-in., 14 6-in., 18 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	2 22-0 sub. t	900 829 2000
a.c.	Tennessee <i>Pl. 75.</i>	14,500,502	72½	25	26,963 B. & W.	Philadelphia	1904	1906	970,630†	5-3	3	5	6	9	5	4 10-in., 16 6-in., 22 3-in., 12 3-pr., 4 1-pr., 8 M., 2 L.	4 22-1 sub. t	900 858 2000
b.	Texas <i>Pl. 73.</i>	27,000,573	95½	28½	28,100 t	Newport News	1912	1914	1,166,000	12-4	3	9	10	14 8	6	10 14-in., 20 5-in., 10 small	4 21-1 sub. t	2200 1014 2850
b.	Utah <i>Pl. 75.</i>	21,825,510	88½	28½	28,477 t, P. tur.	Camden, N.J.	1903	1911	813,500	11	..	10	..	11	5	10 12-in., 16 5-in., 4 3-pr., 4 M., 2 L.	2 21-6 sub. t	1000 1014 2300
t.	Vermont <i>Pl. 76.</i>	16,000,450	77	26½	17,982 B. & W.	Quincy, Mass.	1905	1907	858,730	8-11	3-4½	8	7	10	7	4 12-in., 8 8-in., 12 7-in., 20 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 18-33 sub. t	900 854 2200
Super- posed	Virginia <i>Pl. 76.</i>	14,948,435	76½	23½	22,811 + Nic.	Newport News	1904	1906	737,700	11-8	3	6	6	11	6	4 12-in., 8 8-in., 12 6-in., 12 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	4 19-0 sub. t	900 812 1900
a.c.	Washington <i>Pl. 78.</i>	14,500,502	72½	27	27,152 B. & W.	Camden, N.J.	1905	1906	970,630†	5-3	3	5	6	9	5	4 10-in., 16 6-in., 22 3-in., 12 3-pr., 4 1-pr., 8 M., 2 L.	4 22-3 sub. t	900 858 2000
"	West Virginia <i>Pl. 78.</i>	13,680,502	69½	24½	31,437 B. & W.	Newport News	1903	1905	738,310	6-3½	4	5	12	6	5	4 8-in., 14 6-in., 18 3-in., 12 3-pr., 8 1-pr., 8 M., 2 L.	2 22-1 sub. t	900 829 2000
t.	Wisconsin <i>Pl. 77.</i>	11,653,368	72½	26	12,452	S. Francisco.	1898	1901	549,666	16½-4	3-4	5½	..	15	6	4 13-in., 14 6-in., 16 6-pr., 6 1-pr., 4 M., 2 L.	1 17-2 t	800 583 1310
b	Wyoming <i>Pl. 74.</i>	26,000,551	93½	28½	31,437 P. tur.	Philadelphia	1911	1912	963,800	11-9	..	..	8 6	11	8	12 12-in., 21 5-in., 4 3-pr., 2 M., 2 L.	2 21-2 sub. t	1650 1115 2500

* See note on page 165.

† Mean draught.

‡ Including armour, but not armament.

Also the monitors *Urritan*, 6060 tons, Amphitrite, *Minuteman*, *Monadnock*, and *Terror*, 3990 tons, *Tonopah* (*ex Nevada*), 3714 tons, *Tallahassee* (*ex Florida*) and *Ozark* (*ex Arkansas*), 3235 tons, *Cheyenne* (*ex Wyoming*), 3218 tons, *Monterey*, 4084 tons, and the second-class battleship *Texas*, 6315 tons.

The battleships *Idaho* and *Mississippi*, 13,000 tons (4 12-in., 8 5-in. guns), completed in 1908, were sold to Greece, and the proceeds of the sale were applied to the shipbuilding programme of 1914-15 for the three ships of the California class, the names of *Idaho* and *Mississippi* being retained for the other two. Two battleships are included in the programme of 1915-16.

UNITED STATES.--Cruising Ships, &c.

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Class.	NAME.	Displacement.	Length.	Beam.	Traught.	Indicated Horse-Power.	Where Built.	Date of Launch.	Date of Completion.	Cost.	Deck.	Armour.	Armament.	Torpedo Tubes.	Speed.	Normal Coal Supply.	Complement.
3rd cl. cr.	Albany	shd. 3487	ft. 345	ft. 43 $\frac{3}{4}$	ft. 20	7500	Elswick	1899	1900	£ 247,611	in. 3	in. 3-1 $\frac{1}{4}$ shields	10 5-in., 10 3-pr., 2 m., 1 l.	..	knots. 20.5 f	tons. 512 747	356
second.	Birmingham	3750	420	46 $\frac{3}{4}$	17	15,670 Express	Quincy, Mass.	1907	1908	301,000	2-1 $\frac{1}{2}$	..	2 5-in., 6 3-in.	2 sub.	24.3 f	1250	356
3rd cl. cr.	Chattanooga	shd. 3200	292	44	16 $\frac{3}{4}$	5303 B. & W.	Elizabeth Port	1903	1904	212,325	2	..	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	..	16.65 f	470 700	302
second.	Chester	3750	420	46 $\frac{3}{4}$	17	16,000 Nor. turb.	Bath, Me.	1907	1908	337,000	2 1 $\frac{1}{2}$	..	2 5-in., 6 3-in.	2 sub.	26.5 f	1250	356
"	Cincinnati	3213	300	42	20 $\frac{1}{4}$	8,490 B. & W.	Brooklyn	1892	1894	226,055	2 $\frac{1}{2}$	4	11 5-in., 8 6-pr., 2 1-pr., 2 m.	..	19.0	350 408	314
3rd cl. cr.	Cleveland	shd. 3200	292	44	16 $\frac{3}{4}$	4640 B. & W.	Bath, Me.	1901	1903	212,325	2	..	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	..	16.4 f	470 700	302
2nd cl. cr.	Columbia	7350	412	58 $\frac{1}{4}$	25 $\frac{1}{2}$	18,509	Philadelphia	1892	1894	559,950	4-2 $\frac{1}{2}$	4 shield	1 8-in., 2 6-in., 8 4-in., 6-pr., 2 1-pr., 2 m., 1 l.	..	22.8 f	750 1670	477
3rd cl. cr.	Denver	shd. 3200	292	44	16 $\frac{3}{4}$	4135 B. & W.	Philadelphia	1902	1904	212,325	2	..	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	..	16.75	470 700	303
"	Des Moines	shd. 3200	292	44	16 $\frac{3}{4}$	4135 B. & W.	Quincy, Mass.	1902	1904	212,325	2	..	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	..	16.75	470 700	303
g. r.	Dubuque	1085	174	35	13	1193 B. & W.	Morris Heights, N.Y.	1904	1905	..	..	..	6 4-in., 4 6-pr., 2 1-pr., 2 m.	..	12.9	200	162
3rd cl. cr.	Galveston	shd. 3200	292	44	16 $\frac{3}{4}$	5073 B. & W.	Richmond, Va.	1903	1904	212,325	2	..	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	..	16.4	470 700	302

2nd cl. cr.	Minneapolis	tons.	ft.	ft.	ft.	ft.	1893	1894	£	in.	in.	in.	knobs.	tons.
		7350	412	58½	25½	20,862	Philadelphia	1893	552,754	4-2½	4	1 8-in., 2 6-in., 8 4-in., 12 6-pr., 2 1-pr., 2 m., 1 l.	23·0 £	477
3rd cl. cr.	New Orleans	shd.	346	43½	19½	7500	Elswick	1896	293,684	..	3-1½	10 5-in., 10 3-pr., 2 1-pr., 2 m., 1 l.	20·0	366
g. r.	Paducah	.	174	35	13	1000	Morris Heights, N.Y.	1904	..	..	..	6 4-in., 4 6-pr., 2 1-pr., 2 m.	12·0	162
second	Salem	.	420	46½	18½	22,242	Quincy, Mass.	1907	391,000	2-1½	..	2 5-in., 6 3-in.	25·9 £	356
3rd cl. cr.	Tacoma	shd.	292	44	16½	5288	S. Francisco.	1903	212,325	..	2	10 5-in., 8 6-pr., 2 1-pr., 4 m., 1 l.	16·6 £	302

* Prices exclusive of armament.

Third class cruisers Baltimore, Concord, Yorktown, Boston, Atalanta, Newark, Raleigh, and San Francisco, the last named converted into a mine-layer. Gun vessels Helena, Marietta, Nashville, Princeton, Vicksburg, Wheeling, and Wilmington, 1000 to 1392 tons, launched 1895-97. Fleet colliers Prometheus, Erie, Ontario and Vestal (12,500 tons); Cyclops, Jason, Jupiter, Neptune, Nereus, Orion and Proteus, 1935 tons. Two large oil-transporters, Kanawha and Manuoa, are being built, and the Ulysses and Achilles, colliers, for the Panama Canal. Gunboat, Sacramento, 1500 tons, 3 4-in., 2 3-pr. guns, 15 knots, has been completed (1914), also the Monocacy and Palos. Torpedo depot Castine, 1177 tons.

Training ships, Olympia, 5870 tons; Chicago, 4500 tons; Marblehead, 2089 tons. Torpedo experimental vessel, Montgomery, 2089 tons.

The ocean liners St. Louis and St. Paul, 11,629 tons, New York and Philadelphia, 10,802 tons, 20 knots (International Navigation Co.), and the Korea and Siberia, 11,200 tons, 18 knots (Pacific Mail Steamship Co.) are enrolled auxiliary cruisers. Niagara, submarine tender; Bismarck in hand.

SHIPS BELONGING TO POWERS WHOSE NAVIES ARE OF LESSER IMPORTANCE.

Bulgaria.—Eleven steamers of small size, of which one is used as the Prince's yacht. Two armoured gunboats for the Danube built at Leghorn. The *Nadiezda*, despatch vessel (715 tons), launched Bordeaux, 1898; 18·85 knots; 2600 I.H.P.; *Lagrafel-d'Allest* boilers; armament, 2 3·9-in., 3 1·8-in. Q.F., and 2 torpedo tubes. Three 100-ton 26-knot torpedo-boats launched 1907; three smaller.

Colombia.—Cruiser *Almirante Lezo* (*ex* *El Baschir*), 1200 tons; 2500 H.P.; 18 knots; built 1892, bought from Morocco. Gunboats, *Chercuito* and *Bogota*. River gunboats, *General Nerino* and *Esperanza*, 400 tons. Three Yarrow motor gunboats, 1913.

Cuba.—Cruiser *Cuba*, 2055 tons, 3500 H.P., 18 knots, and gunboat *Patria*, 1200 tons, 1500 H.P., 16 knots.

Ecuador.—The torpedo cruiser *Almirante Simpson*, 812 tons, bought from Chili. One torpedo-boat and two transport vessels.

Egypt.—The Nile stern-wheel gunboats *Sultan*, *Sheikh* and *Melik*, 140 tons, *Fateh* and *Naseh*, 128 tons; also the *Abu Klea*, *Hafir*, *Metemmeh*, and *Tamai*.

Hayti.—Steel gunboat—*Capois la Mort*, 260 tons, 13·9-in., and 4 1-pr. Q.F. Iron corvette—*Dessalines*, 1200 tons, armed with 1 3·9-in. Q.F., 2 3·9-in. B.L., 2 l., 2 m. Two sloops—*St. Michael* and 180 $\frac{1}{2}$. Gun-vessel, 22nd of December. The gunboat *Liberté* was blown up and destroyed, with a loss of 70 lives. It is stated that the Italian cruiser *Umbria*, 2245 tons, has been bought.

Mexico.—Two gun-vessels, *Tampico* and *Vera Cruz*, launched Elizabethport, New Jersey, 1902; displacement, 980 tons; armament, 4 4-in. Q.F., 6 6-pr.; bow torpedo tube; 2400 I.H.P.; speed, 16 knots; fitted to serve as transport for 200 troops. Gun vessels *Bravo* and *Morero*, 1200 tons; 2600 I.H.P.; *Blechynden* boilers; 17 knots; launched Leghorn, 1904. The *Zaragoza*, 1200 tons, 1300 H.P., 15 knots speed, and armed with 4 4·7-in. guns and 4 small quick-firing guns. Gun-vessel, *Democrata*, 450 tons; 11 knots; 2 6 $\frac{1}{2}$ -in. muzzle-loaders and 2 small guns. Torpedo transport *General Guerrero*, 1880 tons; 1200 I.H.P.; completed at Barrow 1908. Two small gunboats of 10 knots speed. Five torpedo-boats. Two cruisers, 2400 tons, to be built.

Peru.—*Almirante Grau* and *Coronel Bolognesi*, cruisers, 3200 tons, 370 ft. long, 40 ft. 6 in. beam, 14 ft. 3 in. draught; Barrow,

1906; 2 6-in., 8 14-pdr., 8 1½-pdr.; 2 submerged torpedo tubes; 1½-in. armoured deck, 3-in. conning tower; 14,000 I.H.P.; 24 knots. *Eclaireur*, cruiser, 1769 tons, launched 1877, partially reconstructed; bought from France. Armoured cruiser *Dupuy de Lôme*, purchased for £140,000, and renamed *Elias Aguirre*. *Lima*, 1700 tons, 1800 I.H.P., 16 knots; armament, 2 6-in. guns. Destroyer, *Rodriguez*, 500 tons, and submarines, *Ferré* and *Palacios*, built *Le Creusot*, 1912-13. Screw steamer, *Santa Rosa*, about 400 tons.

Roumania.—*Elizabeta*, protected cruiser (deck 3 in.), built in 1887 at *Elswick*; 230 ft. long, 32 ft. 10 in. beam; 1320 tons; 3000 I.H.P.; armament, 4 5·9-in. B.L.R., 4 Q.F., 2 M., 4 torpedo tubes. Composite gunboat *Mircea*, 360 tons; *Grivitza*, 110 tons. Two gunboats, 45 tons, and 3 first-class torpedo-boats. For the Danube, the gunboats *Fulgurul*, *Oltul*, *Siretul*, *Bistritza*, 90 to 100 tons, *Alexandru cel Bun*, 104 tons, 5 sloops, 2 small torpedo-boats. The shipbuilding programme includes 8 monitors of 600 tons, 12 torpedo-boats and 8 vedettes for the Danube, and 6 coast-defence vessels of 3500 tons, 4 destroyers, and 12 torpedo-boats for the Black Sea. The four destroyers are in hand at *Naples* (1350-1450 tons). Four monitors (3 4·7-in. guns) and 3 torpedo-boats completed.

Santo Domingo.—The *Independencia*, built in England 1894, 170 ft. long, 25 ft. broad, displacement 322 tons, and armed with seven Hotchkiss quick-firing guns. *Restauracion*, steel gun-vessel, 1000 tons, launched at *Glasgow* in 1896. The 14-knot cruiser *Presidente* has been reconstructed, and carries seven guns.

Sarawak.—Two gunboats, of 175 and 118 tons respectively, of low speed, each armed with two guns.

Siam.—Deck-protected cruiser, *Maha Chakratri*, 290 ft. long, 39 ft. 4 in. beam, of 2500 tons displacement and 17 to 18 knots speed; armament, four 4·7-in. and ten 6-pdr. quick-firing guns. *Makut-Rajakamar*, 650 tons. The gunboats *Bali*, *Muratha*, and *Sugrib*, 600 tons, one 4·7-in. Q.F., five 2·2 in., four 1·4 in., 12 knots, launched 1898 and 1901. Several other gunboats. Three modern despatch vessels 100 to 250 tons. Three 380-ton, 27-knot destroyers, built at *Kobe*.

Uruguay.—Gunboats: *General Artigas*, 274 tons, 12½ knots speed, 2 4·7-in. (Krupp), 2 M.; and *General Saurez*, 300 tons. The cruiser *Uruguay*, built at the *Vulcan Yard*, *Stettin*; 1100 tons; 2 4·7-in., 4 12-pdr., 12 *Maxims*; 2 18-in. torpedo tubes; 5700 I.H.P.; 23 knots.

Venezuela.—Gunboats *Bolivar*, 571 tons, 18·6 knots, and *Miranda*, 200 tons, 12 knots; transports *Restaurador*, 568 tons, and *Zamora*, 350 tons. *Maresa Sucre* (ex *Isla de Cuba*), drill ship, bought from United States, 1912.

BRITISH AND FOREIGN FLOTILLAS.

Great Britain.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Mean Speed on Trial, or expected.	Armament.	Torpedo Tubes.	Complement.	Coal Capacity.
			Length.	Beam.	Dranght.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
<i>Great Britain.</i>													
TORPEDO-BOAT DESTROYERS.													
† Bruizer	Thornycroft ..	1895	201·6	19	7·3	2	265	4,500	27·97	1-12 pr. 5-6 prs.	1	45	60
† Conflict	White	1894	205·6	20	7·8	2	320	4,370	27·21	1-12 pr. 5-6 prs.	2	50	60
† Fervent	Hanna	1895	200	19	7·8	2	275	3,800	[27]	1-12 pr. 5-6 prs.	1	50	70
† Lightning	Palmer	1895	200	19·7	6·5	2	275	4,007	27·94	1-12 pr. 5-6 prs.	2	50	60
† Opossum	Hawthorn ..	1895	200	19	5·2	2	295	4,052	28·24	1-12 pr. 5-6 prs.	1	50	60
† Porcupine	Palmer	1895	200	19·7	6·5	2	295	3,866	27·91	1-12 pr. 5-6 prs.	2	50	60
† Ranger	Hawthorn ..	1895	200	19	5·2	2	295	3,900	27·13	1-12 pr. 5-6 prs.	1	50	60
† Sunfish	Hawthorn ..	1895	200	19	5·2	2	295	4,292	27·62	1-12 pr. 5-6 prs.	1	50	60
† Surly	Thomson ..	1894	205·6	19·5	5·25	2	280	4,400	28·05	1-12 pr. 5-6 prs.	2	50	50
† Zephyr	Hanna	1895	200	19	5·3	2	275	3,850	[27]	1-12 pr. 5-6 prs.	1	50	60
† Albatross	Thornycroft ..	1898	227·6	21·25	8·5	2	430	7,900	31·5	1-12 pr. 5-6 prs.	2	63	100
† Angler	"	1897	210	19·6	7·1	2	310	5,800	30·37	1-12 pr. 5-6 prs.	2	60	80
† Arab	Brown & Co. ..	1901	218	20·0	5·6	2	470	6,000	31	1-12 pr. 5-6 prs.	2	60	80
† Avon	Vickers	1896	210·6	21·6	5·6	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Bat	Palmer	1896	215	20·75	6·8	2	360	6,185	30·1	1-12 pr. 5-6 prs.	2	60	91
† Bittern	Vickers	1897	210·6	21·6	5·6	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Brazen	Brown & Co. ..	1896	218	20·0	5·6	2	345	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Bullfinch	Earle's Co. ..	1898	210	20·6	5·8	2	345	5,800	30	1-12 pr. 5-6 prs.	2	60	80
† Cheerful	Hawthorn ..	1897	210	21·0	8	2	355	6,000	30	1-12 pr. 5-6 prs.	2	62	82
† Coquette	Thornycroft ..	1897	210	19·5	7·2	2	335	5,800	30·21	1-12 pr. 5-6 prs.	2	60	80
† Crane	Palmer	1896	215	20·7	6·8	2	360	6,336	30·3	1-12 pr. 5-6 prs.	2	60	80
† Cygnet	Thornycroft ..	1898	210	19·5	7·2	2	335	5,800	30·3	1-12 pr. 5-6 prs.	2	60	80
† Cynthia	"	1898	210	19·5	7·2	2	355	5,800	30·2	1-12 pr. 5-6 prs.	2	60	80
† Desperate	"	1896	210	19·6	7·2	2	310	5,800	30	1-12 pr. 5-6 prs.	2	60	80
† Dove	Earle's Co. ..	1898	210·0	20·6	5·8	2	345	5,800	30	1-12 pr. 5-6 prs.	2	60	80
† Earnest	Laird	1896	210·6	21·7	5·3	2	355	6,000	30·13	1-12 pr. 5-6 prs.	2	58	80
† Electra	Brown & Co. ..	1896	218	20·0	5·6	2	3	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Express	Laird	1897	227·6	22·6	9	2	465	9,000	31	1-12 pr. 5-6 prs.	2	60	80
† Fairy	Fairfield ..	1897	227·6	22·0	9	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Falcon	"	1899	220	21·3	9	2	375	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Fame	Thornycroft ..	1896	210·6	19·6	7·1	2	310	5,800	30·16	1-12 pr. 5-6 prs.	2	60	80
† Fawn	Palmer	1897	215	20·7	6·8	2	360	6,581	30·5	1-12 pr. 5-6 prs.	2	60	91
† Flirt	"	1897	215	20·7	6·8	2	360	6,682	30	1-12 pr. 5-6 prs.	2	60	91
† Flying Fish	"	1897	215	20·7	6·8	2	360	6,416	30·4	1-12 pr. 5-6 prs.	2	58	91
† Foam	Thornycroft ..	1896	210	19·6	7·1	2	310	5,800	30·18	1-12 pr. 5-6 prs.	2	58	80
† Gipsy	Fairfield ..	1897	227·6	22·0	9	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Greyhound	Hawthorn ..	1900	210	21	8·6	2	385	6,000	30	1-12 pr. 5-6 prs.	2	60	90
† Griffon	Laird	1896	210·0	20	5·3	2	355	6,000	30·11	1-12 pr. 5-6 prs.	2	58	80
† Kestrel	Brown & Co. ..	1898	218	20·0	5·6	2	350	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Kangaroo	Palmer	1900	215	20·75	6·8	2	370	6,500	30	1-12 pr. 5-6 prs.	2	60	91
† Leopard	Vickers	1897	210	20·0	5·6	2	350	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Leven	Fairfield ..	1898	218	20·0	5·6	2	370	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Lively	Laird	1900	218	20·0	5·6	2	385	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Locust	"	1896	210	21·7	5·3	2	355	6,000	30·16	1-12 pr. 5-6 prs.	2	58	80
† Mallard	Thornycroft ..	1896	210·6	19·6	7·1	2	310	5,800	30·11	1-12 pr. 5-6 prs.	2	60	80
† Mermaid	Hawthorn ..	1898	210	21	8	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	82
† Myrmidon	Palmer	1900	215	20·75	6·8	2	370	6,500	30	1-12 pr. 5-6 prs.	2	62	91
† Orwell	Laird	1898	218·0	20·0	5·6	2	360	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Osprey	Fairfield ..	1897	227·6	22·0	9	2	355	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Ostrich	"	1900	210	21·0	9	2	375	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Otter	Vickers	1896	210	20·0	5·6	2	350	6,000	30	1-12 pr. 5-6 prs.	2	60	80
† Panther	Laird	1897	210·6	21·7	5·3	2	355	6,000	30·14	1-12 pr. 5-6 prs.	2	58	80
† Peterel	Palmer	1899	215	20·8	..	2	370	6,200	30	1-12 pr. 5-6 prs.	2	62	85
† Quail	Laird	1895	213·6	21·6	5·3	2	355	6,000	30·38	1-12 pr. 5-6 prs.	2	58	90
† Racehorse	Hawthorn ..	1900	210	21	8·6	2	385	6,000	30	1-12 pr. 5-6 prs.	2	60	90
* Recruit	Brown & Co. ..	1896	218·0	20·0	5·6	2	350	6,000	30	1-12 pr. 5-6 prs.	2	58	90
† Roebuck	Hawthorn ..	1901	210	21	8·6	2	385	6,000	30	1-12 pr. 5-6 prs.	2	60	90
† Seal	Laird	1897	218·0	20·0	5·6	2	355	6,000	30·15	1-12 pr. 5-6 prs.	2	58	80
† Spiteful	Palmer	1899	215	20·75	6·8	2	365	6,500	30·1	1-12 pr. 5-6 prs.	2	62	81
† Sprightly	Laird	1900	218	20·0	5·6	2	385	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Stag	Thornycroft ..	1900	210	19·75	7·2	2	320	5,800	30·34	1-12 pr. 5-6 prs.	2	60	80

All Jarrow-built destroyers have Read's boilers.

† Thornycroft W.T. boilers.

* See note on page 169.

Great Britain—continued.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Mean Speed on Trial, or expected.	Armament.	Torpedo Tubes.	Complement.	Coal Capacity.
			Length.	Breadth.	Draught.								
TORPEDO-BOAT DESTROYERS.													
Star	Palmer	1896	215	20·75	6·88	2	360	6,266	30·7	1-12 pr. 5-6 prs.	2	58	91
Success	Doxford	1901	210·0	21·0	9·2½	2	380	6,000	30	1-12 pr. 5-6 prs.	2	62	43
† Sylvia	"	1897	210	19·9	7·6	2	350	5,400	30	1-12 pr. 5-6 prs.	2	58	80
Syren	Palmer	1900	215	20·75	6·8	2	390	6,500	30	1-12 pr. 5-6 prs.	2	..	91
Taku	Schichau	1898	193·6	20	5	2	305	6,500	32	6-3 pr. q.	3	..	67
Thorn	Brown & Co. .. .	1900	210	21	5·5	2	380	6,000	30	1-12 pr. 5-6 prs.	2	58	80
Thrasher	Laird	1895	210·6	21·7	5·3	2	355	6,000	30·13	1-12 pr. 5-6 prs.	2	58	80
Vigilant	Brown & Co. .. .	1900	210	21	5·5	2	380	6,000	30	1-12 pr. 5-6 prs.	2	58	80
† Violet	Doxford	1897	210	20·75	6·88	2	350	5,400	30	1-12 pr. 5-6 prs.	2	58	80
Virago	Laird	1895	210·6	21·7	5·3	2	355	6,000	30·13	1-12 pr. 5-6 prs.	2	58	80
α Vixen	Vickers	1900	210·0	20·0	5·8	2	400	6,000	30	1-12 pr. 5-6 prs.	2	62	83
Vulture	Brown & Co. .. .	1893	218	20	5·6	2	345	6,000	30	1-12 pr. 5-6 prs.	2	58	80
Whiting	Palmer	1896	215	20·75	6·88	2	360	6,239	30·2	1-12 pr. 5-6 prs.	2	58	91
Wolf	Laird	1897	218	20	5·6	2	355	6,000	30	1-12 pr. 5-6 prs.	2	58	80
Derwent	Hawthorn	1904	220	23	10	2	534	7,000	25·18	4-12 prs.	2	70	130
† Eden	"	1903	220	23	8½	6	527	7,000	16·22		2	70	130
Exe	Palmer	"	225	23½	10	2	510	7,000	25·64		2	70	127
Ribble	Yarrow	1904	225	23½	10	2	550	7,500	26		2	70	120
Itchen	Laird	1903	225	23½	10	2	550	7,000	25·64		2	70	130
Usk	Yarrow	"	225	23½	10	2	550	7,500	26		2	70	120
Teviot	Yarrow	"	225	23½	10	2	550	7,500	26		2	70	120
Ettrick	Palmer	"	225	23½	10	2	540	7,000	25·56		2	70	127
Foyle	Laird	"	225	23½	10	2	550	7,000	25·65		2	70	120
Erne	Palmer	"	225	23½	10	2	540	7,000	25·6		2	70	127
Arun	Laird	"	225	23½	10	2	550	7,000	25·72		2	70	130
Cherwell	Palmer	"	225	23½	10	2	540	7,000	25·6		2	70	127
Dee	Palmer	"	225	23½	10	2	540	7,000	25·5		2	70	127
Jed	"	1904	222	23½	9·6	2	640	7,500	25·78	1-12 pr. 5-6 prs.	2	70	126
Kennet	Thornycroft .. .	1903	222	23½	9·6	2	640	7,500	25·99		2	70	156
† Velox	Parsons	1902	210	23	8½	8	440	8,000	27	4-12 prs.	2	63	130
Waveney	Hawthorn	1903	220	23½	10	2	534	7,000	25·62		2	70	130
Welland	Yarrow	1904	225	23½	10	2	550	7,500	26	4-12 prs.	2	70	120
Chelmer	Thornycroft .. .	1904	222	23½	9·6	2	600	7,500	25·7				
Boyne	Hawthorn	1904							25·72				
Colne	Thornycroft .. .	1905							25·57				
Doon	Hawthorn	1904							25·8				
Garry	Yarrow	1905							26·5				
Kale	Hawthorn	1904							25·74				
Rother	Palmer	1904							25·51				
Liffey	Laird	1904							25·51				
Moy	"	1904							25·6				
Ness	White	1905							25·62				
Nith	"	1905							25·69				
Ouse	Laird	1905							25·56				
Swale	Palmer	1905							25·59				
Ure	Palmer	1904							25·65				
Wear	Palmer	1905							25·62				

† Thornycroft W.T. boilers.

† Hulls and Yarrow boilers of these vessels by Hawthorn Leslie & Co.
α Has four Express W.T. boilers.

The loss of the following British destroyers has been officially announced:—Recruit, torpedoed by German submarine in the North Sea, near the Galloper Lightship, May 1, 1915; Maori, sunk by mine off the Belgian coast, May 8, 1915.

Great Britain—continued.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated horse-power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Coal or Oil.
			Length.	Beam.	Draught.								
OCEAN-GOING DESTROYERS.			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
* Afridi	Armstrong	1907	250	25	8·5	3	872	14,250	32·75				92½
* Cossack	Cammell Laird ..	1907	270	26	9·3	3	890	14,000	33·15				78
* Gburka	Hawthorn	1907	255	25·7	9·3	3	820	14,250	34	5-12-prs.	2	60	38
* Mohawk	White	1907	270	25	8·10	3	865	14,500	34·51				74
* Tartar	Thornycroft	1907	270	26	9·1	3	870	14,500	35·67				76
* Saracen	White	1908	272	26	9·5	3	980		33·8				84
* Amazon	Thornycroft	1908	280	26½	9·2	3	970	15,500	33·73	2·4-in. B.L.	2	67	86
* Crusader	White	1909	280	26	9·8	3	1045	15,500	35				99
(1) * Maori	Gentry	1909	280	27	8·8	3	1035	15,500	33				103
* Nubian	Thornycroft	1909	280	26½	9·1	3	985	15,500	31·88	2·4-in. B.L.	2	71	97½
* Viking	Palmer	1909	280	27·3	8·7	3	1090	15,500	..				102½
* Zulu	Hawthorn	1909	280	27	8·9	3	1027	15,500	34				94
* Albacore	Palmer & Co. ..	1908	215	21	7	..	440	6,000	26·75	3-12 prs.	2	43	..
* Bonetta	White	1910	275	28			984		27·98				
* Basilisk	John Brown	1909	269	26·7			940		27·12				
* Bulldog	"	1909	269	26·7			940		27·4				
* Foxhound	"	1909	269	26·7			940		27·7				
* Grasshopper	Fairfield	1909	271	27½			890		27·04				
* Harpy	White	1909	275	28			984		27·75				
* Mosquito	Fairfield	1910	271	27½	8·6	3	890	12,500	27·12	1·4 in., 3-12 prs.	2	96	120
* Nautilus	Thames Ironworks	1910	267½	23			964		28·1				
* Pincher	Denny	1910	271½	23½			940		27·17				
* Raccoon	Cammell Laird ..	1910	266	28			920		27·67				
* Rattlesnake	{ Lond. & Glasgow Co. }	1910	270½	27½			938		27·03				
* Renard	Cammell Laird ..	1909	266	28			920		27·14				
* Savage	Thornycroft	1910	264	28	9·3	3	885		27·16				
* Scorpion	Fairfield	1910	271	27·9	..	3	891		27·1				
* Sconce	Hawthorn	1910	266½	28	8·6	3	925	12,500	27·06	1·4-in., 3-12 prs.	2	96	..
* Wolverine	Cammell Laird ..	1910	266	28	..	3	920		27·1				
* Stour	Cammell Laird & Co.	1909	220	23·9	7·11	..	566	7,000	25·58 (26·62)	4-12-prs.	2	..	66½
* Teest	"	1910							27·22				
* Acorn	"	1910							27·2				
* Alarm	John Brown	1910							27·6				
* Brisk	"	1910							28·03				
* Can eleon	"	1910							27·9				
* Comet	Fairfield	1910							28				
* Goldfinch	"	1910							27·3				
* Fury	Ingis	1911							27·1				
* Hope	Swan, Hunter ..	1910							28·72				
* Larne	"	1910							28·88	{ 2·4-in. B.L., }	2	72	85
* Lyra	Thornycroft	1910	210	25·6	7·10	3	780	13,500	28·9	{ 2-12 prs. }			
* Martin	"	1911							27				
* Minstrel	"	1910							27·8				
* Nemesis	"	1911							27·5				
* Nereide	Hawthorn	1910							29·8				
* Nymph	"	1910							29·3				
* Redpole	White	1910							30·23				
* Rifleman	"	1911							28·3				
* Ruby	"	1910							18·6				
* Sheldrake	Denny	1911							(29·4)	{ 2·4-in. Q.F., }	2	72	89
* Stauch	"	1911							(29·4)	{ 2-12-prs. }			
* Acheron	Thornycroft	1911	251½	26·4	8·7½	2	780	15,500	(30·9)	{ 2·4-in. Q.F., }	2	72	87
* Ariel	"	1911							(30·6)	{ 2-12 prs. }			
* Archer	Yarrow	1911	240	25·7	8·5	2	780	16,600	{ d }	{ 2·4-in. Q.F., }	2	72	88
* Attack	"	1911							{ d }	{ 2-12-prs. }			
* Badger	Parsons	1911	240	25·10	8·4	2	780	16,500	{ d }	{ 2·4-in. Q.F., }	2	72	88
* Beaver	"	1911							{ d }	{ 2-12-prs. }			
* Defender	Denny	1911							28·3				
* Druid	"	1911							d				
* Ferret	White	1911							30·2				
* Forester	"	1911							29·8				
* Goshawk	Beardmore	1911							d				
* Hind	"	1911							28·1				
* Hornet	John Brown	1911							d	{ 2·4-in. Q.F., }	2	72	89
* Hydra	"	1912	240	25½	7·10	3	750	13,500	d	{ 2-12-prs. }			
* Jackal	Hawthorn	1911							26·9				
* Tigress	"	1911							28·6				
* Lapwing	Cammell Laird ..	1911							d				
* Lizard	"	1911							d				
* Phoenix	Vickers	1911							d				
* Sandfly	Swan, Hunter ..	1911							27·7				
* Firedrake	"	1911							33·2				
* Lurcler	Yarrow	1912	255	25·7	8·6	2	860	20,000	35·3	{ 2·4-in. Q.F., }	2	72	86
* Oak	"	1912							32·4	{ 2-12-prs. }			

* Fitted with turbines and for using oil fuel. † Have Thornycroft W.T. boilers. ‡ Fitted with modified Yarrow W.T. boilers.

§ Fitted with turbines and for using coal.

¶ Fitted with White-Foster boilers.

⌘ Purchased after completion, March, 1909, to replace Tiger and Gala.

c Purchased after completion, December, 1909, to replace Blackwater and Lee.

e Estimated.

d Designed speed, 27 knots; trial speed not published.

(1) See note on page 169.

Great Britain—continued.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Coal or Oil.
			Length.	Beam.	Draught.								
OCEAN-GOING DESTROYERS—contd.													
			Feet.	Feet.	Feet.	Tons.			Knots.				Tons.
*Acasta	John Brown .. .	1912	260	27	9'4	3	935	24,500	29	3 4-in.	2	100	129
*Achates		1912							32'3				
*Ambuscade	Denny .. .	1913	260	28	9'2	2	935	24,000	30'4	3 4-in.	2	100	142
*Ardent		1913							29'5				
*Christopher	Hawthorn .. .	1912	260	27	9'4	3	935	24,500	29	3 4-in.	2	100	129
*Cockatrice		1912							0'9				
*Contest	Fairfield .. .	1913	260	27	9'2½	2	952	25,000	29'7	3 4-in.	2	100	129
*Fortune		1913							30'7				
*Garland	Cammell Laird (b)	1913	260	27	9'2½	2	952	24,500	31	3 4-in.	2	100	..
*Hardy (a)		1912							32				
*Hawthorn	Thornycroft .. .	1912	267	26½	8'0	..	935	24,500	32	3 4-in.	2	100	..
*Lynx		1913							32'9				
*Midge	London and Glasgow Co.)	1913	260	27	9'4	3	935	24,500	32'9	3 4-in.	2	100	129
*Owl		1913							32'9				
*Paragon	Thornycroft .. .	1913	257	26½	9'2½	2	928	22,500	30'8	3 4-in.	2	100	128
*Porpoise		1913							30'8				
*Unity	Swan, Hunter .. .	1912	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Victor		1912							30'7				
*Shark	Fairfield .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Sparrowhawk .. .		1913							30'7				
*Spitfire	Fairfield .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Laforey		1913							30'7				
*Lawford	Palmer (b) .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Louis		1913							30'7				
*Lydiard	Beardmore .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Leonidas		1913							30'7				
*Lucifer	Swan, Hunter (c) ..	1913	260	27'8	9'5	2	965	24,500	29	3 4-in.	..	100	135
*Llewellyn		1913							29				
*Lennox	White .. .	1913	260	27'8	9'5	2	965	24,500	29	3 4-in.	..	100	135
*Laertes		1913							29				
*Lysander	Denny .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Laurel		1913							30'7				
*Liberty	Thornycroft .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Loyal		1913							30'7				
*Legion	Yarrow .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Lance		1913							30'7				
*Lookout	Yarrow .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Lark		1913							30'7				
*Linnet	Yarrow .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Lavrock		1913							30'7				
*Landrail	John Brown .. .	1914	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Milne		1914							30'7				
*Moorsom	Swan, Hunter (c) ..	1913	260	27'8	9'5	2	965	24,500	29	3 4-in.	..	100	135
*Morris		1913							29				
*Blatchiss	Palmer .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Murray		1913							30'7				
*Mynga	Yarrow .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Miranda		1913							30'7				
*Mincs	Hawthorn .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Manly		1913							30'7				
*Meteor	Thornycroft .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Mentor		1913							30'7				
*Mansfield	White .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Meteor		1913							30'7				
*Mastiff	Hawthorn .. .	1913	260	27	9'4	3	935	24,500	31'4	3 4-in.	2	100	129
*Lightfoot		1913							30'7				
*Marksman													
TORPEDO BOATS.													
FIRST CLASS—													
025-027 (3 boats) ..	Thornycroft .. .	1886	127'5	12'5	6'2	1	60	600	21	2-3 prs.	3	..	10
033	Yarrow .. .	1886	125	13	5'5	1	66	670	19'5	2-3 prs.	5	15	20
034	White .. .	1886	125	14'6	4	1	66	950	18-19	..	5	15	..
041, 042 (2 boats) ..	Thornycroft .. .	1886	127'5	12'5	6'2	1	60	700	21	2-3 prs.	4	15	..
043-055 (7 boats) ..													
057, 058 (2 boats) ..	Yarrow .. .	1886	125	13	5'5	1	75	700	19-20	2-3 prs.	5	15	20
065-068 (4 boats) ..													
071-074 (4 boats) ..	White .. .	1886	125	13	5'5	1	75	700	19-20	2-3 prs.	5	15	20
076-078 (3 boats) ..													
079	Thornycroft .. .	1886	125	13	5'5	..	75	1,000	22'4	2-3 prs.	..	15	20
80 .. .. .	.. .. .	1887	135	14	6	1	105	1,540	23	4-3 prs.	5	21	30
81 (ex-Swift)	White .. .	1885	150	17'5	..	1	125	..	..	6-3 prs.	3	25	35
82, 83 (2 boats) ..	Yarrow .. .	1889	130	13'5	5'5	1	85	1,100	23	3-3 prs.	3	19	20
85-87 (3 boats) ..	.. .. .	1889	130	13'5	5'5	1	85	1,100	23	3-3 prs.	3	19	20
88, 89 (2 boats) ..	.. .. .	1894	142	14'75	4'5	1	112	1,600	..	3-3 prs.	3	18	20
90 .. .. .	.. .. .	1895	140	14'25	3'7	1	100	1,430	..	3-3 prs.	3	18	18
91, 92 (2 boats) ..	Thornycroft .. .	1894	140	15'5	7'5	1	130	2,400	23-24	3-3 prs.	3	18	25
93 .. .. .	.. .. .	1893	140	15'5	5'4	2	130	2,200	23'5	3-3 prs.	3	18	25
95, 96 (2 boats) ..	White .. .	1894	140	15'5	..	1	130	2,000	23'2	3-3 prs.	3	18	25
97	Laird	1893	140	15'5	..	1	130	2,690	23'35	3-3 prs.	3	18	25
98, 99 (2 boats) ..	Thornycroft .. .	1901	160	17	8'4	1	178	2,850	25	3-3 prs.	3	32	20
101	M'Arthur .. .	1888	130'5	14	..	1	92	1,060	21	2-3 prs.	3	18	35
102, 103 (2 boats) ..	Thornycroft .. .	1888	134'6	14'8	7'1	1	96	1,050	23'2	2-3 prs.	3	18	..
104-105 (2 boats) ..	White .. .	1889	130	14'5	..	1	95	1,250	20	2-3 prs.	3	19	..
107, 108 (2 boats) ..	Thornycroft .. .	1901	160	17	8'4	1	178	2,850	25	3-3 prs.	3	32	20
109-113 (5 boats) ..	.. .. .	1902	166	17'25	8'4	1	200	2,900	25	3-3 prs.	3	32	42
114-117 (4 boats) ..	White .. .	1903	165	17'6	8'8	1	205	2,900	25	3-3 prs.	3	32	28

Great Britain—continued.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Coal or Oil.
			Length.	Beam.	Draught.								
TORPEDO BOATS—cont.													
FIRST CLASS—cont.													
*Pro. 1900-7			Fect.	Fect.	Fect.	Tons.			Knots.				
5 boats (1-5) ..	White	1906	175	17½	5-8	3	235	3,750	26	2-12 prs.	3	35	20 f
5 boats (6-10)†	Thornycroft ..	1906-7	166½	17½	6-3	3	255	3,750	27-3	5-12 prs.	3	35	
2 boats (11-12)†	Yarrow	1907	172	18	5-3	3	225	3,750	26	2-12 prs.	3	35	
4 boats (13-16)†	White	1907	182	18	5-10	3	256	4,000	26	2-12 prs.	3	..	
2 boats (17-18)†	Denny	1907	180	18	5-6	3	251	4,000	26	2-12 prs.	3	..	
2 boats (19-20)†	Thornycroft ..	1907-8	178-6	18-3	6-5	3	280	4,000	26	2-12 prs.	3	..	
2 boats (21-22)†	Hawthorn ..	1907-8	18-5	18-6	6-6	3	308	4,000	26	2-12 prs.	3	..	23-5
No. 23 †	Yarrow	1907	177-3	18	5-4	3	253	4,000	26	2-12 prs.	3	..	
No. 24 †	Palmer	1908	177	17-9	6-5	3	292	4,000	26	2-12 prs.	3	..	
4 boats (25-28)	White	1908	182	18	6-6	3	283	4,000	26	2-12 prs.	3	..	25
2 boats (29-30)†	Denny	1908	180	18	5-3	3	259	4,000	26	2-12 prs.	3	..	25½
2 boats (31-32)†	Thornycroft ..	1908	178-6	18-75	6-2	3	2-7	4,000	26-5	2-12 prs.	3	33	24½
2 boats (33-34)†	Hawthorn ..	1909	185	18-6	6-5	3	3-6	4,000	26	2-16 prs.	3	..	23½
3 boats (35-38)†	Palmer	1909	177	17-9	6-6	3	298	4,000	26	2-12 prs.	3	33	24

* Fitted with turbines and for using oil fuel.

† Have Thornycroft W.T. Boilers.

‡ Fitted with modified Yarrow W.T. boilers.

¶ These boats were originally named, as shown in the *Naval Annual* for 1906-1907. f 1000 knots.

Number.	Built by.	Launched.	Dimensions.		Number of Screws.	Submerged Displacement.	Indicated Horse-Power.	Speed.		Torpedo Tubes.	Complement.	Fuel.
			Length.	Beam.				Surface.	Submerged.			
SUBMARINES.												
9 boats (Nos. A 5-A 13, 1903-4)	Vickers	1904	150	..	..	204	600	16	9	12	..	..
10 boats (B Class)	..	1905	135	13½	..	313	600	13	9	2	..	15
10 boats (1905-6) C class	..	1906-7	135	13½	..	313	600	14	10	12	..	15
5 boats (1906-7) C12-16	..	1907-8	135	13½	..	313	600	13	..	2	..	15
1 boat (1906-7) D 1 ..	..	1908	..	..	2	595	1,200	16	10	3	..	..
2 boats (1906-7) C17 & C18	Chatham	1908	135	13½	..	313	600	13	..	2	..	15
2 boats (1907-8) C19-C 20 ..	Chatham	1909	135	13½	..	321	600	13	10	2	..	15
19 (1907-8)—												
C 21-C 24	Vickers	(1908)	135	13½	..	321	600	13	..	2	..	15
C 25-C 30 .. ..	..	(1909)	..	..	..	..	..	..	..	..	..	..
2 (1908-9) C 33-C 34 ..	Chatham	1910	135	13½	..	321	600	13	..	2	..	15
7 (1908-9)—												
C 31-C 32	Vickers	1909	135	13½	..	321	600	13	..	2	..	15
C 35-C 36 .. ..	..	1909	..	..	..	..	..	..	..	..	..	..
C 37-C 38 .. ..	..	1910	..	..	..	..	..	..	..	..	..	..
D 2 .. ..	..	1910	..	..	..	..	..	..	..	3	..	..
2 (1909-10) D 7-D 8 ..	Chatham	1911	..	..	..	604	1200	..	..	3	..	..
4 (1909-10) D 3-D 6 ..	Vickers	1911	..	..	..	..	..	..	..	3	..	..
2 (1910-11) E 1-E 2 ..	Chatham	1912	176	22½	..	800	1600	15	..	3	28	..
4 (1910-11) E 3-E 6 ..	Vickers	1912	176	22½	..	800	1600	15	..	3	28	..
2 (1911-12) E 7-E 8 ..	Chatham	1912	..	..	..	..	..	..	..	3	28	..
3 (1911-12) E 9-E 11 ..	Vickers	1913-14	..	..	..	..	..	..	..	3	28	..
1 (1911-12) S. 1	Scotts'	1914	..	..	..	..	..	..	..	..	..	..
2 (1912-13) E 12-E 13 ..	Chatham	..	..	..	..	..	..	..	..	..	..	..
3 (1912-13) E 14-E 16 ..	Vickers	..	..	..	..	..	..	..	..	..	..	..
1 (1912-13) V. 1	Vickers	..	..	..	..	..	..	..	..	..	..	..
2 (1912-13) W 1-W 2 ..	Armstrong	..	..	..	..	..	..	..	..	..	..	..
1 (1912-13) Nautilus ..	Vickers	..	..	..	..	..	..	..	..	..	..	..
2 (1913-14) E 17-E 18 ..	Chatham	Bldg.	..	..	..	..	..	..	..	..	..	..
1 (1913-14) F 1 .. ..	..	..	..	..	..	..	..	..	..	..	..	..
2 (1913-14) S 2 S 3 ..	Scotts'	..	..	..	..	..	..	..	..	..	..	..
3 (1913-14) V 2 V 4 ..	Vickers	..	..	..	..	..	..	..	..	..	..	..
2 (1913-14) W 3-W 4 ..	Armstrong	..	..	..	..	..	..	..	..	..	..	..
1 (1913-14) Swordfish ..	Scotts'	..	..	..	..	..	..	..	..	..	..	..

FLOTILLAS OF THE DOMINIONS.

Australia.

Name or Number.	Built by.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Mean Speed on Trial, or expected.	Armament.	Torpedo Tubes.	Complement.	Coal Capacity.
			Length.	Beam.	Draught.								
TORPEDO-BOAT DESTROYERS.													
Yarra	Denny	1910	245½	24½	7-8	3	700	9,500	27	1 4-in., 3 12-pdr.	3	66	130
Parramatta	Fairfield	1910	245½	24½	7-8	3	700	9,500	28-48				
Warrigoo	Fairfield*	1911	245½	24½	7-8	3	700	9,500	28				
Swan	Commonwealth ..	..	..	..	..	..	..	..	..
Perwent	Dockyard	Bldg.	Details not published.			..	..	..	..	..	..	..	..
Torrens	Sydney .. ..	..	..	..	..	..	..	..	..	..	..	..	..
SUBMARINES.													
A E 1-A E 2	Vickers	1914	176	22½	..	..	800	1,600	15	..	..	29	..

* Transported in sections and reconstructed in Australia.

The loss of the following British submarines has been officially announced: A E 1, accidentally sunk in Pacific, September 15, 1914; E 3, sunk in a German bay in North Sea, October 18, 1914; D 5, destroyed by mine after German cruiser raid on Yarmouth, November 3, 1914; E 15, stranded in the Dardanelles, April 17, 1915, and A E 2 sunk in the Dardanelles, May, 1915.

Argentine Republic.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
DESTROYERS—													
Corrientes	Yarrow ..	1896	190	19 6	7 4	2	280	4,000	27 4 t.	{ 1 14-pr. 3 6 pr. Q.F., 2 m.	3	54	80
Misiones	Yarrow ..	1896	190	19 6	7 4	2	280	4,000	26 0 t.		3	54	80
Entre Rios	Yarrow ..	1896	190	19 6	7 4	2	280	4,000	26 7 t.		3	54	80
Mendoza, Rioja, Salta, San Juan ..	Nantes ..	1911	283 2	28 3	9 9	..	950	18,000	32	4 4-in.	4	110	250*
Catamarca, Jujuy ..	Germania ..	1911	236 7	27 1	8 6	2	940	18,000	32	4 4-in.	4	110	250*
Cordoba, La Plata ..	Schichau ..	1911	279	29 6	7 3	..	890	19,000	34 7	4 4-in.	4	110	330*
FIRST CLASS—													
2 boats	Thornycroft ..	1890-1	150	14 5	5 2	2	110	1,500	24 52	3 3-prs.	3	27	22
6 boats	Yarrow ..	1890	130	13 5	6	1	85	1,200	23-24	2 3-pr. Q.F.	2	15	15

The two 150-ft. boats are named Comodoro Py and Murature.

The six 130-ft. boats are named Bathurst, Buchardo, Jorge, King, Pinedo, and Thorne.

* Also oil fuel 50-110 tons French boat, Rateau turbines; German, German Admiralty type.

Austria-Hungary.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—													
Tatra, Balaton, Csepel, Lika, Orj-uu, Triglav ..	Fiume	{ 1912 1913 }	265 9	25 6	8 0	2	787	17,600	33	{ 2 4-in. 4 12-pr. }	2	..	..
Huszar	Yarrow ..	1905											
Streiter		1906											
Ulin		1906											
Wildfang	Trieste ..	1906											
Uszoke		1907											
Scharfschütze		1907											
Dinara			219 8	20 3	..	2	394	6,000	28 5	{ 1 12-pr. 7 3-pr. }	2	64	..
Celkos													
Pandur	Fiume ..	{ 1908 1909 }											
Reka													
Turul													
Velebit													
FIRST CLASS—													
Kalman	Yarrow ..	1905											
Alligator													
Anaconda													
Drache													
Delphin													
Greif													
Hai													
Krokodil	Trieste ..	1906-7											
Moewe													
Narwal													
Pinguin													
Schwalbe			173 9	18 0	8 6	1	197	3,000	26	4 3-pr.	..	25	..
Seehund													
Wal													
Friton													
Alk													
Echse													
Hydra													
Kormoran	Fiume ..	1910											
Krake													
Molk													
Phoenix													
Polyp													
Skorpion													
Soa													
Cobra	Yarrow ..	1898-9	152 6	15 3	7 6	1	133	2,000	24 3	2 3-pr.	3	24	30
Kigyo													
Python													
Viper	Yarrow ..	1896	147 6	14 9	7 6	1	130	2,000	26 5	2 3-pr.	2	26	30
Vatter	Yarrow ..	1896	150	17 5	8 8	2	152	2,300	26 5	2 3-pr.	3	..	30
74 T—81 T (8) ..	Trieste ..	{ 1913											
82 F—97 F (6) ..	Fiume ..	and	188	19 0	5 0	2	246	5,000	28 5	2 3-pr.	2	..	..
98 M—100 M (3) ..	Monfalcone ..	Bldg.											
MINESWEEPERS—													
U 1 and 2	Pola	1908-9	100	9 8	..	..	{ 216 (240	720 200 }	12 2-7 3	..			
U 3 and 4	Kiel, Germania	1908	141 8	12 6	..	2	{ 235 (295	600 320 }	12-9	..			
U 5 and 6	Fiume ..	1909											
U 7—14	{ Fiume .. Kiel, Germania }	Bldg.	105	21 0	..	..	{ 235 (50)	500	11 4-10	..			

The destroyers have Yarrow boilers. About twenty torpedo-boats (83 tons), built 1899-92, are of doubtful value.

Brazil.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—													
Para	Yarrow ..	1908	240	23.6	10	2	550	7,014	27.25	2 4-in., 3 prs.	4	2	140
Amazonas		1908						6,898	27.17				
Plabuy		1908						6,563	27.21				
Matto Grosso ..		1908						7,403	27.16				
Parahyba		1909						6,700	27.29				
Rio Grande do N. .		1909						7,778	27.27				
Alagoas		1909						7,403	27.25				
Santa Catharina ..		1909						6,982	27.30				
Parana		1910						8,877	28.74				
Sergipe		1909						8,554	27.60				
FIRST CLASS—													
Pedro Ivo. . . .	Elbing ..	1892-3	152	17.2	7.9	2	130	2,200	28	2-1 prs.	3	24	30
Silvado													
Goyaz	Yarrow ..	1907	152.5	15.3	..	3	26.5	2-3 prs.	2
Gonzales	Thornycroft	1908	152.5	15.3	..	3	26.5	2-3 prs.	2

Five additional destroyers and three large submarines are proposed.

Three submersibles have been completed at Muggiano (F.I.A.T.), Medusa type improved (250-370 tons, 14-25 knots). A Special Laurenti submarine salvage and testing vessel has been built, 3800 tons, 328 ft. long, 50 ft. beam.

Chile.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—													
Almirante Lynch, Condell.. ..	White.. ..	{ 1912 1913}	320	32.6	11.1	3	1850	27,000	31.7	6-4-in. 2 M.	3	..	507
Capitan Orella ..	Laird	1896	210	21.6	5.4	2	300	6,000	30.17	1-12 pr. Q.F.	2	65	90
Capitan Munoz Gamero.. ..	Laird	1896	210	21.6	5.4	2	300	6,000	30.42	5 6 pr. 1-12 pr. Q.F.	2	65	90
Teniente Serrano ..	Laird	1896	210	21.6	5.4	2	300	6,000	30.35	1-12 pr. Q.F.	2	65	90
Guardia-Marina Riquelme	Laird	1896	210	21.6	5.4	2	300	6,000	30.09	5 6 pr. 1-12 pr. Q.F.	2	65	90
Capitan Merino Tarpa	Laird	1901	210	21.6	5.4	2	350	6,000	30	5-6 pr. Do.	2	65	90
Capitan O'Brien ..													
FIRST CLASS—													
Ingeniero Hyatt, Ciru- jano Videla, In- geniero Mutilla, Guardia-Marina Contreras, Capitan Thompson, and Teniente Rodriguez (Viper type) ..	Yarrow ..	{ (1896) (1898)	152.6	15.3	7.9	1	140	2,200	27.5 27.2	3-3 pr. Q.F.	3	28	40

Four big destroyers or flotilla leaders (1ynch class) building at Cowes were taken over for the British Navy. Two submarines built by the Electric Boat Co., N.Y. (400 tons submerged, 8 tubes), were bought by the Canadian Government for the Pacific coast, and named C.C. 1 and 2.

China.

Name or Number.	Where Built.	Launched.	Dimensions.				Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.	Number of Screws.							
FIRST CLASS—													
Cheng-Feng, Fu-Po, Fei-Yun	Elbing ..	1912	Feet.	Feet.	Feet.	..	Tons.		Knots				Tons.
Luang Tuan	Trieste ..	1912	..	..	..	..	400	6000	36.8	2 12-pr., 4 3-pr.	2	..	..
2 boats	Stettin ..	1897	123.5	21.7	..	..	120	..	20	2 12-pr., 2 3-pr.	2	..	..
Hupeng, Huchung, Hujung, Hungo .. .	Kobe ..	1906-7	..	..	..	..	97	950	23	2 1-pr. 2 3-pr.	3	20	15
SECOND CLASS—													
1 boat	Foochow ..	1913	88.6	6.7	3.3	1	30	550	20.5				

Denmark.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
FIRST CLASS—													
Ormen	Copenhagen	1907	Feet. 125	Feet. 14·3	Feet. ..	..	Tons. 98	2,000	Knots. 26	2 1-pr.	3	..	Tons. 21
Hajen	Copenhagen	1896											
Havbjørnen	Copenhagen	1897	151·3	15·4	7·9	2	142	2,317	22·9	{ 14·7-in. 1 1-pr. }	3	..	..
Søbjørnen	Copenhagen	1898											
Delfinen	Thornycroft	1883	111·5	12·6	6	1	53	620	20	1 mach.	2	14	9
Havhesten	Thornycroft	1888	137·9	14	7	1	94	1,200	22·8	2 1-pr. revs.	4	20	15
Hvalrossen	Thornycroft	1884	114	12·6	6·5	1	64	660	18·7	1 mach.	2	14	10
Makrelen	Copenhagen	1893	140	14·2	7	2	112	1,200	..	..	..	..	16
Narhvalen	Thornycroft	1888	137·9	14	7	1	94	1,200	22·3	2 1-pr. revs.	4	20	15
Nord Kaperen	Copenhagen	1893	140	14·2	7	2	112	1,200	..	2 1-pr. revs.	4	..	16
Sølvøen	Thornycroft	1887	131	14·8	6·8	1	89	1,200	23·3	2 mach.	4	20	14
Søulven	Havre. . .	1880	91·8	10·9	3·9	1	37	450	18·1	..	2	12	5
Springeren	Copenhagen	1891	119	13	4·9	1	81	800	18·3	2 1-pr. revs.	2	20	14
Støren	Thornycroft	1887	131	14·8	6·8	1	89	1,200	23	2 mach.	4	20	14
Sværdfisken	Thornycroft	1881	110	12	6	1	49	600	20·7	1 mach.	2	14	9

Destroyers (230 tons, 27 knots), built, as follows:—Fyvesfisker (Schichan); Sorikld-rev (Yarrow), 27·2 knots; Soulvén Spækhuggeren (Copenhagen dockyard); Tumleren, Vindhunden (Burmeister and Wain). Three others in hand.
Electric submersible Høkeren, delivered by F.L.A.T. Co., Mugliano, 1909.—Length, 114 ft. 3 in.; beam, 11 ft.; 103-130 tons, 12-14 knots. Submersibles Havmanden and Havfrøen, of the Holland type, built by the Whitehead company, one at Fiume, the other at Copenhagen dockyard.

France.

In this table no changes have been made, except in striking out some obsolete vessels and indicating losses in the war.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—													
Arbalète	Normand ..	1903	Feet. 183·9	Feet. 20·11	Feet. 10·3	2	Tons. 300	6,000	28	1-9pr. 6-3prs.	2	62	75
Arc	Châlon ..	1903	183·9	20·11	10·3	2	300	6,060	28	1-9pr. 6-3prs.	2	62	75
Arquebuse	Normand ..	1902	183·9	20·11	10·3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Baliste	Rouen ..	1903	183·9	20·11	10·3	2	300	6,000	29·4	1-9pr. 6-3prs.	2	62	75
Bélier	Nantes ..	1903	183·9	20·11	10·3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Bombarde	Havre (F.&C.)	1903	183·9	20·11	10·3	2	300	6,000	30·5	1-9pr. 6-3prs.	2	62	75
Bouclier	Normand ..	1910	233·8	24·9	9·7	3	715	15,000	33·4	2-3 9in. 4-9pr.	4	62	160
Boutefeu	Bordeaux ..	1909	233·8	24·9	9·7	3	715	13,000	31	2-3 9in. 4-9pr.	4	62	160
Branlebas	Normand ..	1907	183·9	21·3	10·3	2	320	5,000	28	1-9prs. 6-3prs.	2	62	84
Carabine	Rochefort ..	902	183·9	20·11	10·3	2	305	6,300	28	1-9pr. 6-3prs.	2	62	75
Carabiniér	Rouen ..	1908	210·6	21·9	10·3	3	430	7,200	28	6-9 prs.	3	62	120
Carquois	Rochefort ..	1907	190·3	19·6	10·3	2	335	7,200	30	1-9pr. 4-3prs.	2	62	37
Casque	Havre (F.&C.)	1909	233·8	24·9	9·7	3	715	13,000	35·6	2-3 9in. 4-9pr.	4	62	160
Catapulte	Havre (F.&C.)	1903	183·9	20·11	10·3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Cavalier	Normand ..	1910	210·6	21·8	10·3	3	469	8,600	31·2	6-9 prs.	3	62	150
Chasseur	Normand ..	1909	210·6	21·9	10·3	3	451	7,200	28	6-9 prs.	3	62	120
Cimetière	Bordeaux ..	1909	246·0	26	9·7	3	730	13,560	32·7	2-3 9in. 4-9pr.	4	62	160
Claymore	Normand ..	1906	190·3	20·11	10·3	2	335	6,000	30·3	1-9pr. 6-3prs.	2	62	75
Cognee	Toulon ..	1907	190·3	20·11	10·3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Coutelas	Rochefort ..	1907	190·3	20·11	10·3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Dague (1)	Bordeaux ..	1910	210·0	26	9·7	3	730	11,000	33·2	2-3 9in. 4-9pr.	4	62	160
Dard	Rouen ..	1903	183·9	20·11	10·3	2	310	6,500	29·4	1-9pr. 6-3prs.	2	62	75
Durandal	Normand ..	1899	180·5	20·8	10·3	2	300	5,000	28	1-9pr. 6-3prs.	2	62	84
Épée	Havre (F.&C.)	1900	190·3	20·8	10·3	2	335	5,700	26	1-9pr. 6-3prs.	2	62	75
Épieu	Normand ..	1903	183·9	20·11	10·3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Escopette	Rochefort ..	1900	183·9	20·8	10·3	2	300	5,700	26	1-9pr. 6-3prs.	2	62	75
Étendard	Bordeaux ..	1908	210·6	21·9	10·3	3	430	6,000	28	1-9pr. 6-3prs.	3	..	..
Fanion	Bordeaux ..	1905	210·6	21·9	10·3	3	430	6,000	28	1-9pr. 6-3prs.	3	..	..
Fanfare	Normand ..	1907	193·9	21·3	10·3	2	320	5,000	28	1-9pr. 6-3prs.	2	62	84
Fantassin	Havre (F.&C.)	1909	210·6	21·8	10·3	3	469	8,600	31·5	6-9 prs.	3	62	150
Fauconneau	Normand ..	1904	210·6	21·9	10·3	3	430	6,000	28	1-9pr. 6-3prs.	3	..	..
Faulx	Nantes ..	1911	233·8	24·9	9·7	3	715	13,000	32	2-3 9in. 4-9pr.	4	62	160
Flamberge	Rochefort ..	1901	183·9	20·8	10·3	2	300	5,700	26	1-9pr. 6-3prs.	2	62	75
Fleuret	Rochefort ..	1907	190·3	20·11	10·3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Fourche	Nantes ..	1909	233·8	21·9	9·7	3	715	13,060	33·8	2-3 9in. 4-9pr.	4	62	160
Francisque	Rochefort ..	1904	183·9	20·11	10·3	2	305	6,300	28	1-9pr. 6-3prs.	2	62	75
Fronde	Bordeaux ..	1903	183·9	20·11	10·3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	65
Gabion	Rouen ..	1907	210·6	21·9	10·3	3	430	6,000	28	1-9pr. 6-3prs.	3	..	..
Glaive	Rochefort ..	1908	190·3	20·11	10·3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Hache	Toulon ..	1908	190·3	20·11	10·3	2	335	6,000	28	1-9pr. 6-2prs.	2	62	75
Hallebarde	Normand ..	1899	180·5	20·8	10·3	2	305	5,300	27·2	1-9pr. 6-3prs.	2	62	84

(1) Sunk by Austrian mine off Montenegrin coast, Feb. 24, 1915.

N.B.—“F. & C.” “Forges et Chantiers.”

“Norm” means that the boat has been built at that firm’s yard at Havre.

France—continued

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Fath.		Tons.		Knots.				Tons.
DESTROYERS—cont.													
Harpin	Bordeaux ..	1903	183.9	20.11	10.3	2	300	6,000	23	1 9pr. 6-3prs.	2	62	75
Hussard	Lorient ..	1909	210.6	21.9	10.3	3	430	7,200	28	6-9 prs.	3	62	120
Janissaire	Rouen ..	1910	210.6	21.8	10.3	3	469	8,600	28.5	6-9 prs.	3	62	150
Javeline	Nantes ..	1903	183.9	20.11	10.3	2	310	7,000	29.3	1-9pr. 6 3prs.	2	62	75
Lasquenot	Bordeaux ..	1909	210.6	21.8	10.3	3	469	8,600	28	6-9 prs.	3	62	150
Mameluck	Nantes ..	1909	210.6	21.8	10.3	3	469	8,600	28	6-9 prs.	3	62	150
Massue	Toulon ..	1908	191.3	20.11	10.3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Mortier	Rocheport ..	1916	190.3	20.11	10.3	2	335	6,300	28	1-9pr. 6-3prs.	2	62	75
Mousquet (1)	Nantes ..	1902	183.9	20.11	10.3	2	300	6,300	30 2	1-9pr. 6-3prs.	2	62	75
Mousqueton	Châlon ..	1903	183.9	20.11	10.3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Obusier	Rocheport ..	1907	190.3	20.11	10.3	2	335	6,300	28	1-9pr. 6-3prs.	2	62	75
Oriflamme	Nantes ..	1908	210.6	21.9	10.3	3	430	6,000	28	1-9pr. 6-3prs.	3	62	75
Pertuisane	Rocheport ..	1900	183.9	20.8	10.3	2	300	5,700	26	1-9pr. 6-3prs.	2	62	75
Pierrier	Rocheport ..	1906	191.3	20.11	10.3	2	335	6,300	28	1-9pr. 6-3prs.	2	62	75
Pique	Havre (F.&C.) ..	1900	190.3	20.8	10.3	2	335	5,700	26	1-9pr. 6-3prs.	2	62	75
Pistolet	Nantes ..	1903	183.9	20.11	10.3	2	300	6,000	28	1-9pr. 6-3prs.	2	62	75
Poignard	Rocheport ..	1909	190.3	20.11	10.3	2	335	6,000	28	1-9pr. 6-3prs.	2	62	75
Rapière	Rocheport ..	1901	183.9	20.8	10.3	2	310	5,700	26	1-9pr. 6-3prs.	2	62	75
Sabre	Rocheport ..	1904	183.9	20.11	10.3	2	305	6,300	28	1-9pr. 6-3prs.	2	62	75
Sabretache	Nantes ..	1918	210.6	21.9	10.3	3	430	6,100	28	6-9 prs.	3	62	75
Sagaie	Havre (F.&C.) ..	1902	183.9	20.11	10.3	2	300	6,000	30.1	1-9pr. 6-3prs.	2	62	75
Sape	Rouen ..	1907	210.6	21.9	10.3	3	430	6,000	28	1-9pr. 6-3prs.	3	62	75
Sarbacane	Rocheport ..	1903	183.9	20.11	10.3	2	305	6,300	28	1-9pr. 6-3prs.	2	62	75
Sabl	Havre ..	1908	210.6	21.9	10.3	3	430	7,200	28	6-9 prs.	3	62	120
Stilet	Rocheport ..	1915	190.3	20.11	10.3	2	335	6,300	28	1-9pr. 6-3prs.	2	62	75
Takou*	Elbing ..	1898	193.7	21.0	10.3	2	280	6,000	25	6-3 pr. Q.F.	2	62	67
Tirailleur	Bordeaux ..	1903	206.9	21.8	9.7	3	410	7,200	28	6-9 pr.	2	62	120
Tromblon	Rocheport ..	1905	190.3	21.0	10.3	2	335	6,300	25	6-3 pr. Q.F.	3	62	67
Trident	Rocheport ..	1907	190.3	19.6	10.3	2	335	7,200	30	1-9pr. 6-3prs.	2	62	37
Voltigeur	Nantes ..	1919	210.6	21.9	10.3	3	430	7,200	28	6-9 prs.	3	62	120
Yatagan	Nantes ..	1900	190.3	20.8	10.3	2	335	5,700	26	1-9pr. 6-3prs.	2	62	33
Bory, Garnier, Rivière, Mehl, Dehorter (5)	Normand, &c. ..	1911	213	21.9	10.0	2	710	14,500	31	(2 3'-9-in., 4 9 prs.)	4	81	120
Bisson, Renaudin, Protet, Magon, Comm. Lucas, Mangini (6)	Toulon, etc. &c. Bldg.	1912 &c.	243	21.9	10.0	3	750	15,000	31	(2 3'-9-in., 4 9 prs.)	2 dbl.	120	120
Henry, Herbert (2)	Rocheport ..	1911	214.6	21.6	7.8	3	450	8,600	23.5	6 9 prs.	3	62	50
Roux, Lestin, Gabolde (3)	Rocheport & Normand Bldg.	2066	25.6	10.0	2	850	17,000	32	(2 3'-9-in., 4 9 prs.)	2 dbl.	120	120	
SEA-GOING—													
Aiglon	Normand ..	1895	137.8	14.6	7.9	2	127	2,000	26.17	2-3 prs.	2	34	17
Audacienx	Nantes ..	1900	144.2	15.2	10.0	2	152	4,200	30	2-3 prs.	3	18	18
Borée	Bordeaux ..	1900	147.7	16.7	8.0	2	160	4,400	30	2-3 prs.	2	18	18
Bourrasque	Normand ..	1901	147.7	16.7	8.0	2	160	4,400	31.41	2-3 prs.	2	18	18
Chevalier	Normand ..	1893	144.3	15.7	6.8	2	131	2,700	27.2	2-1 prs.	2	32	17
Cyclone	Normand ..	1898	144.2	15.2	10.0	2	152	4,200	30	2-3 prs.	2	18	18
Flibustier	Normand ..	1894	143	16.4	9.3	2	132	1,500	25.5	2-3 prs.	2	34	16
Ferban	Normand ..	1895	144.2	15.2	10.0	2	135	3,200	31.2	2-1 prs.	2	18	18
Grenadier	Normand ..	1892	138	14.7	8.2	2	129	1,400	25.25	2-3 prs.	2	28	15.5
Grondeur	Havre (F.&C.) ..	1892	147.5	14.5	5	2	130	1,550	21	2-3 prs.	2	27	20
Mistral	Normand ..	1901	147.7	16.8	8.8	2	162	4,200	30	2-3 prs.	3	23	23
Rafale	Normand ..	1901	147.7	16.7	8.0	2	160	4,400	31.47	2-3 prs.	2	18	18
Simoun	Havre (F.&C.) ..	1901	144.2	15.2	10.0	2	152	4,200	30	2-3 prs.	3	18	18
Siroco	Normand ..	1901	147.7	16.8	8.8	2	162	4,200	30	2-3 prs.	3	23	23
Tramontane	Bordeaux ..	1910	147.7	16.7	8.0	2	160	4,400	30	2-3 prs.	2	18	18
Trombe	Nantes ..	1900	144.2	15.2	10.0	2	152	4,200	30	2-3 prs.	3	18	18
Typhon	Havre (F.&C.) ..	1901	144.2	15.2	10.0	2	152	4,200	30	2-3 prs.	3	18	18
FIRST CLASS—													
216-226 (11 boats)	{ Cherbourg, Toulon, etc. }	1899-1902	121.6	13.6	8.6	1	86	1,500	23.5	2-1 prs.	2	23	10
227-235 (8 boats)	Bordeaux, etc.	1901	121.4	13.2	8.7	1	86	1,500	23.5	2 1 prs.	2	23	10
236-255 (20 boats)	Bordeaux, etc.	1902	121.4	13.2	8.7	1	90	1,500	23.5	2-1 prs.	2	23	10
256-257 (2 boats)	Bordeaux, etc.	1900	124.8	13.2	8.7	1	97	2,000	26.0	2-1 prs.	3	24	10
258-261 (4 boats)	Bordeaux ..	1902	124.8	13.2	8.7	1	97	2,000	26.0	2-1 prs.	3	24	10
262 (1 boat)	Creusot ..	1912	124.8	13.2	8.7	1	97	2,000	26.0	2-1 prs.	3	24	10
261-265 (2 boats)	Bordeaux ..	1902	124.8	13.2	8.7	1	97	2,000	26.0	2-1 prs.	3	24	10
266-276 (11 boats)	Bordeaux, etc.	1902	124.8	13.2	9.6	1	97	2,000	26.0	2-1 prs.	3	24	10
277-294 (18 boats)	Bordeaux, etc.	1904	124.8	14.0	9.6	1	97	2,000	26.0	2-1 prs.	3	26	10
295-317 (23 boats)	Normand, etc.	1905	124.8	14.0	9.6	1	97	2,000	26.0	2-1 prs.	3	26	10
318-367 (4 boats)	Havre, etc.	1905-7	124.8	14.0	9.6	1	97	2,000	26	2-1 prs.	3	26	10
368-369 (2 boats)	Toulon ..	1906											

(1) Mousquet, sunk, October 28, 1911.

