C 81 NAVY

THE NAVY VIGILANT

L.COPE CORNFORD





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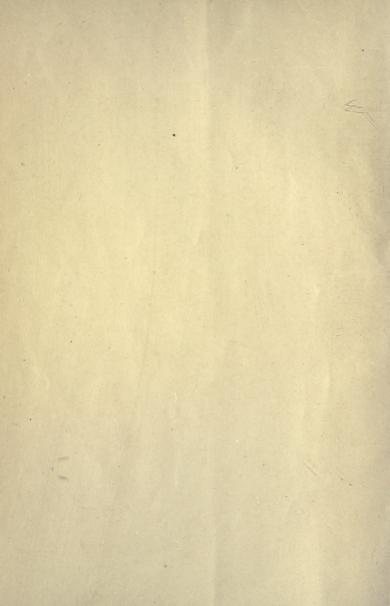
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ECHOES OF THE FLEET.

THE LORD HIGH ADMIRAL.

WITH THE GRAND FLEET. (WITH PREFACE BY ADMIRAL LORD BERESFORD.)

THE MERCHANT SEAMAN IN WAR. (WITH FOREWORD BY ADMIRAL LORD JELLICOE.)

THE BRITISH NAVY THE NAVY VIGILANT



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Model for the Nelson Column, Trafalgar Square.

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THE BRITISH NAVY THE NAVY VIGILANT

BY
L. COPE CORNFORD



MACMILLAN AND CO., LIMITED ST. MARTIN'S STREET, LONDON





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THE BOYS AND GIRLS OF THE BRITISH COMMONWEALTH

Long ago, in the year sixteen hundred and ninety-four, an English noble, Charles Montagu, Earl of Halifax, gave England a piece of advice in four words. He said: "Look to your Moate"; by which counsel he meant that England must win and must hold the mastery of the seas.

In this little book I have tried to give you a notion how that business is done, and why.

What you learn now you will remember when you come to full age, and when to you is committed the charge of your inheritance.

You must look to your moat and keep the mastery of the seas. But that mastery will not avail you if you do not first see to it that within the lands encompassed by the wide and narrow seas there springs the strength of self-dependence; which means the ability to grow your food, and the craft to make the things you

use, and the power to defend yourselves at need against attack.

These are the conditions by whose fulfilment alone you can enjoy and improve the estate for which your fathers and their fathers before them wrought like heroes and, dying, bequeathed to you. The task is hard, but it can be done, and you can do it.

L. C. C.

London, March, 1918.

The illustrations on pages 17, 19, 23, and 25 are from photographs by H. Symonds & Co., that on page 43 from a photograph by The London Electrotype Co., and that on page 187 from a photograph by Stephen Cribb.

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OFFICERS AND MEN

THE head of the Royal Navy is His Majesty the King, who is an Admiral in that Service. In the case of His present Majesty, King George V., the King was trained as a naval officer, and before he left active service he commanded his own ship. Every officer receives his commission from the King, and the ships of the Navy are His Majesty's ships. There was a time in English history when the ships of the Royal Navy were the King's private property. They are now the property of the nation, of which the King is the representative.

In order to understand how the Navy is made, let us first consider for what purpose it is made. It is made for fighting. It is a part, and the most important part, of the force of fighting men whose business it is to defend England and the Empire. The other part is the Army. In war the Navy and the Army are employed together, and each is necessary to the other. The difference between the Navy and the Army is that the Navy fights on the sea and the Army fights on the land.

In order to fight on the sea it is necessary to have ships. What is a ship? You all, no doubt, believe that you know what a ship is. But do you? Let us make quite sure. A ship is a machine made to carry people on the water. So much is clear. But many things follow from that simple fact which are not so easily seen. For instance, it is a difficult matter to sail a ship across the sea; so difficult, that a man takes years to learn how to do it perfectly. Men who learn how to handle ships are called sailors, as you know. But in the Navy it is a term they dislike. When they desire to express their dislike of a landsman who pretends to know something of the sea, they call him a sailor. They call themselves seamen. There is no title more honourable.

DISCIPLINE

Therefore a ship must be manned by professional seamen. A small sailing-boat can be handled by one man, who is captain, crew, pilot, navigator, helmsman, and cook all in one. But in a large ship all these duties, and many more, must be fulfilled by various persons. And these persons, all working on the sea, are always liable to meet storm and danger. If a body of men is to meet danger successfully, it must be led by one man, and the orders of that man must be instantly and exactly obeyed. For that reason you must have discipline on board ship. Each party of men doing a particular kind of work must be

commanded by one man, and all must be under the command of one head. And all must work for one object, which is the honour of the Service.

These rules apply to all seafaring. But in the Navy the seaman is not only a seaman but a fighting man. A ship in the Navy does not carry people and goods from place to place, like a ship in the merchant service. A ship in the Navy carries fighting men and their weapons wheresoever they are required.

ENGLAND AFLOAT

A ship in the Navy must be so prepared that it can be sent anywhere by itself, without help from the shore. Therefore it must be self-contained, that is, it must carry everything needed by the fighting men: their food, tobacco, and drink, their weapons, their clothes, their money. Their spiritual guidance, their education and medical attendance are provided. The house in which they live, which is the ship, must be supplied with fuel, its motive power. It must be lighted, and warmed, and kept in good repair.

So it is that a ship is like a floating town. It is best understood by thinking of it as a piece of England set afloat. It is a little working model of the best of England. And a Fleet is a collection of these pieces of England, of various sizes and uses, each of which is useful to the other, and all of which make a whole, like a nation. But whereas in a nation there are parties and quarrelling, in the Navy every one takes

his proper share in the work to be done by all. If he fails to do it, he is sent on shore, or, as it is called, put on the beach.

It is now, I hope, easy to see why in what is called the economy of the Navy, that is, the way in which it is arranged, there must be various Branches, or groups of men each doing a particular work.

· THE TWO BRANCHES

There are two main Branches in the Navy, as in the Army. These are: (1) the Executive, (2) the Administrative. The Executive consists of the sailing and fighting men. The Administrative consists of the men who supply the wants of the fighting men. Let us call the two Branches Fighting and Supply. In some respects the two Branches merge into each other, the Executive having certain duties connected with administration, and the Administrative having certain executive duties.

The Captain of the ship is in supreme command of the two Branches. He is responsible for his ship and for everything in her.

Each of the two main Branches is divided into various branches.

The Executive, or Fighting, Branch is divided into the Executive proper, which is composed of naval officers and naval seamen, and the Royal Marines, who are trained as soldiers on shore, and as seamen afloat.

There is another Branch which may be regarded

both as Executive and Administrative—the Engineers. We will include them in both Branches.

In describing the ranks and ratings of the Executive, or Fighting, Branch we will begin with the Captain.

THE EXECUTIVE OFFICERS

The Captain is responsible for his ship and for everything that exists or is done or happens in his ship. In a battleship he commands about 1000 officers and men, and so on down to a torpedo boat, in which he commands about 50 officers and men. He wears four stripes and a curl of gold braid.

The Commander is responsible to the Captain for the work and discipline of the ship. He wears three stripes and a curl of gold braid.

The Lieutenant-Commander is the next rank. He wears two and a half stripes and a curl of gold braid. In a ship the First Lieutenant ranks next below the Commander, and he is, as a rule, a Lieutenant-Commander.

Then comes the Lieutenant, who wears two stripes and a curl of gold braid. In a big ship there are several lieutenants, some of whom are specialists, and some of whom are watch-keepers.

The Gunnery Lieutenant is a specialist in gunnery, and he is responsible for the whole of the gunnery of the ship.

The Torpedo Lieutenant is a specialist in torpedoes, electricity, and wireless telegraphy.

The Navigating Lieutenant is responsible for the navigation of the ship. He finds her position, sets and keeps her course.

The Signals Officer is responsible for the signalling of the ship.

The Physical Training Lieutenant, or P.T. Officer, is responsible for the gymnastic training in the ship.

The Watch-keeping Lieutenant is officer of the watch, which means that he is responsible for the steering of the ship and for the upper deck generally during his watch of four hours. In a big ship there are at least four watch-keepers.

Next in order of rank comes the Sub-Lieutenant. He wears one stripe and a curl of gold braid. He is responsible for keeping order in the Gun-room, where the midshipmen live, and for various executive duties. He is fitting himself to become a full lieutenant.

The Midshipman is learning his duties as an officer and a seaman. He is responsible for a boat, of which he is put in command. Each of the ship's boats is placed in charge of a midshipman. Midshipmen are attached to various officers and are charged with various executive duties. They are also given instruction in school for certain hours daily.

The Mate is an old rank revived of recent years in order to enable men on the lower deck to gain commissioned rank. The Mate ranks below the Lieutenant.

On the lower deck, or in the ranks, as it is called in the Army, the highest rank is warrant officer. Then come the ratings of petty officer, leading seaman, able seaman, ordinary seaman, and boy.

The men may enter special Branches, such as gunnery, torpedo, and signals, in which they receive extra pay.

In the Royal Marines the ranks are military ranks. The officers of the Royal Marines discharge certain duties connected with the fighting of the ship, and the men share the work of the ship with the seamen, in addition to their duties as soldiers.

In the Engineer Branch the ranks are as in the Executive. The Engineer officer wears a distinguishing purple stripe between his gold stripes. The Engineer officers are responsible for the engine-room staff, which includes the skilled engineers, rated as Engine-room Artificers, and the stoker ratings.

The Engineer Branch as a whole is responsible for the motive power of the ship and of the guns, and for the machinery in general.

THE ADMINISTRATIVE OFFICERS

The Administrative, or Supply, Branch proper consists of the Paymasters' Branch, the Medical Branch, the Naval Instructors' Branch, and the Daymen (formerly called Idlers') Branch. The officers of the Supply Branch wear stripes of gold braid without the curl.

The Paymasters' Branch is responsible for keeping the accounts and for paying the men. The Paymaster wears a distinguishing white stripe between his gold stripes. The ranks are: Fleet Paymaster, Paymaster, and Assistant Paymaster. Under the officers are the Writers, who are employed on the accounts and clerical work generally. The secretaries of Captains and Admirals are drawn from the Paymasters' Branch.

The Medical Branch is responsible for the health of the ship's company. The doctor wears a distinguishing scarlet stripe between his gold stripes. The ranks are: Fleet Surgeon, Staff Surgeon, Assistant Surgeon. Under the officers are the Sick Bay Staff.

The Naval Instructors' Branch is responsible for the education of the midshipmen. The Naval Instructor wears a distinguishing light blue stripe between his gold stripes.

The Daymen are all those civilians, such as the band, the messmen, stewards, and so forth, who are borne on the ship's books for these services.

There remains the Religious Branch, represented in a big ship by the Chaplain, who is a clergyman of the Church of England. He wears the customary clerical dress. A Roman Catholic Chaplain is attached to a Fleet.

Thus the economy of the ship consists of the professional fighting seamen, the Royal Marines, the Engineers, and the various Administrative Branches, Paymaster, Medical, Naval Instructor, Daymen, and the Chaplain. In supreme command is the Captain.

SQUADRONS AND FLEETS

But a ship is a unit, complete in itself, of a group of such units. A small group of ships of various classes is called a Squadron. A group of Squadrons is called a Fleet. In command of a Squadron or of a Fleet is an Admiral. The ranks of Admirals are: Admiral of the Fleet, Admiral, Vice-Admiral, and Rear-Admiral.

An Admiral of the Fleet is a distinguished officer who is promoted in order to retain his services after he has reached the age at which he retires. There are three Admirals of the Fleet, and more can be appointed by special arrangement.

The Captain of a ship is responsible to the Admiral in command of the squadron or station.

The Admiral of a Squadron is responsible to the Admiral Commanding-in-Chief.

The Admiral Commanding-in-Chief is responsible to the Lords Commissioners of the Board of Admiralty. The Lords Commissioners of the Board of Admiralty are responsible to King and Parliament.

The Admiral commanding a Fleet is one of the most powerful men in the world. He holds the power of life and death over some 50,000 men. He wields the most powerful engine of war ever invented; an engine of war which is used to keep the peace. There are several ways of keeping the peace of the world. One is by possessing a weapon which is always ready

to strike, so that evil-disposed persons know what will happen to them. It would, of course, be possible to use a Fleet to provoke war. That is, or was, the purpose of the Imperial German Navy. But it is the pride of England and the glory of the English Admirals that they defend peace.

Lord Beresford put the whole matter in five words: Battleships are cheaper than battles.

THE ADMIRALS OF ENGLAND

An English Admiral is not only a seaman and a fighting man. He knows all countries, cities, and men. He knows the character of other nations, their fighting strength, and he understands their trade and commerce. He knows these things, because in his voyages he has seen them and studied them. The British Naval officer is the representative of Britain to all countries. For these reasons, an Admiral is very often what is called a diplomatist: that is, a person who understands how to look after the interests of his own country in relation to other countries.

THE NAVY AND THE NATION

England is usually called a maritime nation. But the fact is, it is two nations. One is maritime, and the other is landward and knows nothing of the sea or of seamen. The maritime part is naturally the coast. Forty or fifty miles inland, who thinks of the sea? Only those few families whose members are in the Navy or in the Mercantile Marine.

As for the Navy itself, it is out of sight. Therefore it is largely forgotten. All the officers and men whom I have described are exiles from England. Sometimes they never see England for two years or more at a time. They live and work far from England on floating pieces of England, for a King's ship is English territory. On them falls the greater part of the task of keeping England safe and supplied with the necessities of life.

But the officers and men of the Navy fulfil another duty. It is to maintain law and order on all the vast and wandering roads of the sea, and to give help to the distressed of all nations. Where there are earthquake, fire, famine, or tempest, robbery, oppression, or violence, there is the Royal Navy. Many and many a hapless soul has blessed the sight of the gleaming English men-of-war with the White Ensign flying high.

Very little of the doings of the Royal Navy appear in newspapers or magazines or books. In the histories of England the Navy is hardly mentioned, though the England we know, and what is called the Empire (though a better name is the British Commonwealth), were made by the ships of England.

THE LAW OF SERVICE

The Navy is called the Senior Service. When a boy enters the Navy he learns that he must, if neces-

sary, give his life for the Service. There is only one rule in the Service, which is duty.

In other occupations, boys learn that their chief aim is to get on, or to get money, or to do just as much work as will earn them their wages, and no more, so that they can take their pleasure when the work is over for the day. But there is no money to be made in the Navy. A man can only get on in the Navy by doing his duty, and his getting on consists in doing more work and harder work. In the Navy, a man serves not himself but others.

Service is the law in the Navy and in the Army. The only other institution governed by that law is the Church. And the Navy was originally arranged on the model of the Church. In mediaeval times the Captain of the ship was called the Rector. On the stern of the ship, called the poop, there was set up the shrine of a saint, to which every man who came on board did reverence. To-day, officers and men in the Navy, on coming on board, salute the quarter-deck, although there is no shrine there now.

England is by many persons supposed to be a free country. It is, at any rate, trying to be free. Freedom is service. There is no other freedom, because apart from service a man is a slave to himself, and himself is a hard master.

The Navy is the best example of service. It is a manly life: hard, dangerous, active, with open air and open sea, cheery and sociable. Every boy ought to be given the chance of joining the Navy or the Mercantile Marine. That is one reason why he should learn something of the Navy.

There are other reasons. In a free country, or in a country learning to be free, every citizen must take his share in governing it. The value of that share depends upon knowledge, which is acquired by education. No man or woman who does not understand something of the Navy is fit to take part in the government of a country which lives by the sea, and that knowledge must be gained when they are young, as part of their general education.

A people that chooses its rulers, and that is ignorant of what the sea means to England, will choose rulers who are ignorant like themselves, and both will fall into trouble.

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THE FIGHTING USES OF THE SHIPS

A SHIP is a work of art. In a ship, man walks upon the water. He has made a thing in which he defies the power of water to drown him or to keep him prisoned on an island. And he has made it a beautiful thing. In the Navy, a ship is terrible as well as beautiful, and although it is not alive, people think of it as alive, and to a seaman a ship has a character like a person.

When people think of the Navy they do not think of officers and men but of ships. It is the ship that very often attracts boys to go to sea. A ship fascinates from afar off. Sometimes the attraction wears away; sometimes it changes to dislike; most often the first charm changes to an interest which is lasting.

There are few creations of man more beautiful than a full-rigged ship, and when the sailing-vessel disappeared from the Navy, the world suffered a loss. It had its day and ceased to be. It is even ceasing to be a memory among living men, and its image remains only in pictures.

The ships of war with which we have to do are steel vessels driven by coal or oil. They have a beauty of their own, but it is a different beauty.

THE BATTLESHIP

Let us begin with the main fighting unit of the Fleet, the battleship. The battleship is so called because she is fit to lie in the line of battle. The line of battle means the formation in which the most powerful ships go into action. There are various kinds of line, but it is always a line, or an arrangement of ships in rows. The most powerful ships are called capital ships.

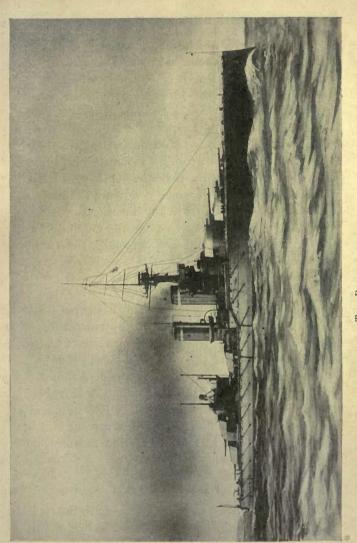
A capital ship must have three things: guns, armour, and speed. The guns are for striking a blow; the armour is to protect the ship against the enemy's blows; and speed gives what is called mobility, that is, the power of moving from place to place.

These three things are combined in various proportions. If you want more of one you must have less of the other. The reason is that you can only put a certain weight into a certain size of floating vessel. So that if you want a great many heavy guns you must have less armour, lighter engines, and less coal, and therefore less speed. If you want heavy armour, which makes a strong protection, you must have fewer heavy guns, lighter engines, and less coal, and therefore less speed. If you want high speed you must have fewer heavy guns, lighter armour and less protection, heavier engines, and more coal.

In designing a battleship the naval architect wants as many heavy guns, as strong armour, and as high speed as possible, and he must decide which of the three elements is the most important. The opinions of naval officers vary from time to time, but on the whole gun-power is regarded as most important. In that case some armour and some speed must be sacrificed. It has been argued that armour should be left out altogether, and the weight thereby saved given to more guns. And it has been argued that high speed is not important in a capital ship, so that a part of the weight of engines and coal should be given to more guns. These are matters to be decided by the naval officers whose business it is to fight the ship.

In the battleship of to-day many heavy guns are mounted, and these are combined with strong armour and high speed. The combination was achieved by great skill in design, improvements in machinery, and by increasing the size of the ship. If there were fewer heavy guns the armour could be made stronger and the speed higher. But guns are now so powerful that if armour were made thick enough to keep the ship unharmed, it would be necessary to reduce the number of her guns and greatly to reduce her speed. As a battle-ship is now designed, the armour gives a certain amount of protection, and she has a high degree of speed; but the chief place is given to guns.

A battleship is manned by about a thousand officers and men. We will take as an example of a battleship a ship completed before the Great War.



The Iron Duke, which was the flagship of Admiral Sir John (now Lord) Jellicoe when he commanded the Grand Fleet, has a length of 580 feet, a beam of 90 feet, and a draught of 28 feet. She has a belt of armour 12 inches thick. Her speed is 22 knots, which means that she can steam 22 sea miles in an hour. She mounts ten 13.5-inch and twelve 6-inch guns. The 13.5-inch guns are mounted in pairs, in barbettes, two guns to a barbette. A barbette is an armoured steel chamber which revolves on its axis, so that the guns can be fired in any direction.

A 13.5-inch gun throws a projectile weighing 1250 lbs. at a velocity of 2700 feet a second. Its effective range is 11 miles.

THE BATTLE-CRUISER

A battle-cruiser is a lighter and a swifter battleship. More speed has been obtained by increasing the length of the vessel, giving up a proportion of armour, and slightly reducing the number of guns.

The Lion, which was the flagship of Admiral Sir David Beatty at the Battle of Jutland (31st May, 1915), has a length of 660 feet, a beam of $88\frac{1}{2}$ feet, and a draught of 28 feet. She has a belt of armour 9 inches thick. Her speed is 28 knots. She mounts eight 13.5-inch and sixteen 4-inch guns.

THE LINE OF BATTLE

The battleship and the battle-cruiser are the capital ships fit to lie in the line of battle. The line of battle

THE BATTLE-CRUISER.

is an old term which comes from the time when two fleets, each attacking the other, formed in two long parallel lines. Such was the regular formation. In the old wars the French usually chose the leeward, so that if necessary they could save their ships by retreating. The English usually chose the weather side so that they could close upon the enemy at will. There was here no question of bravery or cowardice on either part. It was purely a question of tactics; a question, that is, of the best method of getting into close contact with the enemy. The idea of breaking the line of the enemy instead of passing along it was conceived before the time of Nelson, who put it into practice at the Battle of Trafalgar.

Once it was understood that the line of battle was not the only possible formation, the science of tactics developed. When the Navy changed from sails to steam, tactics, which were no longer dependent upon the direction of the wind, became more complicated. The practice of what is called steam tactics, or "P.Z." exercises, the art of manœuvring large bodies of ships in every formation, is habitually carried into execution in the Navy.

THE MAIN FLEET

For the convenience of administration and for tactical purposes a Fleet is divided into squadrons of six or eight or more vessels under the command of an Admiral.

The business of the Fleet of capital ships, or Main

Fleet, is to seek out and to destroy the Main Fleet of the enemy. As the existence of this country depends upon the free use of the sea, it is necessary that England should possess a Main Fleet superior to any combination of foreign fleets likely to be brought against her.

FLEET UNITS

But a Main Fleet is not complete in itself. A complete Fleet includes a number of other units and of auxiliary vessels. All these are designed to enable the Main Fleet to perform its duty of seeking out and destroying the fleet of the enemy.

It is first of all necessary to discover where the enemy is and what are his movements. For this purpose cruisers are required. These are swift vessels which scout ahead of the Battle Fleet. There are armoured cruisers and light cruisers.

THE ARMOURED CRUISER

An example of the armoured cruiser is the Defence, completed in 1907. She has a length of 490 feet, a beam of 74 feet, and a draught of 26 feet. She has a belt of armour 6 inches thick. Her speed is 23 knots. She mounts four 9.2-inch and ten 7.5-inch guns.

The armoured cruiser is used for scouting purposes, but she is heavier and more expensive than the work requires. She has a tactical use in battle. A small squadron of armoured cruisers may be used to concentrate an attack on the leading ship of the enemy, and

so throw his whole line into confusion. At one time it was supposed that the armoured cruiser would replace the light cruiser, but the idea was proved to be erroneous. It is probable that the armoured cruiser, which is now ranked between the battle-cruiser and the light cruiser, will be found unnecessary.

THE LIGHT CRUISER

An example of the light cruiser is the Arethusa, which was the flagship of Commodore (now Rear-Admiral) Reginald Y. Tyrwhitt in several engagements during the Great War.

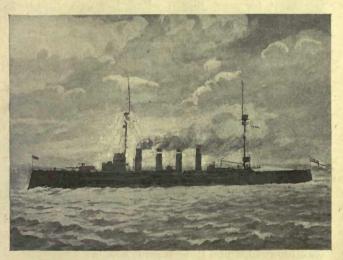
The Arethusa has a length of 410 feet, a beam of 39 feet, and a draught of 14 feet. She has a belt of armour 3 inches thick. Her speed is 30 knots. She mounts two 6-inch and six 4-inch guns. She carries four torpedo tubes.

THE USES OF CRUISERS

When the heavy cruisers and the light cruisers are used with the Battle Fleet, they are spread out in a wide fan, steaming some miles ahead of the Battle Fleet, in order to discover the position and movements of the enemy, which are signalled back by wireless to the Battle Fleet. At the same time the cruiser squadrons serve as a screen to protect the Battle Fleet against hostile torpedo-boat destroyers. No Battle Fleet can safely move without its screen of light cruisers, for the destroyer, by means of the long-range torpedo,

can attack a battleship at high speed and at a distance, even in daylight. The larger the Battle Fleet, the greater the number of light cruisers required, the proportion being five light cruisers to every three battleships.

The cruiser squadrons have many other uses. They



THE LIGHT CRUISER.

correspond to the frigate squadrons of Nelson's time, and neither then nor since have there been enough cruising craft in the Navy.

THE TRADE ROUTES

It is the duty of the cruisers to protect the trade routes against hostile cruisers and hostile submarines. For this purpose cruisers should be permanently stationed on all seas, in peace as in war, for if they are not on their stations in time of peace, when war breaks out there would be no time to send them to their positions. When the Great War broke out, Germany, for some reason which has never been explained, had omitted to send out her light cruisers beforehand. Had they been sent out they could have inflicted many millions of pounds' worth of damage and destruction before the British cruisers could have driven them off. As it was, the Emden, and the other German vessels of the German China squadron were able to cause immense loss among merchant shipping.