* Captured from the Chinese at Taku, 1900.

† Nos. 318 and 347 were lost in collision, October 9, 1914.

France—continued.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.
			Length.	Beam.	Draught.							
			Feet.	Feet.	Feet.		Tons.		Knots.			
SUBMARINES—												
Aigrette	Toulon ..	1904	117·6	12·9	8·3	1	172	200	10·5	..	..	20
Algérien	Cherbourg ..	1901	118	9·2	..	1	146	250	8-13	..	..	9
Alose	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Anguille	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Bonite	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Castor	Rocheport ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Cigogne	Toulon ..	1904	117·6	12·9	8·3	1	172	200	10·5	..	..	20
Circé	Toulon ..	1907	154·3	..	..	..	314	..	..	..	7	..
Dorade	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Émeraude	Cherbourg ..	1906	146	12·9	12·0	2	390	600	12	..	6	16
Espadon	Cherbourg ..	1901	111·6	12·4	5·4	1	106-200	250	8-12	..	2	10
Esturgeon	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Follet	Rocheport ..	1901	135·8	9·5	9·5	1	185	..	8-12½	..	..	9
Français	Cherbourg ..	1901	118	9·9	..	1	146	250	8-13	..	..	9
Gnome	Rocheport ..	1901	135·8	9·5	9·5	1	185	..	8-12½	..	..	9
Grondin	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Korrigan	Rocheport ..	1901	135·8	9·5	9·5	1	185	..	8-12½	..	..	9
Loutre	Rocheport ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Ludion	Cherbourg ..	1902	77	7·6	8·0	1	68	60	8	..	..	5
Lynx	Cherbourg ..	1902	77	7·6	8·0	1	68	60	8	..	..	5
Méduse	Rocheport ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Naiade	Cherbourg ..	1902	77	7·6	8·0	1	68	60	8	..	..	5
Opale	Cherbourg ..	1906	146	12·9	12·0	2	390	600	12	..	6	..
Otarie	Rocheport ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Oursin	Rocheport ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Perle	Cherbourg ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Phoque	Rocheport ..	1904	77	7·6	8·0	1	68	60	8	..	..	5
Protée	Cherbourg ..	1902	77	7·6	8·0	1	68	60	8	..	..	5
Rubis	Cherbourg ..	1907	154·3	12·9	12·0	2	390	600	12	..	6	16
<i>Saphir</i> (1)	Toulon ..	1908	146	12·9	12·0	2	390	600	12	..	6	..
Silure	Cherbourg ..	1901	111·6	12·4	5·4	1	106-200	250	8-12	..	2	10
Sirène	Cherbourg ..	1901	111·6	12·4	5·4	1	106-200	250	8-12	..	2	10
Souffleur	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Thon	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Tépaze	Cherbourg ..	1908	146	12·9	12·0	2	390	600	12	..	6	..
Triton	Cherbourg ..	1901	111·6	12·4	5·4	1	106-200	250	8-12	..	2	10
Truite	Toulon ..	1903	77	7·6	8·0	1	68	60	8	..	..	5
Turquoise	Toulon ..	1908	146	12·9	12·0	2	390	600	12	..	6	..
Dauphin	Cherbourg ..	1904	122·8	10·2	7·6	2	168	220	10½	..	..	..
Argonaute	Toulon ..	1905	160·6	13·9	9·0	1	301	330	11	..	4	20
Pluviose, Ventôse, Nivôse, Germinal, Floréal, Prairial, Messidor, Thermidor, Fructidor, Bumaire, Frimaire Papin, Fresnel, Berthelot Mouge, Ampère, Gay-Lussac Foucault, Euler, Franklin, Watt, Cognot, Giffard, Faraday, Volta, Newton, Montgolfier Fermouilli, Joule, Coulomb, Arago, <i>Curie</i> (2), Le Verrier, (16, Prog. 1915-6) Amiral Bugeois Archimède Mariotte Charles Brun Clorinde, Cornélie, Amphitrite, Astrée, Artemis, Aréthuse, Atalante, Amaranthe, Ariane, Andromaque Gustave Zédé Néréide Bellone, Hermione, Gorgone	Cherbourg ..	1907 to 1912	160	16·4	13·6	2	398	700	7½-12½	..	7	24
	Rocheport ..	1908 1909	160	16·4	13·6	2	398	700	7½-12½	..	7	24
	Toulon ..	1908 & 1909	160	16·4	13·6	2	398	700	7½-12½	..	7	24
	Cherbourg ..	1909	160	16·4	13·6	2	390	340	7½-12½	..	7	24
	Rocheport ..	1912	160	16·4	13·6	2	390	340	7½-12½	..	7	24
	Toulon ..	1912	160	16·4	13·6	2	390	340	7½-12½	..	7	24
	Cherbourg ..	1912	184·6	26·3	..	2	555-735	1,560	10-15	..	7	25
	Cherbourg ..	1909	211·9	30·2	..	2	577-810	1,700	10-15	..	7	27
	Cherbourg ..	1911	212·6	..	..	2	530-625	1,440	10-15	..	6	25
	Cherbourg ..	1910	144·6	13·6	..	2	355-450	1,300	10-15	..	7	20
	Rocheport ..	1913 & Bldg.	171	16·9	10·9	2	391	1,300	15·8	..	8	20
	Cherbourg ..	1913	239·6	19·8	14·4	2	787-1000	4,000	10-20	..	8	40
	Rocheport ..	1914 & Bldg.	198·9	18·0	11·9	2	512	2,100	17·5	..	8	20

(1) Saphir, wrecked, January 17, 1915.

(2) Curie, captured by the Austrians at Pola, December, 1915.

Dupiné and Diane, 620 tons, 1,800 H.P., 10 tubes, building at Cherbourg; Dupuy de Lôme, Sané, Joessel, Fulton, Laplace, Lagrange, Rognault and Q 114, 820 tons, 4,000 H.P., 10 tubes, building at Cherbourg, Rocheport and Toulon (Estimates of 1913 and 1914).

Germany.

The German flotillas have suffered serious losses in the War, but there is some uncertainty as to the actual number of destroyers and submarines which have been sunk. Of the destroyers, G 187 was sunk in action, Aug. 28th; S 116 torpedoed, Oct. 6th; S 115, S 117, S 118, and S 119 sunk by gun-fire Oct. 17th; S 90 driven ashore in China, Oct. 20th; Taku destroyed at Tsingtau, Nov. 6th; and S 124 destroyed by collision, Nov. 23rd. Asterisks are put to the groups in the following list from which these destroyers have disappeared, but a number of others are known to have been sunk. In all probability four large destroyers or flotilla leaders, which were building for Argentina, have been taken over, as well as some others.

Name or Number.	Where built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
D 3, D 4 (2 boats*)	Elbing ..	1888	184	21·8	9·6	2	300	2,000	20	{ 4 6-pr. 2 1-pr. revs. }	3	48	90
D 5, D 6 (2 boats)	Elbing ..	1888-9	190 3	23	9·6	2	320	3,000	22½	{ 4 6-pr. 2 1-pr. revs. }	3	48	90
D 7, D 8 (2 boats)	Elbing ..	1890	190·3	23	9·9	2	380	3,500	22½	{ 4 6-pr. 6 Q.F. }	3	..	..
D 9	Elbing ..	1894	197·0	24·3	9·9	2	380	4,500	26	{ 4 6-pr. 6 Q.F. }	3	..	..
D 10	Chiswick ..	1898	211·9	19·6	8·1	2	310	5,800	28·5	{ 5 3-pr. 6 3-pr. }	3	52	80
Taku (ex Hai Ying)*	Elbing ..	1898	183·7	21·0	..	2	280	6,000	30	{ 6 3-pr. 3 3-pr. }	12	..	67
S 90-101 (11 boats)*	Elbing ..	1900	290	23	8·9	2	350	6,000	27·5	{ 3 3-pr. 3 3-pr. }	3	..	..
S 102-107 (6 boats)	Elbing ..	1900-1	200	23	8·9	2	350	6,000	27·5	{ 3 3-pr. 3 3-pr. }	3	..	..
G 108-113 (6 boats)	Kiel(Germania)	1901-2	200	22	8·9	2	350	6,000	29·2	{ 3 3-pr. 3 3-pr. }	3	49	100
S 114-119 (2 boats)*	Elbing ..	1902-3	200	23	8·9	2	350	6,000	29·2	{ 3 3-pr. 3 3-pr. }	3	49	100
S 120-125 (5 boats)*	Elbing ..	1904	200	23	8·9	2	350	6,000	29·2	{ 3 3-pr. 3 3-pr. }	3	49	100
S 126-131 (5 boats)	Elbing ..	1904-5	205	23	..	2	420	6,000	30	{ 3 6-pr. 4 6-pr. }	3	56	100
G 132-136 (5 boats)	Kiel(Germania)	1906	207·4	23	8·9	2	420	6,500	28	{ 4 6-pr. 114-pr.33 pr. }	3	..	..
G 137	Kiel(Germania)	1907	226·4	25·4	9·8	3	570	10,000	32	{ 114-pr.33 pr. }	3	72	170
S 138-149 (12 boats)	Elbing.. ..	1906-7	331	25·7	8·9	2	530	10,000	30	{ 123-pr.34-pr. }	3	72	170
V 150-161 (12 boats)	Stettin(Vulcan)	1907-8	269	25·7	10·0	2	670	10,500	30	{ 2 23-pr. 2 M. }	3	83	175
V 162-164 (3 boats)	Stettin(Vulcan)	1908-9	212·9	..	9·9	2	616	14,000	30	{ 2 23-pr. 2 M. }	3	..	160
S 165-168 (4 boats)	.. ..	..	242	..	9·9	2	616	15,000	..	{ .. }	..	..	..
G 169-173 (5 boats)	Kiel(Germania)	1908-9	242	..	9·6	2	616	14,000	30	{ 2 23-pr. 2 M. }	3	..	160
G 174-175 (2 boats)	Kiel(Germania)	1909	..	..	..	..	..	..	..	{ .. }	..	..	..
S 176, 177, 179	Elbing ..	and	233	25·9	7·6	..	640	15,000	32·5	{ 2 23-pr. 2 M. }	3	83	180
V 180-185 (6 boats)	Stettin(Vulcan)	1910	..	..	..	..	..	..	..	{ .. }	..	..	..
G 186-191 (5 boats)*	Kiel(Germania)	1910	233	25·9	7·6	..	640	15,000	32·5	{ 2 23-pr. 2 M. }	3	83	180
V 192-197 (6 boats)	Stettin(Vulcan)	1911	233	25·9	7·6	..	640	15,000	32·5	{ 2 23-pr. 2 M. }	3	83	180
V 1-V 6 (6 boats)	Stettin(Vulcan)	1911	532	24·3	7·9	2	561	15,000	32·5	{ 2 23-pr. 2 M. }	3	73	160
G 7-G 12 (6 boats)	Kiel(Germania)	1912	532	24·3	7·9	2	555	15,000	32·5	{ 2 23-pr. 2 M. }	3	73	160
S 13-21 (12 boats)	Elbing ..	{ 1912 1913 }	232·5	24·3	9·9	2	555	15,000	32·5	{ 2 23-pr. 2 M. }	4	83	146
V 25-30 (6 boats)	Stettin(Vulcan)	{ 1913 1914 }	..	..	..	..	..	..	22·5	{ 2 23-pr. 4 M. }	..	..	..
S 31-36 (6 boats)	Elbing ..	{ 1914 }	..	..	..	..	..	..	..	{ .. }	..	..	..
FIRST CLASS—													
T 42—T 47 (6 boats)	Elbing ..	1892	150	15·6	6·7	..	85-88	1,600	20-22½	{ 2 1-pr. revs. }	2	..	17
T 49—T 57 (9 boats)	Elbing ..	1893	154·3	16·4	..	2	{ 110 145 }	1,600	..	{ .. }	3	..	..
S 53—S 87 (30 boats)	Elbing ..	1894-8	158·2	16·9	9·0	2	140	2,300	26	{ 2 1-pr. revs. }	3	..	32
G 88—G 89 (2 boats)	Kiel(Germania)	1898	154 3	16·5	..	..	160	2,500	26	{ 2 mach. }	3	22	..

NOTE.—The German destroyers (from S 90 downward) are given above in groups showing successive yearly programmes, the last series being that of 1913. The Estimates of 1914 provided for the building of two divisions of destroyers (12 boats).

Germany—*continued*.

Special attention must be given to the list of submarines set forth below. The characteristics of the boats cannot be stated with complete accuracy. This is especially the case in regard to the newest boats. The submarines are shown in classes, with indication of such as are definitely known by their numbers to have been lost. But there is the best reason for believing that a number of other boats have been sunk and otherwise accounted for. One was sunk by the *Thordis*, and some have been destroyed in the Baltic. On the other hand, building of boats of this class is proceeding actively in several shipyards. Several submarines were in hand at Hoboken, near Antwerp, when the building yard was raided by airmen. Some submarines, which were building for Austria-Hungary (probably of 500 tons), have probably been added to the German flotilla, as also some other submarines which were being constructed for other Powers in German yards. It needs to be observed that the Germans have evidently been giving to new and powerful submarines the numbers of some of the earlier boats, either to replace vessels which have gone off the list, or with the object of confusing the Allies. Such submarines cannot be shown in the following list.

Numbers.	Date.	Displacement (Tons).		Speed (Knots).		Tubes.	Guns.
		Surface.	Submerged.	Surface.	Submerged.		
U 1-2 ..	1907	195	230	10	7	1	—
U 3-8 *	1908-10	250	300	12	8	2	—
U 9-16 *	1912	—	500	13	8	3	2 1-pr. 1 14-pr.
U 17-24 *	1912-13	650	750	14	8	4	2 1-pr. 1 14-pr.
U 25-30 *	1914	—	800	16	9	4	2 1-pr.
U 31-39	1915	—	1,200	20	12	—	2 1-pr. 1 14-pr.

* U 2, U 12, U 15, U 18, U 29, and others whose names are unknown, or have not been announced, are known to have been sunk.

Greece.

Name or Number.	Where Built.	Launched.	Dimensions.			Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Coal Capacity.
			Length.	Beam.	Draught.							
			Feet.	Feet.	Feet.	Tons.		Knots.				Tons.
DESTROYERS—												
Naukratous ..	Yarrow ..	1906	220	20.6	7.2	350	..	$\left. \begin{array}{l} 32.1 \\ 31.79 \\ 31.84 \\ 32.53 \end{array} \right\}$	2 12, 4 6-pr.	2	58	80
Thyella ..												
Sphendoni ..												
Louchi ..												
Nike ..	Stettin (Vulkan)	1906	220	20.6	7.2	350	..	30	2 12, 4 6-pr.	2	58	80
Aspis ..												
Doxa ..												
Velos ..												
Aetos, Leon, Pardalos, Jerex	Birkenhead	1911	235	29.9	9.6	980	19,750	32	4 4-in.	4	110	225
Keravnos ..	Stettin ..	1911	..	..	..	750	..	32.5	4 3.4-in.	2	..	..
Neogenea ..												
SUBMARINES—												
Delphin, Xiphias ..	Chalon sur Saône ..	1911-12	164	..	..	300-460	..	14.9	..	5	..	..

Six 125-ton torpedo-boats built by the Vulkan Co, at Stettin; *Arctusa*, *Doris*, *Aigli*, *Pafni*, *Acyon*, *Thetis*.

Italy.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
Fulmine	Sestri (Odero)	1898	200	20·4	5·4	2	298	4,800	28	5 6-pr. Q.F.	2	43	60
Lampo													
Freccia													
Dardo	{ Elbing	1899								{ 1 14-pr. Q.F.,			
Strale	{ (Schichau)	1901	196·8	21·3	5·8	2	320	6,000	30	{ 5 6-pr.	2	53	60
Euro													
Ostro													
Nembo													
Turbine													
Aquilone	{ Naples	1901											
Borea	{ (Pattison)	1902	210	19·4	7·6	2	330	6,000	30	5 6-pr. Q.F.	2	53	60
Meteoro													
Tuono													
Zefiro	{ Naples }	1904	210	19·4	7·6	2	330	6,000	30	5 6-pr. Q.F.	2	53	60
Espero	{ (Pattison) }												
Bersagliere													
Artigliere		1906											
Granatiere		1907											
Lanciere													
Alpino	{ Genoa		211·6	20·0	7·6	3	365	6,000	30	4 14-pdr.	3	55	82
Corazziere	{ (Ansaldo) }												
Pontiere		1909											
Carabinieri		1910											
Fucilieri													
Garabaldino													
Impavido													
Impetuoso													
Indomito	{ Naples	1912								{ 1 4·7 in.			
Insidioso	{ (Pattison) }	& 1913	246	24·6	7·6	..	650	15,000	35·2	{ 4 14-pr.	2	..	100
Intrepido													
Irripieto													
Ardito													
Ardente	{ Orlando	1912								{ 1 4·7 in.			
Auace	{ (Leghorn) }	& 1913	216	24·6	7·6	..	650	15,000	35·5	{ 4 14-pr.	2	..	..
Animoso													
Ascaro	Ansaldo ..	1912	211·5	20·0	6·6	..	3·0	6,000	29	{ 2 14-pr.	3	..	80
Francesco Nullo										{ 4 6-pr.			
Antonio Mosto	{ Naples												
Giuseppe Sirtori	{ (Pattison) }												
Giulio Carini													
Rosolino Pilo		1913											
Giuseppe Abba		& Bldg.	246	24·6	7·6	..	669	18,000	35	{ 1 4·7 in.			
Simone Schiaffino	{ Genoa									{ 4 14-pr.	2	..	..
Pilade Bronzetti	{ (Odero) }												
Giuseppe Missori													
Ippolito Nievo													
FIRST CLASS—													
Aquila, Sparviero	Elbing ..	1888	152	17·2	7·9	2	136	2,200	26·6	{ 2 3-pr. Q.F.,			
Nibbio, Avvoltoio										{ 1 1-pr. Q.F.,	3	24	40
Pellicano	Sestri (Odero)	1899	157·4	19	14·8	2	147	2,700	25	{ 1 1-pr. rev.	2	28	24
Condore	Sestri (Ansaldo)	1898	154·3	16·8	6·9	2	136	2,500	27	{ 2 3-pr.	2	27	16
Sirio, Sagittario		1905-6											
Spica, Scorpione	Elbing ..	1905 6											
Serpente, Saffo		1905-6											
Alcione, Ardea													
Albatros, Aiorone	Odero	1905	164	19·6	6·3	2	215	(2,800)	25	2 3-pr.	2	..	40
Astore, Arpia		1906						(3,250)					
Criene, Orsa	{ Genoa	1905											
Olympia, Orfeo	{ (Ansaldo) }	1906											
Gabbiano	Spezia	1907											
Pegaso	{ Naples	1905											
Perseo	{ (Pattison) }												
Proclone		1905											
Pallade													
Cigno													
Cassiopea													
Calliope	{ Naples	1906	164	17·4	7·0	2	200	3,000	(25·4)	3 3 pr.	3		40
Clio	{ (Pattison) }	1907							(26·6)				
Centauro		1906											
Canopo		1907											
Calipso		1907											
Climene	{ Naples	1909											
1 P.N.-12 P.N.	{ (Pattison) }												
13 O.S.-24 O.S.	Pattison ..	1912											
25 A.S.-32 A.S.	Odero	&											
33 P.N.-38 P.N.	Ansaldo ..	1913	139	13·9	..	..	130	2,500	27	1 6-pr.	2	..	..
39 R.M. 40 R.M.	Pattison ..												
	Spezia	1914											

Several powerful destroyers or flotilla leaders are building. See the cruiser list.

Italy—continued.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
SECOND CLASS—													
No. 117 .. .. .	..	1895	131·2	16·4	..	1	85	1,000	..	2 1 pr. Q.F.	2	17	17
Nos. 136-8, 140-2	Italy	1893-94	131·2	16·4	..	1	85	1,000	22	2 1-pr. Q.F.	2	17	17
(6 boats)													
Nos. 147, 149-152	Italy ..	1894-5	131·2	16·4	..	1	85	1,000	22	2 1-pr. Q.F.	2	17	17
(5 boats)													
SUBMARINE—													
Delfino	Spezia	1894	78·6	10·1	..	1	111	150	10-12	..	2	12	..
Glanco, Squalo,	Venice, &c.	1906	120	14·3	..	..	{ 180 230 }	..	15	..	2	..	..
Narvalo, Otaria,		1907											
Tricheco		1909											
Foca, Medusa, Velella,	Muggiano	1908	148	13·9	..	..	{ 225 320 }	750	{ 14·6 8·5 }	..	2	..	..
Argo, Jalea	F.I.A.T.	to											
Janitina, Salpa	S. Giorgio	1913											
Fisalia, Zoea	Venice ..	Bldg.	134·6	14·2	..	..	{ 221 297 }	600	19-5	..	3	..	..
Nautilus, Nereide ..													
G. Pullino, G.	Spezia ..	1912	134·6	14·9	..	..	{ 345 400 }	1200	15-9	..	4	17	..
Ferraris													
Atropo	Kiel Germania)	1912	146	14·6	..	..	330	{ 700 400 8½ }	..	..	2	..	..

The following large submarines are being built : Galvani, Torricelli, and another (Spezia), Lazzaro Mocenigo, Lorenzo Marcello, Angelo Zeno (Venice).

Japan.

Name or Number.	Where Built.	Launched.	Dimensions			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
DESTROYERS—													
Murakumo	Thornycroft	1898	210·0	19·5	7·2	2	307	5,800	{ 30 to 31 }	{ 1 12-pr., 5 6-prs. }	2	54	80
Shinonome .. .	Thornycroft	1898											
Yugiri	Thornycroft	1898											
Shirauki	Thornycroft	1899											
Kagerou	Thornycroft	1899											
Usugumo	Thornycroft	1900											
Shirakumo .. .	Thornycroft	1901	216·7	20·7	8·3	2	373	7,400	31	{ 1 12-pr., 5 6-prs. }	2	59	96
Asashio	Thornycroft	1902											
Akebono	Yarrow ..	1899	220·0	20·6	9·6	2	311	6,000	31	{ 1 12-pr., 5 6-prs. }	2	55	95
Sazanami.. . .	Yarrow ..	1899											
Oboro	Yarrow ..	1899	220·3	20·6	9·6	2	311	6,000	31·62	{ 1 12-pr., 5 6-prs. }	2	..	90
Niji	Yarrow ..	1899	220·3	20·6	9·6	2	308	6,000	31·15	{ 1 12-pr., 5 6-prs. }	2	..	90
Kasumi	Yarrow ..	1902	220·3	20·6	9·6	2	335	6,000	31	{ 1 12-pr., 5 6-prs. }	2
Asagiri	Yokosuka ..	1902	220·3	20·6	9·6	2	374	6,000	29	{ 1 12-pr., 5 6-prs. }	2
Murasame .. .	Yokosuka ..	1902											
Yamahiko .. .	Port Arthur	1903											
Fumizuki.. . .	Port Arthur	1903											
Satauki	St. Petersburg	1902	196·9	18·4	11·5	2	250	6,000	27	{ 1 12-pr., 5 3-prs. }	2	..	80
Hatsushima ..	Yokosuka ..	1905	220·3	20·6	9·6	2	374	6,000	29	6 12-pr.	2
Yayoi	Yokosuka ..	1905											
Kisaragi	Yokosuka ..	1905											
Hibiki	Yokosuka ..	1906											
Wakaba	Yokosuka ..	1905											
Hatsuyuki .. .	Yokosuka ..	1906											
Kamikaze.. . .	Yokosuka ..	1905											
Ariake	Yokosuka ..	1905											
Fubuki	Yokosuka ..	1903											
Arare	Yokosuka ..	1905											
Yunagi	Maizuru ..	1906											
Oite	Maizuru ..	1905											
Asakaze	Kobe	1905											
Harukaze .. .	Kobe	1905											
Shigure	Kobe	1906											
Hatsuharu .. .	Kobe	1906											
Yuguri	Sasebo .. .	1905											
Yudachi	Sasebo .. .	1906											
Mikadzuki .. .	Sasebo .. .	1906											
Nowake	Sasebo .. .	1906											
Ushio	Kure	1905											
Nenobi	Kure	1905											
Shiratsuyu .. .	Nagasaki ..	1906											
Shirayuki.. . .	Nagasaki ..	1906											

Japan—continued.

Name or Number.	Where Built.	Launched.	Dimensions.				Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.									
			Feet.	Feet.	Feet.		Tons.		Knots.					Tons.
DESTROYERS—contd.														
Matsukase	Nagasaki ..	1906	220.3	20.6	9.6	2	374	6,000	29	6 12-prs.	2	70	90	
Shirotaye (1) ..	Nagasaki ..	1906												
Asatsuyu	Osaka	1907												
Hayakase	Osaka	1906												
Kikutsuki	Uraga	Bldg.												
Minatsuki	Uraga	Bldg.												
Nagatsuki	Uraga	1907												
Utsuki	Uraga	1907												
Isonami	Yokosuka ..	1909												
Uranami	Yokosuka ..	1909												
Ajanami	Yokosuka ..	1909												
Kaifu	Maizuru ..	1909					1200	20,500	35	{ 2 4.7-in., 5 3-in. }	3	123		
Umikaze	Nagasaki ..	1910												
Yamakase	1911												
Sakura	Kure	1912					600	18,000	33	{ 1 4.7-in., 1 12-pr. }	4			
Tashitana	Kure	1912												
FIRST CLASS—														
Hayabusa	Normand ..	1898	147.7	16.0	8.2	2	150	4,200	30	{ 1 6-pr., 2 3-prs. }	3	26	30	
Kasasagi	Normand ..	1899												
Manadzuru	Normand ..	1899												
Chidori	Normand ..	1900												
Shirataka	Elbing ..	1899												
Aotaka	Kure	1903												
Hato	Kure	1903												
Hibari	Kure	1903												
Kari	Kure	1903												
Kiji	Kure	1903												
Tsubame	Kure	1903												
Hashitaka	Kawasaki ..	1902												
Kamome	Kure	1904												
Otori	Kawasaki ..	1904												
Sagi	Kure	1902												
Uzuri	Kure	1902												
SECOND CLASS—														
2 boats	Kobe	1901					83							
10 boats	Yarrow ..	1900	152.6	15.3	7.9			1,900	27	2 3-prs	3		36	
16 boats	Elbing ..	1891-9												
1 boat (No. 24) ..	Normand ..	1891	118	13.1	6.9	1	80	1,200	23	2 1-prs.	2	21	10	
2 boats	Normand ..	1898	121.4	13.6	8.6	1	86	1,800	27	1 3-pr.	2		10	
SUBMARINES—														
	[U.S.A.]													
5 boats	Fore River, ..	1904-5	65	12			120		8		1			
2 boats	Japan	1906					60.80				1			
2 boats	Vickers ..	1908	135	13.5			3.5		14		2			
		1911												
4 boats	Kawesaki ..	& 1914												

(1) Shirotaye, wrecked, September 4, 1914. Torpedo-boat No. 33, mined, November 11, 1914.

Portugal.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
Tejo	Lisbon ..	1901						7000	25.5	1 4-in., 5 M.	2		
Douro	Lisbon ..	1913	240	23.6			700	11,000	27	{ 1 4-in., 2 12 pr. }	2		

Six 32-knot destroyers were in the 1912 programme. There are four obsolete torpedo-boats and three have been built in France. Submarine Espadarte, 245-300 tons, 13 knots, built at the F.I.A.T.-San Giorgio Yard, Muggiano; three others (Laurenti type) were to be built.

Roumania.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
			Feet.	Feet.	Feet.		Tons.		Knots.				Tons.
DESTROYERS—	{ Naples (Pattison) }	Bldg.	312	31·0	10·0	2	(1330) (1450)	40,000	35	{ 3 4·7-in. 7 12-pdrs. }	2	..	..
Four													
FIRST CLASS—													
Naluka	Havre	1888	120·7	11·3	6·9	1	56	578	21	1 1-pr. rev.	2	..	12
Sborul	Havre	1888	120·7	11·3	6·9	1	56	578	21	1 1-pr. rev.	2	..	12
Smeul	Havre	1888	120·7	11·3	6·9	1	56	578	21	1 1-pr. rev.	2	..	12

8 100 ft. Torpedo Vedette Boats built by the Thames Iron Works. 4 built by Schichau, 1904, Vedeia, Argosul, Trotsul, Telemann, for the Danube.

Russia.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
BALTIC.			Feet.	Feet.	Feet.	Tons.			Knots.				Tons.
DESTROYERS—													
Kondratenko, Okhotnik, Pogranitschnik, Siberskiy-Strelak ..	{ Abo and Helsingfors }	1905	250·3	27·0	8·9	2	625	7,300	25-26	{ 2 12-pdrs. 6 6-pdrs. }	3	100	191
Amuretz, Gaidamak, Ussurietz, Vsadnik ..	{ Kiel (Germania) }	{ 1905 1906 }	232·9	23·7	7·9	2	560	6,500	25-26	{ 2 12-prs. 6 6-prs. }	3	98	180
Emir Bukharsky, Dobrovoletz Finn, Moskvityanin ..	Helsingfors	1905	238	27·0	8·6	2	580	6,500	25-26	{ 2 12-pdrs. 6 6-pdrs. }	3	98	134
Donskoi - Kasak, Kasanetz, Sabaikalatz, Steregushitski, Strashny, Trukhmetz - Stavropolski, Ukraina, Voiskovoi, Prytki ..	Riga	{ 1904 1906 }	239·9	23·7	7·6	2	508	{ 6,200 7,020 }	25-27	{ 2 12-pdrs. 4 6-pdrs. }	2	90	{ 50 120 }
Revy, Retivy, Ryany, Rezyvyl, Proslorily, Ridny, Pos'nochny, Protchny, Poratschitchi, Podvitsny ..	Poplar	1895	190	18·6	7·0	2	240	4,400	29·7	1 12-pr, 3 3-pr	2	..	..
Abo, Ishera & Nevsky ..	Abo, Ishera & Nevsky ..	1898	196·9	18·4	11·5	2	240	3,800	27	1 12-pr, 3 3-pr	2	55	53
Bravi, Vidny, Bodry	{ Nevska and Ishora .. }	1900-2	196·9	18·4	11·5	2	350	6,000	27	1 12-pr, 5 3-pr	3	62	80
Grozni, Grosiashtchi, Tverdy, Totschny, Trevochny ..	St. Petersburg	1904	196·9	18·4	11·5	2	350	6,000	27	1 12-pr, 5 3-pr	3	62	80
Iskonsny, Ispolnitelni, Kriepky, Legky, Lovki, Letutshi, Lichoi ..	Abo	1905	196·9	18·4	11·5	2	240	6,000	27	1 12-pr, 5 3-pr	3	62	80
Boievod, Poditely, Burni, Vnmatelni, Vnshitelni, Vynoslivny, Sergieff, Yuravovskiy, Svireff, Dmitrieff ..	La Seyne ..	1905	185·9	21·0	7·5	2	324	5,600	26	{ 1 12-pr, 5 3-pr 2 M }	2	60	{ 30 100 }
Silni, Storohevoi, Stroiny, Rasyashishy, Rastoropny, Burakoff, Dyelni, Doetoiny, Deyatelni, Myzky, Molodetsky, Moshtshny, Malieff, Anastosoff ..	Havre (Normand)	1905	185·8	21·0	7·5	2	324	5,600	27·5	{ 1 12-pr, 5 3-pr 2 M }	2	60	{ 30 100 }
Novik	{ Elbing Schichau }	1905-6	208·9	23·0		2	365	6,500	28		3		95
Leit. Ilin, Kapt. Konon Zotov, Kapt. Kings-bergen, Kapt. Kroun, Kapt. Belli, Kapt. Izuilmetev, Kapt. Kern, Leit. Dubasov ..	{ St. Petersburg and Ochta }	{ 1905 1907 }	185·9	21·0	7·5	2	335 56	5,000	26	{ 1 12-pr, 5 3-pr 2 M }	2	60	{ 30 100 }
Novik	{ Stettin (Vulcan) }	1911	336·6	31·3	8·7	..	1200	36,000	37·3	4 4-in., 2 M.	4 dbl	..	..
Leit. Ilin, Kapt. Konon Zotov, Kapt. Kings-bergen, Kapt. Kroun, Kapt. Belli, Kapt. Izuilmetev, Kapt. Kern, Leit. Dubasov ..	{ St. Petersburg (Putiloff) Bldg.	1914	..	..	..	..	{ 1200- 1300 }	30,000	36	3 4-in., 4 M.	5 dbl	..	..

Russia—continued.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of screws.	Displacement.	Indicated Horse-power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Compliment.	Fuel Capacity.
			Length.	Beam.	Drayload.								
BALTIC.													
DESTROYERS—contd.													
Orphei, Grom, Zabiaka, Pobieditel, Letun, Desna, Samson, Azard	St. Petersburg (Metal Works)	1914 & Bldg.	Feet.	Feet.	Feet.	..	(1200-1300)	30,000	36	3 4-in., 4 M.	5 dbl.	..	Tons.
Gavrul, Mikhail, Vladimir, Konstantin, Sokol, Leit, Lombard													
Gromonozet, Avtroil, Bryachislav, Fiolor - Stratilat, Pryamislav	Reval Shipbldg. Works												
Hogland, Grenhamn, Stirsuden, Patras, Khios, Tenedos, Ruimnik, Smolensk, Kulm	Riga (Ziese Yard)												
SUBMARINES—													
Delfin	St. Petersburg	1903	65	12	..	..	115-150	..	6	..	3	..	..
Graf Sheremetieff, Kassatka, Nalin	St. Petersburg	1904	65	12	..	..	150-200	100-60	8-6	..	4	..	..
Skat	St. Petersburg	1904	65	12	..	..	120	160	9-5-7	..	2	..	..
Som, Shishuka	St. Petersburg	1905	70	13	..	..	135-175	400	10-7	..	3	..	..
Assiotr, Kefal	St. Petersburg	1904	66	13	..	..	120	160	9-7	..	2	..	..
Bialuga, Pescar, Sterliad	St. Petersburg	1904	66	13	..	..	135-175	..	10-7	..	3	..	..
Sig	St. Petersburg	(1907) (1908)	110	..	..	..	150-200	100-60	8-6	..	6	..	..
Makrel, Okun	St. Petersburg	1918	132	14-2	..	..	450-500	..	12-10	..	2	..	..
Potschovy	St. Petersburg	1903	183-9	..	..	..	370	..	13	..	4	..	..
Alligator, Drakon, Kaiman, Krokodil	St. Petersburg	1908	117	..	..	..	126	..	..	..	2	..	..
Akula	St. Petersburg	1908	117	..	..	..	126	..	..	..	2	..	..
Minoga	St. Petersburg	1908	117	..	..	..	126	..	..	..	2	..	..
BLACK SEA.													
DESTROYERS—													
Baranoff, Shestakoff, Saken, Sazarenyy, Zavidni, Zavetni, Zharki, Zhutki, Zhivoi, Zhivulka, Zhivutshitsy	Nicolaieff ..	1907-8	241-6	27-0	7-9	2	614	6,500	25	6 12-pdrs.	3	90	200
Stremitelni, Strogli, Smetlivy, Svirepyi, Pushkin, Zorki, Zvonki, Bespokoiny	Nicolaieff ..	1903-4	210	21-2	7	2	350	5,500	27	1 12-pr, 5 3-pr	2	..	..
Ilystry, Dersky, Gnievuy, Gromky, Pospieschny, Pronsitelny, Pulky, Stshastlivy	Abo	1901	190-4	18-5	11-5	2	240	3,800	27	1 12-pr, 3 3-pr	2	..	60
.. .. .	Nicolaieff ..	1903	210	21-2	7	2	350	5,500	27	1 12-pr, 5 3-pr	2	..	..
.. .. .	Nicolaieff ..	1912 and Bldg.	..	..	..	..	1,050	25,000	34	3 4-in., 2 M.	5	93	..
SUBMARINES—													
Lossos, Shudok	Nicolaieff ..	1907	66	13	..	..	120	..	9-7	..	2	..	..
Karp, Karas	Germania ..	1907	130	..	..	..	(200-240)	600	12-10	..	1	..	..
Morsb, Nerpa, Tiulen	Nicolaieff ..	1913	163-6	17-6	..	..	(460-600)	(1200-800)	15-11-5	..	9	..	..
Kashalot Kit, Narval	St. Petersburg Bldg.	..	..	..	..	..	..	..	..	..	..	..	..
Krab (mine-layer)	Nicolaieff ..	1912	171	..	..	..	(500-700)	..	..	..	2	..	..
FAR EAST.													
DESTROYERS—													
Bespochtchadnl, Bes-trachni, Beschunni (3 boats)	Elbing ..	1899	196-9	18-4	11-5	1	350	6,000	27	1 12-pr, 5 3-pr	2	..	..
Grozovoi, Vlastni	Havre (F. & C.)	1900-2	186-0	20-8	10-3	2	300	5,000	28	1 12-pr, 5 3-pr	2	..	80
Isolki	Nevsky ..	1900	196-9	18-4	11-5	1	350	6,000	28	1 12-pr, 5 3-pr	..	..	..

Twelve submarines were in hand for the Baltic—8 at Messrs. Nobel & Lessner's and 4 at the Baltic Yard—600 tons, 2000 h.p., named as follows: Lvitzia, Kuguar, Leopard, Pantera, Ruis, Tigr, Tur, Yeguar, Bars, Vepr, Volk and Gepard. Six others to be built at the Nevsky yard for the Far East.

Spain.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
<hr/>													
			Feet.	Feet.	Feet.	Tons.		Knots.		Tons.			
DESTROYERS—													
Terror	Clydebank ..	1896	220	22	5·6	2	300	6,000	28	{ 2 12-pr. 2 } { 6-pr. 21-pr. }	2	67	100
Audaz .. .. .	.. .. .											
Osado	Clydebank ..	1897	223	25·6	5·8	2	400	7,500	30	{ 2 14-pr. 2 } { 6-pr. 21-pr. }	2	70	90
Proserpina .. ..	.. .. .											
Bustamente	Cartagena ..	{ Bldg. }	220	22	7·5	..	370	6,250*	28	5 6-pr.	2	..	..
Villamil	Cartagena ..												
Cadarso	Cartagena ..												
<hr/>													
FIRST CLASS—													
24 boats	Cartagena ..	{ Bldg. } { Pro. }	165	16·6	..	..	180	3,750*	26	33-pr.	3	..	..
Azor	Poplar	1887	131·5	14	6	1	108	1,600	24	4 3-pr.	3	23	25
Halcón	Poplar	1887	131·5	14	..	1	108	1,600	24	4 3-pr.	3	23	25

Azor and Halcón re-boilered by Yarrow (water-tube).

* Turbines and Normand type boilers.

Sweden.

Name or Number.	Where Built.	Launched.	Dimensions.			Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.								
DESTROYERS—													
Mode	Yarrow ..	1902	220·3	20·6	8·9	2	400	6,800	32·4	{ 1 12-pr. 5 6-prs. }	2	55	95
Magne	Thornycroft	1905											
Wale	Malmo ..	1906											
Ragnar	Malmo ..	1909											
Sigurd	Gothenburg	1909	216·9	20·8	8·2	2	430	7,200	30·0	{ 2 12-prs. 4 6-prs. }	2	63	90
Vidar	Malmo ..	1909											
Hugin	Gothenburg	1909											
Munin	Malmo ..	1910											
FIRST CLASS—													
Komet	Elbing ..	1896	128	15·9	6·11	1	92	1,056	23·0	2 1·9-in. Q.F.	2	16	17
Blixt	Carlskrona..	1898	128	15·9	6·11	1	92	1,260	23·5	2 1·9 in. Q.F.	2	18	17
Meteor	Carlskrona..	1899	128	15·9	6·11	1	92	1,330	23·8	2 1·9-in. Q.F.	2	18	17
Sjerra	Carlskrona..	1899	128	15·9	6·11	1	92	1,250	23·4	2 1·9-in. Q.F.	2	18	17
Orkan	Carlskrona..	1900	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Vind	Carlskrona..	1900	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Bris	Carlskrona..	1900	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Virgo	Carlskrona..	1902	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Mira	Carlskrona..	1902	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Orion	Carlskrona..	1903	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Sirius	Carlskrona..	1903	128	15·9	6·11	1	92	1,250	23·5	2 1·5-in. Q.F.	2	18	17
Kapella	Carlskrona..	1910	125	17·5	8·6	1	105	1,900	25	{ 1 6-pr. 1 1·4-in. }	2	18	20
Pleiad, Castor, Pollux	Normand ..	1909	125	15	6·6	1	96	1,900	26	2 1·5-in. Q.F.	2	18	20
Vega	Carlskrona..	1910	125	17·5	8·6	1	105	1,900	25	{ 1 6-pr. 1 1·4-in. }	2	18	20
Vesta	Carlskrona..	1910	125	17·5	8·6	1	105	1,900	25	{ 1 6-pr. 1 1·4-in. }	2	18	20
Spica, Astrea, Iris, Thetis	Bergsund and Gothenburg	1910	125	17·5	8·6	1	105	1,900	25	{ 1 6-pr. 1 1·4-in. }	2	18	20
Altair	Stockholm ..	1908	128	17·5	8·6	..	110	2,060	25	2 6-prs.	2	18	20
Arctares	Stockholm ..	1908	128	17·5	8·6	..	110	2,060	25	2 6-prs.	2	18	20
Argo	Stockholm ..	1908	128	17·5	8·6	..	110	2,060	25	2 6-prs.	2	18	20
Arcturus	Stockholm ..	1908	128	17·5	8·6	..	110	2,060	25	2 6-prs.	2	18	20
Perseus, Polaris ..	Bergsund ..	1912											
Regulus, Rigel ..	Stockholm ..	Bldg.	128	17·5	8·6	1	110	2,000	25	12 6-pr.	2	18	20
A, B, C, D	Carlskrona & Gothenburg												
SUBMARINES—													
Enroth	Stockholm ..	1902	82·0	13·0	11·6	2	146	100	12·11	..	1	..	..
Häjen	Stockholm ..	1903	65·0	11·6	..	..	120	200	10·7	..	..	..	..
Hvalen	Murgiano ..	1908	139·6	14·2	6·9	..	185-235	750	15-7½	..	2	15	..
Nos. 2, 3, 4	Stockholm ..	1911	136·6	14·2	6·9	..	185-533	750	15-7½	..	2	15	..

Also six small torpedo-boats, 49 tons, built 1892-1903. Five additional submarines are in hand, two at Malmo (F.I.A.T. type)—one by the Bergsund firm—and three at Stockholm.

Turkey.

Name or Number.	Where Built.	Launched.	Dimensions.				Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.	Torpedo Tubes.	Complement.	Fuel Capacity.
			Length.	Beam.	Draught.	Number of SCREWS.							
DESTROYERS—			Feet.	Feet.	Feet.	Tons.			Knots.				Tons.
Berk-Efshan	Kiel	1894	187	21·6	..	2	270	1,200	25	6 1-pr. revs.	2	...	...
Tajhar	Kiel	1894	187	21·6	..	2	270	..	25	6 1-pr. revs.	2	...	...
Samsoun	Bordeaux ..	1907-8	184·9	19·6	9·6	2	280	..	28	{ 1 9-pr. 6 3-pr. }	2	..	26
Rasra													
Tasra													
Yar-Hissar													
Jadighiar-i-Millet ..	{ Elbing } { (Schichan) }	1903	236·6	25·6	12·3	2	610	14,000	35	2 3·4 in. 2 M.	3	..	160
Muavenet-i-Millet ..													
Mahabet-i-Watan ..													
Nuhm-i-Hamijet ..													
FIRST CLASS—													
Ac-Hisar	Sestri Ponente	1904	165·8	18·6	4·5	..	165	2,200	27				
Urfa, Tokat, Deradj, Kulabia, Mossul ..	Sestri Ponente	1906	165·8	18·6	4·5	..	165	2,200	24				
A. B.	Sestri Ponente	1901	166	18·6	4·0	2	145	2,400	26	2·1 pr.	2	..	16

At the beginning of the War Turkey had no submarine boats, but there is reason to believe that German submarines have reached the Aegean and the neighbourhood of the Dardanelles. It has been stated that they were sighted off Malta and have a base near Smyrna. The British Legion at Athens offered a reward for information which would result in the capture or destruction of enemy submarines.

United States.

Name or Number.	Where Built.	Launched.	Dimensions.				Number of Screws.	Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.		
			Length.	Beam.	Draught.	Guns.					Torpedo Tubes.	Complement.	Maximum Fuel Capacity.
DESTROYERS—			ft. in.	ft. in.	ft. in.		Tons.		Knots.			Tons.	
Smith	Philadelphia	1903	289 0	26 0	8 0	3	700	10,362*	29·5 t.	5 3-in., 2 M. }	3 18-in.	89	285
Lamson	Philadelphia	1909	289 0	26 0	8 0	3	700	10,000*	29·5			89	285
Preston	Camden, N.J.	1909	289 0	26 0	8 0	3	700	10,000*	28			89	270
Flusser	Bath, Me. ..	1909	289 0	26 0	8 0	3	710	11,842*	30·41 t.			89	295
Peil	Bath, Me. ..	1910	283 0	26 0	8 0	3	700	12,734*	31·82 t.			89	295
Paulding	Bath, Me. ..	1910	289 0	26 14	8 4	3	742	12,000*	29·50			89	210
Uxton	Bath, Me. ..	1910	289 0	26 14	8 4	3	742	12,000*	29·50			89	210
Roe	Newport	1909	289 0	26 14	8 4	3	742	12,000*	29·50			89	210
Terry	Newport	1909	289 0	26 14	8 4	3	742	12,000*	29·50			89	210
Perkins	Quincy, Mass.	1910	289 0	26 14	8 4	2	742	12,000†	29·50			89	216
Sterrett	Quincy, Mass.	1910	289 0	26 14	8 4	2	742	12,000†	29·50			89	216
McCall	Camden, N.J.	1910	289 0	26 14	8 4	3	742	12,000*	33·0			89	210
Burrows	Camden, N.J.	1910	289 0	26 14	8 4	3	742	12,000*	29·50			89	210
Warrington	Philadelphia	1910	289 0	26 14	8 4	2	742	12,000†	30			89	210
Mayrant	Philadelphia	1910	289 0	26 14	8 4	2	742	12,000†	29·50			89	210
Monaghan	Newport News	1911	289 0	26 14	8 4	3	960	12,000*	30			89	210
Tripp	Bath, Me. ..	1911	289 0	26 14	8 4	3	900	12,000*	29·50			89	210
Walke	Quincy, Mass.	1911	289 0	26 14	8 4	2	900	12,000†	29·50			89	216
Ammon	Camden, N.J.	1911	289 0	26 14	8 4	3	900	12,000*	29·50			89	210
Patterson	Philadelphia	1910	289 0	26 14	8 4	3	900	12,000*	31			89	210
Bainbridge	Philadelphia	1901	245 0	23 7	6 6	2	420	8,000	28·45	2 14-pr., 5 6-pr.	2	64	139
Barry	Philadelphia	1902	245 0	23 7	6 6	2	420	8,000	28·13	2 14-pr., 5 6-pr.	2	64	139
Chauncey	Philadelphia	1901	245 0	23 7	6 6	2	420	8,000	28·61	2 14-pr., 5 6-pr.	2	64	139
Dale	Richmond ..	1900	245 0	23 7	6 6	2	420	8,000	28	2 14-pr., 5 6-pr.	2	64	139
Decatur	Richmond ..	1900	245 0	23 7	6 6	2	420	8,000	28·10	2 14-pr., 5 6-pr.	2	64	139
Hopkins	Wilmington	1902	244 0	24 6	6 0	2	408	8,456	29·02	2 14-pr., 5 6-pr.	2	64	150
Hull	Wilmington	1902	244 0	24 6	6 0	2	408	9,119	28·04	2 14-pr., 5 6-pr.	2	64	150
Lawrence	Quincy, Mass.	1900	242 3	22 3	6 2	2	400	8,400	28·41	2 14-pr., 5 6-pr.	2	64	115
Macdonough	Quincy, Mass.	1901	242 3	22 3	6 2	2	400	8,400	28·03	2 14-pr., 5 6-pr.	2	64	115
Paul Jones	San Francisco	1900	245 0	23 7	6 6	2	420	8,000	28·91	2 14-pr., 5 6-pr.	2	64	139
Perry	San Francisco	1900	245 0	23 7	6 6	2	420	7,950	28·32	2 14-pr., 5 6-pr.	2	64	139
Prelie	San Francisco	1901	245 0	23 7	6 6	2	420	7,370	28·03	2 14-pr., 5 6-pr.	2	64	139
Stewart	Morris Heights	1902	245 0	23 7	6 6	2	420	8,000	29·69	2 14-pr., 5 6-pr.	2	64	139
Truxton	Baltimore ..	1901	248 0	23 3	6 0	2	433	8,300	29·58	2 14-pr., 5 6-pr.	2	64	232
Whipple	Baltimore ..	1901	248 0	23 3	6 0	2	433	8,300	28·24	2 14-pr., 5 6-pr.	2	64	232
Worden	Baltimore ..	1901	248 0	23 3	6 0	2	433	8,300	29·66	2 14-pr., 5 6-pr.	2	64	232

* Parsons turbines.

† Curtis turbines.

‡ Zoelly turbines.

United States—*continued.*

Name or Number.	Where Built.	Launched.	Dimensions.				Displacement.	Indicated Horse-Power.	Maximum Trial Speed.	Armament.		
			Length.	Beam.	Draught.	Number of Screws.				Guns.	Torpedo Tubes.	Complement.	Maximum Fuel Capacity.
			ft. in.	ft. in.	ft. in.		Tons.		Knots.			Tons.
DESTROYERS— <i>continued.</i>												
Beale	Quincy, Mass.	1911	289 0	26 1½	8 4	3	900	12,000*	30·3	5 3-in., 2 M.	3 18-in.	89
Fanning												
Heuley												
Jarvis												
Jonett												
Aylwin	Philadelphia	1912	300 0	30 6	9 3	2	1010	16,000	29½	4 4-in., 2 M.	3	98
Balch	Philadelphia	1912										
Benham	Philadelphia	1913										
Cassin	Philadelphia	1913										
Cummings . .	Bath	1914										
Downes	Bath	1914	300 0	30 6	9 3	2	1010	16,000	{ 29·8 30·3 }	4 4-in., 2 M.	3	98
Duncan	New York..	1913										
Parker	Quincy, Mass.	1913										
SEA-GOING—												
Bagley	Bath	1900	157 0	17 0	4 7	2	167	4,200	29·15	3 3-pr.	3	29 ..
Bailey	Morris Heights	1899	205 0	19 0	6 0	2	235	5,600	30·20	4 6-pr.	2	.. 20
Barney	Bath	1900	157 0	17 0	4 7	2	167	4,200	29·04	3 3-pr.	3	29 ..
Biddle	Bath	1900	157 0	17 0	4 7	2	167	4,200	28·57	3 3-pr.	3	29 ..
Blakely	Boston	1902	175 0	17 6	4 8	2	165	3,000	25·58	3 3-pr.	3	29 70
De Long	Boston	1901	175 0	17 6	4 8	2	165	3,000	25·52	3 3-pr.	3	29 70
Dn Pont	Bristol, R.I.	1897	175 0	17 8	4 8	2	165	..	28·58	4 1-pr.	3	32 76
Rowan	Seattle, Wash.	1898	170 0	17 0	5 11	2	182	3,200	27·07	4 1-pr.	3	32 60
Shubrick	Richmond ..	1899	175 0	17 6	4 8	2	165	3,375	26·07	3 3-pr.	3	29 70
Stockton	Richmond ..	1899	175 0	17 6	4 8	2	165	3,275	25·79	3 3-pr.	3	29 70
Tingey	Baltimore ..	1902	175 0	17 6	4 8	2	165	3,000	24·94	3 3-pr.	3	29 70
Wilkes	Morris Heights	1901	175 0	17 6	4 8	2	165	3,495	25·99	3 3-pr.	3	29 70
Winslow	Baltimore ..	1897	160 0	16 1	5 0	2	142	2,000	24·82	3 1-pr.	3	24 44
Cushing	Bristol, R.I.	1890	138 9	14 3	4 11	2	105	1,720	22·50	3 1-pr.	3	23 36
Dahlgren	Bath	1899	147 0	16 4	4 7	2	146	4,200	30	4 1-pr.	2	.. 32
Davis	Portland, Ore.	1898	146 0	15 4	5 4	2	132	1,750	23·41	3 1-pr.	3	.. ..
Farragut	San Francisco	1898	213 6	20 8	6 0	2	273	5,878	30·13	4 6-pr.	2	.. 76
Fox	Portland, Ore.	1898	146 0	15 4	5 4	2	132	1,750	23·13	3 1-pr.	3	.. ..
Goldsborough ..	Portland, Ore.	1902	194 8	20 5	5 0	2	247·5	6,000	27·40	4 6-pr.	2	.. 131
Morris	Bristol, R.I.	1898	138 3	15 6	4 1	2	105	1,750	24	3 1-pr.	3	.. 28
Somers	Schichan, .. Eibing ..	1898	149 3½	17 5	..	2	145	1,900	17·5	..	..	.. ..
Strigham	Wilmington	1899	225 0	22 0	6 6	2	340	7,200	25·33	7 6-pr.	2	.. 120
T. A. M. Craven	Bath	1899	147 0	16 4	4 7	2	146	4,200	30	4 1-pr.	2	.. 32
Thornton	Richmond	1900	175 0	17 6	4 8	2	165	3,000	24·88	3 3-pr.	3	29 70
THIRD CLASS—												
Gwin	Bristol, R.I.	1897	99 6	12 6	3 3	1	46	850	20·58	1 1-pr.	2	.. 8
Mackenzie . . .	Philadelphia	1898	99 3	12 9	4 3	1	65	850	20	1 1-pr.	2	.. 15·3
McKee	Philadelphia	1898	99 3	12 9	4 3	1	65	850	19·82	2 1-pr.	2	.. ..
Talbot	Bristol, R.I.	1897	99 6	12 6	3 3	1	46	850	21·15	1 1-pr.	2	.. 8·8
SUBMARINE—												
A1, A2	Elizabethport	1902	63 4	11 9	..	1	120	160	7—8	..	1	7 ..
A3	San Francisco	1902	63 4	11 9	..	1	120	160	7—8	..	1	7 ..
A4	Elizabethport	1901	63 4	11 9	..	1	120	160	7—8	..	1	7 ..
A5	San Francisco	1902	63 4	11 9	..	1	120	160	7—8	..	1	7 ..
A6, A7	Elizabethport	1901	63 4	11 9	..	1	120	160	7—8	..	1	7 ..
B1-B3	Quincy, Mass.	1909	80 6	13 0	..	..	170	250	8½-10	..	..	19 ..
C1-C5	Quincy, Mass.	1906-9	106 0	..	..	..	273	..	..	..	..	.. ..
D1-D3	Quincy, Mass.	1909	..	..	..	..	{ 278- 340 }	500	..	..	{ 2 3 }	10 ..
E1, E2	Quincy, Mass.	1912	160·0	13 0	..	2	{ 325- 400 }	860	9½-14	..	{ 4 6 }	25 ..
F1, F2	San Francisco											
F3	Seattle ..											
G1-G3	Newport News	1913	165·0	15 6	..	2	500	2000	11-14	..	..	25 ..
G4	Philadelphia	1914										
H1, 2, 3†	Quincy, Mass.	1914										
K1 to 8	Quincy, &c. .	1914	165·0	..	..	..	775	..	..	..	6	.. ..
L1-L7	Newport News	1915										
M 1-M 8	Quincy, Mass. & Navy Yard	Bldg.	..	..	..	..	740	..	..	..	6	.. ..

Destroyers O'Brien, Nicholson, Winslow, McDougal, Cushing, Ericsson provided for 1912; 1050 tons, 17,000 H.P., four 4-in. guns and four double tubes. McDougal completed 1914. Cushing launched Jan. 16, 1915. Six ordered in 1913. Tucker launched (Quincy) May 4, 1915.

Submarine F4 lost with all on board, Honolulu, March 25, 1915.
Six additional submarines provided for 1914. Eight or more are in the 1915 programme.

* Parsons turbines.

† Sub-surface destroyers.

BRITISH AND FOREIGN AIRSHIPS.

Great Britain.

[This table remains unchanged. Much progress has been made since it was prepared.]

Name.	Make.	Date.	Displace- ment.	Length.	Diameter.	Motors.	Total H.P.	Fuel en- durance at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons.	ft.	ft.						
BATTLE AIRSHIP.											
No. 9(?)	Vickers	1914	23	520	49	4 Maybach	720	24	44	50	{ Building. Experi- mental.
OTHER AIRSHIPS.											
No. 12(?)	Armstrong	1914	15	?	?	4	320	?	40.8	46	Building, Forlanini design.
No. 11(?)	"	1914	15	?	?	4	320	?	40.8	46	" " "
No. 10(?)	"	1914	15	?	?	4	320	?	40.8	46	" " "
No. 8(?)	Astra	1914	12	?	?	2 Chenu	500	20	44	50	Building, Torres design.
No. 7	Vickers	1914	10	280	49.5	2 Maybach	360	20	41.4	47	Building, Parseval design.
No. 6	"	1914	10	280	49.5	"	360	20	41.4	47	" " "
No. 5	"	1914	10	280	49.5	"	360	20	41.4	47	" " "
No. 4	"	1913	10	270	50	2	360	20	37	42	Parseval design.
No. 3	Astra	1913	8	260	50	2 Chenu	400	10	44.9	51.1	Torres design.
No. 2	Willows	1912	1	100	26	1 Renault	40	10	30.8	35	Reconstructed. Training purposes only.
Eta	R.A.F.	1913	3.5	160	34	2 Canton-Anne	180	12	33.6	45	
Delta	R.A.F.	1912	5.3	180	43	{ 2 White and Poppe	180	10	38.7	44	
Gamma	R.A.F.	1910	3.4	152	35	2 de Haviland	60	16	25.8	27	Training purposes only.
Beta	R.A.F.	1909	1.2	104	27	1 Clerget	50	8	32.5	37	Reconstructed. Training purposes only.

Efficient aeroplanes and seaplanes about 250.

Germany.

Name.	Make.	Date.	Displace- ment.	Length.	Diameter.	Motors.	Total H.P.	Fuel en- durance at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons.	ft.	ft.						
BATTLE AIRSHIPS.											
L 5	Zeppelin	1914	32	550	61	6 Maybach	1080	30	44	50	{ Built for Navy. Possibly 4 Daimler engines of 240 each.
Z 7	"	1913	22	515	49	3 Maybach	540	20	42.4	48	Army.
Z 6	"	1913	19.5	465	49	3 "	540	12	42.4	48	Army.
Z 5	"	1913	19.5	465	49	3 "	540	12	42.4	48	Army.
Z 4	"	1913	19.5	465	49	3 "	540	12	42.4	48	Army.
Z 1	"	1913	19.5	465	49	3 "	540	12	42.4	48	{ Army, replaced original Z 1, built 1906.
Z 3	"	1912	17.5	462	46	3 "	450	10	42.8	48.4	Army.
Z 2	"	1911	17.8	485	46	3 "	450	10	41.6	47.2	Army.
SL 2	Schütte-Lanz	1914	23	475	61	4 "	720	20	44	50	Army.
Sachsen	Zeppelin	1913	19.5	465	49	3 "	540	12	42.4	48	{ Privately owned; hired by Navy.
Hansa	"	1912	18.7	485	46	3 "	540	10	43.7	49.7	{ Privately owned; subsidised by Army.
Victoria Luise	"	1912	18.7	485	46	3 "	450	10	42.4	48	{ Privately owned; subsidised by Army.
OTHER AIRSHIPS.											
P 4	Parseval	1914	10	280	50	2 Maybach	360	20	41.4	47	Army.
P 3	"	1911	10	280	52	2 Korting	400	12	35.2	40	Army.
P 2 Ersatz	"	1910	8	254	49	2 Maybach	360	8	28	32	Army.
M 4	Gross	1913	13	320	44.5	3 Korting	450	?	41.4	47	Army.
M 1	"	1912	6	245	36.3	2 "	150	?	24.7	28	Army.

And a few private ships of little or no military value. Aeroplanes and seaplanes about 500.

Naval airships L 3 (Zeppelin) and L 4 (Schütte-Lanz) were wrecked and destroyed after raiding the Norfolk coast. L 5 perished at Tirllemont in March, 1915. Many others have been destroyed. The whole naval air fleet disappeared with the destruction of L 4, but several naval airships have since been added. A number of Zeppelins and other airships have joined the Army service also. No official details are accessible.

Austria-Hungary.

Name.	Make.	Date.	Displace- ment.	Length.	Diameter.	Motors.	Total H.P.	Fuel en- durance at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons.	ft.	ft.						
BATTLE AIRSHIPS.											
6 Zeppelins were projected ..	..	..	..	..	..	..	..	..	..	..	It is very doubtful if these have been completed.
OTHER AIRSHIPS.											
M 3	Körting	.. 1910	3.6	213	35	2 Körting	150	..	..	30	Army.
M 2	Lebudy	.. 1910	..	230	33	1 Daimler	100	..	..	23	Army.
M 1 .. .. .	..	1909	..	164	28	1 Daimler	70	..	..	27	Army.
2 privately owned.											

Italy.

Name.	Make.	Date.	Displacement.	Length.	Diam.	Motors.	Total H.P.	Fuel endurance at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons.	ft.	ft.						
BATTLE AIRSHIPS.											
3 of 32 tons projected.											
OTHER AIRSHIPS.											
M 4	1914	12	275	56	3 Maybach	540	20	38.7	44	Navy.
M 3	1913	12	275	56	3 Maybach	540	20	38.7	44	Navy.
M 2	1912	12	275	56	4 Wolseley	600	20	38.7	44	Army.
M 1	1912	12	275	56	2 F.I.A.T.	500	20	38.7	44	Navy.
..	Parseval	1914	10	280	49.5	3 Maybach	540	20	41.4	47	Army.
Parseval 17	1912	9.6	270	50	2 Maybach	360	15	37	42	..
..	Forlanini	1914	15	..	..	4 Itala	320	..	..	..	Building.
P 5	1913	4.7	205	40	2 F.I.A.T.	160	8	32.5	37	Served in Tripoli.
P 4	1912	4.7	205	40	2 F.I.A.T.	160	8	32.5	37	Served in Tripoli.
P 3	1911	4.4	205	38	{ 1 Clément-Bayard }	120	8	28	32	Army.
P 2	1910	4.4	205	38	{ 1 Clément-Bayard }	120	8	28	32	Army.
P 1	1907	4.2	198	38	{ 1 Clément-Bayard }	120	8	28	32	Army.

And 3 small private ships. Efficient aeroplanes and seaplanes, 150.

Japan.

Name.	Make.	Date.	Displacement.	Length.	Diameter.	Motors.	Total H.P.	Fuel endurance at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons.	ft.	ft.						
AIRSHIP.											
Parseval 13 ..	Parseval	1912	8.5	230	50	2 Maybach	300	10	37	42	Army.

Spain.

España	Astra	1910	4.2	1 Panhard	120	..	18.5	21	Army.
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Turkey.

Parseval 9 ..	Parseval	1910	2.2	129	20	1 N.A.G.	50	8	22	25	Army.
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France.

This Table is published without alterations.

Name.	Make.	Date.	Displacement.	Length.	Diameter.	Motors.	Total H.P.	Fuel consumption at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons	ft.	ft.						
BATTLE AIRSHIPS.											
?	Astra	1914	38	?	?	Chenu	2000?	24	61.6	70	Building.
Speiss	Zodiac	1912	£0	?	47	2 Chenu	400	?	?	?	Has been lengthened : now flying successfully.
MINE-LAYING AND SCOUTING AIRSHIPS.											
?	Astra	1914	23	394	52	4 Chenu	1000	24	52.8	60	Completing.
?	"	1914	23	394	52	4 "	1000	24	52.8	60	Ordered.
?	(Clément- Bayard)	1914	22	..	..	(Clément- Bayard)	1000	24	44	50	Completing.
?	"	1914	22	..	..	" .. ..	1000	24	44	50	Ordered.
?	Lebaudy	1914	17	..	..	Panhard	1000	24	44	50	Completing.
?	Zodiac	1914	20	..	..	2 Chenu	1000	24	44	50	Completing.
?	"	1914	20	..	..	(2 Dansette- Gillet)	1200	..	..	..	Ordered.
Conté	Astra	1913	9.1	270	49	2 Chenu	403	12	35.2	40	
St. Chauré ..	"	1911	9	285	49	3 Panhard	330	10	28.1	32	
Adj. Réau ..	"	1911	9	285	49	2 Brasier	240	12	28.1	32	
Dupuy de Lôme	(Clément- Bayard)	1912	9	290	55	(2 Clément- Bayard)	260	12	30.8	35	
Adj. Vincenot	"	1911	9	290	55	" .. ..	..	12	30.8	35	
Capt. Marchal	Lebaudy	1914	10	..	..	Panhard .. ..	..	..	..	..	Building.
Lt. Selle de Beauchamp	"	1911	10	293	51	2 Panhard	160	12	24.6	28	
Liberté	"	1910	10	293	51	2 "	163	12	24.6	28	
?	Zodiac	1910	7	283	45	2 "	160	8	29	33	
?	"	1914	10	..	..	" .. ..	..	..	..	..	Building.
?	"	1914	10	..	..	" .. ..	..	..	..	..	Building.
Capt. Ferber..	"	1911	6	249	43	(2 Dansette- Gillet)	220	8	30.8	35	
Commandant Coutelle	"	1911	9.5	303	49	"	400	12	33.4	38	
Fleurus	(Government Factory ..)	1912	6.5	252	41	(2 Clément- Bayard)	160	12	31	36	

And several old and small ships of little value ; also about 500 aeroplanes and seaplanes.

Russia.

Name.	Make.	Date.	Displacement.	Length.	Diam.	Motors.	Total H.P.	Fuel consumption at Full Speed.	Speed, knots.	Speed, m.p.h.	Remarks.
			tons	ft.	ft.						
BATTLE AIRSHIPS.											
Kovanko ..	Baltic Works	1913	13	..	..	4	320	..	..	..
?	Parseval ..	1914	27	..	..	..	..	48	43.2	49	
MINE-LAYING AND SCOUTING AIRSHIPS.											
?	Astra	1914	23	?	?	4 Chenu	1000	24	52.8	60	
?	(Clément- Bayard)	1914	22	..	..	" .. ..	1000	24	..	50	
Albatross ..	Ischora Works	..	..	..	..	..	..	..	..	..	Army.
?	(Clément- Bayard)	1914	6.5	..	..	(2 Clément- Bayard)	360	..	..	..	Army.
?	Kostevitch ..	1913	7	265	..	" .. ..	..	..	..	..	Army.
Astra 13 ..	Astra	1913	9.8	263	52	2 Chenu	400	12	35.2	40	Army.
Parseval 14 ..	Parseval ..	1913	9.6	280	55	2 Maybach	370	12	37	42	Army.
Clément- Bayard 5	(Clément- Bayard)	1913	9	290	55	(2 Clément- Bayard)	360	12	30	34	Army.

And about 12 small and older ships of little value ; also about 500 aeroplanes and seaplanes.

A number of giant Sikorsky biplanes of the Ilya Mourometz type are reported to have been built. The original of the class had approximately the following dimensions :—Length, 65 ft. ; span, 12 ft. ; bearing surface, 1,958 sq. ft. ; weight, 3½ tons ; four engines, with HP. given variously as 400, 500, and 600. With 400 HP., the Ilya Mourometz carried a useful weight of a little over 1 ton 1½ cwt., besides nearly 8 cwt. of fuel and oil. She flew for over one and a half hours with sixteen passengers, and for over two hours with the ordinary crew of eight.

AIRSHIP SHEDS.

*Enemy Powers.***Germany.**

Place.	Date.	Length.	Breadth.	Height.	Owner.	Remarks.
Aachen	1914	..	..	..	....
Allenstein	1914	..	..	..	....
Bickendorf (Cologne) ..	1909	505	168	92	Army	Iron.
Biesdorf (Berlin) ..	1909	445	84	84	Siemens-Schuckert	Iron.
Bitterfeld	1908	257	84	72	Parseval Co. ..	Wood.
Bitterfeld	1909	330	110	84	Parseval Co. ..	Wood.
Brunswick	1914	600	115	92	Private	Iron and stone.
Cologne-Nippes	1914	132	53	42	F. Cloutt. ..	Wood.
Cuxhaven	1914	600	250	100	Navy	Revolving. Iron.
Dresden .. ..	..	634	190	100	State	Iron, wood covered.
Düsseldorf	1910	512	84	80	State	Wood.
Frankfort	1911	540	100	80	Delag Co. ..	Iron.
Friedrichshafen ..	1908	593	130	66	Zeppelin ..	Iron.
Fuhlsbüttel (Hamburg)	1911	540	126	87	Private	Iron and stone.
Gotha	1910	525	87	87	State	Wood.
Grandenz	1914	..	..	..	....
Hanover	1914	..	..	..	....
Johannisthal (Berlin) ..	1910	272	84	84	Private	Wood.
Johannisthal (Berlin) ..	1911	548	126	95	Private	Wood.
Kiel	1910	560	100	85	Private	Wood.
Königsberg	1911	560	139	125	Army	Iron.
Lahr	1914	..	..	..	....
Leichlingen	1909	264	78	81	Private	Wood.
Leipzig	1913	440	198	84	Private	Reinforced concrete.
Liegnitz	1913	..	..	..	Army	
Manzell	1900	460	84	84	Zeppelin ..	Wood.
Metz	1907	495	142	87	Army	Iron.
Oos (Baden-Baden) ..	1910	525	84	80	Delag Co. ..	Iron.
Potsdam	1911	556	165	82	Zeppelin ..	Iron.
Posen	1914	..	..	..	....
Rheinau (Mannheim) ..	1907	530	190	100	Schütte-Lanz ..	Wood and Iron.
Schneidemühl	1914	..	..	..	....
Strassburg	1910	495	90	82	Army	Iron.
Tegel (Berlin)	1906	265	92	82	Private	Wood.
Tegel (Berlin)	1905	165	60	..	Army	Iron.
Tegel (Berlin)	1907	221	72	..	Army	Iron.
Tegel (Berlin)	1910	333	82	82	Army	Iron.
Tegel (Berlin)	1912	..	..	..	Army	Iron.
Thorn .. ..	..	..	..	..	....
Trier	1914	..	..	..	....
Wanne	1912	297	195	90	Private	Wood and Iron.
4 Portable Sheds .. ..	..	265	82	82	Army	{ Can be erected by 150 men in 24 { hours. Canvas.

Austria-Hungary.

Fischamend	1909	264	..	..	Army	Iron and Stone.
Fischamend	1911	198	..	..	Army	Wood.
Budapest	1912	231	Army	Wood.
Pola	1914	Navy	

Turkey.

Constantinople	1913	172	50	60	Army	Wood.
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The Germans have built several sheds for airships in Belgium—near Brussels, at Ghent, and elsewhere. Upon some of these aeroplane attacks have been made. They are reported to be of special concrete and iron construction, especially designed to resist attack from the air.

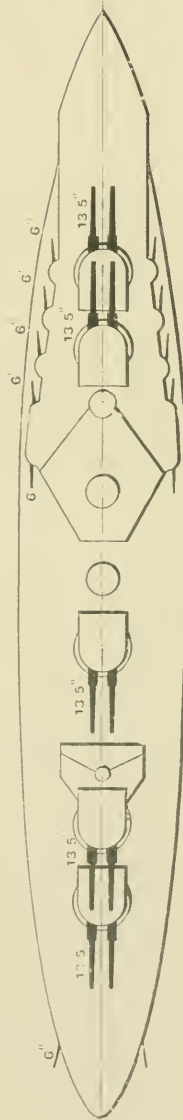
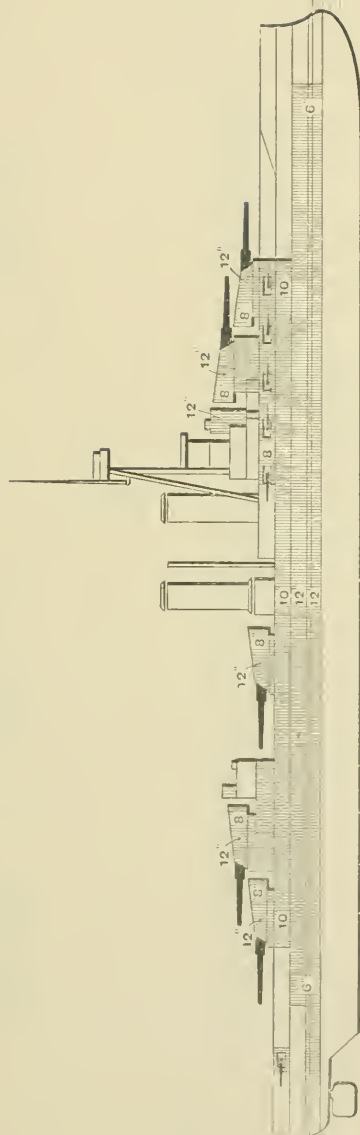
PLANS
OF
BRITISH AND FOREIGN SHIPS.



GREAT BRITAIN.

BATTLESHIPS.

Iron Duke. Marlborough. Benbow. Emperor of India.



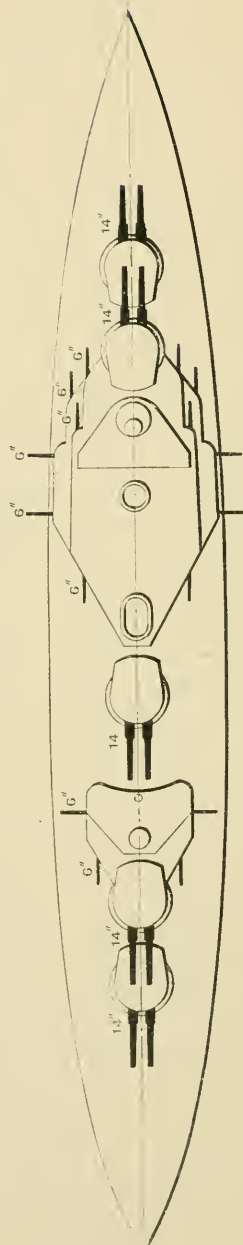
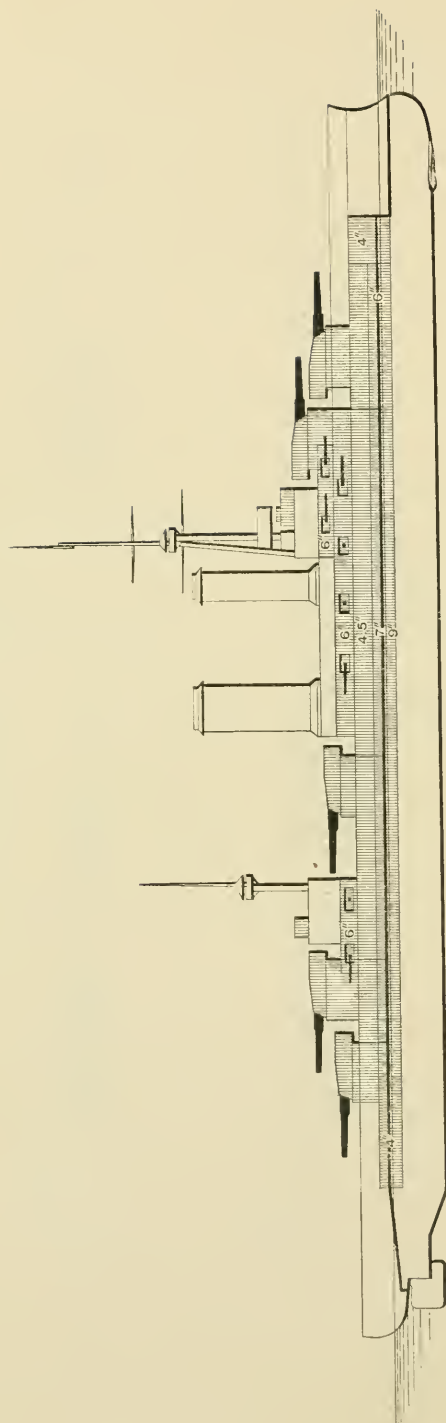
Length, 580 ft.; 25,000 tons; Speed, 21-22 knots;
Armament, 10-13' 5" in., 12-6 in., 2-3 in., 4-3 in.

See pages 97, 99, 100, 101.

GREAT BRITAIN.

BATTLESHIP.

Canada (*Ex* Almirante Latorre).



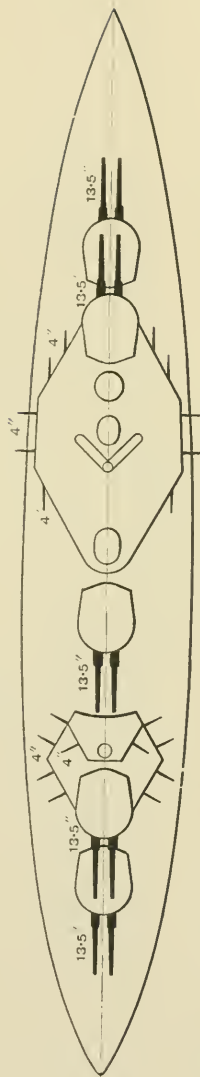
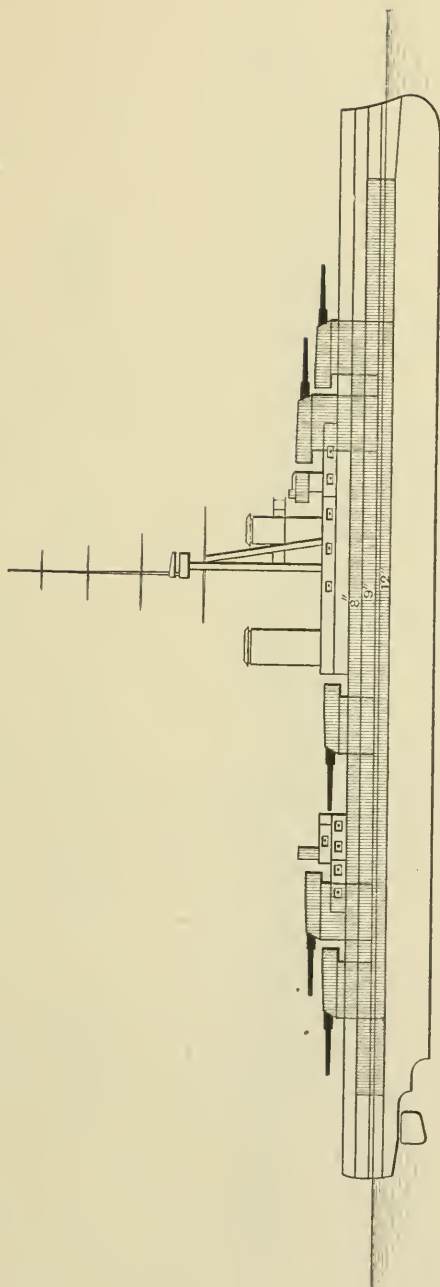
Length, 625 ft. ; 28,000 tons ; Speed, 23 knots ;
Armament, 10—14 in. ; 10—6 in. ; 4—3 in. and smaller

See page 97.

GREAT BRITAIN.

BATTLESHIPS.

Orion. Conqueror. Monarch. Thunderer. Ajax. Audacious. Centurion. King George V.



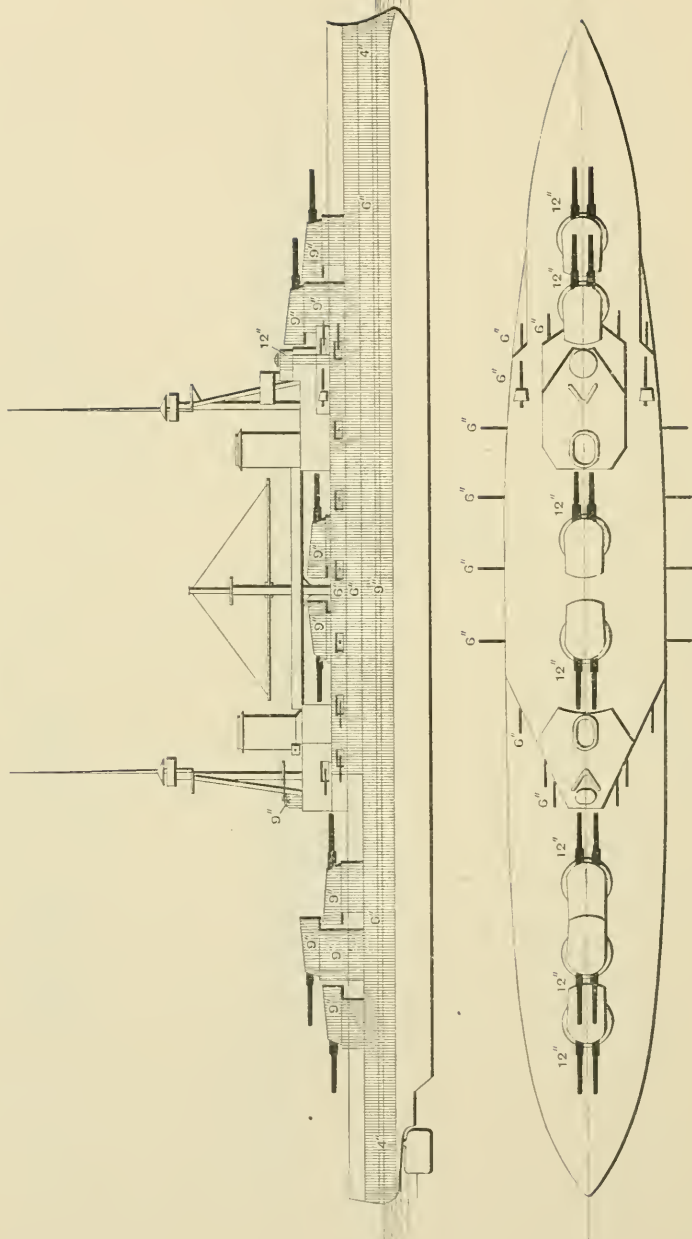
Orion. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Conqueror. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Monarch. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Thunderer. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Ajax. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Audacious. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 Centurion. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.
 King George V. Length, 545 ft. ; 22,500 tons ; Speed, 21-22 knots ; Armament, 10-13.5 in., 4-3 pr., 5 small ; Completed, 1911-12.

See pages 96, 97, 98, 100, 101, 102.

GREAT BRITAIN.

BATTLESHIP.

Agincourt (*Ex* Osman I).



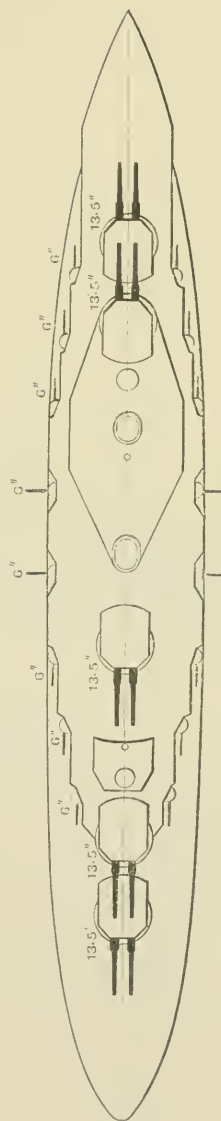
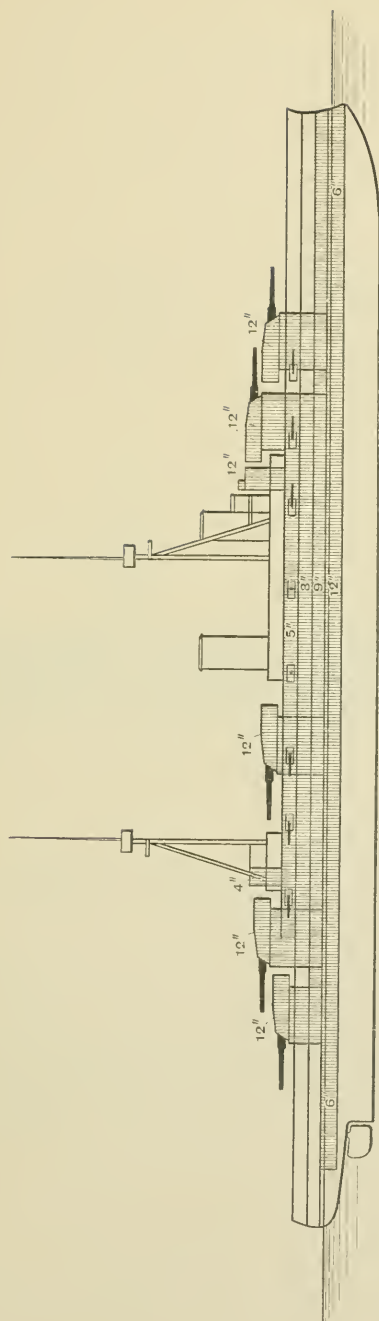
Length, 637 ft. ; 27,500 tons ; Speed, 22 knots ;
Armament, 14—12 in. ; 20—6 in. 10—12 pr.

See page 46.

GREAT BRITAIN.

BATTLESHIP.

Erin (*Eir Reshadieh*).



Length, 525 ft. ; 23,000 tons ; Speed, 21 knots ;
Armament, 10—13·5 in., 10—6 in.

See page 99.

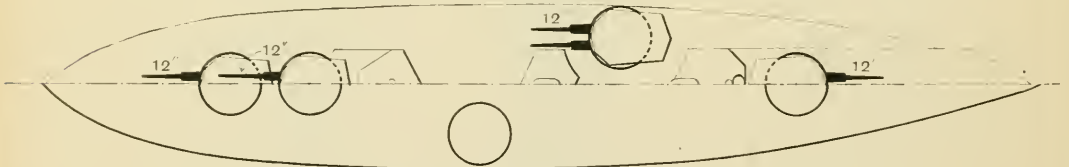
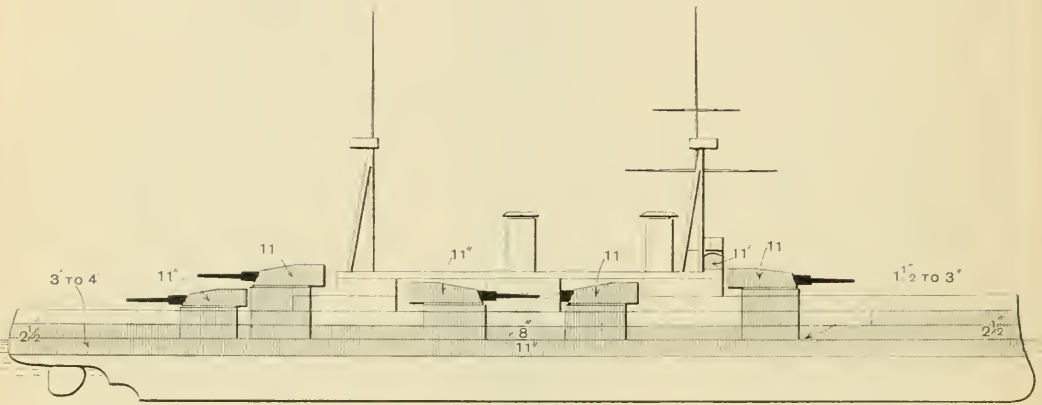
GREAT BRITAIN.

BATTLESHIPS.

Neptune.

Hercules.

Colossus.



Length, 510 ft. ; 19,900-20,000 tons ; Speed, 21·5-21·78 knots ; Completed, 1911 ;
Armament, 10-12 in., 16-4 in., 4-3 pr., 5 small.

See pages 97, 99, 101.

GREAT BRITAIN.

BATTLESHIPS.

Dreadnought.

Bellerophon.

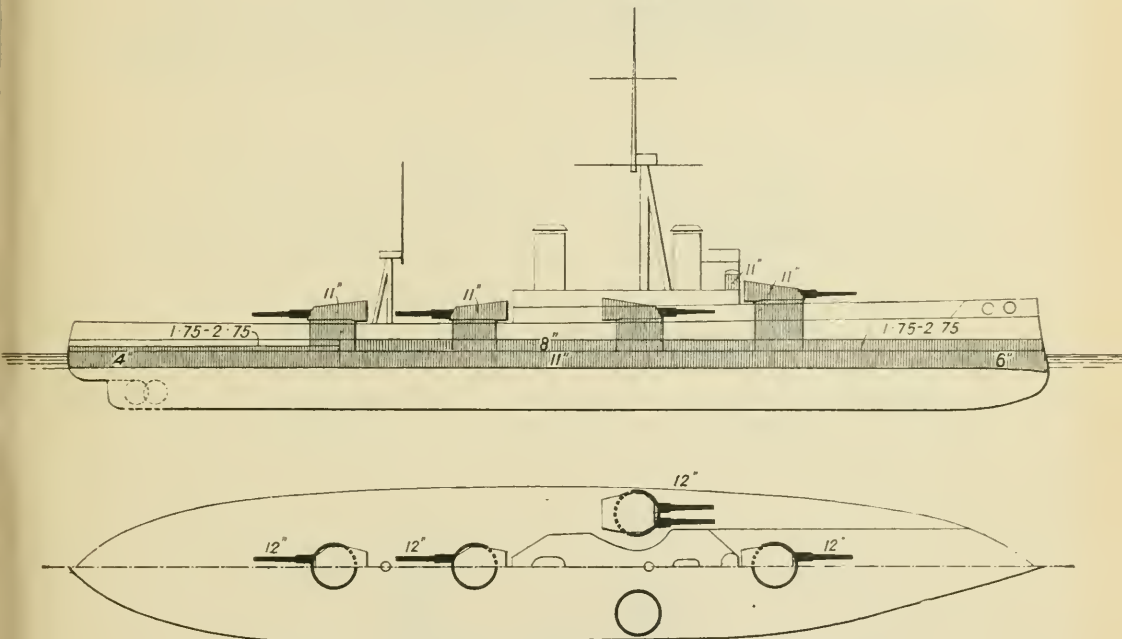
St. Vincent.

Temeraire.

Vanguard.

Superb.

Collingwood.



Dreadnought.—Length, 490 ft. ; 17,900 tons ; Speed, 21·8 knots ; Completed, 1906 ;
Armament, 10—12 in., 24—12 pr., 5 small.

Bellerophon } —Length, 490 ft. ; 18,600 tons ; Speed, 21·6–22 knots : Completed, 1909 ;
Temeraire } Armament, 10—12 in., 16—4 in., 4—3 pr., 5 small.
Superb }

St. Vincent } —Length, 500 ft. ; 19,250 tons ; Speed, 21·5–22·1 knots ; Completed, 1910 ;
Collingwood } Armament, 10—12 in., 18—4 in., 4—3 pr., 5 small.
Vanguard }

N.B.—The masts are differently arranged in the later ships.

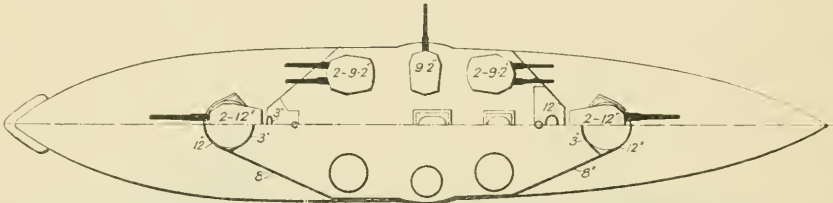
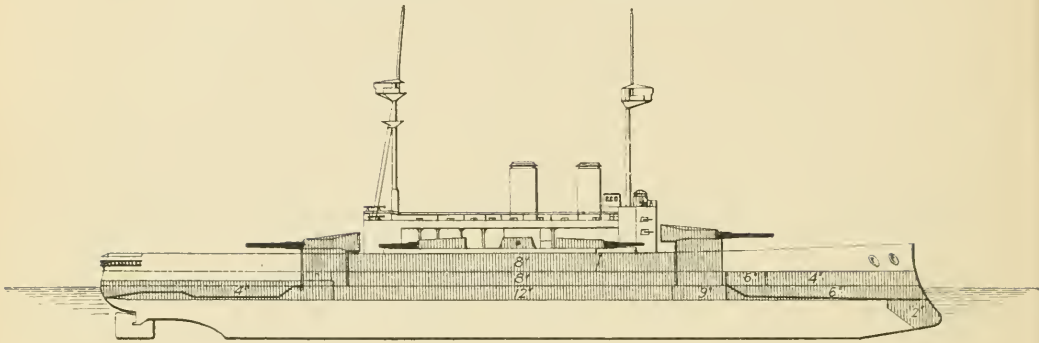
See pages 97, 98, 102, 103.

GREAT BRITAIN.

BATTLESHIPS.

Lord Nelson.

Agamemnon.



Length, 410 ft. : 16,500 tons ; Speed, 18·75–18·9 knots ; Completed, 1908 ;
Armament, 4—12 in., 10—9·2 in., 24—12 pr., 2—3 pr., 5 small.

See pages 96, 101.

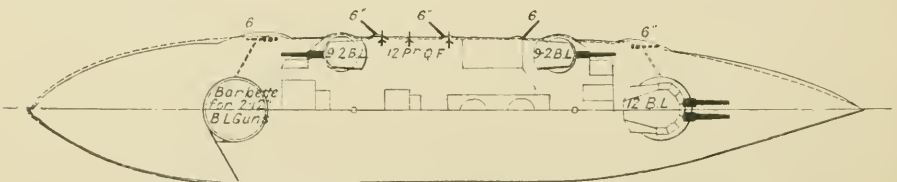
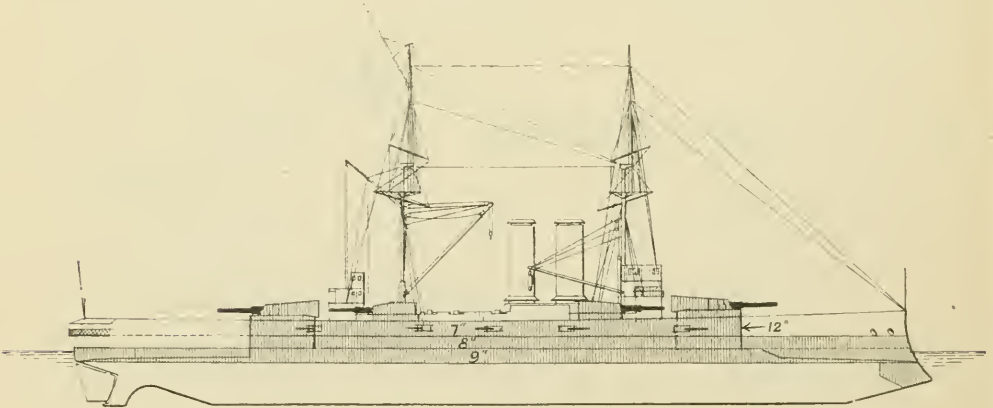
King Edward VII.

Africa.
Hibernia.

Britannia.
Hindustan.

Commonwealth.
Zealandia.

Dominion.



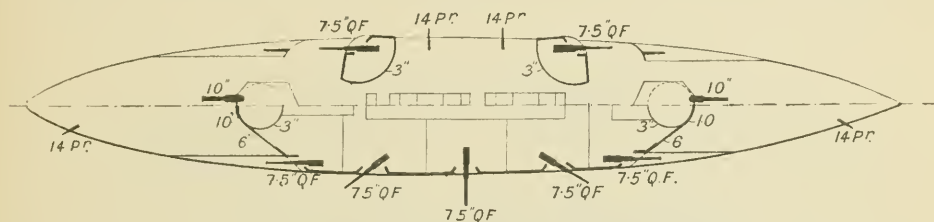
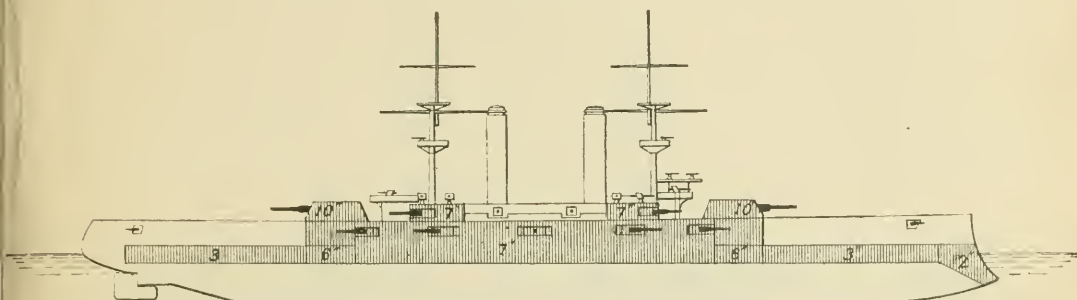
Length, 425 ft. ; 16,350 tons ; Speed, 18·5—19·5 knots ; Completed, 1905–1906 ;
Armament, 4—12 in., 4—9·2 in., 10—6 in., 12—12 pr., 12—3 pr.

See pages 96–100, 103.

GREAT BRITAIN.

BATTLESHIPS.

Swiftsure.



Length, 436 ft. ; 11,800 tons ; Speed, 19.6 knots ; Completed, 1904 ;
Armament, 4—10 in., 14—7.5 in., 14—14 pr., 4—6 pr., and small.

See page 103.

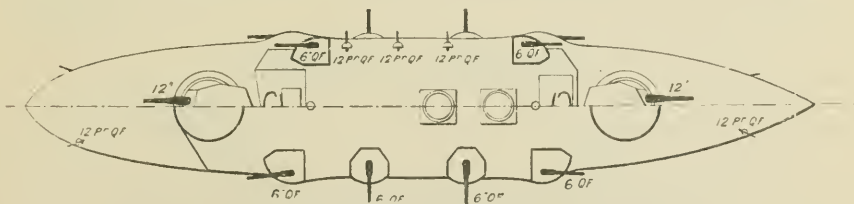
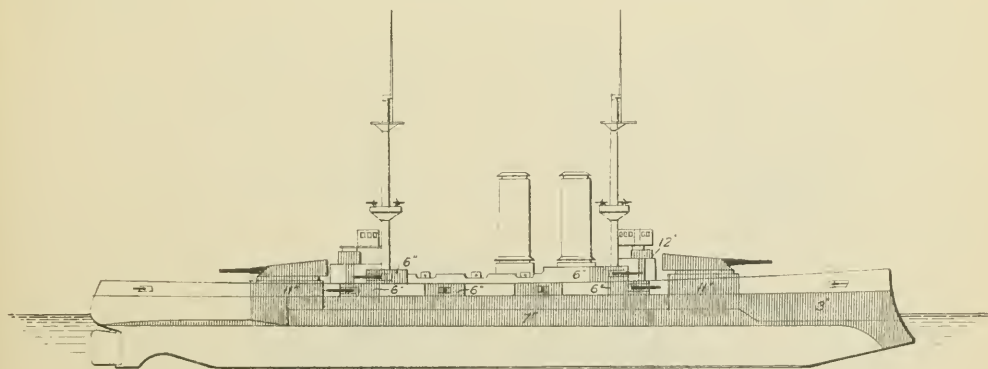
Duncan.

Albemarle.

Cornwallis.

Exmouth.

Russell.



Length, 405 ft. ; 14,000 tons ; Speed, 18.6—19.3 knots ; Completed, 1903—1904 ;
Armament, 4—12 in., 12—6 in., 10—12 pr., 2—3 pr., and small.

See pages 96, 98, 99, 102.

GREAT BRITAIN.

BATTLESHIPS.

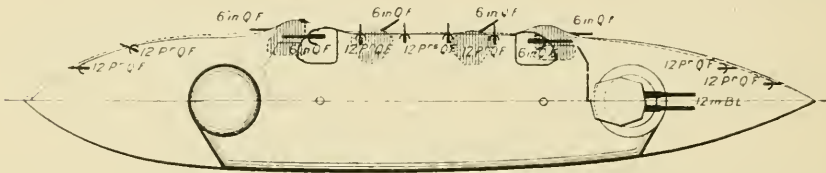
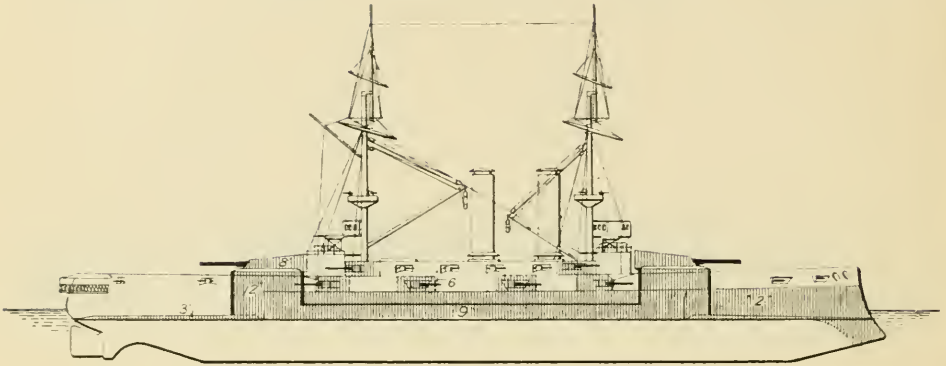
Implacable.

*London.

*Prince of Wales.

*Queen.

*Venerable.



*In These Ships 9" Armour Tapers to 2" at 30 ft From Bow, & They Have no Forward Bulkhead

Length, 400 ft. ; 15,000 tons ; Speed, 18—18·3 knots ; Completed, 1901-1904 ;
Armament, 4—12 in., 12—6 in., 16—12 pr., 2—3 pr., and small.

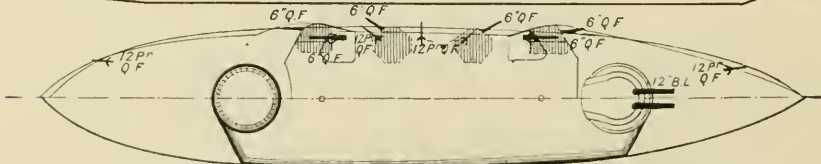
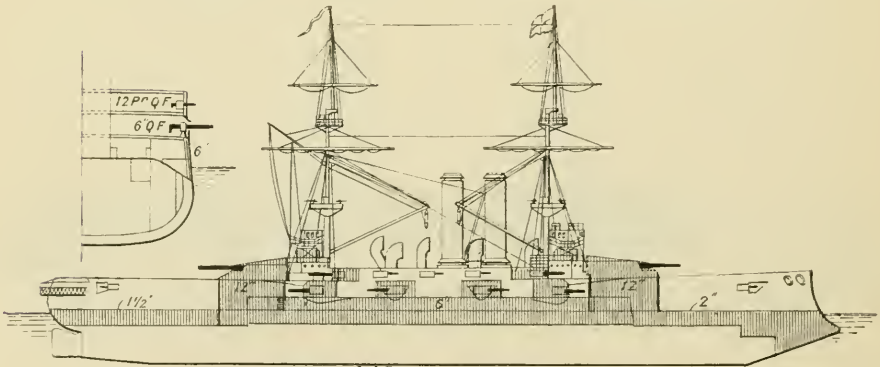
See pages 100-103.

Canopus.

Albion.

Glory.

Vengeance.



Length, 390 ft. ; 12,950 tons ; Speed, 17·8—18·7 knots ; Completed, 1899-1902 ;
Armament, 4—12 in., 12—6 in., 10—12 pr., 6—3 pr., and small.

See pages 96, 97, 99, 103.

GREAT BRITAIN.

BATTLESHIPS.

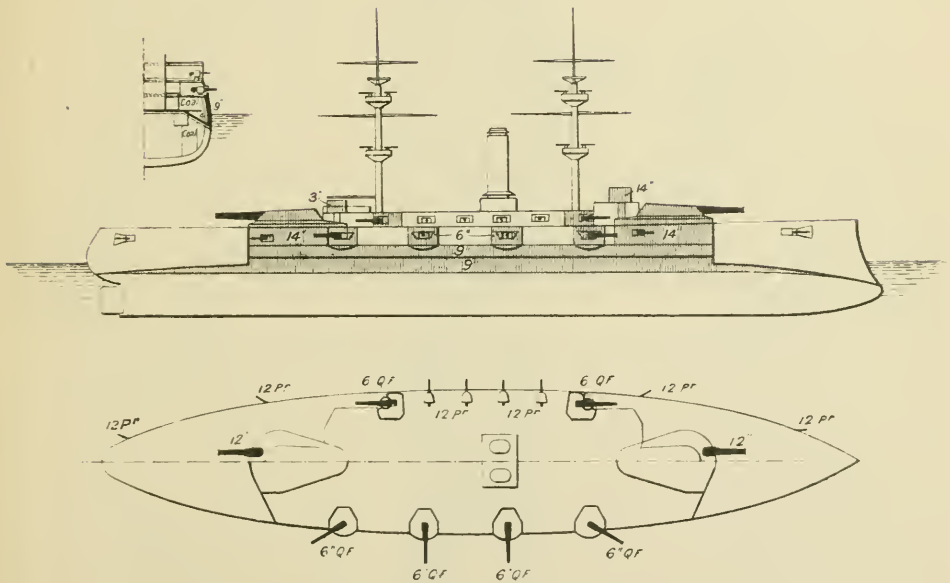
Cæsar.

Hannibal.
Mars.

Illustrious.
Prince George.

Jupiter.
Victorious.

Magnificent.



Length, 380 ft. ; 14,900 tons ; Speed, 16·5-18·7 knots ; Completed, 1895-1898 ;
Armament, 4-12 in., 12-6 in., 16-12 pr., 4-3 pr., 2 small.

See pages 97, 99-103.

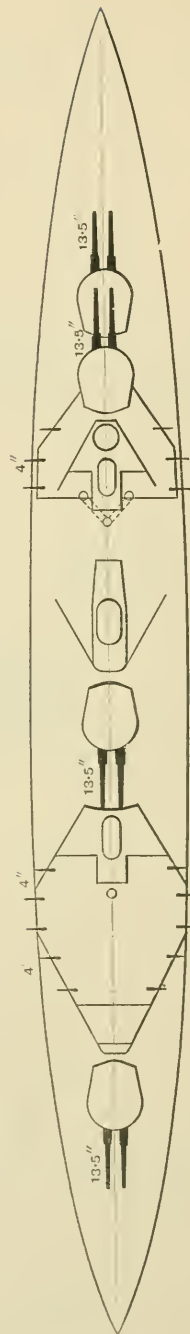
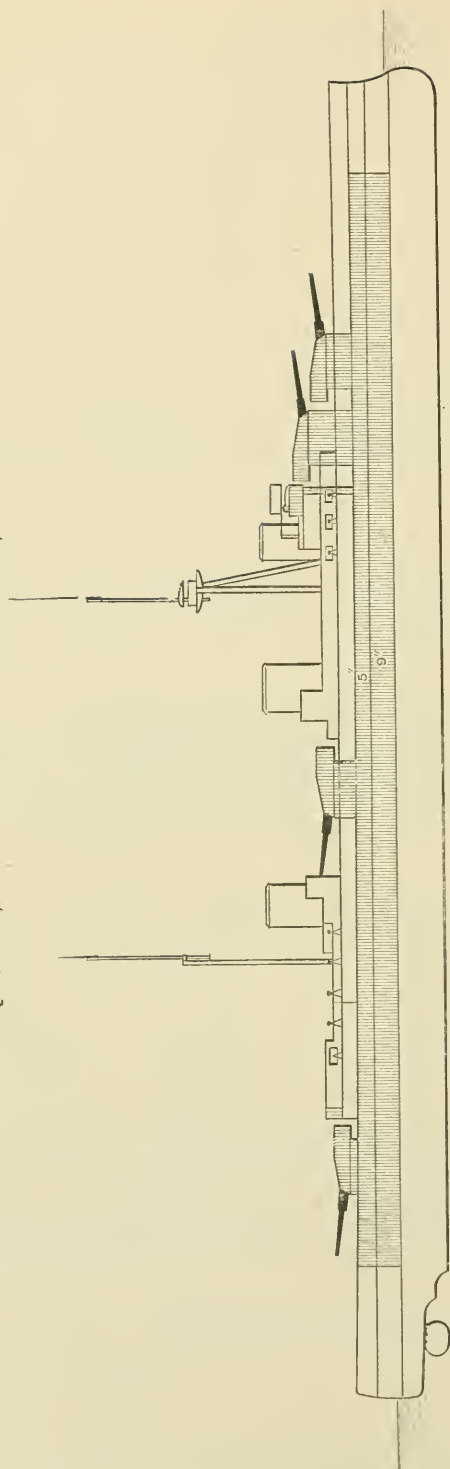
GREAT BRITAIN.

BATTLE CRUISERS.

Queen Mary.

Lion.

Princess Royal.



Length 660 ft. ; 26,350-27,000 tons ; Speed, 28-28.5 knots ; Completed, 1912-13 ;
Armament, 8-13.5 in., 10-4 in., 4 -3 pr., 5 small.

See pages 101, 102.

GREAT BRITAIN.

BATTLE CRUISERS.

Invincible.

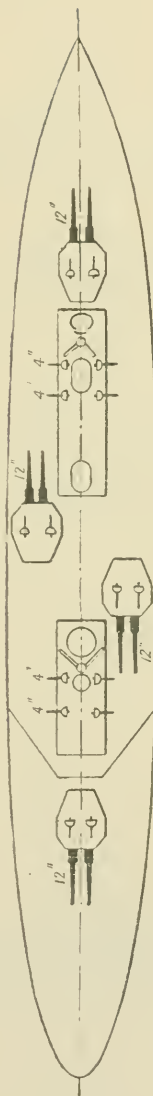
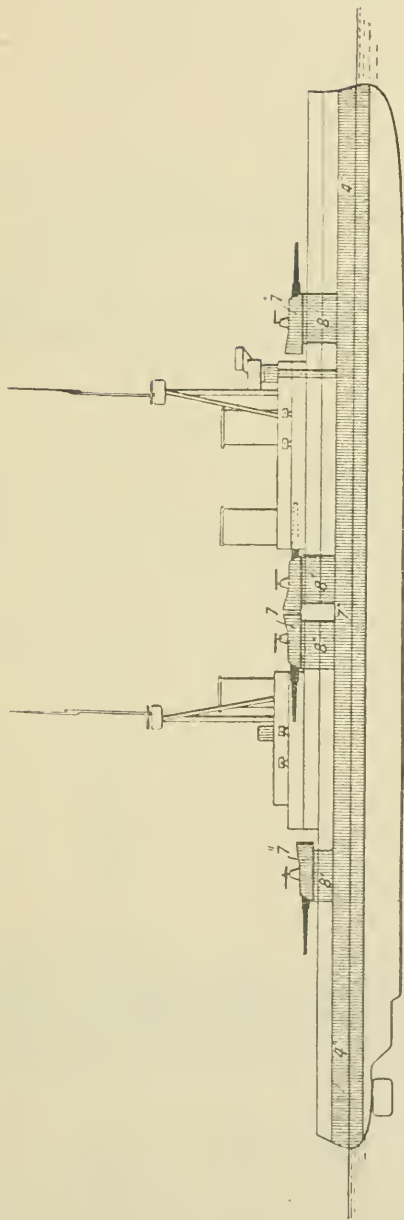
Indomitable.

Inflexible.

Indefatigable.*

New Zealand.*

Australia.*



Invincible
Indomitable
Inflexible

* Indefatigable
New Zealand
Australia

Length, 530 ft. ; 17,250 tons ; Speed, 26 knots ; Completed, 1908-9 ; Armament, 8—12 in., 16—4 in., 5 small.

Length, 555 ft. ; 18,750 tons ; Speed, 25 knots ; Completed, 1911-13 ; Armament, 8—12 in., 16—4 in., 4—3 pr., 5 small.

* The centre turrets are more *en echelon* than in the three earlier ships.

See pages 100, 101, 111.

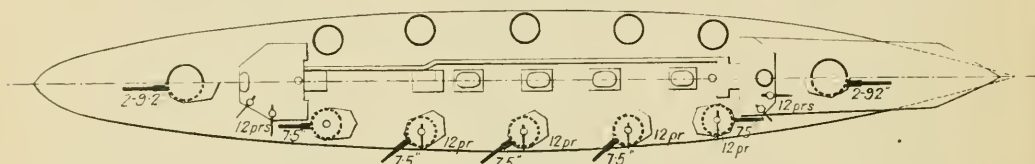
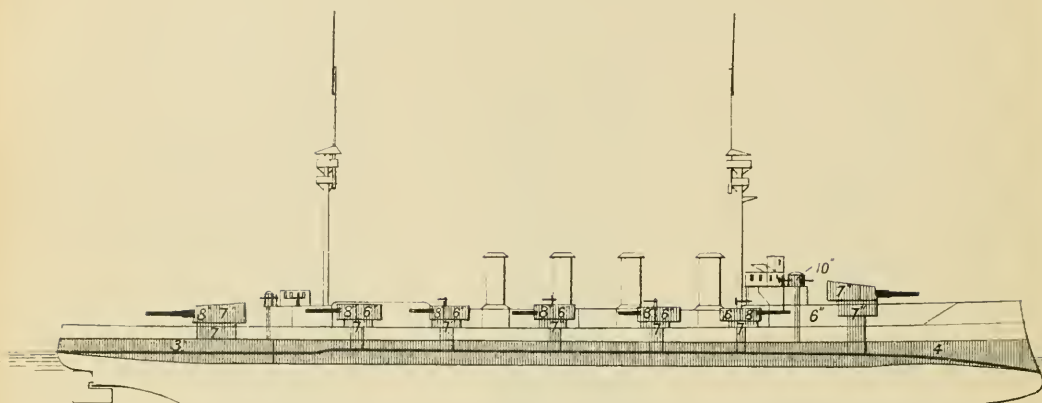
GREAT BRITAIN.

ARMOURD CRUISERS.

Minotaur.

Defence.

Shannon.



Length, 490 ft. ; 14,600 tons ; Speed, 22.5-23.5 knots ; Completed, 1908-1909 ;
Armament, 4-9.2 in., 10-7.5 in., 16-12 pr., 5 small.

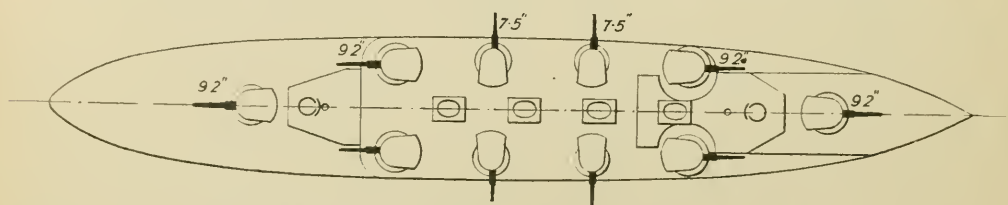
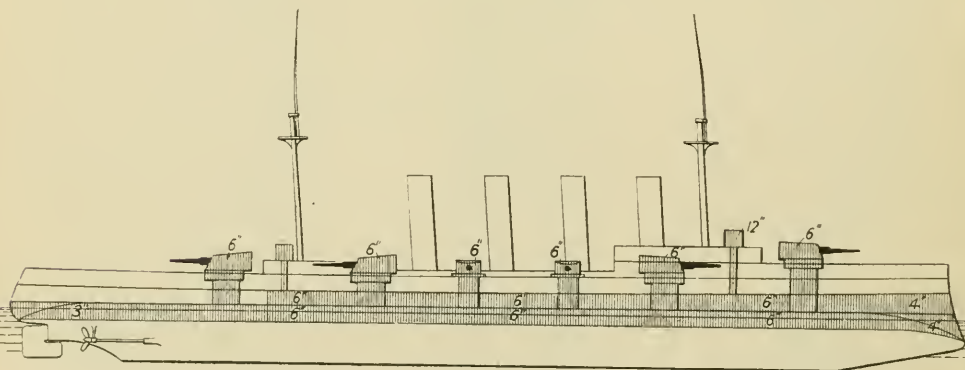
See pages 98, 101, 102.

Achilles.

Cochrane.

Natal.

Warrior.



Length, 480 ft. ; 13,550 tons ; Speed, 22.3-23.3 knots ; Completed, 1900-1907 ;
Armament, 6-9.2 in., 4-7.5 in., 24-3 pr., 2 small.

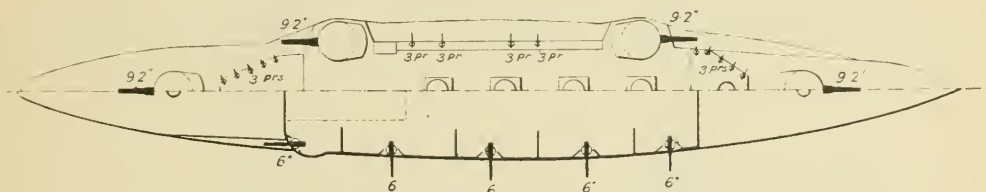
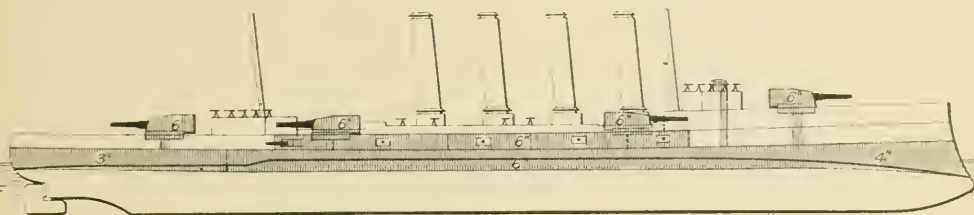
See pages 96, 97, 101, 103.

GREAT BRITAIN.

ARMoured CRUISERS.

Duke of Edinburgh.

Black Prince.



Length, 480 ft. ; 13,550 tons ; Speed, 22·8-23·6 knots ; Completed, 1906 ;
Armament, 6-9·2 in., 10-6 in., 20-3 pr., 2 small.

See pages 97, 98.

Devonshire.

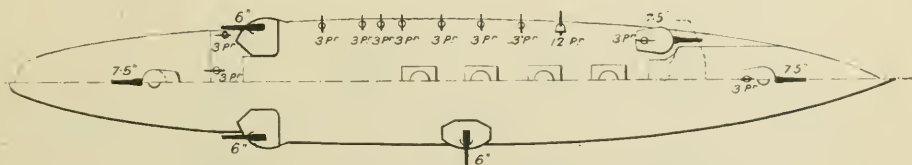
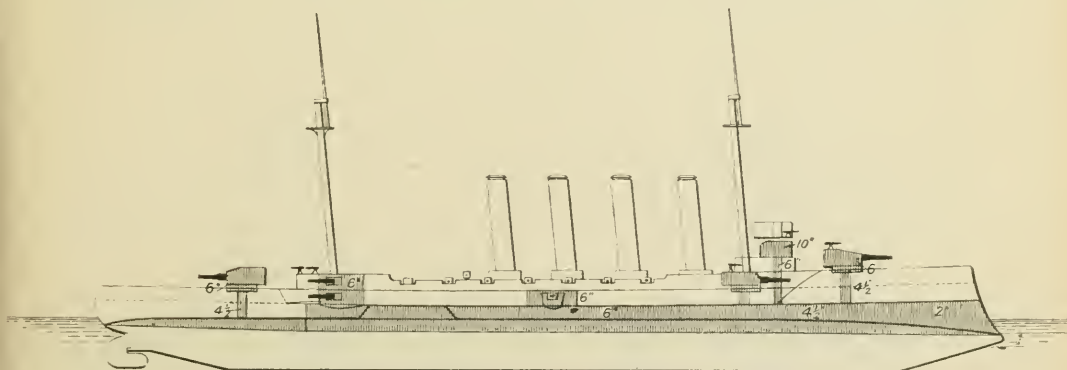
Antrim.

Argyll.

Carnarvon.

Hampshire.

Roxburgh.



Length, 450 ft. ; 10,850 tons ; Speed, 22·2-23·6 knots ; Completed, 1905-1906 ;
Armament, 4-7·5 in., 6-6 in., 20-3 pr., 2 small.

See pages 96-99, 102.

GREAT BRITAIN.

ARMoured CRUISERS.

Berwick.

Cornwall.

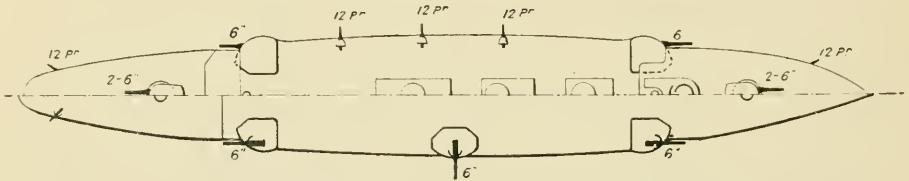
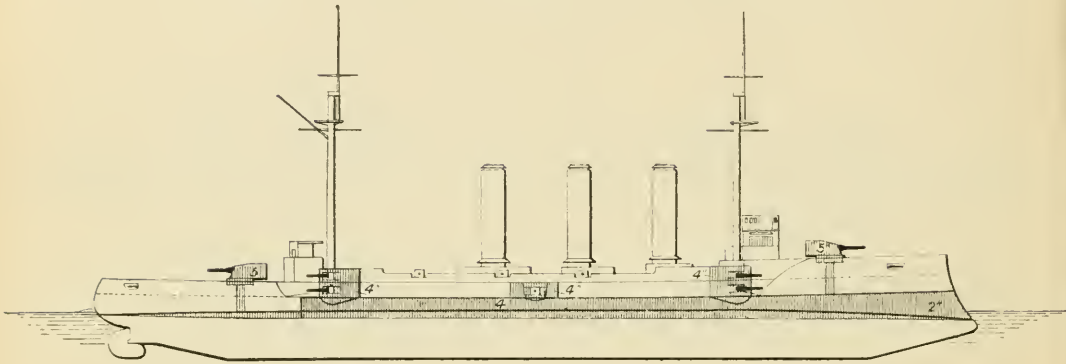
Cumberland.
Lancaster.

Donegal.

Suffolk.

Essex.

Kent.



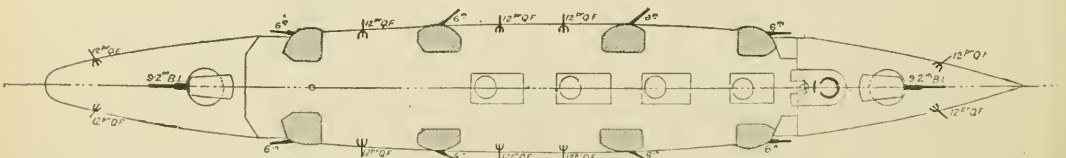
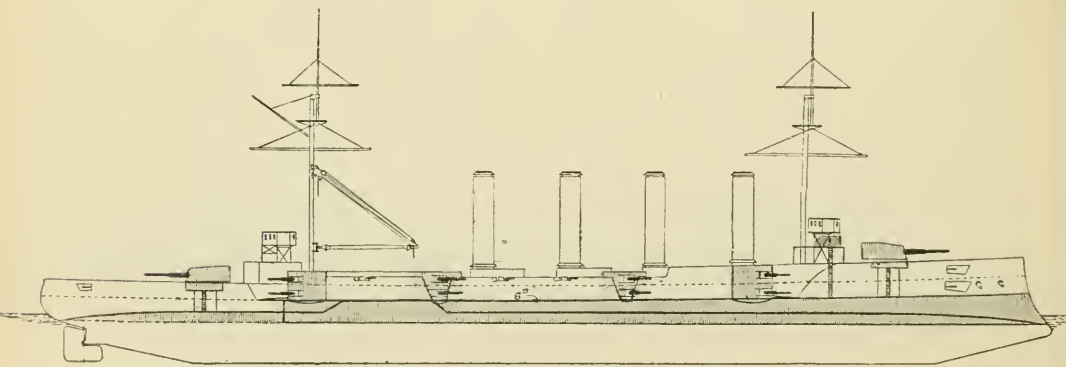
Length, 440 ft. ; 9,300 tons ; Speed, 22.7-24.7 knots ; Completed, 1903-1905 ;
Armament, 14-6 in., 8-12 pr., 3-3 pr., 9 small.

See pages 97-102.

Drake.

King Alfred.

Leviathan.



Length, 500 ft. ; 14,100 tons ; Speed, 23.3-24.1 knots ; Completed, 1902-1903 ;
Armament, 2-9.2 in., 16-6 in., 12-12 pr., 3-3 pr., 2 small.

See pages 98, 100.

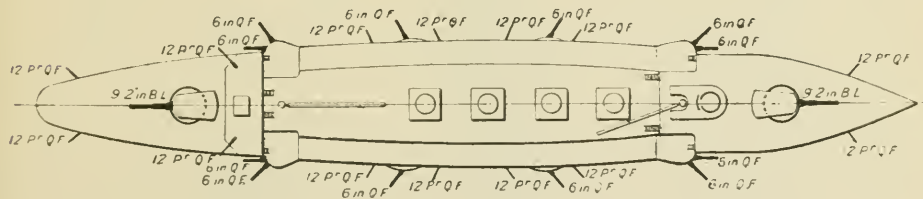
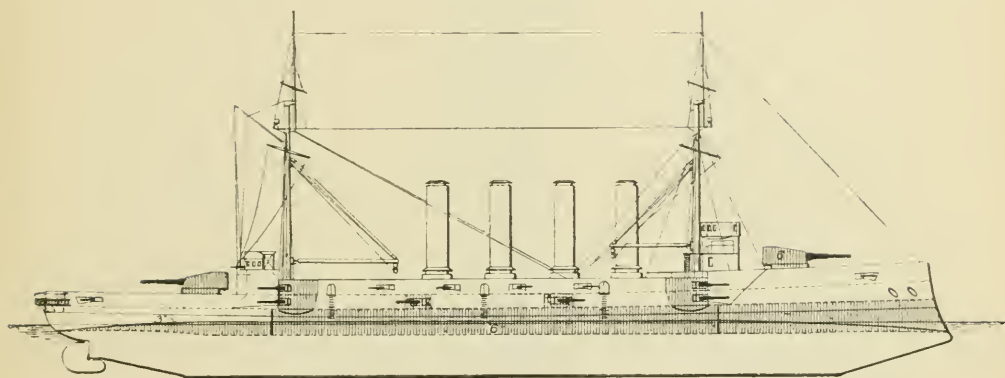
GREAT BRITAIN.

ARMoured CRUISERS.

Bacchante.

Euryalus.

Sutlej.



Length, 440 ft. ; 12,000 tons ; Speed, 20·8—21·5 knots ; Completed, 1901-1904 ;
 Armament, 2—9·2 in., 12—6 in., 12—12 pr., 3—3 pr., S small.

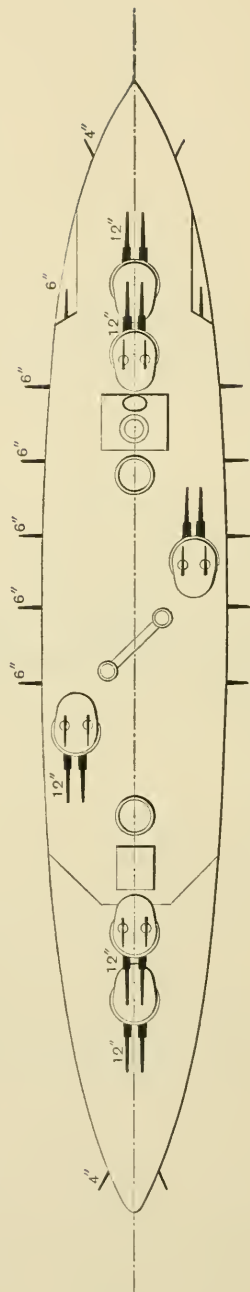
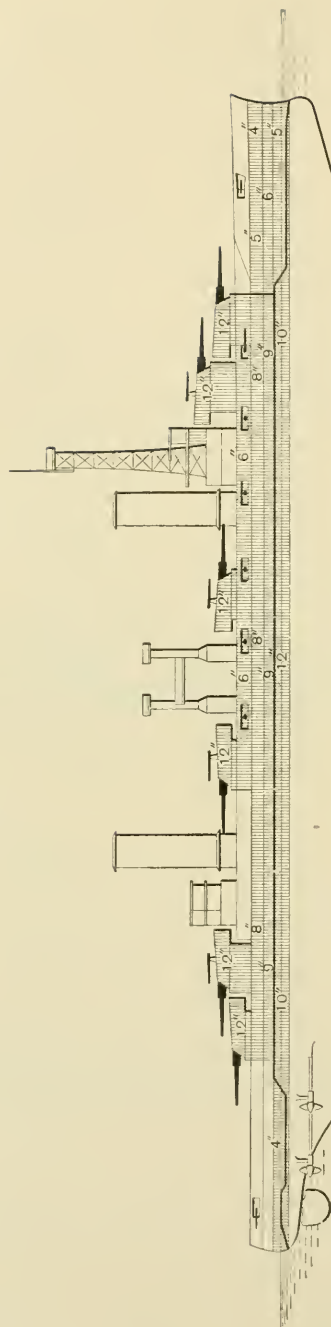
See pages 97, 99, 103.

ARGENTINE.

BATTLESHIPS.

Moreno.

Rivadavia.



Length, 585 ft.; 27,600 tons; Speed, 22.5 knots; Completed, 1914;
Armament, 12-12 in., 12-6 in., 16-4 in., 10 small.

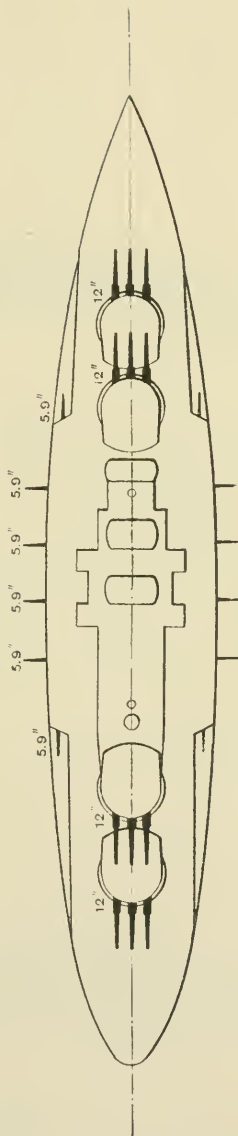
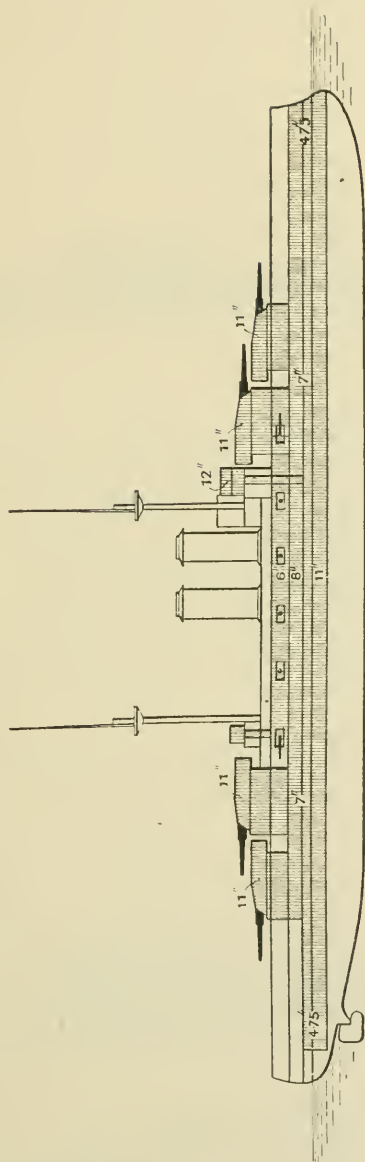
See page 112.

BATTLESHIPS.

Prinz Eugen.

Tegetthoff.

Szent Istvan.



Length, 495 ft.; 20,000 tons; Speed, 20·7 knots; Completed 1913 and Building; Armament, 12-12 in., 12-5·9 in., 18-12 pr., 6 small.

See page 114.

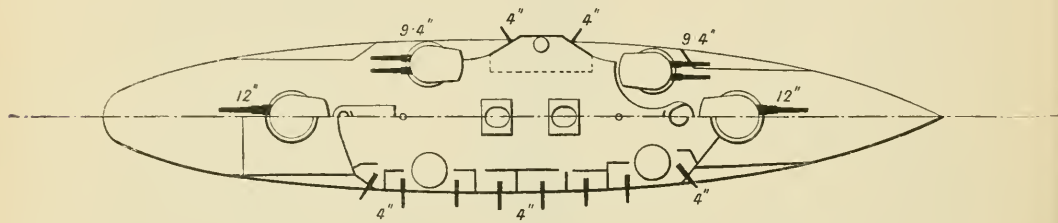
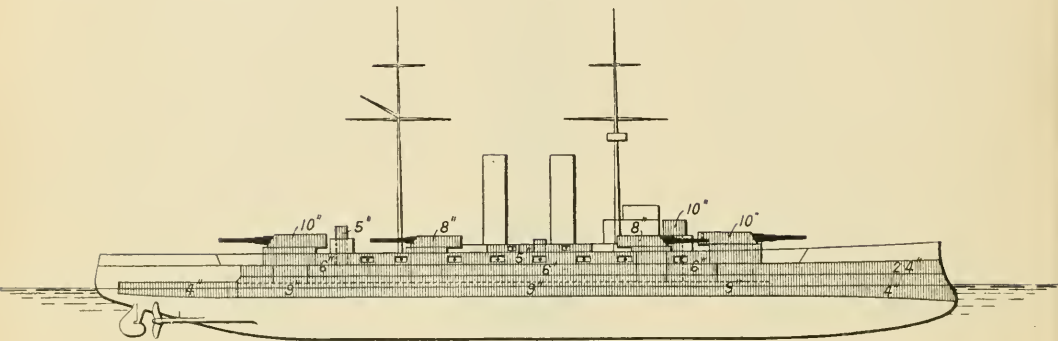
AUSTRIA.

BATTLESHIPS.

Erzherzog Franz Ferdinand.

Radetzky.

Zrinyi.



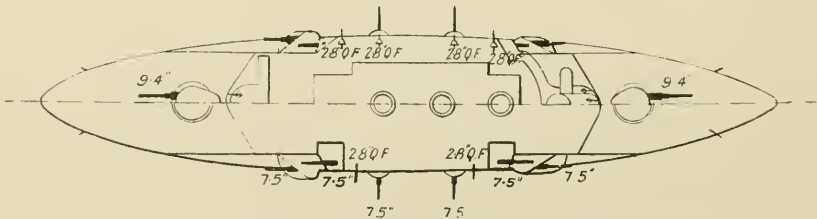
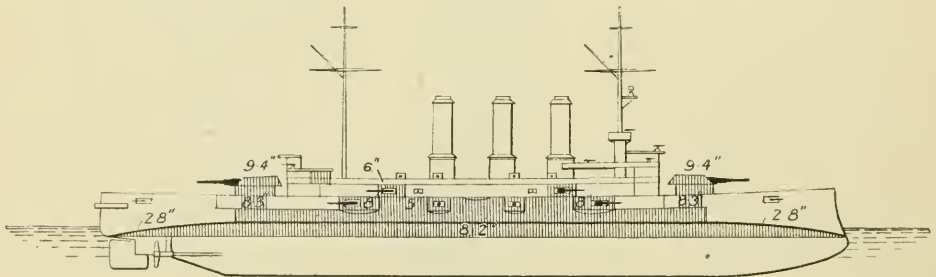
Length, 451 ft. ; 14,226 tons ; Speed, 20.5 knots ; Completed, 1910-1911 ;
Armament, 4—12 in., 8—9.4 in., 20—3.9 in., 6—12 pr., 2 small.

See page 114.

Erzherzog Ferdinand Max.

Erzherzog Karl.

Erzherzog Friedrich.



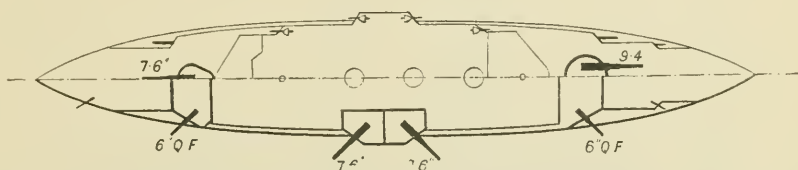
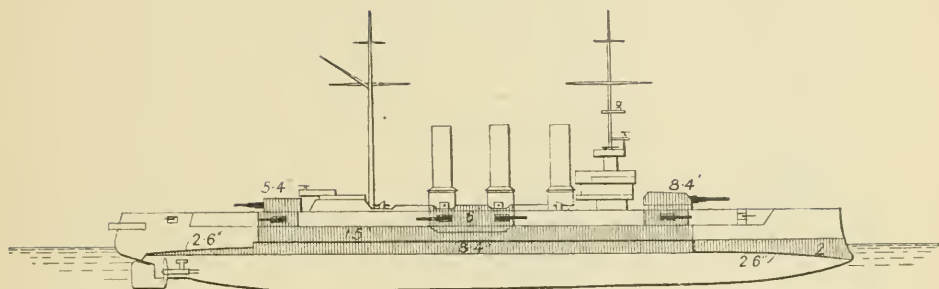
Length, 390 ft. ; 10,433 tons ; Speed, 20—20.6 knots ; Completed, 1905-1907 ;
Armament, 4—9.4 in., 12—7.5 in., 12—2.8 in., 16 small.

See page 114.

AUSTRIA.

ARMoured CRUISERS.

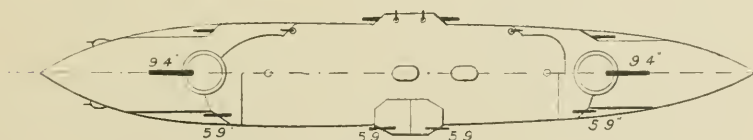
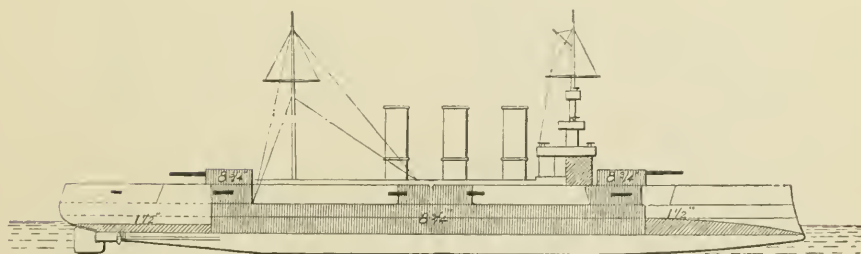
St. Georg.



Length, 384 ft. ; 7185 tons ; Speed, 22 knots ; Completed, 1906 ;
Armament, 2—9·4 in., 5—7·6 in., 4—5·9 in., 9—2·8 in., 16 small.

See page 114.

Kaiser Karl VI.



Length, 367 ft. ; 6151 tons ; Speed, 20·7 knots ; Completed, 1900
Armament, 2—9·4 in., 8—5·9 in., 19 small.