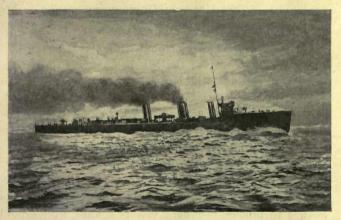
Cruisers are also used for what are called single-ship duties. They patrol every corner of the British sea frontiers, on all seas, and by reason of their light draught they can go into shallow harbours and up rivers. The light cruiser force is the Imperial Police Force: it is ready to carry help to distress, and to enforce law and order in every part of the King's dominions to which the sea gives access.

THE DESTROYER

The torpedo-boat destroyer, or (shortly) the destroyer, is the result of the invention of the torpedo. The torpedo is a steel vessel, shaped like a fish, worked by its own machinery, which is driven by compressed air, and carrying in its head a powerful charge of explosive. It is discharged from a steel tube, from either above

or below water, and runs at high speed beneath the surface, strikes a ship below the water-line, and explodes. So powerful is the charge that a great liner may be sunk by a single torpedo.

When the torpedo was invented the torpedo-boat



THE DESTROYER.

was designed to carry the torpedo and attack with it. The torpedo-boat is small, light, and swift. The torpedo-boat destroyer was designed to be larger and swifter, and to mount guns as well as torpedo tubes, in order to destroy the torpedo-boat. Gradually the two types became merged into one, and to-day, for practical purposes, the type of the torpedo-vessel is the destroyer.

A destroyer of the "L" class, laid down in 1912, has a length of 260 feet, a beam of $27\frac{1}{2}$ feet, and a

draught of 9 feet. She has no armour. Her speed is 29 knots. She mounts three 4-inch guns and four torpedo tubes. She is driven by oil fuel and turbines. Her complement is about 50 to 70 officers and men.

THE USES OF DESTROYERS

Flotillas of destroyers are attached to the Battle Fleet to form an inner screen, within the light cruiser screen, to protect the Battle Fleet against hostile destroyers and hostile submarines.

In attack, they are used to attack the Main Fleet of the enemy by night with the torpedo. At night the destroyer is invisible to the larger vessels, but the larger vessels are visible to the destroyer. No Battle Fleet can safely anchor at night within reach of a destroyer base.

During the Great War destroyers have served as escorts to protect merchant vessels against submarine attack, and also to destroy submarines.

With her speed, handiness, light draught, sea-worthiness, and power of attack, the destroyer is perhaps the most useful craft afloat, and, as in the case of light cruisers, there can never be too many destroyers.

THE SUBMARINE

The submarine, like the torpedo-boat and the destroyer, was designed to carry the torpedo. The advantage of the torpedo is its invisibility, for it attacks under water. But the torpedo-boat and the destroyer

which carry the torpedo are visible, except at night. In the submarine the idea of invisible attack was carried still further, for the torpedo carrier itself was made invisible by making it navigate under water. It is the most dangerous sea weapon yet devised.

A submarine of the "E" class, built in 1914, has a length of 176 feet, a beam of 22 feet, a speed of 16 knots on the surface, and a speed of 10 knots below the surface. She carries four torpedo tubes. Her complement is about 16 officers and men.

A submarine is driven by petrol engines on the surface, and by electricity below the surface. She can dive in a few minutes. She can approach her enemy unseen, fire a torpedo unseen, and escape unseen.

The use of the submarine in the British Navy is restricted to scouting and to the attack of vessels of war. During the Great War Germany has employed the submarine for attacking and sinking merchant vessels. She therefore possesses a weapon which she can use in spite of surface vessels of war, so that she can interfere with the use of the sea roads without employing her Main Fleet in any way.

GUNS

These, then, are the principal units in a Fleet: battleship and battle-cruiser, ships-of-the-line; cruiser, destroyer, submarine. They are all designed for the same purpose—to carry the gun or the torpedo, which is a kind of gun. The purpose of the gun is to strike

a blow from a distance. The original weapons were the sword or the pike, which struck at close quarters, and the sling and the bow, which struck from a short distance. The gun made the blow heavier and the distance longer.

The 12-inch naval gun, with a muzzle velocity of 3010 feet per second, throws a projectile weighing 850 lbs. a distance of 24,874 yards.

The 13.5-inch naval gun, with a muzzle velocity of 2700 feet per second, throws a projectile weighing 1250 lbs. a distance of 21,658 yards.

The 6-inch naval gun, with a projectile weighing 100 lbs., the heaviest projectile one man can handle without machinery, has a range of some five miles.

The Battle of the Falkland Islands, in which, on 3rd December, 1914, Admiral Sir Doveton Sturdee defeated Admiral Graf von Spee, was fought at a range of about seven miles. At such a distance the size of the target appears so small, and the slightest error in calculating the range makes so great a difference, that the number of hits compared with the number of shots fired is very few. The waste of ammunition is enormous. But, on the other hand, the power of the heavy gun is so immense that one or two hits may sink a ship. The protection given by armour is no more than a partial protection.

AIRCRAFT

During the Great War there has been added to the Navy the airship, which is used for scouting purposes.

In clear weather the look-outs in an airship sailing high up can see very much farther than the look-out men posted on the masts of a surface ship. By the use of the airship it is now possible to find out the position and the movements of the enemy's ships from a much greater distance. In naval warfare the first thing requisite on either side is to discover where is the enemy and what he is doing. The sea is so vast that, before the airship was invented, a fleet might cruise for days without discovering the fleet of the enemy. That side which first discovers the enemy gains the first advantage.

The seaplane is also used for scouting purposes, and also for fighting. It is fitted with floats, or a hull like a boat, which enable it to start from the surface of the water and rise from it, and it carries bombs with which it can attack ships.

Therefore, in addition to battleship, battle-cruiser, cruiser, destroyer, and submarine, there are the airship and seaplane.

FLEET AUXILIARIES

And in addition to these fighting units there is a whole fleet of auxiliary ships. There are what are called parent ships, or floating depôts for destroyers, submarines, and seaplanes, in which the officers and men can rest on their return from a cruise, in which repairs may be executed, and which carry stores and supplies. There are mine-laying ships, designed for

laying mines, anchored under water, which explode on contact. There are coal ships and oil ships, store ships and supply vessels of every kind. There are hospital ships fitted for receiving the wounded after an action and conveying them to a shore hospital.

And in addition to the fighting units of the Fleet, during the Great War there has been created an immense new fleet of small craft, composed of fishing-boats, yachts, trawlers, motor-boats, and small steam vessels of all kinds. These are employed upon mine-sweeping and patrol duties. They are at work right round the British Isles and also abroad, sweeping the channels clear of mines and hunting submarines. These might be included among cruisers, but during the Great War the mine-sweeping and patrol services have become a new and a distinct branch of the Royal Navy, manned chiefly by merchant seamen and fishermen.

The mine-sweeping and patrol services are the answer to the new weapons of naval warfare, the mine and the submarine. Both the new weapons are invisible. Both are extremely deadly.

THE MINE

The mine is anchored to the bottom of the sea by a cable attached to a heavy weight, so that it floats at a depth below the surface which is less than the draught of a ship. It is fitted with projecting horns. When the ship strikes a horn the mine explodes, and usually the ship is sunk. Mines are laid in rows, and a series

of these rows is called a minefield. It is thus possible to close whole spaces of sea to all ships.

The mine-sweeping vessels are fitted with a device for catching the mines and bringing them to the surface, where they are exploded by rifle-fire or gun-fire.

There are also floating mines which are thrown overboard when a ship is retreating, in order to stop her pursuers.

SUBMARINE WARFARE

The submarine moves beneath the surface. She keeps an eye above water. Her eye is the periscope, which is an arrangement of mirrors enabling the officer in the submarine to see what is happening on the surface. The periscope is a very small object, difficult to detect from a ship if there is any motion on the water, often impossible to detect at night. The submarine officer takes his bearings through the periscope. then dives his vessel, and fires a torpedo. The torpedo strikes the weakest part of the ship, which is her hull under water. In men-of-war the armour is placed above the water-line to defend the ship against gunfire. Merchant vessels are not armoured, and the submarine often attacks them by rising to the surface and firing at them from guns mounted on the deck of the submarine.

NEW CONDITIONS

It may be thought that as the main fighting units of the Fleet were designed for fighting on the surface, the submarine, which attacks them under the surface, makes them useless; and hence it may be argued that in the future there will be no more great battleships with their big guns and heavy armour above water, and their hulls defenceless against the torpedo fired below water. For although there are various ways of catching and sinking submarines, nothing has yet been discovered which is a certain defence against them.

It is true that whereas before the invention of the submarine the nation whose fleet was destroyed could do no more at sea, which was thenceforth free for the use of its adversary, now a nation may lose its fleet and nevertheless may continue the war with its submarines.

As the use of the aeroplane will alter the conditions of land war in the future, so it is possible that the use of the submarine will alter the conditions of sea war in the future. But at present it would seem that the big ship will remain necessary to England.

III

A MARITIME NATION

THE sea may be compared with a wide common, or desert, upon which every one may wander at will. And as travellers naturally take the nearest way to their destination, the common is traversed by various roads and paths. On the sea these are called trade routes, and on a map of the world they are marked in lines. Along these lines ships are continually passing to and fro, laden with passengers and with cargoes. Everything that the earth produces is sent in ships from one part of the world to another. It is easier and cheaper to send goods by sea than by land. In course of time the people in the countries separated from one another by sea have become so dependent upon obtaining food and manufactures, and materials for manufacture from one another, that if the sea was shut to their ships millions of people would become poor and would starve.

Now, if every one in the world was good, there would be no need for navies. For if no one was greedy or covetous, no one would try to steal the ships or the

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possessions belonging to other people. But, as the world is made, you must think of the sea as a wide common, upon whose borders live bands of robbers who try to rob people on their way across the common, and who try to take possession of the land of the people living on the other side.

When caravans travel across the desert, the men of the caravans arm themselves in case they should be attacked by robbers. And when ships first began to cross the sea the men of the ships armed themselves to resist attacks made upon them by other ships. In that condition of affairs began the Royal Navy.

At first the merchant ships were armed. They mounted guns, and their crews carried weapons. For hundreds of years there was fighting on the seas among the ships of various countries. Gradually it was found that ships which were solely designed for fighting were much more effective for both attack and defence than armed merchantmen. These ships of war were called the Navy. For a long time after the Navy began, merchantmen were armed and fought their own battles, and in case of need they gave up trade and joined the King's Navy. When the war was over they returned to trade. But by degrees the whole duty of attack and defence came to be discharged by the Navy, and no merchant ships were armed.

During the Great War merchant ships have again been armed, have again fought their own battles, and have again been taken into the Royal Navy.

SEA AND LAND FRONTIERS

England is the greatest maritime nation in the world. A maritime nation is a nation that gets a great part of its living out of the sea. What makes England a great maritime nation, and why?

A nation which is threatened by enemies on its land frontiers is forced to spend men, money, and time on defending its borders, so that it has the less to spare for trade and defence on the sea. Such a country will also be tempted to try adventures on land in order to take some of its neighbours' country. So that even if, like France, it has two long seaboards, it is hindered from becoming a maritime nation. Holland is another country hemmed in on the land side; and although it has a good seaboard, Holland is not a great maritime power. Germany, with its immense land frontiers and narrow seaboard, has not tried to become a great maritime nation until within the last twenty years.

Therefore a maritime nation must have no long land frontiers. Therefore it must be an island or a peninsula. If it has no land frontiers it has nothing to defend by land, nor is it tempted to obtain the adjacent land belonging to its neighbours.

Great Britain and Ireland are islands, and in that respect own this advantage over the Continental nations: they have no land frontiers.

GEOGRAPHICAL POSITION

Look at the map and you will see that as well as being an island, England occupies a superior strategic position, as it is called. A strategic position means a position in which armed forces are placed for attack or defence.

England faces Holland and the Scandinavian Powers on the east and south-east, and faces France and the Atlantic trade routes on the south and west. Her position thus gives her ready access to the sea on all sides, and the power of controlling the great thoroughfares of the sea.

But her strategic position would be of little use to England if she did not possess many and deep harbours, from which large ships may sail and to which they may come. On the long coast-line of England are many such harbours and ports; and these give England what is called the interior strategic position in relation to other nations. The interior strategic position means a position from which England is able to send out ships which can return at will to their ports for supplies and refreshments, to send out a fleet which is able to shut up the fleet of the enemy in his ports by blockading them, and which, if the fleet of the enemy leaves its ports, is able to get between the fleet of the enemy and his ports, and so cut it off from returning to them. The occupation of the interior strategic position also enables England to send out ships to intercept and to capture the merchant vessels of the enemy.

LAND DEFENCE

But the possession of the interior strategic position, which means possession of an island having a long coast-line and many good harbours, set where the trade routes draw together, is of little value unless it is properly defended. The defence of an island consists in its Navy, and in the guns and fortifications of its harbours. Without these two things, a long coast-line with many harbours actually *invites* attack; and you learn from history that before England built a powerful Navy and put her harbours in a state of defence she was constantly invaded by peoples coming from over the sea.

England must first make her ports secure. England learned by long experience that the right way to defend herself is not to wait until the enemy came to her shores and then try to beat him off, but to meet him on the way and to defeat him at sea.

SEA DEFENCE

Sir Francis Drake, writing to Queen Elizabeth's Council under date 30th March, 1588, concerning the coming of the Spanish Armada, urges Her Majesty to smite the Spanish Fleet before it sails.

To prevent the Spanish Fleet from "coming through the seas as conquerors," he writes, "I think it good that these forces (the English forces) here shall be made as strong as your Honour's wisdom shall be thought convenient, and that for two special causes: first, for that they are like to strike the first blow, and secondly, it will put great and good hearts into Her Majesty's loving subjects both abroad and at home, for that they will be persuaded in conscience that the Lord of all strengths will put into Her Majesty and her people courage and boldness not to fear any invasion in her own country, but to seek God's enemies and Her Majesty's where they may be found . . . for that with fifty sail of shipping we shall do more good upon their own coast than a great many more will do here at home, and the sooner we are gone the better we shall be able to impeach them."

In these great words is defined the true doctrine of naval power.

STATIONS ABROAD

But it is not enough to make secure the island For England has many wants, and her sons are prone to seek their fortunes overseas. The ships going to all quarters of the globe and coming from them must be protected on the way, and must be supplied and protected at the end of their voyage abroad. It was in order to protect and to supply trading ships on their way and upon their arrival at western ports that England took possession of ports and harbours in distant countries, so that they might be used as trading stations under English control. On their way to African, Mediterranean, and Eastern ports the

ships needed stations into which they could put for repairs, food, water, and fuel. When they came to their port of destination, the traders needed a station at which they could buy and sell their goods, load and unload their ships.

So it came to pass that England gradually acquired ports and trading stations all over the world. And from the trading stations grew the English colonies.

THE TRADE ROUTES

Survey the map of the world and you will see that from England, set in the north-west corner of Europe, trade routes run west across the Atlantic to North America, a great part of which is British; south-west to the West Indies, of which several islands are stations; and to South America, on whose northern shoulder Guiana is British; south round the Horn, where the Falkland Isles are a station; south-east to the Cape of Good Hope, with the islands of Ascension and St. Helena stations on the way; from the Cape across the Indian Ocean, Mauritius a station on the way; by way of Singapore and Borneo to China. Or from the Horn the trade route runs to Australia and New Zealand, through the Pacific Islands, many of which are British. Or from the Cape the route runs to Australia and New Zealand. The main trade route to India and the Far East runs south down the Atlantic to Gibraltar, which is the key of the Mediterranean, eastward to Malta, a naval station, through

the Suez Canal, thence to India, on the way to which are other island stations.

The whole of this vast network of trade routes, winding about the globe, is in charge of the Royal Navy. The annual value of sea-borne commerce is estimated to be about fifteen hundred millions of pounds. The goods which make up this value are called wealth in transportation. And the money earned by British ships in carrying goods is one of the chief sources of the national riches.

THE BRITISH COMMONWEALTH

It may be said that from the geographical position of the British Islands arose the British Empire, or Commonwealth, for no other country in the world owns so advantageous a strategical position. But the geographical position of the British Islands is like other natural opportunities. It must be used. And it was so decreed that the English have always been a seafaring, trading, and colonising race.

In order to learn how the British Empire was acquired, read Professor Seeley's book, "The Expansion of England." You will learn therein that England never at any time set out with the deliberate intention of making an Empire. It came by degrees, and it came by the steady expansion of trade. Not until within the last twenty years did the people of England come to understand that they were the principal inhabitants of an Empire, which is more accurately

termed the British Commonwealth. It consists of a group of five nations—England, Canada, South Africa, Australia, and New Zealand, with the dependency of India, and many Crown Colonies and Protectorates.

The defence of the whole of these vast territories depends chiefly upon the Royal Navy. Wherever the sea washes the shores of the King's Dominions, there is the frontier of the British Empire, with whose defence the Navy is charged.

PEOPLE AND GOVERNMENT

The profitable use of geographical position, openings for trade, and opportunities for colonisation depend upon two things: the character of the people and the policy of their Government; and those two things depend upon each other.

The greater part of these vast possessions was gained by England when her population, compared with her present population, was small in numbers, and when she was ruled by a governing class who, being for the most part wealthy landowners, had little personal interest in trade on the sea, but who owned a great public interest in the power and prosperity of England.

The Government and the people of England have on the whole worked together for the increase of trade and the expansion of the powers of England. But when a governing class ruled England, her rulers were able to do what they believed to be best for England, without directly consulting the people of England, who, for the most part, were content to leave to their rulers the management of the national affairs. Under these conditions, the objects of a Government can be obtained thoroughly and without waste of time by resolute and sensible statesmen who have been trained to the business of governing a country.

But the governing power in England passed by degrees from the ruling class to the people themselves. The process is still going on. At the same time, the people have become less desirous of increasing trade and of expanding the power of England and more content to keep what they have got and to make the best use of it. And they see that the best use of the British possessions is not to make more and more money out of them, but to make their inhabitants better and wiser, and to improve the conditions of their lives. In the minds of the people the British Commonwealth is coming to be regarded as an estate to be held in trust and administered for the benefit of its inhabitants.

THE NAVAL STATIONS OF THE BRITISH COMMONWEALTH

But the ability to fulfil that trust depends first of all upon the Royal Navy. Security is the first condition of welfare and prosperity, and the Royal Navy keeps secure the roads joining the various provinces of the British Commonwealth, which roads are the sea.

In order to perform that duty the sea has been

A NAVAL STATION.

divided into what are called stations, and each station is given into the charge of a fleet or squadron.

There are the Home Waters Station (formerly the Channel Station), including the North Sea, Channel, and a part of the North Atlantic; the North American and West Indies Station; the South Atlantic Station; the East Indies Station; the Australian Station; the China Station; the Pacific Station; and the Mediterranean Station.

Of these the Mediterranean Station is second in importance only to the Home Waters Station. The Mediterranean is what is called the key strategic position of the world. Through the Mediterranean runs the main trade route to India and the East, by way of the Suez Canal. It is guarded at the Western entrance by the Rock of Gibraltar, midway by the island of Malta, and at the Eastern entrance by Aden and Alexandria. The Mediterranean gives access by sea to Egypt, and through Egypt to Africa. The Naval Power that holds the Mediterranean holds all Europe, except the Scandinavian nations, in check, and controls the way to the East.

Until the outbreak of war England maintained a powerful fleet in the Mediterranean, which is the finest training station in the world.

The third important station is the North American and West Indies Station, from which, since the opening of the Panama Canal, opens the Pacific road to the East, and the shortest route to the West Coast of the Dominion of Canada and the naval base of Vancouver.

All these naval stations must be provided with naval bases, at which ships of war may be repaired and may be furnished with coal, oil, food, and supplies. And in order to resist a possible attack they must be fortified.

The first scheme for the naval defence of the whole British Commonwealth was devised by the late Admiral of the Fleet, Sir Frederick Richards, in 1892, when he was First Sea Lord of the Admiralty.

On all the naval stations of the world there are now fortified bases. The maintenance of these naval bases is as important as the maintenance of the Fleet, which depends upon the use of naval bases for its power to act in distant waters.

The chief naval bases in home waters are Portsmouth, Plymouth, Chatham, and Rosyth. Abroad are Halifax, Jamaica, Vancouver, Malta, Gibraltar, Simon's Bay at the Cape of Good Hope, Bombay, Hong-Kong, and Sydney.

If you will study carefully the map of the world, you will see that all the main stations in the main roads of the sea belong to the British Commonwealth, so that the ships of the Royal Navy and of the Mercantile Marine can go anywhere in the world and supply themselves with fuel and provisions on the way without touching at a foreign port.

That possession also enables the British Commonwealth, in case of need, to prevent a foreign fleet from proceeding to its destination, by refusing to it the use of British ports.

It is this power which aroused the envy of Germany,

and which inspired her demand for what she calls "the freedom of the seas." By that expression Germany can only mean that the British Commonwealth should give its naval bases abroad into the keeping of other nations, so that all should have an equal right to the use of them. That equal right in time of peace has always been freely given to all other nations by Great Britain; therefore the real meaning of the German demand is that Great Britain, in time of war, should be deprived of her chief advantage, which should be transferred to Germany, or to any other maritime nation that chooses to declare war.

During the Great War the interior strategic position occupied by England, the possession of a powerful Fleet, and the ability of that Fleet to use its fortified naval bases in all parts of the world, gave England the power to shut up the fleets of the enemy in their ports, to close the seas to their merchant ships, and to open it to the ships of the Allies.

IV

THE PRACTICE OF SEA MASTERY

COMMAND OF THE SEA

It has been explained that the elements of sea power consist in the possession of the following: A sea frontier instead of a land frontier; many and deep harbours; a seafaring population; industries and manufactures at home; naval bases, ports, and colonies abroad; a large merchant service conducting sea-borne trade; and a powerful fleet to protect it, and also to defend the seafrontiers of all territories both at home and abroad.

It has also been explained that the true principle of the exercise of sea power, or sea mastery, is to attack the fleet of the enemy before it approaches British territory, and wherever it is to be found.

The object of defeating the fleet of the enemy is to gain what is called the command of the sea. The command of the sea means the ability both to move ships at will anywhere on the sea without interference by the enemy, and to stop all ships belonging to the enemy.

The command of the sea is obtained when the main

fleet of the enemy is either destroyed or effectively contained—that is, shut up in its ports.

When the command of the sea is obtained, the ships of the Power commanding the sea, carrying merchandise, can safely go and come, and the ships of the enemy, carrying merchandise, and all ships carrying goods belonging to the enemy, are liable to capture.

THE RIGHT OF SEARCH

Now the Power which has lost the command of the sea, and therewith the ability to send to sea its ships laden with merchandise and munitions of war, will try to send its goods in the ships of a neutral nation—that is, a nation which is not at war.

In order to prevent the enemy from trading in neutral ships and from obtaining supplies in them, Great Britain long ago asserted what is called the Right of Search. The Right of Search means the right to stop all neutral vessels, to examine their cargo, and if they are carrying goods belonging to the enemy, or destined for the enemy, to capture those goods.

The Right of Search was abolished by the Declaration of Paris of 1856, except as regards contraband of war, which means articles used in war. But during the Great War the right has been resumed.

Great Britain has fought great wars in defence of the Right of Search. For the maintenance of the Right of Search is essential to the winning of the mastery of the sea. You will understand that if one belligerent is able to carry goods, munitions of war, supplies, and troops in neutral vessels, without interference by the other belligerent, sea power is made useless, for there can be no command of the sea exercised on either side.

In time of war no great maritime nation fighting for its existence will consent to be bound by rules limiting its operations at sea.

There is a collection of rules regulating the conduct of war at sea called International Law; and some of these, adopted by the universal consent of all nations, are observed by England and by other civilised nations. Concerning other rules there is disagreement. Germany keeps no rules in war.

The Right of Search is a law of nations which England must maintain if she is to maintain her sea power. It is the right to stop all neutral vessels on the high seas, and to search them to discover whether or not they are carrying goods belonging to the enemy or destined for the enemy, and if these goods are found, to confiscate them.

In May, 1652, the Dutch declared war against England for the purpose of taking from England the Right of Search. The war lasted for two years, when the Dutch were defeated, sued for peace, agreed to salute the English flag, and to acknowledge the Right of Search.

In December, 1800, the Czar of Russia revived the Armed Neutrality of 1780, together with Prussia, Sweden, and Denmark. On 30th March, 1801, the Battle of Copenhagen was fought and won by England,

the Armed Neutrality was broken in pieces, and the Right of Search was maintained.

Let us study the Battle of Copenhagen, and, in so doing, observe the supreme importance our forefathers attached to the maintenance of the Right of Search.

THE BATTLE OF COPENHAGEN, 30TH MARCH, 1801

In March, 1801, the British Fleet had crossed the North Sea in a gale of wind, losing a gun-brig on the way. Admiral Sir Hyde Parker, the Commander-in-Chief, had anchored at the entrance to the Sound, collecting his ships; the Honourable Nicholas Vansittart had endeavoured to treat with Denmark, and had been repulsed; and Vice-Admiral Lord Nelson, second in command, had thus spoken his mind to his superior officer:

"The more I have reflected, the more I am confirmed in opinion that not a moment should be lost in attacking the enemy. . . . Here you are, with almost the safety—certainly with the honour—of England, more entrusted to you than ever yet fell to the lot of any British officer."