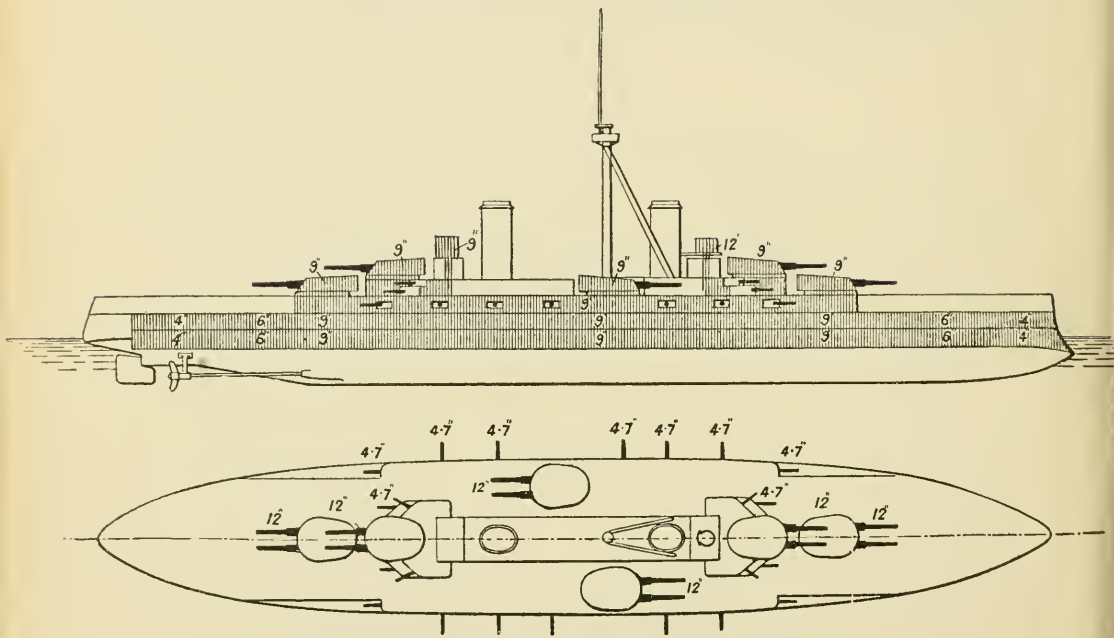
See page 114.

BRAZIL.

BATTLESHIPS.

Minas Geraes.

Sao Paulo.



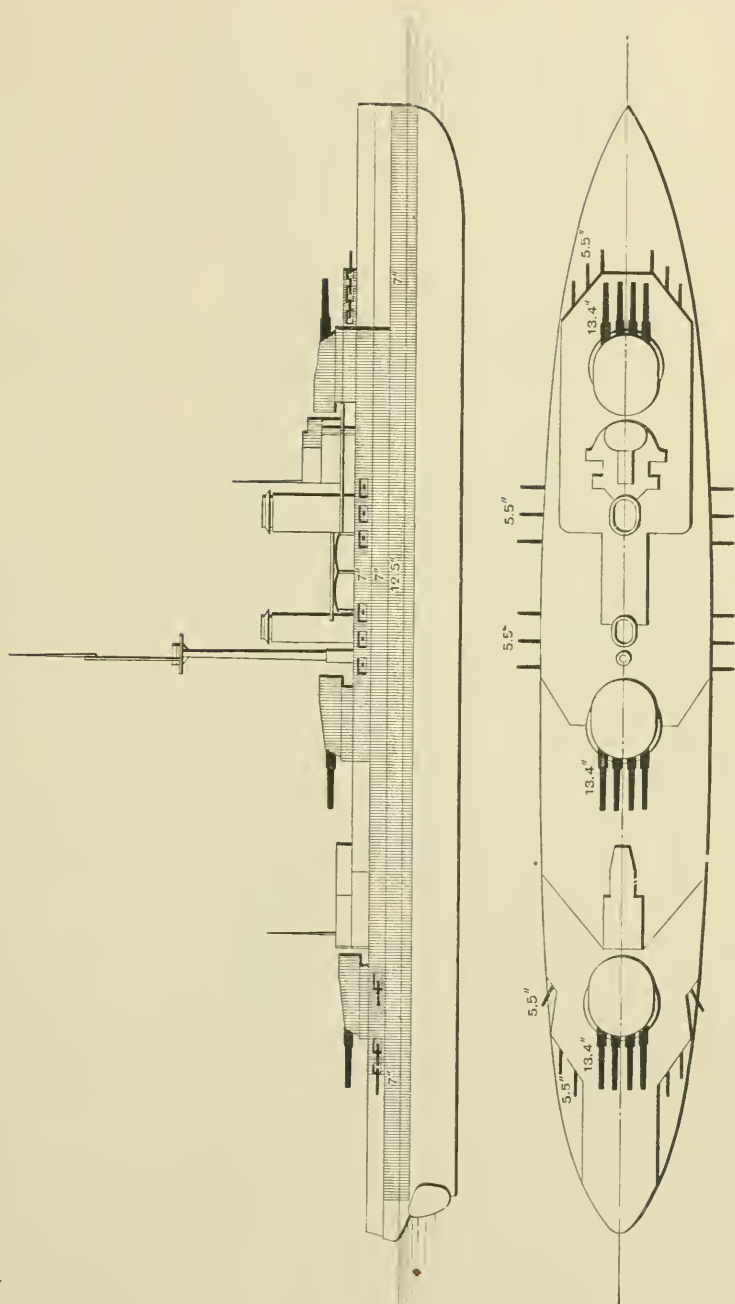
Length, 500 ft. ; 19,281 tons ; Speed, 21 knots ; Completed, 1909, 1910.
Armament, 12—12 in., 22—4.7 in., 8 small.

See page 116

FRANCE.

BATTLESHIPS.

Normandie. Flandre. Gascogne. Béarn.
 (The plans of the Lyon, Lille, Duquesne, and Tourville differ from those of Normandie class in placing four 4-gun turrets on the middle line.)



Length, 574 ft. ; 24,880 tons ; Speed, 21 knots ; Building ;
 Armament, 12-13.4 in., 24 5.5 in., 4-3 in.

See pages 122, 123.

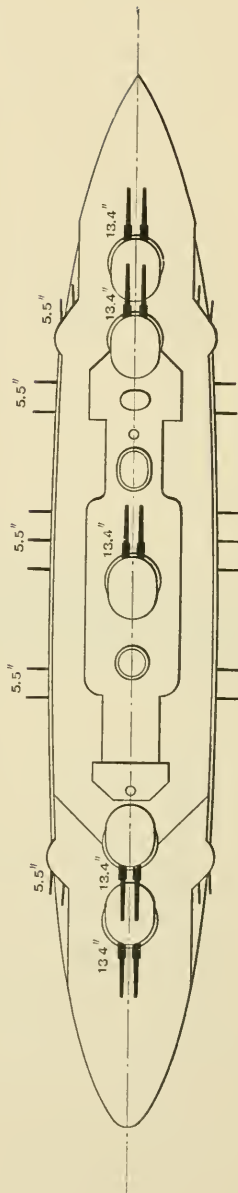
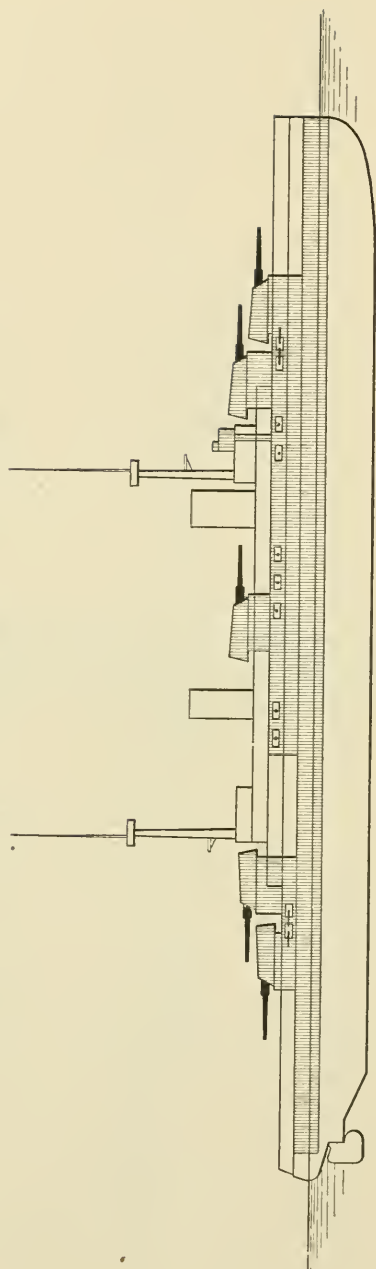
FRANCE.

BATTLESHIPS.

Bretagne.

Provence.

Lorraine.



Length, 546 ft. ; 23,177 tons ; Speed, 20 knots ;
Armament, 10—13.4 in., 22—5.5 in., 8 small.

See pages 121, 123, 124.

FRANCE.

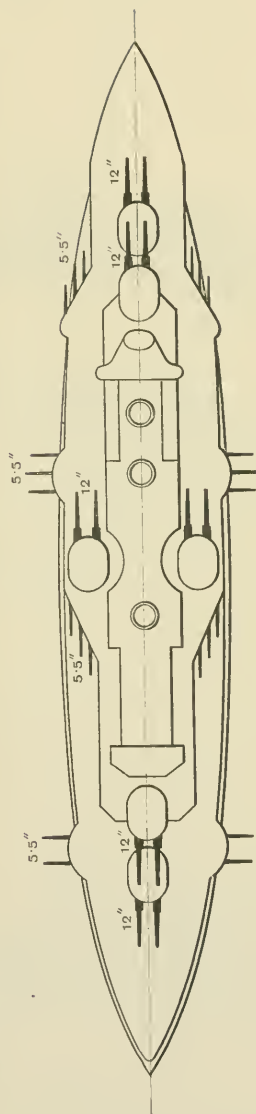
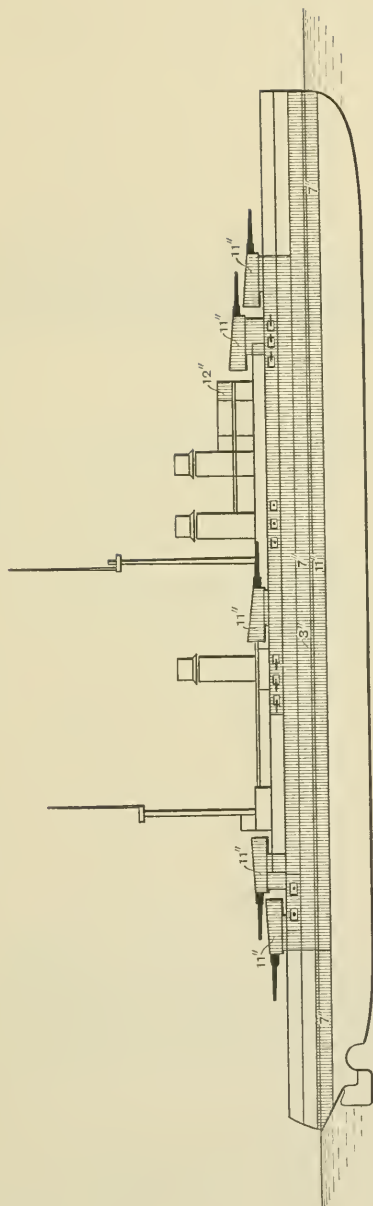
BATTLESHIPS.

Jean Bart.

Courbet.

France.

Paris.



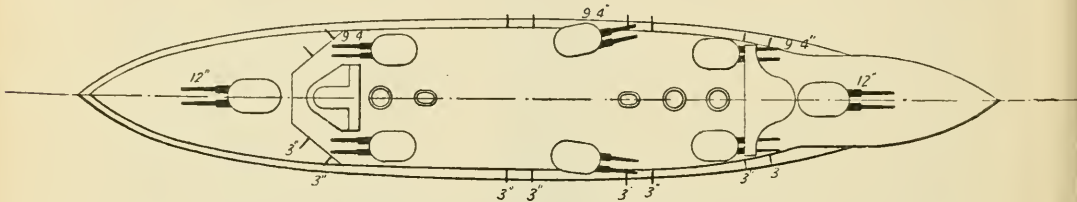
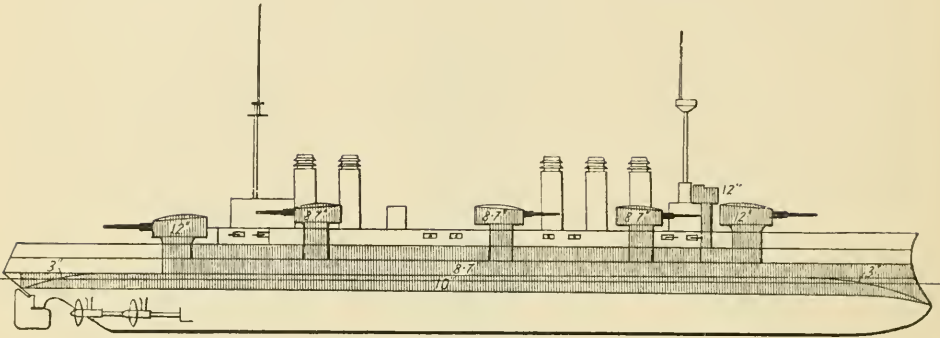
Length, 546 ft.; 23,100 tons; Speed, 20 knots; Completed 1913-14;
Armament, 12-12 in., 22-5.5 in., 4-3 in.

See pages 121, 122, 123.

FRANCE.

BATTLESHIPS.

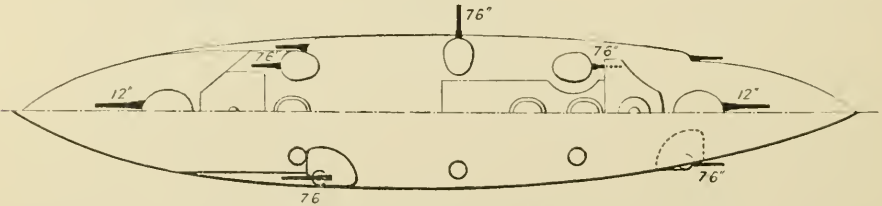
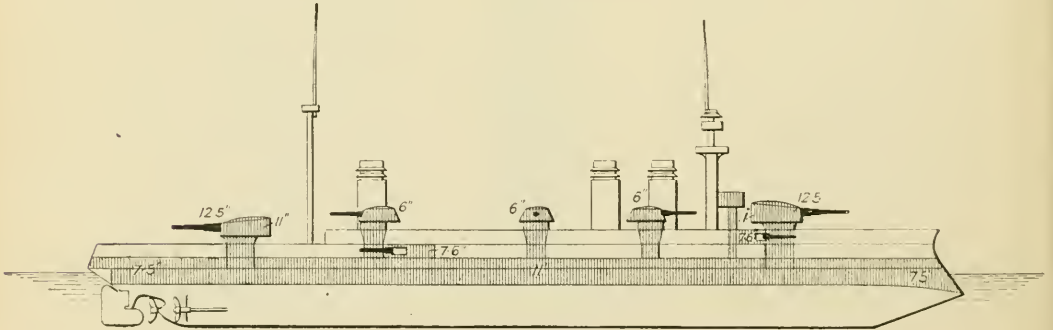
Danton. Condorcet. Diderot. Mirabeau. Vergniaud. Voltaire.



Length, 476 ft. ; 18,028 tons ; Speed, 19.7-20.7 knots ; Completed, 1911 ;
Armament, 4—12 in., 12—9.4 in., 16—12 pr., 10 small.

See pages 121-124.

Démocratie. Justice. Vérité.



Length, 439 ft. ; 14,635 tons ; Speed, 19.3 knots ; Completed, 1907-1908 ;
Armament, 4—12 in., 16—7.6 in., 28 small.

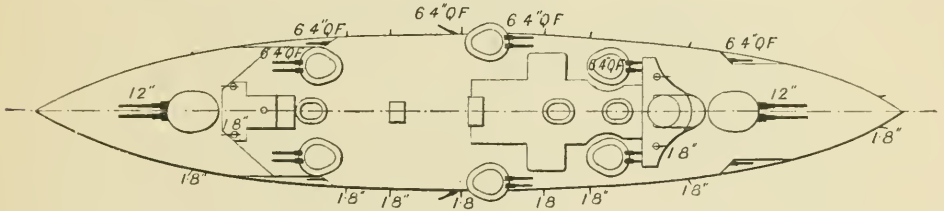
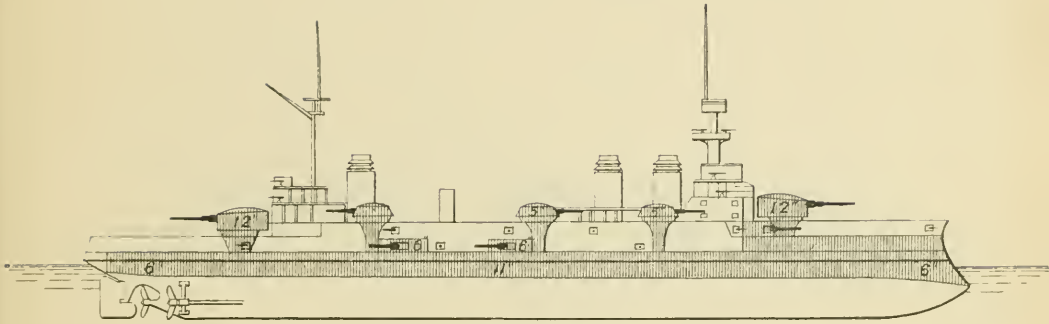
See pages 121, 123, 124

FRANCE.

BATTLESHIPS.

Patrie.

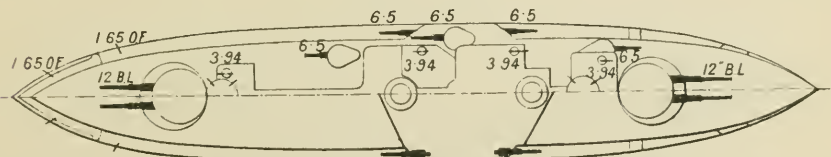
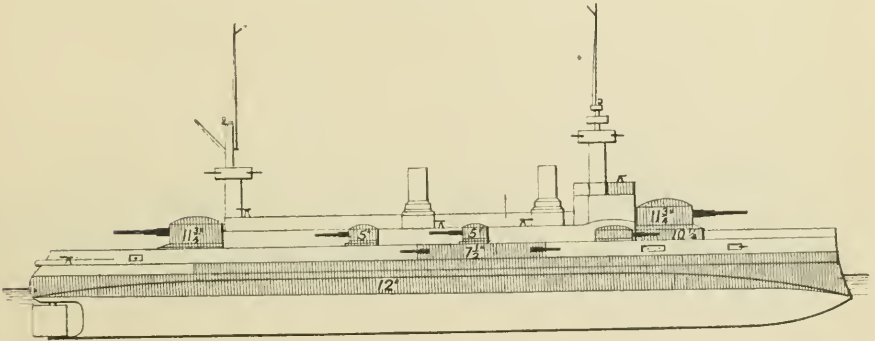
République.



Length, 439 ft. ; 14,635 tons ; Speed, 19·1 knots ; Completed, 1906 ;
Armament, 4—12 in., 18—6·4 in., 28 small.

See page 124.

Suffren.



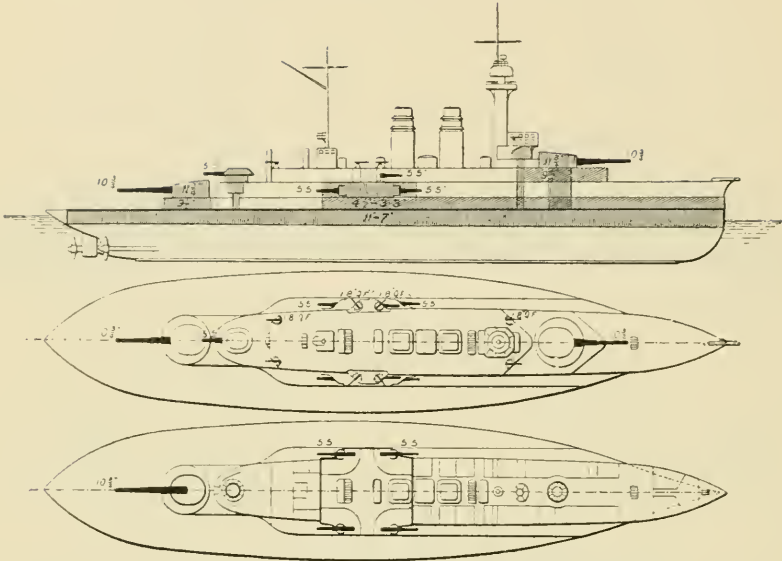
Length, 412 ft. ; 12,527 tons ; Speed, 18 knots ; Completed, 1903 ;
Armament, 4—12 in., 10—6·5 in., 8—3·9 in., 22 small.

See page 124.

FRANCE.

BATTLESHIPS.

Henri IV.



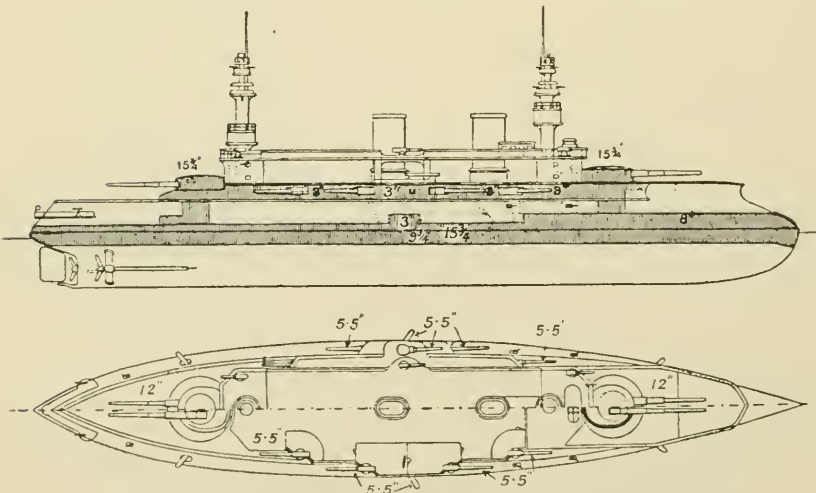
Length, 354 ft. ; 8807 tons ; Speed, 17.2 knots ; Completed, 1902 ;
Armament, 2—10.8 in., 7—5.5 in., 14 small.

See page 122.

Charlemagne.

Gaulois.

St. Louis.



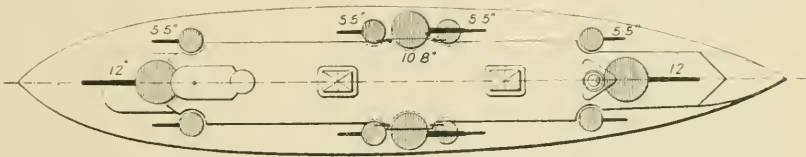
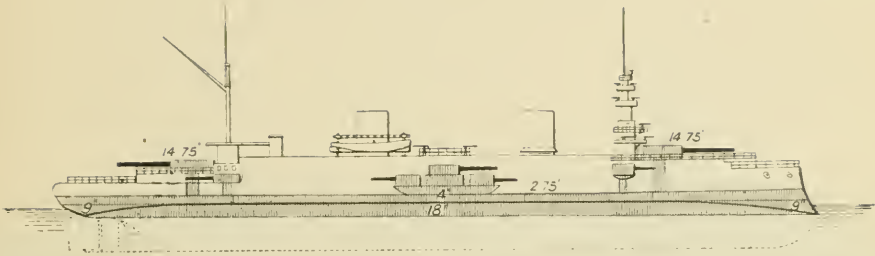
Length, 385 ft. ; 11,103 tons ; Speed, 18 knots ; Completed, 1898-1900 ;
Armament, 4—12 in., 10—5.5 in., 8—3.9 in., 34 small.

See pages 121, 122, 124.

FRANCE.

BATTLESHIP.

Carnot.

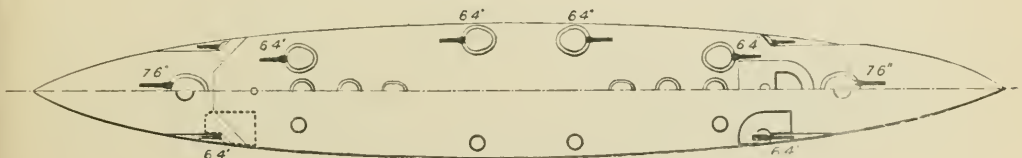
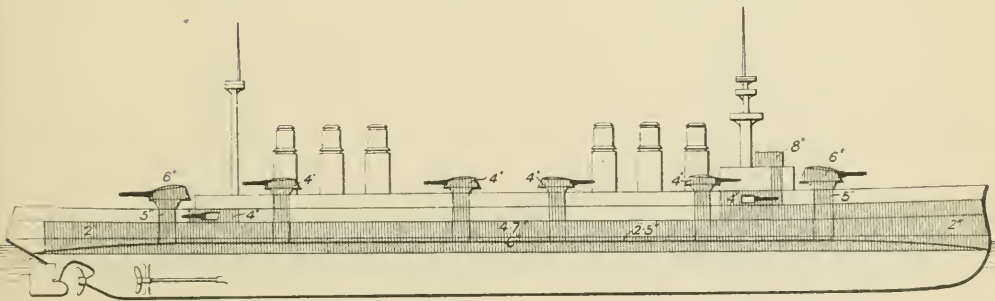


Length, 382 ft. ; 11,954 tons ; Speed, 17·8 knots ; Completed, 1897 ;
Armament, 2—12 in., 2—10·8 in., 8—5·5 in., 30 small.

See page 121.

ARMoured CRUISER.

Ernest Renan.



Length, 515 ft. ; 13,427 tons ; Speed, 23·5 knots ; Completed, 1909 ;
Armament, 4—7·6 in., 12—6·4 in., 24 small.

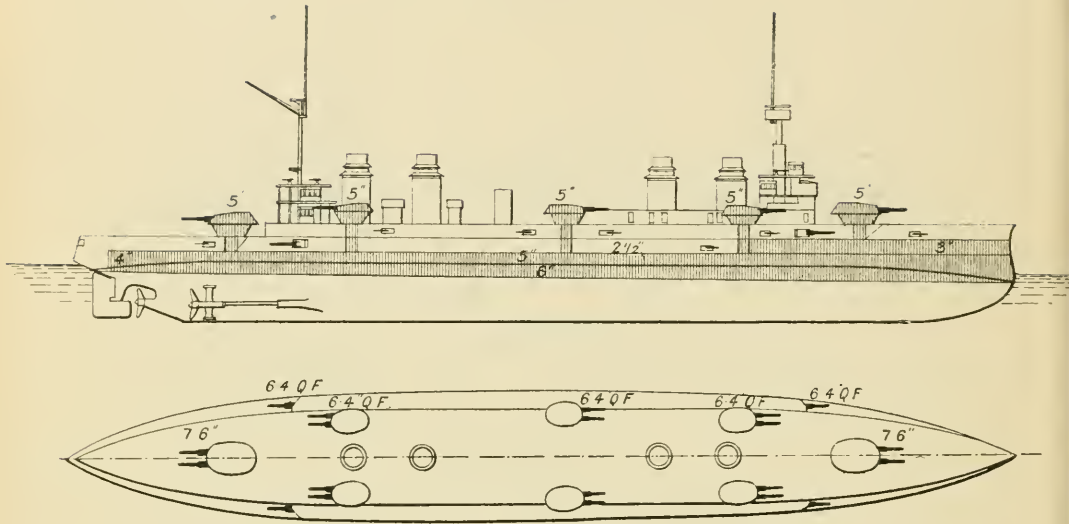
See page 122.

FRANCE.

ARMoured CRUISERS.

Jules Ferry.

Victor Hugo.



Length, 480 ft. ; 12,351 tons ; Speed, 22.5-23 knots ; Completed 1904-1907 ;
Armament, 4—7.6 in., 16—6.4 in., 24 small.

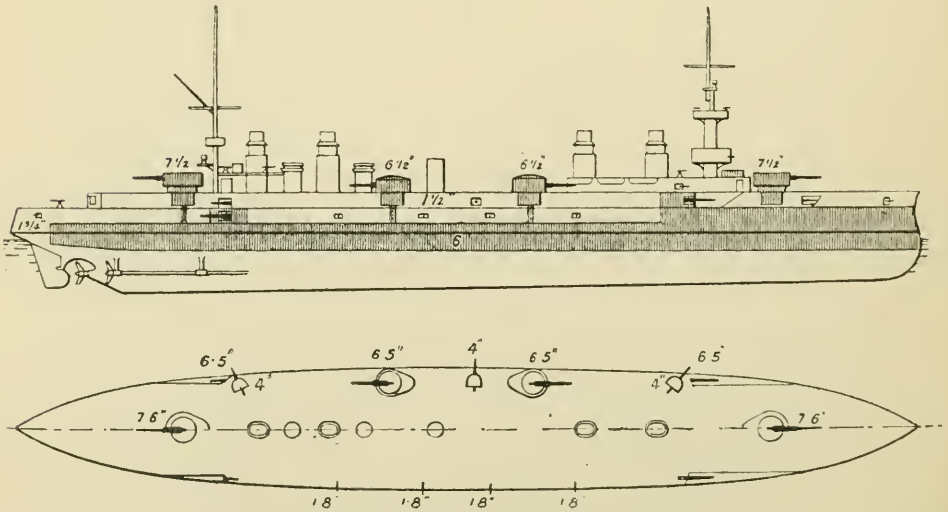
See pages 123, 124.

Amiral Aube.

Condé.

Gloire.

Marseillaise.



Length, 453 ft. ; 9856 tons ; Speed, 21-21.9 knots ; Completed, 1903-1904 ;
Armament, 2—7.6 in., 8—6.4 in., 6—3.9 in., 20 small.

See pages 121, 122, 123.

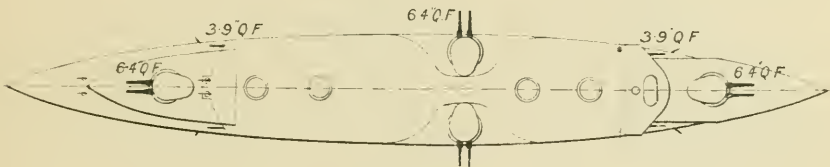
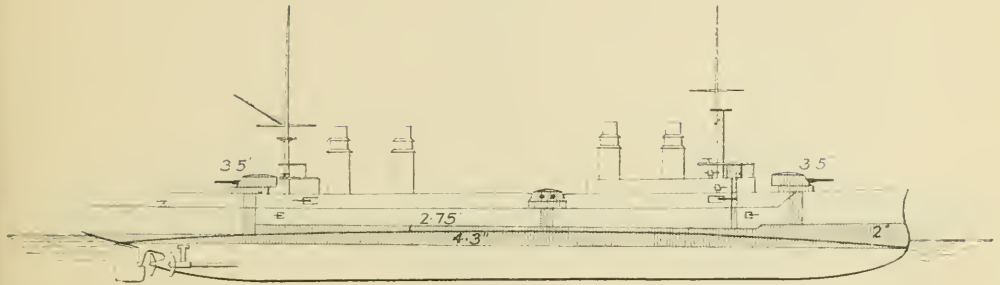
FRANCE.

ARMOURED CRUISERS.

Kléber.

Desaix.

Dupleix.



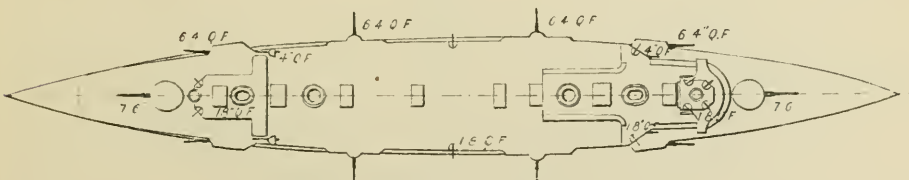
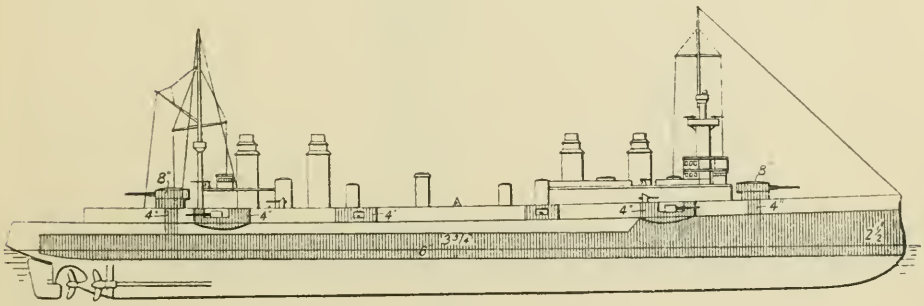
Length, 426 ft. ; 7578 tons ; Speed, 21-21.7 knots ; Completed, 1903-1904 ;
Armament, 8-6.4 in., 4-3.9 in., 14 small.

See pages 122, 123.

Montcalm.

Dupetit-Thouars.

Gueydon.



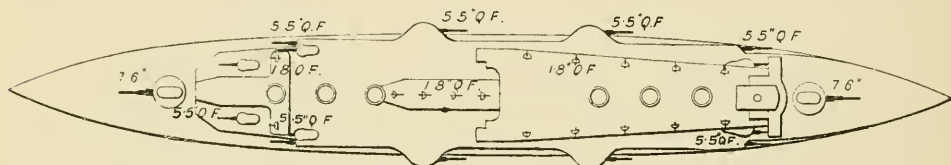
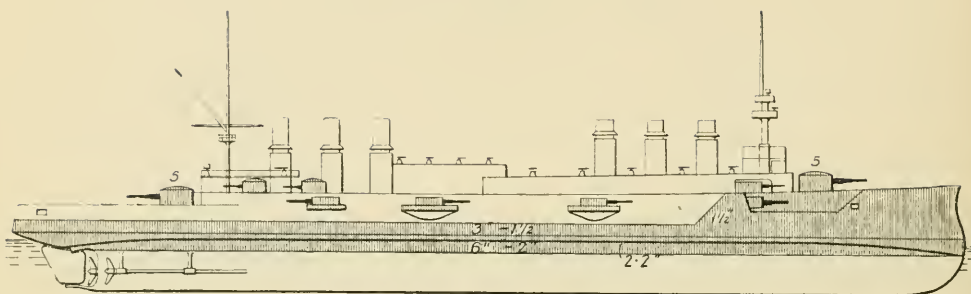
Length, 453 ft. ; 9367 tons ; Speed, 21-22.5 knots ; Completed, 1902-1905 ;
Armament, 2-7.6 in., 8-6.4 in., 4-3.9 in.

See pages 122, 123.

FRANCE.

ARMoured CRUISER.

Jeanne d'Arc.

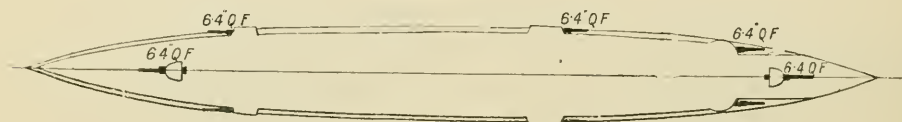
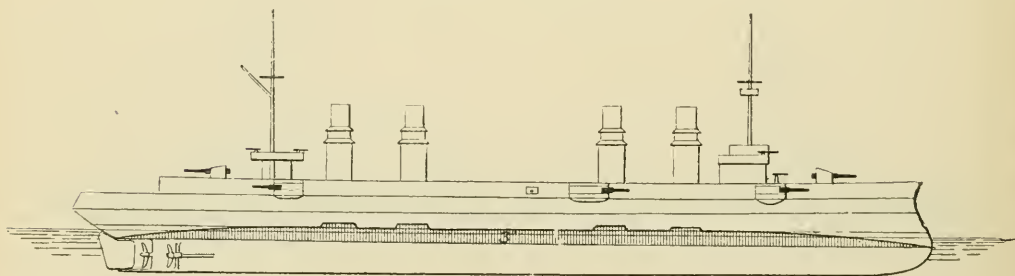


Length, 477 ft. ; 11,092 tons ; Speed, 21.7 knots ; Completed, 1903 ;
Armament, 2—7.6 in., 14—5.5 in., 26 small.

See page 123.

CRUISER.

Jurien de la Gravière.



Length, 440 ft. ; 5595 tons ; Speed, 22.9 knots ; Completed, 1901 ;
Armament, 8—6.4 in., 12 small.

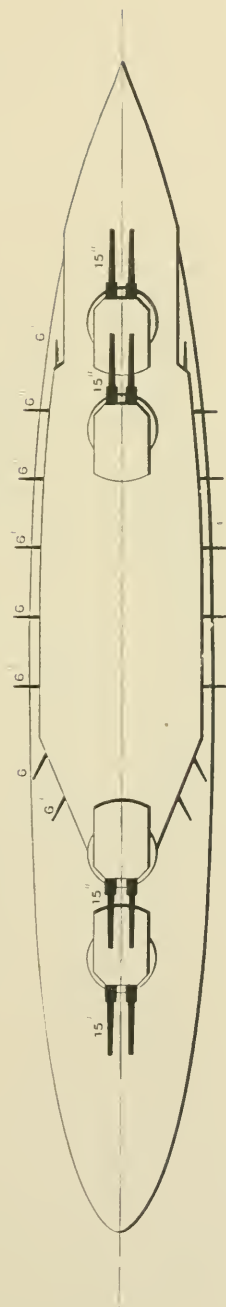
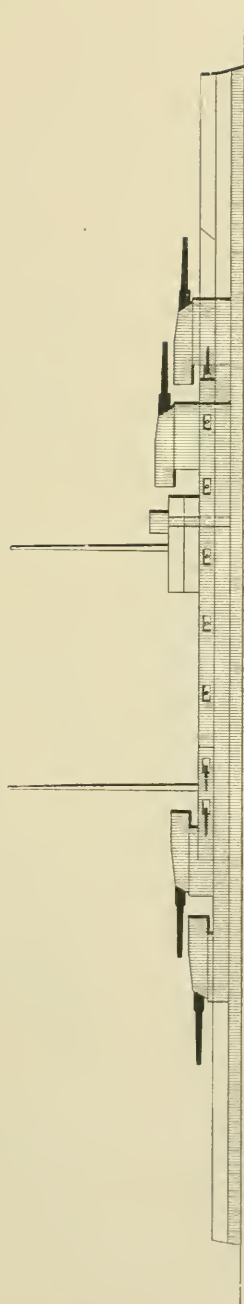
See page 126.

GERMANY

BATTLESHIPS.

Ersatz Wörth.

T.



28,000 tons ; Speed, 23 knots ; Building ;
Armament, 8—15 in., 16—6 in., and small.

See page 129.

GERMANY.

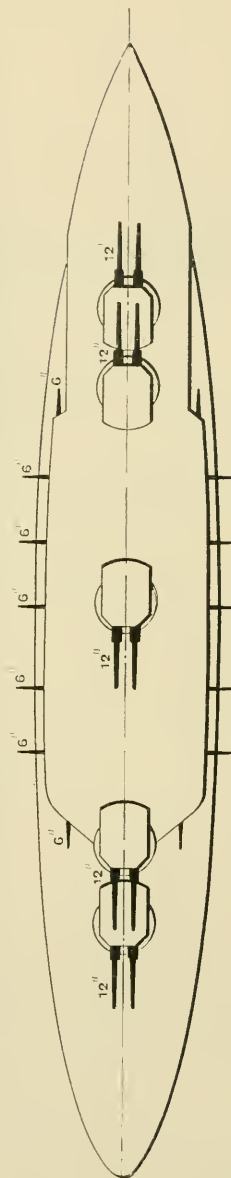
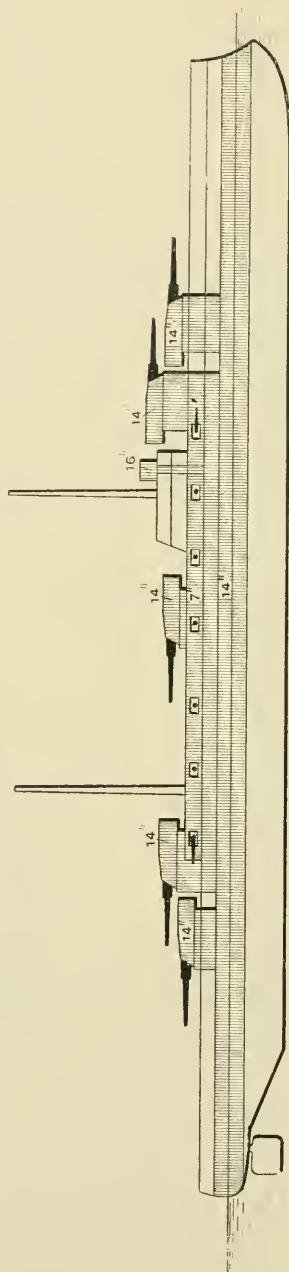
BATTLESHIPS.

König.

Grosser Kurfürst.

Markgraf.

Kronprinz.



Length, 580 ft.; 26,575 tons; Speed, 23 knots; Completed, 1914-15

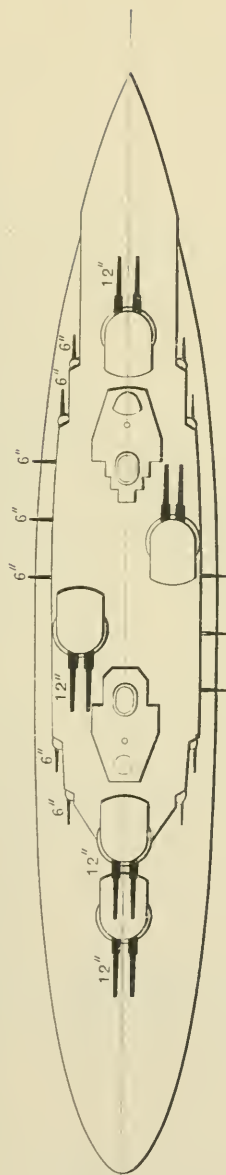
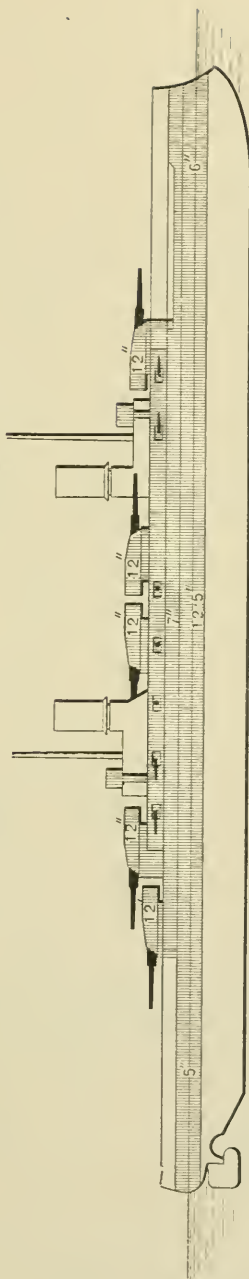
Armament, 10—12 in., 14—6 in., 12—3.5 in.

See pages 127-128.

GERMANY.

BATTLESHIPS.

Kaiser. Friedrich der Grosse. Kaiserin. Prinzregent Luitpold. König Albert.



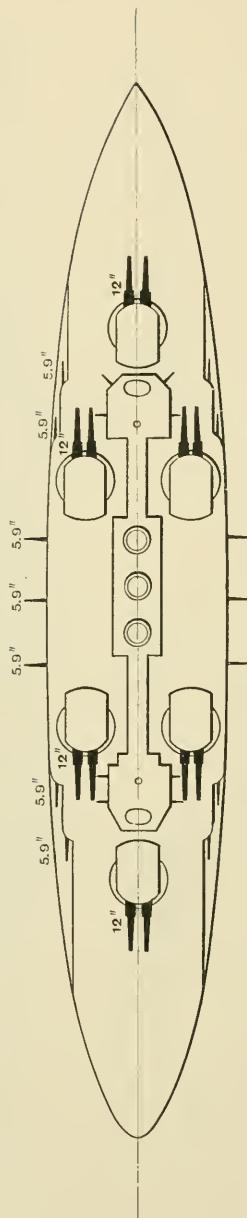
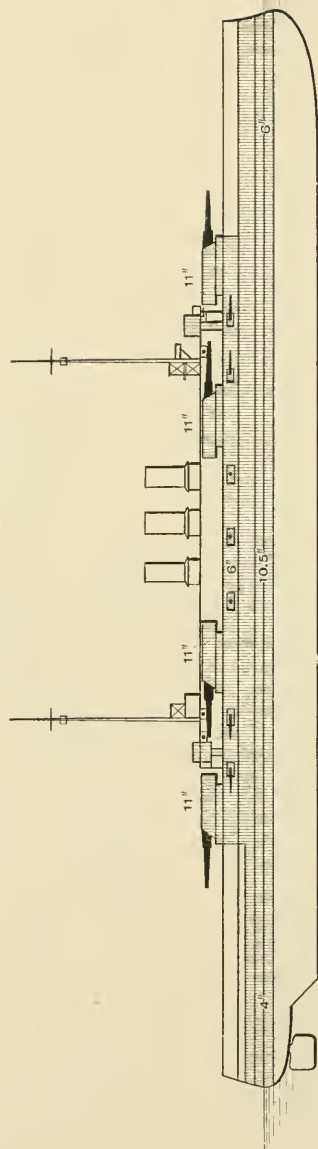
Length, 564 ft. ; 24,310 tons ; Speed, 22.4 knots ; Completed, 1912 ;
Armament, 10—12 in. ; 14—6 in. ; 12—3.4 in.

See pages 127, 128, 129.

GERMANY.

BATTLESHIPS.

Ostfriesland Helgoland. Oldenburg. Thuringen.



Length, 546 ft.; 22,500 tons; Speed, 20.5 knots; Completed, 1911-12;
Armament, 12—12 in., 14—5.9 in., 14—3.4 in.

See pages 127, 128, 129.

GERMANY.

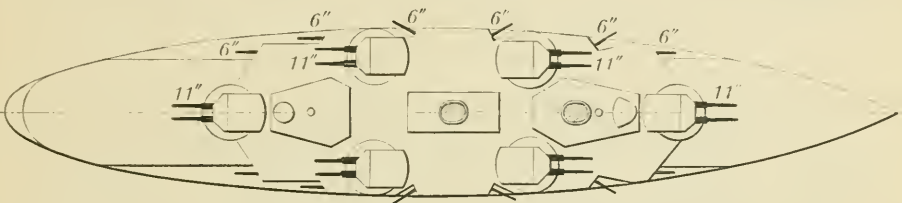
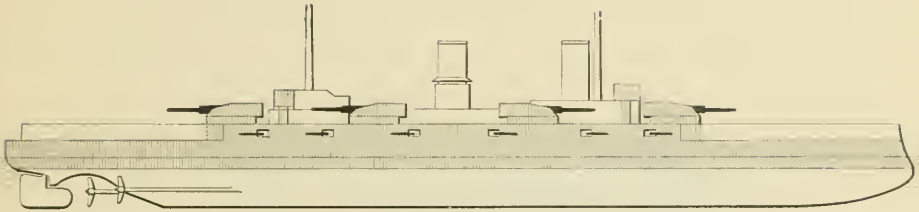
BATTLESHIPS.

Nassau.

Posen.

Rheinland.

Westfalen.



Length, 452 ft. ; 18,600 tons ; Speed, 20-20.7 knots ; Completed, 1909-1910 ;
Armament, 12-11 in., 12-6 in., 16-3.4 in.

See pages 128, 129.

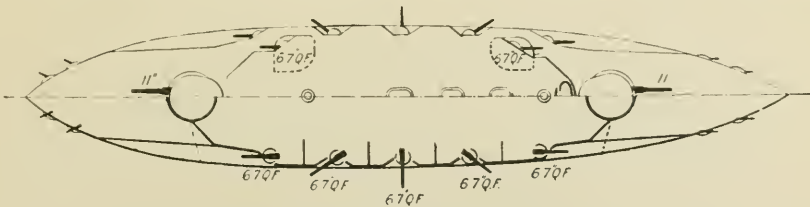
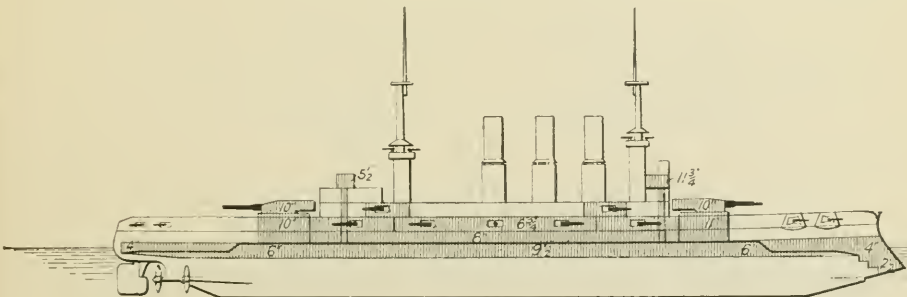
Deutschland.

Hannover

Pommern.

Schlesien

Schleswig-Holstein.



Length, 398 ft. ; 13,040 tons ; Speed, 18.5-19.5 knots ; Completed, 1906-1908 ;
Armament, 4-11 in., 14-6.7 in., 22-3.4 in., 8 small.

See pages 127, 129.

GERMANY.

BATTLESHIPS.

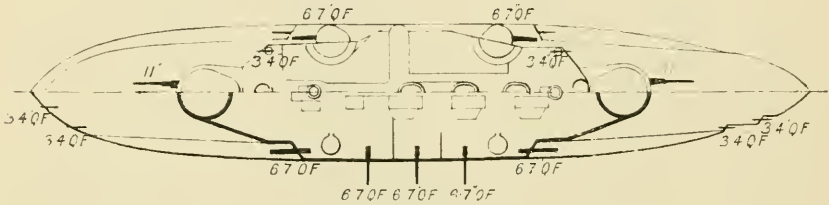
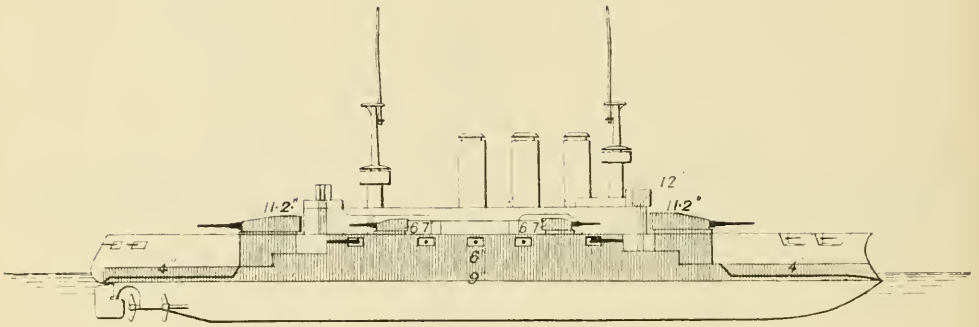
Braunschweig.

Elsass.

Hessen.

Lothringen.

Preussen.



Length, 398 ft. : 12,997 tons : Speed, 18—18.7 knots : Completed, 1904-1906 :
Armament, 4—11 in., 14—6.7 in., 18—3.4 in., and small.

See pages 127, 128, 129.

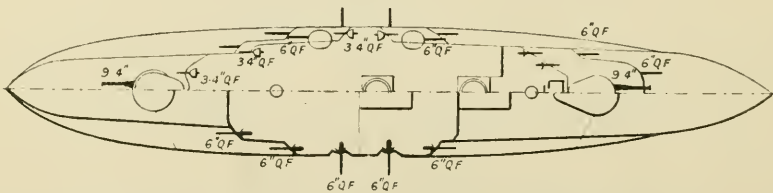
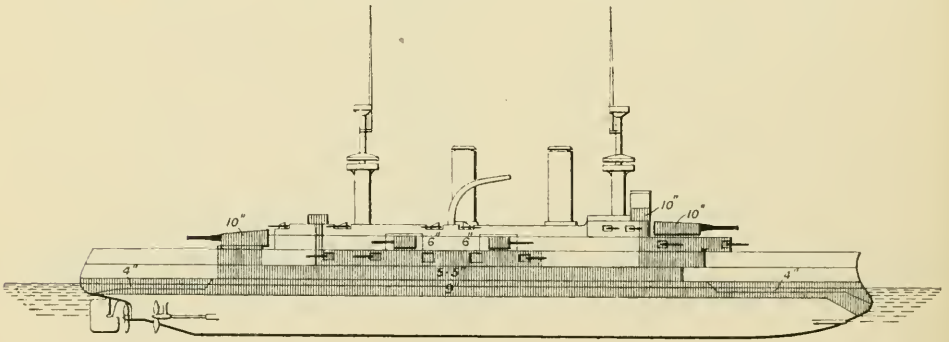
Wittelsbach.

Mecklenburg.

Schwaben.

Wettin.

Zähringen.



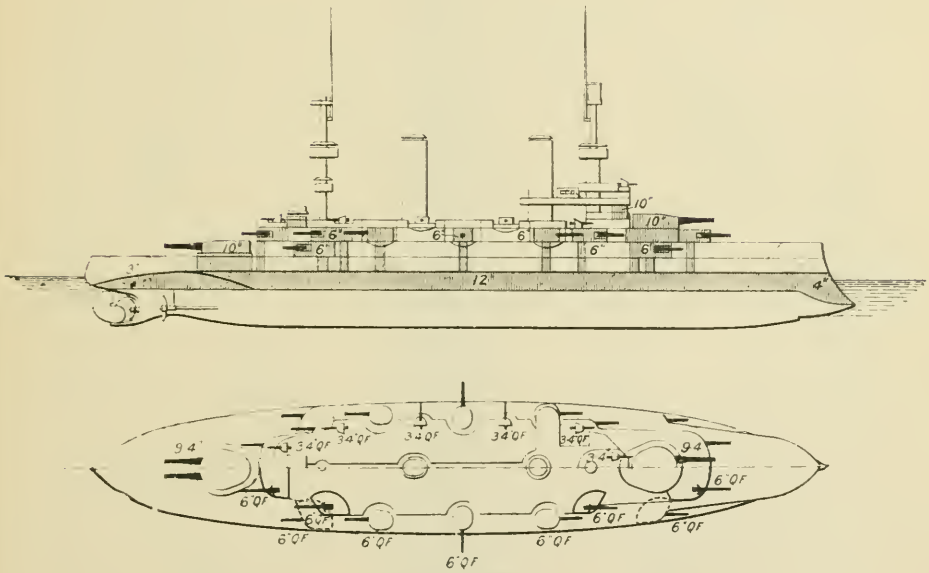
Length, 394 ft. : 11,611 tons : Speed, 18—19 knots : Completed, 1902-1903 :
Armament, 4—9.4 in., 18—6 in., 12—3.4 in., 20 small.

See pages 128, 129.

GERMANY.

BATTLESHIPS.

Kaiser Friedrich III. Kaiser Karl der Grosse. Kaiser Wilhelm II. Kaiser Wilhelm der Grosse.
Kaiser Barbarossa



Length, 377 ft. ; 10,474 tons : Speed, 18 knots : Completed, 1898-1901 :
Armament, 4—9.4 in., 18—6 in., 12—3.4 in., 20 small.

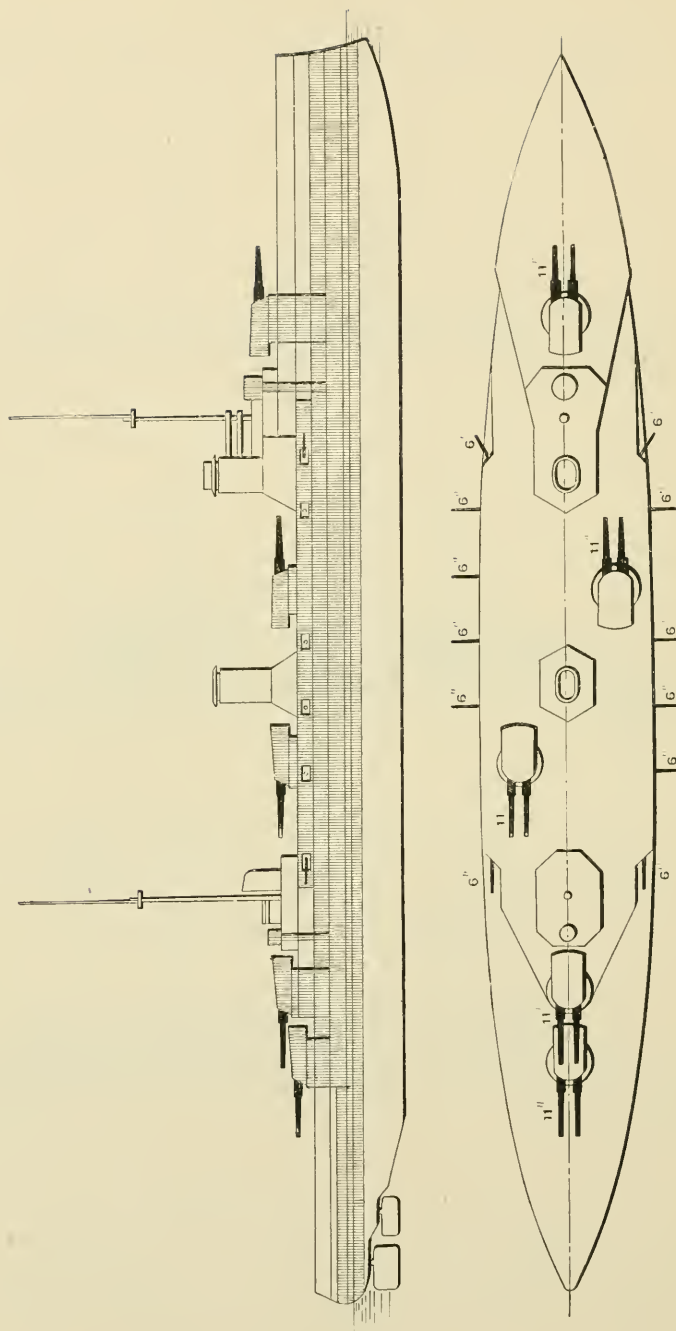
NOTE.—Superstructure has been cut down.

See page 125.

GERMANY.

BATTLE CRUISER.

Seydlitz.



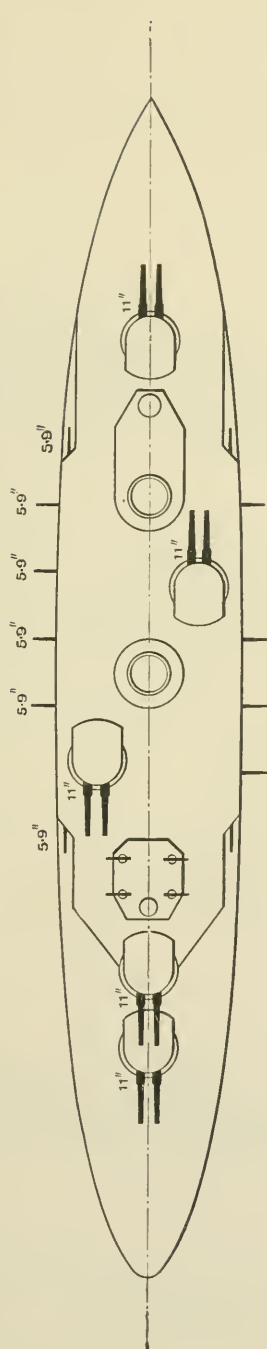
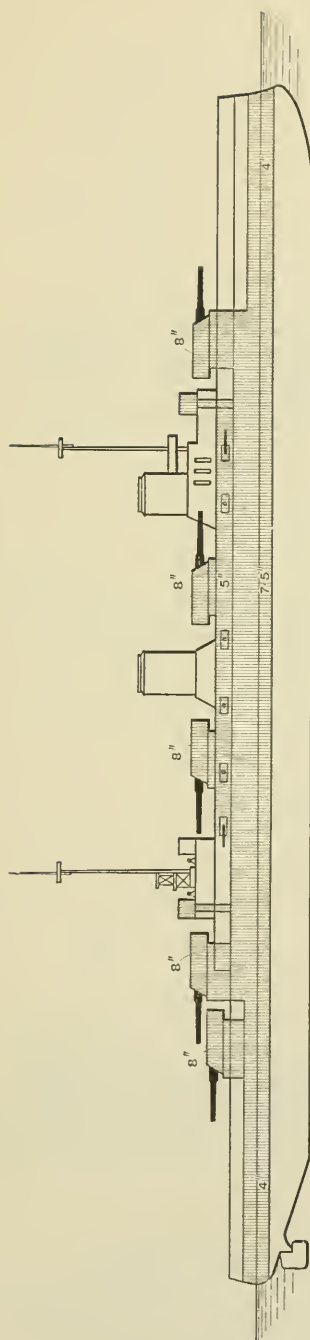
Length, 656 ft. ; 24,640 tons ; Speed, 29.2 knots ; Completed, 1913 ;
 Armament, 10—11 in., 12—6 in., 12—3.5 in. Berthelinger has eight 12-in. guns on the middle line.
See page 129.

GERMANY.

BATTLE CRUISERS.

Moltke.

Goeben (transferred to Turkey).



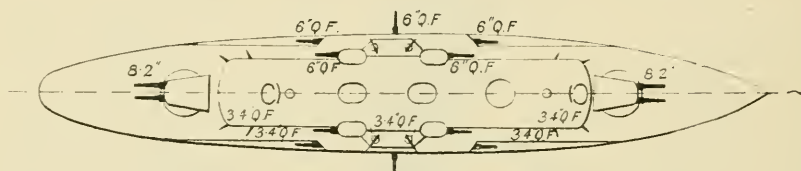
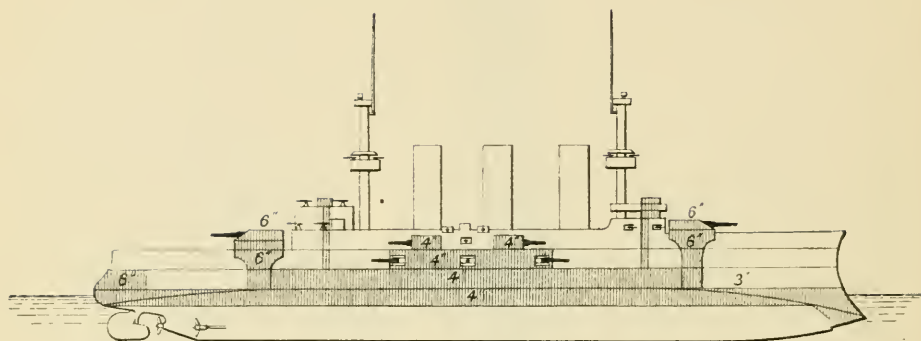
Length, 610 ft. ; 22,640 tons ; Speed, 28.5 knots ; Completed, 1911-12
Armament, 10-11 in., 12-5.9 in., 12-3.4 in.

See pages 128, 154.

GERMANY.

ARMoured CRUISERS.

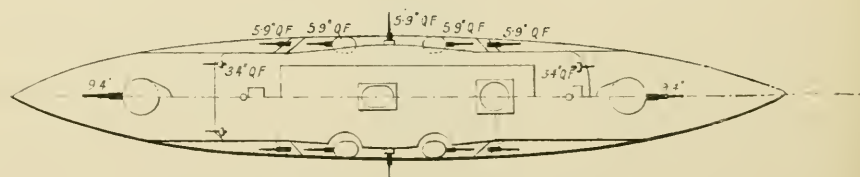
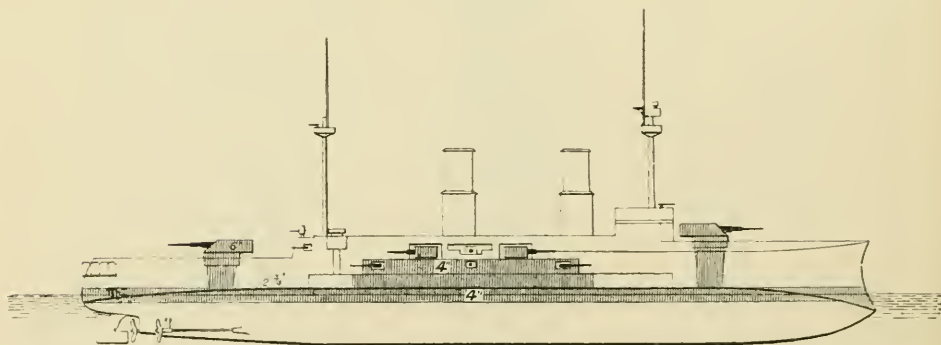
Prinz Adalbert.



Length, 393 ft. ; 8858 tons ; Speed, 20.3–20.5 knots ; Completed, 1903–1904 ;
Armament, 4—8.2 in., 10—6 in., 12—3.4 in., 3 small.

See page 129.

Prinz Heinrich.



Length, 396 ft. ; 8759 tons ; Speed, 20 knots ; Completed, 1902
Armament, 2—9.4 in., 10—5.9 in., 10—3.4 in., 7 small.

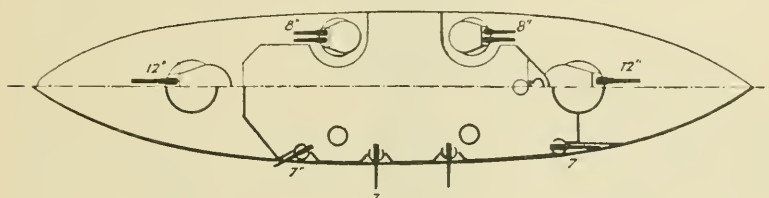
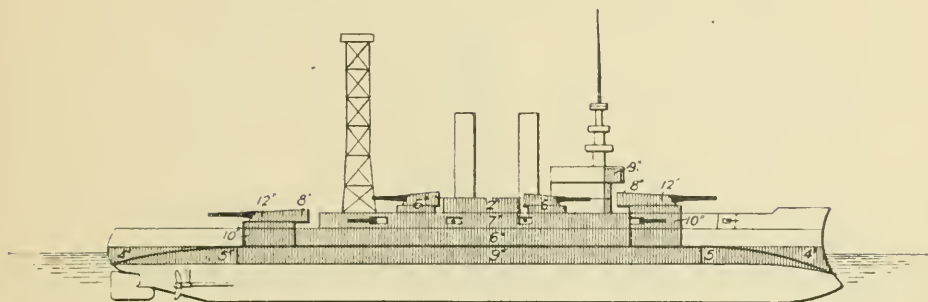
See page 129.

GREECE.

BATTLESHIPS.

Lemnos (*Ex-Idaho*).

Kilkis (*Ex-Mississippi*).

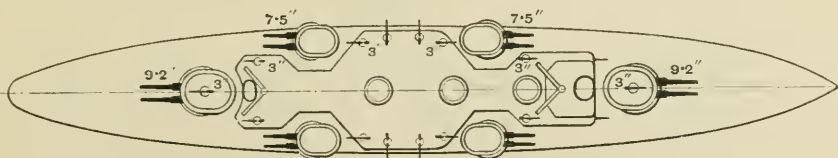
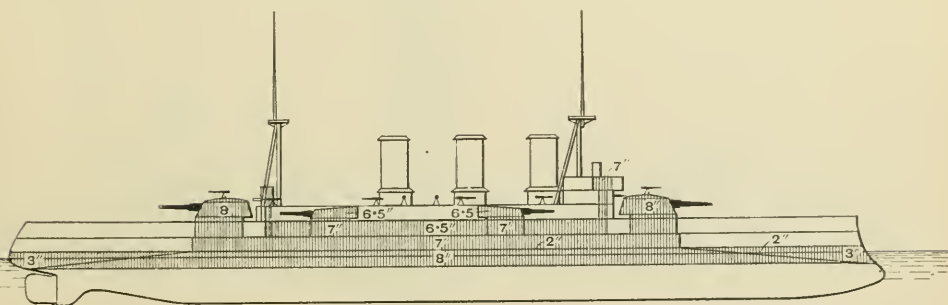


Length, 375 ft. ; 13,000 tons ; Speed, 17 knots ; Completed, 1908 ;
Armament, 4—12 in., 8—8 in., 8—7 in., 12—3 in., 20 small.

See page 134.

ARMOURD CRUISER.

Giorgios Averoff.



Length, 430 ft. ; 9956 tons ; Speed, 24 knots ; Completed, 1911 ;
Armament, 4—9.2 in., 8—7.5 in., 16—3 in., 8 small.

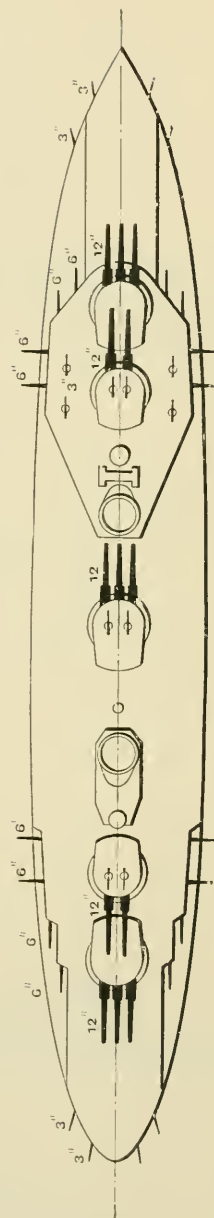
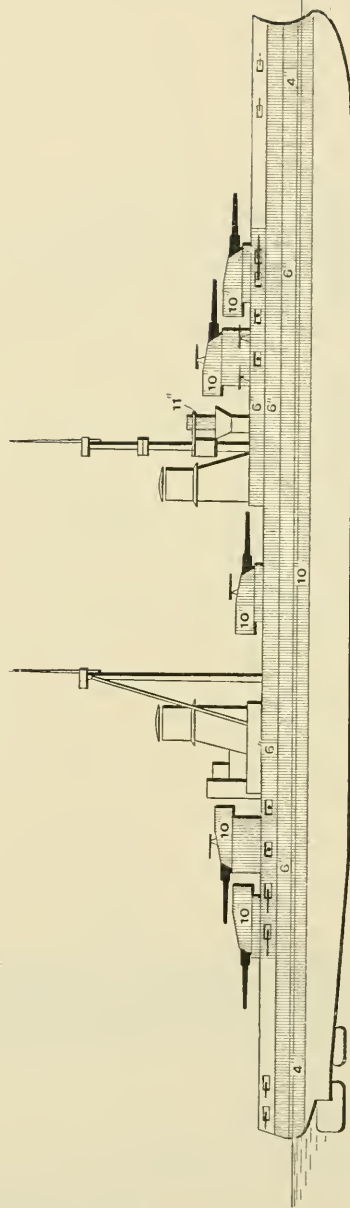
See page 134.

ITALY.

BATTLESHIPS.

Andrea Doria.

Duilio.



Length, 570 ft. ; 23,025 tons ; Speed, 23 knots ; Building ;
Armament, 13—12 in., 16—6 in., 14—12 pr., 6 small.

See page 135.