Then there were the pilots. The pilots did not know, or pretended they did not know, the passage through the Sound; at any rate they had no stomach to face the batteries of Elsinore; they had, said Nelson, "no other thought than to keep the ships clear of danger, and their own silly heads clear of shot"; and they had urged Sir Hyde Parker to go by the Belt.

But Nelson was like an arrow drawn to the head. "Let it be by the Sound, by the Belt, or anyhow, so that you lose not an hour," said Nelson. It was Captain Domett, Parker's flag-captain, who had finally persuaded the Commander-in-Chief to go by the Sound. Then they waited two days for a fair wind.

On 30th March, then, there blew a topsail breeze from the north-west. Vice-Admiral Lord Nelson in the van, Admiral Sir Hyde Parker in the centre, and Rear-Admiral Graves in the rearguard took the British Fleet in line ahead into the Sound, the key of the Baltic Sea. On the right hand stood Cronenburg Castle; beyond, the city of Elsinore climbed the hillside; and beyond again, twenty miles to the southward, glimmered the spires of Copenhagen. On the left hand the city of Helsingborg guarded the Swedish shore. No British ship vailed topsails to Elsinore, whose guns opened on the Fleet, the shot falling short and splashing water upon the decks. The British bomb-ships replied left and right, but Helsingborg was silent, and the Fleet dropped anchor south of the island of Hveen.

After reconnoitring, the Commander-in-Chief held a council of war. He might have spared that ceremony, for the first word and the last word were with Nelson, the man who followed his star. At the council, the hazard of attacking Copenhagen was urged, and it was argued that the numbers of the Swedish and Russian fleets were to be considered. Nelson paced the cabin. "The more numerous the better: I wish they were twice as many—the easier the victory, depend upon it,"

quoth the Vice-Admiral; and he volunteered to attack Copenhagen with ten sail of the line and the small craft. Sir Hyde Parker, worthy man, gave him twelve sail of the line, and bade him do what he could.

Now here was the position of the enemy.

Copenhagen is screened from the sea by Amager Island, except at the north, where, in 1801, it was defended by the two Trekroner Forts, built on piles. Amager Island is bordered by a shoal. Along the outer edge of the shoal, from north to south, were anchored eighteen enemy men-of-war, armed hulls, and floating batteries, with covering batteries lying in shoal water between them and the island. The navigable channel ran parallel with the line of men-of-war, between them and the Middelgrund Shoal, in the midst of which is the island of Saltholm. Beyond the Middelgrund runs the outer channel. Copenhagen could thus be approached directly from the north, or, by rounding the Middelgrund, from the south. In either case the channel was unknown and the navigation was dangerous.

Nelson had soundings made and the channel buoyed round the Outer Channel, remaining out in a boat day and night overseeing the work until it was done; a service which, he said, "had worn him down, and was infinitely more grievous to him than any resistance which he could experience from the enemy."

On 1st April the whole Fleet weighed and proceeded south to a point six miles above Copenhagen, off the north-west point of the Middelgrund Shoal. Nelson went out in the Amazon again to reconnoitre; returned to the Elephant, and at 1 P.M. signalled to his squadron to set sail. Eight heavy ships remained with Sir Hyde Parker as a reserve force.

That night Nelson anchored off the southern point of the Middelgrund. Captain Hardy, Nelson's flag-captain, went away in a boat and took soundings in the dark, using a pole lest the splash of the lead should betray him. Hardy actually sounded almost under the stern of the Provesteen, the ship moored at the southern end of the Danish line.

All that night Nelson was receiving reports and dictating orders, and keeping six clerks at work transcribing them. At daybreak there was a fair wind. The pilots and masters summoned on board the flagship still manifesting ignorance with regard to the position of the channel, and hesitating, Nelson compelled them to a decision, and at half-past nine on the morning of 2nd April the signal was made to weigh in succession, which means that the ships set sail one after the other.

Nelson's plan was to unroll his line of battle like a ribbon, nailing it alongside the enemy's line, beginning at the nearest ship, the Provesteen. Thereafter whose could stand the pounding the longer, the same should win.

Captain Edward Riou, taking a squadron of small craft, went ahead in the Amazon to attack the Trekroner Forts, a desperate enterprise. The Edgar led the line of heavy ships, and the Provesteen opened fire upon her. The Agamemnon failed to weather the point of

the shoal. The Bellona and the Isis ran aground. The rest of the line of battle unrolled, each ship anchoring by the stern opposite to a ship of the enemy. At 11.30 the guns were thundering all along the line

Amid the din of that furious cannonade, the ships wreathed in smoke shot with tongues of flame, the Vice-Admiral paced the quarter-deck serene and of a

joyful mind.

"It is warm work," said Nelson, as a shot struck the mainmast, scattering splinters, "and this day may be the last to any of us at a moment." He halted by the gangway, and added, "But, mark you! I would not be elsewhere for thousands!"

For three hours the British ships endured the battering of a thousand guns; and at one o'clock the Bellona and the Russell were flying signals of distress, and the Agamemnon was flying a signal of inability.

Sir Hyde Parker, beating up against the wind towards the head of the line, thought that "the fire was too hot for Nelson to oppose"; and he decided to make the signal of recall.

The historian Southey relates that in reply to Captain Domett, who urged the Commander-in-Chief to delay the signal until he could communicate with Nelson, Sir Hyde Parker said, "He was aware of the consequences to his own personal reputation, but it would be cowardly in him to leave Nelson to bear the whole shame of the failure, if shame it should be deemed." He reckoned that if Nelson was "in a condition to continue the action successfully he will disregard it; if he is not, it will be an excuse for his retreat, and no blame can be imputed to him."

Sir Hyde Parker knew his man, and his action was chivalrous as it was sagacious. Southey's account of the Vice-Admiral's reception of the signal has become classic.

"About this time the signal-lieutenant of the Elephant called out that No. 39 (the signal for discontinuing the action) was thrown out by the Commanderin-Chief. He (Nelson) continued to walk the deck, and appeared to take no notice of it. The signal-officer met him at the next turn, and asked if he should repeat it. 'No,' he replied, 'acknowledge it.' Presently he called after him to know if the signal for close action was still hoisted; and being answered in the affirmative said, 'Mind you keep it so.' He now paced the deck, moving the stump of his lost arm in a manner which always indicated great emotion. 'Do you know,' said he to Mr. Ferguson, 'what is shown on board the Commander-in-Chief? Number 39!' Mr. Ferguson asked what that meant. 'Why, to leave off action.' Then shrugging up his shoulders he repeated the words, 'Leave off action? Now, damn me if I do! You know, Foley,' turning to the captain, 'I have only one eye: I have a right to be blind sometimes'; and then, putting the glass to his blind eye, in that mood of mind which sports with bitterness, he exclaimed, 'I really do not see the signal.' Presently he exclaimed, 'Damn the signal! Keep mine for closer battle flying.

That's the way I answer such signals. Nail mine to the mast."

Admiral Graves in the Defiance repeated the signal but did not obey it. Captain Riou, engaging the Trekroner Forts at the head of the line, had caused his men to cease firing, in order to let the smoke clear so that he could view the enemy. But, as Riou's squadron became visible to the gunners in the forts, they directed a devastating fire upon his ships. Riou believed that he had no choice but to obey the signal of the Commander-in-Chief, which, indeed, saved the squadron. "What will Nelson think of us?" said Riou.

Wounded in the head by a splinter, he was sitting on a gun. His clerk was killed at his side; another shot knocked over the marines who were hauling in the mainbrace. "Let us all die together," cried Riou, and a shot cut him in two.

So died Edward Riou, who, eleven years previously, when in command of the Guardian convict transport off the Marion Isles, stayed by his ship when she struck an iceberg in a high sea, and all on board thought her about to sink. For eight weeks she drove before wind and sea, and then Riou beached her in Table Bay.

By two o'clock the fire of part of the enemy's line had been silenced, but the Trekroner Forts were still in action, the Monarch and Defiance were suffering severely, while the enemy's ships which had struck their colours were being reinforced by fresh men from the shore, who renewed the attack. It was the crisis of the fight. Were the engagement now to cease, Nelson could still save his ships and carry away his prizes. But could he do so if the action went on? Nelson, crafty and valiant, received his inspiration, and, as usual, acted on it instantly. Using the rudder casing as a desk, he composed the following letter, which remains one of the most brilliant examples of improvisation in literature:

"To the Brothers of Englishmen, the Brave Danes.

"Vice-Admiral Lord Nelson has been commanded to spare Denmark, when she no longer resists. The line of defence which covered her shores has struck to the British flag. Let the firing cease, then, that he may take possession of his prizes, or he will blow them into the air along with the crews who have so nobly defended them. The brave Danes are the brothers, and should never be the enemies, of the English."

Victory hung in the balance; every moment was of inestimable value; "but," said the Vice-Admiral, "this is no time to appear hurried and informal." And, rejecting wafers, he sent to the cockpit for a candle, and to his cabin for a large seal, and therewith sealed the letter with meticulous care, and addressed it to the Crown Prince of Denmark.

Commander Sir Frederick Thesiger, bearing a flag of truce, took the letter ashore. He found the Crown Prince near the sally-port. His Royal Highness then lost the great opportunity of his life. Did he in after years perceive that if he had understood that letter he might have won the Battle of Copenhagen? Well, he did not understand it. He even sent his officer, General Lindholm, back to the flagship with Thesiger to tell the Vice-Admiral that he did not understand. Lindholm was instructed to ask Lord Nelson "what was the immediate object" of his letter. The Prince might have guessed; for during Thesiger's absence the English fleet had prepared to weigh; and the Danes, on perceiving General Lindholm's flag of truce, had ceased firing.

Nelson replied to the Crown Prince, saying that his "immediate object" was "humanity," and stating the conditions upon which he would conclude a truce. He sent Thesiger with the reply to the Crown Prince, and despatched General Lindholm to treat with Sir Hyde Parker as Commander-in-Chief. Now Parker's flagship was four miles distant; and it takes a long time to pull four miles in a lop of sea. Nelson wanted time before all, and he got it. The fight was won.

No sooner was Lindholm over the side than Nelson signalled to the fleet to weigh or slip and to proceed. The whole line had to pass under the guns of the Trekroner Forts; but these, which Riou and his squadron could not silence, were mute before the flag of truce. The Defiance and the Elephant, the two flagships, actually grounded within range. But the fight was done. Vice-Admiral Lord Nelson, crafty and valiant, had broken in pieces the Second Armed Neutrality of the Northern Powers, and thus maintained the Right of Search.

THE BUSINESS OF THE NAVY

England has fought at sea to maintain the Right of Search, to prevent invasion, and to maintain her supremacy at sea against any or all nations challenging it. She has also fought both in her own defence and for conquest. The origins and rights and wrongs of the long wars at sea are related in history. But the Royal Navy has nothing to do with what is called policy; that is, the course of action taken by the rulers of England. The Navy is not responsible for policy. Its business is to obey orders. When war is declared, its business is to win that war, and nothing less or more.

Let us see how the Navy goes about its business. For that purpose it is best to study some of the great general actions fought by the Royal Navy.

In 1756 began the War of the Austrian Succession, which, apart from the quarrels among European kingdoms, was really fought between France and England for the possession of North America.

The decisive action at sea was the Battle of Quiberon Bay, 1759. The English victory saved England from invasion, destroyed the naval power of France, and won the command of the sea for England, for the time being.

France, having lost India and Canada (Ontario and Quebec) by reason of her defeats at sea inflicted upon her by the British, rightly determined to strike directly at England.

Early in 1759, France, preparing for the invasion of Ireland, in which country she expected support, equipped two fleets to escort the transport of her soldiers, one at Toulon, the other at Brest.

Admiral Boscawen, commanding the Mediterranean fleet, defeated the Toulon squadron at the Battle of Lagos. Admiral Hawke blockaded the French fleet off Brest.

In studying the action of Quiberon Bay, you should understand that Admiral Hawke was at once confronted with the necessity of making a most difficult decision. Should he let the enemy escape? Or should he risk his fleet by attacking on a dangerous lee-shore in unknown waters?

In this case, as in many others, when the fate of England hung upon the issue, the British seaman determined to take the risk.

THE BATTLE OF QUIBERON BAY, 21st NOVEMBER, 1759

In November, 1759, the wind and the sea drove Admiral Sir Edward Hawke and his battle squadron into Torbay. Hawke had blockaded Brest from June to November, 1759, when the gale sent him into Torbay. He had set his frigates and light craft to watch the enemy inshore while he cruised up and down, and ever up and down, farther out to sea, with twenty-five sail of the line. The French Admiral, M. de Conflans, lay in Brest with twenty-one ships and some smaller craft. The design of M. de Conflans

was to detach a squadron to escort transports which were prepared for the invasion of Ireland, and which were then lying in the River Morbihan. But Captain the Hon. Augustus John Hervey, commanding one of the inshore squadrons, and Commodore Robert Duff, commanding the other, were blocking the way out.

When Hawke with his line-of-battle fleet had gone to Torbay, M. de Conflans reflected that now was the time to abolish Commodore Duff and Captain Hervey. On 14th November De Conflans put to sea with his fleet. On the same day Hawke sailed from Torbay, and meeting the Gibraltar, Captain McCleverty, was informed by him that the Brest fleet was at sea. It was twenty-four leagues north-west of Belle Isle, steering south-east, when McCleverty sighted it. Sir Edward Hawke concluded that De Conflans was making for Quiberon Bay, into which flows the estuary of the River Morbihan; where Commodore Duff was blockading the transports. If the Brest fleet destroyed Commodore Duff, the transports could slip out and away to Ireland. So Hawke crowded sail in pursuit.

The wind was contrary, driving him out of his course westward, and at the same time delaying the French fleet. The delay saved Commodore Duff.

For, on the morning of 20th November, the Vengeance, Captain Gamaliel Nightingale, who had sighted the French fleet, entered the bay firing signals of alarm. Duff cut his cables and set sail. It was not his business to fight the whole French fleet.

Rounding the southern end of Belle Isle, the French

Admiral perceived him, and made the signal to chase. One of Duff's ships, the Chatham, of 50 guns, was being swiftly overhauled by a French seventy-four, when a seaman posted on the main-top-gallant yard of the Rochester sighted the British fleet coming up. Commodore Duff instantly ordered his squadron to go about, and sailed straight for the French fleet. The manœuvre disconcerted the French, and M. de Conflans, also perceiving the British ships, recalled the vessels sent in chase of Commodore Duff. So much for the Commodore, who had a very close run for it.

Hawke, sweeping down before the westerly wind, brought his ships into line abreast, and ordered the foremost vessels to hold the French fleet until he could deal with them. De Conflans began to draw his ships into line of battle. The British ships were bearing swiftly down upon him when the French Admiral determined to retreat. Both fleets were on a lee-shore, but De Conflans was at home on these coasts. The French Admiral reckoned that by time the light began to fail he would be safe in harbour, while the English ships were driving upon the rocks and shoals of that perilous coast. So De Conflans fled before the wind, and Hawke stood after him under a press of sail. The shifting wind blew in heavy squalls upon a wild sea. At two o'clock the French began to fire back at their pursuers. A little after, seven British ships engaged the French rearguard. De Conflans in the van held on, rounding the rocks called the Cardinals. The first French ship to strike was the Formidable, flag-ship of Rear-



ADMIRAL LORD HAWKE, 1705-1781.

From the painting by Francis Cotes, R.A., at the Royal Naval College, Greenwich.

Admiral du Verger. Engaged by the Resolution, the Formidable received a flying broadside from the British ships as they swept past the hapless Frenchman. The Rear-Admiral and some two hundred of her company were slain.

The two fleets were fighting at the lower end of that pocket of the sea whose left side (looking north) is enclosed by a line of islands running from the Cardinals to the projecting arm of Quiberon Bay. At the top right-hand corner the Morbihan River disembogues through a tangled estuary. On the right is the lee-shore, toothed with rocks and studded with shoals, the great shoal of The Four closing in the lower end of the pocket. Into this trap Hawke had hunted the enemy, and they were fighting in its jaws.

The great wind roared out of the west, where the vast cope of the heavens was hued a sullen red. The thickening twilight was shot with tongues of fire as the reeling ships thundered in a confused mellay. In the tumult and darkness each captain fought for his own.

The British Magnanime, 74, Captain Lord Howe, engaged the French Thésée, 74, M. le Capitaine Guy Simon de Caetnampreu, Comte de Kersaint. The Breton fought with his lower-deck guns, the water washing knee-deep through the ports, because he was too proud to close them at the will of the sea. The Magnanime, fouled first by the Warspite and then by the Montagu, and thereby disabled, fell away. Up came the Torbay, 74, Captain the Hon. Augustus

HAWKE'S VICTORY AT QUIDERON BAY, 21ST NOVEMBER, 1759.

Keppel, to tackle the Comte de Kersaint. Keppel was also fighting his lower-deck guns, but he closed his ports in time to prevent disaster. The Thésée, rolling nearly gunwale under, fought on until she rolled over altogether. The great seas whelmed her, and down she sank. Eight hundred men, save twenty, went down with her, and with them perished her Breton captain, the Comte de Kersaint. (His son saw him drown, lived to become a Vice-Admiral, and was guillotined in 1793.)

Almost at the same moment as the Thésée capsized, the French Superbe foundered. In the meantime, Lord Howe in the Magnanime, crippled as she was, fetched up alongside the French Héros, 74, and forced her to strike her colours. So heavy a sea was running that Howe could not send his boats to take possession of the Héros. The French captain ran the Héros on the Four Bank and landed his crew.

As darkness fell, the French Vice-Admiral, M. de Beauffremont, took his division behind the Four Bank. But Admiral Sir Edward Hawke declined to follow the enemy into unknown and dangerous waters. He anchored where he was. So did the French Admiral, De Conflans, anchoring his flagship, the Soleil Royal, unawares in the midst of the British fleet. Hawke lay between the Cardinals and Le Croisic on the mainland. A few of his ships anchored near the flagship; the rest, hearing no signal, anchored or stood out to sea.

All through the black hours of that night the boom of guns firing signals of distress mingled with the roar-

ing of the gale. Little ease was there for the seamen. In the stress and fury of the fight the burly men who, stripped to the waist, handled the guns, sometimes dropped exhausted on the deck and slept. But when the action was ended and the fire of excitement gone out of them, all hands must instantly set to the heavy work of repairing damages.

After a night of intolerable toil, the dawn of the 21st of November, scowling upon a wilderness of heaving water, revealed near and far gaunt vessels rolling under broken masts. To the southward the motionless spars of two ships showed above the spray breaking upon the Four Banks shoal, where lay the British ship Resolution and the French Héros, beached by her captain. M. de Conflans, remarking that his flagship, the Soleil Royal, was anchored perilously close to several British ships, slipped his cable and departed. The Essex started in pursuit and ran aground upon the Four Banks. A little after and the Soleil Royal drove ashore near Le Croisic.

In the meantime, the rest of De Conflans' division had sailed into the mouths of the rivers Vilaine and Charente, which run into the sea below the Morbihan estuary. The Frenchmen were heaving out guns and stores in a tearing hurry, so that the lightened ships might proceed up the river into safety. They sailed up the river, whence several vessels could never afterwards be extricated. The Soleil Royal and the Héros, aground on the Four Bank, were burned. The British ships Resolution and Essex were abandoned as wrecked.

Of the whole French fleet of twenty-one ships and four smaller craft, two were burned, one was taken, two foundered, one was wrecked, and nineteen escaped into the rivers Vilaine and Charente, where the most of them remained.

So ended the fight of Quiberon Bay, which Admiral Mahan calls "the Trafalgar" of the Seven Years' War. That long campaign was waged for the lordship of the New World; and of its throes was born the Dominion of Canada.

THE COMMAND OF THE SEA

By 1781, England, at war with France, Spain, and Holland, had lost the command of the sea. The result was that in America Lord Cornwallis had been forced to surrender with his army on 19th October, 1781, and afterwards (in 1783) England was compelled to accede to the independence of the United States.

In 1781, the French Admiral, De Grasse, was attacking the West Indies with a powerful fleet. He had taken St. Eustatia, Essequibo, Demerara, St. Kitts, Nevis, Montserrat, and Tobago, and he was about to capture Jamaica.

De Grasse had not won command of the sea, because he had not defeated the British fleet. He had only contrived to avoid it. When the Battle of the Saintes was fought on 12th April, 1782, the command of the sea was in suspense. It was the prize of the victor.

THE BATTLE OF THE SAINTES, 12TH APRIL, 1782

The four islets of Les Saintes, or the Saintes, as the English called them, stand nearly midway of the three-branched channel, dividing Guadeloupe, Dominica, Martinique, St. Lucia, four links in the middle of the chain of the Windward Islands, which lies roughly north and south.

The French and British fleets had for months been playing hide-and-seek in and out the West Indian Islands. Rodney's victory of 12th April was but the culmination of a long series of manœuvres, countermanœuvres, and indecisive actions, and the catastrophe really began on 25th February, 1782, when Admiral Sir George Brydges Rodney, arriving from England with twelve ships of the line, took over the supreme command from his junior, Sir Samuel Hood, Admiral of the White.

The French Admiral, De Grasse, after some severe handling by Hood, was endeavouring to bring his fleet into Martinique, there to await a great convoy. When it arrived, the French intended to attack Jamaica, a thousand miles to the west. Rodney tried to cut off De Grasse, but the Frenchman eluded him and got into Martinique on the 26th. Then Rodney took his fleet into St. Lucia, the island next to Martinique southward, recently captured by Admiral Barrington in spite of the Comte d'Estaing. Barrington's capture of St. Lucia gave Rodney a base which enabled Rodney

to force the action of 12th April, a circumstance which shows how important it is to take what you can when you can.

Rodney strung his ships northward to watch for the French convoy; but they missed it, and it fetched up at Martinique on 20th March. De Grasse then had 35 ships of the line. The British Admiral had 36. But De Grasse also had 150 unarmed merchant ships of the convoy to guard. These, excluding a squadron of merchantmen bound for France, carried supplies for the invasion of Jamaica. De Grasse had to convoy them to his objective—that is, the place he aimed to reach—in face of the British fleet. If you think of the Caribbean Sea as resembling an elongated saucer, Jamaica being set on the top at the left and Martinique way down on the right, you will see that De Grasse purposed to circle round the lower rim, and up to Jamaica with the easterly trade wind.

On 8th April, 1782, De Grasse put to sea. Rodney's frigates brought the news of his sailing, and by noon on the same day the British fleet was in pursuit. By half-past two, the French were sighted; by six o'clock the next morning they were visible from the deck of the Barfleur, Hood's flagship, which was leading the British van. The French van had cleared Dominica and was bearing north-east, but their rear ships were becalmed under the lee of that mountainous island.

Hood, in the van, overhauled the French ships, while Rodney, with the rest of the fleet, which was then parallel to the becalmed French ships, followed slowly. De Grasse, who, encumbered by his convoy, had no mind to fight, ordered two ships to take the convoy into Guadeloupe, while he himself, with the rest of the fleet, was to tempt the British fleet to his pursuit away from the convoy.

But at this point the French Admiral had a sudden inspiration. The van of the British fleet, under Hood, was inferior to the French Admiral's vanguard, and Hood was furthermore obliged to keep a low speed, lest he drew too far away from the main British fleet, still becalmed under Dominica. It occurred to De Grasse to attack Hood ere he could be reinforced by Rodney. He attacked accordingly. But-perhaps influenced by the French tradition in favour of saving their shipsinstead of laying his squadron alongside the British line and fighting it out, De Grasse, who had the weather gage, formed his fifteen ships into a loop, so that they continuously described an ellipse lying parallel to the British line. "Thus," writes Rear-Admiral Mahan, "a procession of fifteen ships kept passing by eight, describing a continuous curve of elliptical form." These eight ships fired at long range as they passed the British line. They kept at long range to avoid the shot of the British carronades—equivalent to what is now called "secondary armament," or smaller guns—and fired high, as usual, with intent to injure spars and rigging. The result was that the British ships suffered little injury. The action began at 9.48 and lasted for nearly three-quarters of an hour.

Then the main body under Rodney began both to

reinforce Hood's squadron and to attack the French main body. At a quarter to two Hood again opened fire, and the second action lasted for fifteen minutes. Then the French fleet drew off. In the meantime the French convoy had put safely into Guadeloupe.

That night, the night of the 9th, the British fleet lay-to and executed repairs. Next day Rodney started in pursuit of the French, who were "just in sight from the deck." All that day the chase went on, the French, who as usual had the better ships, gaining slightly. At sunset Rodney signalled a general chase, thus giving licence to the captain of each ship to do his individual best during the night. By the morning of the 11th the French had rounded the isles of the Saintes, but two of their ships, the Magnanime, 74, and the Zélé, 74, had dropped several miles behind, and were therefore in danger of being captured by the pursuing British.