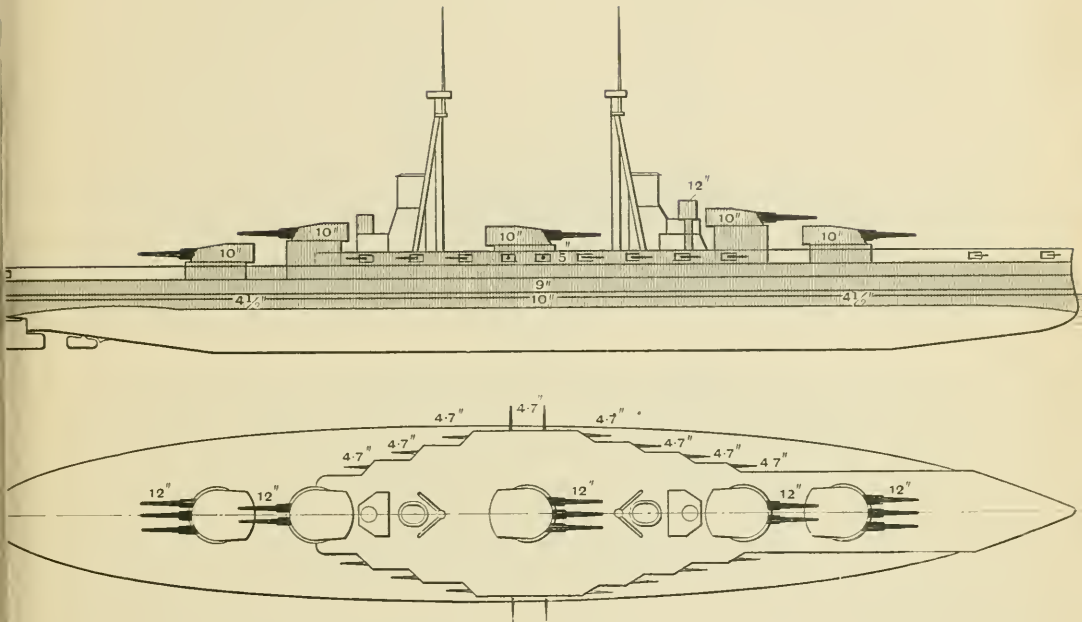
ITALY.

BATTLESHIPS.

Conte di Cavour.

Giulio Cesare.

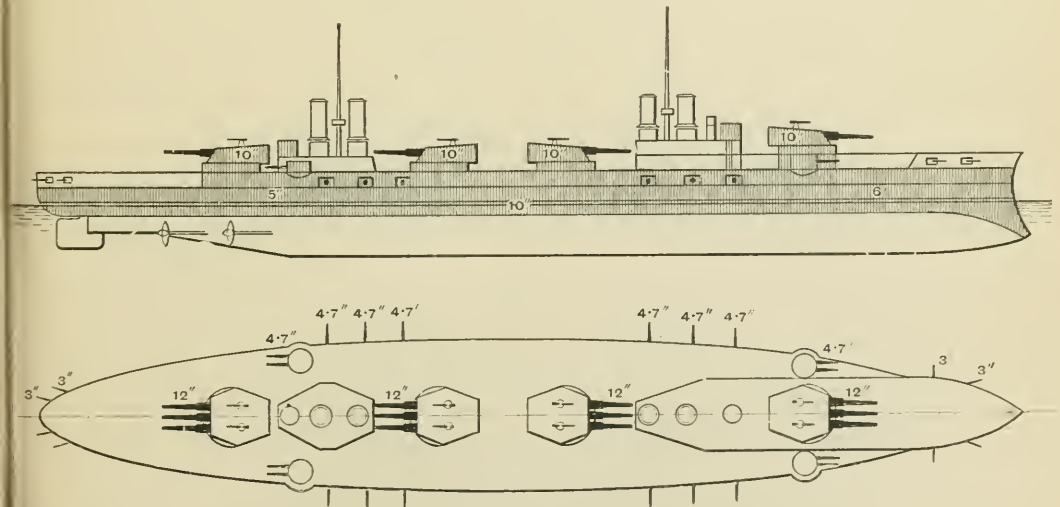
Leonardo da Vinci.



Length, 557 ft. ; 22,340 tons ; Speed, 22.5-23 knots ; 1914—Building
Armament, 13—12 in., 18—4.7 in., 14—12 pr.

See page 135.

Dante Alighieri.



Length, 565 ft. ; 19,400 tons ; Speed, 23.8 knots ; Completed, 1912
Armament, 12—12 in., 20—4.7 in., and small.

See page 135.

ITALY.

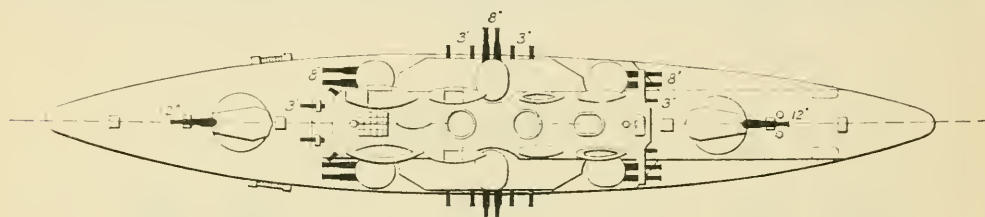
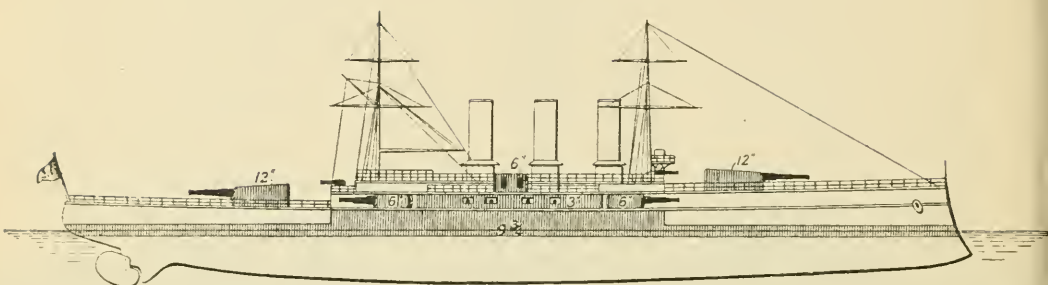
BATTLESHIPS.

Vittorio Emanuele.

Napoli.

Regina Elena.

Roma.

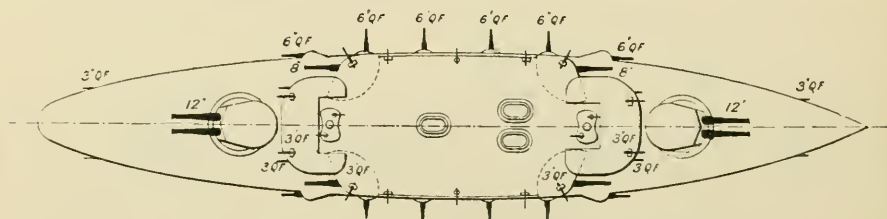
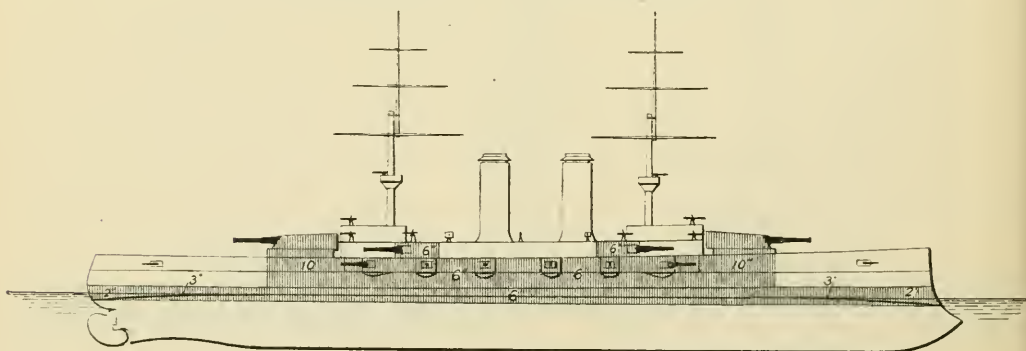


Length, 435 ft. ; 12,425 tons ; Speed, 22 knots ; Completed, 1907—1909 ;
Armament, 2—12 in., 12—8 in., 12—3 in., 12 small.

See page 136

Benedetto Brin.

Regina Margherita.



Length, 426 ft. ; 13,214 tons ; Speed, 19.5—20.2 knots ; Completed, 1904—1905 ;
Armament, 4—12 in., 4—8 in., 12—6 in., 16—3 in., 10 small.

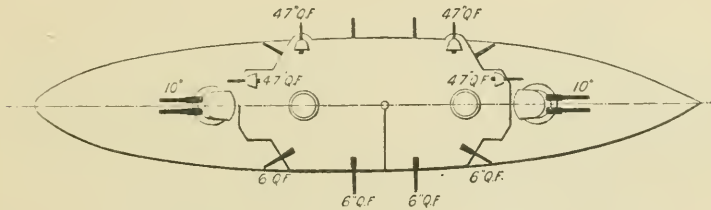
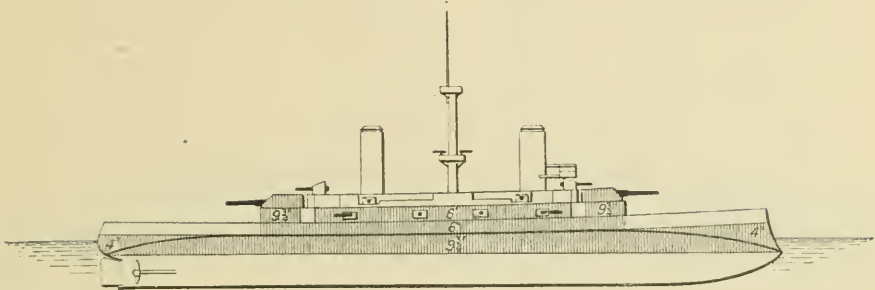
See pages 135, 136

ITALY.

BATTLESHIPS.

Ammiraglio di St. Bon.

Emanuele Filiberto.



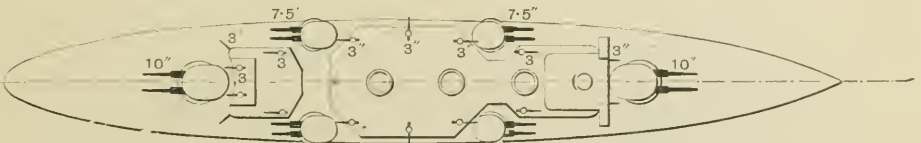
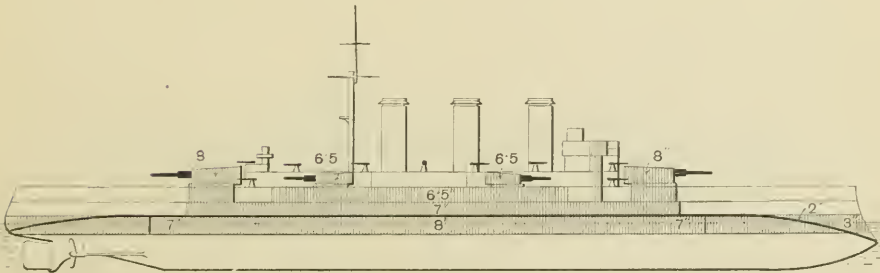
Length, 344 ft. ; 9645 tons ; Speed, 18·3 knots ; Completed, 1901-1902 ;
Armament, 4—10 in., 8—6 in., 8—4·7 in., 2—2·9 in., 8 small.

See page 135.

ARMoured CRUISERS.

Amalfi.

Pisa.



Length, 430 ft. ; 9956 tons ; Speed, 23 knots ; Completed, 1900 ;
Armament, 4—10 in., 8—7·5 in., 16—3 in., 2 small.

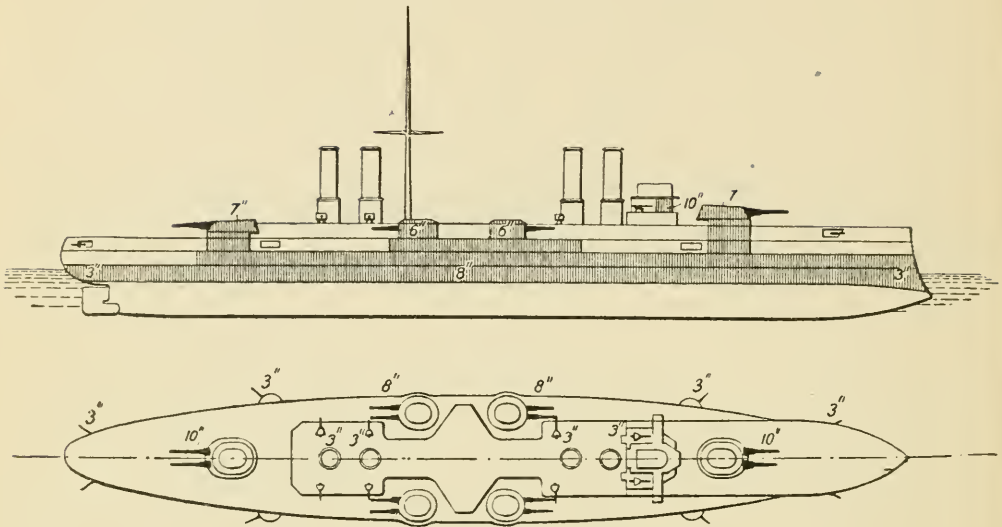
See pages 135, 136.

ITALY.

ARMoured CRUISERS.

S. Giorgio.

S. Marco.



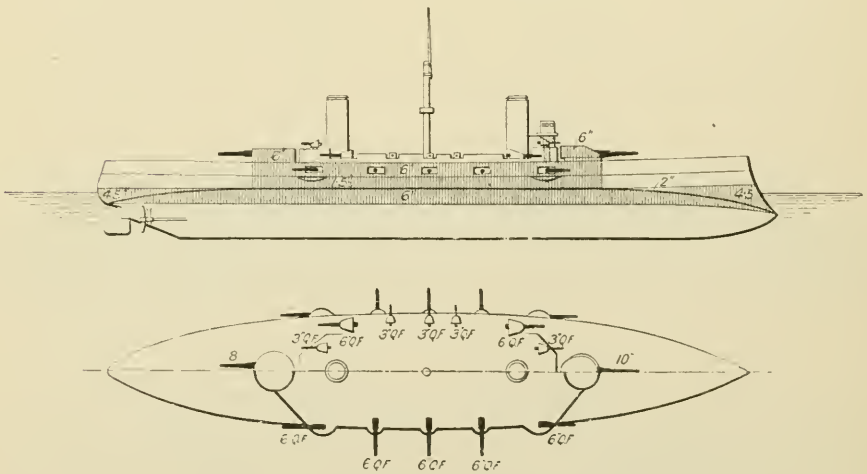
Length, 430 ft. ; 9582 tons ; Speed, 22.5 knots ; Completed, 1910 ;
Armament, 4—10 in., 8—8 in., 16—3 in., 8 small.

See page 136.

Francesco Ferruccio.

Giuseppe Garibaldi.

Varese.



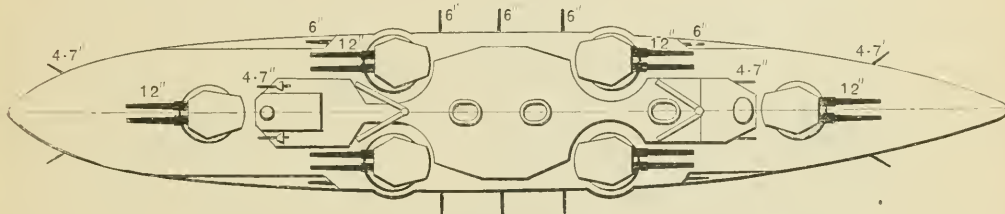
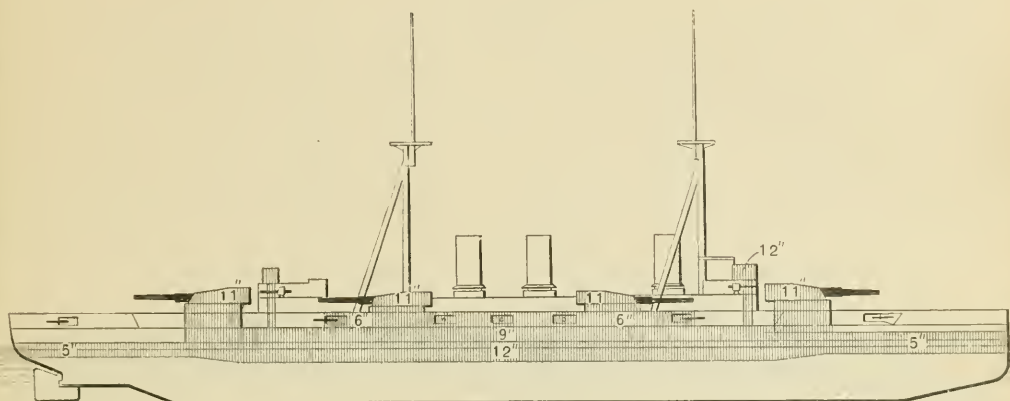
Length, 344 ft. ; 7294 tons ; Speed, 20 knots ; Completed, 1901-1904 ;
Armament, 1—10 in., 2—8 in., 14—6 in., 10—3 in., 8 small.

See pages 135, 136.

JAPAN.
BATTLESHIPS.

Kawachi.

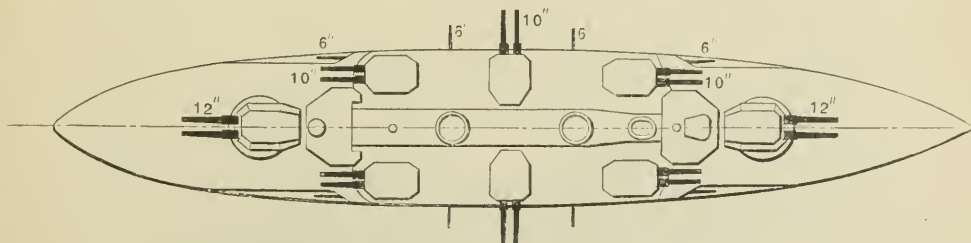
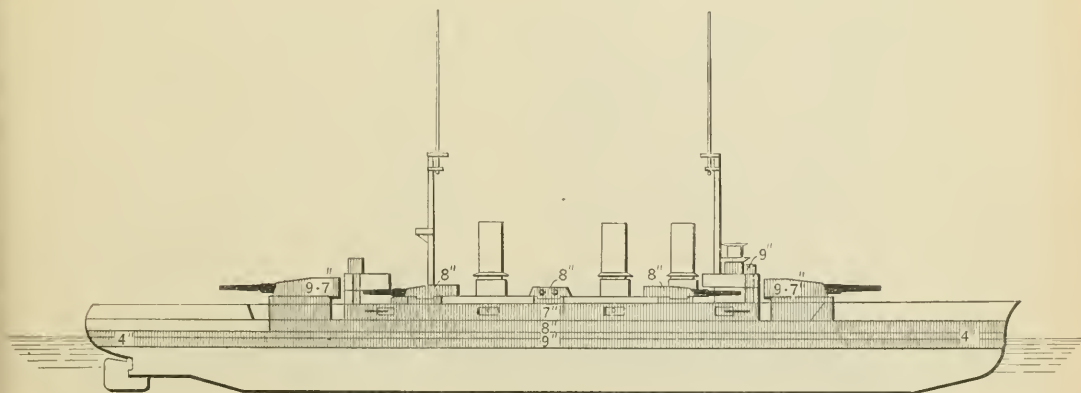
Settsu.



Length, 500 ft. ; 21,420 tons ; Speed, 20·5 knots ; Completed, 1912 ;
Armament, 12—12 in., 10—6 in., 8—4·7 in., 16 small.

See pages 140, 141.

Aki.



Length, 400 ft. ; 19,800 tons ; Speed, 20·5 knots ; Completed, 1911
Armament, 4—12 in., 12—10 in., 8—6 in., 8—12 pr., 8 small.

See page 139.

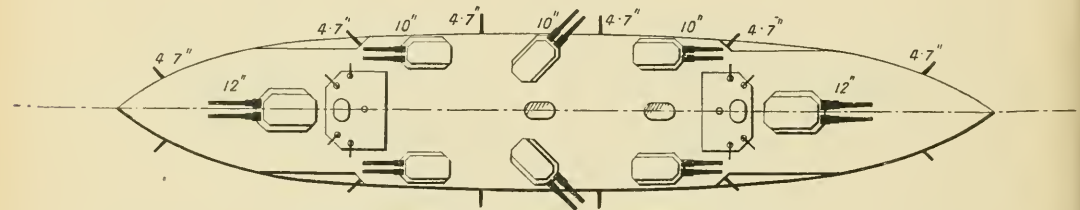
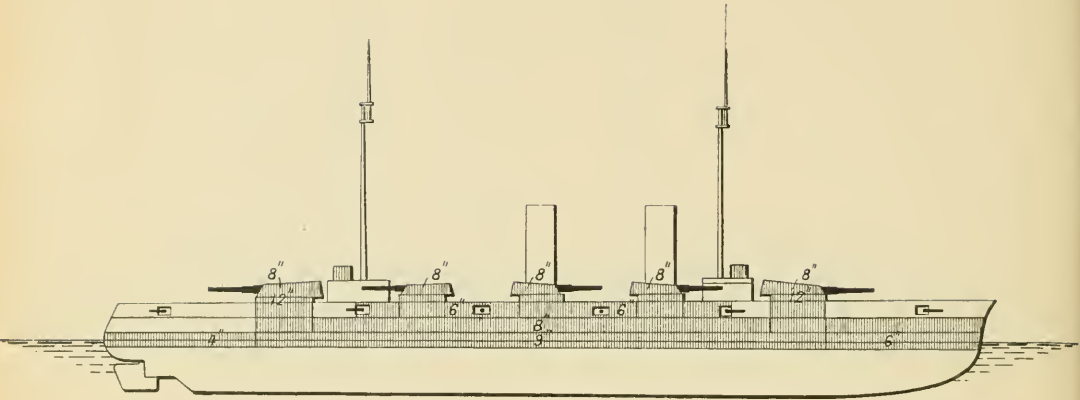
PLATE 49.

e 2

JAPAN.

BATTLESHIPS.

Satsuma.

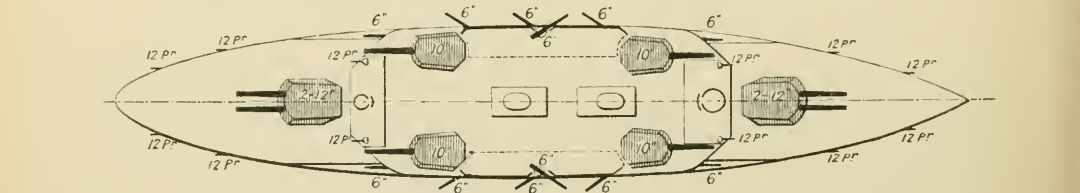
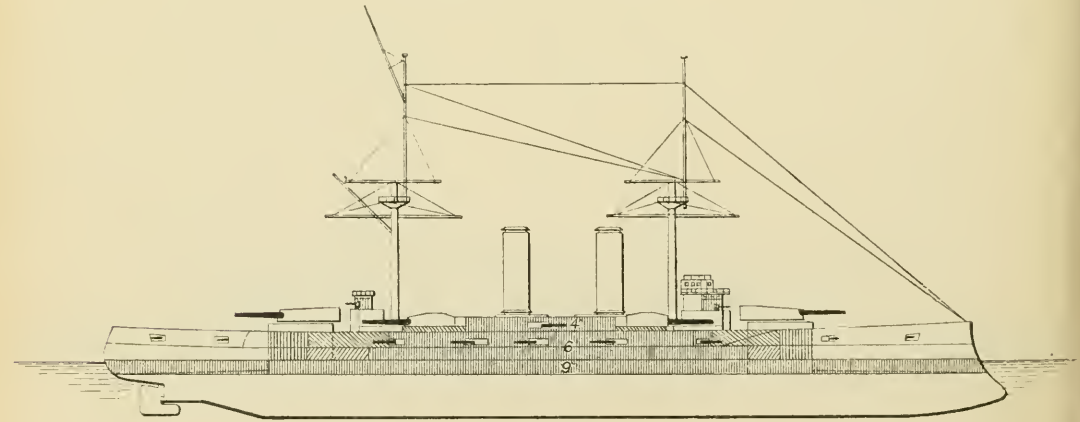


Length, 450 ft. ; 19,350 tons ; Speed, 18.5 knots ; Completed, 1910 ;
Armament, 4—12 in., 12—10 in., 12—4.7 in., 4—12 pr., 8 small.

See page 141.

Kashima.

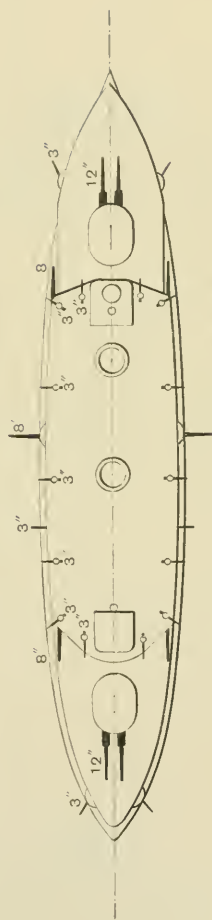
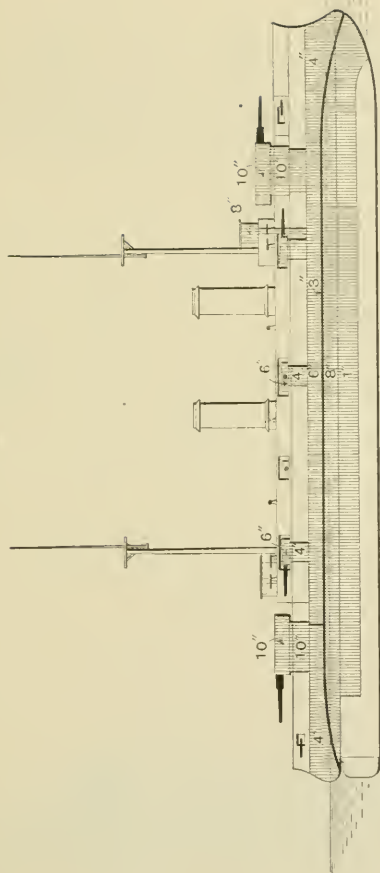
Katori.



Length, 420—425 ft. ; 15,950—16,400 tons ; Speed, 19.5 knots ; Completed, 1906 ;
Armament, 4—12 in., 4—10 in., 12—6 in., 12—12 pr., 11 small.

See page 140.

BATTLESHIP.

Iwami (*I'x Orel*).

Length, 368 ft. ; 13,516 tons ; Speed, 18 knots ; Completed, 1904 ; Armament, 4—12 in., 6—8 in., 24—3 in., and small.

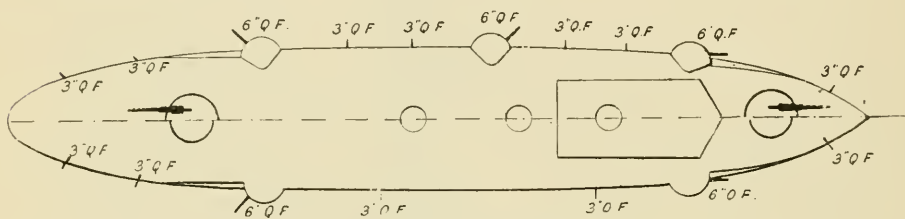
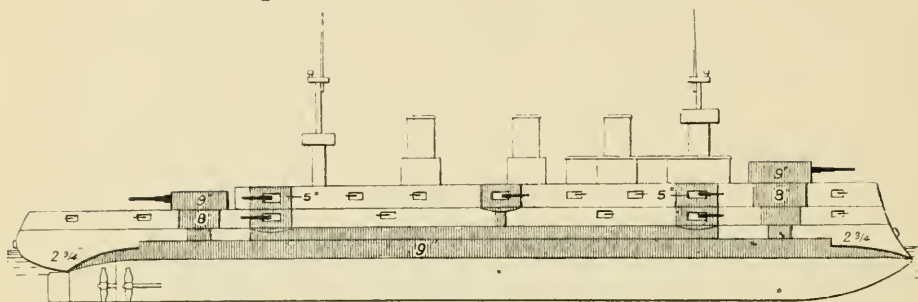
See page 140.

JAPAN.

BATTLESHIPS.

Sagami late Peresviet.

Suo late Pobieda.

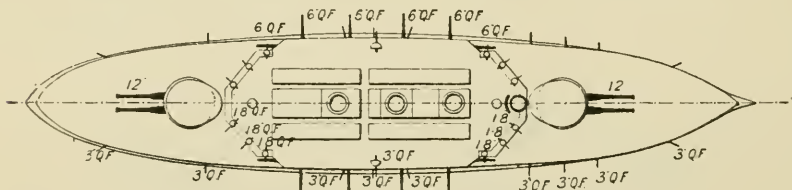
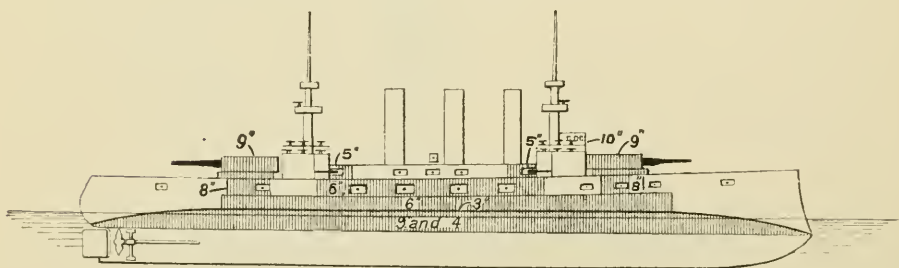


Note: In the "Pobieda" the Belt Extends the Full Length of the Ship.

Length, 401 ft. ; 12,674 tons ; Speed, 18 knots ; Completed, 1901 ;
Armament, 4—10 in., 10—6 in., 20—12 pr., and small.

See page 141.

Hizen late Retvizan.



Length, 374 ft. ; 12,700 tons ; Speed, 18 knots ; Completed, 1902 ;
Armament, 4—12 in., 12—6 in., 20—3 pr., 6 small.

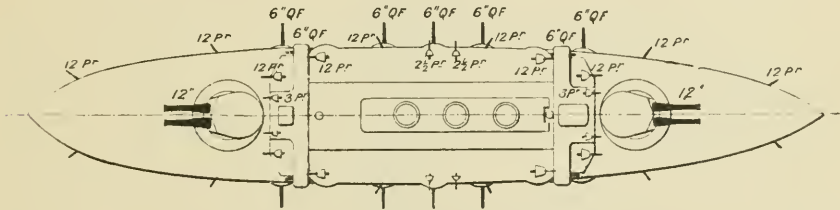
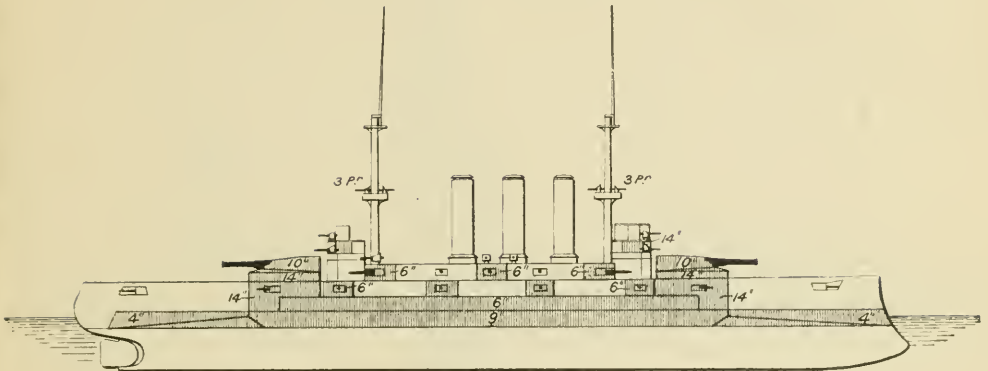
See page 139.

JAPAN.

BATTLESHIPS.

Asahi.

Shikishima.

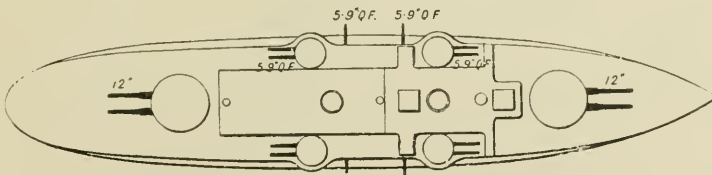
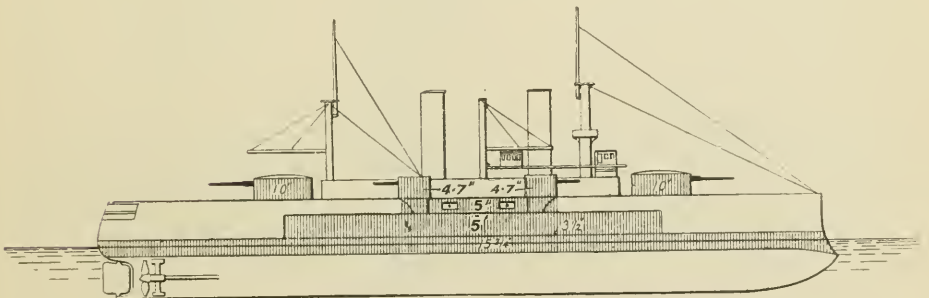


The "Asahi" have but two funnels.

Length, 400 ft. ; 14,765 tons ; Speed, 18—18.3 knots ; Completed, 1899-1900 ;
Armament, 4—12 in., 14—6 in., 20—12 pr., 12 small.

See pages 139, 141.

Tango late Poltava.



Length, 367 ft. ; 10,960 tons ; Speed, 16 knots ; Completed, 1898 ;
Armament, 4—12 in., 12—5.9 in., 14 small.

See page 141.

JAPAN.

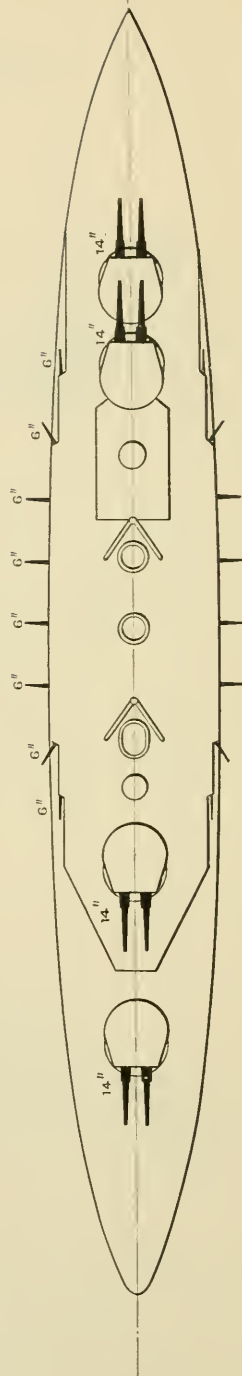
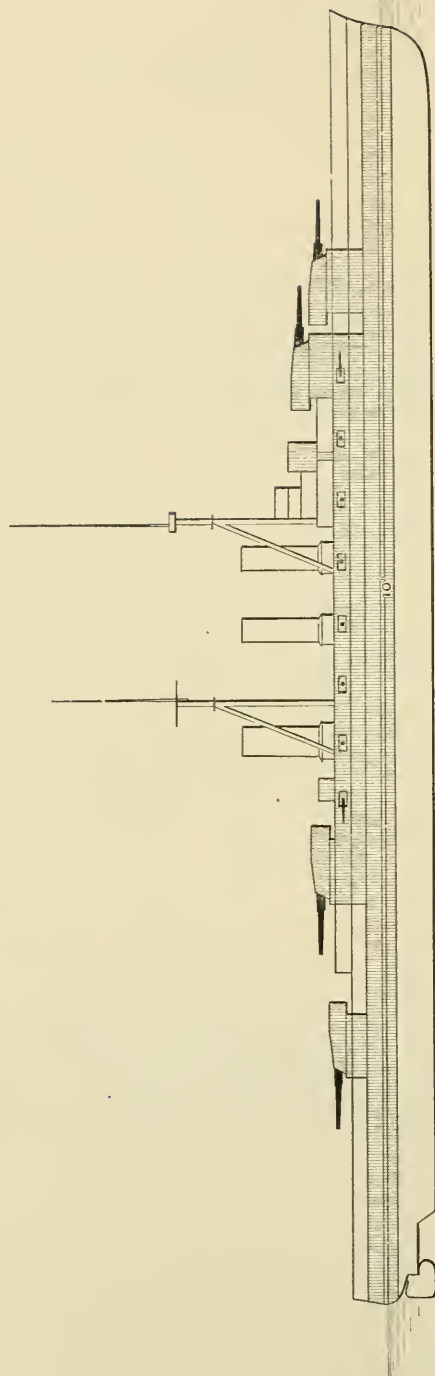
BATTLE CRUISERS.

Kongo.

Hiei.

Haruna.

Kirishima.



Length, 704 ft. ; 27,500 tons ; Speed, 27 knots ; Completed, 1913.—Building ;
Armament, 8—14 in., 16—6 in., 18 small.

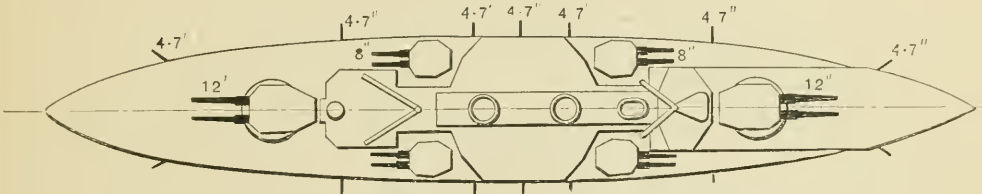
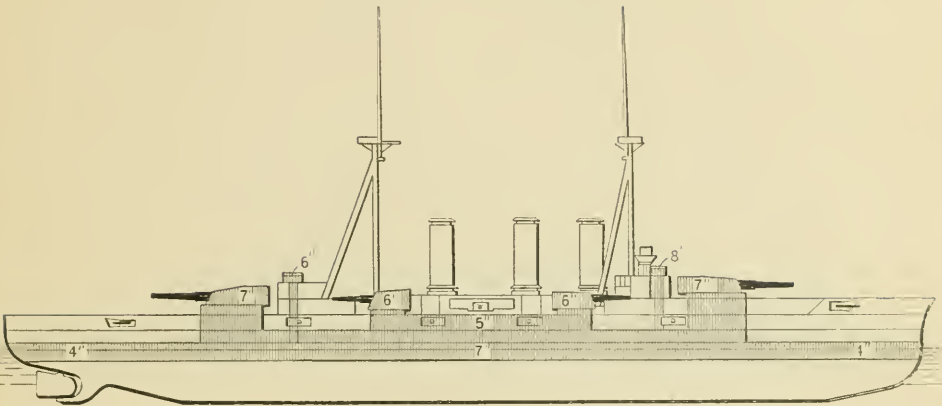
See pages 139, 140

JAPAN.

ARMoured CRUISERS.

Ibuki.

Kurama.

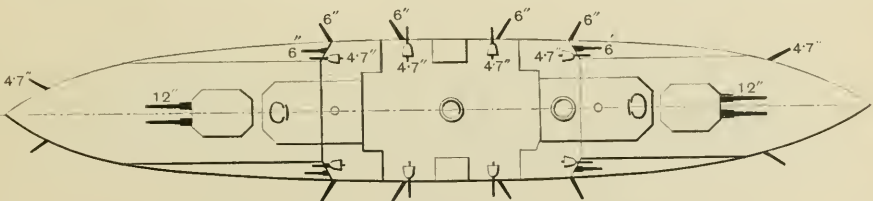
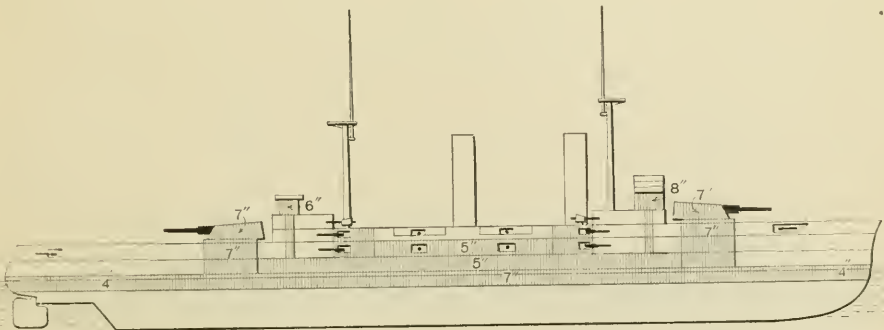


Length, 450 ft. ; 14,620 tons ; Speed, 22 knots ; Completed, 1909—1911 ;
Armament, 4—12 in., 8—8 in., 14—4.7 in., 9 small.

See pages 139, 140.

Ikoma.

Tsukuba.



Length, 440 ft. ; 13,750 tons ; Speed, 21 knots ; Completed, 1907 ;
Armament, 4—12 in., 12—6 in., 12—4.7 in., 8 small.

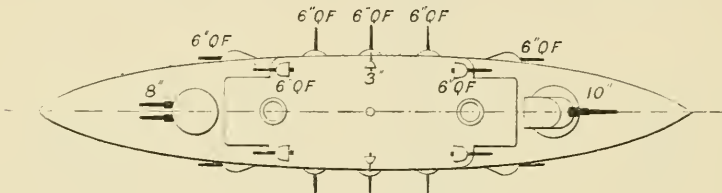
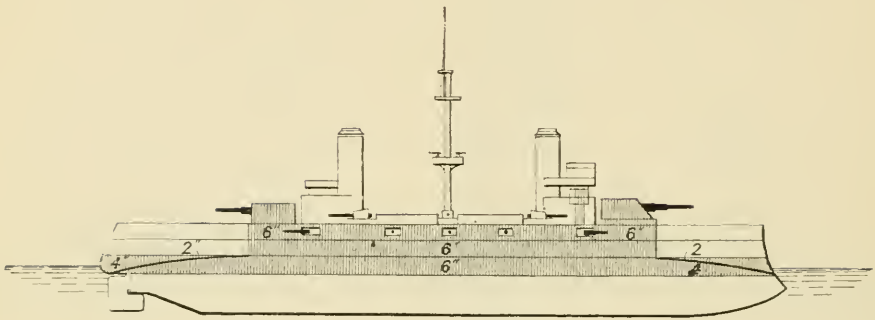
See pages 139, 141.

JAPAN.

ARMoured CRUISERS.

Kasuga.

Nisshin.

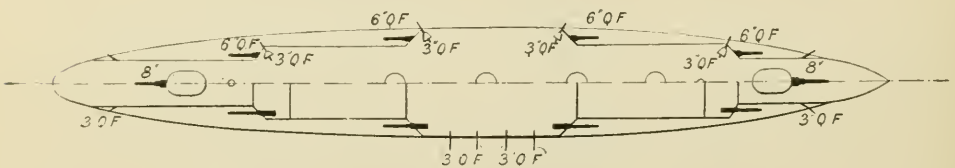
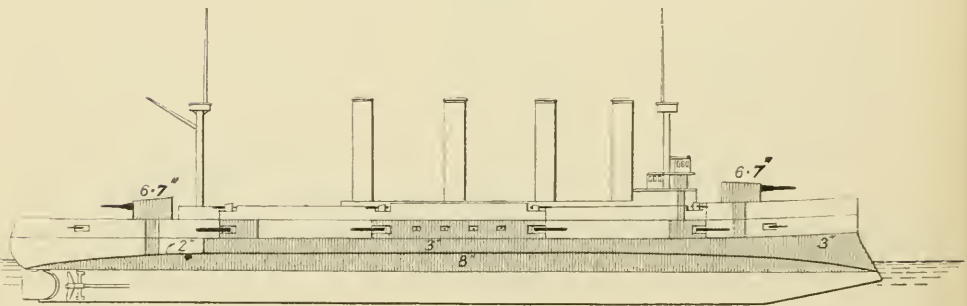


*The Nisshin has 2-8 in. guns
in fore barrette.*

Length, 344 ft. ; 7630 tons ; Speed, 20 knots ; Completed, 1904 ;
Armament, 1-10 in., 2-8 in., 14-6 in., 10-3 in., 8 small.

See pages 140, 141.

Aso iate Bayan.



Length, 443 ft. ; 7726 tons ; Speed, 22 knots ; Completed, 1902 ;
Armament, 2-8 in., 8-6 in., 22 small.

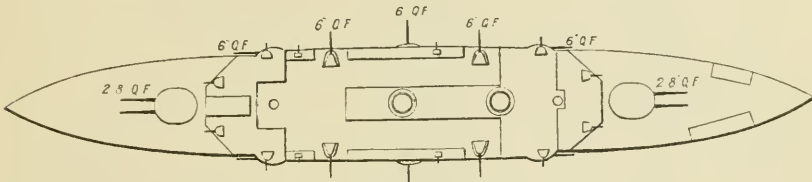
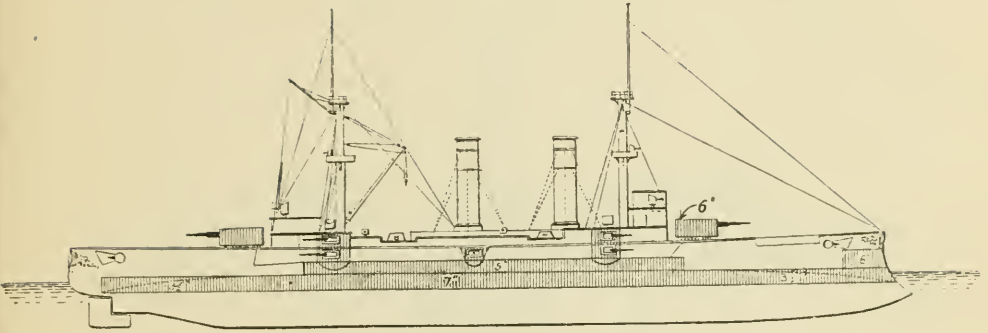
See page 139.

JAPAN.

ARMoured CRUISERS.

Asama.

Tokiwa

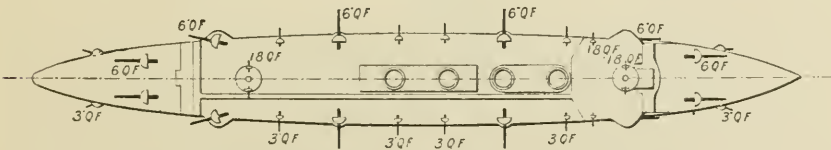
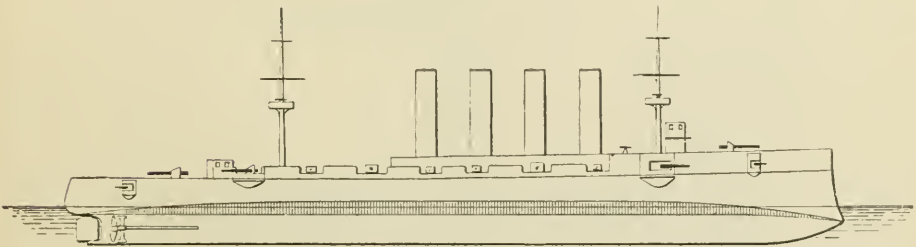


Length, 408 ft. ; 9850 tons ; Speed, 22.1—23 knots ; Completed, 1899 ;
Armament, 4—8 in., 14—6 in., 12—12 pr., 8 small.

See pages 139, 141.

CRUISER.

Sōya late Varyag.



Length, 420 ft. ; 6500 tons ; Speed, 23 knots ; Completed, 1900 ;
Armament, 12—6 in., 12—12 pr., 6 small.

See page 143.

NETHERLANDS.

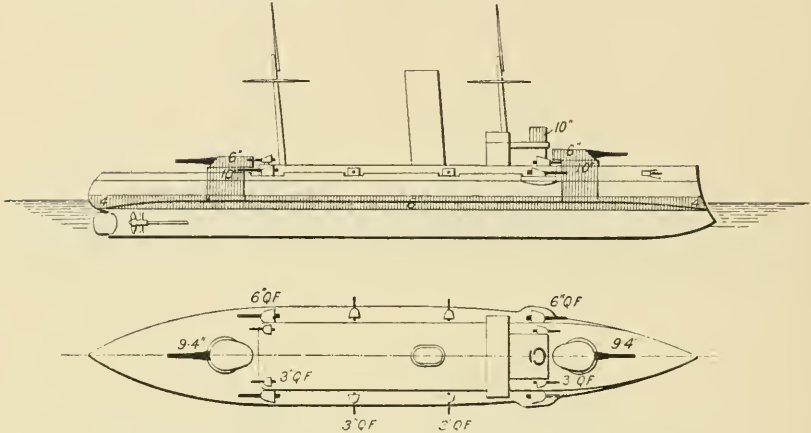
COAST DEFENCE SHIPS.

De Ruyter.

Hertog Hendrik.

Koningin Regentes.

Marten Tromp.



Length, 317 ft. ; 5014—5211 tons ; Speed, 16.5 knots ; Completed, 1902—1906 ;
Armament, 2—9.4 in., 4—6 in., 10—3 in., 4 small.

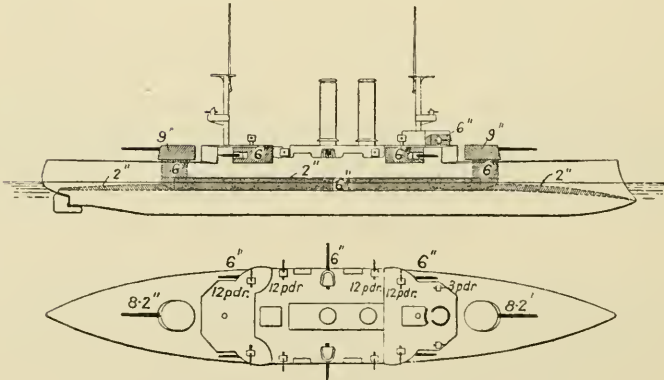
See page 144.

NORWAY.

COAST DEFENCE SHIPS.

Norge.

Eidsvold.



Length, 290 ft. ; 3847 tons ; Speed, 16.5 knots ; Completed, 1901 ;
Armament, 2—8.2 in., 6—6 in., 8—12 pr., 6 small.

See page 146.

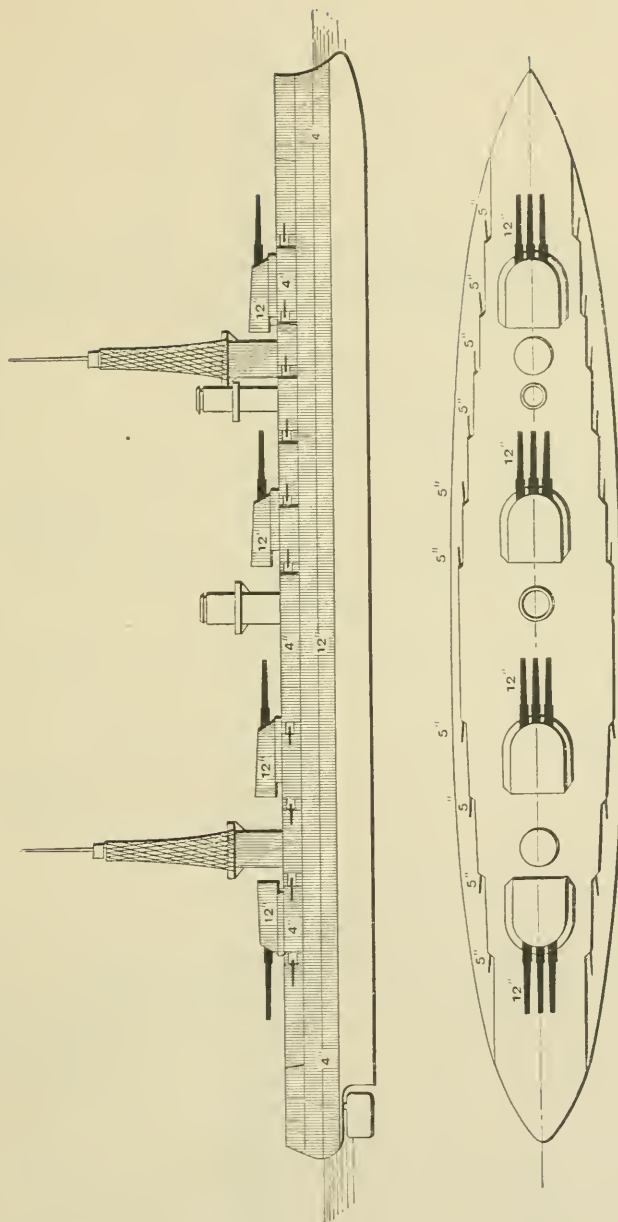
RUSSIA.

BATTLESHIPS.

Imperatritsa Ekaterina II.

Imperator Alexander III.

Imperatritsa Maria.



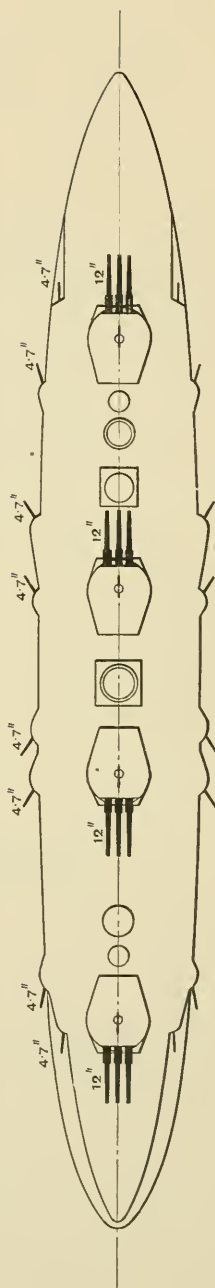
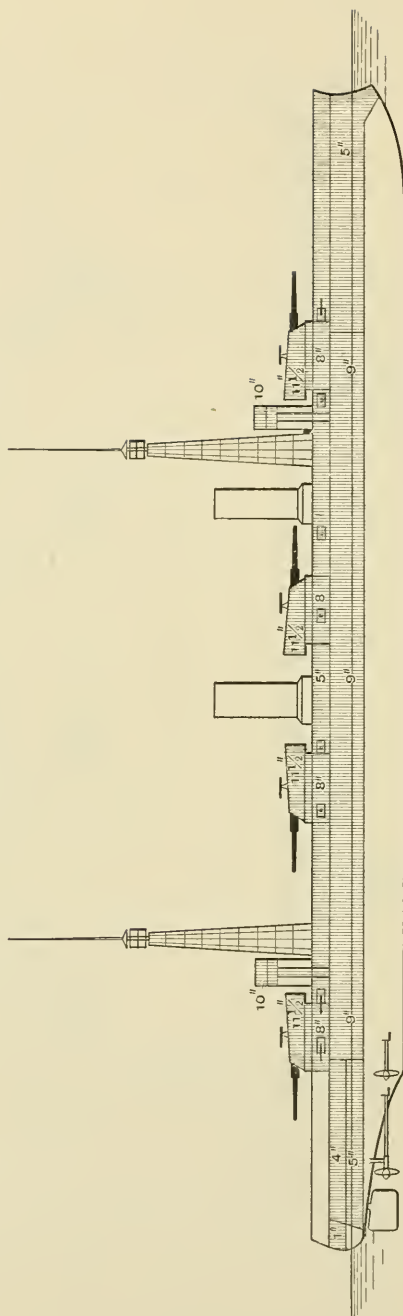
Length, 551 ft.; 22,500 tons; Speed, 21 knots
Armament, 12—12 in., 20—5 in.

See pages 148, 149

RUSSIA.

BATTLESHIPS.

Gangut. Petropavlovsk. Poltava. Sevastopol.



Length, 590 ft. ; 23,000 tons ; Speed, 23 knots ;
Armament, 12—12 in., 16—4.7 in., 4—3 pr. 8 small.

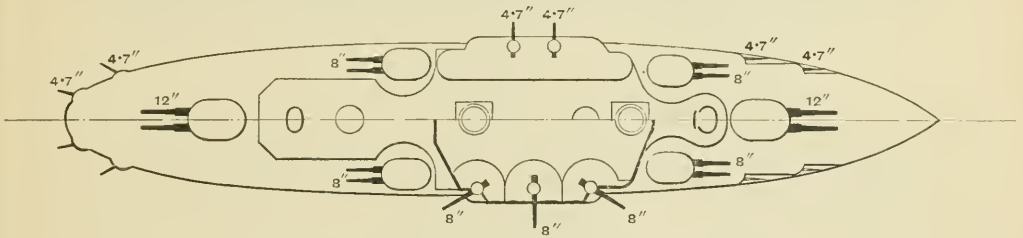
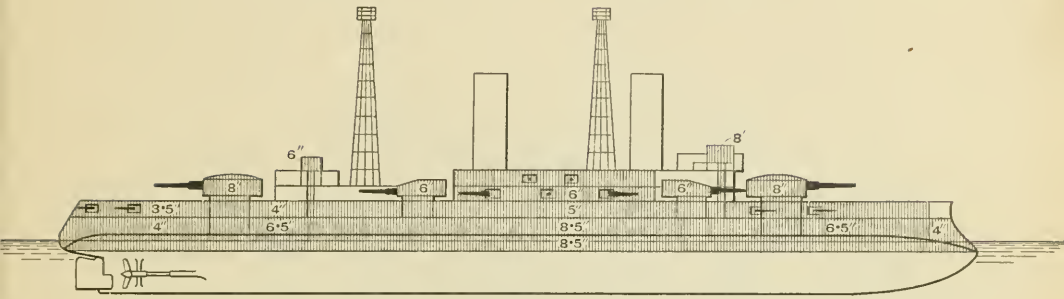
See pages 148, 149.

RUSSIA.

BATTLESHIPS.

Andrei Pervozvannyi.

Imperator Pavel.

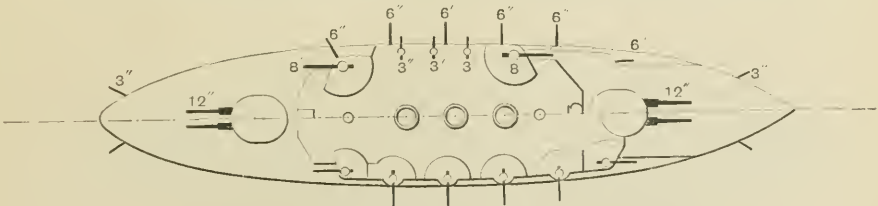
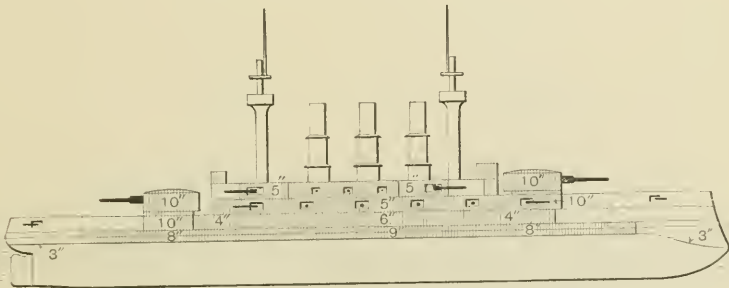


Length, 430 ft. ; 17,400 tons ; Speed, 18 knots ; Completed, 1910-1911 ;
Armament, 4-12 in., 14-8 in., 12-4.7 in., 14 small.

See pages 148, 149.

Evstafi.

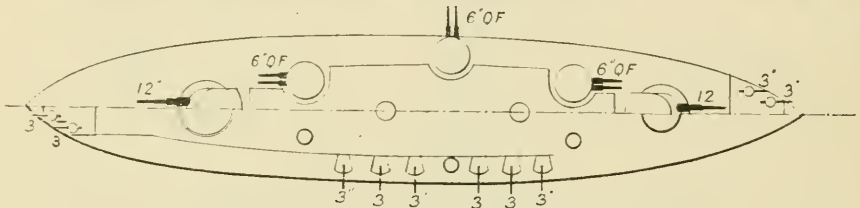
Ioann Zlatoust.



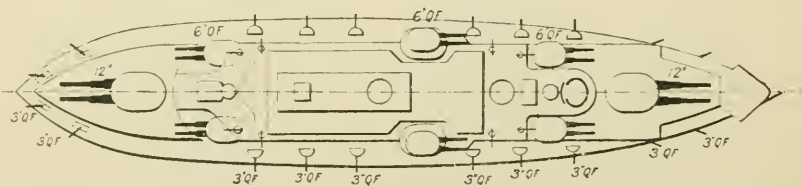
Length, 372 ft. ; 12,733 tons ; Speed, 16 knots ; Completed, 1910-11 ;
Armament, 4-12 in., 4-8 in., 12-6 in., 14-3 in., 18 small.

See page 145.

BATTLESHIPS.

[illegible]

See page 149.

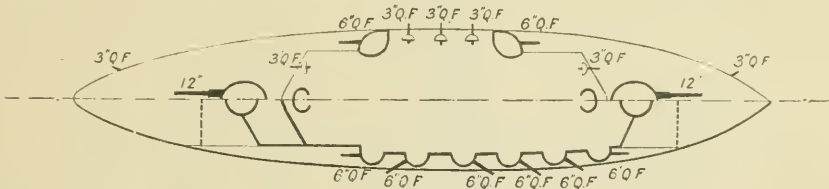
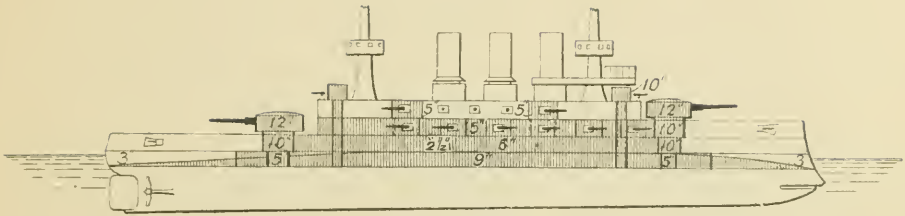


See page 148.

RUSSIA.

BATTLESHIPS.

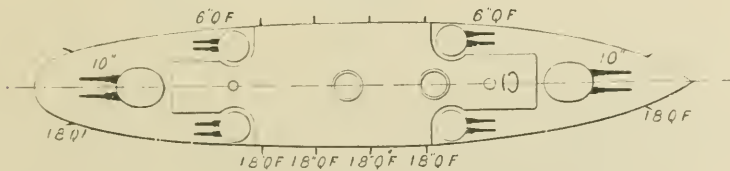
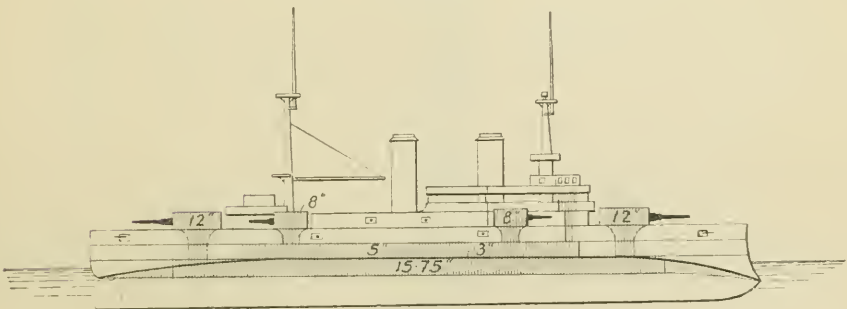
Panteleimon.



Length, 372 ft. ; 12,582 tons ; Speed, 17 knots ; Completed, 1902 ;
Armament, 4—12 in., 16—6 in., 14—3 in., 14 small.

See page 149.

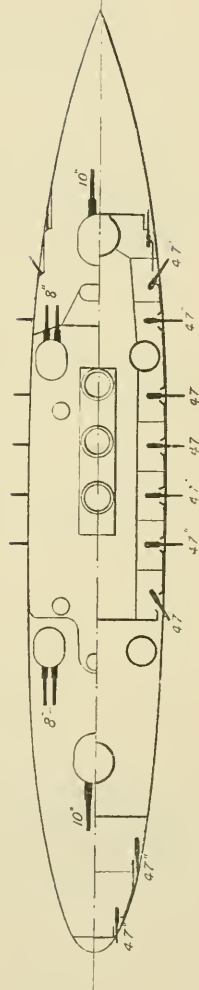
Rostislav.



Length, 341 ft. ; 8880 tons ; Speed, 16 knots ; Completed, 1900 ;
Armament, 4—10 in., 8—6 in. ; 16 small.

See page 149.

ARMoured CRUISER.

[illegible]

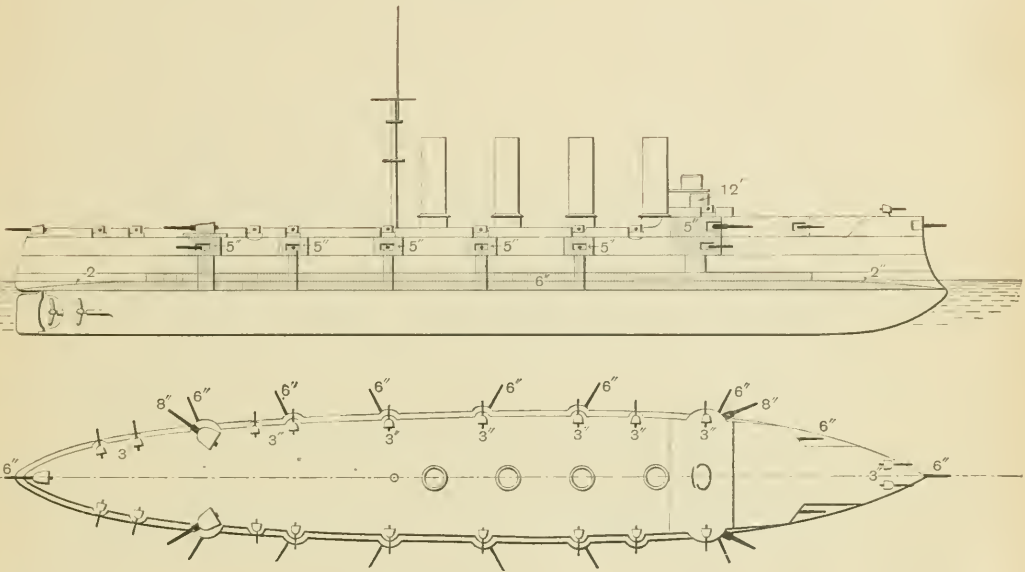
Length, 490 ft. ; 15,170 tons ; Speed, 21 knots ; Completed, 1907 ;
Armament, 4-10 in., 8-8 in., 20-4.7 in., 14 small.

See page 149.

RUSSIA.

ARMoured CRUISERS.

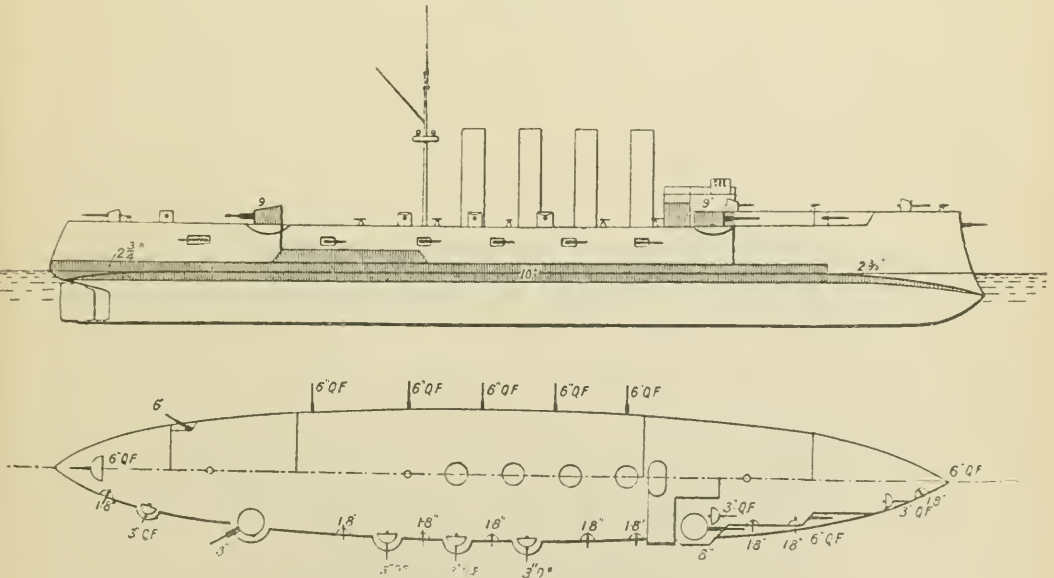
Gromoboi.



Length, 473 ft. ; 13,220 tons ; Speed, 20 knots ; Completed, 1903 ;
Armament, 4—8 in., 22—6 in., 20—3 in., 11 small.

See page 145.

Rossia.



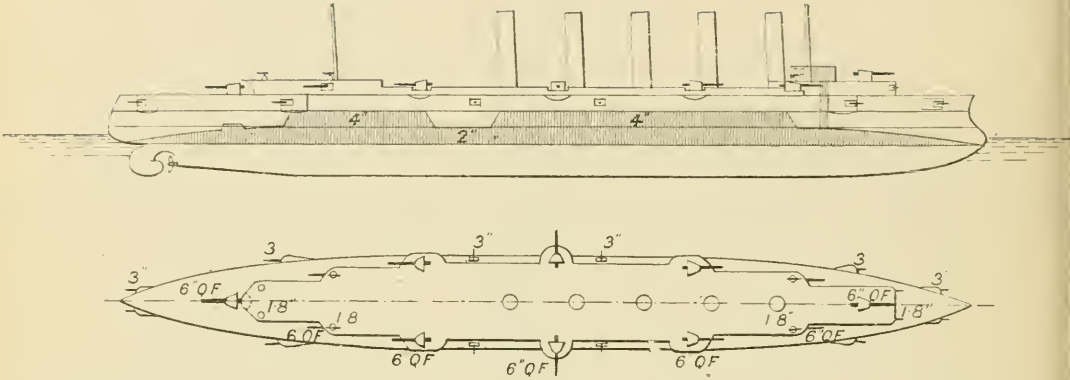
Length, 480 ft. ; 12,195 tons ; Speed, 20 knots ; Completed, 1897 ;
Armament, 4—8 in., 22—6 in., 12—3 in., 20 small.

See page 149.

RUSSIA.

CRUISERS.

Askold.