In most actions by land or sea there falls a critical moment when defeat or victory hangs on an instant decision. Such a moment came to De Grasse when he beheld his two seventy-four-gun ships in jeopardy. Either they must be sacrificed and the rest of the fleet saved, or they must be rescued and the rest of the fleet hazarded. For that the British would hang on the pursuit De Grasse knew very well.

He turned back to save the Magnanime and the Zélé, and so, all unknowing, he sealed his fate.

Sir George Rodney, perceiving the French bearing down, signalled to call in all cruisers and to close the fleet, and hung on. To the eye of a landsman these

manœuvres would be hardly perceptible. Stationed in a British ship, he would perceive the line of gleaming hulls and towered canvas leaning into the wind; and beyond, on the far rim of the horizon, the tiny phantom ships of the enemy that glimmered here and there, and anon grew a little plainer to view, or vanished over the edge of the world and so onwards, hour after hour.

At two o'clock on the morning of 12th April, De Grasse's flagship, the huge Ville de Paris, of 110 guns, and the unfortunate Zélé came into collision. The foremast and the bowsprit of the Zélé were carried away. De Grasse told off a frigate to tow her into Guadeloupe; but by the time the two ships were under way and had left the flagship, it was five o'clock, and during the interval the British fleet had been drawing nearer.

Rodney detached four ships to chase the Zélé. De Grasse, who seems to have been wholly taken up with the plight of the Zélé, led his fleet to pursue the four ships which pursued the Zélé. But the French fleet was scattered in the disorder of a general flight, and while their Admiral was hurrying after the Zélé, some of his ships were lagging ten miles behind his flagship.

But the British fleet, formed in line, with Rear-Admiral Drake in the van, Rodney in the centre, Hood in the rear, slanted straight and deadly upon the random crowd of the French ships. At seven o'clock, having tempted De Grasse far enough, Rodney called

in the ships chasing the Zélé, and within an hour the guns of the Battle of the Saintes began to speak.

The relative position of the two lines was that of a very flat V, the British line being on the left. When the leading ships on either side met, the French turned off, away from the British line, while the British turned up, parallel to the French line, so that the French ships received the fire of each British ship in turn. At 8.5 Rodney signalled close action, and the fighting ran continuously along the two lines sliding by one another until 9.15, when the Formidable, Rodney's flagship, turned and broke the French line, firing both broadsides at once. The Duke, the next ahead of the Formidable, broke the French line four ships higher up, while the Bedford, sixth astern of the Formidable, also broke the French line.

As the two fleets fell apart and the smoke of the furious cannonade blew away, the French ships were observed retreating to leeward in three disorderly groups, the British being to windward, also in three groups, but formed in column; and between the two fleets lay three dismasted French ships, Glorieux, Hector, and Caesar. These had suffered a concentrated fire which left them helpless.

The French never succeeded in re-forming their fleet. They set every sail they could hoist, and fled before the wind. Rodney pursued them, but without haste, leaving the chase to be conducted by those individual ships which were not lying-to repairing damages. The three crippled French vessels were taken, together with a



From Dupont's engraving of Gainsborough's portrait.

ADMIRAL LORD RODNEY, K.B.

fourth, the Ardent, and towards evening Sir Samuel Hood in the Barfleur, and Captain James Saumarez in the Russell, engaged De Grasse in the Ville de Paris, which, having expended all her ammunition, surrendered to Hood at 6.29.

At 6.45 Rodney signalled to form line and stop. The conduct of his superior officer after breaking the enemy's line was afterwards criticised by Sir Samuel Hood.

"Why he should bring the fleet to because the Ville de Paris was taken, I cannot reconcile. He did not pursue under easy sail, so as never to have lost sight of the enemy in the night, which would clearly and most undoubtedly have enabled him to have taken almost every ship the next day. . . . Had I had the honour of commanding His Majesty's noble fleet on the 12th, I may, without much imputation of vanity, say the Flag of England should now have graced the sterns of upwards of twenty sail of the enemy's ships of the line."

Be that as it may, Admiral Sir George Rodney, a veteran of sixty-four, who had commanded the West Indies station twenty years previously, fought and won the Battle of the Saintes: a battle which, beginning at noon on 8th April, and lasting, with fighting and chasing, till sundown of 12th April, did actually break the French power in the West Indies.

But Sir Samuel Hood's observations serve to exemplify the tradition of the Royal Navy, which is, that nothing less than everything is enough. Let us bear in mind that the Navy has in its keeping the safety of England. First and last, the Navy fights for the safety of England; and the Navy believes that in the discharge of that trust no least thing must be left to chance.

It is recorded by Dr. Beatty, the surgeon who watched Nelson die in the cockpit of the Victory, that in the very article of death, in the very hour of his triumph, the great Admiral was dissatisfied.

"Lord Nelson and Captain Hardy shook hands again; and while the Captain retained his Lordship's hand, he congratulated him, even in the arms of death, on his brilliant victory, 'which,' said he, 'was complete; though he did not know how many of the Enemy were captured, as it was impossible to perceive every Ship distinctly. He was certain, however, of fourteen or fifteen having surrendered.'

"His Lordship answered, 'That is well, but I bargained for twenty. . . . '"

THE CONTEST FOR SEA MASTERY

The Battle of Copenhagen was fought in defence of the Right of Search, which was challenged by a group of nations inferior to England. It has always been the desire of nations whose power at sea is weak, to deprive England of the exercise of the Right of Search, which can only be exercised by the strongest maritime nation, and which enables that nation to cut off supplies carried on the sea to the enemy.

The Battle of St. Vincent, which we have now to consider, was fought for the mastery of the sea, or, as

it is called, the command of the sea. In that fight, as so often befell, the fate of England depended upon the issue. To the enemy, defeat did not bring destruction but merely the delay or the temporary destruction of his plans. But to England defeat brought ruin. That is one reason why the English Admirals were determined to win; and because they were determined to win, they did win.

In the year 1797, England was at war with France, Spain, and Holland. The fleet of Holland had been put out of action at the Battle of Saldanha Bay, in August, 1796; but another fleet was preparing.

In 1797, the Spanish fleet was at Cadiz; one French fleet was at Toulon, another was at Brest. Thus there were three fleets arrayed against England.

The design of the enemy was that the Spanish fleet should sail from Cadiz, that it should be joined by the French fleet from Toulon, and that the two fleets combined should attack the British Mediterranean fleet, which was at Gibraltar. The Spanish and French fleets, having defeated the British Mediterranean fleet, proposed to sail north, join up with the French fleet at Brest, and then invade Ireland, which country was (as usual) to be used as a base whence to invade and conquer England.

The plan of the English was to defeat the Spanish fleet at Cadiz before it could join the French fleet at Toulon, and then proceed to deal with the two French fleets.

In command of the British Mediterranean fleet

was Admiral Sir John Jervis, flying his flag in the Victory, and serving with him was Commodore Horatio Nelson in the Captain.

Sir John Jervis had fifteen men-of-war.

Admiral Don José de Cordova, in command of the Spanish fleet in the Santisima Trinidad, had twenty-seven men-of-war mounting over 1000 more guns than the English ships.

THE BATTLE OF ST. VINCENT, 14TH FEBRUARY, 1797

Very early on 14th February, 1797, upon a dark and misty morning, at sea, twenty-five miles from Cape St. Vincent, Admiral Sir John Jervis was pacing the quarter-deck of the Victory waiting for news of the Spanish fleet. Upon the evening before, his guests had drunk the toast, "Victory over the Dons in the battle from which they cannot escape to-morrow!" For Commodore Horatio Nelson, coming from the Mediterranean in the Minerve to join the flag, had brought information that Don José de Cordova had put to sea from Cartagena, though the strength of his fleet was not known.

So Sir John Jervis, having made his will, paced the quarter-deck of the Victory, waiting to know how many ships he must fight. For Jervis had resolved to fight in any circumstances; because, as he observed, "a victory is very essential to England at this moment." It was. The French and Dutch fleets in the northern waters were prepared to invade Ireland, at the invita-

tion of the Irish rebels. The Spanish fleet was sailing north to join forces with the French and the Dutch; and the three fleets together would have greatly outnumbered the fleet of Lord Bridport, who was holding the Channel.

The invasion of Ireland had been ingeniously arranged by the rebel Theodore Wolfe Tone with the French Directory. Tone's diary of October and November, 1796, is singularly instructive. "Those d—d Spaniards! Why are they now not in Brest water?... If they joined us instantly we could strike a blow, and the Navy of England (or I am utterly deceived) would be no longer formidable to France and Spain... Oh! if we had twenty-five sail of the line, now idling at Toulon (d—n them sempiternally!)... that would make forty sail of the line, and then, indeed, our business would be a party of pleasure!"

It was Sir John Jervis who held the Mediterranean, and the clever Irishman, plotting in France, was dealing with a kind of man strange to Tone's apprehension. The Irishman's foreign friends could not move their fleets, because Sir John Jervis commanded the Mediterranean Sea. The Irishman's emissaries in the British fleet, fomenting mutiny, were hanged at the yard-arm at eight o'clock in the morning punctually, by Sir John Jervis, and that was the end of them. When Spain took sides with France, Sir John Jervis proceeded with his fleet to Lisbon. Then the Spanish fleet left Cartagena, hoping to slip into Cadiz on their way northward, thence to slip out again to be of Wolf

Tone's "party of pleasure." But Sir John Jervis gave a party of his own on Saint Valentine's Day with fifteen ships of the line to greet his guests.

So Sir John Jervis paced the quarter-deck of the Victory, and the Captain of the Fleet reported to him the numbers of the enemy as they were ascertained.

"There are eight sail of the line, Sir John."

"Very well, sir."

"There are twenty sail of the line, Sir John."

"Very well, sir."

"There are twenty-five sail of the line, Sir John."

"Very well, sir."

"There are twenty-seven sail, Sir John." And, says Tucker, the great Admiral's biographer, who relates the conversation, this was accompanied by some remark on the great disparity of the two forces. "Enough, sir; no more of that: the die is cast, and if there are fifty sail, I will go through them." Tucker further records that Sir John's response so transported Captain Hallowell, the Admiral's guest at the time, that he actually slapped the Commander-in-Chief on the back, crying, "That's right, Sir John, that's right, by God, we shall give them a d——d good licking."

Fifteen sail of the line against twenty-seven was long odds, even though the Spanish crews were chiefly composed of raw levies, some of the ships having no more than 60 or 80 seamen out of complements varying from 530 to 950, the rest being soldiers and landsmen. Moreover, the Spaniards were taken by surprise, having been informed by an American merchant captain

that the British fleet were really merchantmen. But, as the wind had shifted, Don José de Cordova could not make Cadiz, and fight he must.

The British fleet had been formed in close order upon the preceding night, what time the signal guns of the Spaniards rolled upon the dark. At forty-nine minutes past ten the British sloop Bonne Citoyenne reported that the enemy had twenty-seven ships of the line. The mist clearing, the Spanish fleet was observed to be about two miles distant, and to be separated into two divisions, running with the wind in a north-easterly direction.

Sir John Jervis made the signal to pass through the gap in order to cut the hostile fleet in two. The British ships formed in line ahead, the Culloden, Captain Thomas Troubridge, leading, the British line lying about exactly north and south, steering south (S.S.W. to be accurate) close-hauled, the wind being west by south.

Thus the lee division of the Spaniards lay on the left of the head of the British line, and the weather division lay on the right. The lee division, perceiving that it could not cross the bows of the advancing British line, held on. Sir John Jervis therefore attacked the weather division of eighteen ships, which was, of course, sailing in the reverse direction from the British line, as though to pass it on a track nearly parallel. The result was that the Culloden was steering straight for the last two three-deckers of the Spanish weather division.

First Lieutenant Griffiths reported to Captain Troubridge that a collision was inevitable. "Can't help it, Griffiths; let the weakest fend off," quoth Troubridge, and stood on till he could perceive, through the open ports of the enemy, the faces of the Spanish gunners standing to their guns. Ere they could fire, Troubridge discharged two double-shotted broadsides, "fired," as Griffiths afterwards told the historian Tucker, "as if by a seconds' watch, and in the silence of a Port-Admiral's inspection."

The Spaniard flew about under the shock and fired not a single shot, and the Culloden passed through the Spanish line. The line having been broken, and the two Spanish divisions definitely separated from one another, it was instantly necessary that the British ships should turn right round and fling themselves upon the retreating weather division of the Spaniards.

What followed exhibits the admirable effect of the fleet training, in which Jervis had so long exercised his captains in the Mediterranean. Each captain knew what was required of him without being told. "Before the signal flew on board the Victory the proper flags to repeat it were already hoisted up to the Culloden's top-gallant masthead, but not yet displayed to view; and at about the same moment that the command was given by the Admiral, Captain Troubridge called out, 'Break the stop—down with the helm'; and instantly the Culloden, repeating the signal, went about."

The Admiral, says his biographer, "was indeed and beyond measure delighted. 'Look, Jackson,' he

rapturously exclaimed, 'look at Troubridge there! He tacks his ship to battle as if the eyes of all England were upon him; and would to God they were! for then they would see him to be what I know him, and, by Heavens, sir! as the Dons will soon feel him.'"

The lee division of the Spaniards put about on the port tack to rejoin the weather division; and the Spanish Vice-Admiral, in the Principe d'Asturias, sailed up to within pistol-shot of Sir John Jervis in the Victory, just as she was tacking. The Victory backed her main topsail, so startling the Spaniard that he swung about, firing a broadside.

A cannon-shot shattered the head of a marine who was standing on the poop, close beside Sir John Jervis, who was splashed with blood from hat to knees. Tucker relates that upon Captain Grey running to him, asking if he was wounded, "'I am not at all hurt,' replied the Admiral calmly, and at the same time wiping his mouth, into which a quantity of blood had flown; 'but do, George, try if you can get me an orange.'"

As the great stern-galleries of the Principe d'Asturias came round, the Victory fired a double broadside into them, and the Principe d'Asturias fled away before the wind, the while the Victory, after this little interruption, tacked into her station.

The Spanish ships following the Principe d'Asturias also tried to pass the British line, but were beaten off, with the exception of the Oriente, which, covered by the smoke of a tremendous cannonade,

gained the weather division. At this time the British line formed a U-shaped loop, the leading ships of the lower end closing with the rearguard of the Spanish weather division, the upper end lying between the Spanish weather division and the retreating ships of the lee division. There was just room for the weather division to pass the upper end of the British loop and to join the lee division; and Don José de Cordova, seeing that the efforts of the lee division to join him had been frustrated, turned his leading ships towards the lee division.

It was now the turn of Commodore Nelson, who had shifted his broad pennant to the Captain, stationed third ship from the upper end of the loop. Perceiving the enemy's design, and recognising that if it were successful the two divisions of the Spanish fleet would join together, and running before the wind, escape, Nelson instantly wore the Captain round, and bore directly down upon the leading Spaniards. The upper end of the British loop was thus coiled round upon itself, while the lower end was still sliding after the main body of the Spaniards.

Nelson ran between the two ships astern of him, the Excellent and the Diadem, and athwart the bows of the leading Spanish vessels. These were the Santisima Trinidad, San Josef, Salvator del Mundi, San Nicolas, and San Ysidro. Sir John Jervis immediately signalled to the Excellent, last ship of the upper end of the loop, to follow the Captain; and at the same time the leading ships of the lower end of

the loop, Culloden, Blenheim, and Prince George, came one after the other to the support of the Captain, sore pounded by the huge Spaniards. As each ship came up, the Captain ceased firing to replenish the shot lockers and to repair the running rigging. In the meantime the loop was drawing tighter about the neck of the Spaniards, as the British ships drew into the mellay. The Excellent drove the San Nicolas into the San Josef, whereupon Nelson in the Captain, luffing up, carried away the Captain's fore-top mast.

With her mast hanging over the side, her wheel shot away, her sails in ribbons, and her rigging thrashing loose, Nelson in the Captain opened fire on the San Nicolas at twenty yards' range, then put his helm a-starboard, and ran right aboard the Spaniard, hooking the quarter-gallery of the San Nicolas with his larboard cathead and the Spaniard's mizzen-rigging with his sprit-sail yard.

Nelson instantly called for boarders. The first man on board the Spaniard was Captain Berry, who leaped into the mizzen-chains. He was accompanied by Lieutenant Pearson of the 69th Regiment, while a soldier of the 69th burst in a window of the upper quarter-gallery of the San Nicolas.

Nelson sprang through it into the cabin, the soldiers pouring after him. The cabin doors were locked, and while the Spanish officers fired their pistols through the windows, the boarders burst the doors and fired a volley. The Spaniards fled along the deck, and, Nelson leading, the boarders dashed for the poop. Here he



THE VICTORY ENGAGING THE SALVATOR DEL MUNDI AT THE BATTLE OF ST. VINCENT,

found Captain Berry already in possession and the Spanish ensign hauling down.

Nelson went forward, receiving their swords from the Spanish officers; when the San Josef, lying alongside, opened fire upon the boarders. Nelson, crying to Captain Miller of the Captain to send more men, ordered them to board the San Josef. Captain Berry helped Nelson into the main-chains, and at the same moment a Spanish officer, looking over the quarter-deck rail, called out that the ship surrendered. Nelson, standing on the quarter-deck of the San Josef accompanied by William Fearney, one of the crew of his barge, received the sword of the Spanish captain; which trophy Fearney added to the collection of Spanish swords he carried under his arm.

As Nelson's initiative in suddenly bringing the two ends of the loop together was the turning-point of the action, so his daring capture of the two great Spaniards was its culmination. The Santisima Trinidad, battered by the Blenheim, Orion, Irresistible, and Excellent, escaped with the aid of two consorts; the two divisions of the Spanish fleet were drawing together; and Sir John Jervis prepared to cover his prizes in case of a renewed attack. But the Spaniards had no stomach for another bout; and in the gathering twilight they sailed away, leaving four ships as prizes of the British.

Sir John Jervis received Commodore Nelson on the quarter-deck of the Victory, told him that he could not sufficiently thank him, and presented him with the sword of the Spanish Rear-Admiral. The Commanderin-Chief was created a Peer, with the title of Earl St. Vincent; Vice-Admiral Thompson and Rear-Admiral Parker were made Baronets; Vice-Admiral Waldegrave was made Governor of Newfoundland; Nelson was given a K.B.; and Captain Calder was knighted.

TRAFALGAR

In the Battle of St. Vincent, Sir John Jervis fought to win the mastery of the sea, and won it. But the possession of the mastery of the sea is not permanent. It lasts just so long as there is no serious attempt made to dispute it by the enemies of England. In 1805, France and Spain tried once more to wrest the command of the sea from England. They failed. And so decisive was the English victory, that for nearly a hundred years thereafter, England's mastery of the sea remained unchallenged. Then, in the year 1900, Germany, in passing her Navy Act, warned England that she must again fight for her sea mastery.

On 21st October, 1805, was fought the Battle of Trafalgar, the crowning victory won by English seamen against the whole power of Napoleon Buonaparte.

The position before the battle was as follows: Lord Collingwood, with a small force, was watching the port of Cadiz, in which were the combined French and Spanish fleets, commanded respectively by Vice-Admiral P. C. J. B. S. Villeneuve and Admiral Don Federico Gravina. So long as the British fleet remained undefeated, the schemes of Napoleon for the

invasion of England and the destruction of British sea power could not be carried into execution, and his war of conquest must be restricted to the continent of Europe. And so long as the French and Spanish fleets remained undefeated, Great Britain was in danger, because she had not gained the command of the sea.

Of the great events which preceded the battle and of its vast consequences you shall read in history. We are here concerned with the fight itself. The best extant account of the whole matter is contained in "The Year of Trafalgar," by Sir Henry Newbolt.

The method by which the battle was fought by the British fleet was the method now historically called the Nelson Touch. The principle of the Nelson Touch, as embodied in the Secret Memorandum which the Admiral explained to his assembled captains when he joined the fleet off Cadiz, is simple enough. But the mental processes by which Nelson arrived at that principle are much more difficult to understand; nor can they be understood except in the light of a knowledge of the art of naval tactics.

But the principle of the Nelson Touch consisted in the following plan of action. The British fleet was to attack from windward in three (afterwards altered to two) divisions, and when they were within gunshot of the enemy's centre, according to the Secret Memorandum:

"The signal will most probably then be made for the Lee Line to bear up together, to set all their sails, even steering sails, in order to get as quickly as possible to the Enemy's Line, and to cut through, beginning from the twelfth ship from the Enemy's Rear. Some ships may not get through their exact place, but they will always be at hand to assist their friends, and if any are thrown around the Rear of the Enemy, they will effectually complete the business of twelve Sail of the Enemy. . . . The remainder of the Enemy's Fleet, thirty-four sail, are to be left to the management of the Commander-in-Chief, who will endeavour to take care that the movements of the Second in Command are as little interrupted as is possible."

The calculation of the number of ships, thirty-four, which would be separated from the rear by this manœuvre was based upon Nelson's original estimate that the total force of the enemy would be forty-six ships. It was actually thirty-three. The object of breaking the line was partly that force might be concentrated upon a few of the enemy's ships, while the rest were prevented from "interrupting," and partly to prevent the enemy from running into Cadiz on their lee.

To those unacquainted with the extraordinary number of diverse small conditions which regulate the combined movements of ships at sea, the plan appears incredibly simple and obvious. But, as a matter of fact, it embodied the last phase of a long process of evolution. More: it was the presentment of the mind of an artist, that is, a man who makes something new, as distinguished from the man of rules, who makes only what he has been taught to make. The

artist is above rules. Lesser men need rules to prevent them from falling into error, and as the conception of the Nelson Touch was the conception of an artist, so its execution was the execution of an artist.

It is the fact that the execution apparently differed from the plan—differed so widely that some writers have elaborately explained that the plan was at the last moment abandoned—which has bewildered students of the subject. But the execution of the most ingenious plan in the world is subject to the unforeseen; and it is the artist's peculiar glory that he is still able instantly to force his design into harmony with untoward circumstance, and so amazingly to achieve his end.

Thus did Nelson at Trafalgar; and in so saying, all is said. That his performance was viewed in a different aspect by each of the valiant men who served under him: what is it but the most natural thing in the world?

"Lord Nelson," says Collingwood, "determined to substitute for exact order an impetuous attack in two distinct bodies."

· Collingwood, the man of rules, here implicitly assumes that Nelson had originally believed that the preservation of exact order was likely to be practicable.

Lieutenant Benjamin Clement of the Tonnant merely observes that "We went down in no order, but every man to take his Bird."

"I am not certain," says Captain Moorsom, "that our mode of attack was the best; however, it succeeded." Sir Richard Keats—he who commanded the old Superb, "the lame duck lagging all the way," to the West Indies and back—has left on record a conversation he had with Lord Nelson while walking with him in the grounds of Nelson's house at Merton. Here Nelson unfolded to his friend the central idea of the Secret Memorandum:

"He then said: 'What do you think of it?' Such a question I felt required consideration. I paused. Seeing it, he said: 'But I'll tell you what I think of it. I think it will surprise and confound the Enemy. They won't know what I am about. It will bring forward a pell-mell battle, and that is what I want.'"

The Admiral had his will. Nelson attacked with twelve ships the fourteen ships of the enemy's van. The whole British fleet hoisted the "pale white ensign" and the Jack at main-topmast-stay and foretop-gallant-stay.

Villeneuve hoisted no flag, but that device did not save him.

Collingwood in the Royal Sovereign broke the line a few minutes after the first gun was fired, and received at the same time the cross-fire of four ships, whose shot "actually met in the air." The Belleisle, being totally dismasted and her gun-decks choked with wreckage, "nailed an ensign to the stump of her mizzenmast, and kept a Union Jack waving at the end of a handspike." Poor Captain Duff of the Mars had his head taken off by a round shot, and after his fall the French Commander-in-Chief was received on board the Mars by Lieutenant Hennah. The gallant

French Admiral, Magon de Médine, of the Algésiras, being twice struck, and refusing to leave the deck, was killed by a third shot. The men of the Bellerophon—"Bully-ruffian"—chalked "Victory or Death" upon their guns. The Colossus lost 200 killed and wounded, "a loss one-third greater than that of any other English ship." The French two-decker, L'Aigle, fought six ships or more, and being lacked through and through, her "starboard quarter beaten in, and 270 of her crew killed and wounded," called for quarter. The Prince, which had bad luck and was late for the fray, came up in time to set on fire the battered Achille and to save 140 Frenchmen.

The Victory, flying the flag of Vice-Admiral Lord Nelson, leading the weather-line, headed straight into a raking fire that carried away her mizzen-topmast, riddled her sails, broke her wheel, and killed twenty of her crew. She fired a double-shotted broadside into the cabin windows of the stern of the Bucentaure, Villeneuve's flagship, and so slew 400 men and dismounted 20 guns; she grappled the Redoubtable, and after an hour's fierce fighting, Lord Nelson fell.

It is recorded that Nelson's valet, Tom Allen, who was absent from his master at the time of the battle, said many years afterwards to a gentleman of his acquaintance:

"I never told anybody that if I had been there Lord Nelson would not have been killed; but this I have said, and say again, that if I had been there he should not have put on that coat. He would mind me



TRAFALGAR, 21ST OCTOBER, 1805. After W. L. Wyllie, R.A.

like a child; and when I found him bent upon wearing his finery before a battle I always prevented him. 'Tom,' he would say, 'I'll fight the battle in my best coat.' 'No, my lord, you shaun't.' 'Why not, Tom?' 'Why, my lord, you fight the battle first, and then I'll dress you up in all your stars and garters, and you'll look something like.'"