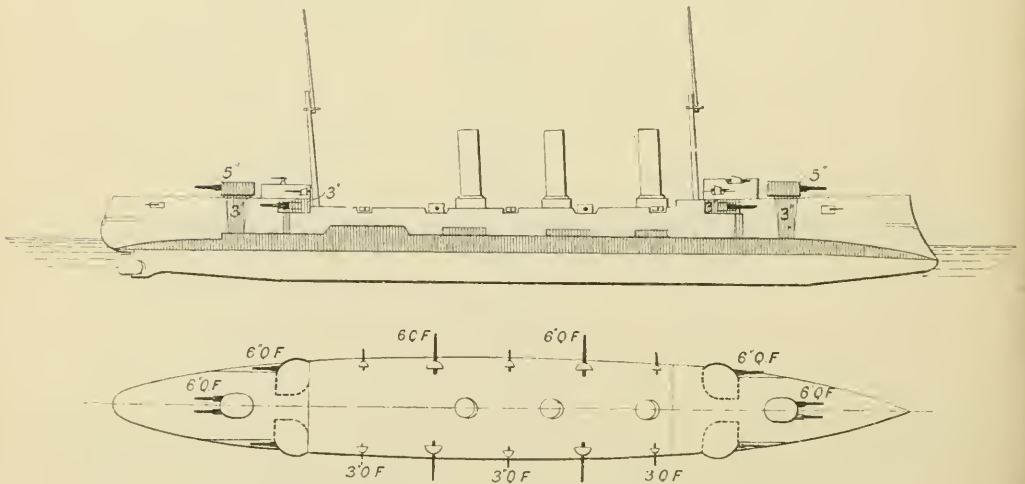


Length, 426 ft. ; 5905 tons ; Speed, 23.8 knots ; Completed, 1901 ;
Armament, 12—6 in., 12—3 in., 14 small.

See page 150.

Bogatyr.

Oleg.



Length, 417-440 ft. ; 6675 tons ; Speed, 23-24 knots ; Completed, 1902-1904
Armament, 12—6 in., 12—3 in., 14 small.

See pages 150, 151.

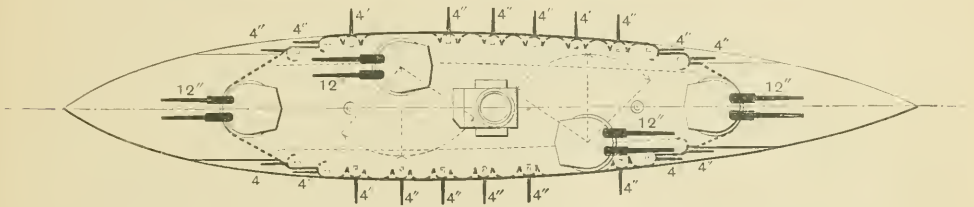
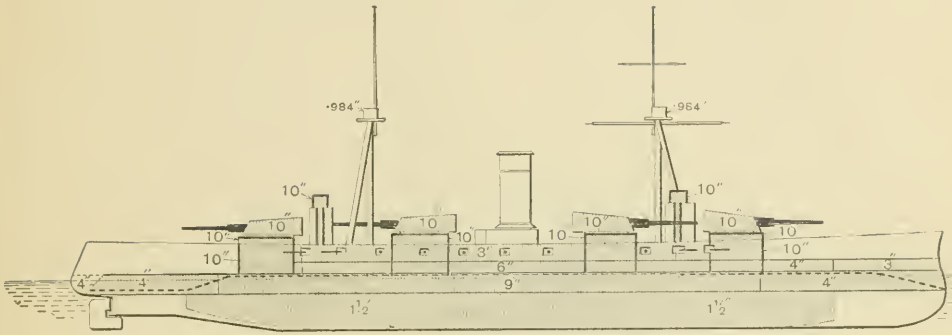
SPAIN.

BATTLESHIPS.

Alfonso XIII.

España.

Jaime I.

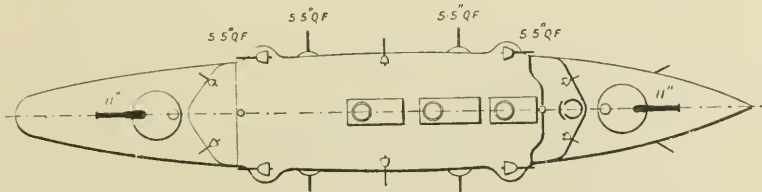
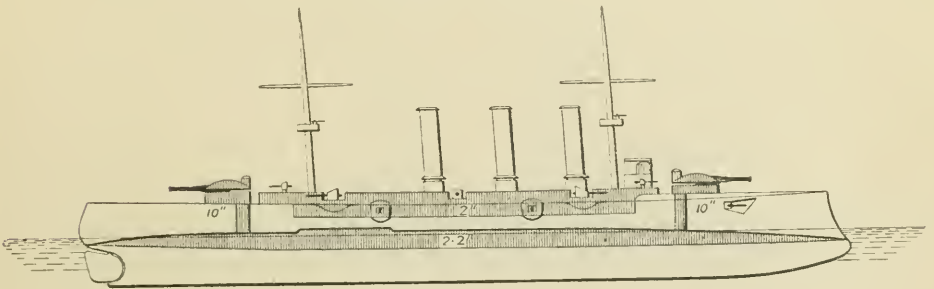


Length, 435 ft. ; 15,460 tons ; Speed, 19.5 knots ; Building ; España completed 1913 ;
Armament, 8—12 in., 20—4 in., 6 small.

See page 152.

ARMoured CRUISER.

Emperador Carlos V.



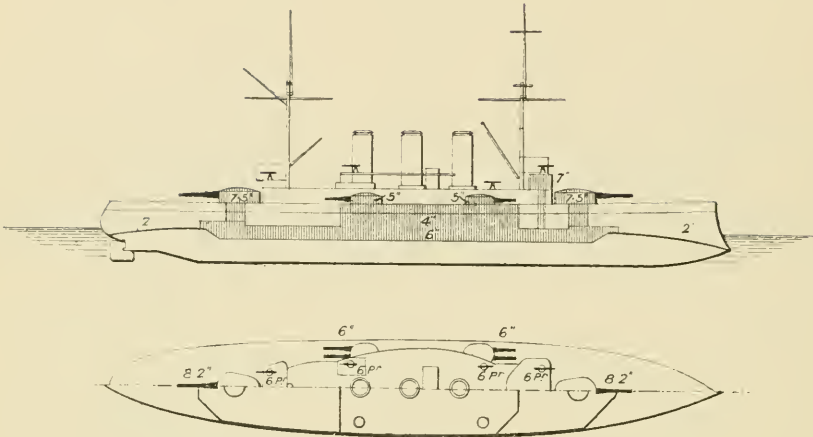
Length, 380 ft. ; 6089 tons ; Speed, 20 knots ; Completed, 1898 ;
Armament, 2—11 in., 8—5.5 in., 4—3.9 in., 12 small.

See page 152.

SWEDEN.

BATTLESHIP.

Oscar II.



Length, 314 ft. ; 4203 tons ; Speed, 18 knots ; Completed, 1907 ;
Armament, 2—8·2 in., 8—6 in., 14 small.

See page 154.

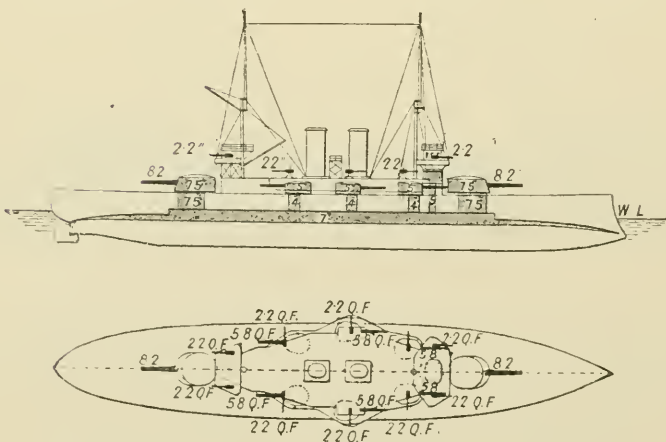
COAST DEFENCE SHIPS.

Aeran.

Manligheten.

Tapperheten.

Wasa.



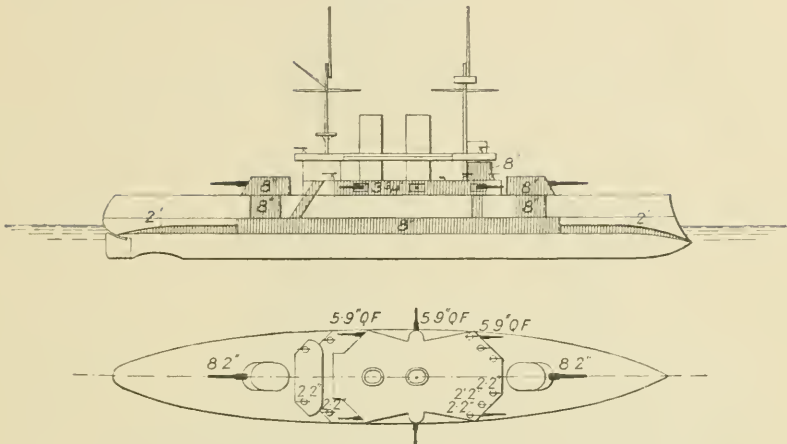
Length, 287 ft. ; 3612 tons ; Speed, 16·5-17·2 knots ; Completed, 1902-1906 ;
Armament, 2—8·2 in., 6—5·8 in., 14 small.

See page 154.

SWEDEN.

COAST DEFENCE SHIP.

Dristigheten.

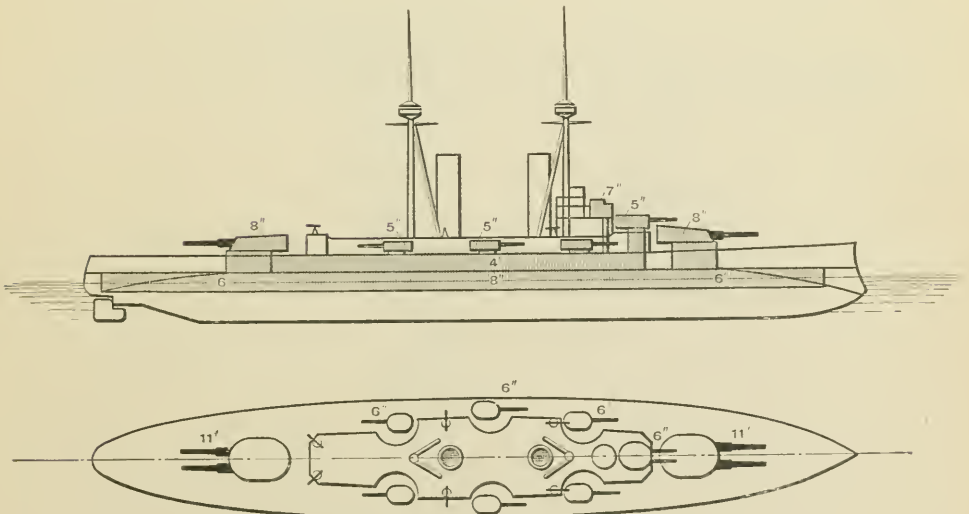


Length, 235 ft. ; 3445 tons ; Speed, 16·5 knots ; Completed, 1901 ;
Armament, 2—8·2 in., 6—5·9 in., 12 small.

See page 154.

ARMoured CRUISER.

Sverige.



Length, 390 ft. ; 7,100 tons ; Speed, 22 knots ; Building ;
Armament, 4·11 in. ; 8—6 in. ; 6—12 pr.

See page 154.

TURKEY.

BATTLE-CRUISER.

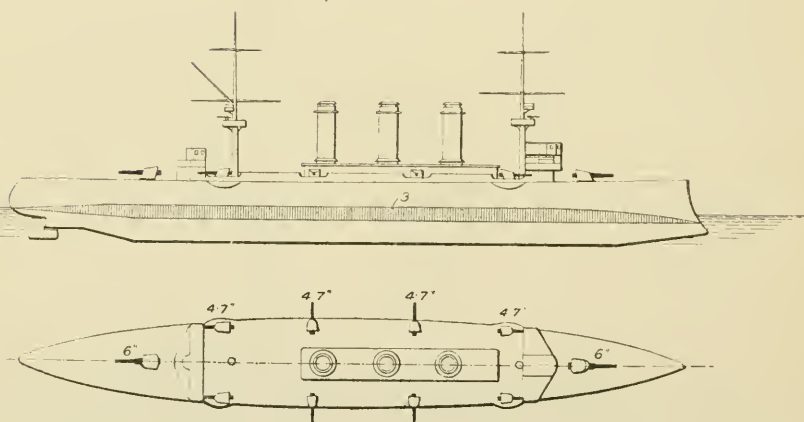
Yavuz Selim (*Ex Goeben*).

Length, 810 ft. ; 22,640 tons ; Speed, 28.5 knots ; Completed, 1912
Armament, 10—11 in., 12—5.9 in., 12—3.4 in.

See Plate 41 and page 156.

CRUISER.

Hamidieh.



Length, 331—340 ft. ; 3432—3800 tons ; Speed, 22.2 knots ; Completed, 1904 ;
Armament, 2—6 in., 8—4.7 in., 12 small.

See page 157.

UNITED STATES.

BATTLESHIPS.

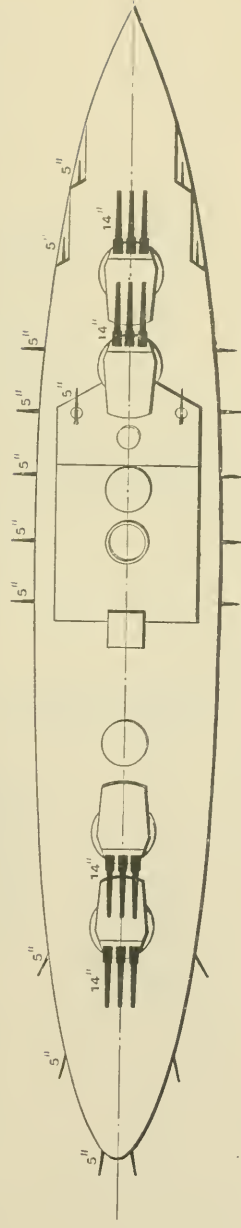
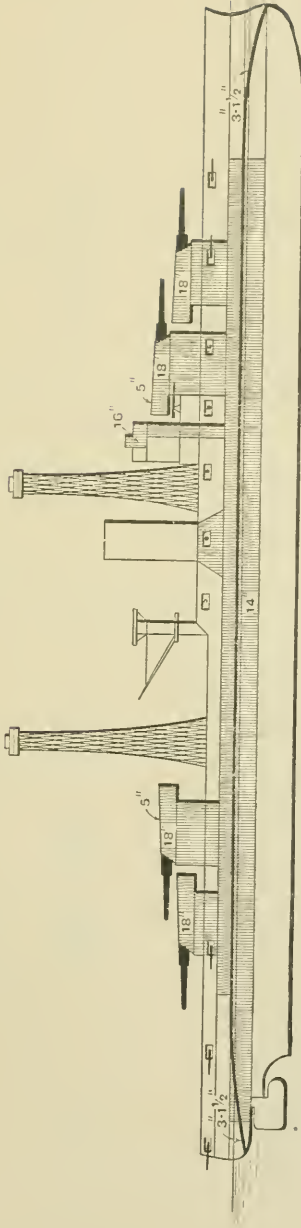
Pennsylvania.

Arizona.

California.*

Idaho.*

Mississippi.*



Length, 600 ft. ; 31,400 tons ; Speed, 21 knots ; Building ;
Armament, 12—14 in., 22—5 in., 10 small.

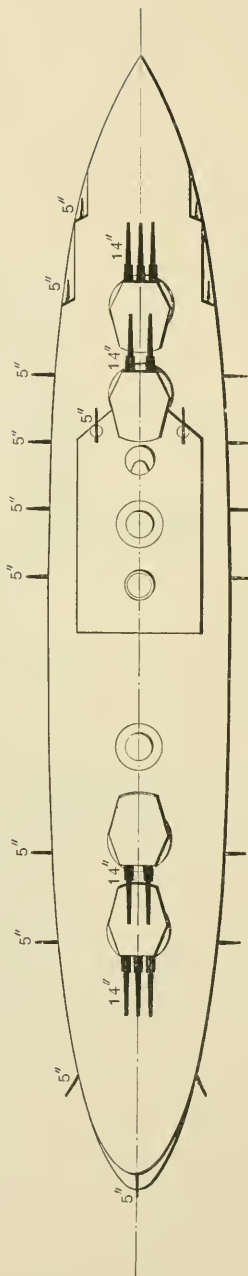
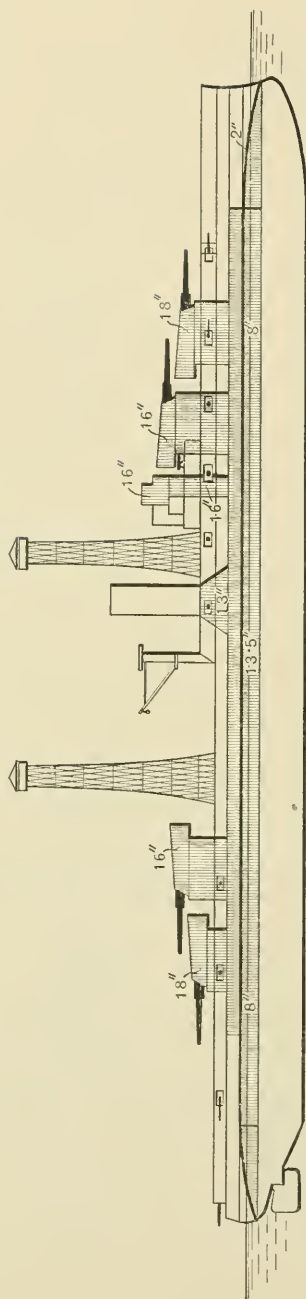
See pages 158, 159, 160.

* The California, Idaho, and Mississippi will be of 32,000 tons, and twelve 5-in. guns will be grouped in a central position on a higher level than in the Pennsylvania and Arizona.

BATTLESHIPS.

Nevada.

Oklahoma.



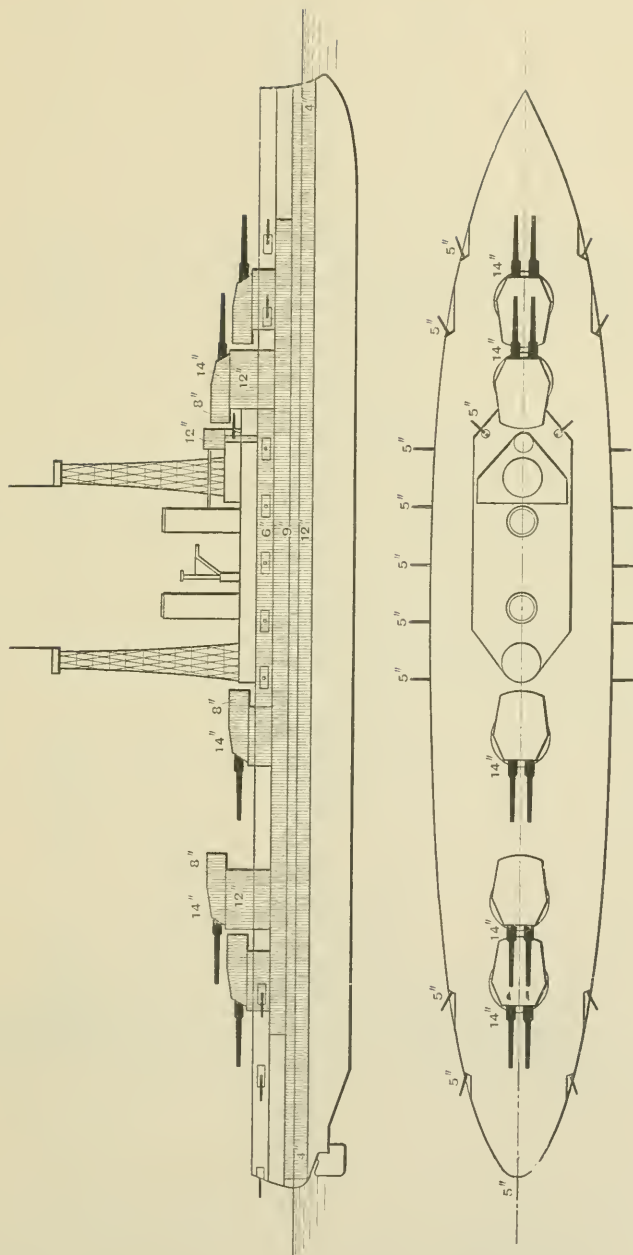
Length, 575 ft.; 27,500 tons; Speed, 20·5 knots; Completed, 1915;
Armament, 10-14 in.; 21-5 in.; 10 smaller.

See pages 159, 160.

BATTLESHIPS.

New York,

Texas.



Length, 573 ft. ; 27,000 tons; Speed, 21 knots; 1914 ;
Armament, 10-14 in., 21-5 in. ; 10 small.

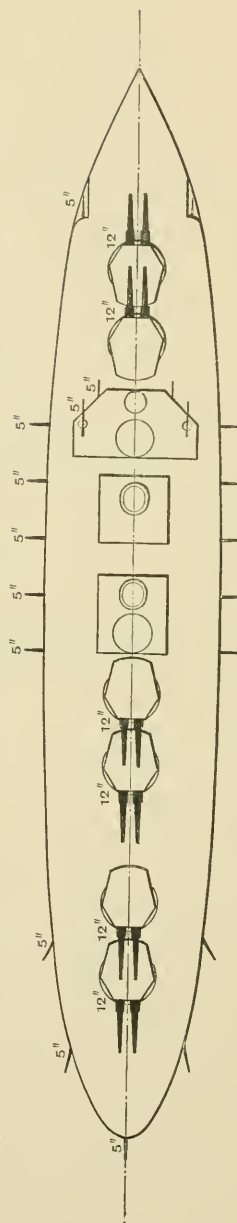
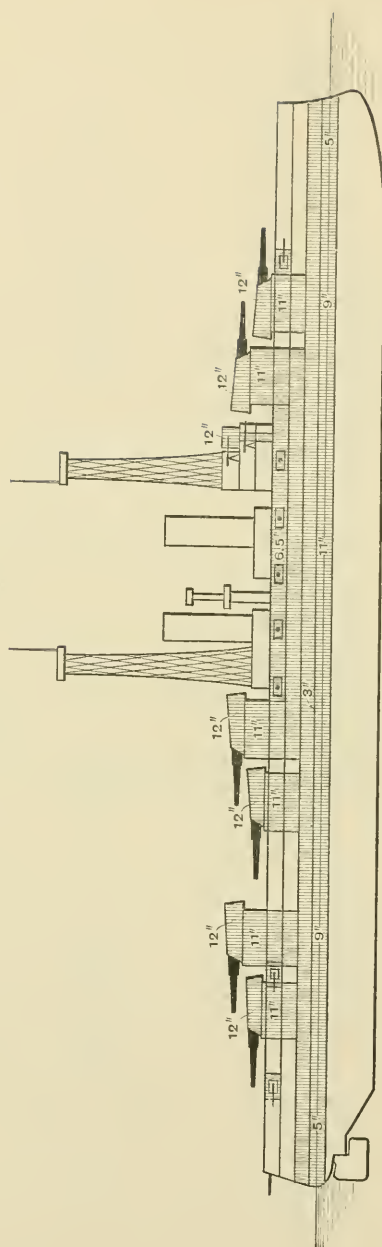
See pages 160, 161.

UNITED STATES.

BATTLESHIPS.

Arkansas.

Wyoming.



Length, 554 ft. ; 26,000 tons ; Speed, 21 knots ; Completed, 1912 ;
Armament, 12—12 in., 21—5 in., 4—3 pr. ; 4 small.

See pages 153, 161.

UNITED STATES.

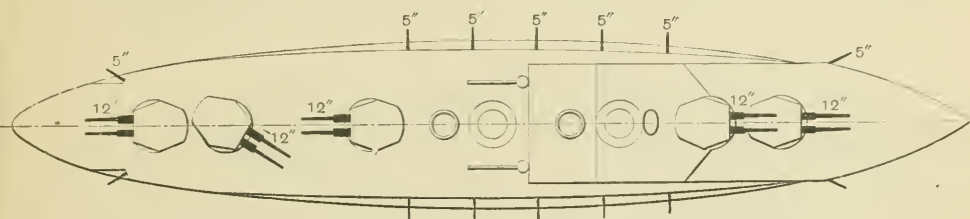
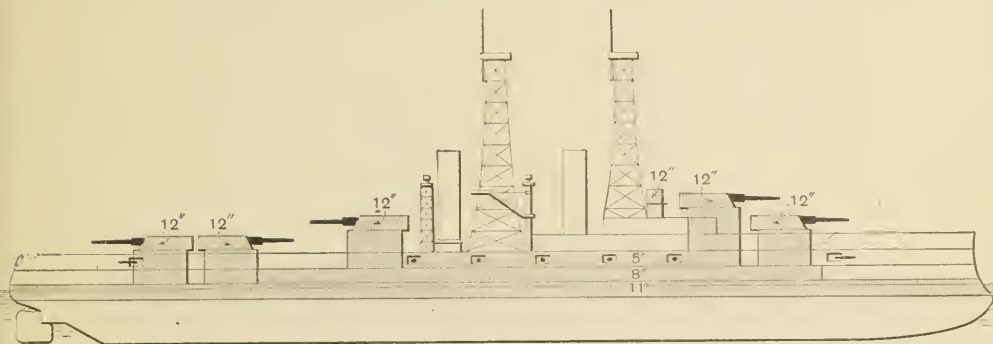
BATTLESHIPS.

Delaware.

North Dakota.

Florida.

Utah.

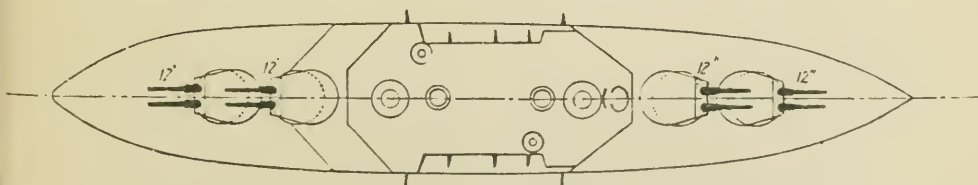
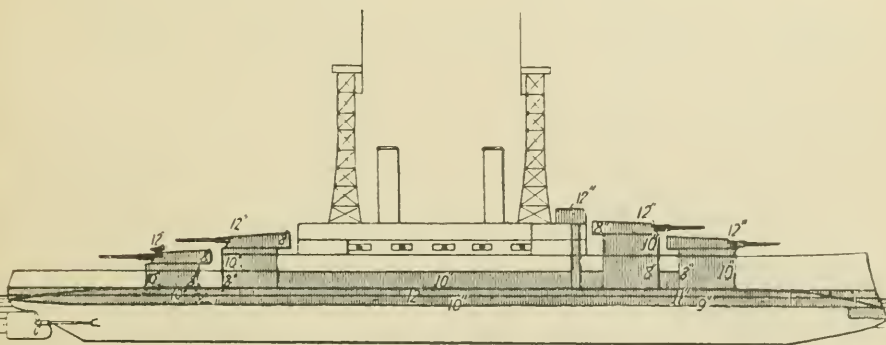


Delaware } Length, 510 ft. ; 20,000 tons ; Speed, 21.5 knots ; Completed, 1910 ;
 North Dakota } Armament, 10-12 in., 14-5 in., 16 small.
 Florida } Length, 510 ft. ; 21,825 tons ; Speed, 21.6 knots ; Completed, 1911 ;
 Utah } Armament, 10-12 in., 16-5 in., 10 small.

See pages 158, 160, 161.

Michigan.

South Carolina.



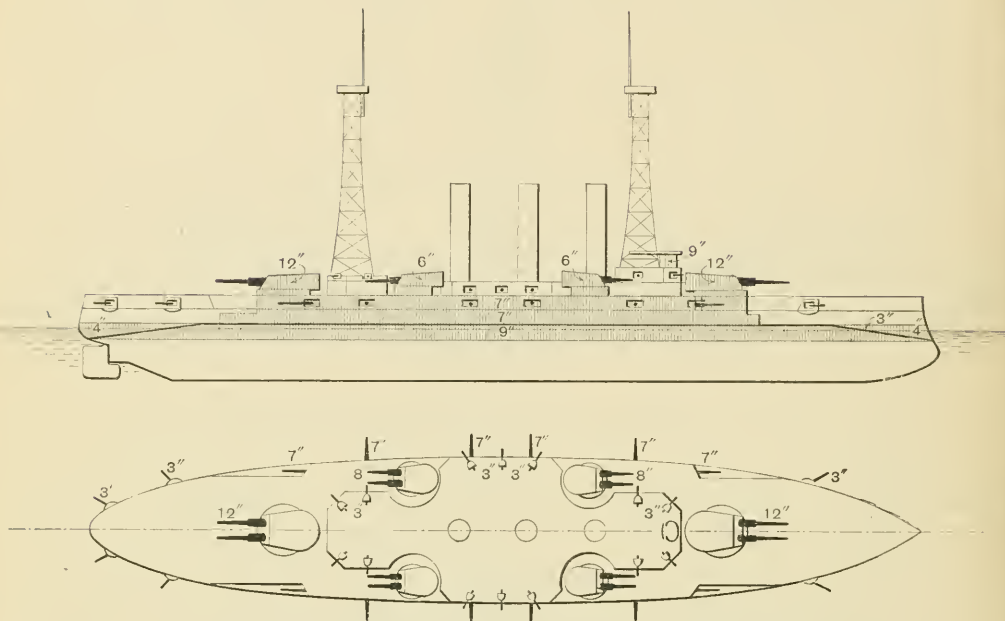
Length, 450 ft. ; 16,000 tons ; Speed, 18.8 knots ; Completed, 1909 ;
 Armament, 8-12 in., 22-3 in., 14 small.

See pages 158, 160.

UNITED STATES.

BATTLESHIPS.

Connecticut. Kansas. Louisiana. Minnesota. New Hampshire. Vermont.

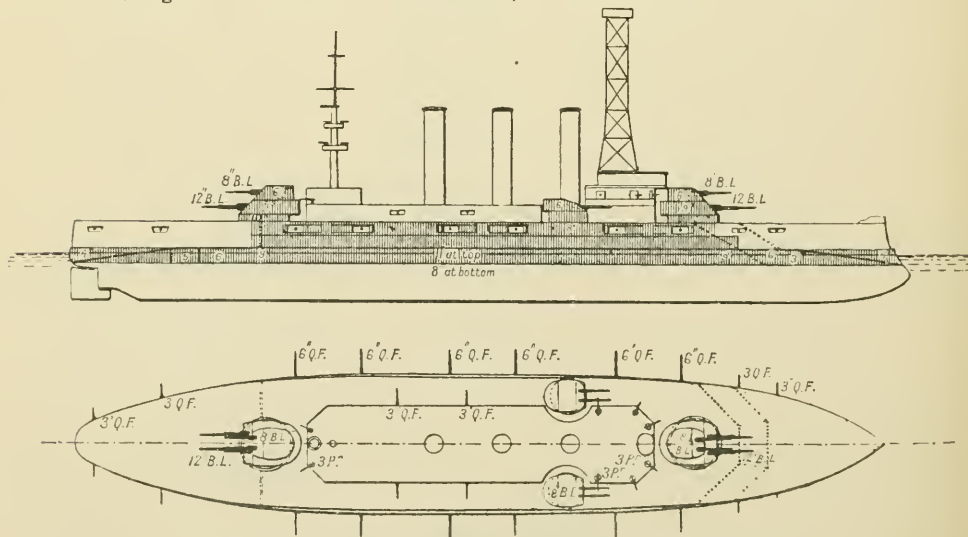


Length, 450 ft. ; 16,000 tons ; Speed, 18·1—18·8 knots ; Completed, 1906-1908 ;
Armament, 4—12 in., 8—8 in., 12—7 in., 20—3 in., 30 small.

Connecticut and Louisiana have 11 in. belt instead of 9 in., and have only 2—3-in. guns at the stern. New Hampshire has two military masts in place of the towers. Minnesota has one mast and one tower.

See pages 153, 159, 161.

Georgia. Nebraska. New Jersey. Rhode Island. Virginia.



Length, 435 ft. ; 14,948 tons ; Speed, 19—19·4 knots ; Completed, 1906-1907 ;
Armament, 4—12 in., 8—8 in., 12—6 in., 12—3 in., 30 small.

See pages 158-161.

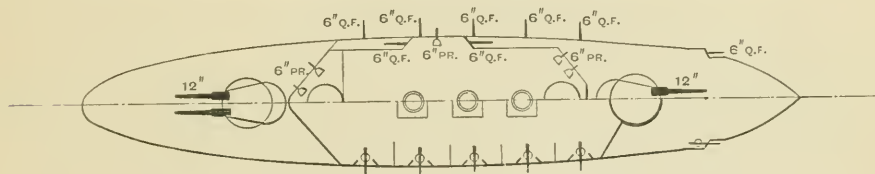
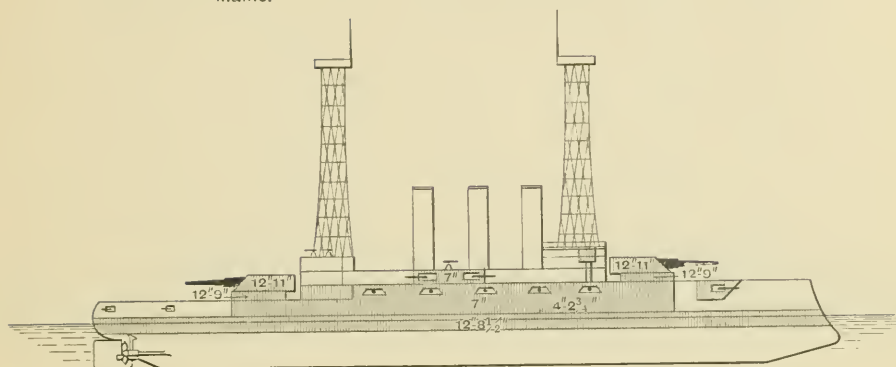
UNITED STATES.

BATTLESHIPS.

Maine.

Missouri.

Ohio.



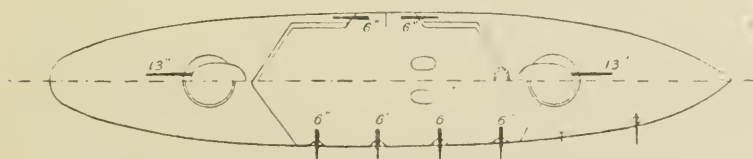
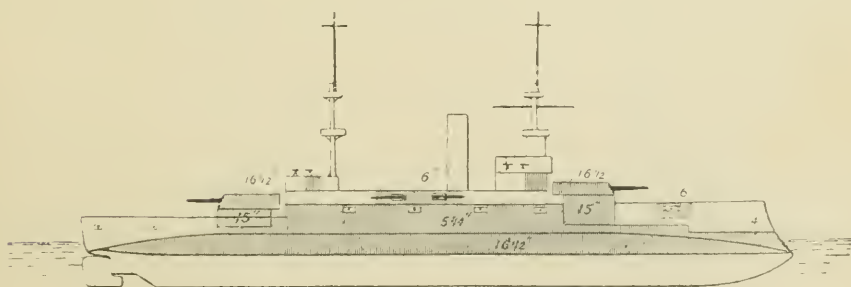
Length, 388 ft. ; 12,500 tons ; Speed, 17·8—18·1 knots ; Completed, 1902-1904 ;
Armament, 4—12 in., 16—6 in. 6—3 in., 18 small.

See pages 150, 160.

Alabama.

Illinois.

Wisconsin.



Length, 365 ft. ; 11,565—11,653 tons ; Speed, 17—17·45 knots ; Completed, 1900-1901 ;
Armament, 4—13 in., 14—6 in., 24 small.

See pages 158, 161.

UNITED STATES.

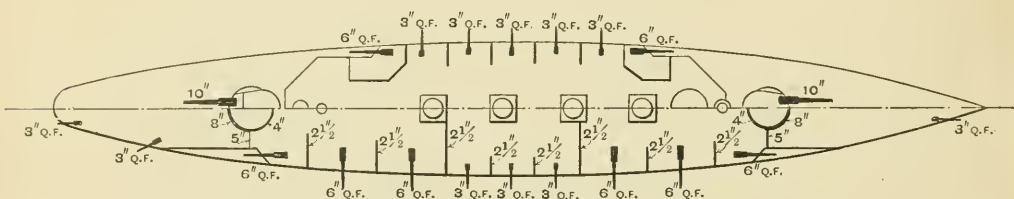
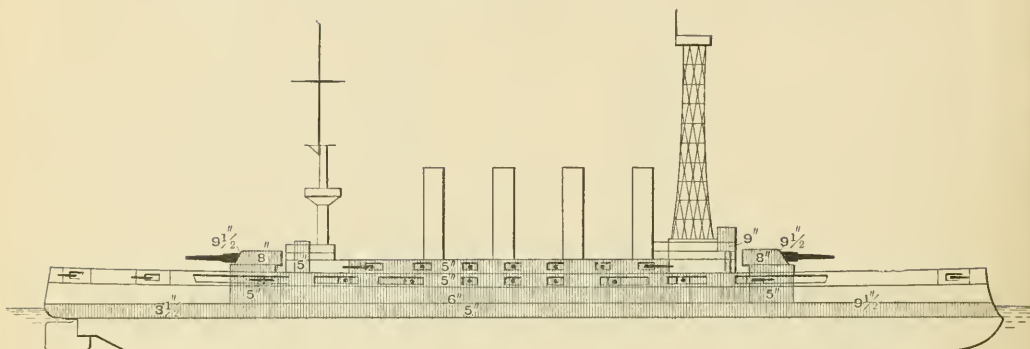
ARMOURD CRUISERS.

Montana.

North Carolina.

Tennessee.

Washington.



Length, 502 ft. ; 14,500 tons ; Speed, 22—22.5 knots ; Completed, 1906-1908 ;
Armament, 4—1 in., 16—6 in., 22—3 in., 22 small.

See pages 159, 160, 161.

Colorado.

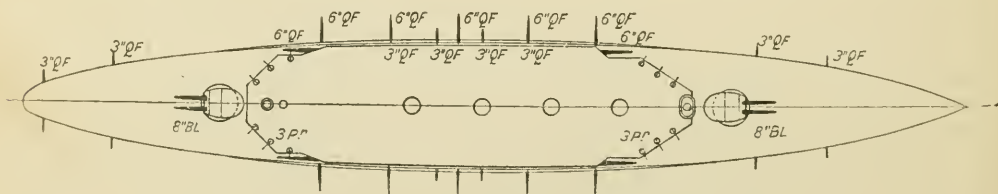
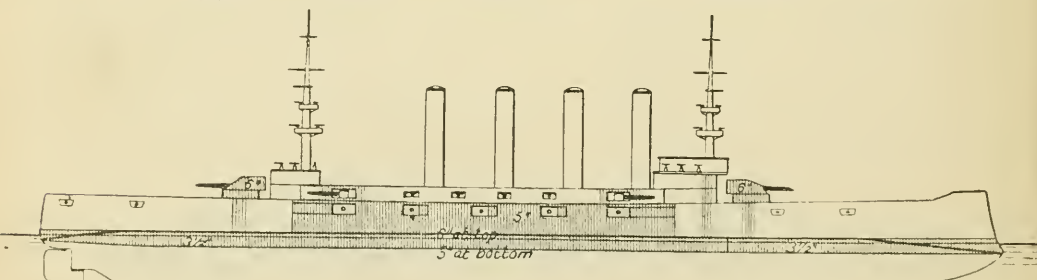
Maryland.

Pittsburg.

San Diego (*Ex California*).

South Dakota.

West Virginia.



Length, 502 ft. ; 13,680 tons ; Speed, 22—22.4 knots ; Completed, 1906-1907 ;
Armament, 4—8 in., 14—6 in., 18—3 in., 30 small.

See pages 158-161.

PART III.

GERMAN ORDNANCE.

ENEMY AND NEUTRAL ORDNANCE TABLES.

PART III.

ENEMY ORDNANCE.

IN previous volumes of the *Naval Annual* the section devoted to armour and ordnance has dealt with many scientific and technical questions relating to the attack and defence of ships, and within recent years a great many new inventions and appliances have been described and illustrated. This year nothing of the kind is intended, or is possible. The object is solely to give as much useful information as is available concerning the ordnance of the German and Austro-Hungarian Navies.

The ordnance tables relating to these Navies are retained, and new tables are included of Krupp anti-aircraft guns, and other guns of the Ehrhardt pattern of the Düsseldorf Company. Some of these guns are also illustrated. The tables of the ordnance of neutral Powers are also given, but all tables and other information relative to the guns of the Allied Powers are omitted.

There does not seem to be anything material to note with reference to the ship guns of the enemy navies. The Germans, who held to the 11-in. gun in the first Dreadnought class (Nassau), advanced to the 12-in. in subsequent classes, and the four Helgolands, five Kaisers, and four Königs are so armed, as also the Derfflinger battle-cruiser. In the new class of battleships, Ersatz Wörth and T, which were to be completed in the summer of 1916, but which will doubtless be commissioned much earlier, the 15-in. gun will be mounted, of which details are given in the Krupp and German official tables. The same gun will form the main armament of the new battle-cruisers also.

The Germans have always been very proud of the Krupp gun, which is certainly a good weapon, but nothing has happened in the War to show that it is the equal of the guns to which it has been opposed. The Krupp monopoly is apparently broken by the War, for the Rheinische Metallwaren- und Maschinenfabrik (Ehrhardt), of Düsseldorf, and other companies have been producing guns for the sea and land services, and the Dillingen armour-plate works have doubtless largely increased their output. Austrian guns from the

Skodawerke, Pilsen, have also been used by the Germans, but, so far as is known, only in the Army service.

Indeed, the most remarkable ordnance feature of the War has been the appearance in the field of 16·5-in. howitzers, produced both by the Skodawerke and by Krupp. These were used with remarkable effect in Belgium, and were extraordinarily heavy weapons to bring into the field. The largest gun shown in the Krupp table is a coast-defence 16-in. 50-calibre piece, weighing 102·5 tons. The shorter howitzer for field use would, of course, be lighter in proportion to its size. Nevertheless, the enormous weight of such a weapon for field service was manifestly so great that some doubt was felt as to the actual existence of the howitzer. A Belgian artillery officer, however, in a letter printed in *Truth*, December 16th, put an end to any questioning on that matter. He said:—

When I reached Antwerp on August 27th, after the fall of Namur, where I had been on duty from the 8th to the 23rd, I reported, among other things, to General de Guise that the rapid destruction of the attacked forts—namely, Marchevette and Maizeret—was to be attributed to the overwhelming effects of some of the shells, which must have been thrown from a more powerful weapon than the German 28cm. (11-in.) gun. He plainly told me he did not believe in the existence of such a weapon, as there was no official evidence of its being part of the enemies' armament. It was not long, however, before he was enlightened. A few weeks later the commander of the Fort de Wavre-Sainte-Cathérine was able to send him the base of one of these large shells that had fallen on the fort; its measurement showed that it was 42cm. (16·5-in.) in diameter. General de Guise showed it to me himself, and many others of my brother officers saw it at the "Quartier Général de la Position" in Antwerp. A colonel of the French garrison artillery who came to Antwerp with the Creuzot 12cm. (4·7-in.) howitzers could hardly believe his eyes when he was shown the palpable proof of the existence of a weapon unknown to the French artillery officers. I am certain that in Austria and Germany only a few privileged persons were in the secret.

Major-General Sir Desmond O'Callaghan, writing on this question in the *Times*, gave the information on the subject of a gentleman in the West of England who had lived a great deal in Germany, and was caught by the War in that country, where for two and a half months he was in the way of hearing a good deal of war news from German sources.

There was much talk about the 42cm. howitzer and other similar but smaller pieces of Austrian construction. As regards the 42cm. howitzers, the information which I gathered may be summed up as follows:—(a) They were first spoken of in connection with the siege of Liége, the rapid conduct of which was on all hands attributed to them. . . . One of their shells, it was said, would cleave through several metres of concrete before exploding, and then burst deep down with devastating effect. Pictures certainly bore this out. (b) The transport of the 42cm. howitzers required (as I suppose all great guns do) railway carriages of special construction, distributing the weight over the permanent way through a multiplication of axles. (c) The bedding of these howitzers when in position for firing was said to be plaster of paris, which I was told would harden in two hours, much faster than cement concrete. (d) A full-sized illustration of the shell was exhibited in several shop windows for a few days, and then confiscated by the police.

A rough sketch of this shell showed two driving bands and a front steady band, and it was said that each charge cost £1950.

These howitzers were undoubtedly made by the Krupp firm, and when war broke out none of them had been issued, and only a few (it was generally said three) were ready at the factory, which were issued and despatched to Belgium. As their issue was a surprise to the Army, the gunners were ignorant of their use, and they were served entirely by Krupp's artificers. One of the directors of that firm, in a speech reported in the German papers, congratulated his country (and incidentally his firm) on the achievements of these howitzers, which, he said, besides saving valuable time in the prosecution of the War, had saved, and would continue to save, thousands of German lives. Referring to a doubt that had been expressed as to their durability, he said, "There are not fortresses on earth to wear out one of our great mortars."

The bombardment of Dunkirk from a position in the rear of Dixmude, a range of $23\frac{3}{4}$ miles, by a heavy German (naval) gun (possibly a 12-in.), mounted for high-angle fire, is another example of the manner in which the enemy has been able to use very heavy ordnance in the field.

The only other point to which attention shall be drawn here is the extent to which the German submarines have made use of their guns. They no longer depend upon the torpedo alone, and, in fact, belong to a class which combines some of the powers both of the destroyer and the submarine.



[N.B.—The guns marked with an asterisk, as well as some shorter and smaller guns, are included in the new German official table of ship guns.]

GERMAN SHIP AND COAST GUNS (KRUPP).

Calibre Length of Bore . . . cm. eals.	7.5 = 2.9 in.			8.8 = 3.4 in.			10.5 = 4.1 in.			12 = 4.7 in.			15 = 5.9 in.			17 = 6.7 in.			19 = 7.4 in.		
	40	45	50	40*	45	50	40*	45	50	40	45	50	40*	45*	50	40*	45	50	40	45	50
Length of Bore . . . mm.	3000	3375	3750	3520	3960	4400	4200	4725	5250	4800	5400	6000	5965	6710	7455	6905	7765	8630	7600	8550	9500
Total Length . . . mm.	3195	3570	3945	3750	4190	4630	4475	5000	5525	5110	5710	6310	6355	7100	7845	7355	8215	9080	8095	9045	9995
Weight of Gun . . . kg.	677	764	850	1094	1234	1373	1555	1755	1950	2325	2620	2910	4460	5020	5590	6330	7800	8080	9230	10400	11550
Weight of Projectile . . "	5.8	5.8	5.8	9.5	9.5	9.5	16	16	16	24	24	24	46	46	46	70	70	70	95	95	95
Weight of Charge . . . "	1.65	1.86	2.09	2.66	3.0	3.37	5.05	5.80	6.60	7.5	8.65	9.85	14.4	16.6	18.9	22.4	25.7	29.3	29.8	34.3	39.1
Muzzle Velocity . . . m.	840	890	940	840	890	940	840	890	940	840	890	940	840	890	940	840	890	940	840	890	940
Muzzle Energy . . . mètre-tons	208.6	234.2	261.2	341.7	383.5	427.8	575	646	721	863	969	1081	1654	1857	2072	2517	2826	3152	3117	3835	4278
Muzzle Penetration (Steel) mm.	203	220	238	243	264	285	292	317	344	338	367	397	426	463	500	492	535	578	553	600	619

Calibre Length of Bore . . . cm. eals.	21 = 8.2 in.			24 = 9.4 in.			28 = 11 in.			30.5 = 12 in.			50*			50*		
	40*	45*	50*	40*	45	50	40*	45*	50	40*	45	50	40*	45*	50	40	45*	50*
Length of Bore . . . mm.	8370	9420	10465	9600	10800	12000	11200	12600	12600	11200	12600	14000	14000	14730	14000	12200	13725	15250
Total Length . . . "	8915	9965	11010	10225	11425	12625	11930	13330	13330	11930	13330	14730	14730	15360	14730	12995	14520	16045
Weight of Gun . . . kg.	12330	13900	15450	18600	21000	23300	20550	26300	26300	20550	26300	30200	37000	34050	37000	38200	34400	43000
Weight of Projectile . . "	125	125	125	190	190	190	300	300	300	300	300	300	300	300	300	300	300	390
Weight of Charge . . . "	39.9	45.8	52.3	60.1	69.1	78.8	95	82	110	95	125	111	125	111	123	106	142	123
Muzzle Velocity . . . m.	840	890	940	840	890	940	840	890	890	840	890	850	940	900	900	840	800	890
Muzzle Energy . . . mètre-tons	44.95	5047	5629	6833	6198	7844	10790	9790	12110	10790	9790	11050	13510	12390	14030	12720	15750	14360
Muzzle Penetration (Steel) mm.	606	658	711	703	658	766	828	778	900	828	772	842	973	914	914	912	850	927

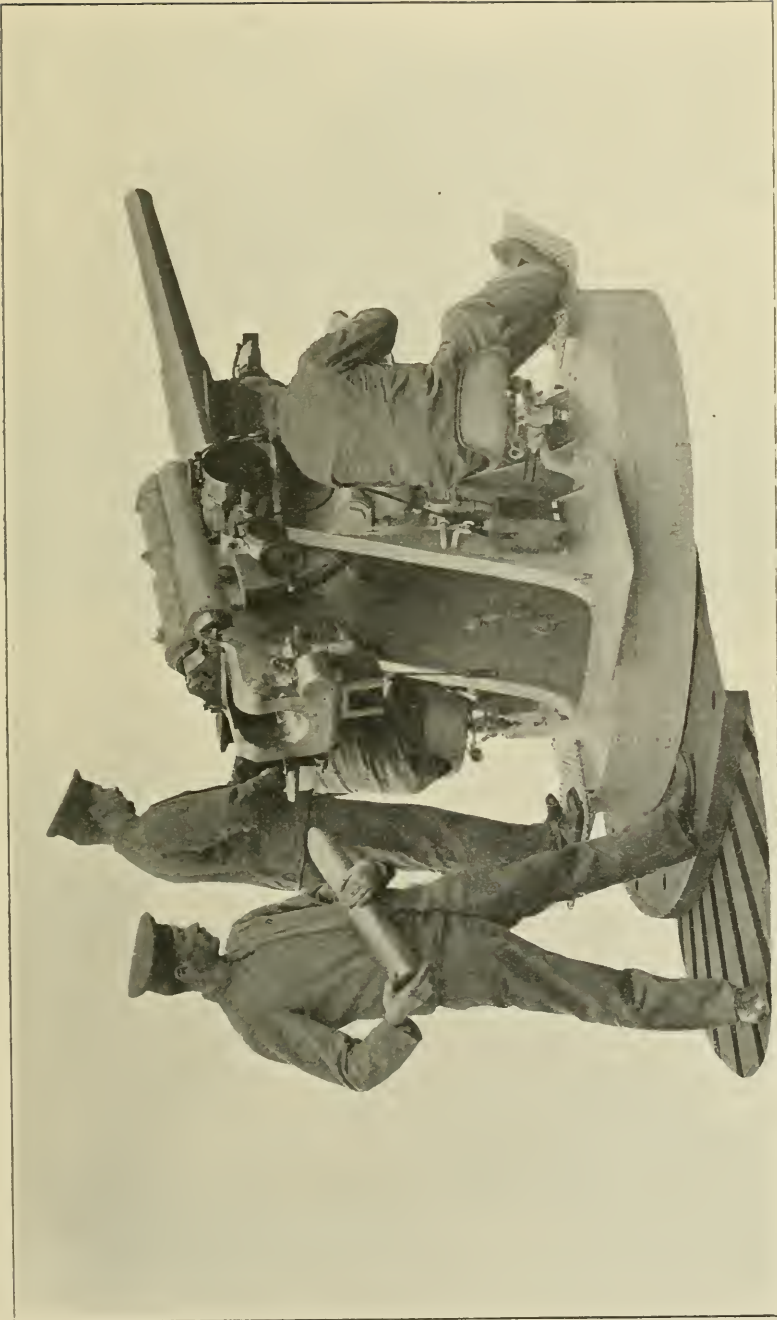
Calibre Length of Bore . . . cm. eals.	35.56 = 14 in.			38.1 = 15 in.			40.64 = 16 in.			50		
	40	45	50	40	45*	50	40	45	50	40	45	50
Length of Bore . . . mm.	14225	16000	17780	15240	17145	19050	16255	18290	20320	16255	18290	20320
Total Length . . . "	15150	16925	18705	16230	18135	20040	17315	19345	21375	17315	19345	21375
Weight of Gun . . . kg.	60500	54500	68100	74400	67000	83800	90300	101700	92400	90300	101700	113100
Weight of Projectile . . "	620	620	620	760	760	760	920	920	920	920	920	920
Weight of Charge . . . "	196	163	225	241	207	277	315	292	336	315	292	336
Muzzle Velocity . . . m.	840	800	890	840	800	890	940	890	850	940	890	850
Muzzle Energy . . . mètre-tons	22300	20220	25630	27330	24790	30680	34230	31380	33090	34230	31380	37140
Muzzle Penetration (Steel) mm.	1077	1005	1170	1095	1265	1189	1157	1079	1257	1238	1154	1344

KRUPP GUNS FOR USE AGAINST AIRCRAFT.

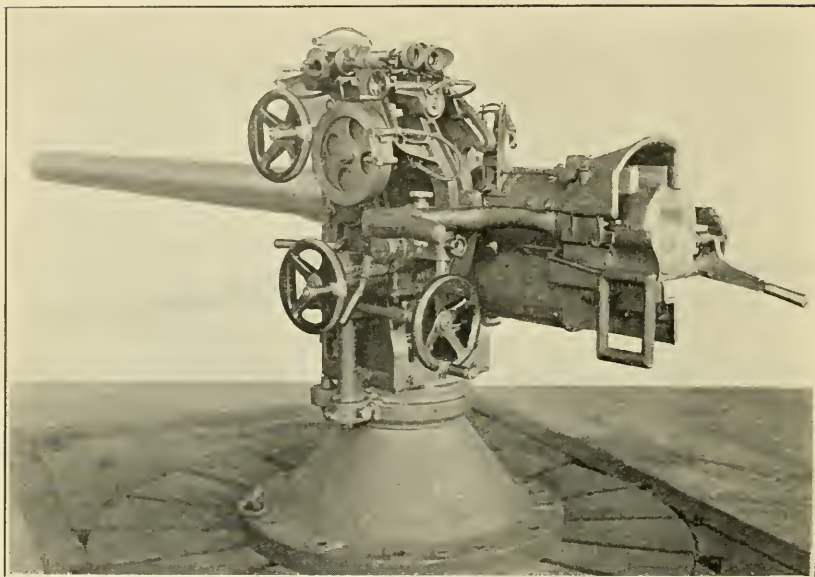
2-9-in. Field Gun with Pivot-Traversing Wheels.			2-8-in. Gun on Motor Carriage.		2-9-in. (12-pr.) Ship Gun with Shield.		3-4-in. Ship Gun without Shield.		3-4-in. Ship Gun with Shield.		4-1-in. Coast Gun with Shield.		4-7-in. Coast Gun with Shield.	
Calibre	.	.	7-5	7-1	7-5	8-8	8-8				10-4			
Length of Bore	.	calls.	30	30	45	35	45				45			12
Weight of Guns—Firing Position	.	kg.	1030	1230	4360	3469	5840				5480			8530
Weight of the Gun-Carriage	.	kg.	1700	—	—	—	—				—			—
Weight of the Shield	.	kg.	—	—	940	—	2400				780			1080
Thickness of Shield	.	mm.	—	—	12	—	50/12				1-2			12
Elevation and Depression	.	deg.	—	—	+70	+80	+60				+60			+60
Rounds per Minute	.	.	+65	+75 ± 0	—30	—25	—25				—10			—10
Weight of Projectile	.	kg.	—	5	5-8	9-5	9-5				15			10
Initial Velocity	.	m.s.	6-5	650	800	630	800				15-5			24
	.		510								800			800



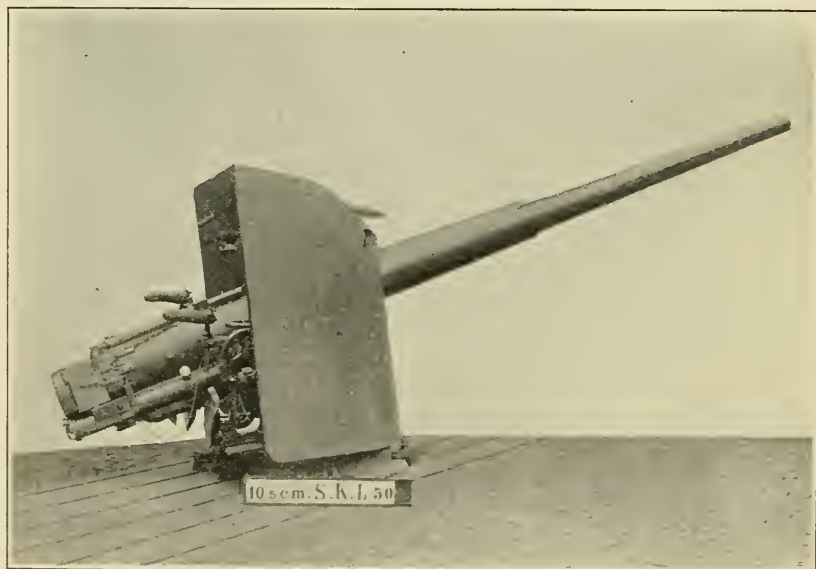
KRUPP 3·4-IN. HIGH-ANGLE SHIP GUN.



KRUPP 3·4-IN. HIGH-ANGLE SNIPE GUN.
Shown at low elevation for ordinary ship's use.



EHRHARDT 3.46-IN. GUN, WITH TELESCOPIC SIGHTS MOUNTED.



EHRHARDT 4.1-IN. GUN, WITH SHIELD.

AUSTRIAN NAVAL ORDNANCE.

Designation by Calibre, in centimetres, length in calibres, and type of gun . . .	{ 38 L. 45 Skoda. }	35.5 L. 45 Skoda.	30.5 L. 45 Skoda.	24 L. 45 Skoda.	24 L. 40 Skoda.	24 L. 40 K. 97	24 L. 40 K. 94	15 L. 40 Skoda.	15 L. 40 Krupp	15 L. 35 Skoda.	12 L. 40 Skoda.
Calibre, in inches	14.96	14	12.01	9.45	9.45	9.45	9.45	5.91	5.9	5.87	4.72
Length { Total, in feet	59	52	45.0	35.5	31.5	31.5	31.5	19.5	19.5	17.13	15.74
Length { Rifled Portion, in ins. . . . .	..	..	417.9	325.8	290.3	290.3	286.2	182.6	182.5	153.6	147.6
Length { Powder Chamber in ins. . . . .	..	..	78.3	65.2	55.5	55.5	63.7	35.4	35.4	35.4	28.6
No. of Grooves . . . . .	..	..	45	45	40	40	40	40	40	35	40
Twist in calibres . . . . .	..	..	92	72	72	72	72	44	44	44	36
Twist in calibres . . . . .	..	..	40-25	40-25	45-25	45-25	45-25	45-25	45-25	45-25	45-25
Weight { Gun, tons	79.3	69	51.9	26.23	27.30	29.8	27.5	4.22	4.36	3.68	2.04
Weight { Breech Block, in lb.	1907	1565.3	3450.2	1873.9	1336.0	..	1450	330	339.5	346	172
Weight { Steel Shell "	1477	1212.5	992	473.0	501.8	473	473	102.1	102.1	102.1	52.4
Weight { Common Shell " . . . . .	..	..	..	..	..	..	..	..	..	..	..
Weight { Shrapnel Shell " . . . . .	..	..	..	..	..	..	..	..	..	..	..
Weight { Steel Shell " . . . . .	..	..	7.3	2.03	8.3	8.3	8.3	3.31	3.31	1.98	1.1
Weight { Common Shell " . . . . .	..	..	53.6	23.4	29.5	29.5	47.3	4.84	4.84	5.73	2.86
Weight { Shrapnel Shell " . . . . .	..	..	..	..	..	..	..	1.00	1.00	1.00	0.53
Weight { Steel Projectile, in lb.	586	474	304	156.2	99.2	99.1	91.5	18.29	18.29	17.82	9.7
Weight { Common Shell, in lb.	586	474	304	..	99.2	91.5	91.5	18.29	18.29	17.82	9.7
Weight { Shrapnel, in lb. . . . .	..	..	..	..	..	..	..	11.85	11.85	11.85	4.41
Muzzle Velocity, in feet	2979	2979	2625	2625	2313	2313	2264	2264	2264	2133	2264
Muzzle { Total, foot-tons	91103	63976	..	..	..	..	..	..	..	..	..
Energy { Per inch circumference, foot-tons . . . . .	..	..	..	..	..	..	..	..	..	..	..
Thickness of Iron, perforated inches at Muzzle, by Tresider's formula	46.2	43.7	..	..	..	..	..	..	..	..	..
Perforation of Krupp Steel, 3000 yds., inches . . . . .	..	..	..	..	..	..	..	..	..	..	..

There are also Skoda 9.3-in. and 2.75-in. and Skoda and Hotchkiss 3-przs.

Corrected to July, 1914.

The 16.5-in. howitzers, which were employed by the Germans in Belgium, were army guns and do not appear in the Skoda tables.

DANISH NAVAL ORDNNANCE.

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Designation by Calibre, in centimètres, length in calibres, and type of gun	26 L. 35 (Krupp)	24 L. 40 1893 Krupp.	24 L. 40 1896 Canst.	24 L. 43 1901 Bofors.	24 L. 43 1906 Bofors.	24 L. 43 Krupp.	21 L. 35 Krupp.	15 L. 35 1888 Krupp.	15 L. 43 1896 Bofors.	15 L. 43 1901 Bofors.	15 L. 50 Bofors.	12 L. 40 Krupp.	8-7 L. 40 Krupp.	7-5 L. 55 Danish semi-aut.	5-7 L. 41 Hotel- kiss.	4-7 L. 44 Hotel- kiss.	4-7 L. 50 Danish semi-aut.
Calibre, in inches	10-24	9-45	9-45	9-45	9-45	9-45	8-24	5-87	5-87	5-87	5-87	4-72	3-43	2-95	2-24	1-85	1-85
Total length, in feet	29-86	31-50	31-50	33-86	33-86	33-86	24-05	17-12	21-17	21-17	24-46	15-75	11-41	13-53	8-13	6-72	7-71
Length of Bore, including Powder Chamber	327-6	349-7	358-5	397-0	397-0	397-0	204-5	189-0	244-0	247-4	286-4	176-4	126-8	152-6	89-8	74-1	87-6
Number of Grooves	32-0	37-0	37-9	42-0	42-0	42-0	32-1	32-2	41-6	42-1	48-8	37-3	37-0	51-7	40-0	40-0	47-3
Twist of Rifling, in calibres	60	72	60	60	60	60	48	36	44	44	44	36	32	28	24	20	20
Total weight, including Breech-gear, tons	70-25	00-25	72-33	72-33	72-33	72-33	50-25	70-25	70-30	70-30	30	42-25	45-20	30	180-30	25	40-25
Breech Block, lb.	27-3	25-4	22-9	24-3	24-3	24-3	13-3	4-7	5-5	5-5	7-5	2-26	1-13	0-87	0-36	0-23	0-32
Weight of { Armour-piercing Projectile, lb.	2006	1691	871	851	802	904	238	390	295	252	313	205	136	83	60	40	40
" Shell	452	353	353	353	353	353	..	..	112	112	112	..	..	..	..	..	..
" Common Shell, lb. . . . .	..	353	353	353	353	353	238	112	112	112	112	44	20	15	6	3-3	3-3
Weight of { Armour-piercing Shell, lb.	452	353	353	353	353	353	..	..	1-7	1-7	1-7	1-7	0-7	0-7	0-25	0-11	0-11
" Common Shell, lb. . . . .	..	5-3	5-3	5-3	5-3	5-3	..	..	7-2	7-2	7-2	2-8	1-3	0-7	0-19	0-14	0-14
Weight of Firing Charge, lb.	29-8	24-9	24-9	24-4	24-4	24-4	16-5	7-2	7-2	7-2	34-2	11-3	4-7	4-0	1-3	1-1	1-4
Muzzle Velocity, feet	191-8	91-5	77-2	83-8	97-0	105-8	2018	1854	2297	2297	2690	2362	2362	2625	2297	2346	2723
Muzzle { Total foot-tons	2018	2362	2362	2477	2641	2641	6712	1854	2297	2297	5642	1702	767	737	218	126	170
Energy { Per inch circumference, foot-tons	12750	13610	13610	15000	17060	17060	259-3	145-2	222-4	222-4	306-1	114-8	71-2	79-5	31-0	21-7	29-3
Perforation at Muzzle, wrought iron, Tresidder's formula, inches	396-4	459-5	459-5	505-4	574-7	574-7	18-5	13-2	18-3	18-3	23-2	13-3	10-5	11-7	6-8	5-8	7-2
Perforation Krupp Steel, 3000 yards, inches	22-8	26-6	26-6	28-6	31-5	31-5	4-2	3-3	6-2	6-2	7-9	..	..	..	..	..	..

There are also some older 1-46-in. 1-pdr. Hotchkiss guns.

Corrected to April, 1915.

See also Bofors Tables.

DUTCH NAVAL ORDNANCE.

		Krupp Q.F.									
Designation by Calibre, in centimètres
Calibre, in inches
Total Length, in feet
Length of Rifled Portion of Bore, in inches
Length of Powder Chamber
Length of Bore, in Calibres
Number of Grooves
Depth of Grooves, inches
Twist of Rifling, in Calibres
Total Weight, in tons
Firing Charge { Armour-piercing Projectile, in lb.
Common Shell
Weight { Armour-piercing Projectile
Common Shell
Case Shot
Bursting Charge { Armour-piercing Projectile
Common Shell
Muzzle Velocity, feet
Total, in foot-tons
Per inch Circumference, foot-tons
Perforation at Muzzle, in inches (Krupp Steel)
Perforation Krupp Steel, 3000 yards
Model

Corrected to April, 1915. There is a new model of the 28 cm. with muzzle energy of 35,000 ft. tons.

NAVAL ORDNANCE OF NORWAY.

		Modern Guns.						
Designation by Calibre, in ems.	21	21 Q.F.	15	15 Q.F.	12 Q.F.	76 mm.	76 mm.	7 cm.
Calibre, inches	8.24	8.24	5.87	5.87	4.7	3.0	3.0	2.8
Total Length, feet	24.0	31.2	19.6	23.3	17.7	10.3	13.3	9.2
Length { Rifled Portion of Bore, inches	212.3	309.7	178.0	234.1	179.2	102.4	127.7	81.8
	49.0	48.6	39.0	32.9	26.0	15.4	20.4	19.1
Chamber, inches								
Bore in calibres	35.0	43.8	37.2	45.8	44.0	40	50	36.6
Number of Grooves	64	32	44	28	26	16	28	28
Twist of Rifling	46-23	α-30	45-25	α-30	α-30	α-30	30	20
Total Weight, tons	14.2	18.9	5.6	7.1	2.7	0.6	1.0	0.63
Weight of { Armour-piercing Shell, in lb.	309	309	112.4	99.3	45	12.5	12.5	10.5
Weight of { Common Shell, in lb.	..	..	..	..	..	..	..	..
Weight of * { Armour-piercing Shell, in lb.	45.6	54	20.4	20.9	9.4	2.2	3.75	2.2
Firing Charge { Common Shell, in lb.	..	..	..	..	..	..	..	..
Muzzle Velocity, feet	1903	2300	2050	2625	2570	2200	2840	2230
Muzzle Energy, Total foot-tons	7760	11450	3328	4870	2060	430	695	367
Perforation through Iron by Tresidter's formula	19.3	25.6	15.4	21	15.3	8.0	11.6	7.8
Perforation, Krupp Steel, 3000 yards	4 $\frac{3}{4}$	6 $\frac{1}{2}$	3 $\frac{1}{4}$	4	..	..	..	..

* Smokeless powder.

Corrected to April, 1915

SPANISH NAVAL ORDNANCE.

Designation by Calibre, in m/m .	Hontoria.—Pattern 83.—Breech Loading.						Canet.		Skoda.		Krupp.	Vickers.	Maxim Nordenf.	Nordenf.	Sar. minto	Hotchkiss.		Maxim Nordenf.
	320	280	240	200	140	120	150	140	150	70	47	105	101·6	75	57	42	57	37
Length { Total length, in m/m . Powder Chamber, in m/m . Bore, in m/m .	11780	10310	10200	7360	5303	4420	7500	6300	5960	2743	2048	3680	5240	1922·9	2651	1935	2480	812
	2113·5	1845	1698·3	1635	1030	886	1124	1078·5	915	..	337·05	750	635·23	111	632·20	345·78	256	129
No. of Grooves	11180	9787	8387	7095	4879	4173	7250	4593·2	5540	2550	1881	3375	5100	934·74	2413	1750	2280	713
Depth of Grooves, in m/m . . .	80	70	60	50	34	30	48	36	44	24	20	32	32	32	24	18	24	12
Twist of Rifling, in m/m and degrees	1·5	1·5	1·25	1·25	1·00	1·00	1·00	1·00	1·5	0·75	1·20	1·25	1·00	0·75	0·305	0·305	0·30	0·4
Weight of the { Armour-piercing proj., in kgs. Common Shell, in kgs. Ring Segment, in kgs. Semi-piercing, in kgs. Case Shot, in kgs.	472·20	315·0	198·0	114·6	39190	24100	39500	39190	44350	3878	1440	..	13920	5670	2605	1093	2546	0·488
	398·60	265·60	167·00	98·00	34946	21400	38·00	34946	40445	3770	1440	17400	12620	5600	2633	1108	2574	0·407
Weight of the { For the Armour-piercing, in kgs. Common Shell, in kgs. Ring Segment, in kgs. Semi-piercing, in kgs.	7500	5000	3000	1900	0·512	0·340	0·500	0·512	0·860	0·122	0·060	..	0·500	0·230	0·227	0·038	0·115	0·015
	21000	14000	9000	5000	1695	0·950	1430	1695	4225·0	230	0·060	0·350	1350	0·260	0·250	0·038	0·085	0·022
Muzzle Velocity, in metres . . .	620	620	647	620	580	612	800	736	690	710	710	600	884	300	641	570	603	590
Muzzle Energy, in metre-tons . .	9408	6275·9	4400	2290	679·8	469	1309	1094·7	1098	102·9	38·5	326	574·9	27	139·1	45	21·6	42·5

Corrected to April, 1915.

The 12-in. 50-calibre Armstrong gun in the new ships fires a projectile of 249 lb., with muzzle velocity of 29,530 ft., and muzzle energy of 51,600 foot-tons.

NAVAL ORDNANCE OF SWEDEN.