Destiny attends to valets as to heroes; and whether Tom Allen's reminiscences be veracious or no, destiny had planned for her hero a magnificent full close to the troubled epic of his life. Nelson was to wear his Admiral's frock-coat with the four stars, despite Tom Allen, or Beatty the surgeon, or Scott the chaplain, or Scott the secretary; and the marksman in the top of the Redoubtable was fore-ordained to strike his man or ever the Pyramids were founded or Britain was an island.

"The battle," says Sir Henry Newbolt, "was now drawing to an end with the daylight. Dumanoir and his four ships were disappearing to the southward; a ragged string were making north for Cadiz, the Héros and Rayo from the van, followed by the French Neptune, the San Leandro, and the Montanes from the centre, the Principe d'Asturias and the Pluton from the rear. Fifty ships lay intermingled and almost motionless upon the water. In the van the Santisima Trinidad was hoisting English colours; in the rear the French Achille was burning; in the centre Nelson lay dying among the dead hopes of two great Powers. 'Oh, Victory, Victory, how you distract my poor brain!' he is said to have exclaimed when the

wounded ship roared her last broadside at the flying van to windward. A few minutes afterwards he was gone and the fighting ceased. 'Partial firing,' says the Victory's log, 'continued until 4.30, when a victory having been reported to the Right Honourable Lord Viscount Nelson, K.B., and Commander-in-Chief, he then died of his wound.'

"The scene at this moment is described by those who saw it as unparalleled in beauty and significance. Such power the modern world had not seen; so stately an array of ships the world of the future will never see again. At half-past five the French Achille, which for an hour and a half had lit the sky with her funeral fires, burnt to her powder magazines and blew up. 'This,' says Captain Harvey of the Téméraire, 'was the most extraordinary and magnificent sight which can be conceived. Splendid, appalling, final; it was a fit end to the fighting at Trafalgar.'"

A little while before his death Nelson had "emphatically" ordered Captain Hardy to anchor and to make the signal to the fleet. But Lord Collingwood, the man of rules, upon whom, after Nelson's death, devolved the chief command, thought he knew better. A gale sprang up, and although, to the stupefaction of the Spaniards, the English fleet kept its station off Cadiz, the result of disregarding Nelson's signal was so disastrous that Collingwood was "worn almost to a shadow."

"After such a battle, such a glorious fight," he writes, "having nineteen of their ships in our possession, to be so completely dispersed by that unhappy gale,

that for three days I had every reason to fear that not one of them would have remained to us, but many be driven into their own port!... The condition of some of our own ships, too, was such that it was very doubtful what would be their fate. Many a time I would have given the whole group of our captures to have ensured our own... I can only say that in my life I never saw such exertions as were made to save those Ships; and would rather fight another Battle, than pass such a week as followed it."

Upon the day after the battle the Algésiras was retaken by her own crew and carried into Cadiz; on the day following, Captain Maistral, with four sail of the line and six frigates and brigs, brought the Santa Ana into Cadiz, and retook the Neptune. But next day the British captured the Rayo and drove three others ashore. The gale increased in violence on the 25th, and thirteen prizes were driven ashore. The other six had already been sunk or burned.

Three days later four prizes had been got off and the rest destroyed. Nelson had "bargained for twenty" ships; he had nineteen at the close of the action, although before he died he knew not that more than "fourteen or fifteen" had surrendered. But the furious toil and the indefatigable fighting of the wild days of storm that followed the battle had resulted in the practical annihilation of the Allied fleets. "It is, as Mr. Pitt knows," Nelson had written on the 6th, "annihilation that the country wants, and not merely a splendid victory."

For, to quote Sir Henry Newbolt once more, "By the evening of 4th November, out of the thirty-three ships opposed to Nelson at Trafalgar, twenty-three had been captured or destroyed, and ten were lying in Cadiz quite unfit for service." Professor Laughton adds that not one of them ever put to sea again. To make sure that they should not attempt to do so, the harbour was blockaded by the Prince and five fresh ships from Gibraltar—the Spencer, Tigre, Donegal, Queen, and Canopus.

It was on the 4th that the work was finished by Rear-Admiral Sir Richard Strachan, who with four ships swept up Admiral Dumanoir and his four ships, which had escaped southward on the day of Trafalgar. Strachan sighted them on the evening of the 2nd, chased them all night by the light of the moon, and all the next day and night, and fought them the following day till they struck to him. He lost but 24 killed, and had 111 wounded.

"I daresay their Lordships will be surprised we have lost so few men," says Sir Richard. "I can only account for it from the Enemy firing high and we closing suddenly." The total number of killed and wounded in the British fleet at Trafalgar is returned at 1663. Of the losses of the Allied fleets Collingwood writes on 2nd November: "Of men, their loss is many thousands, for I reckon, in the captured ships, we captured twenty thousand prisoners, including the troops."

On 26th October, five days after the battle, Lieutenant Lapenotière, in the Pickle schooner, left the

fleet, carrying Collingwood's despatches. He reached the Admiralty at one o'clock upon the morning of 6th November; the news was at once sent to Pitt; and the Prime Minister had no more sleep that night. The despatches were sent on to Windsor, where was the Royal Family, and the King received them at seven o'clock. The messenger who carried the despatches spread the news in the town, and the soldiers of the King's Own Militia, who were exercising in the Little Park, fired a feu de joie. The Royal Family returned thanks for the victory in St. George's Chapel.

In the meantime second editions of the morning papers were being published in London. At ten o'clock the Park guns were fired, and the bells of the churches were rung. But, according to the newspapers of that date, the news did not become universally known until the next day, so that the illuminations on the night of the 6th were but "partial." The Admiralty was brilliantly lighted, and Somerset House exhibited a "transparency." In the theatres the National Anthem and "Rule, Britannia" were sung by the audience; but although the newspapers, in their flowery way, record "ecstatic plaudits," there was no such unbridled intoxication as that which celebrated the news of the Glorious First of June, 1794.

The tone of public feeling is aptly rendered by Lord Malmesbury:

"Not one individual who felt joy at this victory, so well-timed and so complete, but first had an instinctive

feeling of sorrow. . . . I never saw so little public joy. The illumination seemed dim, and as if it were half-clouded by the desire of expressing the mixture of contending feelings; every common person in the streets speaking first of their sorrow for him and then of the victory."

Lady Londonderry, writing from Ireland to her step-son, Lord Castlereagh, adds the final touch:

"The sentiment of lamenting the individual more than rejoicing in the victory, shows the humanity and affection of the people of England; but their good sense upon reflection will dwell only on the conquest. because no death, at a future moment, could have been more glorious. The public would never have sent him on another expedition; his health was not equal to another effort, and so might have yielded to the natural but less imposing effects of more worldly honours: whereas he now begins his immortal career, having nothing left to achieve on earth, and bequeathing to the English fleet a legacy which they alone are able to improve. Had I been his wife, or his mother, I would rather have wept him dead, than seen him languish on a less splendid day. In such a death there is no sting. and in such a grave everlasting victory."

No more can be said.

SINGLE-SHIP ACTIONS

'Hitherto, we have considered what are called general actions, that is, actions in which a large fleet was

engaged on either side. But in the course of the long wars at sea there were many single-ship actions, fought by one ship against another, or against two or three.

In these engagements the interest, instead of being distributed among the Admirals, officers, and men of numerous vessels, and their concerted action, is centred upon the captain, officers, and men of a single ship. In these cases the crew of a single ship manifests the skill, the endurance, and the spirit which made the English fleet, which was of course an assembly of single ships, a force so invincible.

There is nothing the captain of a ship desires more than to be left to his own initiative and discretion. He naturally likes to be independent. As a member of a fleet, every captain is subject, night and day, to the orders continually signalled from the flagship. He can do nothing without the permission of the Admiral. His ambition is to do better than the other ships in the fleet; to make his ship the smartest ship, to be first in drill, evolutions, exercises, and manœuvres, and in sports. In the old days, so fierce was the rivalry between ship and ship, that after a boat-race the winners and the vanquished must often be kept apart, lest there be trouble.

To-day, the captains of light cruisers and the captains of destroyers and submarines inherit the traditions of the frigates, brigs, and gun-vessels of the Old Navy. They are constantly sent away on single-ship duties, in whose discharge the individual captain must depend solely upon himself.

After the victory of Trafalgar, the French, although they still possessed a considerable fleet, did not again challenge the English fleet for the command of the sea. But their frigates were always cruising for the purpose of capturing English merchant vessels on the trade routes and attacking isolated English men-of-war, so that during the years following Trafalgar, until the peace which followed Waterloo, there were many actions fought between small squadrons and single ships.

One of the most notable single-ship actions was the fight between the French frigate Etoile and the English frigate Hebrus. It was the last occasion in the war upon which a French ship struck her flag to an English ship.

THE LAST TRICOLOUR, 27TH MARCH, 1814

The action began with the attack by two French frigates upon the little brig-sloop Sparrow. At nine o'clock on the morning of 26th March, 1814, the Sparrow was feeling her way in a Channel fog, when close abeam of her emerged a French frigate, and then another, both flying the tricolour. These frigates, the Sultane and Etoile, were sailing to Saint Malo, after a drawn battle with two English ships.

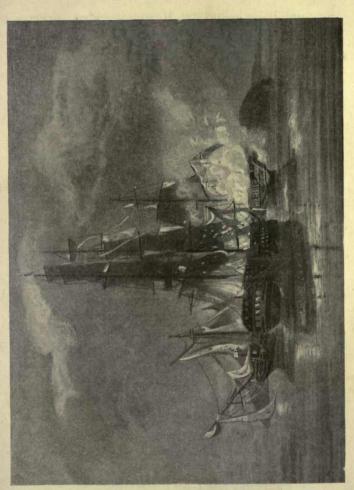
The Frenchmen both fired a broadside at the Sparrow, killing her master, wounding a seaman, and cutting her sails and rigging, whereupon the Sparrow went about with intent to join the ship in her company, the Hebrus, frigate, Captain Edmund Palmer.

Captain Palmer in the Hebrus held on, firing a broadside at the French ships at long range, and at the same time signalling to her consort, the Hannibal, ship of the line, to hasten to the party. So began a fight which lasted until the next day.

As the Hannibal joined the Hebrus and the Sparrow, the wind freshened, the mist rolled away, and there were the Sultane and Etoile, four miles ahead, two leaning towers of canvas. The three British ships gave chase. The Frenchmen, perceiving that their pursuers were gaining upon them, separated, whereupon the Hannibal altered course to chase the Sultane, sending the Hebrus and Sparrow to run down the Etoile. It was then about eleven o'clock in the forenoon.

Now the Hebrus was one of the new frigates built of yellow pine, and a swift sailer. The Etoile had been damaged in her recent action. By two o'clock, the Hebrus was out of sight of the Hannibal, and had gained a mile on the Etoile; by five, she was still gaining, and was alone, for the little Sparrow was lost to view astern. Thenceforward the action was a duel between the English frigate and the French frigate.

Hunter and hunted held on with every stitch of canvas set until midnight, when the Etoile drove right into the perilous Race of Alderney, among the Channel Islands. The Hebrus, following hard after her, pinched her closer and closer to the rocks of the surfbeaten shore. As she wore round Point Jobourg, the Etoile fired upon her pursuer. It was then a quarter to



ACTION OF THE HEBRUS AND L'ETOILE, 27TH MARCH, 1814.

two in the morning of 27th March; the wind was dropping and both ships were sailing within pistol-shot of

the breaking surf.

It would seem that Captain Palmer, reckoning that the wind would blow off-shore at dawn, wanted the weather-gage. For he ran athwart the stern of the Etoile, his jib-boom swinging over the Frenchman's taffrail, firing a broadside as he passed, then slipped between the Etoile and the beach.

In the windless dark the two ships fought on, the while a shore battery fired at the two vessels indiscriminately. At twenty minutes past two, the Etoile shot away the fore-topmast and fore-yard of the Hebrus, and damaged her mainmast, bowsprit, and rigging. Neither ship slackened for an instant; the thunder of the guns rolled continuous until, at three o'clock, an off-shore breeze springing up, the Hebrus closed, and poured broadside after broadside into her gallant antagonist. At a quarter to four, the mizzen-mast of the Etoile went by the board; at four o'clock she hailed the Hebrus and struck her colours. So was lowered the last tricolour in the great war.

Captain Edmund Palmer took possession of her, headed both ships out to sea so that they could escape the guns of the battery, and by seven o'clock anchored them in Vauville Bay, five miles from the shore.

There is the greater praise due to Captain Palmer in that he fought his ship with a new and an untried crew, whereas the crew of the Etoile were seasoned men. Moreover, the shooting of the Hebrus' gunners was better than the shooting of the Frenchmen, for whereas the hull of the Hebrus was little damaged, the Etoile had four feet of water in her hold when she struck.

Captain Edmund Palmer had been trained in the austere and matchless school of John Jervis, Earl St. Vincent, whose invaluable biographer, Jedediah Stephens Tucker, Esquire, records the following observations concerning the action:

"This battle Lord St. Vincent pronounced to be one of the best-fought single actions in our naval annals." But the prize's ensign was also the last flag which the French lowered to our navy in the war; to present this to his 'Old Chief' was, therefore, well thought of by the pupil, placing it on the wall of Rochetts (Lord St. Vincent's country house), with an inscription, of which it is impossible not to admire the modesty that has veiled the Captain's own name:

THE LAST TRICOLOUR WON

BY THE NAVAL FLAG OF BRITAIN,
THE COLOURS
OF L'ETOILE, CAPTURED BY THE HEBRUS
MARCH 27TH, 1814,
MOST RESPECTFULLY DEDICATED
TO JOHN, EARL ST. VINCENT:
THE OFFERING
OF A GRATEFUL PUPIL
TO AN ILLUSTRIOUS MASTER.'"

("Memoirs of Earl St. Vincent," JEDEDIAH STEPHENS TUCKER, ii. 366.)

OUTPOSTS OF ENGLAND

We have considered the practice of sea mastery as exhibited in the Battle of Copenhagen, fought to maintain the Right of Search; in the general actions of Quiberon Bay, the Saintes, St. Vincent, and Trafalgar, fought to win the command of the sea; and in a single-ship action, one out of hundreds of like exploits.

But the mastery of the sea requires the possession of naval bases and harbours in all parts of the world into which ships may go for shelter, to effect repairs, and to replenish their supplies. One of the most important outposts of England is the Rock of Gibraltar, because it is a station on the way to the East, and because its guns command the Strait through which ships must pass into and out of the Mediterranean. The Power that holds Gibraltar holds the key to the gate of the Mediterranean.

Until within the last thirty years, Gibraltar was a military station with a harbour. It was largely owing to the representations of Admiral Lord Beresford, when he was a captain in the Mediterranean fleet, that Gibraltar was made a great naval as well as a great military base.

Our forefathers understood the necessity of keeping possession of Gibraltar, as you shall see. The necessity to-day is not less but greater.

GIBRALTAR

A long escarpment lifting a jagged sky-line, seamed and scarred and sparsely green; a flat-faced town of

white houses plastered along its base; within, stifling heat and dust, strings of mules and swarthy, slovenly muleteers, Spanish girls with plaited crowns of hair, soldiers in khaki, bluejackets in white rig, naval officers in mufti, Jews in ragged gaberdines, bare-legged Turks and coffee-coloured Indians, a savour of garlic and Spanish cigarettes with a tincture of British chloride of lime; without, a vast harbour bristling with warships: of such is the Rock of Gibraltar. Beyond, the tawny hills of Spain sleep in the sunlight.

From Spain troop every morning across the Neutral Ground an army of some thousands of Spaniards employed on the docks and the civil engineering works in the Rock. At gunfire in the evening the army slouches back again, and the gates are shut. If a Spaniard is shut in, he must immediately report himself to the police, who billet him for the night; if he fails to do so his certificate is suspended, and he is not admitted to work for a period. You will find no town more orderly in His Majesty's dominions.

The inhabitants conduct their trades with much lounging, coatless, on doorsteps, with fan and cigarette; Turk and Indian and Jew lurk within their dusky bazaars, and reap much profit from lavish tourist and guileless bluejacket; some thousands of soldiers go daily to drill and guard and cocoa-nut-matted cricket ground; the liberty men from the fleet pervade the drinking-bars and the shops crammed with tinsel rubbish; the belted and armed patrol marches up and down; and by day and night "bold bugles blowing

points of war" ring out from garrison and from fleet.

The hand that once wrenched the Key from Spain keeps a firm grip. Here, at the meeting-place of East and West, you shall see that equal rule and dominion which run into all the world, establishing justice, order, and sober prosperity.

And here, behind the spectacle of the ordered, busy, languid town, its works and wharves, its military parade and routine, and the ranked ships of war, live the red memories of a very stormy history. Ten times was Gebel-el-Tarik lost and won in the wars of Moor and Spaniard; then, in 1598, the Spanish captured the Rock and held it for a hundred years. And then, on 21st July, 1704, came Admiral Sir George Rooke, and took the place in three days. It was an unfortunate oversight on the part of the Spaniard that, though he had a hundred guns on the Rock, he had only a hundred and fifty men to work them withal.

Rooke was then fighting for the Archduke of Austria in the war of the Spanish Succession. However, the course of events so ran that England kept the Rock for herself. The Spanish, with great valour and skill, scaled the cliff above Catalan Bay, on the eastern side, away from the town, but the garrison hove them over the edge. And in the Peace of Utrecht the Rock was formally ceded to England. So far so good.

Then the Spaniards conducted another little siege for the space of five months. Then they went away for the first time.

THE SIEGE OF GIBRALTAR

And then, in June of 1779, began the Great Siege, which endured for three years and a half. Governor of the Rock was George Augustus Eliott, a stout old Borderer of sixty. It was a good day for England when Eliott took command of the Rock and its five thousand soldiers. The Spanish cut off communication with the mainland and blocked the place by sea, and Gibraltar very soon began to starve. A hind-quarter of sheep was sold for £7:10s.; sweepings of biscuit-crumbs cost a shilling a pound; it was forbidden to use flour for hair-powder. Bear in mind that the soldiers had their wives and children with them. The garrison had endured the grinding stress of privation until the inevitable began to stare them in the face, when, in January, 1780, Rodney broke the blockade, and sailed into the roadstead with a convoy of provisions.

But the end was not yet; England had a deal on her hands at that time, for she was at war with the American Colonies, with Spain, and with France; and Rodney had much business elsewhere. He set sail, and the siege went on, and the garrison was once more put to desperate shifts.

Then, in April of the following year, 1781, Admiral Darby came through with another convoy, whereat the Spaniards began a steady bombardment from sea and shore, which never ceased by day or night for six weeks, except from twelve to two daily, when the

caballeros took their siesta. The town was knocked to pieces; and there, among the ruins, the sunlight revealed the stores of provisions and wine which the inhabitants had concealed. Even Eliott could not wholly prevent the natural consequences. Amid the flames of burning houses, the roar of the cannonade, and the crash of cannon-balls, men and women feasted and drank their fill, and rolled senseless.

It was in November of the same year that the indomitable northman Eliott, acting on the information of prisoners, made a night sortie, set afire the vast and costly works of the enemy on the mainland, and utterly destroyed them. Then he marched in again to his Rock impregnable. This exploit roused the Spaniard to a final tremendous endeavour. He enlisted the services of the Duc de Crillon and the Chevalier d'Arçon, a most ingenious gentleman. The Comte d'Artois, brother of Louis XVI., inflicted on himself the pain of a journey all the way from Paris in order to witness the taking of Gibraltar. He beheld a fine sight, but not the one he had come to see.

D'Arçon invented the first protected ship. He framed her of treble thickness, and fortified deck and sides with layers of sand and cork and matted ropes. Ten such ships he built, and armed them with great guns. Then, with a fleet of fifty sail of the line, the Spanish took station under the Rock. The ten protected ships ran close inshore, and, sure enough, the English shot rebounded from them. And meanwhile the guns of the Spanish fleet worked destruction.

LORD HOWE RAISING THE SIEGE OF GIBRALTAR, 11TH OCTOBER, 1782.

Whereupon old Eliott reserved his fire, improvised furnaces wherein he heated round shot to white heat, and by nightfall he had the ten new ships of the ingenious Chevalier burning to the water's edge. Brigadier Curtis put off in boats to save the Spanish crews, and brought three hundred and fifty-seven to the Rock. And so ended the Great Siege, after three and a half years of warfare and torment and destruction.

It is for us to remember the indomitable and crafty Eliott and his brave men, and the men of the Old Navy. To this end they fought and suffered. We have a duty not only to the living but to the dead.

Hither to Gibraltar came the Victory, her ensign drooping half-mast high, a week after Trafalgar. Here, beneath the trees under the hill, lie the bodies of the men slain in that great fight; and here, every seam and cutting, tunnel and mole and fort of the battered giant, the Lion of the Sea, lifting undiminished front upon the stainless blue, bears witness to the sad and splendid memories of England's war.

HOME AGAIN

Let us now return to England, and descry, if we can, something of the hidden but living nerves that join the land of home to its outposts, and mark their relation to the whole. The following study was made some years ere the Great War began; and yet, in that still time, there was a nameless threat in the air, and a sense of foreboding.

The low grey frontlet of the Fort, secret-eyed and sombre, looks down the Haven to the farther sea. Within the stone quadrangle the children are playing in front of the married quarters, and a dog sleeps in the sunlight, his head on his paws. The talk of the bronzed lean sergeant stops, as the bugler, hitching up his fatigue breeches, stands squarely under the archway, sets a bright and battered bugle to his lips, and sounds the dismiss.

Strange, in this remote land's end, to hearken in imagination to the English bugles blowing round the world, as the sun rolls westward. A chain of gay melody, ever sounding, high and brazen, thin and far and farther yet, notes of dominion ringing to the stars....

The friendly sergeant's talk is of Gibraltar, as the squad of militia recruits tramps across the drawbridge.

"Give me a foreign station," says the sergeant.

"Tis better than home. I wish I was back in Gibraltar. They've given the Garrison Guard to the Tillery now—suppose they thought we was too cushy. Ah, yes—Gibraltar!" says the sergeant.

Gone from him was the shaded archway, gone the grinning recruits standing at ease in the sunny quadrangle. He saw again the scarred and riven Rock, the asphalte cricket ground with the pitch of cocoa-nut matting, the wide harbour, and the ships. He forgets, very likely, the times when he desired the fields of English green and the grey northern sky, the crowded street at nightfall, the glass of English bitter beer; what time he sweated and gasped in a Levanter, and the

dust whirled on the North Point, and the Alameda Gardens drooped withered and stale.

The green and peaceful hills of England stand round about the Haven, and never a warship blurs the high sea-line beyond the Heads. Brown labourers, reclined on the sheaves of corn, eat and drink and repose in the warm and windy noon. Below, the stepped roofs of the farm homestead are embowered in dark trees. A woman, her dress hued like the fields, stands on the upland, shading her eyes and calling to the herd. Mile on mile spread the sunny fields, with here and there a cottage, dazzling white, set among thick foliage. wind blows cool with the breath of the Atlantic, out of sight beyond the hill. There the Navy is at work. Never a ship is in view; only the sails of the fishingboats, coloured like dead leaves, are specks on the waste fields of the sea. But, were a ship of war to pass, you would see nothing but a grey shadow, a smear of smoke, fading swiftly away.

But, to the inward eye, the ships are as glass, and busy within as hives. You can see the Admiral, in the sacred isolation of his cabin, the door opening upon the stern-gallery and the bright light, dealing with a mass of papers at his table. A signalman enters, doffing his cap; hands a paper to the Admiral, saluting; and retires. The Secretary, adorned with gold aigrette, enters with a sheaf of papers; bells ring; messengers come and go; and aloft the signal flags break and flutter and descend. All about the dim 'tween decks busy men are passing to and fro; beyond the red curtain that hangs in the

cabin doorway you behold an officer writing at his table, his cap pushed over his eyes; down in the engineroom the Engineer-Lieutenant on watch is entering up a black and greasy log; bells clang, and the big needles swerve on the direction dials; the sullen engines are pounding, deftly tended by large and oily men; next door, the glare of the fire door turns the black visage of the stoker to a mask of brass as he swiftly stabs the blazing fires, hurls in the shovelfuls of coal, and slams the furnace door.

Above, on the upper deck, the white-clad men are cleaning and polishing and painting; inside a casemate, a gun's crew is drilling; the officer of the watch strolls to and fro; the Commander comes and goes briskly, for he has several things to do at once during every minute of the day; the Captain appears for a moment, his path along the crowded decks clearing itself, the men saluting. He ascends to the forebridge, where the quartermaster, his steady gaze fixed ahead, handles the wheel, and at either end the signalmen ply their flags, and in the chart-house the Navigator pores upon his charts.

To left and right, far ahead, steam the cruisers; ahead and on either hand and astern the low black destroyers are swimming easily along. So, all day and all night.

The men of war, Ares' men, toil at their trade on land and sea; duty binds them in a leash. And the same duty calls the fisherman to his nets, the farmer to his plough and his sheepfolds, the artist to his un-

ending toil. Side by side they labour, the men who are avowed to destroy and the men who make and build; and all are attuned to that in which they work. And yet they are the same. Sword and ploughshare are digged from the same pit. Honest, simple, kindly folk there are in every trade. So it would seem as though man's occupations were but the mechanism of his life, and that the essential secret lay hidden from our eyes.

And here, perhaps, we touch the reason of apparent contradiction and disparity. To have and to hold, to build and to destroy, to slay and to make alive; what is it all but means to an end rather than the end itself? Pay the price of destiny, and be free of your heart's desire. . . . We spoke anon of the Navy. The men of the Navy pay, indeed. They pay double, these sentinels of the sea, for they pay for us who dwell on the peopled and comfortable land.

V

THE CIVIL WORK OF THE NAVY

DIVERSITY OF GIFTS

A NAVY is first of all a fighting service; but it is the peculiar glory of the English Navy that its work in times of peace, though less renowned, is of as great value to the nation and to the world in general as its achievements in war. By virtue of its armed power the Navy is enabled to maintain peace, and that peace is used by the Navy for making navigation safe, for extending knowledge, for helping the researches of science, and for bringing help to the distressed in every quarter of the globe. The beneficent peace work of the Navy has continued without ceasing for a hundred years. During that period, time after time war has been prevented by the instant and wise action of naval officers; the seas of the world have been surveyed and charted and its charts given to the world; explorations have been made, north, south, east and west; scientific expeditions have been conducted; and all nations have received the succour of the Royal

Navy in times of storm, famine, earthquake, and rebellion.

These services are but little known. They are recorded in forgotten books of travel, and in State papers, or they are buried in the archives of the



CAPTAIN BASIL HALL, R.N., F.R.S.

Admiralty. They are but briefly narrated in naval histories, and are seldom mentioned in newspapers.

The student of the subject is recommended to read what is the best introduction to it, "Fragments of Voyages and Travels," by Captain Basil Hall, R.N., F.R.S., published in 1831. Captain Basil Hall was a highly distinguished naval officer who possessed the gift, rare in his profession, of good writing. His book presents a vivid picture of the Old Navy.

Captain Hall's service career coincided with the beginning of the civil work of the Navy, the late eighteenth and early nineteenth century. Then was established the tradition which we know to-day. And hence it is that in the Navy there is room and verge enough to give opportunity to men of the most diverse talents.

The observations of Captain Hall on this aspect of the matter, made a hundred years ago, are true to-day. The following quotations are taken from his "Fragments of Voyages and Travels":

"Some young fellows set out in their professional life by making themselves, as they suppose, thoroughbred sailors, merely by aping the broadest external features in the character of the foremast men. These 'kiddy blades' or 'tarpaulin men,' as they are called in the cockpit slang, have their hands constantly in the tar-bucket, their fingers are cut across with the marks of the ropes they have been pulling and hauling; and their whole soul is wrapped up in the intricate science of cutting out sails, and of rigging the masts and yards. Their dreams are of cringles and reef-tackles, of knots, splices, grummets, and dead-eyes. They can tell the length to a fathom of every rope in the boatswain's warrant, from the flying jib downhaul to the spankersheet; and the height of every spar, from the main-topgallant truck to the heel of the lower mast.

"Their delight is in stowing the hold; dragging about kentlage is their joy; and to form a good bend in the cable-tier without calling for a standfast at the capstan of most of these young philosophisers is to get at the reason of all things, and to be able not only to work by the rules laid down for them in printed books or in the written orders of their superiors, but to investigate the foundation of these rules and regulations so thoroughly, that when new cases occur they may have it in their power to meet them by fresh resources of their own. . . .

"Out of the class of officers now alluded to, the growth of which it has been the wise policy of late years to encourage, there have sprung up the numberless voyagers, surveyors, and other strictly nautical men, who are always to be found when the public service requires a practical question to be settled or a professional office of responsibility and trust to be filled up. If the Arctic Circle is to be investigated by sea or land, or the deserts of Africa traversed, or the world circumnavigated afresh, under the guidance of the modern improvements in navigation, the Government at once calls upon such men as Parry, Franklin, Clapperton, Beechey, to whom they can safely entrust the task, with the certainty of its being as completely executed as the nature of things will admit of. Again: if a person who unites first-rate scientific attainments with extensive experience be required to arrange and methodise, and so turn to practical account, for the general benefit of the country, the result of these and ten hundred other similar though less brilliant services, in past and present years, the Admiralty, without seeking beyond the profession, lay their hands at once

upon a competent hydrographer, and through the skill and diligence of such an authority as Beaufort, ensure not only the fidelity of their numerous charts and other nautical works (now placed at the free disposal of the public), but also give the country an assurance that those officers who are employed affoat in extending and in perfecting our knowledge of almost every part of the navigable world are judiciously distributed.

"From the same class also, a valuable race of naval statesmen have been drawn. For a considerable number of years the whole of the diplomatic duties of South America, as far as concerned the interests of England, were carried on by the naval commanders-inchief. Who can forget how important a share of Lord Nelson's command, or, after him, of Lord Collingwood's in the Mediterranean, consisted of duties of a purely civil description? And it may be questioned if diplomatic history offers a more masterly specimen of address and statesmanlike decision, as well as forethought, than was displayed by Captain Maitland, in securing the person of Buonaparte, not only without committing himself or his Government, but without wounding the feelings of the fallen warrior. The case was, and ever must remain, unique; and yet the most deliberate reflection, even after the event, has not yet suggested anything to wish changed. Fortunate, indeed, was it for the reputation of this country that the delicate task fell to the lot of an officer possessed of such inherent vigour of character, and one so familiar with the practical exercise of his own resources, that diffiof most of these young philosophisers is to get at the reason of all things, and to be able not only to work by the rules laid down for them in printed books or in the written orders of their superiors, but to investigate the foundation of these rules and regulations so thoroughly, that when new cases occur they may have it in their power to meet them by fresh resources of their own. . . .

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HELP IN TIME OF NEED

There has never been a time when the diversity of gifts so skilfully described by Captain Basil Hall: daring, resource, seamanship, science, and statesmanship; has not found opportunity for exercise in the Royal Navy.

Let us take one example out of very many of prompt help in time of need, in which were manifested the combination of the qualities of the fighting seaman and the diplomatist, in a complicated business concerning three nations—Spain, the United States, and England. In the affair of the steamship Virginius, the trouble, as in so many other cases, arose from the tyrannical and lawless conduct of a Government official acting at a distance from his own country, and without instructions from his superiors. The difficulty in these affairs is that the official represents a friendly State, which is responsible for his actions; so that interference on the part of the representatives of another Power might lead to a quarrel between two nations, from which war might result.

In these circumstances it is the duty of the naval officer both to take the requisite action to defend the interests of his country and to protect his countrymen, and in so doing to avoid, if possible, giving cause of offence to a foreign Government. In order rightly to

fulfil his task, the naval officer requires resolution, tact, and a knowledge of international law, which is a body of rules defining the rights and duties of nations in respect of one another. Some of these rules are of doubtful application, others are universally accepted, and the violation of one of them may justly be considered an act of war; that is, an act which gives the nation against which the offence has been committed, the legal right to declare war against the offender. Whether or not the offended nation declares war depends upon circumstances.

Emergencies in which an offence is committed by the representative of a foreign Power usually occur suddenly and unexpectedly; and hence it is necessary that His Majesty's ships, which are entrusted with the protection of His Majesty's subjects, should be stationed in every part of the world, ready to act at a moment's notice.

In 1873, the West Indies division of the Royal Navy was at Kingston, Jamaica, under the command of Commodore Algernon Rous de Horsey. On 23rd October, 1873, there sailed from Kingston Harbour an American steamship, the Virginius, Captain Fry, who had been an officer in the United States Navy. The Virginius received her clearance papers from the Consul of the United States. The English authorities were not concerned in the matter. They may or may not have suspected the real object of the voyage of the Virginius, but in any case it was not their business.

Now at that time the island of Cuba was in revolt against Spain. And on board the Virginius were four of the Cuban leaders of revolt. Their names were Varona, Cespedes, Del Sol, and Ryan. Whether or not Captain Fry had a legal right, as a neutral, to carry these men, was a question of law as between America and Spain. The Consul of the United States may not have been told that they were taking passage. In any case, he raised no objection to their presence on board the Virginius. Moreover, Captain Fry stated the destination of the ship to be Port Limon, Costa Rica, a South American Republic, and therefore, as regards Spain and Cuba, neutral.

But when the Virginius had been a few days at sea, she sprang a leak. It may have been an accident, but it is probable that Captain Fry either had the leak made, or pretended that there was a leak. At any rate, he told the crew and passengers that he must put in to Haiti for repairs.

There were 155 people on board. Of these 52 were the crew, including men who were working their passages, and 103 were passengers. Among the whole number were 32 British subjects and 14 citizens of the United States. The rest were nearly all Cubans, including the four rebel leaders.

When the Virginius arrived at Haiti, Captain Fry embarked a cargo of arms. He left Haiti on 30th October, and steered for Cuba. Now the passengers had paid their fares to Port Limon, Costa Rica; and those who were not Cubans found to their dismay

that they were being carried to Cuba. No doubt Captain Fry intended to go on to Port Limon after landing the Cubans and their arms.

But he never arrived at Cuba. For, on the day after the Virginius left Haiti, when she was about 20 miles from Cuba, a Spanish man-of-war, the Tornado, bore down upon the Virginius and captured her without ceremony. It is said that before he was taken Captain Fry hove overboard his cargo of arms.

The Tornado took the Virginius into the port of Santiago de Cuba, where the two ships cast anchor on 1st November. Now, if the commanding officer of the Tornado suspected the Virginius of carrying contraband of war, in which are included the persons of the rebel leaders, he was within his legal rights in bringing the Virginius into port.

The proper course would then have been to have brought the case before the Spanish Prize Court, in order that the judge might decide whether or not Captain Fry was guilty of carrying contraband of war. But it was at this point that the wrong began. Instead of putting the Virginius into the Prize Court, the Spanish authorities at Santiago de Cuba declared all on board her to be pirates, a totally illegal act.

The Governor of Santiago de Cuba was Brigadier-General Don Juan Nepomuceno Burriel y Lynch. This man ordered all their property to be taken from the crew and passengers, caused the crew to be put in irons and bound and sent on board the Spanish gunboats in

the harbour, and the passengers to be clapped into prison. In so doing, he robbed and laid by the heels, without the smallest justification, 32 British subjects and 14 citizens of the United States, not to mention the Cubans.

At that time telegraphic communication with Spain and the rest of Europe was out of order, or was said by the Spanish to be out of order. The line between Santiago de Cuba and Jamaica was open; but when the United States Consul at Santiago desired to telegraph to Jamaica, Burriel prevented him from doing so, and insulted him.

Burriel afterwards asserted that he acted with the authority of his superior officers. These were General Jorellar, Captain-General of Cuba, and Señor Castelar, head of the Republican Government of Spain. Both these officials denied all knowledge of Burriel's proceedings. One or other of the parties must have been lying.

The Virginius was brought into Santiago de Cuba on 1st November. On the 4th, the four rebel leaders, Varona, Cespedes, Del Sol, and Ryan, were shot. The news of their execution reached the British authorities at Kingston, Jamaica, two hundred miles away, on the following day. Apparently the message was the first piece of information concerning the Virginius received in Jamaica. Brigadier-General Burriel seems to have allowed its transmission.

The next day, 6th November, a telegram came to the Governor of Jamaica, Sir John Peter Grant, that 37 of the crew of the Virginius had been condemned to be shot. These were all wretched cooks, servants, or firemen, and about half the number were British subjects. Sir John Grant and Commodore de Horsey instantly telegraphed a protest to Burriel, and the Commodore ordered the Niobe, Commander Sir Lambton Loraine, Bart., to proceed immediately to Santiago de Cuba.

Brigadier-General Don Juan Nepomuceno Burriel y Lynch, scenting trouble in the wind, hastened to finish his butcher's work before it came.

Instantly after receiving the telegram of protest from the British Governor of Jamaica, Burriel assembled a naval court-martial, which sat all through the night of 6th November. The court condemned to death 37 of the crew. Among these were Captain Fry, who was, of course, an American citizen, 8 other American citizens, and 19 British subjects. Their condemnation by the Court was a judicial murder.

The proper course would have been to try the British and American prisoners before a court in which British and American official representatives were among the judges, and if the prisoners were found guilty, to hand them over to the authorities of their own nationality for punishment.

During the night of the 6th, the prisoners were visited by Spanish priests, who endeavoured to convert to the Roman Catholic faith the British among them, with what result is not known. On the morning of the 7th the prisoners under sentence of death were taken out of the gunboats and were cast into prison on shore.

All this time the British cruiser Niobe, Commander Sir Lambton Loraine, was drawing nearer at full speed across the two hundred miles of sea separating Jamaica from Cuba.

At four o'clock in the afternoon, the condemned men, their hands bound, were taken out of prison and marched through the streets of Santiago amid a howling and a bloodthirsty crowd, and were penned into the common slaughter-house. Here they, were made to kneel, facing the wall. Four soldiers were placed close behind each prisoner. Even at that short range the Spanish soldiers took seven minutes to kill the prisoners. The bodies were loaded into carts, hove into a trench, and then buried.

At seven o'clock next morning, 8th November, twelve Cubans were murdered in like manner.

And two and a half hours later, at half-past nine, the Niobe cast anchor in the harbour. Sir Lambton Loraine was accompanied by Mr. Theodore Brooks, British Acting Vice-Consul. The Commander and the Vice-Consul landed and went to Government House, where was Brigadier-General Don Juan Nepomuceno Burriel y Lynch. The Spaniard was far from pleased to see the two British officers. He fell into a rage, and swore that were any more prisoners condemned to die, die they should.

Commander Sir Lambton Loraine drew up a written protest, which was handed to Burriel. The Commander also authorised the British Vice-Consul to inform Brigadier-General Burriel that if there was any more bloodshed the Niobe would sink the Spanish manof-war lying nearest to the Niobe in the harbour.

Undoubtedly Sir Lambton Loraine would have carried his threat into execution. But, in making it, he was risking the chance of provoking a serious quarrel between Spain and Great Britain, for to sink a ship of another nationality is an act of war. But in these occasions there is always a risk to be taken. Sir Lambton Loraine knew that Burriel was taking a greater risk; for Burriel was utterly in the wrong; and if a Spanish man-of-war was sunk, the Spanish Government would inquire into the whole matter, and whatever else might happen, Burriel would certainly be punished and would probably be shot.

These considerations did, in fact, prevail with the Spanish Brigadier-General. He had already arranged that 57 more prisoners were to be executed, and that 45 prisoners, youths and boys, were to be sent to penal servitude for life. Burriel was now compelled to countermand these orders and to free the British subjects among the prisoners. The populace of Santiago de Cuba were furious. The executions had provided them with the kind of entertainment they appreciated; and they paraded the streets, crying, "Is there no fresh meat this morning?"

It is worth while reflecting at this point that the Navy, so far from being an institution which does not concern each one of us, as people are apt to think, owns a peculiar personal relation to every British subject, inasmuch as any of us may one day find himself in some such desperate position as were the captives in Santiago de Cuba when the British cruiser came to their rescue.

A week later, on 15th November, the British Government notified the Spanish Government that they would be held responsible for any further execution of British subjects. The Spanish Government then sent orders to Burriel to free the whole of the remaining prisoners of all nationalities.

It was not until 26th November and 2nd December that men-of-war of the United States Navy and the French Navy arrived at Santiago. By that time their work had been done for them by the British Navy.

But the Spaniards were not yet defeated. The day after the French and American ships arrived, the Spanish Governor Morales, in defiance of the orders of his own Government, shipped the remaining prisoners on board a gunboat, which sailed for Havana. But Sir Lambton Loraine discovered the manœuvre, pursued the gunboat, and forced her to return to Santiago.

The United States Government demanded the return to them of the Virginius, which unfortunate vessel was duly given back by the Spanish on 15th December. Two days later the surviving prisoners, 102 in number, were told by the Spanish authorities that they were to be shot. It was the Spaniards' last piece of cowardly revenge; for what had really happened was that the Spanish had arranged to deliver the prisoners to the United States man-of-war on 18th December; and

delivered they were, H.M.S. Niobe being present at the transaction.

As for Brigadier-General Don Juan Nepomuceno Burriel y Lynch, the United States Government demanded that he should be brought to trial, and the Spanish Government refused the demand. Burriel was never punished. He was promoted to another post.

So ended the affair of the Virginius. Commander Sir Lambton Loraine saved the lives of many helpless and innocent captives, outmanœuvred the Spaniards, and at the same time kept the peace between Spain and Great Britain.

KEEPING THE PEACE

In 1877, there occurred an instructive example of the way in which a British Admiral, by means of a timely display of force, prevented what might have been a great European war.

Admiral Sir Geoffrey Thomas Phipps Hornby, a most distinguished and gifted naval officer, was one of those naval statesmen described by Captain Basil Hall.

In 1875-76, the States of Bosnia and Herzegovina revolted against Turkish rule; and at the instigation of Russia, Bulgaria, Servia, and Montenegro armed themselves against the Ottoman Empire. It was at that time the policy of England to maintain the Turks in the possession of Constantinople. Accordingly, in June, 1876, Great Britain sent a fleet to Besika Bay, near the entrance to the Dardanelles. Early in the

following year, 1877, Vice-Admiral Phipps Hornby, flying his flag in H.M.S. Alexandra, Captain Robert O'Brien Fitzroy, took command of the fleet. In January the Russian army was advancing upon Adrianople.

On 23rd January the Admiralty ordered Hornby to sail for the Dardanelles.

The Strait of the Dardanelles is the property of the Ottoman Empire. No man-of-war of any other nationality may pass the Dardanelles except by the permission of Turkey. An attempt to force the Dardanelles would be an act of war.

When Admiral Hornby received orders to proceed to the Dardanelles, Turkey had not given permission to Great Britain to pass the Strait. Nor was there a state of war existing between Great Britain and Russia, although the presence of the British fleet was intended to support Turkey against Russia. For it was the design of Russia to capture and to occupy Constantinople. At the same time, Turkey, menaced by Russia on the one side, was suspicious of Great Britain on the other.

In these difficult circumstances it was left to Admiral Hornby to make arrangements. Hornby began by sending H.M.S. Salamis to Tchernak with a friendly message to the Turkish commandant, who replied by granting permission to Hornby to take his fleet through the Dardanelles.

At that moment, when he had solved his first difficulty, Hornby received a telegram from the Admiralty cancelling his orders and instructing him to remain at Besika Bay. The British Government thus lost the first opportunity gained for them by the Admiral in command.

Soon afterwards, the Government again found themselves compelled to take action, and on 9th February Hornby was ordered to proceed to Constantinople. But he was now unable to obtain permission from Turkey to pass the Dardanelles. On 12th February Hornby received orders to force the Strait if necessary.

He sailed immediately, in a heavy easterly gale with snow, passed the Strait, crossed the Sea of Marmora, and east anchor off Constantinople on 15th February.

Admiral Hornby, although he had a powerful squadron, occupied a very insecure position. He had proposed to the Government a plan for occupying the Bulair lines, the narrow neck of land joining the peninsula of Gallipoli to the mainland, and thus securing his communications, but the Government had rejected it. Lying off Constantinople, Hornby had no assurance that he would be able to return. In that position he remained until 12th March.

In the meantime, by skill, discretion, and resolution Hornby had achieved his purpose. It does not seem to have occurred to the Russians that the English would send a fleet, unsupported and without troops, into Turkish waters. They concluded that Hornby's ships carried troops, and therefore abandoned their design to take Constantinople.

Lord Charles Beresford (now Admiral Lord Beresford), writing to Admiral Hornby, made the following

apt comment:

"How wonderfully complete your organisation must have been, as, if even a midshipman had lost his temper, he might have run the country into war."

MAKING MAPS

When a traveller desires to visit a region which is strange to him, if he is wise he obtains a map of it to guide him. And when a seaman sets sail for a distant port, he wants a map of the sea, upon which are marked rocks, shoals, currents, and the outline of coasts. But for hundreds of years mariners were obliged to sail without maps, or with rough charts upon whose accuracy they could not rely.

In order to make a map of a piece of country, the surface of the ground must be measured, and the heights of hills and mountains taken by means of special instruments. In order to make a map of the sea, its surface must be measured and the depth of the water must also be ascertained. The position of rocks must be found, and the height and shape of the coast. The rate and direction of currents must be discovered. The work of making maps is called surveying or charting. It is a task requiring much time and patience. Even a small piece of the world takes years to survey accurately.

The surveyors of the sea do much of their work in

boats, taking observations and soundings, and noting down the figures. In the surveying ships the surveys are plotted; that is, the figures are calculated and the map is drawn from them. Then the map drawn by the surveyors is sent to the Hydrographer's Department at the Admiralty, where it is engraved. When the map, which, if it depicts the sea, is called a chart, is engraved, copies of it are printed. These are distributed among His Majesty's ships, and are sold to the ships of all nations.

Until the beginning of the nineteenth century, the waters off the coasts of a great part of the world had not been surveyed for purposes of navigation, so that the voyager must face the dangers of sunken rocks, shoals, unknown currents, and doubtful landfalls. The work of survey and exploration can only be done under conditions of security at sea, and in periods of leisure. There had been war at sea for so many years that no nation had time or opportunity for any other task. Nevertheless, before the Napoleonic wars were ended, the Navy had begun its great work of exploration and surveying.

In 1771, Mr. Murdoch Mackenzie was appointed Marine Surveyor to the Admiralty. By his instructions the coasts of England were surveyed, and the charts of the survey were published in 1804. Mackenzie was succeeded by Graeme Spence, under whom the Scilly Islands were surveyed and charted. In 1795, the first Hydrographer to the Admiralty was appointed. The Hydrographer is the officer responsible

for all surveys and charts and other matters concerning

navigation.

The first Hydrographer to the Admiralty was Mr. Alexander Dalrymple. He was succeeded in 1808 by Captain Thomas Hurd, who first supplied charts to British ships on all stations.

The Navy and the country, and not less the seamen of all other nations, owe benefits of inestimable value to the services of Mr. (afterwards Sir) John Barrow, who (excepting a short interval) was Secretary to the Admiralty from 1804 to 1845. Barrow made it his business to encourage the exploring and surveying work of the Navy. During his forty years of office, explorations were conducted by the Navy in the Arctic and Antarctic regions and in other parts of the world, and the greater part of the survey of the oceans of the world was completed. Charts were made of all seas, and these were available for the use of all nations.

This was the gift of the Royal Navy to the world: the guide to mariners which has saved thousands of human lives and thousands of ships, and made safer and more certain the way of the sea for trade and commerce and intercourse among all countries

It will here be convenient to deal with the Polar voyages separately from other expeditions, although both enterprises were conducted at the same time.

The Mediterranean was surveyed from 1813 to 1824, by Lieutenant William Henry Smyth. During that period of eleven years Smyth surveyed and charted the coasts of Sicily, the Adriatic and Ionian Islands,

and the north coast of Africa. The survey was continued in later years, from 1832 to 1863.

In 1814, Commander James Hingston Tuckey explored the river Congo. He took the schooner Congo to the west coast of Africa, with a transport, the Dorothy; left his ships on the coast, and went 150 miles up the Congo river in boats, and then marched another 130 miles inland. Commander Tuckey and five other officers died of fever.

In 1821, Captain William Fitzwilliam Owen in the Leven, with Commander William Cutfield in the Barracouta, began the survey of the coasts of Africa. He explored the interior in open boats, and surveyed, on the east coast, Delagoa Bay, Zanzibar, Mombasa, and the Mozambique. On this expedition two-thirds of the number of officers and half the number of men perished.

From 1825 to 1830, Captain W. F. Owen was at work surveying the west coast of Africa. He traced 30,000 miles of coast, and made eighty-three charts.

During the same period the exploration of North Africa by Commander Hugh Clapperton led eventually to the penetration of the Soudan. His servant, Richard Lander, discovered the mouth of the Niger. In 1832, Lieutenant William Allen conducted an expedition to the Niger. Out of forty-seven men there were but nine survivors. A second Niger expedition was conducted by Lieutenant Frederick Bullock; and a third, conducted by Captain Henry Dundas Trotter, returned in 1841.

Thus, in twenty-seven years, the coasts of the whole of the continent of Africa were surveyed and charted, and some of the interior was explored.

In 1825, Commander Philip Parker King in the Adventure, and Commander Pringle Stokes in the Beagle, surveyed Magellan's Strait and the channels leading from the Gulf of Trinidad.

In 1831 began a voyage of survey and scientific research, which may be regarded as the beginning of one of the greatest advances in knowledge known to history. For, in 1831, H.M.S. Beagle, Captain Robert Fitzroy, set sail, carrying as passenger and scientific observer a young man called Charles Robert Darwin. His voyage in the Beagle gave Darwin that training and experience which were the foundation of the chief work of his life, the infinitely patient, laborious, and brilliant researches resulting in the construction of the theory of evolution. The publication of that biological theory shifted the centre of gravity of scientific thought, and gave the world a new conception of the place of mankind in the universe.