—	Bofors.	Armstrong.		Canet and strong.	Whit. worth.	Bofors.		Bofors.		Bofors.		Stockholms Vapenfabrik and Finspong.		Bofors.	Fin-spong.	Stockholms Vapenfabrik.	
		25 cmk. m/85	25 cmk. m/89	25 cmk. m/94	24 cmk. m/92	24 cmk. m/96	24 cmk. m/94	21 cmk. m/98	15 cmk. m/93	12 cmk. m/94	12 cmk. m/93	7-5 cmk. m/95 and m/12	5-7 cmk. m/95 C.			5-7 cmk. m/95 C.	5-7 cmk. m/95 B
N. = belongs to the Navy. C.A. = belongs to the Coast Artillery.	28 cmk. m/12	C.A.	C.A.	N.	C.A.	C.A.	C.A.	N.	N.C.A.	N.C.A.	N.C.A.	N.	C.A.	N.C.A.	Fin-spong.	Stockholms Vapenfabrik.	Stockholms Vapenfabrik.
Designation by Calibre, in cms.	28-3	25-4	25-4	25-4	24	24	24	21	15-24	12	12	7-5	5-7	5-7	5-7	5-7	5-7
Total Length	12735	8636	8636	10670	8544	10320	12003	9335	6768	7620	5400	6000	3108	2760	1478	1504	1500
Length	10615	6637	6550	8498	6618	8541	10009-3	7301-1	5693	6255-9	4665	5013	3129	2517-5	2328	1049-5	1447-5
Chamber	1660	1397	1397	1609	1209	1299-6	1508-4	1123	787-7	1049-9	474	742	563-5	265	229	205	200
Bore, in calibres	44	32	32	40-5	32-4	41	48	42-5	42-5	48	43	48	49	49	41-5	23	30
Number of Grooves	80	42	42	44	42	40	40	60	44	44	36	36	28	24	24	24	24
Twist of Rifling	28	40	40	30	30	30	30	30	30	30	30	30	30	30	30	25	27
Total Weight	34-4	30-25.	31-03	29-2	23-84	25	30-44	17-00	5-98	7-75	2-8	3-7	0-950	0-380	0-334	0-212	0-189
Weight	305	204	204	204	181	215	215	125	45-4	21	21	—	—	—	—	—	—
Weight of Firing Charge	100	41	41	45-2	34	45-5	43	30	10-3	15	4-3	7-0	—	—	—	—	—
Muzzle Velocity	870	640	640	7-0	625	641	985	750	750	859	740	800	780	704	640	485	600
Muzzle Energy, total m. ton.	11288	4258	4258	5386	3009	4209	5138	3581	1301	1671	586	791	201	68-7	56-8	32-64	49-9
Perforation (K. G. armour, 3000 m.) in cms.	—	14-6	14-6	20-6	13-4	19-0	21-8	22-9	10-4	15-7	—	10-5	—	—	—	—	—

Corrected to April, 1915. For the 11-in. and 12-in. guns, and details of some of the others, see the Bofors Company's table, post.

UNITED STATES NAVAL ORDNANCE.

GUN.	MARK.	Length of Calibres.	Total Lengths.	Capacity of Chamber in Cubic Inches.	Travel of Projectile in Inches.	Weight of Gun. tons.	Weight of Projectile. lb.	Weight of Charge. lb.	Muzzle Velocity. ft.-seconds.	Muzzle Energy. ft.-tons.	Penetration at Muzzle, Krupp or Armoured, using Capped Projectile. inch.	At 3000 Yards.		At 6000 Yards.		At 9000 Yards.	
												Remaining Velocity. ft.-seconds.	Penetration. inch.	Remaining Velocity. ft.-seconds.	Penetration. inch.	Remaining Velocity. ft.-seconds.	Penetration. inch.
3-in. R.F.G.	IL, III.	50	154	219	128.3	0.9	13	3.85	2700	658	3.3	1250	1.2	848	0.8	..	..
3-in. S.A.	V, VI.	50	159	219	128.3	1.0	13	3.85	2700	658	3.3	1250	1.2	848	0.8	..	..
4-in. R.F.G.	III, IV, V, VI.	40	164	331	134.5	1.5	33	4.85	2000	915	3.4	1156	1.7	897	1.2	..	..
4-in. R.F.G.	VII.	50	205	652	168.3	2.6	33	9.0	2500	1,430	4.6	1432	2.2	979	1.4	853	1.2
4-in. R.F.G.	VIII.	50	205	652	168.3	2.9	33	12.3	2800	1,794	5.3	1637	2.6	1033	1.5	878	1.2
5-in. R.F.G.	IL, III, IV.	40	206	656	165.8	3.1	50	10.0	2300	1,832	5.3	1286	2.6	934	1.7	829	1.4
5-in. B.L.R.	V, VI.	50	256	1,200	215.6	4.6	60	19.2	2700	3,032	6.2	1692	3.5	1102	2.0	928	1.6
5-in. B.L.R.	VII.	50	256	1,200	215.6	4.6	50 ¹	20.5	3000 ¹	3,122	6.4	1732	3.2	1037	1.7	877	1.1
5-in. R.F.G.	VII.	51	261	1,135	215.6	5.0	50	23.8	3150	3,439	6.8	1835	3.4	1091	1.8	895	1.4
6-in. R.F.G.	IL, III.	30	196	1,287	150.0	4.8	105	18.8	1950	2,768	5.3	1305	3.2	1009	2.3	909	2.0
6-in. R.F.G.	IV, VII.	40	256	1,320	205.8	6.0	105	18.8	2150	3,365	6.0	1440	3.6	1058	2.4	934	2.1
6-in. R.F.G.	IX.	45	270	1,320	221.7	7.0	105	18.8	2250	3,685	6.3	1511	3.8	1086	2.5	948	2.1
6-in. B.L.R.	VI.	50	300	2,101	247.5	8.3	105	30.0	2600	4,920	8.6	1770	4.7	1207	2.9	996	2.2
6-in. B.L.R.	VIII.	50	300	2,101	247.5	8.6	105	37.0	2800	5,707	11.3	1923	5.2	1297	3.2	1026	2.3
7-in. B.L.R.	IL.	45	323	3,643	259.8	12.7	165	58.0	2700	8,338	9.6	1948	6.1	1382	4.2	1083	3.0
8-in. B.L.R.	III, IV.	35	305	3,170	245.8	13.1	260	43.8	2100	7,948	8.6	1576	6.0	1206	4.2	1040	3.6
8-in. B.L.R.	V. and VI.	45	369	5,213	299.1	18.7	260	98.5	2750	13,360	12.0	2106	8.6	1589	6.1	1227	4.4
10-in. B.L.R.	I, II.	30	329	6,779	251.1	25.1	510	90.0	2000	14,141	10.7	1590	8.0	1274	6.1	1103	5.0
10-in. B.L.R.	III.	40	413	10,222	327.0	34.6	510	207.5	2700	25,772	19.4	2181	11.9	1747	9.0	1406	6.9
12-in. B.L.R.	I, II.	35	441	11,991	345.2	45.3	870	160.0	2100	26,596	11.2	1733	11.2	1433	8.8	1219	7.2
12-in. B.L.R.	III, IV.	40	493	17,996	392.2	52.1	870	237.5	2400	31,738	19.8	1994	13.3	1649	10.5	1376	8.3
12-in. B.L.R.	III, IV.	40	493	17,996	392.2	52.1	870	305.0 ²	2600 ²	40,768	18.5	2171	14.8	1801	11.7	1500	9.3
12-in. B.L.R.	V.	45	553	16,974	452.0	52.9	870	305.0	2700	43,964	19.4	2259	15.5	1877	12.3	1561	9.8
12-in. B.L.R.	VI.	45	553	14,970	452.0	53.6	870	340.0 ³	2850 ³	48,384	20.8	2363	16.6	1991	13.3	1653	10.6
12-in. B.L.R.	VII.	50	607	14,296	506.3	56.1	870	340.0 ³	2950 ³	51,483	23.7	2483	17.5	2071	13.9	1719	11.0
13-in. B.L.R.	I, II.	35	479	15,068	374.9	61.4	1130	180.0	2900	31,333	15.0	1679	12.0	1414	9.7	1221	8.1
14-in. B.L.R.	I.	45	642	..	..	63.6	1400	365.0	2600	65,606	28.3 [*]	..	23.4 [*]

* Harveyized armour.

Corrected to April, 1915.

For the 16-in. gun see the Bethlehem table, *post*.

BETHLEHEM STEEL CO.

ORDNANCE.

Table supplied by the Manufacturers, May, 1915.

Calibre.	Length of bore in Calibres.	Calibre.	Weight of Gun.	Weight of Projectile.	At Muzzle.		At 3000 yards Range.			At 8000 yards Range.			Limiting ranges beyond which capped armour piercing projectiles will not penetrate hard-faced armour of 12 inches and 7 inches thickness. (Davis Formula.)		Calibre.
					Velocity.	Energy.	Penetration of Wrought Iron. (Gavre Formula.)	Dangerous Space for Target 25 feet high.	Energy.	Penetration of Kripp hard-faced armour by capped armour piercing projectiles, with normal impact. (Davis Formula.)	Dangerous Space for Target 25 feet high.	Energy.	Penetration of hard-faced armour by capped armour piercing projectiles, with normal impact. (Davis Formula.)	12-in. plate.		7-in. plate.
			lbs.	lbs.	ft. per sec.	foot-tons.	inches.	yards.	foot-tons.	inches.	yards.	foot-tons.	inches.	yards.	inches.
1.457	50	3.7	160	32	2150	32	..	..	..	..	..	..	..	..	1.457
1.851	50	4.7	550	120	2400	120	..	..	..	..	..	..	..	..	1.851
2.244	50	5.7	960	240	2400	240	..	..	..	..	..	..	..	..	2.244
3	50	7.62	1900	707	2800	707	..	..	..	..	..	..	..	..	3
4	50	10.16	2.6 tons.	1,793	2800	1,793	11.0	320	890	..	..	..	..	..	4
4	50	10.16	2.6	1,924	3000	1,924	11.5	362	980	..	..	..	..	..	4
5	45	12.7	3.4	2,343	2600	2,343	11.3	253	1,096	..	..	..	..	..	5
5	50	12.7	4.75	3,120	3000	3,120	13.8	371	1,514	..	..	..	..	..	5
6	45	15.24	7.2	4,920	2600	4,920	16.9	313	2,970	7.0	60	1,307	4.2	2,870	6
6	50	15.24	8.4	5,707	2800	5,707	18.8	374	3,478	7.7	71	1,543	4.6	3,890	6
7	45	17.78	12.7	8,338	2700	8,338	22.0	358	5,426	9.2	74	2,660	5.9	6,063	7
7	50	17.78	14.5	9,619	2900	9,619	24.4	422	6,263	10.1	87	3,130	6.5	7,063	7
8	45	20.32	18.6	14,460	2800	14,460	29.2	410	9,869	12.3	92	5,457	8.5	10,420	8
8	50	20.32	22.3	15,160	2900	15,160	30.7	441	10,616	12.9	100	5,885	8.9	11,235	8
9.2	50	23.37	30.4	22,200	2900	22,200	35.8	450	15,760	14.9	107	9,350	10.8	15,311	9.2
10	45	25.4	35.4	27,990	2800	27,990	40.5	429	21,080	17.2	106	13,160	12.8	Over 16,000	10
10	50	25.4	43.0	30,020	2900	30,020	42.6	453	22,671	18.0	114	14,394	13.6	Over 16,000	10
12	45	30.48	53.8	47,380	2800	47,380	51.8	439	36,794	21.7	114	24,608	16.9	14,560	12
12	50	30.48	66.0	50,720	2900	50,720	54.4	476	39,990	23.0	123	26,495	17.7	15,596	12
14	35	35.56	57.4	1660	2150	53,100	50.4	214	44,660	22.3	70	33,650	18.7	Over 16,000	14
14	45	35.56	70.3	1400	2600	65,700	56.4	362	50,420	24.0	98	39,840	20.7	Over 16,000	14
15	45	38.1	90.0	1700	2600	79,760	64.1	390	65,330	25.0	100	46,300	21.8	Over 16,000	15
16	45	40.64	110.0	2100	2500	91,110	67.3	400	75,700	28.5	94	61,130	23.3	Over 16,000	16
18	30	45.72	60.0	2075	2150	66,490	49.4	235	52,750	21.1	63	36,365	16.7	15,100	18

Guns of 3-inch calibre or under are chambered for fixed ammunition with the powder and projectiles in brass cartridge cases. Guns from 3-inch calibre upwards, and including the 6-inch L-45 gun, can be chambered to use either fixed ammunition, or chambered to use loose ammunition with the powder in cartridge bags and the projectile separate from the powder. (Guns above 6-inch calibre and including the 6-inch L-45 gun are chambered for loose ammunition. The breech mechanisms of all guns up to 8 inches are operated by the single motion of a hand-lever. Those of the larger guns are operated by the revolution of a crank. There is now a 50-calibre 14-in. gun.

BOFORS GUNS.

Table supplied by the Manufacturers.

Calibre cm. Calibre in.	30.5 12		28 11.02		25.4 10		24 9.45		21 8.27	
	50	45	50	45	50	45	50	45	50	45
Length of Gun cal.										
Length of Gun in.	600.4	540.3	551.2	496.1	441	500	479.4	425.2	413.4	372
Weight of Gun tons	44	40	39	35	30	29	24	22	16	14.4
Weight of Projectile lb.	981	981	761	761	564	564	474	474	309	309
Weight of Charge lb.	772	772	595	595	445	445	375	375	249	249
Muzzle Velocity ft.-secs.	266	239	205	181	161	153	129	116	84	75.8
Muzzle Energy ft.-tons	2776	2625	2776	2625	2477	2789	2789	2638	2828	2677
Penetration of soft steel plate at muzzle of Mares formula } in.	3140	2969	3140	2969	2802	3140	3140	2969	3150	2979
Number of rounds per minute	32583	47019	40767	36152	32168	30536	25617	22944	17174	15391
	39.8	36.8	36.4	33.6	30.9	32.9	30.8	28.5	26.7	24.7
	2	2	2	2	2	3	4	4	4	4

Calibre cm. Calibre in.	19.4 7.64		15.24 6		12 4.72		10.5 4.13		8.7 3.43		7.5 2.95	
	50	45	50	45	50	45	50	45	50	45	50	45
Length of Gun cal.												
Length of Gun in.	381.9	343.7	270	210	236.2	212.6	186	188.4	171.3	154.1	162.4	147.6
Weight of Gun tons	12.8	11.6	5.3	4.7	2.96	2.56	1.8	1.88	1.14	1.05	0.72	0.665
Weight of Projectile lb.	251	251	112.4	112.4	59.5	59.5	39.7	39.7	22.7	22.7	14.5	14.5
Weight of Charge lb.	198	198	90.4	90.4	46.3	46.3	30.9	30.9	17.6	17.6	11.5	11.5
Muzzle Velocity ft.-secs.	68.1	61.3	29.8	26.5	16.2	14.5	9.7	8.7	5.53	4.92	3.92	3.53
Muzzle Energy ft.-tons	2786	2635	2487	2582	2789	2638	2585	2864	2726	2582	2848	2717
Penetration of soft steel plate at muzzle of Mares formula } in.	3140	2969	3235	3051	3143	2973	3251	3248	3084	2936	3215	3074
Number of rounds per minute	13566	12136	5913	5215	3220	2881	2657	1841	1189	1049	817	742.7
	24.6	22.7	20.9	17.6	14.7	13.6	12.5	10.8	10.1	9.4	9.2	8.5
	5	5	5	9	11	11	15	17	17	17	20	20

Corrected to April, 1915.

TABLE RELATING TO CONVERSION OF MEASURES.

Length.

METRIC TO ENGLISH.

ENGLISH TO METRIC.

I. Mètres.	II. Yards.	III. Feet.	IV. Inches.	V. Yards.	VI. Mètres.	VII. Feet.	VIII. Mètres.	IX. Inches.	X. Centimètres.
1	1·0936	3·2809	39·37	1	0·91438	1	0·30479	1	2·5400
2	2·1873	6·5618	78·74	2	1·82877	2	0·60959	2	5·0799
3	3·2809	9·8427	118·11	3	2·74315	3	0·91438	3	7·6199
4	4·3745	13·1236	157·48	4	3·65753	4	1·21918	4	10·1598
5	5·4682	16·4045	196·85	5	4·57192	5	1·52397	5	12·6998
6	6·5618	19·6854	236·22	6	5·48630	6	1·82877	6	15·2397
7	7·6554	22·9663	275·60	7	6·40068	7	2·13356	7	17·7797
8	8·7491	26·2472	314·97	8	7·31507	8	2·43836	8	20·3196
9	9·8427	29·5281	354·34	9	8·22945	9	2·74315	9	22·8596

EXPLANATION.—To convert any number from one measure to the other, take the values of the different multiples of 10 by shifting the position of the decimal point, and add together. Thus, find the number

of yards in 2354 mètres (see cols. I. & II.).	of feet in 12·4 mètres (see cols. I. & III.).	of inches in 30·5 centimètres (see cols. I. & IV.). Note, 1 m.=100 cm.	of mètres in 1026 yards (see cols. V. & VI.).	of mètres in 1742 feet (see cols. VII. & VIII.).	of centimètres in 17·72 ins. (see cols. IX. & X.).
mètres. yards. 2000=2187·3 300= 328·09 50= 54·68 4= 4·37	mètres. feet. 10 =32·809 2 = 6·562 0·4= 1·312	cms. inches. 30·0=11·811 5= 1·97	yards. mètres. 1000=914·38 20= 18·29 6= 5·49	feet. mètres. 1000=304·79 700=213·36 40= 12·19 2= 0·61	inches. cms. 10·0 =25·400 7·0 =17·780 0·7 = 1·778 ·02= ·051
∴ 2354=2574·44	∴ 12·4=40·683	∴ 30·5=12·008	∴ 1026=938·16	∴ 1742=530·95	∴ 17·72=45·009

NOTE.—A ready way of approximately converting all French measures into English inches is to multiply by 4 and apply the decimal point by common sense—Thus for a 15-cm. gun; $15 \times 4 = 60$. Now this Calibre cannot be 60 inches, nor can it be 0·6 inch; therefore it must be 6 inches. (The exact value is 5·906 in.)

Weight.

METRIC TO ENGLISH.

ENGLISH TO METRIC.

I. Kilo-grammes.	II. Tons.	III. Pounds Avoirdupois.	IV. Grains Troy.	V. Tons.	VI. Milliers.	VII. Pounds Avoirdupois.	VIII. Kilo-grammes.	IX. Grains. Troy.	X. Gramme
1	·000984	2·2046	15432·3	1	1·016	1	0·4536	1	·0648
2	·001968	4·4092	30864·7	2	2·032	2	0·9072	2	·1296
3	·002953	6·6139	46297·0	3	3·048	3	1·3608	3	·1944
4	·003937	8·8185	61729·4	4	4·064	4	1·8144	4	·2592
5	·004921	11·0231	77161·7	5	5·080	5	2·2680	5	·3240
6	·005905	13·2277	92594·1	6	6·096	6	2·7216	6	·3888
7	·006889	15·4323	108026·4	7	7·112	7	3·1751	7	·4536
8	·007874	17·6370	123458·8	8	8·128	8	3·6287	8	·5184
9	·008858	19·8416	138891·1	9	9·144	9	4·0823	9	·5832

EXPLANATION.—To convert any number from one measure to the other, take the values of the different multiples of 10 by shifting the position of the decimal point, and add together. Thus, find the number

of tons in 35 milliers (see cols. I. & II.). Note, 1000 kg. = 1 millier).	of pounds in 56·3 kilo-grammes. (see cols. I. & III.). kgms. lbs. 50 =110·231 6 = 13·228 0·3= ·661	of grains in 120 grammes (see cols. I. & IV.). Note, 1000 grms. = 1 kg.). grammes. grains. 100=1543·23 20= 308·65	of milliers in 38 tons (see cols. V. & VI.). tons. milliers. 30 = 30·48 8 = 8·13	of kilogrammes in 68 pounds (see cols. VII. & VIII.). lbs. kgs. 60 = 27·216 8 = 3·629	of grammes in 85 grains (see cols. IX. & X.). grains. grammes. 80 = 5·184 5 = 0·324
∴ 35 = 34·45	∴ 56·3=124·120	∴ 120=1851·88	∴ 38 = 38·61	∴ 68 = 30·845	∴ 85 = 5·508

NOTE.—7000 grains troy = 1 pound avoirdupois.

PRESSURE.

METRIC TO ENGLISH.			ENGLISH TO METRIC.			ATMOSPHERIC TO ENGLISH.			ENGLISH TO ATMOSPHERIC.	
I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.
Kilo-grammes per square centimètre.	Pounds per square inch.	Tons per square inch.	Pounds per square inch.	Kilo-grammes per square centimètre.	Tons per square inch.	Kilo-grammes per square centimètre.	Atmospheres.	Tons per square inch.	Tons per square inch.	Atmospheres.
1	14.223	·00635	1	·07031	1	157.49	1	·00656	1	152.38
2	28.446	·01279	2	·14062	2	314.99	2	·01313	2	304.76
3	42.668	·01905	3	·21003	3	472.48	3	·01969	3	457.14
4	56.891	·02540	4	·28124	4	629.97	4	·02625	4	609.52
5	71.114	·03175	5	·35155	5	787.47	5	·03281	5	761.91
6	85.337	·03810	6	·42186	6	944.96	6	·03938	6	914.29
7	99.560	·04445	7	·49217	7	1102.45	7	·04594	7	1066.67
8	113.783	·05080	8	·56248	8	1259.95	8	·05250	8	1219.05
9	128.005	·05715	9	·63279	9	1417.44	9	·05906	9	1371.43

NOTE.—One atmosphere is taken to be 14.7 lb. per square inch.

EXPLANATION.—To convert any number from one measure to the other, take the value of the different multiples of 10 by shifting the position of the decimal point, and add together. Thus, find the number

of pounds per square inch in 32.1 kilo-grammes per square centimètre (see cols. I. & II.).	of tons per square inch in 3210 kilo-grammes per square centimètre (see cols. I. & III.).	of kilogrammes per square centimètre in 15 lbs. per square inch (see cols. IV. & V.).	of kilogrammes per square centimètre in 18.3 tons per square inch (see cols. VI. & VII.).	of tons per square inch in 3254 atmospheres. (see cols. VIII. & IX.).	of atmosphere in 14.6 tons per square inch (see cols. X. & XI.).
kg. per sq. cm.	lbs. per sq. in.	kg. per sq. in.	kg. per sq. in.	tons per sq. in.	tons per sq. in.
30 = 426.68	3000 = 19.05	10 = 1.27	10 = 1574.9	3000 = 19.69	10 = 1523.8
2 = 28.45	200 = 1.27	10 = .7031	8 = 1259.95	200 = 1.31	4 = 609.5
9.1 = 1.42	10 = .06	5 = .3516	0.3 = 47.25	4 = .03	0.6 = 91.4
∴ 32.1 = 456.55	∴ 3210 = 20.33	∴ 15 = 1.0547	∴ 18.3 = 2882.10	∴ 3254 = 21.36	∴ 14.6 = 2224.7

ENERGY.

METRIC TO ENGLISH. ENGLISH TO METRIC.

I.	II.	III.	IV.
Mètre-tons.	Foot-tons.	Foot-tons.	Mètre-tons.
1	3.2291	1	0.3097
2	6.4581	2	0.6194
3	9.6872	3	0.9291
4	12.9162	4	1.2388
5	16.1453	5	1.5484
6	19.3743	6	1.8581
7	22.6034	7	2.1678
8	25.8324	8	2.4775
9	29.0615	9	2.7872

1 mètre-ton is termed a "dynamode" in Italy.

EXPLANATION.—To convert any number from one measure to the other, take the values of the different multiples of 10 by shifting the position of the decimal point, and add together. Thus find the number

of foot-tons in 4367 mètre-tons (see cols. I. & II.).	of mètre-tons in 3592 foot-tons (see cols. III. & IV.).
mètre-tons.	foot-tons.
4000 = 12916.2	3000 = 929.1
300 = 968.72	500 = 154.84
60 = 193.74	90 = 27.87
7 = 22.60	2 = .62
∴ 4367 = 14101.26	∴ 3592 = 1112.43

PERFORATION THROUGH IRON AND STEEL WITH THE FACE NOT HARDENED.

To obtain perforation through steel equivalent to a given perforation through iron, and *vice versa*.

1 inch steel = 1½ inches iron;

that is, 4 inches steel = 5 inches iron.

Thus, given 9.4 inches perforation through iron

$$9.4 \times \frac{4}{5} = 7.52 \text{ inches steel;}$$

or, given 5.2 inches steel,

$$5.2 \times \frac{5}{4} = 6.5 \text{ inches iron.}$$

PART IV.

STATISTICS, OFFICIAL STATEMENTS AND
PAPERS.

PART IV.

THIS part of the *Naval Annual* has hitherto been devoted mainly to the British Navy Estimates and the Navy Estimates of the principal Powers. In this War Edition it includes certain official statements—British, American, and German—which throw light upon the conduct of the War. They are (I.) the First Lord's Statement in the House of Commons, November 27, 1914, and (II.) his speech on the Navy Estimates, February 15th; (III.) the Admiralty Statement instituting the North Sea as a British war area, November 2, 1914; (IV.) the German announcement purporting to declare the waters surrounding the United Kingdom a German war area, February 4th; (V.) the United States Note to the German Government thereon; (VI.) the Order in Council of March 11th in reply; and (VII.) some official despatches on the operations of the War.

Reference may be made here to certain other statements. Mr. Churchill delivered a significant speech at a meeting of the citizens of London at the London Opera House on September 11th. He said that in five or six weeks of war we had "swept German commerce from the seas," and that, with inconsiderable exceptions, our ships were "arriving safely at their destinations, carrying on the commerce on which the wealth, the industries, and the power of war depend."

In the next twelve months the number of Government ships which will be completed for this country is double the number that will be completed for Germany, and the number of cruisers three or four times as great. Therefore, I think I am on solid ground when I come here to-night and say that you may count upon the naval supremacy of this country being effectually maintained against the German power for as long as you like.

In his speech at the Guildhall on November 9th the First Lord referred to the high spirit of the Fleet. He had been speaking with Sir John Jellicoe and others. They said: "Cornwallis was nearly three years off Brest, and Nelson was more than two years off Toulon. We are only just beginning. We must not be impatient. Our time will come." Mr. Churchill explained the many high duties of the Fleet in securing the highways of the seas, maintaining the whole trade of the country on an enormous scale in all parts of the world, safeguarding the transport of great armies, and enabling other

armies to be created. He spoke also of the growing economic stringency of our blockade, requiring time to exert its full effect.

The Royal Naval Division was instituted in August, and the following is an extract from the Admiralty Statement on the subject:—

After providing for all present and foreseeable future needs of the fleets at sea, there remained available a large number of men belonging to the Royal Marines, Royal Naval Volunteer Reserve, Royal Fleet Reserve, and Royal Naval Reserve. A portion of these have been organised into one Marine and two Naval Brigades, the whole comprising the infantry of one division, to be called the Royal Naval Division. The Marine Brigade, for the organisation of which all preparations had been made before the War, has been for some time in being at a strength of 3000, and has already been employed on active service at Ostend. The two Naval Brigades have been organised in the first instance at a strength of 3750 each, and have been in camp since August 19th. The cadres of their eight battalions have been formed from the Royal Naval Volunteer Reserve, the Royal Fleet Reserve men and Royal Naval Reserve men forming on these as they were despatched from the ports. The three brigades were fully constituted by August 24th, and entered at once upon a period of field training to fit them for service abroad if required in the New Year. In the meanwhile they will be organised and trained under the Admiralty, and will remain available for service afloat should any unexpected needs arise.

The eight battalions of the two Naval Brigades will each be named after an admiral, as follows: First Royal Naval Brigade—Drake (1st), Benbow (2nd), Hawke (3rd), Collingwood (4th); Second Royal Naval Brigade—Nelson (5th), Howe (6th), Hood (7th), Anson (8th); Royal Marine Brigade—9th, 10th, 11th, 12th Battalions. The King has been pleased to approve the appointment of the following officers as honorary colonels of the several brigades:—Admiral of the Fleet Lord Fisher of Killybegs, First Royal Naval Brigade; Admiral of the Fleet Sir Arthur K. Wilson, Second Royal Naval Brigade; Admiral Lord Charles Beresford, Royal Marine Brigade.

The Royal Naval Division will be completely equipped in all respects by the Admiralty with field hospitals, transport, ammunition column, signal companies, cyclists, motor cars, and machine guns. An aeroplane squadron from the naval wing, complete with transport, etc., will be available when required. If at any time the naval situation becomes sufficiently favourable to enable this force to be definitely released by the Admiralty for military duty, it will be handed over intact to the Army for general service.

I.

FIRST LORD'S STATEMENT.

HOUSE OF COMMONS, NOVEMBER 27, 1914.

(*Extract.*)

I am going in a few words, if the House will permit me, to draw the attention of the House, and through the House the attention of the country, to some of the larger aspects of the naval situation at the present time.

The British Navy was confronted with four main perils. There was first the peril of being surprised at the outbreak of war before we were ready and on our war stations. That was the greatest peril of all. Once the Fleet was mobilised and on its war stations the greatest danger by which it could be assailed had been surmounted.

Then there was the danger, which we had apprehended, from the escape on to the High Seas of very large numbers of fast liners of

Danger of
surprise;

— of
commerce
destruction;

the enemy, equipped with guns for the purpose of commerce destruction. During the last two years the sittings of the Committee of Imperial Defence have been almost unbroken, and we have been concerned almost exclusively with the study of the problems of a great European War, and I have always, on behalf of the Admiralty, pointed out the great danger which we should run if, at the outset of the war, before our cruisers were on their stations, before our means of dealing with such a menace had been fully developed, we had been confronted with a great excursion on to our trade routes of large numbers of armed liners for the purpose of commerce destruction. That danger has, for the present, been successfully surmounted. Our estimate before the war of losses in the first two or three months was at least 5 per cent. of our Mercantile Marine. I am glad to say that the percentage is only 1·9, and the risks have been fully covered under a system of insurance which was brought into force, the premiums on which it has been found possible steadily and regularly to reduce.

The third great danger was due to mines. Our enemy have allowed themselves to pursue methods in regard to the scattering of mines on the highways of peaceful commerce that, until the outbreak of this war, we should not have thought would be practised by any civilised Power. And the risks and difficulties which we have had to face from that cause cannot be underrated. But I am glad to tell the House that, although we have suffered losses, and may, no doubt, suffer more losses, yet I think the danger from mining, even the unscrupulous and indiscriminate mining of the open seas, is one the limits of which can now be discerned, and which can be and is being further restricted and controlled by the measures, the very extensive measures, which have been taken, and are being taken. — of mines;

Fourthly, there was the danger from submarines. The submarine introduces entirely novel conditions into naval warfare. The old freedom of movement which belongs to the stronger Power is affected and restricted in narrow waters by the development of this new and formidable arm. There is a difference between military and naval anxiety, which the House will appreciate. A division of soldiers cannot be annihilated by a cavalry patrol. But at any moment a great ship, equal in war power, and a war unit, to a division or an army, may be destroyed without a single opportunity of its fighting strength being realised, or a man on board having a chance to strike a blow in self-defence. Yet it is necessary for the safety of this country, it is necessary for the supply of its vital materials, that our ships should move with freedom and with hardihood through the seas on their duties, and no one can pretend that anxiety must not — of submarines.

always be present to the minds of those who have the responsibility for their direction. It is satisfactory, however, to reflect that our power in submarines is much greater than that of our enemies, and that the only reason why we are not able to produce results on a large scale in regard to them, is that we so seldom are afforded any target to attack.

Those are the four dangers. I do not include among them what some people would perhaps wish to include as a fifth—the danger of oversea invasion, although that is an enterprise full of danger for those who might attempt it. The economic pressure upon Germany continues to develop in a healthy and satisfactory manner.

SEA CONTROL AND COMMERCE PROTECTION.

Trade in
war.

The President of the Board of Trade published some remarkable figures upon the relative condition of British and German trade since the War. Out of 20,500,000 tons of British shipping, 20,122,000 tons are plying, or 97 per cent. of the whole, whereas out of 5,000,000 of German tonnage only 549,000 tons remain plying or unaccounted for, and of those plying it is estimated that only ten ships are at present carrying on German commerce on the sea. On the average very nearly 100 ships per day of over 300 tons burden arrive and leave the ports of the United Kingdom, and we are not only carrying on our own business effectively, but we are applying special restrictions to certain vital commodities required for military purposes by the German and Austro-Hungarian Empires. The German Army depends primarily on its military material. The enormous supplies of all kinds of explosives and of all kinds of scientific apparatus directed to warlike purposes which they have prepared in times of peace gave them then, and give them to-day, an advantage most marked in both theatres of War. But that advantage will no longer, as time passes, be wholly theirs. Gradually that advantage will change sides. We are able to draw, in virtue of sea-power, from all over the world, for the cause of the Allies everything that is needed to procure the most abundant flow of munitions of war which can possibly be required, and, on the other hand, the deficiencies in essential commodities necessary for the waging of war is already beginning to show itself clearly marked, as far as we can discern, in our enemy's military organisation.

I see no reason at all for any discontent in regard to the protection of British commerce or the restriction which is being placed on the enemy's supplies. Risks, of course, have to be run. The great number of troops which we have had to move to and fro

freely across the world and their convoying have involved serious risks ; and although one's eye is fixed on the mischances which have occurred in this War, knowing as I do all the circumstances and all the incidents which have occurred, I am bound to say that I think we have had a very fair share of the luck. If our enemies did not attack on the high seas on the outbreak of war or just before it, we must presume that it was because they did not consider themselves strong enough to do so ; because then would have been the moment of greatest advantage, when the despatch of an Army to the Continent might have been prevented or delayed. If that moment was not used, it could only be because they were counting upon reducing the British Fleet, by a process of attrition, to a condition of greater equality with their own. We have been at war for four months.

NAVAL "ATTRITION" AND BRITISH EXPANSION.

I should like to consider how that process of attrition is working. The losses of submarines have been equal, as far as we know ; but, of course, the proportion of loss has been much greater to the Germans than to ourselves, because we have more than double the number of submarines in constant employment. With regard to torpedo-boat destroyers, our boats have shown their enormous superiority in gun-power, which, of course, was not unknown before the War. No loss has been experienced by us, while eight or ten of the enemy's vessels have been destroyed. Of the older armoured cruisers we have lost, I think, six, and Germany has lost two. But there again the number of vessels of this class which we have disposed was three or four times as great as that of our opponents, and, of course, we have of necessity to expose them more frequently and more openly to possible attacks.

Com-
parative
losses.

But the most important class of minor vessels is that of fast modern light cruisers. The modern light cruisers which have been built from the year 1903 onwards by Great Britain and Germany, which are of good speed, fast vessels, are a most important factor in the course of the War. At the outset of the War the Germans disposed of twenty-five of these vessels, and we disposed of thirty-six. Since the War begun we have lost two out of our thirty-six, or one-eighteenth of the number. The Germans have lost, or have got shut up—and I am including the Breslau in this calculation—practically a quarter of their modern light cruiser strength. These have been joined since the War broke out by a number of new cruisers greater than those which our opponents have lost, so that our strength to-day is vastly greater—beyond all comparison greater—in this important arm than

it was at the outset of the War. The prospects for the future are even more satisfactory, because we have an enormous delivery of cruisers rapidly approaching completion, and the possible cruisers which the enemy can get from all sources during the next twelve months cannot exceed half of those on which we can count.

British
and
German
Dread-
noughts.

The relative strength in Dreadnoughts has been so often discussed in this House before the War that it may be interesting to review it at the present time, and see how far our arguments of peace time relate to the actual facts which are now disclosed. I may say that, of course, I am giving no information which is not readily accessible to anybody who studied the published returns of peace times. When the War broke out we mobilised thirty-one Dreadnoughts and Lord Nelsons, and Germany could have had, and I presume did have—if her latest ships were ready—twenty-one Dreadnoughts—battleships and battle-cruisers—so we were just a little under the 60 per cent. which we had always kept before ourselves. I cannot say how many ships have joined the Fleet since. It is a matter of great importance to keep secret the number of vessels which at any one moment are available with the Flag of the Commander-in-Chief, and it is the duty of every Englishman, every British subject, and every friend of our country to do his utmost to wrap that fact in secrecy and mystery. Although, however, I cannot tell the number of ships which have joined the Flag since the declaration of War, I can say, firstly, that the relative strength of the Fleet is substantially greater now than it was at the outbreak of the War; and, secondly, I can indicate the reinforcement which both countries will receive between now and the end of 1915. The maximum reinforcement which Germany can receive—it is not possible by any human agency to add to these numbers in the period—is three ships on the figures I have given—the Lützow, the Kronprinz, the Salamis, which is a Greek ship which has presumably been taken over.

ACCELERATED NEW CONSTRUCTION.

Additions
to the
British
Fleet.

Two years ago I set up a Committee of the Admiralty to go into the whole question of the acceleration of new construction immediately after the outbreak of war so that the greatest possible number of deliveries could be made in the shortest possible time, and very elaborate reports were furnished, and a complete system was worked out in every detail. In carrying out this system we have been aided by the patriotism and energy of the workmen in all the yards, who have strained their physical strength to the utmost, and have, by so doing, made themselves, in fact, the comrades of their fellow citizens

who are fighting in the trenches at the front. During this period—between the beginning of the War and the end of 1915—while the Germans will be receiving an accession of three ships we shall receive the following ships: the Agincourt and the Erin, acquired from Turkey, the Tiger, the Benbow, the Emperor of India, the Queen Elizabeth, the Warspite, the Valiant, the Barham, the Resolution, the Ramillies, the Revenge, the Royal Sovereign, and the Malaya and the Almirante Latorre, renamed the Canada, that we acquired from Chile—fifteen ships in all. All these ships are, of course, of the greatest power of any vessels that have ever been constructed in naval history, and it is no exaggeration to say that we could afford to lose a super-Dreadnought every month for twelve months without any loss occurring to the enemy and yet be in approximately as good a position of superiority as we were at the declaration of the War.

I hope that these facts will be of comfort to nervous people during the months that lie before us. They prove that, so far as any policy of attrition is concerned, the results so far, and the forecast so far as we may judge it, are not unsatisfactory to us; nor is there any attrition by wear and tear. The refits of the Fleet and flotillas are being regularly conducted.

The health of the sailors is nearly twice as good as in time of peace. Six hundred thousand pounds has been spent by the Admiralty on warm clothing, and I have every reason to believe that the arrangements are thoroughly satisfactory, though, of course, if friends like to send additional comforts, arrangements are made for their reception and distribution. The sailors have received with warm gratitude the separation allowance which the Navy had always hitherto been completely denied. The conduct of the Fleet is exemplary, and any crime there is arises mainly among men who have been a long time in civil life, and who have not fully remembered the excellent precepts of their naval training. In the Grand Fleet the conduct of the men is almost perfect. The whole *personnel* of the Navy consists of a most intelligent class of skilled workmen and mechanics. They have studied fully the conditions of the War, and they follow with the closest interest the heroic struggles of our soldiers in the field, and the zeal and enthusiasm with which they are discharging their duties inspires those who lead them with the utmost confidence.

Health
and
conduct
of the
seamen.

CONFIDENCE IN THE NAVY.

I have thought it right to offer these few remarks of a general character to the House because despondent views are prejudicial to

the public interest, and ought not to be tolerated by persons in the responsible position of Members of Parliament while they are in any public situation. There is absolutely no reason whatever for nervousness anxiety, or alarm. There is every reason for complete confidence in the power of the Navy to give effect to the wishes and the purposes of the State and the Empire. We have powerful Allies on the seas. The Russian Navy is developing in strength; the French Navy has complete command of the Mediterranean, and the Japanese Navy has effective command of the Pacific, and the utmost cordiality characterises the working of the Admiralties of the four countries. But even if we were single-handed, as we were in the days of the Napoleonic wars, we should have no reason to despair of our capacity—no doubt we should suffer discomfort and privation and loss—but we should have no reason to despair of our capacity to go on indefinitely, drawing our supplies from wherever we needed them, and transporting our troops wherever we required them, and to continue this process with a strength which would grow stronger with each month the War continued until, in the end, and perhaps not at any very distant date, the purposes for which we were fighting were achieved.

II.

FIRST LORD'S SPEECH ON THE NAVY ESTIMATES,

FEBRUARY 15, 1915.

(*Extract.*)

Suffici-
ency of
the Fleet.

Thanks to the generous provision made so readily for the last five years by the House of Commons for the Royal Navy, no such difficulties or labours have confronted the Admiralty. On the declaration of war we were able to count upon a Fleet of sufficient superiority for all our needs with a good margin for safety in vital matters, fully mobilised, placed on its war stations, supplied and equipped with every requirement down to the smallest detail that could be foreseen, with reserves of ammunition and torpedoes up to and above the regular standard, with ample supplies of fuel and oil, with adequate reserves of stores of all kinds, with complete systems of transport and supply, with full numbers of trained officers and men of all ratings, with a large surplus of reserved and trained men, with adequate establishments for training new men, with an immense programme of new construction rapidly maturing to reinforce the Fleet and replace casualties, and with a prearranged system for accelerating that new construction which has been found to yield satisfactory and even surprising results.

AMMUNITION AND OIL.

I would draw the attention of the House in illustration to only three particular points. First of all, ammunition. If hon. members will run their eye along the series of figures for Vote 9, in the last five or six years, and particularly during the latter years, they will see an enormous increase in the Vote. In time of peace one gets little credit for such expenditure, but in time of war we thank God it has been made. Then, Sir, oil. Most pessimistic prophecies were made as to the supply of oil, but no difficulty has been found in practice in that regard. The estimates which we had formed of the quantity of oil to be consumed by the Fleet in war proved to be much larger than our actual consumption. On the other hand, there has been no difficulty whatever in buying practically any quantity of oil. No single oil ship has been interfered with on passage to this country. The price of oil to-day is substantially below what it was when I last addressed the House on this topic. Indeed, we have found it possible to do what we all along wished to do, but hesitated to decide upon, on account of all the gloomy prophecies and views which were entertained—we have found it possible to convert the Royal Sovereign to a completely oil fuel basis, so that this ship equally with the Queen Elizabeth will enjoy the great advantages of liquid fuel for war purposes.

British
advan-
tages.

MANNING.

Then as to manning. No more widespread delusion existed than that although we might build ships we could never find men to man them. In some quarters of this country the idea was fostered that when mobilisation took place, ships could not be sent fully manned to sea; but when mobilisation did take place, we were able to man, as I told the House we should be able to, every ship in the Navy fit to send to sea. We were able to man a number of old ships which we did not intend to send to sea, but which, after being repaired and refitted, were found to have the possibility of usefulness in them. We were able to man, in addition, powerful new vessels building for foreign nations, for which no provision had been made. We were able to man an enormous number—several score—of armed merchantmen which had been taken up and have played an important part in our arrangements for the control of traffic and trade. We were able to provide all the men that were necessary for the Royal Naval Air Service, which never existed three years ago, which is already making a name for itself, and which has become a considerable and formidable body. We were able to keep our training

Reserves
of men.

schools full to the very brim, so as to prepare a continual supply of drafts for the new vessels which are coming on in such great numbers, and over and above that we were able, without injury to any of these important interests, to supply the nucleus of instructors and trained men to form the cadres of the battalions of the Royal Naval Division, which have now reached a respectable total, and which have developed an efficiency which enables them to be counted on immediately as a factor in the defence of this country, and very soon as an element in the forces which we can use overseas.

THE NAVY READY.

We have never been a military nation, though now we are going to take a hand in that. We have always relied for our safety on naval power, and in that respect it is not true to say we entered on this war unprepared. On the contrary, the German Army was not more ready for an offensive war on a gigantic scale than was the British Fleet for national defence. The credit of this is due to the House, which, irrespective of party interests, has always by overwhelming, and in later years unchallengeable majorities, supported the Government and the Minister in every demand made for naval defence. Indeed, such disputes as we have had from time to time have only been concerned with the margin of superiority, and have turned on comparatively small points respecting them. For instance, we have discussed at enormous length what percentages of Dreadnought superiority would be available in particular months in future years, and we have argued whether the Lord Nelsons should be counted as Dreadnoughts or not. The House of Commons as a whole has a right to claim the Navy as its child and as the unchanging object of its care and solicitude; and now after six months of war, with new dangers and new difficulties coming into view, we have every right to feel content with the results of our labour.

Fruitful
results of
naval
action.

Since November two considerable events have happened—the victory off the Falkland Islands, and the recent successful cruiser action near the Dogger Bank. Both of these events are satisfactory in themselves, but still more are they satisfactory in their consequences and significance, and I shall venture to enlarge upon them and hang the thread of my argument upon them. The victory off the Falklands terminated the first phase of the Naval War by effecting a decisive clearance of the German flag from the oceans of the world. The blocking in of the enemy's merchantmen at the very outset, and the consequent frustration of his whole plans for the destruction of our commerce, the reduction of his base at Tsingtau,

the expulsion of his ships from the China Sea by Japan, the hunting down of the *Königsberg* and the *Emden*, the latter by an Australian cruiser, were steps along the path to the goal finally reached when Admiral von Spee's powerful squadron, having been unsuccessfully though gallantly engaged off Coronel, was brought to action and destroyed on December 8th by Sir Doveton Sturdee. Only two small German cruisers and two armed merchantmen remain at large of all their formidable preparations for the attack on our trade routes, and these vessels are at present in hiding. During the last three months—that is to say, since Parliament rose—on the average about 8000 British vessels have been continuously on the sea, passing to and fro on their lawful occasions. There have been 4465 arrivals at and 3600 sailings from the ports of the United Kingdom. Only nineteen vessels have been sunk by the enemy, and only four of these vessels have been sunk by above-water craft. That is a very remarkable result to have been achieved after only a few months of war. I am sure, if we had been told before the War that such a result would be so soon achieved, and that our losses would be so small, we should not have believed it for a moment.

COMMERCE PROTECTION.

Certainly the great sailors of the past, men of the Revolutionary and Napoleonic Wars, would have been astounded. During these two great wars, which began in 1793 and ended, after a brief interval, in 1814, 10,871 British merchant ships were captured or sunk by the enemy. Even after the decisive battle of Trafalgar, when we had the undisputed command of the sea so far as it can be tactically and strategically attained, the loss of British ships went on at a rate of 500 ships a year. In 1806, 519 ships were sunk or captured—that is, the year after Trafalgar; in 1807, 559; in 1808, 469; in 1809, 571; and in 1810, 619. Our total losses on the high seas in the first six months of the War, including all ships other than trawlers engaged in mine-sweeping—including all ships, including losses by mines and vessels scuttled by submarines—our losses in the whole of that period are only sixty-three.

Com-
parative
figures.

Of course, we must always be on the look-out for another attempt by the enemy to harass the trade routes. Although the oceans offer rather a bleak prospect to the German cruisers, and the experience of their consorts is not encouraging, the Admiralty must be fully prepared for that possibility, and we shall be able to meet any new effort with advantages and resources incomparably superior to those which were at our disposal at the beginning of the War. The truth

is that steam and telegraphs have enormously increased, as compared with sailing days, the thoroughness and efficiency of superior sea-power. Coaling, communications, and supplies are vital and constant needs, and once the upper hand has been lost they become operations of almost insuperable difficulty to the weaker navy. Credit is due to our outlying squadrons and to the Admiralty organisation by which they have been directed. It must never be forgotten that the situation on every sea, even the most remote, is dominated and decided by the influence of Sir John Jellicoe's Fleet—lost to view amid the northern mists, preserved by patience and seamanship in all its strength and efficiency, silent, unsleeping, and, as yet, unchallenged.

TRANSPORT OF TROOPS.

Numbers
carried.

The command of the sea which we have thus enjoyed has not only enabled our trade to be carried on practically without interruption or serious disturbance, but we have been able to move freely about the world very large numbers of troops . . . I am going to give the House a figure which has no military significance because so many uncertain factors are comprised within the total, but which is an absolutely definite figure so far as the work of the Admiralty Transport Department is concerned. We have now moved by sea, at home and abroad, including wounded brought back from the front, including Belgian wounded, including Belgian and French troops, moved here and there as circumstances required, often at the shortest possible notice, with constant changes of plan, across oceans threatened by the enemy's cruisers and across channels haunted by submarines, to and fro from India and Egypt, from Australia, New Zealand, Canada, China, South Africa, from every fortress and Possession under the Crown, approximately 1,000,000 men without, up to the present, any accident or loss of life. . . . The credit for these arrangements lies very largely with the head of the Admiralty Transport Department, Mr. Graeme Thomson—one of the discoveries of the War, a man who has stepped into the place when the emergency came, who has formed, organised, and presided over performances and transactions the like of which were never contemplated by any State in history. Indeed, so smoothly and unfailingly has this vast business, the like of which has not been previously witnessed, been carried through, that we have several times been compelled to remind the soldiers whom we serve, and I now think it right to remind the House, that, after all, we are at war.

AUXILIARY CRUISERS.

We are at war with the second Naval Power in the world. When complaints are made that we have taken too many transports or armed too many auxiliary cruisers, or made use of too many colliers or supply ships, I must mention that fact. The statement that the Admiralty have on charter, approximately, about one-fifth of the British Mercantile Marine is correct. With that we discharge two duties, both of importance at the present time—first, the supply, fuelling, and replenishing with ammunition of the Fleets; second, the transport of reinforcements and supply of the Army in the Field, including the return of wounded. It must be remembered in regard to the Fleet that we have no dockyard or naval port at our backs, and that the bases we are using during the War have no facilities for coaling from the shore. We are not like the Germans, living in a great naval port at Wilhelmshaven, on which £15,000,000 or £16,000,000 has been spent. Rosyth is not finished, and will not be available for some time. Everything, therefore, required to keep the Fleet in being—supplies, stores, and, above all, fuel—has to be not only carried but kept afloat in ships. What are called the “afloat reserves”—the great mobile reserves of fuel and stores maintained at the various bases used by the Fleet—are those which are fixed by the War Staff and approved by the Board of Admiralty after consultation with the Commander-in-Chief. When those amounts have been fixed the Transport Department have no choice but to supply them. It is necessary that there should be sufficient colliers to enable all the Fleet units at a particular base to coal simultaneously, with a maximum rapidity, twice over within a short interval, and extensive naval movements at high speed may at any moment necessitate this being put to the test. After two such coalings there must still be sufficient coal available for unforeseen contingencies, including delays in bringing further supplies through storm or foggy weather, or hostile operations leading to the closing of particular areas of water, or through the temporary suspension of coaling in South Wales, through damage to docks, railways, bridges, pits or other local causes.

Supplies
for the
Fleet.

We cannot possibly run any risk of having the Fleet rendered immobile. We must make assurance doubly sure. The life of the State depends upon it, and it follows, having always to be ready for a great emergency, with all the Fleet steaming at once continuously for days together—having always to be ready for that, it follows that during periods of normal Fleet movements the reserves of coal are often and necessarily turned over slowly, and colliers may, in consequence, remain at the bases for considerable periods.

SUPPLYING THE ARMY.

System
of Army
transport.

With regard to the Army, it should be remembered that we are supplying across the sea, in the teeth of the enemy's opposition, an Army almost as large as the Grand Army of Napoleon, only vastly more complex in organisation and equipment. We are also preparing other Armies still larger in number. I do not know on what day or at what hour the Secretary of State for War will ask the Admiralty to move 20,000 or it may be 40,000 men. It may be at very short notice. He does not know, until we tell him, how we shall move them, by what route or to what ports. Plans are frequently changed on purpose at the very last moment; it is imperative for the safety of our soldiers and the reinforcement of our Armies and the conduct of the War. We have at the present moment a powerful and flexible machinery which can move whole Armies with celerity wherever it is desired in a manner never before contemplated or dreamt of, and I warn the House most solemnly against allowing grounds of commercial advantage or financial economy to place any hampering restriction or impediment upon these most difficult and momentous operations. Careful and prudent administration does not stop at the outbreak of war. Everything in our power will be done to enforce it and avoid extravagance. We shall therefore welcome the advice of business men on points where they can help us. Gradually, as we get more and more control of the situation, higher economy in some respects may be possible, but military and naval requirements must be paramount, rough and ready although their demands often are, and they must be served fully at the cost of all other considerations. I am afraid that I cannot hold out any hope of any immediate reduction in the tonnage required by the Admiralty.

More than a month ago, before these matters were at all ventilated in public, noticing the rise in freights, I directed the Fourth Sea Lord to hold an inquiry into the whole use of merchant ships taken by the Admiralty, including, particularly, transports, colliers and supply ships, but after the most stringent scrutiny and consultation with the admirals afloat, it was found not possible to make any appreciable reduction, and, indeed, since the 1st January the requirements of the Admiralty have actually increased. That is indeed only to be expected as the size of the Fleet and the general scale of the military operations both grow continually. . . . The retention of a large number of full colliers and ammunition ships in attendance on the Fleet is a naval necessity. The retention of a large number of troop transports is a military necessity. In either case ships may be, and have frequently been, required at an hour's notice for urgent service which

might be vital to the success of our operations. Coal must be ready afloat for the Fleet and troopships must be ready for the men, and no amount of business management, however excellent in may be, will get over that fact. . . . The number of ships taken up on the outbreak of war was so enormous, the requirements were so varied, and the need so urgent, that every ship or vessel in port at the moment was taken. Discrimination, save in isolated instances, was therefore impossible. . . .

CONVOY WORK.

I have said that the strain in the early months of the War has been greatly diminished now by the abatement of distant convoy work and by the clearance of the enemy's flag from the seas and oceans. There were times when, for instance, the great Australian convoy of sixty ships was crossing the Pacific, or the great Canadian convoy of forty ships, with its protecting squadrons, was crossing the Atlantic, or when the regular flow of large Indian convoys of forty and fifty ships sailing in company was at its height, both ways, when there were half-a-dozen minor expeditions being carried by the Navy, guarded and landed at different points, and supplied after landing; when there was a powerful German cruiser squadron still at large in the Pacific or the Atlantic, which had to be watched for and waited for in superior force in six or seven different parts of the world at once, and when, all the time, within a few hours' steam of our shores there was concentrated a hostile fleet which many have argued in former times was little inferior to our own; and when there was hardly a Regular soldier left at home and before the Territorial Force and the New Armies had attained their present high efficiency and power—there were times when our Naval resources, considerable as they are, were drawn out to their utmost limit, and when we had to use old battleships to give strength to cruiser squadrons, even at a cost of their speed, and when we had to face and accept risks with which we did not trouble the public, and which no one would willingly seek an opportunity to share. But the victory at the Falkland Islands swept all these difficulties out of existence. It set free a large force of cruisers and battleships for all purposes; it opened the way to other operations of great interest; it enabled a much stricter control and more constant outlook to be maintained in Home waters, and it almost entirely freed the outer seas of danger. That was a memorable event, the relief and advantage of which will only be fully appreciated by those who have full knowledge of all that has taken place, and will only be fully appreciated by those who not only knew, but felt what was going forward.

The
period of
greatest
tension.

DOGGER BANK ACTION—BRITISH GUNS.

Superior
guns and
gunnery.

Now, I come to the battle-cruiser action on the Dogger Bank. That action was not fought out, because the enemy, after abandoning their wounded consort, the *Blücher*, made good their escape into waters infested by their submarines and mines. But this combat between the finest ships in both navies is of immense significance and value in the light which it throws upon rival systems of design and armament, and upon relative gunnery efficiency. It is the first test we have ever had, and, without depending too much upon it, I think it is at once important and encouraging. First of all it vindicates, so far as it goes, the theories of design, and particularly of big gun armament, always identified with Lord Fisher. The range of the British guns was found to exceed that of the German. Although the German shell is a most formidable instrument of destruction, the bursting, smashing power of the heavier British projectile is decidedly greater, and—this is the great thing—our shooting is at least as good as theirs. The Navy, while always working very hard—no one except themselves knows how hard they have worked in these years—have credited the Germans with a sort of super-efficiency in gunnery, and we have always been prepared for some surprises in their system of control and accuracy of fire. But there is a feeling, after the combat of January 24th, that perhaps our officers were too diffident in regard to their own professional skill in gunnery. Then the guns. While the Germans were building 11-in. guns we built 13-in. and 13½-in. guns. Before they advanced to the 12-in. gun we had large numbers of ships armed with the 13·5. It was said by the opposite school of naval force that a smaller gun fires faster and has a higher velocity, and, therefore, the greater destructive power—and Krupp is the master gunmaker of the world—and it was very right and proper to take such a possibility into consideration. Every thing that we have learnt, however, so far shows that we need not at all doubt the wisdom of our policy or the excellence of our material. The 13·5-in. gun is unequalled by any weapon yet brought on the scene. Now we have the 15-in. gun, with which the five *Queen Elizabeths* and the five *Royal Sovereigns* are all armed, coming into line, and this gun in quality equals the 13·5-in. gun, and is vastly more powerful and destructive.

FINE STEAMING.

There is another remarkable feature of this action to which I should like to draw the attention of the House. I mean the steaming of our ships. All the vessels engaged in this action exceeded all

their previous records without exception. I wonder if the House and the public appreciate what that means. Here is a squadron of the Fleet which does not live in harbour, but is far away from its dockyards and which, during six months of war, has been constantly at sea. All of a sudden the greatest trial is demanded of their engines, and they all excel all previous peace-time records. Can you conceive a more remarkable proof of the excellence of British machinery, of the glorious industry of the engine-room branch, or of the admirable system of repairs and refits by which the Grand Fleet is maintained from month to month, and can, if need be, be maintained from year to year in a state of ceaseless vigilance without exhaustion. Take the case of the Kent at the Falklands. The Kent is an old vessel. She was launched thirteen years ago, and has been running ever since. The Kent was designed to go $23\frac{1}{2}$ knots. The Kent had to catch a ship which went considerably over $24\frac{1}{2}$ knots. They put a pressure and a strain on the engines much greater than is allowed in time of peace, and they drove the Kent 35 knots and caught the Nürnberg and sank her. It is my duty in this House to speak for the Navy, and the truth is that it is sound as a bell all through. I do not care where or how it may be tested; it will be found good and fit and keen and honest. It will be found to be the product of good management and organisation, of sound principle in design and strategy, of sterling workmen and faithful workmanship and careful clerks and accountants and skilful engineers, and painstaking officers and hardy tars.

The
Kent.

The great merit of Admiral Sir D. Beatty's action is that it shows us and the world that there is at present no reason to assume that, ship for ship, gun for gun, and man for man, we cannot give a very good account of ourselves. It shows that at five to four in representative ships—because the quality of the ships on either side is a very fair representation of the relative qualities of the lines of battle—the Germans do not think it prudent to engage, that they accepted without doubt or hesitation their inferiority, that they thought only of flight, just as our men thought only of pursuit, that they were wise in the view they took, and that if they had taken any other view they would, unquestionably, have been destroyed. That is the cruel fact, which no falsehood—and many have been issued—no endeavour to sink by official communiqués vessels they could not stay to sink in war, would have obscured.

When, if ever, the great Fleets draw out for general battle, we shall hope to bring into the line a preponderance, not only in quality, but in numbers, which will not be five to four, but will be something considerably greater than that. Therefore we may consider

Naval
losses.

this extra margin as an additional insurance against unexpected losses by mine and submarine, such as may at any moment occur in the preliminaries of a great sea battle. It is for these important reasons of test and trial that we must regard this action of the Dogger Bank as an important and, I think I may say, satisfactory event. The losses of the Navy, although small compared with the sacrifices of the Army, have been heavy. We have lost, mainly by submarine, the lives of about 5500 officers and men, and we have killed, mainly by gun-fire, an equal number, which is, of course, a much larger proportion of the German forces engaged. We have also taken, in sea fighting, 82 officers and 934 men prisoners of war. No British naval prisoners of war have been taken in fighting at sea by the Germans. When they had the inclination they had not the opportunity, and when they had the opportunity they had not the inclination. For the loss of these precious British lives we have lived through six months of this war safely and even prosperously. We have established for the time being a command of the sea such as we had never expected, such as we have never known, and our ancestors had never known at any other period of our history.

COURTS-MARTIAL.

Con-
ditions of
modern
naval war.

There are those who, shutting their eyes to all that has been gained, look only at that which has been lost, and seek to dwell—they are not a very numerous class—unduly upon it. We are urged to hold a court-martial in every case where a ship is lost in action, and to hear the talk in some quarters one would suppose that the loss of a ship by mine or submarine necessarily involved a criminal offence for which somebody should be brought to book. The Admiralty have lately given careful consideration to this question. No doubt the precedents both in peace and war favour, though they do not enjoin, the holding of a court-martial when ships are lost or captured, but the circumstances and conditions of modern naval warfare are entirely different from all previous experience. In old wars the capture or destruction of ships was nearly always accompanied by an act of surrender which was a proper and very necessary subject for investigation by court-martial. But mines and submarines, especially submarines, create conditions entirely novel, presenting to naval officers problems of incomparable hazard and difficulty. In these circumstances a court-martial would frequently be inappropriate in our judgment, and often even harmful. Losses by mine and submarine must frequently be placed on the same footing as heavy casualties on land. They cannot be treated as presumably involving a dereliction of duty or a lack of professional ability.

Thirdly, the speed and skill of modern operations, and the continuous demands on the attention of the Admiralty and on the services of naval officers, especially officers of high rank, make the actual holding of courts-martial very difficult and inconvenient. Energy ought not to be consumed in investigations and discussions of incidents beyond recall, but should be concentrated on new tasks and new difficulties.

Nothing could be worse for the Navy or the Admiralty than for public attention or naval attention to be riveted on half a dozen naval *causes célèbres* which would give opportunities for most acrimonious and controversial discussions, about which you may be perfectly certain two opinions would always remain at the close. When a clear case of misconduct or failure in duty can be presumed, a court-martial may be necessary. When technical or special matters are raised which it is desirable to elucidate with a view to precautions being taken to prevent similar accidents in the future, courts of inquiry have been and will be assembled, but in all these matters, I must respectfully claim, on behalf of the Board of Admiralty, an absolute discretionary power with regard to holding courts-martial or courts of inquiry, or the removal without trial of officers who have forfeited the confidence of the Board, or the publication of particular information on particular incidents. I ask the House, on behalf of the Board, for their confidence and support during the war in this respect. I would especially deprecate anything being done which tends to make officers, whether afloat or at the Admiralty, play for safety and avoid responsibility for positive action.

Reasons
against
holding
courts-
martial.

Losses have to be incurred in war, and mistakes will certainly be made from time to time. Our Navy keeps the sea; our ships are in constant movement; valuable ships run risks every day. The enemy is continually endeavouring to strike, and from time to time accidents are inevitable. How do you suppose the battle-cruiser squadron of Sir David Beatty was where it was when the action of January 24th took place? How many times is it supposed that the squadrons of the Grand Fleet, the cruiser and battle squadrons, have been patrolling and steaming through the North Sea, always exposed to risk by mine and torpedo before at last they reaped their reward? If any mood or tendency of public opinion arises, or is fostered by the newspapers, or given countenance to in this House, which makes too much of losses, even if they are cruel losses, and even if it may be said that they are in some respects avoidable losses, even then I say you will have started on a path which, pressed to its logical conclusion, would leave our Navy cowering in its harbours, instead of ruling the seas. When I think of the great scale of our operations, the enormous target we expose, the number of ships whose movements have to be

arranged for, of the novel conditions to which I have referred, it is marvellous how few have been our losses, and how great the care and vigilance exercised by the admirals afloat and by the Admiralty Staff, and it appears to me, and it will certainly be regarded by those who study this war in history, as praiseworthy in the highest degree.

GERMAN SUBMARINE WARFARE.

The tasks which lie before us are anxious and grave. We are, it now appears, to be the object of a kind of warfare which has never before been practised by a civilised State. The scuttling and sinking at sight, without search or parley, of merchant ships by submarine agency is a wholly novel and unprecedented departure. It is a state of things which no one had ever contemplated before this war, and which would have been universally reprobated and repudiated before the war. But it must not be supposed, because the attack is extraordinary, that a good defence and a good reply cannot be made. The statutes of ancient Rome contain no provision for the punishment of parricides, but when the first offender appeared it was found that satisfactory arrangements could be made to deal with him. Losses, no doubt, will be incurred—of that I give full warning—but we believe that no vital injury can be done. If our traders put to sea regularly, and act in the spirit of the gallant captain of the merchant ship *Laertes*, and if they take the precautions which are proper and legitimate, we expect that the losses will be confined within manageable limits, even at the outset, when the enemy must be expected to make his greatest effort to produce an impression.

Government insurance of shipping.

All losses can, of course, be covered by resort on the part of ship-owners to the Government insurance scheme, the rates of which are now one-fifth of what they were at the outbreak of war. On the other hand, the reply which we shall make will not, perhaps, be wholly ineffective. Germany cannot be allowed to adopt a system of open piracy and murder—or what has always hitherto been called open piracy and murder on the high seas—while remaining herself protected by the bulwark of international instruments which she has utterly repudiated and defied, and which we, much to our detriment, have respected.

ECONOMIC PRESSURE.

There are good reasons for believing that the economic pressure which the Navy exerts is beginning to be felt in Germany. We have to some extent restricted their imports of useful commodities, like

copper, petrol, rubber, nickel, manganese, and antimony, which are needed for the efficient production of war materials and for carrying on modern war on a great scale. The tone of the German Chancellor's recent remarks, and the evidences of hatred and anger against this country which are so apparent in the German Press, encourage us to believe that this restriction is proving inconvenient. We shall, of course, redouble our efforts to make it so. So far, however, we have not attempted to stop imports of food. We have not prevented neutral ships from trading direct with German ports. We have allowed German exports in neutral ships to pass unchallenged. The time has come when the enjoyment of these immunities by a State which has, as a matter of deliberate policy, placed herself outside of all international obligations must be reconsidered. A further declaration on the part of the Allied Governments will promptly be made which will have the effect for the first time of applying the full force of naval pressure to the enemy.

We cannot tell what lies before us, or how soon or in what way the next great developments of the struggle will declare themselves, or what the state of Europe and the world will be at its close. But this, I think, we can already say, as far as the British Navy is concerned, that although no doubt new dangers and perplexities will come upon us continuously, and anxiety will make its abode in our brain, yet the danger and anxiety which now are advancing upon us will not be more serious or more embarrassing than those through which we have already successfully made our way. For during the months that are to come the British Navy and the sea power which it exerts will increasingly dominate the general situation, will be the main and unfailing reserve of the allied nations, will progressively paralyse the fighting energies of our antagonists, and will, if need be, even in default of all other favourable forces, ultimately by itself decide the issue of the War.

III.

NORTH SEA WAR AREA.—ADMIRALTY STATEMENT, NOV. 2ND.

During the last week the Germans have scattered mines indiscriminately in the open sea, on the main trade route from America to Liverpool, *via* the North of Ireland. Peaceful merchant ships have already been blown up with loss of life by this agency. The White Star Liner Olympic escaped disaster by pure good luck. But

German
mines
laid under
a neutral
flag.

The North
Sea a
military
area.

for the warnings given by British cruisers, other British and neutral merchant and passenger vessels would have been destroyed. These mines cannot have been laid by any German ship of war. They have been laid by some merchant vessel flying a neutral flag, which has come along the trade route as if for the purpose of peaceful commerce, and while profiting to the full by the immunity enjoyed by neutral merchant ships has wantonly and recklessly endangered the lives of all who travel on the sea, regardless of whether they are friend or foe, civilian or military in character. Mine-laying under a neutral flag, and reconnaissance conducted by trawlers, hospital ships, and neutral vessels, are the ordinary features of German naval warfare. In these circumstances, having regard to the great interests entrusted to the British Navy, to the safety of peaceful commerce on the high seas, and to the maintenance within the limits of international law of trade between neutral countries, the Admiralty feel it necessary to adopt exceptional measures appropriate to the novel conditions under which this war is being waged. They therefore give notice that the whole of the North Sea must be considered a military area. Within this area merchant shipping of all kinds, traders of all countries, fishing craft, and all other vessels will be exposed to the gravest dangers from mines which it has been necessary to lay, and from warships searching vigilantly by night and day for suspicious craft. All merchant and fishing vessels of every description are hereby warned of the dangers they encounter by entering this area except in strict accordance with Admiralty directions. Every effort will be made to convey this warning to neutral countries and to vessels on the sea, but from November 5th onwards the Admiralty announce that all ships passing a line drawn from the northern point of the Hebrides through the Faroe Islands to Iceland, do so at their own peril. Ships of all countries wishing to trade to and from Norway, the Baltic, Denmark, and Holland, are advised to come, if inward bound, by the English Channel and the Straits of Dover. There they will be given sailing directions which will pass them safely, so far as Great Britain is concerned, up the East Coast of England to Farn Island, whence a safe route will, if possible, be given to Lindesnaes Lighthouse. From this point they should turn north or south according to their destination, keeping as near the coast as possible. The converse applies to vessels outward bound. By strict adherence to these routes the commerce of all countries will be able to reach its destination in safety, so far as Great Britain is concerned, but any straying even for a few miles from the course thus indicated may be followed by fatal consequences.

IV.

GERMAN DECLARATION.—WAR AREA.

The German so-called "blockade" arising from the proclamation of a war area round the British Isles, which culminated in the destruction of the Lusitania on May 7th, had its origin in December last, when it had become clear to the German naval chiefs that the attack upon commerce by cruisers had failed. On December 22nd, Grand Admiral von Tirpitz, in an interview which appeared in the New York "Evening Sun," threatened a submarine war against England. During January and February attacks were made upon several vessels, including the hospital ship Asturias, and were received by the German papers as fulfilling the Grand Admiral's threat. On February 2nd an announcement was made in the official "Reichsanzeiger," signed by Admiral von Pohl, then Chief of the Admiralty Staff, in which peaceful shipping was urgently warned against approaching the coasts of Great Britain owing to the serious danger it would incur. Two days later the announcement was issued. The following was the operative part of the Memorandum:—

"Germany hereby declares all the waters surrounding Great Britain and Ireland, including the entire English Channel, an area of war, and will therein act against the shipping of the enemy. For this purpose, beginning February 18, 1915, she will endeavour to destroy every enemy merchant ship that is found in this area of war, even if it be not always possible to avert the peril which threatens persons and cargoes. Neutrals are, therefore, warned against further entrusting crews and passengers and wares to such ships. Their attention is also called to the fact that it is advisable for their ships to avoid entering this area, for though the German Naval forces have instructions to avoid violence to neutral ships, in so far as they are recognisable, in view of the misuse of neutral flags ordered by the British Government, and the contingencies of naval warfare, their becoming victims of attack directed against enemy ships cannot always be avoided. At the same time it is especially noted that shipping north of the Shetland Islands, in the eastern area of the North Sea, and in a strip of at least 30 sea miles in width along the Netherlands coasts, is not in peril.

[To this instruction a long statement was prefixed, arguing that since the beginning of the War Great Britain had carried on a mercantile war against Germany "in a way that defies all the principles of international law." "Since the shutting off of food supplies has come to a point when Germany no longer has

sufficient food to feed her people, it has become necessary to bring England to terms by the exercise of force. She is in a position where her life depends on her putting into effect the only means she has of saving herself." It was said that we had renounced the Declaration of London in its most important particulars, although British delegates had recognised its conclusions as valid in international law. We had wrongfully put certain articles on the contraband list, and were also accused of abolishing the distinction between absolute and relative contraband.]

Misrepresentation
of British
action.

"All these measures have the obvious purpose through the illegal paralysation of legitimate neutral methods, not only to strike at German military strength, but also at the economic life of Germany; and finally, through starvation, drive the entire population of Germany to destruction. The neutral Powers have generally acquiesced in the steps taken by the British Government. Especially they have not succeeded in inducing the British Government to restore the German individuals and property seized in violation of international law. In certain directions they have also aided British measures which are irreconcilable with the freedom of the sea, in that they have, obviously under the pressure of England, hindered, by export and transit embargoes, the transit of wares for peaceful purposes in Germany. The German Government has in vain called the attention of the neutral Powers to the fact that it must face the question of whether it can any longer persevere in its hitherto strict observance of the rules of the London Declaration if Great Britain should continue in the same course, and the neutral Powers continue to acquiesce in these violations of neutrality to the detriment of Germany." *

V.

UNITED STATES DECLARATION.

In relation to the foregoing declaration of the German Government, the United States Secretary of State instructed Mr. Gerard, the American Ambassador at Berlin, to present to the German Government a Note to the following effect:—

The Government of the United States having had its attention directed to the proclamation of the German Admiralty, issued on

* In relation to this statement, Mr. Churchill said in the House of Commons, February 15th, that we had not prevented neutral ships trading direct with German ports; we had allowed German exports in neutral ships to pass unchallenged. All we had done was to capture German merchantmen on the high seas, as we had a right to do. He added that the time had come when the enjoyment of this immunity by a State which had placed herself outside all international obligations must be reconsidered.

February 4th, that the waters surrounding Great Britain and Ireland, including the whole of the English Channel, are to be considered as comprised within the seat of war; that all enemy merchant vessels found in those waters on and from the 18th inst. will be destroyed, although it may not always be possible to save the crews and passengers; and that neutral vessels expose themselves to danger within this zone of war, because, in view of the misuse of neutral flags, said to have been ordered by the British Government on January 31st, and the contingencies of maritime warfare, it may not be possible always to exempt neutral vessels from attacks intended to strike enemy ships, it feels it to be its duty to call the attention of the Imperial German Government, with sincere respect and most friendly sentiments, but very candidly and earnestly, to the very serious possibilities of the course of action apparently contemplated under that proclamation.

The Government of the United States views these possibilities with such grave concern that it feels it to be its privilege—indeed, its duty, in the circumstances—to request the Imperial German Government to consider before action is taken the critical situation in respect of the relations between this country and Germany which might arise were German naval forces, in carrying out the policy foreshadowed by the Admiralty's proclamation, to destroy any merchant vessel of the United States or to cause the death of American citizens.

It is, of course, not necessary to remind the German Government that the sole right of a belligerent dealing with neutral vessels on the high seas is limited to visit and search, unless a blockade is proclaimed and effectively maintained, which this Government does not understand to be proposed in this case. To declare or exercise the right to attack or destroy any vessel entering the prescribed area of the high seas without first certainly determining its belligerent nationality and the contraband character of its cargo would be an act so unprecedented in naval warfare that this Government is reluctant to believe that the Imperial Government of Germany in this case contemplates it. Possible suspicion that enemy ships are using a neutral flag improperly can create no just presumption that all ships traversing the prescribed area are subject to the same suspicion. It is to determine exactly these questions that this Government understands the right to visit and search to have been recognised.

Practice
of visit
and search
required.

This Government has carefully noted the explanatory statement issued by the Imperial Government at the same time with the proclamation of the German Admiralty, and takes this occasion to remind the Imperial Government very respectfully that the

Government of the United States is open to none of the criticisms for unneutral action to which the German Government believes that the Governments of certain other neutral nations have laid themselves open; that the Government of the United States has not consented to or acquiesced in any measure which may have been taken by other belligerent nations in the present war which operates to restrain neutral trade, but has, on the contrary, taken in all such matters a position which warrants it in holding these Governments responsible in a proper way for any untoward effects on American shipping, which accepted principles of international law do not justify; and that, therefore, it regards itself free in the present instance to take, with a clear conscience and upon accepted principles, the position indicated in this Note.

If commanders of German vessels of war should act upon the presumption that the flag of the United States is not being used in good faith, and should destroy on the high seas American vessels or the lives of American citizens, it would be difficult for the Government of the United States to view the act in any other light than an indefensible violation of neutral rights, which would be very hard indeed to reconcile with the friendly relations now so happily subsisting between the two Governments.

If such a deplorable situation should arise, the Imperial German Government can readily appreciate that the Government of the United States would be constrained to hold the Imperial Government to a strict accountability for such acts of their naval authorities, and to take any steps which might be necessary to safeguard American lives and property, and to secure to American citizens the full enjoyment of their acknowledged rights on the high seas.

The Government of the United States, in view of these considerations, which it urges with the greatest respect, and with the sincere purpose of making sure that no misunderstanding may arise, and no circumstance occur that might even cloud the intercourse between the two Governments, expresses its confident hope and expectation that the Imperial German Government can and will give an assurance to American citizens that their vessels will not be molested by the naval forces of Germany, otherwise than by visit and search, though their vessels may traverse the sea area delimited in the proclamation of the German Admiralty.

It is added for the information of the Imperial Government that representations have been made to his Britannic Majesty's Government in respect of the unwarranted use of the American flag for the protection of British ships.

VI.

THE BRITISH DECLARATION.

ORDER IN COUNCIL.

11th day of March, 1915.

The following Order in Council was foreshadowed by Mr. Asquith in a speech in the House of Commons on March 1st, and published as a supplement to the "London Gazette." It explains the measures directed to be taken by Great Britain, in association with her Allies, to prevent commodities of any kind from reaching or leaving Germany:—

Whereas the German Government has issued certain Orders which, in violation of the usages of war, purport to declare the waters surrounding the United Kingdom a military area, in which all British and allied merchant vessels will be destroyed irrespective of the safety of the lives of passengers and crew, and in which neutral shipping will be exposed to similar danger in view of the uncertainties of naval warfare;

And whereas in a memorandum accompanying the said Order neutrals are warned against entrusting crews, passengers, or goods to British or allied ships:

• And whereas such attempts on the part of the enemy give His Majesty an unquestionable right of retaliation;

And whereas His Majesty has therefore decided to adopt further measures in order to prevent commodities of any kind from reaching or leaving Germany, though such measures will be enforced without risk to neutral ships or to neutral or non-combatant life, and in strict observance of the dictates of humanity;

And whereas the Allies of His Majesty are associated with Him in the steps announced for restricting further the commerce of Germany:

His Majesty is therefore pleased, by and with the advice of His Privy Council, to order and it is hereby ordered as follows:—

I. No merchant vessel which sailed from her port of departure after March 1, 1915, shall be allowed to proceed on her voyage to any German port.

Unless the vessel receives a pass enabling her to proceed to some neutral or allied port to be named in the pass, goods on board any such vessel must be discharged in a British port and placed in the custody of the Marshal of the Prize Court. Goods so discharged, not being contraband of war, shall, if not requisitioned for the use of His Majesty, be restored by order of the Court, upon such terms as the

Court may in the circumstances deem to be just, to the person entitled thereto.

II. No merchant vessel which sailed from any German port after March 1, 1915, shall be allowed to proceed on her voyage with any goods on board laden at such port.

All goods laden at such port must be discharged in a British or allied port. Goods so discharged in a British port shall be placed in the custody of the Marshal of the Prize Court, and, if not requisitioned for the use of His Majesty, shall be detained or sold under the direction of the Prize Court. The proceeds of goods so sold shall be paid into Court and dealt with in such manner as the Court may in the circumstances deem to be just.

Provided that no proceeds of the sale of such goods shall be paid out of Court until the conclusion of peace, except on the application of the proper officer of the Crown, unless it be shown that the goods had become neutral property before the issue of this Order.

Provided also that nothing herein shall prevent the release of neutral property laden at such enemy port on the application of the proper Officer of the Crown.

III. Every merchant ship which sailed from her port of departure after March 1, 1915, on her way to a port other than a German port, carrying goods with an enemy destination, or which are enemy property, may be required to discharge such goods in a British or allied port. Any goods so discharged in a British port shall be placed in the custody of the Marshal of the Prize Court, and, unless they are contraband of war, shall, if not requisitioned for the use of His Majesty, be restored by order of the Court, upon such terms as the Court may in the circumstances deem to be just, to the person entitled thereto.

Provided that this Article shall not apply in any case falling within Articles II. or IV. of this Order.

IV. Every merchant vessel which sailed from a port other than a German port after March 1, 1915, having on board goods which are of enemy origin or are enemy property, may be required to discharge such goods in a British or allied port. Goods so discharged in a British port shall be placed in the custody of the Marshal of the Prize Court, and, if not requisitioned for the use of His Majesty, shall be detained or sold under the direction of the Prize Court. The proceeds of goods so sold shall be paid into Court and dealt with in such manner as the Court may in the circumstances deem to be just.

Provided that no proceeds of the sale of such goods shall be paid out of Court until the conclusion of peace except on the application

of the proper Officer of the Crown, unless it be shown that the goods had become neutral property before the issue of this Order.

Provided also that nothing herein shall prevent the release of neutral property of enemy origin on the application of the proper Officer of the Crown.

V. (1) Any person claiming to be interested in, or to have any claim in respect of, any goods (not being contraband of war) placed in the custody of the Marshal of the Prize Court under this Order, or in the proceeds of such goods, may forthwith issue a writ in the Prize Court against the proper Officer of the Crown and apply for an order that the goods should be restored to him, or that their proceeds should be paid to him, or for such other order as the circumstances of the case may require.

(2) The practice and procedure of the Prize Court shall, so far as applicable, be followed *mutatis mutandis* in any proceedings consequential upon this Order.

VI. A merchant vessel which has cleared for a neutral port from a British or allied port, or which has been allowed to pass having an ostensible destination to a neutral port, and proceeds to an enemy port, shall, if captured on any subsequent voyage, be liable to condemnation.

VII. Nothing in this Order shall be deemed to affect the liability of any vessel or goods to capture or condemnation independently of this Order.

VIII. Nothing in this Order shall prevent the relaxation of the provisions of this Order in respect of the merchant vessels of any country which declares that no commerce intended for or originating in Germany or belonging to German subjects shall enjoy the protection of its flag.

VII.

OFFICIAL DESPATCHES AND REPORTS ON THE OPERATIONS.

HELIGOLAND BIGHT ACTION.

ADMIRALTY, October 21, 1914.

The following were the despatches received from Vice-Admiral Sir David Beatty, Rear-Admiral Arthur H. Christian, Commodore Reginald Y. Tyrwhitt, Commodore (T), and Commodore Roger J. B. Keyes, Commodore (S), reporting the engagement off Heligoland on Friday, August 28th, published in the *London Gazette*, October 21st :

H.M.S. LION, 1st September, 1914.

I have the honour to report that on Thursday, 27th August, at 5 a.m., I proceeded with the First₂ Battle-Cruiser Squadron and First Light₂ Cruiser Squadron in company to rendezvous with the Rear-Admiral, *Invincible*.

At 4 a.m., 28th August, the movements of the flotillas commenced as previously arranged, the Battle-Cruiser Squadron and Light Cruiser Squadron supporting. The Rear-Admiral, *Invincible*, with *New Zealand* and four destroyers having joined my flag, the Squadron passed through the pre-arranged rendezvous.

At 8.10 a.m. I received a signal from the Commodore (T), informing me that the flotilla was in action with the enemy. This was presumably in the vicinity of their pre-arranged rendezvous. From this time until 11 a.m. I remained about the vicinity, ready to support as necessary, intercepting various signals, which contained no information on which I could act.

At 11 a.m. the squadron was attacked by three submarines. The attack was frustrated by rapid manœuvring, and the four destroyers were ordered to attack them. Shortly after 11 a.m., various signals having been received indicating that the Commodore (T) and Commodore (S) were both in need of assistance, I ordered the Light Cruiser Squadron to support the Torpedo Flotillas.

Later I received a signal from the Commodore (T) stating that he was being attacked by a large cruiser, and a further signal informing me that he was being hard pressed and asking for assistance. The Captain (D), First Flotilla, also signalled that he was in need of help.

From the foregoing the situation appeared to me critical. The flotillas had advanced only ten miles since 8 a.m., and were only about twenty-five miles from two enemy bases on their flank and rear respectively. Commodore Goodenough had detached two of his light cruisers to assist some destroyers earlier in the day, and these had not yet rejoined. (They rejoined at 2.30 p.m.) As the reports indicated the presence of many enemy ships—one a large cruiser—I considered that his force might not be strong enough to deal with the situation sufficiently rapidly, so at 11.30 a.m. the battle-cruisers turned to E.S.E. and worked up to full speed. It was evident that to be of any value the support must be overwhelming and carried out at the highest speed possible.

I had not lost sight of the risk of submarines, and possible sortie in force from the enemy's base, especially in view of the mist to the south-east.

Our high speed, however, made submarine attack difficult, and the smoothness of the sea made their detection comparatively easy. I considered that we were powerful enough to deal with any sortie except by a battle squadron, which was unlikely to come out in time, provided our stroke was sufficiently rapid.

At 12.15 p.m. Fearless and First Flotilla were sighted retiring west. At the same time the Light Cruiser Squadron was observed to be engaging an enemy ship ahead. They appeared to have her beat.

I then steered N.E. to sounds of firing ahead, and at 12.30 p.m. sighted *Arethusa* and Third Flotilla retiring to the westward, engaging a cruiser of the *Kolberg* class on our port bow. I steered to cut her off from Heligoland, and at 12.37 p.m. opened fire. At 12.42 the enemy turned to N.E., and we chased at twenty-seven knots.

At 12.56 p.m. sighted and engaged a two-funnelled cruiser ahead. *Lion* fired two salvos at her, which took effect, and she disappeared into the mist, burning furiously and in a sinking condition. In view of the mist and that she was steering at high speed at right angles to *Lion*, who was herself steaming at twenty-eight knots, the *Lion's* firing was very creditable.

Our destroyers had reported the presence of floating mines to the eastward, and I considered it inadvisable to pursue her. It was also essential that the squadrons should remain concentrated, and I accordingly ordered a withdrawal. The battle-cruisers turned north and circled to port to complete the destruction of the vessel first engaged. She was sighted again at 1.25 p.m. steaming S.E. with colours still flying. *Lion* opened fire with two turrets, and at 1.35 p.m., after receiving two salvos, she sank. The four attached destroyers were sent to pick up survivors, but I deeply regret that they subsequently reported that they searched the area, but found none.

At 1.40 p.m. the battle-cruisers turned to the northward, and *Queen Mary* was again attacked by a submarine. The attack was avoided by the use of the helm. *Lowestoft* was also unsuccessfully attacked. The battle-cruisers covered the retirement until nightfall. By 6 p.m., the retirement having been well executed and all destroyers accounted for, I altered course, spread the light cruisers, and swept northwards in accordance with the Commander-in-Chief's orders. At 7.45 p.m. I detached *Liverpool* to Rosyth with German prisoners, seven officers and seventy-nine men, survivors from Mainz. No further incident occurred.

DAVID BEATTY, Vice-Admiral.

H.M.S. EURYALUS, 28th September, 1914.

I have the honour to report that, in accordance with your orders, a reconnaissance in force was carried out in the Heligoland Bight on August 28th, with the object of attacking the enemy's light cruisers and destroyers.

The forces under my orders (viz., the Cruiser Force under Rear-Admiral H. H. Campbell, C.V.O., Euryalus, Amethyst, First and Third Destroyer Flotillas and the submarines) took up the positions assigned to them on the evening of the 27th August, and, in accordance with directions given, proceeded during the night to approach the Heligoland Bight.

The cruiser Force, under Rear-Admiral Campbell, with Euryalus (my flagship) and Amethyst, was stationed to intercept any enemy vessels chased to the westward. At 4.30 p.m. on the 28th August, these cruisers, having proceeded to the eastward, fell in with Lurcher and three other destroyers, and the wounded and prisoners in these vessels were transferred in boats to Bacchante and Cressy, which left for the Nore. Amethyst took Laurel in tow, and at 9.30 p.m. Hogue was detached to take Arethusa in tow. This latter is referred to in Commodore R. Y. Tyrwhitt's report, and I quite concur in his remarks as to the skill and rapidity with which this was done in the dark with no lights permissible.

Commodore Reginald Y. Tyrwhitt was in command of the Destroyer Flotillas, and his report is enclosed herewith. His attack was delivered with great skill and gallantry, and he was most ably seconded by Captain William F. Blunt, in Fearless, and the officers in command of the destroyers, who handled their vessels in a manner worthy of the best traditions of the British Navy.

Commodore Roger J. B. Keyes, in Lurcher, had on August 27th escorted some submarines into positions allotted to them in the immediate vicinity of the enemy's coast. On the morning of the 28th August, in company with Firedrake, he searched the area to the southward of the battle-cruisers for the enemy's submarines, and subsequently, having been detached, was present at the sinking of the German cruiser Mainz, when he gallantly proceeded alongside her and rescued 220 of her crew, many of whom were wounded. Subsequently he escorted Laurel and Liberty out of action, and kept them company till Rear-Admiral Campbell's cruisers were sighted.

A. H. CHRISTIAN, Rear-Admiral.

[Submarine Officers Lieutenant-Commander Ernest W. Leir and Lieutenant-Commander Cecil P. Talbot were specially mentioned. The bravery and resource of the officers in command of submarines since the war commenced were reported worthy of the highest commendation.]

H.M.S. LOWESTOFT, 26th September, 1914.

I have the honour to report that at 5 a.m. on Thursday, 27th August, in accordance with orders received from their Lordships, I sailed in Arethusa, in company with the First and Third Flotillas, except Hornet, Tigress, Hydra, and Loyal, to carry out the pre-arranged operations. H.M.S. Fearless joined the flotillas at sea that afternoon.

At 6.53 a.m. on Friday, 28th August, an enemy's destroyer was sighted, and was chased by the 4th Division of the Third Flotilla.

From 7.20 to 7.57 a.m. Arethusa and the Third Flotilla were engaged with numerous destroyers and torpedo-boats which were making for Heligoland: course was altered to port to cut them off.

Two cruisers, with four and two funnels respectively, were sighted on the port bow at 7.57 a.m., the nearest of which was engaged. Arethusa received a heavy fire from both cruisers and several destroyers until 8.15 a.m., when the four-funnelled cruiser transferred her fire to Fearless. Close action was continued with the two-funnelled cruiser on converging courses until 8.25 a.m., when a 6-in. projectile from Arethusa wrecked the fore bridge of the enemy, who at once turned away in the direction of Heligoland, which was sighted slightly on the starboard bow at about the same time.

All ships were at once ordered to turn to the westward, and shortly afterwards speed was reduced to twenty knots.

During this action Arethusa had been hit many times, and was considerably damaged; only one 6-in. gun remained in action, all other guns and torpedo tubes having been temporarily disabled.

Lieutenant Eric W. P. Westmacott (Signal Officer) was killed at my side during this action. I cannot refrain from adding that he carried out his duties calmly and collectedly, and was of the greatest assistance to me.

A fire occurred opposite No. 2 gun port side, caused by a shell exploding some ammunition, resulting in a terrific blaze for a short period and leaving

the deck burning. This was very promptly dealt with and extinguished by Chief Petty Officer Frederick W. Wrench, O.N. 158630.

The flotillas were reformed in divisions and proceeded at twenty knots. It was now noticed that *Arethusa's* speed had been reduced.

Fearless reported that the 3rd and 5th Divisions of the First Flotilla had sunk the German Commodore's destroyer and that two boats' crews belonging to *Defender* had been left behind, as our destroyers had been fired upon by a German cruiser during their act of mercy in saving the survivors of the German destroyer.

At 10 a.m., hearing that Commodore (S) in *Lurcher* and *Firedrake* were being chased by light cruisers, I proceeded to his assistance with *Fearless* and the First Flotilla until 10.37 a.m., when, having received no news and being in the vicinity of Heligoland, I ordered the ships in company to turn to the westward. All guns except two 4-in. were again in working order, and the upper deck supply of ammunition was replenished.

At 10.55 a.m. a four-funnelled German cruiser was sighted, and opened a very heavy fire at about 11 o'clock. Our position being somewhat critical, I ordered *Fearless* to attack, and the First Flotilla to attack with torpedoes, which they proceeded to do with great spirit. The cruiser at once turned away, disappeared in the haze, and evaded the attack. About ten minutes later the same cruiser appeared on our starboard quarter. Opened fire on her with both 6-in. guns; *Fearless* also engaged her, and one division of destroyers attacked her with torpedoes without success.

The state of affairs and our position was then reported to the Admiral Commanding Battle-Cruiser Squadron.

We received a very severe and almost accurate fire from this cruiser; salvo after salvo was falling between 10 and 30 yards short, but not a single shell struck; two torpedoes were also fired at us, being well directed, but short. The cruiser was badly damaged by *Arethusa's* 6-in. guns and a splendidly directed fire from *Fearless*, and she shortly afterwards turned away in the direction of Heligoland.

Proceeded, and four minutes later sighted the three-funnelled cruiser *Mainz*. She endured a heavy fire from *Arethusa* and *Fearless* and many destroyers. After an action of approximately twenty-five minutes she was seen to be sinking by the head, her engines stopped, besides being on fire.

At this moment the Light Cruiser Squadron appeared, and they very speedily reduced the *Mainz* to a condition which must have been indescribable. I then recalled *Fearless* and the destroyers, and ordered cease fire. We then exchanged broadsides with a large four-funnelled cruiser on the starboard quarter at long range, without visible effect.

The Battle-Cruiser Squadron now arrived, and I pointed out this cruiser to the Admiral Commanding, and was shortly afterwards informed by him that the cruiser in question had been sunk and another set on fire.

The weather during the day was fine, sea calm, but visibility poor, not more than three miles at any time when the various actions were taking place, and was such that ranging and spotting were rendered difficult.

I then proceeded with fourteen destroyers of the Third Flotilla, and nine of the First Flotilla.

Arethusa's speed was about six knots until 7 p.m., when it was impossible to proceed any further, and fires were drawn in all boilers except two, and assistance called for.

At 9.30 p.m. Captain Wilmot S. Nicholson, of the *Hogue*, took my ship in tow in a most seamanlike manner, and, observing that the night was pitch dark and the only lights showing were two small hand lanterns, I consider his action was one which deserves special notice from their Lordships.

I would also specially recommend Lieutenant-Commander Arthur P. N. Thorowgood, of *Arethusa*, for the able manner he prepared the ship for being towed in the dark.

H.M. ship under my command was then towed to the Nore, arriving at 5 p.m. on the 29th August. Steam was then available for slow speed, and the ship was able to proceed to Chatham under her own steam.

I beg again to call attention to the services rendered by Captain W. F. Blunt, of H.M.S. *Fearless*, and the commanding officers of the destroyers of the First and Third Flotillas, whose gallant attacks on the German cruisers at critical moments undoubtedly saved *Arethusa* from more severe punishment and possible capture.

I cannot adequately express my satisfaction and pride at the spirit and ardour of my officers and ship's company, who carried out their orders with the greatest alacrity under the most trying conditions, especially in view of

the fact that the ship, newly built, had not been forty-eight hours out of the dockyard before she was in action. R. Y. TYRWHITT, Commodore (T.)

[A number of officers and various ratings were mentioned by the Commodore.]

H.M.S. MAIDSTONE, 17th October, 1914.

In compliance with their Lordships' directions, I have the honour to report as follows upon the services performed by submarines since the commencement of hostilities :—

Three hours after the outbreak of war, Submarines E 6 (Lieutenant-Commander Cecil P. Talbot) and E 8 (Lieutenant-Commander Francis H. H. Goodhart), proceeded unaccompanied to carry out a reconnaissance in the Heligoland Bight. These two vessels returned with useful information, and had the privilege of being the pioneers on a service which is attended by some risk.

During the transportation of the Expeditionary Force the Lurcher and Firedrake and all the submarines of the Eighth Submarine Flotilla occupied positions from which they could have attacked the High Sea Fleet, had it emerged to dispute the passage of our transports. This patrol was maintained day and night without relief, until the *personnel* of our Army had been transported and all chance of effective interference had disappeared.

These submarines have since been incessantly employed on the enemy's coast in the Heligoland Bight and elsewhere, and have obtained much valuable information regarding the composition and movement of his patrols. They have occupied his waters and reconnoitred his anchorages, and, while so engaged, have been subjected to skilful and well executed anti-submarine tactics—hunted for hours at a time by torpedo craft and attacked by gunfire and torpedoes.

At midnight on the 26th August I embarked in the Lurcher, and, in company with Firedrake and Submarines D 2, D 8, E 4, E 5, E 6, E 7, E 8 and E 9 of the Eighth Submarine Flotilla, proceeded to take part in the operations in the Heligoland Bight arranged for August 28th. The destroyers scouted for the submarines until nightfall on the 27th, when the latter proceeded independently to take up various positions from which they could co-operate with the Destroyer Flotillas on the following morning.

At daylight on the 28th August the Lurcher and Firedrake searched the area through which the battle-cruisers were to advance for hostile submarines, and then proceeded towards Heligoland in the wake of Submarines E 6, E 7 and E 8, which were exposing themselves with the object of inducing the enemy to chase them to the westward.

On approaching Heligoland, the visibility, which had been very good to seaward, reduced to 5000 to 6000 yards, and this added considerably to the anxieties and responsibilities of the commanding officers of submarines, who handled their vessels with coolness and judgment in an area which was necessarily occupied by friends as well as foes.

Low visibility and calm sea are the most unfavourable conditions under which submarines can operate, and no opportunity occurred of closing with the enemy's cruisers to within torpedo range.

Lieutenant-Commander Ernest W. Leir, commanding Submarine E 4, witnessed the sinking of the German torpedo-boat destroyer V 187 through his periscope, and observing a cruiser of the Stettin class close and open fire on the British destroyers which had lowered their boats to pick up the survivors, he proceeded to attack the cruiser, but she altered course before he could get within range. After covering the retirement of our destroyers, which had had to abandon their boats, he returned to the latter and embarked a lieutenant and nine men of Defender, who had been left behind. The boats also contained two officers and eight men of V 187, who were unwounded, and eighteen men who were badly wounded. As he could not embark the latter, Lieutenant-Commander Leir left one of the officers and six unwounded men to navigate the British boats to Heligoland. Before leaving he saw that they were provided with water, biscuit, and a compass. One German officer and two men were made prisoners of war.

Lieutenant-Commander Leir's action in remaining on the surface in the vicinity of the enemy, and in a visibility which would have placed his vessel within easy gun range of an enemy appearing out of the mist, was altogether admirable. This enterprising and gallant officer took part in the reconnaissance which supplied the information on which these operations were based, and I beg to submit his name and that of Lieutenant-Commander Talbot, the commanding officer of E 6, who exercised patience, judgment, and skill in a dangerous position, for the favourable consideration of their Lordships.

On the 13th September, E 9 (Lieutenant-Commander Max K. Horton) torpedoed and sank the German light cruiser *Hela* six miles south of Heligoland. A number of destroyers were evidently called to the scene after E 9 had delivered her attack, and these hunted her for several hours. On September 14th, in accordance with his orders, Lieutenant-Commander Horton examined the outer anchorage of Heligoland, a service attended by considerable risk.

On the 25th September, Submarine E 6 (Lieutenant-Commander C. P. Talbot), while diving, fouled the moorings of a mine laid by the enemy. On rising to the surface she weighed the mine and sinker; the former was securely fixed between the hydroplane and its guard; fortunately, however, the horns of the mine were pointed outboard. The weight of the sinker made it a difficult and dangerous matter to lift the mine clear without exploding it. After half an hour's patient work this was effected by Lieutenant Frederick A. P. Williams-Freeman and Able Seaman Ernest Randall Cremer, Official Number 214235, and the released mine descended to its original depth.

On the 6th October, E 9 (Lieutenant-Commander Max K. Horton), when patrolling off the Ems, torpedoed and sank the enemy's destroyer S 126.*

The enemy's torpedo craft pursue tactics which, in connection with their shallow draught, make them exceedingly difficult to attack with torpedo, and Lieutenant-Commander Horton's success was the result of much patient and skilful zeal. He is a most enterprising submarine officer, and I beg to submit his name for favourable consideration.

Lieutenant Charles M. S. Chapman, second in command of E 9, is also deserving of credit.

Against an enemy whose capital vessels have never, and light cruisers have seldom, emerged from their fortified harbours, opportunities of delivering submarine attacks have necessarily been few, and on one occasion only, prior to the 13th September, has one of our submarines been within torpedo range of a cruiser during daylight hours.

During the exceptionally heavy westerly gales which prevailed between September 14th and 21st, the position of the submarines on a lee shore, within a few miles of the enemy's coast, was an unpleasant one.

The short steep seas which accompany westerly gales in the Heligoland Bight made it difficult to keep the conning tower hatches open. There was no rest to be obtained, and, even when cruising at a depth of 60ft., the submarines were rolling considerably, and pumping—i.e., vertically moving about 20ft.

I submit that it was creditable to the commanding officers that they should have maintained their stations under such conditions.

Service in the Heligoland Bight is keenly sought after by the commanding officers of the Eighth Submarine Flotilla, and they have all shown daring and enterprise in the execution of their duties. These officers have unanimously expressed to me their admiration of the cool and gallant behaviour of the officers and men under their command. They are, however, of the opinion that it is impossible to single out individuals when all have performed their duties so admirably, and in this I concur.

The following submarines have been in contact with the enemy during these operations:—D 1 (Lieutenant-Commander Archibald D. Cochrane); D 2 (Lieutenant-Commander Arthur G. Jameson); D 3 (Lieutenant-Commander Edward C. Boyle); D 5 (Lieutenant-Commander Godfrey Herbert); E 4 (Lieutenant-Commander Ernest W. Leir); E 5 (Lieutenant-Commander Charles S. Benning); E 6 (Lieutenant-Commander Cecil P. Talbot); E 7 (Lieutenant-Commander Ferdinand E. B. Feilmann); E 9 (Lieutenant-Commander Max K. Horton).

ROGER KEYES, Commodore (S.)

ACTION OFF CORONEL.

The following official statement was issued November 6th:—

The Admiralty have now received trustworthy information about the action on the Chilean coast. During Sunday, November 1st, the *Good Hope*, *Monmouth*, and *Glasgow* came up with the *Scharnhorst*, *Gneisenau*, *Leipzig* and *Dresden*. Both squadrons were steaming south in a strong wind and considerable sea. The German squadron declined action until sunset, when the light gave it an important advantage. The action lasted an hour. Early in the action both the *Good Hope* and *Monmouth* took fire, but fought on until nearly dark, when a serious explosion occurred in the *Good Hope* and

* In the trial of the case of the *Ophelia*, the number of this sunken destroyer was correctly given as S 116.

she foundered. The Monmouth hauled off at dark, making water badly, and appeared unable to steam away. She was accompanied by the Glasgow, who had meanwhile during the whole action fought the Leipzig and Dresden. On the enemy again approaching the wounded Monmouth, the Glasgow, who was also under fire from one of the armoured cruisers, drew off. The enemy then attacked the Monmouth again, with what result is not definitely known. The Glasgow is not extensively damaged, and has very few casualties. Neither the Otranto nor the Canopus was engaged. Reports received by the Foreign Office from Valparaiso state that a belligerent warship is ashore on the Chilian coast, and it is possible that this may prove to be the Monmouth. Energetic measures are being taken on this assumption to rescue any survivors. The action appears to the Admiralty to have been most gallantly contested, but in the absence of the Canopus, the enemy's preponderance was considerable.

The following Admiralty statement embodies a summary of a report from Capt. John Luce, H.M.S. Glasgow :

Glasgow left Coronel 9 a.m. on November 1st to rejoin Good Hope (flagship), Monmouth, and Otranto at rendezvous. At 2 p.m. flagship signalled that apparently from wireless calls there was an enemy ship to northward. Orders were given for squadron to spread N.E. by E. in the following order: Good Hope, Monmouth, Otranto, Glasgow, speed to be worked up to fifteen knots. 4.20 p.m., saw smoke: proved to be enemy ships, one small cruiser and two armoured cruisers. Glasgow reported to Admiral, ships in sight were warned, and all concentrated on Good Hope. At 5 p.m. Good Hope was sighted. 5.47 p.m., squadron formed in line ahead in following order: Good Hope, Monmouth, Glasgow, Otranto. Enemy, who had turned south, were now in single line ahead twelve miles off, Scharnhorst and Gneisenau leading.

6.18 p.m., speed ordered to seventeen knots, and flagship signalled Canopus: "I am going to attack enemy now." Enemy were now 15,000 yards away and maintained this range, at the same time jamming wireless signals. By this time sun was setting immediately behind us from enemy position, and while it remained above horizon we had advantage in light, but range too great. 6.55 p.m., sunset and visibility conditions altered, our ships being silhouetted against afterglow, and failing light made enemy difficult to see. 7.3 p.m., enemy opened fire 12,000 yards, followed in quick succession by Good Hope, Monmouth, Glasgow. Two squadrons were now converging, and each ship engaged opposite number in the line. Growing darkness and heavy spray of head sea made firing difficult, particularly from main deck guns of Good Hope and Monmouth. Enemy firing salvos got range quickly, and their third salvo caused fire to break out on fore part of both ships, which were constantly on fire till 7.45 p.m. 7.50 p.m., immense explosion occurred in Good Hope amidships, flames reaching 200 ft. high. Total destruction must have followed. It was now quite dark. Both sides continued firing at flashes of opposing guns. Monmouth was badly down by the bow and turned away to get stern to sea, signalling to Glasgow to that effect.

8.30 p.m., Glasgow signalled to Monmouth: "Enemy following us," but received no reply. Under rising moon enemy's ships were now seen approaching, and as Glasgow could render Monmouth no assistance she proceeded at full speed to avoid destruction. 8.50 p.m., lost sight of enemy. 9.20 p.m., observed seventy-five flashes of fire, which was, no doubt, final attack on Monmouth.

Nothing could have been more admirable than conduct of officers and men throughout. Though it was most trying to receive great volume of fire without chance of returning it adequately, all kept perfectly cool: there was no wild firing, and discipline was the same as at battle practice. When target ceased to be visible, gunlayers spontaneously ceased fire. The serious reverse sustained has entirely failed to impair the spirit of officers and ship's company, and it is our unanimous wish to meet the enemy again as soon as possible.

OPERATIONS ROUND ANTWERP.

The following despatch to the Secretary of the Admiralty from Field-Marshal Sir John French covered a despatch from Major-General A. Paris:—

In forwarding this report to the Army Council at the request of the Lords Commissioners of the Admiralty, I have to state that, from a comprehensive

review of all the circumstances, the force of Marines and Naval Brigades which assisted in the defence of Antwerp was handled by General Paris with great skill and boldness. Although the results did not include the actual saving of the fortress, the action of the force under General Paris certainly delayed the enemy for a considerable time, and assisted the Belgian Army to be withdrawn in a condition to enable it to reorganise and refit and regain its value as a fighting force. The destruction of war material and ammunition—which, but for the intervention of this force, would have proved of great value to the enemy—was thus able to be carried out. The assistance which the Belgian Army has rendered throughout the subsequent course of the operations on the canal and the Yser River has been a valuable asset to the Allied cause, and such help must be regarded as an outcome of the intervention of General Paris's force. I am further of opinion that the moral effect produced on the minds of the Belgian Army by this necessarily desperate attempt to bring them succour before it was too late has been of great value to their use and efficiency as a fighting force.

J. D. P. FRENCH,

Field-Marshal, Commanding-in-Chief.

From Major-General A. Paris, C.B., Commanding Royal Naval Division, to the Secretary of the Admiralty :—

October 31, 1914.

Regarding the operations round Antwerp from October 3rd to 9th I have the honour to report as follows :—

The Brigade (2200 all ranks) reached Antwerp during the night of October 3rd–4th, and early on the 4th occupied, with the 7th Belgian Regiment, the trenches facing Lierre, with advanced post on the River Nethe, relieving some exhausted Belgian troops. The outer forts on this front had already fallen, and bombardment of the trenches was in progress. This increased in violence during the night and early morning of October 5th, when the advanced posts were driven in and the enemy effected a crossing of the river, which was not under fire from the trenches. About mid-day the 7th Belgian Regiment was forced to retire, thus exposing my right flank. A vigorous counter-attack, gallantly led by Colonel Tierchon, 2nd Chasseurs, assisted by our aeroplanes, restored the position late in the afternoon. Unfortunately, an attempt made by the Belgian troops during the night (October 5th–6th) to drive the enemy across the river failed, and resulted in the evacuation of practically the whole of the Belgian trenches. The few troops now capable of another counter-attack were unable to make any impression, and the position of the Marine Brigade became untenable. The bombardment, too, was very violent, but the retirement of the Brigade was well carried out, and soon after midday (October 6th) an intermediate position, which had been hastily prepared, was occupied.

The two Naval Brigades reached Antwerp during the night October 5th–6th. The 1st Brigade moved out in the afternoon of 5th to assist the withdrawal to the main second line of defence. The retirement was carried out during the night October 6th–7th without opposition, and the Naval Division occupied the intervals between the forts on the second line of defence. The bombardment of the town, forts, and trenches began at midnight, October 7th–8th, and continued with increasing intensity until the evacuation of the fortress. As the water supply had been cut, no attempt could be made to subdue the flames, and soon one hundred houses were burning. Fortunately, there was no wind, or the whole town and bridges must have been destroyed. During the day (October 8th) it appeared evident that the Belgian Army could not hold the forts any longer. About 5.30 p.m. I considered that if the Naval Division was to avoid disaster an immediate retirement under cover of darkness was necessary. General De Guise, the Belgian Commander, was in complete agreement. He was most chivalrous and gallant, insisting on giving orders that the roads and bridges were to be cleared for the passage of the British troops.

The retirement began about 7.30 p.m., and was carried out under very difficult conditions. The enemy were reported in force (a division plus a reserve brigade) on our immediate line of retreat, rendering necessary a detour of fifteen miles to the north. All the roads were crowded with Belgian troops, refugees, herds of cattle, and all kinds of vehicles, making inter-communication a practical impossibility. Partly for these reasons, partly on account of fatigue, and partly from at present unexplained causes, large numbers of the 1st Naval Brigade became detached, and, I regret to say, are either prisoners or interned in Holland. Marching all night (October 8th to 9th), one battalion of 1st Brigade, the 2nd Brigade, and Royal Marine Brigade, less one battalion,

entrained at St. Gilles Waes and effected their retreat without further incident. The battalion (Royal Marine Brigade) rearguard of the whole force also entrained late in the afternoon, together with many hundreds of refugees, but at Morbeke the line was cut, the engine derailed, and the enemy opened fire. There was considerable confusion. It was dark, and the agitation of the refugees made it difficult to pass any orders. However, the battalion behaved admirably, and succeeded in fighting its way through, but with a loss in missing of more than half its number. They then marched another ten miles to Selzaete and entrained there. Colonel Seely and Colonel Bridges were not part of my command, but they rendered most skilful and helpful services during the evacuation.

The casualties are approximately :—

1st Naval Brigade and 2nd Naval Brigade, 5 killed, 64 wounded, 2040 missing

Royal Marine Brigade, 23 killed, 103 wounded, 388 missing.

A. PARIS, Major-General.

BATTLE OF THE DOGGER BANK.

A despatch from Vice-Admiral Sir David Beatty reporting the victory in the North Sea in January, when the German battle-cruiser *Blücher* was sunk, was issued on March 3rd, in the *London Gazette* :

H.M.S. PRINCESS ROYAL, 2nd February, 1915.

I have the honour to report that at daybreak on the 24th January, 1915, the following vessels were patrolling in company :—*Lion*, Captain Alfred E. M. Chatfield, C.V.O., flying my flag; *Princess Royal*, Captain Osmond de B. Broek; *Tiger*, Captain Henry B. Pelly, M.V.O.; *New Zealand*, Captain Lionel Halsey, C.M.G., Aide-de-Camp, flying the flag of Rear-Admiral Sir Archibald Moore, K.C.B., C.V.O.; and *Indomitable*, Captain Francis W. Kennedy.

The light cruisers *Southampton*, flying the broad pennant of Commodore William E. Goodenough, M.V.O.; *Nottingham*, Captain Charles B. Miller; *Birmingham*, Captain Arthur A. M. Duff; and *Lowestoft*, Captain Theobald W. B. Kennedy, were disposed on my port beam.

Commodore (T) Reginald Y. Tyrwhitt, C.B., in *Arethusa*; *Aurora*, Captain Wilnot S. Nicholson; *Undaunted*, Captain Francis G. St. John, M.V.O.; *Arethusa* and the Destroyer Flotillas were ahead.

At 7.25 a.m. the flash of guns was observed S.S.E. Shortly afterwards a report reached me from *Aurora* that she was engaged with enemy's ships. I immediately altered course to S.S.E., increased to 22 knots, and ordered the light cruisers and flotillas to chase S.S.E. to get in touch and report movements of enemy.

This order was acted upon with great promptitude; indeed, my wishes had already been forestalled by the respective senior officers, and reports almost immediately followed from *Southampton*, *Arethusa*, and *Aurora* as to the position and composition of the enemy, which consisted of three battle-cruisers and *Blücher*, six light cruisers, and a number of destroyers, steering N.W. The enemy had altered course to S.E. From now onwards the light cruisers maintained touch with the enemy, and kept me fully informed as to their movements.

The battle-cruisers worked up to full speed, steering to the southward. The wind at the time was N.E., light, with extreme visibility. At 7.30 a.m. the enemy were sighted on the port bow steaming fast, steering approximately S.E., distant fourteen miles.

Owing to the prompt reports received we had attained our position on the quarter of the enemy, and so altered course to S.E. parallel to them, and settled down to a long stern chase, gradually increasing our speed until we reached 28.5 knots. Great credit is due to the engineer staffs of *New Zealand* and *Indomitable*—these ships greatly exceeded their normal speed.

At 8.52 a.m., as we had closed to within 20,000 yards of the rear ship, the battle-cruisers manoeuvred to keep on a line of bearing so that guns would bear, and *Lion* fired a single shot, which fell short. The enemy at this time were in single line ahead, with light cruisers ahead and a large number of destroyers on their starboard beam.

Single shots were fired at intervals to test the range, and at 9.9 a.m. the

Lion made her first hit on the *Blücher*, No. 4 in the line. The *Tiger* opened fire at 9.20 a.m. on the rear ship, the *Lion* shifted to No. 3 in the line, at 18,000 yards, this ship being hit by several salvos. The enemy returned our fire at 9.14 a.m. *Princess Royal*, on coming into range, opened fire on *Blücher*, the range of the leading ship being 17,500 yards, at 9.35 a.m. *New Zealand* was within range of *Blücher*, which had dropped somewhat astern, and opened fire on her. *Princess Royal* shifted to the third ship in the line, inflicting considerable damage on her.

Our flotilla cruisers and destroyers had gradually dropped from a position broad on our beam to our port quarter, so as not to foul our range with their smoke; but the enemy's destroyers threatening attack, the *Meteor* and *M* Division passed ahead of us, Captain the Hon. H. Meade, D.S.O., handling this division with conspicuous ability.

About 9.45 a.m. the situation was as follows:—*Blücher*, the fourth in their line, already showed signs of having suffered severely from gun-fire; their leading ship and No. 3 were also on fire. *Lion* was engaging No. 1. *Princess Royal* No. 3. *New Zealand* No. 4, while the *Tiger*, who was second in our line, fired first at their No. 1, and, when interfered with by smoke, at their No. 4.

The enemy's destroyers emitted vast columns of smoke to screen their battle-cruisers, and, under cover of this, the latter now appeared to have altered course to the northward to increase their distance, and certainly the rear ships hauled out on the port quarter of their leader, thereby increasing their distance from our line. The battle-cruisers, therefore, were ordered to form a line of bearing N.N.W., and proceed at their utmost speed.

Their destroyers then showed evident signs of an attempt to attack. *Lion* and *Tiger* opened fire on them, and caused them to retire and resume their original course.

The light cruisers maintained an excellent position on the port quarter of the enemy's line, enabling them to observe and keep touch, or attack any vessel that might fall out of the line.

At 10.48 a.m. the *Blücher*, which had dropped considerably astern of enemy's line, hauled out to port, steering north with a heavy list, on fire, and apparently in a defeated condition. I consequently ordered *Indomitable* to attack enemy breaking northward.

At 10.4 a.m. submarines were reported on the starboard bow, and I personally observed the wash of a periscope, two points on our starboard bow. I immediately turned to port.

At 11.3 a.m. an injury to the *Lion* being reported as incapable of immediate repair, I directed *Lion* to shape course N.W. At 11.20 a.m. I called the *Attack* alongside, shifting my flag to her at about 11.35 a.m. I proceeded at utmost speed to rejoin the squadron, and met them at noon retiring N.N.W.

I boarded and hoisted my flag in *Princess Royal* at about 12.20 p.m., when Captain Brock acquainted me of what had occurred since the *Lion* fell out of the line—namely, that *Blücher* had been sunk and that the enemy battle-cruisers had continued their course to the eastward in a considerably damaged condition. He also informed me that a *Zeppelin* and a seaplane had endeavoured to drop bombs on the vessels which went to the rescue of the survivors of *Blücher*.

The good seamanship of Lieutenant-Commander Cyril Callaghan, His Majesty's ship *Attack*, in placing his vessel alongside the *Lion*, and subsequently the *Princess Royal*, enabled the transfer of flag to be made in the shortest possible time.

At 2 p.m. I closed *Lion*, and received a report that her starboard engine was giving trouble owing to priming, and at 3.38 p.m. I ordered *Indomitable* to take her in tow, which was accomplished by 5 p.m.

The greatest credit is due to the captains of *Indomitable* and *Lion* for the seamanlike manner in which the *Lion* was taken in tow under difficult circumstances. The excellent steaming of the ships engaged in the operation was a conspicuous feature.

I attach an appendix giving the names of various officers and men who specially distinguished themselves.

Where all did well it is difficult to single out officers and men for special mention, and as *Lion* and *Tiger* were the only ships hit by the enemy, the majority of these I mention belong to those ships.

DAVID BEATTY, Vice-Admiral.

[Sir David Beatty "mentioned" twelve officers and thirty-one petty officers and men; and a long list was also published of honours conferred by the King in connection with the Admiral's recommendations.]

FALKLAND ISLANDS.

The following despatch was received from Vice-Admiral Sir F. C. Doveton Sturdee, reporting the action off the Falkland Islands, Tuesday, December 8, 1914 :—

INVINCIBLE at Sea, 19th December, 1914.

I have the honour to forward a report on the action which took place on 8th December, 1914, against a German squadron off the Falkland Islands.

F. C. D. STURDEE, Vice-Admiral, Commander-in-Chief.

(a) PRELIMINARY MOVEMENTS.

The squadron, consisting of H.M. ships—Invincible, flying my flag, Flag Captain Percy T. H. Beamish; Inflexible, Captain Richard F. Phillimore; Carnarvon, flying the flag of Rear-Admiral Archibald P. Stoddart, Flag Captain Harry L. d'E. Skipwith; Cornwall, Captain W. M. Ellerton; Kent, Captain John D. Allen; Glasgow, Captain John Luce; Bristol, Captain Basil H. Fanshawe; and Macedonia, Captain Bertram S. Evans; arrived at Port Stanley, Falkland Islands, at 10.30 a.m. on Monday, December 7, 1914. Coaling was commenced at once in order that the ships should be ready to resume the search for the enemy's squadron the next evening, December 8th :—

At 8 a.m. on Tuesday, December 8th, a signal was received from the signal station on shore :—

A four-funnel and two-funnel man-of-war in sight from Sapper Hill, steering northwards.

At this time the positions of the various ships of the squadron were as follows :—Macedonia, at anchor as look-out ship; Kent (guard ship), at anchor in Port William; Invincible and Inflexible, in Port William; Carnarvon, in Port William; Cornwall, in Port William; Glasgow, in Port Stanley; Bristol, in Port Stanley.

The Kent was at once ordered to weigh, and a general signal was made to raise steam for full speed.

At 8.20 a.m. the signal station reported another column of smoke in sight to the southward, and at 8.45 a.m. the Kent passed down the harbour and took up a station at the entrance.

The Canopus, Captain Heathcoat S. Grant, reported at 8.47 a.m. that the first two ships were eight miles off, and that the smoke reported at 8.20 a.m. appeared to be the smoke of two ships about twenty miles off. At 8.50 a.m. the signal station reported a further column of smoke in sight to the southward. The Macedonia was ordered to weigh anchor on the inner side of the other ships, and await orders.

At 9.20 a.m. the two leading ships of the enemy (Gneisenau and Nürnberg), with guns trained on the wireless station, came within range of the Canopus, who opened fire at them across the low land at a range of 11,000 yards. The enemy at once hoisted their colours and turned away. At this time the masts and smoke of the enemy were visible from the upper bridge of the Invincible at a range of approximately 17,000 yards across the low land to the south of Port William.

A few minutes later the two cruisers altered course to port, as though to close the Kent at the entrance to the harbour, but about this time it seems that the Invincible and Inflexible were seen over the land, as the enemy at once altered course and increased speed to join their consorts. The Glasgow weighed and proceeded at 9.40 a.m. with orders to join the Kent and observe the enemy's movements.

At 9.45 a.m. the squadron—less the Bristol—weighed, and proceeded out of harbour in the following order :—Carnarvon, Inflexible, Invincible, and Cornwall. On passing Cape Pembroke Light the five ships of the enemy appeared clearly in sight to the south-east, hull down. The visibility was at its maximum, the sea was calm, with a bright sun, a clear sky, and a light breeze from the north-west.

At 10.20 a.m. the signal for a general chase was made. The battle-cruisers quickly passed ahead of the Carnarvon and overtook the Kent. The Glasgow was ordered to keep two miles from the Invincible, and the Inflexible was stationed on the starboard quarter of the flagship. Speed was eased to 20 knots at 11.15 a.m. to enable the other cruisers to get into station.

At this time the enemy's funnels and bridges showed just above the horizon.

Information was received from the Bristol at 11.27 a.m. that three enemy ships had appeared off Port Pleasant, probably colliers or transports. The Bristol was therefore directed to take the Macedonia under his orders and destroy transports.

The enemy were still maintaining their distance, and I decided, at 12.20 p.m., to attack with the two battle-cruisers and the Glasgow.

At 12.47 p.m. the signal to "open fire and engage the enemy" was made.

The Inflexible opened fire at 12.55 p.m. from her fore turret at the right-hand ship of the enemy, a light cruiser; a few minutes later the Invincible opened fire at the same ship.

The deliberate fire from a range of 16,500 to 15,000 yards at the right-hand light cruiser, who was dropping astern, became too threatening, and when a shell fell close alongside her at 1.20 p.m. she (the Leipzig) turned away, with the Nürnberg and Dresden to the south-west. These light cruisers were at once followed by the Kent, Glasgow, and Cornwall, in accordance with my instructions.

The action finally developed into three separate encounters, besides the subsidiary one dealing with the threatened landing.

(b) ACTION WITH THE ARMoured CRUISERS.

The fire of the battle-cruisers was directed on the Scharnhorst and Gneisenau. The effect of this was quickly seen, when at 1.25 p.m., with the Scharnhorst leading, they turned about seven points to port in succession into line ahead, and opened fire at 1.30 p.m. Shortly afterwards speed was eased to 24 knots, and the battle-cruisers were ordered to turn together, bringing them into line ahead, with the Invincible leading.

The range was about 13,500 yards at the final turn, and increased until at 2 p.m. it had reached 16,450 yards.

The enemy then (2.10 p.m.) turned away about ten points to starboard, and a second chase ensued, until at 2.45 p.m. the battle-cruisers again opened fire; this caused the enemy at 2.53 p.m. to turn into line ahead to port and open fire at 2.55 p.m.

The Scharnhorst caught fire forward, but not seriously, and her fire slackened perceptibly; the Gneisenau was badly hit by the Inflexible.

At 3.30 p.m. the Scharnhorst led round about ten points to starboard; just previously her fire had slackened perceptibly, and one shell had shot away her third funnel; some guns were not firing, and it would appear that the turn was dictated by a desire to bring her starboard guns into action. The effect of the fire on the Scharnhorst became more and more apparent in consequence of smoke from fires, and also escaping steam; at times a shell would cause a large hole to appear in her side, through which could be seen a dull red glow of flame. At 4.4 p.m. the Scharnhorst, whose flag remained flying to the last, suddenly listed heavily to port, and within a minute it became clear that she was a doomed ship; for the list increased very rapidly until she lay on her beam ends, and at 4.17 p.m. she disappeared.

The Gneisenau passed on the far side of her late flagship, and continued a determined but ineffectual effort to fight the two battle-cruisers. At 5.8 p.m. the forward funnel was knocked over and remained resting against the second funnel. She was evidently in serious straits, and her fire slackened very much. At 5.15 p.m. one of the Gneisenau's shells struck the Invincible; this was her last effective effort. At 5.30 p.m. she turned towards the flagship with a heavy list to starboard, and appeared stopped, with steam pouring from her escape pipes and smoke from shell and fires rising everywhere. About this time I ordered the signal "Cease fire," but before it was hoisted the Gneisenau opened fire again, and continued to fire from time to time with a single gun.

At 5.40 p.m. the three ships closed in on the Gneisenau, and at this time the flag flying at her fore truck was apparently hauled down, but the flag at the peak continued flying. At 5.50 p.m. "Cease fire" was made. At 6 p.m. the Gneisenau heeled over very suddenly, showing the men gathered on her decks and then walking on her side as she lay for a minute on her beam ends before sinking.

The prisoners of war from the Gneisenau report that, by the time the ammunition was expended, some 600 men had been killed and wounded. The surviving officers and men were all ordered on deck and told to provide themselves with hammocks and any articles that could support them in the water.

When the ship capsized and sank there were probably some 200 unwounded survivors in the water, but owing to the shock of the cold water, many were drowned within sight of the boats and ship.

Every effort was made to save life as quickly as possible, both by boats and

from the ships ; lifebuoys were thrown and ropes lowered, but only a proportion could be rescued. The *Invincible* alone rescued 108 men, fourteen of whom were found to be dead after being brought on board ; these men were buried at sea the following day with full military honours.

(c) ACTION WITH THE LIGHT CRUISERS.

At about 1 p.m., when the *Scharnhorst* and *Gneisenau* turned to port to engage the *Invincible* and *Inflexible*, the enemy's light cruisers turned to starboard to escape ; the *Dresden* was leading, and the *Nürnberg* and *Leipzig* followed on each quarter.

In accordance with my instructions, the *Glasgow*, *Kent*, and *Cornwall* at once went in chase of these ships ; the *Carnarvon*, whose speed was insufficient to overtake them, closed the battle-cruisers. The *Glasgow* drew well ahead of the *Cornwall* and *Kent*, and, at 3 p.m., shots were exchanged with the *Leipzig* at 12,000 yards. The *Glasgow's* object was to endeavour to outrange the *Leipzig* with her 6-in. guns, and thus cause her to alter course and give the *Cornwall* and *Kent* a chance of coming into action.

At 4.17 p.m. the *Cornwall* opened fire also on the *Leipzig*. At 7.17 p.m. the *Leipzig* was on fire fore and aft, and the *Cornwall* and *Glasgow* ceased fire. The *Leipzig* turned over on her port side and disappeared at 9 p.m. Seven officers and eleven men were saved.

At 3.36 p.m. the *Cornwall* ordered the *Kent* to engage the *Nürnberg*, the nearest cruiser to her. Owing to the excellent and strenuous efforts of the engine-room department, the *Kent* was able to get within range of the *Nürnberg* at 5 p.m. At 6.35 p.m. the *Nürnberg* was on fire forward and ceased firing. The *Kent* also ceased firing, and closed to 3300 yards ; as the colours were still observed to be flying in the *Nürnberg*, the *Kent* opened fire again. Fire was finally stopped five minutes later on the colours being hauled down, and every preparation was made to save life. The *Nürnberg* sank at 7.27 p.m., and, as she sank, a group of men were waving a German ensign attached to a staff. Twelve men were rescued, but only seven survived. The *Kent* had four killed and twelve wounded, mostly caused by one shell.

During the time the three cruisers were engaged with the *Nürnberg* and *Leipzig*, the *Dresden*, who was beyond her consorts, effected her escape owing to her superior speed. The *Glasgow* was the only cruiser with sufficient speed to have had any chance of success. However, she was fully employed in engaging the *Leipzig* for over an hour before either the *Cornwall* or *Kent* could come up and get within range. During this time the *Dresden* was able to increase her distance and get out of sight.

The weather changed after 4 p.m., and the visibility was much reduced ; further, the sky was overcast and cloudy, thus assisting the *Dresden* to get away unobserved.

(d) ACTION WITH THE ENEMY'S TRANSPORTS.

A report was received at 11.27 a.m. from His Majesty's ship *Bristol* that three ships of the enemy, probably transports or colliers, had appeared off Port Pleasant. The *Bristol* was ordered to take the *Macedonia* under his orders and destroy the transports. His Majesty's ship *Macedonia* reports that only two ships, steamships *Baden* and *Santa Isabel*, were present ; both ships were sunk after the removal of the crew.

I have pleasure in reporting that the officers and men under my orders carried out their duties with admirable efficiency and coolness, and great credit is due to the engineer officers of all the ships, several of which exceeded their normal full speed.

F. C. D. STURDEE.

THE EMDEN.

A supplement to the *London Gazette*, December 31st, contained the following despatch from Captain John C. T. Glossop, reporting the capture of the German cruiser *Emden* by the Australian ship *Sydney* :—

H.M.A.S. SYDNEY, at Colombo,
November 15, 1914.

I have the honour to report that whilst on escort duty with the convoy under the charge of Captain Silver, His Majesty's Australian ship *Melbourne*,

at 6.30 a.m., on Monday, November 9th, a wireless message from Cocos was heard reporting that a foreign warship was off the entrance. I was ordered to raise steam for full speed at 7 a.m., and proceeded thither. I worked up to 20 knots, and at 9.15 a.m. sighted land ahead and almost immediately the smoke of a ship, which proved to be his Imperial German Majesty's ship Emden, coming out towards me at a great rate. At 9.40 a.m. fire was opened, she firing the first shot. I kept my distance as much as possible to obtain the advantage of my guns. Her fire was very accurate and rapid to begin with, but seemed to slacken very quickly, all casualties occurring in this ship almost immediately.

First, the foremost funnel of her went; secondly the foremast, and she was badly on fire aft; then the second funnel went, and lastly the third funnel, and I saw that she was making for the beach on North Keeling Island, where she grounded at 11.20 a.m. I gave her two more broadsides, and left her, to pursue a merchant ship which had come up during the action.

Although I had guns on this merchant ship at odd times during the action, I had not fired, and as she was making off fast, I pursued and overtook her at 12.10, firing a gun across her bows, and hoisting International Code Signal to stop, which she did.

I sent an armed boat, and found her to be the steamship Buresk, a captured British collier, with eighteen Chinese crew, one English steward, one Norwegian cook, and a German prize crew of three officers, one warrant officer, and twelve men. The ship unfortunately was sinking, the Kingston knocked out and damaged to prevent repairing, so I took all on board, fired four shells into her, and returned to Emden, passing men swimming in the water, for whom I left two boats I was towing from Buresk.

On arriving again off the Emden she still had her colours up at mainmast head. I inquired by signal, International Code, "Will you surrender?" and received a reply in Morse, "What signal? No signal books." I then made in Morse, "Do you surrender?" and subsequently, "Have you received my signal?" to neither of which did I get an answer.

The German officers on board gave me to understand that the captain would never surrender, and therefore, though very reluctantly, I again fired at her at 4.30 p.m., ceasing at 4.35, as she showed white flags and hauled down her ensign by sending a man aloft.

I then left the Emden and returned and picked up the Buresk's two boats, rescuing two sailors (5 p.m.), who had been in the water all day. I returned and sent in one boat to the Emden, manned by her own prize crew from the Buresk, and one officer, and stating I would return to their assistance next morning.

This I had to do, as I was desirous to find out the condition of cables and wireless station at Direction Island. On the passage over I was again delayed by rescuing another sailor (6.30 p.m.), and by the time I was again ready and approaching Direction Island it was too late for the night.

I lay on and off all night, and communicated with Direction Island at 8 a.m., November 10th, to find that the Emden's party, consisting of three officers and forty men, one launch and two cutters, had seized and provisioned a 70-ton schooner (the Ayesha), having four maxims, with two belts to each. They left the previous night at 6 o'clock.

The wireless station was entirely destroyed, one cable cut, one damaged, and one intact. I borrowed a doctor and two assistants, and proceeded as fast as possible to the Emden's assistance.

I sent an officer on board to see the captain, and in view of the large number of prisoners and wounded, and lack of accommodation, etc., in this ship, and the absolute impossibility of leaving them where they were, he agreed that if I received his officers and men and all wounded, "then as for such time as they remained in the Sydney they would cause no interference with ship or fittings, and would be amenable to the ship's discipline."

I therefore set to work at once to tranship them—a most difficult operation, the ship being on weather side of island, and the seas alongside very heavy. The conditions on board the Emden were indescribable. I received the last from her at 5 p.m., then had to go round to the lee side to pick up twenty more men who had managed to get ashore from the ship.

Darkness came on before this could be accomplished, and the ship again stood off and on all night, resuming operations at 5 a.m. on November 11th. a cutter's crew having to land with stretchers to bring the wounded round to embarking point. A German officer, a doctor, died ashore the previous day. The ship in the meantime ran over to Direction Island, to return their doctor and assistants, send cables, and was back again at 10 a.m., embarked the

remainder of wounded, and proceeded for Colombo by 10.35 a.m. Wednesday, November 11th.

Total casualties in the Sydney : Killed, 3 ; severely wounded (since dead), 1 ; severely wounded, 4 ; wounded, 4 ; slightly wounded, 4. In the Emden, I can only approximately state the killed at 7 officers and 108 men, from captain's statement. I had on board 11 officers, 9 warrant officers, and 191 men ; of whom, 3 officers and 53 men were wounded, and of this number 1 officer and 3 men have since died of wounds.

The damage to the Sydney's hull and fittings was surprisingly small ; in all about ten hits seem to have been made. The engine and boiler rooms and funnels escaped entirely.

I have great pleasure in stating that the behaviour of the ship's company was excellent in every way, and with such a large proportion of young hands and people under training, it is all the more gratifying. The engines worked magnificently, and higher results than trials were obtained, and I cannot speak too highly of the medical staff and arrangements on subsequent trip, the ship being nothing but a hospital of a most painful description.

JOHN C. T. GLOSSOP, Captain.

COAST PATROL ACTION.

The following despatch was received from Rear-Admiral the Hon. Horace L. A. Hood, reporting the proceedings of the flotilla off the coast of Belgium between October 17 and November 9, 1914 :—

Office of Rear Admiral, Dover Patrol,
November 11, 1914.

I have the honour to report the proceedings of the flotilla acting off the coast of Belgium, between October 17th and November 9th.

The flotilla was organised to prevent the movement of large bodies of German troops along the coast roads from Ostend to Nieuport, to support the left flank of the Belgian Army, and to prevent any movement by sea of the enemy's troops.

Operations commenced during the night of October 17th, when the Attentive, flying my flag, accompanied by the monitors Severn, Humber, and Mersey, the light cruiser Foresight, and several torpedo-boat destroyers, arrived and anchored off Nieuport Pier.

Early on the morning of October 18th, information was received that German infantry were advancing on Westende village, and that a battery was in action at Westende Bains. The flotilla at once proceeded up past Westende and Middlekirke to draw the fire and endeavour to silence the guns.

A brisk shrapnel fire was opened from the shore, which was immediately replied to, and this commenced the naval operations on the coast, which continued for more than three weeks without intermission.

During the first week the enemy's troops were endeavouring to push forward along the coast roads, and a large accumulation of transport existed within reach of the naval guns.

On October 18th, machine-guns from the Severn were landed at Nieuport, to assist in the defence, and Lieutenant E. S. Wise fell, gallantly leading his men.

The Amazon, flying my flag, was badly holed on the waterline, and was sent to England for repairs, and during these early days most of the vessels suffered casualties, chiefly from shrapnel shell from the field guns of the enemy.

The presence of the ships on the coast soon caused alterations in the enemy's plans, less and less of their troops were seen, while more and more heavy guns were gradually mounted among the sand dunes that fringe the coast.

It soon became evident that more and heavier guns were required in the flotilla. The Scouts therefore returned to England, while H.M.S. Venerable and several older cruisers, sloops and gunboats arrived to carry on the operations.

Five French torpedo-boat destroyers were placed under my orders by Admiral Favereau, and on October 30th I had the honour of hoisting my flag in the Intrépide, and leading the French flotilla into action off Lombartzyde. The greatest harmony and enthusiasm existed between the Allied flotillas.

As the heavier guns of the enemy came into play it was inevitable that the

casualties of the flotilla increased, the most important being the disablement of the 6-in. turret and several shots on the waterline of the *Mersey*, the death of the Commanding Officer and eight men, and the disablement of sixteen others in the *Falcon*, which vessel came under a heavy fire when guarding the *Venerable* against submarine attack; the *Wildfire* and *Vestal* were badly holed, and a number of casualties caused in the *Brilliant* and *Rinaldo*.

Enemy submarines were seen and torpedoes were fired, and during the latter part of the operations the work of the torpedo craft was chiefly confined to the protection of the larger ships.

It gradually became apparent that the rush of the enemy along the coast had been checked, that the operations were developing into a trench warfare, and that the work of the flotilla had, for the moment, ceased.

The arrival of Allied reinforcements and the inundation of the country surrounding Nieuport rendered the further presence of the ships unnecessary.

The work of the squadron was much facilitated by the efforts of Colonel Bridges, attached to the Belgian Headquarters, and to him, I am greatly indebted for his constant and unfailing support.

HORACE HOOD, Rear-Admiral, Dover Patrol.

[A number of officers were specially mentioned by the Rear-Admiral.]

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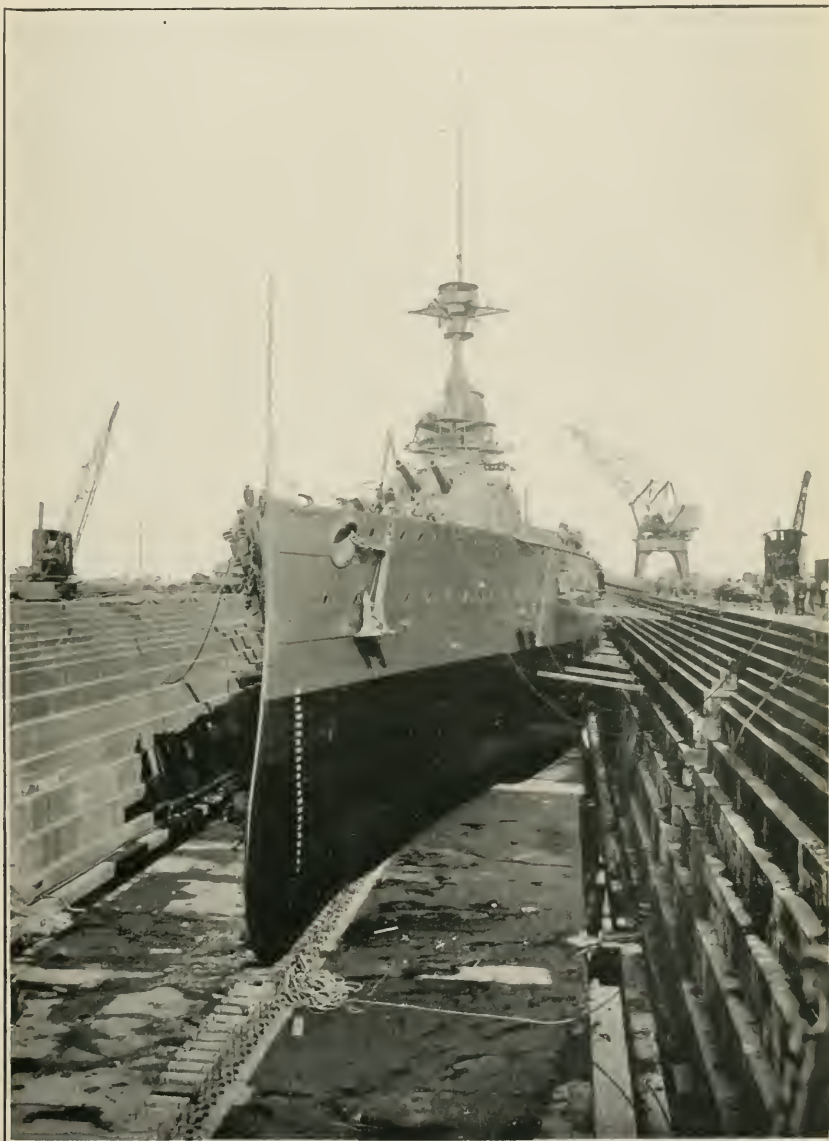
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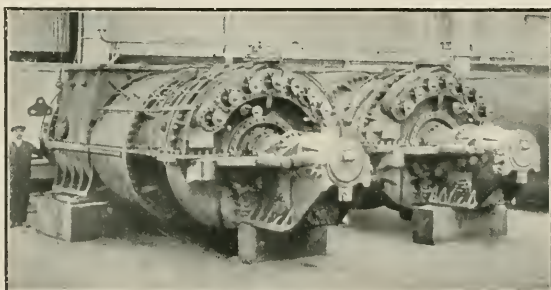
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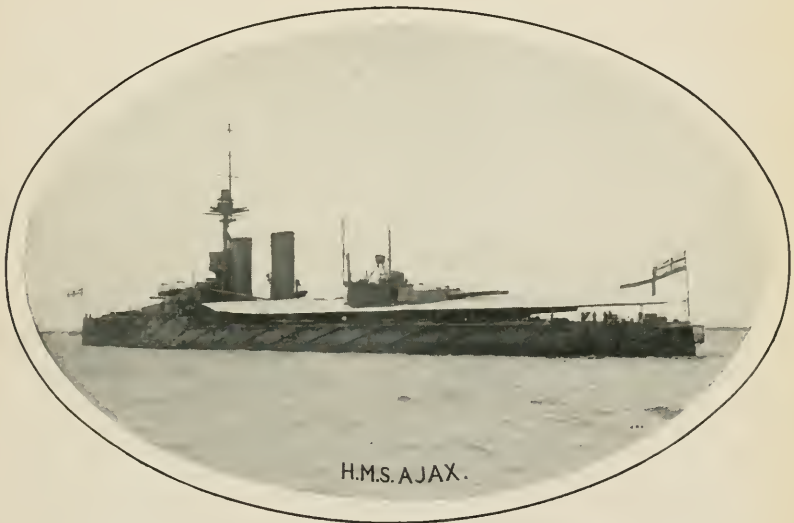
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