Captain Fitzroy in the Beagle surveyed the west coast of Patagonia, the Falkland Islands, and the west coast of South America. His charts of these coasts superseded the existing inaccurate Spanish charts. Captain Fitzroy first established the system of meteorological forecasts.

In the same famous vessel, in 1838, Lieutenant John Clements Wickham surveyed the Swan river and part of the west coast of Australia. Surveys made in other quarters of the globe must be briefly summarised.

From 1820 to 1823, Captain Basil Hall, the author of that admirable work, "Fragments of Voyages and Travels," surveyed the west coast of South America in the Conway.

During the twenty years following 1842, Admiral Sir Archibald Collinson spent three years in surveying the China coasts. Admiral Sir Edward Belcher surveyed the coasts of Borneo and the Eastern Archipelago. Captain Francis Price Blackwood surveyed the great reefs of Torres Strait and New Guinea, and his work was continued by Captain Owen Stanley. Captain Henry Kellett surveyed the west coast of South America. Captain Bartholomew James Sulivan surveyed the south-east coast of South America and the Falkland Islands, and with Captain Frederick J. O. Evans, surveyed the Baltic Sea. Captain John Lort Stokes surveyed the west coast of New Zealand. Captain Thomas A. B. Spratt surveyed the Black Sea.

During the same period, the Indian Navy had surveyed the Red Sea, the south-east coast of Arabia, the Persian Gulf, and the coasts of India and Burma.

From that time to this the work of surveying and of making charts has continued; and to-day the charts of the British Admiralty are the sure guides to mariners on all coasts in all quarters of the habitable, and much of the uninhabitable, globe.

The task of the early naval surveyors was fulfilled in small, inconvenient, and uncomfortable vessels, in some of which there was not even a special room fitted for making charts. The work was continuous for years at a time, on distant and often unhealthy stations, in extreme heat and paralysing cold, in fair weather and in foul. Day after day, exact bearings and observations are taken and plotted, and elaborate mathematical calculations made and checked. Day after day, soundings are taken and recorded, so that over large areas of sea its depth is exactly known. Shoals must be discovered and mapped, and the direction and speed of currents measured and noted. The coast-line must be surveyed, its height measured, and all prominent features marked to serve as bearings. All these operations must be performed with the utmost precision in a rolling ship or tossing in open boats. When the requisite measurements have been obtained, charts must be drawn, and these are sent to the Hydrographer at the Admiralty, where they are engraved and published.

In the course of the exploration of tropical rivers, such as the Niger and the Congo, these first adventurers toiled for hundreds of miles through fever-haunted swamps and dense forests, ignorant of the right precautions to take against malaria and other tropical diseases, and unprovided with the requisite remedies. Officers and men died by scores; and a tropical expedition often returned with less than half its members, and the survivors fever-stricken and exhausted.

The record of the surveying service of the Royal Navy is a record of indomitable resolution and of quiet heroism in the performance of duty.

ARCTIC EXPLORATION

During the first half of the nineteenth century, while the Royal Navy was at work surveying the coasts of the inhabited world, the Navy was also exploring the Arctic and Antarctic regions. Many men and many ships had perished in the alluring adventure of discovering the North-West Passage. In 1793, a naval expedition under the command of the Hon. Captain Phipps had attempted the voyage and failed; and subsequently the Navy was so occupied with war, that it was not until the year 1818 there was conducted what may be regarded as the first important naval voyage of Polar exploration.

In 1818, the Government and the Admiralty equipped two expeditions, one of which was to seek the North-West Passage, steering westward through Baffin's Bay, while the other was to seek to find a way to the Pacific, steering northward, right across the Pole, where, it was then believed, was open water.

The westward expedition was placed under the command of Captain John Ross in the Isabella. Second in command was Lieutenant William Parry in the Alexander.

The northward expedition was placed under the command of Commander David Buchan in the Dorothea. Second in command was Lieutenant John Franklin in the Trent. An excellent account of the voyage was written by Frederick W. Beechey, who sailed as lieu-

tenant in the Trent ("A Voyage of Discovery towards the North Pole," etc., by Captain F. W. Beechey, R.N., F.R.S. London, 1843), which serves admirably to exemplify the skill, courage, and endurance of these pioneers.

Commander Buchan was instructed both to attempt to find a way to the Pacific across the Pole, and to conduct various scientific experiments in relation to the elliptical figure of the earth, magnetic phenomena, refraction of the atmosphere, the temperature and specific gravity of the sea, and meteorology. Mr. George Fisher was appointed astronomer to the expedition.

The two vessels were whalers specially strengthened to resist the ice. These early explorers put to sea with a mind at ease in vessels no bigger than modern pleasure yachts. The Dorothea was a ship of 370 tons burthen, with a total complement of 55. The Trent was a small brig of 250 tons burthen, with a total complement of 38.

The expedition left the Thames on 25th April, 1818, and the ships were no sooner at sea than the Trent sprang a leak. At Lerwick, in the Shetland Islands, she was overhauled, but the leak could not be discovered. Nevertheless, Commander Ross determined to sail, and with the water gaining so fast in the Trent that the seamen worked during half their watches at the pumps, the two ships steered for Spitzbergen. It was not until a month later, when the Trent was caught in the ice, that the surgeon's assistant discovered the leak.

It was a very still night, and the surgeon's assistant, lying in his bunk, heard a noise as of water rushing into the ship beneath him, in the spirit-room. The spirit-room was cleared, its lining cut away, and it was discovered that a bolt-hole in the bottom of the hull had been left open. The leak was speedily repaired and the ship made tight and safe.

After crossing the Arctic Circle, the voyagers sailed into perpetual daylight, which at first so deranged their habits that they forgot to go to bed, until they became so weary that an order was issued that the usual hours were to be observed.

"The reluctance we felt to quit the deck," writes Beechey, "when the sun was shining bright upon our sails, and to retire to our cabins to sleep, often deprived us of many hours of necessary rest; and when we returned to the deck to keep our night watch, if it may be so called, and still found the sun gilding the sky, it seemed as if the day would never finish." He adds quaintly that we should be "truly thankful for that allwise and merciful provision with which Nature has endowed the more habitable portions of the globe."

Making towards Spitzbergen, the ships steered between floating icebergs great and small, sculptured into fantastic shapes, resembling cathedrals and bridges and distant cities, and all strangely illumined by the level rays of the sun, a broad red disc staring from the profound blue of the sky above the northern horizon.

Running before the wind along the west coast of

Spitzbergen, the voyagers encountered a heavy gale and snow. The snow congealed upon the ships in huge masses, so that the men must continually cut it away with axes. To prevent the ropes and rigging from being immovably encased in solid ice the men beat them with sticks. The size and number of the floating pieces of ice indicated that the terrible ice-pack was near. Then a fog descended, and lest the ships should be driven right into it, they were put about. Next morning they came into open water, and saw that the ice from which they had escaped was a part of the main ice-pack. Had they been driven into it while scudding before the wind, both ships must have been lost.

Steering for Magdalena Bay, on the coast of Spitzbergen, the voyagers came in sight of the great main ice-pack, the formidable barrier against which so many ships had dashed themselves in vain. It extended in a vast plain from the shores of Spitzbergen right round the Northern horizon, and viewed at a distance appeared to be perfectly solid. But in the summer the ice-pack actually consists of vast separate floes, which, being kept in continual movement by the force of the sea and the drift of the currents, now and again dispart, leaving open channels. The explorer sailing into these tempting channels runs the risk of their closing behind his ship, thus cutting off his retreat, while the ice clips the vessel, holding her immovable.

Commander Buchan and Lieutenant Franklin stayed for a time in Magdalena Bay, a deep anchorage closed in by tall mountains. Here they observed the immense flock of the small birds called Rotge. The birds hung in the air in a dense column about six yards broad and six yards deep and three miles long, so that there must have been about four million birds on the wing.



DOROTHEA AND TRENT DRIVEN INTO THE ICE, 30TH JULY, 1818. ("A Voyage of Discovery towards the North Pole, 1818." By Captain F. W. Beechey, R.N., 1843.)

When they scattered, they darkened the whole air, and their cries could be heard at a distance of four miles.

In June, Commander Buchan set sail to attack the ice-pack once more. Steering north, they came into a heavy swell, which carried both ships right into the roaring and grinding ice-pack. They managed to sail clear of it, when the wind fell, and the vessels were again swept into the pack. The great floes, several yards thick, were rocking up and down, one side being

now thrown high on a wave, and again sunk below the surface, the edges of the ice crashing and grinding together, and making a thick paste of crushed ice, called brash ice. All that the seamen could do was to keep the ships' bows on to the largest pieces of ice, for if they had crashed into them broadside on, the whole side of the ship must have been ripped away, or the ship capsized and all on board lost. By extraordinary luck the ships became embedded in the brash ice until the storm abated, when they won clear.

Steering eastward, a few days later they again tried to penetrate the pack, and again became fixed in the ice. As the tide turned, the floes began to twist round, grinding the ships and forcing them towards the shore. Captain Buchan got out the ice-anchors, huge iron hooks grappled into the ice. Thus they remained fast in the ice for thirteen days. During the whole time, day and night, the crews were shifting the ice-anchors and working at the pumps, and many men broke down under the incessant strain and fell sick. On the sixth day open water was descried from the mast-head.

The next day the voyagers heard the surf thundering on the edge of the pack nine miles away; so that although where they were fixed in the pack there was no breath of wind, they knew a south-west gale was blowing. Overhead the sky was clear; to the south-west the sky was banked with dark cloud to the edge of the pack. The ice was grinding together, and heaving up and down, crushing against the ships. Masses of ice were suddenly thrust high in the air. The point

of a floe, pressed against the side of the Dorothea, glanced off and was broken into fragments, which were piled 35 feet high, the topmost piece being indented with the pattern of the planks and bolts of the ship's bottom.

As the gale subsided the ice opened, and the ships escaped.

Commander Buchan made one more attempt to force the pack, and the ships reached latitude 80° 34′ N. But beyond that point the southerly current carried the ships back faster than they could be warped or sailed through the ice. Then the ships were again caught and crushed in the ice, and were severely damaged.

In this condition the ships, having escaped from the pack, were once more forced right into a gale of wind and a frightful sea. So violent was the shock, that all on board were flung down, the masts bent, and the timbers cracked audibly. The huge blocks of ice were dashed against the ships, and all on board hung on for the end.

"Literally tossed from piece to piece," writes Captain Beechey, "we had nothing left but patiently to abide the issue, for we could scarcely keep our feet, much less render any assistance to the vessel. The motion, indeed, was so great, that the ship's bell, which in the heaviest gale of wind had never struck of itself, now tolled so continually that it was ordered to be muffled, for the purpose of escaping the unpleasant association it was calculated to produce. In anticipation of the

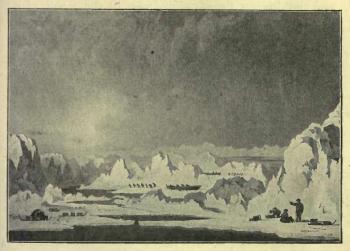
worst, we determined to attempt placing the launch under the lee, and hurried into her such provisions and stores as could at the moment be got at. Serious doubts were reasonably entertained of the boat being able to live amongst the confused mass by which we were encompassed; yet, as this appeared to be our only refuge, we clung to it with all the eagerness of a last resource."

By virtue of intrepid seamanship both ships were at length freed from the ice. But the ice had so wrought upon the vessels that by this time they were unseaworthy, so that another attempt to pierce the great ice-pack was impracticable. The planks of the deck of the Dorothea were split and doubled up, and her hull was injured. Oak planks five inches thick were broken. So tremendous was the pressure that casks of provisions which were bedded in coal in the hold were stove in. The Trent had her stern twisted, her cabin doors split, and her timbers cracked. After surveying and exploring parts of Spitzbergen the expedition returned to England.

In the meantime, the westward expedition under Captain John Ross and Lieutenant William Parry sailed round Baffin's Bay, and so opened a route which was followed by whaling ships, so that from Ross's expedition ensued a profitable trade.

In the following year, 1819, an expedition commanded by Lieutenant Parry in the Hecla, and Lieutenant Matthew Liddon in the Griper, discovered Lancaster Sound and Parry Island, and reached the 110th parallel of longitude. Parry's expedition was the first naval force to spend a winter in the Arctic zone.

During the next fifteen years there was a succession of naval voyages to the Arctic regions. In 1827, Sir



AMONG THE HUMMOCKS OF ICE, 1827.

("An Attempt to reach the North Pole," By Captain William Edward Parry, R.N.,
F.R.S., 1828.)

Edward Parry, then Hydrographer to the Admiralty, attempted to reach the North Pole. He reached the latitude of 82° 45′ N., which for fifty years remained the farthest point attained.

Parry conceived the daring project of reaching the Pole in two open boats. These were laden with seventy days' provisions and supplies. The party numbered 28. They started from Table Island. One of the party thus described the expedition in the "Quarterly Review" (LXXIV.):

"Let but any one conceive for a moment the situation of two open boats, laden with seventy days' provisions and clothing for twenty-eight men, in the midst of a sea covered nearly with detached masses and floes of ice, over which these boats were to be dragged, sometimes up one side of a rugged mass, and down the other, sometimes across the lanes of water that separate them, frequently over a surface covered with deep snow, or through pools of water. Let him bear in mind that the men had little or no chance of any other supply of provisions than that which they carried with them, calculated as just sufficient to sustain life, and consider what their situation would have been in the event, by no means an improbable one, of losing any part of that scanty stock. Let any one try to imagine himself a situation of this kind, and he will still have but a faint idea of the exertions which the men under Captain Parry had to make, and the sufferings and privations they had to undergo."

When they reached the latitude of 82° 43′ N., they were met by the southerly current and a northerly wind, which drove them back further during their hours of rest than they had progressed while travelling.

The writer already quoted records that "as we travelled by far the greater part of our distance on the ice three and not infrequently five times over, we may safely multiply the road by $2\frac{1}{2}$; so that our whole

distance, in a very moderate calculation, amounted to 580 geographical miles, or 668 statute miles; being nearly sufficient to have reached the Pole in a direct line." They were forty-eight days on the ice. They returned to Table Island, and put to sea for Walden Island, where was their main base. A storm fell upon



THE EREBUS PASSING THROUGH THE CHAIN OF BERGS, 13TH MARCH, 1842. ("Voyages in the Southern and Antarctic Regions." By Captain Sir James Clark Ross, R.N., 1847.)

them, and by the time they reached Walden Island they had "been fifty-six hours without rest, and fortyeight at work in the boats."

Among subsequent expeditions, Sir John Franklin, in command of the Erebus and Terror, in 1845, made another attempt to find the North-West Passage. Sir John Franklin died on 11th June, 1847, and before the autumn of the following year every man of the expedi-

tion had perished. And in the years 1850-54, Captain Robert S. L. M. McClure, in the Investigator, crossed from ocean to ocean. McClure and his men were the first to achieve the enterprise.

ANTARCTIC EXPLORATION

During 1839–43, Captain James Ross conducted the Antarctic expedition. An admirable account of it is contained in "A Voyage of Discovery and Research in the Southern and Antarctic Regions," by Captain Sir James Clark Ross, R.N., London, 1847. Captain Ross was in command of the Erebus, Commander Francis R. M. Crozier was in command of the Terror. Captain Ross was charged to explore the Antarctic region and to conduct various delicate and complicated scientific experiments and researches.

When the ships arrived at Van Diemen's Land, Captain Ross learned that during the previous summer a French expedition commanded by Captain Dumont D'Urville, and a United States expedition commanded by Lieutenant Charles Wilkes, had made various discoveries. Lieutenant Wilkes sent an account of the American discoveries to Captain Ross, who, however, did not think proper to avail himself of them.

"Impressed with the feeling," he writes, "that England had ever *led* the way of discovery in the southern as well as in the northern regions, I considered it would have been inconsistent with the pre-eminence she has ever maintained if we were to follow in the

footsteps of the expedition of any other nation. I therefore resolved at once to avoid all interference with their discoveries, and selected a much more easterly meridian (170° E.), on which to endeavour to penetrate to the southward, and if possible reach the magnetic pole."

Captain Ross, on 2nd February, 1841, came to the



PART OF THE SOUTH POLAR BARRIER, 2ND FEBRUARY, 1841.

("Voyages in the Southern and Antarctic Regions." By Captain Sir James Clark Ross, R.N., 1847.)

gigantic barrier of ice, whose height is 180 feet above sea-level, whose width is 1000 feet, and whose length is 450 miles. His great discoveries were the Antarctic continent he named Victoria Land and the volcano he named Mount Erebus. His scientific discoveries and researches, made with the utmost care and precision, were most valuable. Captain Ross, the greatest icenavigator of his day, thus opened the way for future enterprise.

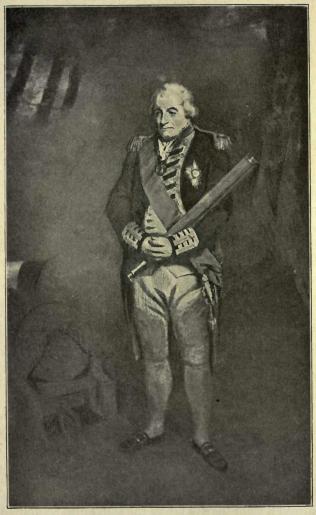
VI

TYPES OF NAVAL OFFICERS

LORD ST. VINCENT

THE Navy consists of officers and men, and the ships in which they dwell are their weapons. Like all things made by man, the ships are the extension of man's self into powers outside himself. To understand the Navy it is necessary first to understand the character of the officers and men of the Navy, and then you can understand the ships and the uses of the ships. Character is displayed in action and in action alone; and, therefore, if we study men in their actions, we learn what is their character.

Let us take, for instance, Admiral the Right Honourable John Jervis, Earl of St. Vincent. He was the great officer whose indomitable resolution and great powers of organisation made possible the achievements of Nelson. The genius of Nelson was served by the lessons he learned from Sir John Jervis (afterwards Lord St. Vincent), by the discipline established in the fleet by St. Vincent, and by St. Vincent's administration of the Navy as First Lord of the Admiralty.



THE EARL OF ST. VINCENT.

From the painting by E. H. Bailey, R.A., at the Royal Naval College,
Greenwich.

John Jervis was born in 1735. When he was twelve years of age he ran away to sea. His father was so deeply offended that, having started the boy at sea with twenty pounds, he never gave him another farthing; and Jervis, until he attained captain's rank, was bitterly poor. At the Battle of St. Vincent, which we have already studied, Admiral Sir John Jervis gained his peerage.

In 1797, Lord St. Vincent, in command of the Mediterranean fleet, was blockading the Spanish fleet off Cadiz. In England, mutiny had broken out in the fleets at the Nore and at Spithead. Had it spread to the fleet before Cadiz, the blockade must have been abandoned, when the Spanish fleet would have joined the French fleet, and the combined fleets might have gained for Napoleon the command of the Channel.

St. Vincent maintained discipline in his own fleet. The danger was lest the ships arriving from England with mutinous crews should spread disaffection.

The excellent biographer of Lord St. Vincent, Mr. Jedediah Stephens Tucker, relates how the Commander-in-Chief dealt with mutiny.

"Before the occurrence to be particularly recited, and besides those concerning which the necessary orders will hereafter appear, the Romulus became refractory; the Captain enforced obedience; but he also engaged, that by a certain day the ship should go to England. A promise having been thus made, Lord St. Vincent ratified it; but the day before the ship sailed he drafted

every man out of her and sent another crew. Captain Maitland, by a thrust of his sword, had laid a rebel dead on the Kingfisher's deck, and was tried and acquitted for it. But on the arrival of Sir Roger Curtis' squadron it was that the crisis of disaffection raged. Then was found that the spirit which dread of the civil power, and of dearth of provisions,—which batteries for hot shot, and hanging of rebels had defeated in England, was not quelled—that the penalty removed from actual sight, menaces again were heard-that, relying on the shelter of the enemy's port, rebellion again arose. Then also was seen how one man in dignified self-possession, and in calm reliance on his own superiority of nerve and intellect, could enforce the law and discipline throughout a powerful fleet, and maintain undiminished terror over a far more powerful enemy.

"No sooner had Sir Roger Curtis arrived than applications came to the Commander-in-Chief for Courts-martial on mutineers from three of those ships—the Marlborough, the Lion, and the Centaur. Selection will be made of the sequel to the Marlborough.

"As the squadron approached, and before the request for a Court-martial, this ship, being known to the Commander-in-Chief to have been among the most disorganised at Spithead, had been ordered to take her berth in the centre, at a small distance from the rest of the flect. It, however, had so happened that a very violent mutiny in her had broken out at Beerhaven, and again during the passage, which had been suppressed by the officers,

but chiefly by the First Lieutenant. The very object, too, of this mutiny was to protect the life of a seaman who had forfeited it by a capital crime. A Courtmartial on the principal mutineers was immediately assembled; and one was no sooner sentenced to die than the Commander-in-Chief ordered him to be executed on the following morning, 'and by the crew of the Marlborough alone, no part of the boats' crews from the other ships, as had been used on similar occasions. to assist in the punishment'—his Lordship's invariable order on the execution of mutineers. On the receipt of the necessary commands for this execution, the Captain of the Marlborough, Captain Ellison, waited upon the Commander-in-Chief, and reminding his Lordship that a determination that their shipmates should not suffer capital punishment had been the very cause of the ship's company's mutiny, expressed his conviction that the Marlborough's crew would never permit the man to be hanged on board that ship.

"Receiving the Captain on the Ville-de-Paris's quarter-deck, before the Officers and ship's company, hearkening in breathless silence to what passed, and standing with his hat in his hand over his head, as was his Lordship's invariable custom during the whole time that any person, whatever were his rank, even a common seaman, addressed him on service, Lord St. Vincent listened very attentively till the Captain ceased to speak; and then, after a pause, replied:

"'What do you mean to tell me, Captain Ellison, that you cannot command His Majesty's ship the Marl-

borough? for if that is the case, Sir, I will immediately send on board an officer who can.'

"The Captain then requested that, at all events, the boats' crews from the rest of the fleet might, as always had been customary in the service on executions, attend at this also, to haul the man up; for he really did not expect that the Marlborough's would do it.

"Lord St. Vincent sternly answered: 'Captain Ellison—you are an old officer, Sir,—have served long —suffered severely in the service, and have lost an arm in action,—and I should be very sorry that any advantage should now be taken of your advanced years. That man shall be hanged—at eight o'clock to-morrow morning—and by his own ship's company—for not a hand from any other ship in the fleet shall touch the rope. You will now return on board, Sir; and, lest you should not prove able to command your ship, an Officer will be at hand to you who can.'

"Without another word Captain Ellison instantly retired. After he had reached his ship, he received orders to cause her guns to be housed and secured, and that at daybreak in the morning her ports should be lowered. A general order then issued to the fleet for all launches to rendezvous under the Prince at seven o'clock on the following morning, armed with carronades and twelve rounds of ammunition for service; each launch to be commanded by a lieutenant, having an expert and trusty gunners'-mate and four quartergunners, exclusive of the launch's crew; the whole to be under the command of Captain Campbell of the

Blenheim. The written orders to the Captain will appear in their place. On presenting them, Lord St. Vincent said: 'He was to attend the execution, and if any symptoms of mutiny appeared in the Marlborough, any attempt to open her ports, or any resistance to the hanging of the prisoner, he was to proceed close touching the ship, and to fire into her, and to continue his fire until all mutiny or resistance should cease; and that, should it become absolutely necessary, he should even sink the ship in face of the fleet.'

"Accordingly, at seven the next morning, all the launches thus armed proceeded from the Prince to the Blenheim, and thence, Captain Campbell having assumed the command, to the Marlborough.

"Having lain on his oars a short time alongside, the Captain then formed his force in a line athwart her bows, at rather less than pistol-shot distance off, and then he ordered the tompions to be taken out of the carronades, and to load.

"At half-past seven, the hands throughout the fleet having been turned up to witness punishment, the eyes of all bent upon a powerfully-armed boat as it quitted the flagship; every one knowing that there went the Provost-marshal conducting his prisoner to the Marlborough for execution. The crisis was come; now was to be seen whether the Marlborough's crew would hang one of their own men.

"The ship being in the centre between the two lines of the fleet, the boat was soon alongside, and the man was speedily placed on the Cathead and haltered. A

few awful minutes of universal silence followed, which was at last broken by the watch-bells of the fleet striking eight o'clock. Instantly the flagship's gun fired, and at the sound the man was lifted well off; but then, and visibly to all, he dropped back again! and the sensation throughout the fleet was intense. For, at this dreadful moment, when the eyes of every man in every ship were straining upon this execution, as the decisive struggle between authority and mutiny, as if it were destined that the whole fleet should see the hesitating unwillingness of the Marlborough's crew to hang their rebel, and the efficacy of the means taken to enforce obedience, by an accident on board the ship the men at the yard-rope unintentionally let it slip, and the turn of the balance seemed calamitously lost; but then they hauled him up to the yard-arm with a run—the law was satisfied, and, said Lord St. Vincent at the moment, perhaps one of the greatest of his life, 'Discipline is preserved, Sir!'"

The effect of Lord St. Vincent's resolute action was soon afterwards exemplified by an incident which occurred in the London, whose crew sailing from England, were in open mutiny. When the London joined Lord St. Vincent's fleet, her captain, Captain John C. Purvis, went in his barge to the flagship to pay his respects to the Commander-in-Chief. The barge was hanging alongside, waiting for the captain, and a bluejacket was looking down upon her from an open port. Said one of the crew of the barge to the bluejacket:

"I say, there, what have you fellows been doing out here, while we have been fighting for your beef and pork?"

Said the bluejacket to the mutineer:

"If you'll take my advice, you'll just say nothing at all about all that here; for by God, if old Jarvie hears ye he'll have you dingle-dangle at the yard-arm at eight o'clock to-morrow morning."

ADMIRAL OF THE FLEET SIR GERARD NOEL

From the time of St. Vincent and of Nelson to our own day is not so long a step as people are apt to suppose. For the senior Admirals of to-day, when they entered the Service as midshipmen, were taught by the very men who had served under Nelson himself or his brother officers. When, about the middle of the nineteenth century, they went to sea, the ships were gradually being changed from sailing-vessels to steamvessels. At first, steam was never used except in an emergency. A sailing-ship captain hated steam. Nevertheless, it became the duty of the seamen of masts and sails to transform the old wooden sailing Navy into the new Navy of steam and steel, and they did it. For that reason the coming of the new material did not alter the old spirit. The men of the Old Navy made the New Navy. Themselves taught by Nelson's men they taught the next generation, the generation which is serving to-day.

Among the many distinguished veteran Admirals

who join the time of Nelson to our own time is Admiral of the Fleet Sir Gerard Uchtred Noel, G.C.B., K.C.M.G.

In the year 1890, Sir Gerard Noel, then Captain Noel, performed a feat of seamanship which exemplifies both the qualities of a fine seaman and the transition from the Cld Navy to the New.

Captain Noel commanded the twin-screw, rigged iron-clad Téméraire. She was brig-rigged, and could sail without steam and steam without sail. Her main-yard measured 104 feet in length, or about four feet longer than the sailing line of battleships of 1850–60.

On the 3rd October, 1890, Captain Noel, sailing to Suda Bay in the island of Crete, was met by a head wind. Suda Bay is a long and narrow arm of the sea, in which navigation is made difficult in places by shoal water.

Captain Noel determined to beat up against the wind to his anchorage. He made thirteen tacks, and had fetched up to within two cables (400 yards) of his appointed berth when the wind failed. This was probably the first and the last time an ironclad beat her way under sail into an anchorage. The exploit is still remembered in the Navy.

Eight years later, in 1898, Noel, now Rear-Admiral, was sent to restore order in Crete. The Christians and the Greeks had revolted against the Turks. The Great Powers of Europe had assumed the charge of Crete, but so far they had failed to restore order. They lacked the determination to do what alone would

remedy the trouble, which was to order the Turks to evacuate the island. On 6th September, 1898, the mob attacked the small British garrison and the British camp and hospital in Candia, and also massacred some 500 Christians.

On 11th September arrived Rear-Admiral Gerard Noel, flying his flag in H.M.S. Revenge. What followed is related in the "Memoirs" of Admiral Lord Beresford (vol. ii. p. 428).

"The next day he landed, inspected the scenes of the recent fighting, and ordered the Turkish Governor, Edhem Pasha, to repair on board the Revenge.

"Admiral Noel required the Governor to demolish all houses from which the insurgents had fired upon the British camp and hospital; to give up to British troops certain forts and positions; and to surrender the principal persons concerned in the rioting and attack. The Admiral also informed the Governor that the Moslem population would be disarmed.

"The Governor broke into a cold perspiration and accepted the Admiral's demands. He was then suffering under the delusion that he could evade them. He never made a bigger mistake. When he tried to avoid the demolition of the houses he was suddenly confronted with the spectacle of 200 British seamen coming ashore to do the work, and hurriedly gave in. When he endeavoured to postpone the delivery of the prisoners, he was informed that if they were not delivered by the hour appointed, they would be taken. His every excuse and pretext were met by the same

composed and invincible determination. At the last moment, when the scaffold awaiting the malefactors stood stark upon the highest point of the bastions, Edhem Pasha's frantic plea for delay was received by a terse intimation that if he did not hang the prisoners, he, Edhem Pasha, would himself be hanged.

"The disturbers of peace were hanged at the precise time appointed, and swung in a row until sundown, in sight of all the city. Twice again the bodies of the murderers darkened above the ramparts, to the abiding terror of evil-doers.

"The Powers ordered the evacuation of the island by the Turks within a month, which expired on 5th December. On the evening of the 4th, some 600 troops had still to leave, together with their women, horses, and baggage. Admiral Noel ordered the baggage to be embarked on board the British transport Ocampo and a small Turkish transport that night. Next day the Governor, Shefket Bey (who had succeeded Edhem Pasha), informed the Admiral that he had received orders from the Governor of Crete to keep the remaining troops and to disembark the baggage. What followed is described in an account of the affair contributed by a naval officer to the 'United Service Magazine,' February, 1899.

"'An armed boat was sent to prevent interference with the Turkish transport. The Admiral signalled to the fleet: "Prepare to man and arm boats. I intend to compel the Turkish troops to embark by force after noon"; and to the commandant of the British troops,

"All Turkish troops remaining in the town after noon are to be made prisoners and compelled to embark at the quay."'

"It was a bold decision, worthy of the Royal Navy. For all the Admiral knew, the Turks might have fought, in which case they would have been reinforced by some thousands of Bashi-Bazouks. But they gave in, and were marched on board. Their 'furniture, beds, pianos, carpets, and general loot and rubbish making a pile as big as a frigate,' says the eye-witness aforesaid, 'which, together with nearly three hundred horses, was bundled into boats and lighters by the seamen of the Revenge and Empress of India, and stowed away on board the transports, the work taking all night.'

"Thus did Rear-Admiral Gerard Noel cut the knot which all the diplomatists in Europe had failed to unloose. The Marquess of Salisbury publicly complimented the Admirals upon their diplomatic ability, saying that he wished the Cabinets of Europe could work together with equal unanimity and rapidity."

ADMIRAL LORD BERESFORD

The career of Admiral Lord Beresford of Metemmeh, another officer who, when he entered the Navy in 1861, was trained by the men of Nelson's time, exemplifies a very remarkable combination of seaman, statesman, and sportsman. He owns that very rare gift of knowing intuitively what to do at any given moment in war. And he owns the equally rare quality of leadership.

He is a born leader of men. But he was born just too soon to command in the present War; and like his brother officers, retired by reason of seniority, Lord Beresford, apart from his work in Parliament, must console himself with the knowledge that the officers now in command of fleets and squadrons learned their business while serving under him.

In 1888, Captain Lord Charles Beresford, then a Junior Lord of the Board of Admiralty and a Member of Parliament, resigned his post at the Admiralty in order to compel attention to the requirements of the Navy. He demanded a scheme for increasing the Navy which would cost twenty-one millions sterling, and got it. Here was an instance of a naval officer risking his whole future career in order to secure what he knew to be necessary for the safety of the country. As a matter of fact, Lord Beresford was never again employed at the Admiralty.

Throughout the whole of his life Lord Beresford has never been discouraged even for a moment. In 1892, he again drew up a great shipbuilding scheme, and thus helped to carry into execution the naval increase of 1892. In 1909, Lord Beresford drew up a scheme to prepare the Navy for war, which was in part adopted by the Government. The ships which were omitted by the Government were precisely the ships which on the outbreak of war in 1914 were most needed.

In his "Memoirs" Lord Beresford has some notes on discipline and the administration of a fleet by an Admiral, which may be compared with the example of Lord St. Vincent.

"There is no position in the world requiring more tact than that of a commander-in-chief of a large fleet. It is only by the exercise of consummate tact that a fleet can be maintained in the most rigid state of discipline, and, at the same time, cheery, happy, and smart."

That such was precisely the condition of the fleets under Lord Beresford's command those who served in them testify.

"It is wiser to administer a fleet by commendation than by condemnation. If commendation is given for good and smart actions, condemnation for bad, slackness becomes far more severely condemned, and no sympathy for it is aroused. . . . When a good officer or man knows that the Admiral appreciates his work, it cheers the fleet and raises its whole tone. It is right to be severe on those who do their work lazily or badly; but it is quite as necessary to appreciate those who do their work well."

Lord Beresford quotes a problem in discipline.

"I had a sergeant of Marines, a man with an excellent record, a strict disciplinarian, popular among his men, who, within nine months of the expiration of his time, came aboard blind drunk and disorderly. The penalty was to be reduced to the ranks. But it is often forgotten what under such circumstances that penalty involves. The non-commissioned officer loses his N.C.O.'s time and pension, his badge pay for six



Photo, London Stereoscopie Co.

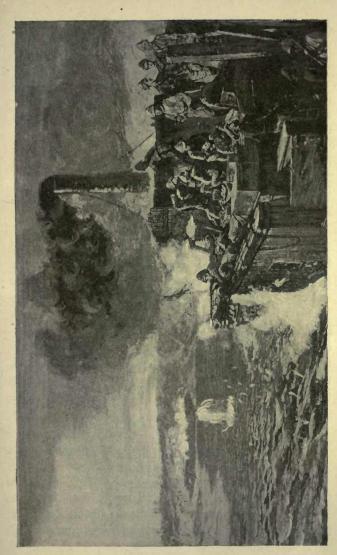
CAPTAIN LORD CHARLES BERESFORD.

(Now Admiral Lord Beresford, G.C.B., K.C.V.O.)

months, and the gratuity of his rank. It is a tremendous penalty to pay, when, except for the one mistake, he has a clean sheet all through. I had the man up before the petty officers and non-commissioned officers, explained that there were only two courses of action: either to reduce him or to let him off altogether; and told them that I intended to count his long and excellent service and exemplary character as outweighing a single failure. Here was an exceptional case; and because it was exceptional, it was wise to depart from the rule, and to give reasons for disciplinary action."

The present generation is too young to remember the feat of arms from which Lord Beresford of Metemmeh took his title when his present Majesty conferred a peerage upon the Admiral. In February, 1885, Captain Lord Charles Beresford, commanding the little river steamer Safieh on the Nile, saved the whole Desert Column, the forlorn hope sent to relieve General Gordon besieged in Khartoum.

Sir Charles Wilson, returning from Khartoum with his two steamers, was wrecked forty miles from Gubat and Metemmeh, the British headquarters. Between Gubat and Sir Charles Wilson was the fort of Wad Habeshi, garrisoned by a force of 3000 Dervishes. Captain Lord Charles Beresford in the Safieh was sent to rescue Sir Charles Wilson. Lord Beresford describes the Safieh as "a penny steamer in a packing-case." She had been hastily armoured with railway sleepers and boiler plate. "Where the packing-case was deficient



THE ACTION OF THE SAFIEH AT WAD HABESHI, 14TH FEBRUARY, 1885.

bullets went through her as through paper, and a shell would pierce her wooden jacket."

To reach Sir Charles Wilson's party the Safieh must run past the fort of Wad Habeshi. The steamer burned wood, and against the stream she could make no more than a little over two miles an hour. Early on the morning of 1st February, 1885, the Safieh engaged the fort. She had passed it when a shell went through her side, penetrating her boiler. There she lay, helpless. The chief engineer, Mr. Benbow, with the help of a stoker, repaired the boiler with his own hands. The plate he made is now in the Museum of the Royal Naval College, Greenwich. All that day the Safieh kept a steady fire upon the fort. Very early the next morning the Safieh steamed away and turned, again engaged the fort, and went on and rescued Sir Charles Wilson's party. The enemy Dervishes were so impressed by the powers of about thirty Englishmen in the Safieh in defeating 3000 Dervishes at Wad Habeshi, that they fled, spreading the news of the English victory, and thus delaying the strong column marching to attack the main British force at Gubat. The delay enabled the small British force to retire.

CAPTAIN WONHAM

In the book "Spun Yarns of a Naval Officer," by Captain Albert R. Wonham (King & Son, London, 1917), we find another type of naval officer, a seaman first and last, loving hard work, and joyfully tackling

any job that comes his way, and the tougher the job the better for Captain Wonham.

In 1874, Lieutenant Wonham was in H.M.S. Barracouta, in Levuka Harbour, Fiji, engaged in the business of annexing the Fiji Islands.

"In those days, so soon as we annexed a place, the people at home, among other things, always sent out a railway. There was a line of steamers that left New Zealand, came to Fiji and went on to San Francisco, calling at Levuka with mails. Now Fiji's principal islands are mountainous, and therefore are not the place for railways at all. Nevertheless, in course of time, in came one of these fine steamers with a railway engine slung over her side, all ready to drop into a lighter. But a lighter did not exist. The engine, a fine large one, weighed tons. Even our paddle-boats would not do. In the meantime the mail steamer was rousing the place with her steam-whistle.

"There were a few Royal Engineers on shore, and the engine was consigned to them. They represented to the Governor, who represented to the senior officer, and the senior officer sent for me. Now with us naval people, the chief's order has to be obeyed smartly and well, and every one who gets in the way has to get out of the way. Boats there were none, piers none, spars none. But there was a big elongated box, a sort of lighter, used to bring light goods from steamer. I seized that, went on shore and cut down half a dozen straight trees. There were plenty of empty rum casks about. We slung these and secured them to the trees, now made

into spars. Securing one on each side of the boxlighter with plenty of spars under from one side to the other, to distribute the weight, we rushed her off to the mail steamer. They duly lowered away, and I was glad to see that the old box took it well. And the steamer left to time.

"Yes, but if it had come on to blow, the box-lighter would have gone, with my engine, to the bottom in countless fathoms of water. And I had to get the engine up the beach above high-water mark. We went on shore, cut down more cocoa-nut trees, with which I rigged triangular sheers, calculating the rise and fall of tide. At high water, we brought the box and engine under the triangle, hooked the purchase, hauled it taut, and when the tide fell, it left the engine slung in the air. More trees were cut for skids, leading right up to the top of the beach, and for a carriage to slide on the same. Then we lowered the engine on to the carriage. By this time all the Levuka people were looking on, natives and all.

"They all had to clap on the purchase fall, to heave everything up on the beach. Not a word from any one all through. The man who makes a noise usually does not know anything about his job. A shrill and continuous note of the boatswain's whistle, and up she went to her place. The engine was never moved in my time, and may be there now.

"This scandalous use of trees and the box was awful! But any complaints were referred to the senior naval officer, who referred them to his Excellency the



Photo, Cecil Meade and Co CAPTAIN A. R. WONHAM, R.N.

Governor, who referred them to the commanding officer of the Royal Engineers; and they may be at it still. But the engine was up on the beach."

Captain Wonham entered the Navy in 1860, and retired from it in 1897. His book is one of the best records extant of the miscellaneous work done by the Navy in every quarter of the globe—suppression of pirates, voyaging, wars, sport, and of work in which Captain Wonham was particularly skilled, salvage. He relates an example of meeting a sudden emergency, which also occurred while he was in the Barracouta in the Pacific.

"Before our relief came, it was necessary to send away the men who had been wounded in the trouble. As there were no steamers, we chartered a sailing-vessel for the transportation. Having been duly fitted out and the wounded placed on board, she sailed in the afternoon, the master expecting to clear the islands with the land breeze, and to pick up the trades later. I was up early the next morning, and at once caught sight of the vessel. She was about ten miles off, and appeared to me to be dangerously near the sea reefs.

"Fortunately we had steam in the steam-pinnace, and I was off so soon as she was ready. I had to go round the encircling reefs, keeping as close round to the breakers as I could, a good twelve miles. And it was a race. It was just a chance if I could get there in time to save her, for she was becalmed, a nasty swell setting right on to the reef, through the breakers, in which no boat could live. And she could not anchor,

for the very deep water, hundreds of fathoms deep, reached right up to the reefs, which were under water at high tide. There was no middle course; you were either on or off the reef, if you did not go to pieces right on top of it. Usually, ships that run against such reefs get broadside on, and break up in a few minutes in the heavy surf.

"The reef at low water was mostly uncovered for a few inches above water. It was past low water, and a rising tide, and my experience in similar circumstances told me that as soon as the tide had risen sufficiently to run in over the reef, the inset would be very strong, and right towards the reef; for unlike most reefs, this one had no channel, and the nearest point of safety was the way I had come. We steamed as hard as we could, burning all the tallow, rope yarns, and anything else inflammable.

"I saw that the ship had her boats ahead, holding her up head to sea, but I could also see by transit through her to some rocks in line further down coast to eastward, that all the lot was going in towards the reef, although the tide was not over the reef yet. At last we were with her. I dashed in, got a rope and went ahead to tow her if I could. I had, as I said, a capital transit mark by which I could see at any moment what we were doing. For a short time we held her up, and if the tide had been ebbing, we might have done it. It was absolutely calm, not an air of wind, and the sails flapping in the heavy swell.

"It was not long before I saw that we could not

hold her up even then, as the tide was just topping the reef. Slipping, and sending the boats back to the ship with a message to the commanding officer of the naval party to order the medical officer and the master of the vessel to get the wounded and sick on deck, and to get as many in the boats as possible, I steamed ahead and held her up, in fact we never stopped. It was a case of all or nothing.

"We had a capital officer and medical staff on board, and the way those fellows slipped into the job, the quiet way in which the work was done-no panic, no noise—was wonderful. Soon the cot cases were being hoisted over the side and lowered into the boats which, when loaded, were ordered to pull out seawards, although the rollers were just beginning to cap on the crest, a precursor to breaking.

who were able to get out of their cots were out too, and the boats were clear, I cut the tow rope, circled the boat round, and brought the steam-pinnace along-

"As soon as the worst cot cases were out, and those

side the vessel and secured her, so that I could keep on steaming to hold the vessel up to the very last

moment.

"Rapidly getting the remainder of the sick and wounded into the steam-pinnace, the officer on deck reported all clear, and was then ordered to jump in. The situation at this moment was pretty critical. be sure we had her head to sea, which for letting go and getting away was convenient, but the swell was in earnest now, and visibly cresting as it ran up the steep incline under water to dash on the reef. Not a moment was lost. With a boat full up everywhere, we cut away everything and steamed away ahead out of danger. No sooner did we leave the ship than a swell struck her, drove her astern and broadside on, and in about three minutes she was matchwood, and some solitary portions of her in shoal water on the top of the reef. A pretty close shave."

These instances have been chosen out of innumerable others, because they display the character of the naval seaman. In the case of Captain Wonham, his favourite maxim and guiding star, as he says, is:

Get the work done.

VII

THE NAVY IN THE GREAT WAR

In order to estimate and to appreciate the achievements of the Navy during the Great War, it is first of all necessary to understand what exactly is the task which the Navy is set to fulfil in war.

When war was declared, on 4th August, 1914, the immediate duty of the Royal Navy was to obtain the command of the sea. The command of the sea means the ability to move ships at will without interference by the enemy, and to prevent the movement of ships by the enemy. The command of the sea may be obtained either by destroying the fleet of the enemy wherever it may be found, or by effectively containing the fleet of the enemy by shutting it in its ports.

When the command of the sea has been obtained, and not before, the safety of the merchant vessels sailing on all trades is secured, with certain exceptions. These exceptions consist in the attacks upon merchant ships made by small isolated squadrons or single cruisers, which have escaped the observation of the

British fleet, and in attacks made by submarines. To guard against these contingencies particular measures must be devised.

In order to destroy the main fleet of the enemy it is clearly necessary that the main fleet of the enemy should put to sea, because so long as it remains in harbour, defended by mines, submarines, and batteries of land guns, it is impossible to get at it. And in that position the German fleet has remained, excepting for occasional excursions, during the Great War.

If the main fleet of the enemy remains in harbour, it is necessary effectively to contain it. In the old wars, that operation, called blockade, was executed by keeping a squadron off the enemy's port, sometimes for years, watching the enemy. Should he show signs of putting to sea, the watching squadron sent the news to the main British fleet, which was stationed as near by as circumstances permitted.

To-day, the use of the mine and of the torpedo-carrying vessels, the submarine and the destroyer, have made the old operation of close blockade impossible. Therefore the British fleet maintains a distant blockade, which means that the main British fleet is so placed that, if the main fleet of the enemy puts to sea, the main British fleet may be able to intercept the enemy, and, by preventing him from returning to harbour, to force him to accept action.

Such a strategic position was occupied by the British main fleet in the Great War.

It will here be convenient to deal with the occasion

when the German fleet first challenged the British fleet to a general action, which, had one or other fleet been destroyed, would have given the command of the sea to the victor. The Battle of Jutland was a British victory; but, as the German fleet, though beaten and forced to retreat, was not destroyed, the command of the sea, strictly speaking, was not obtained by battle.

After the battle, the British fleet resumed its distant blockade of the enemy, and in so doing resumed its command of the sea, which was completely exercised except in respect of enemy cruiser attacks, and submarine attacks, upon merchant shipping.

The Battle of Jutland was fought on 31st May-1st June, 1916.

The main British fleet was under the command of Admiral Sir John R. Jellicoe, flying his flag in H.M.S. Iron Duke. The battle-cruiser squadron was under the command of Vice-Admiral Sir David Beatty flying his flag in H.M.S. Lion.

The main German fleet was under the command of Admiral von Scheer. The German battle-cruiser squadron was under the command of Admiral von Hipper.

Admiral Sir John Jellicoe, in his despatch, states that: "The ships of the Grand Fleet, in pursuance of the general policy of periodical sweeps through the North Sea, had left its bases on the previous day in accordance with instructions issued by me." Thus we are to understand that the distant blockade exercised



A FIRST-CLASS BATTLESHIP FIRING A BROADSIDE.

by the Grand Fleet was conducted with frequent cruises in search of the enemy. On the afternoon of 31st May, 1916, the enemy was sighted by the cruiser H.M.S. Galatea. Sir David Beatty, with his battle-cruiser squadron, who was in advance of the Grand Fleet, reports that: "The direction of the advance was immediately altered to S.S.E., the course for Horn Reef, so as to place my force between the enemy and his base."

The Horn Reef lies off the coast of Jutland, about 150 miles north of Wilhelmshaven naval base. The weather was misty, making what is called low visibility, which is usually the condition on the North Sea.

At 4.15 P.M., action opened at a range of 20,000 yards between the British and the German battle-cruiser squadrons. At the same time there was "very fierce and resolute" fighting between the British and German light cruisers and destroyers. At 4.38, H.M.S. Southampton sighted the German main fleet coming up astern of their battle-cruiser squadron. Sir David Beatty immediately went about, steering north-east, and Admiral von Hipper turned with him. The two battle-cruiser squadrons thus steamed on a parallel course, fighting as they went. Sir David Beatty was drawing von Hipper, and with von Hipper, von Scheer and the German battle fleet, towards the main British battle fleet, which, as yet invisible, was steaming south at full speed.

At 6.14, Sir John Jellicoe received by wireless signal from Sir David Beatty the position of the main fleet

of the enemy, and formed his line of battle. By this time, the light was failing and the mist was thickening. Sir John Jellicoe reports that "after the arrival of the British battle fleet, the enemy tactics were of a nature generally to avoid further action, in which they were favoured by the conditions of visibility."

In other words, when Admiral von Scheer met Sir John Jellicoe, the German retreated. He was attacked continuously during the night by the British destroyer flotillas.

The losses of the British fleet were: three battle-cruisers, Queen Mary, Indefatigable, and Invincible; three armoured cruisers, Defence, Black Prince, Warrior; and eight destroyers. The known losses of the German fleet, sunk or put out of action, were: four battleships, two battle-cruisers, five light cruisers, nine destroyers, one submarine. In the official despatch it is stated that: "It is impossible to give a definite statement of losses inflicted on the enemy. . . . A review of all the reports which I have received leads me to conclude that the enemy losses were considerably greater than those which we had sustained. . . ."

In all naval actions there is a predominating factor upon which the result usually depends. In the Battle of Jutland, the predominant factor would seem to have been the decision of Sir David Beatty, made upon the instant the German main fleet was sighted, to go about and thus tempt the whole of the German forces into the clutches of the main British fleet. It was bad luck that when the two fleets had fairly met,

the increasing darkness helped the enemy to escape annihilation.

After the fight the British fleet resumed its distant blockade, ready for action at any moment.

In August of the following year, 1917, the German fleet again put to sea, but on the advance of the British fleet retreated into harbour without action.

The incidents of a modern naval engagement are indescribably terrible. The devastating power of modern guns is so deadly that a single shot may sink a first-class battleship, and a salvo blows a lighter vessel into nothing, like the flame of a candle blown out. The battle is fought at a furious speed among the crash and vibration of the firing, the tremendous shocks of striking projectiles, fountains of spray flung up to the masthead by shots plunging into the sea, and thickening clouds of dense and poisonous smoke.

An engineer officer, who entered the Navy during the war, and who was in a battleship during the Battle of Jutland, said that what most dreadfully impressed him was the frightful mutilations inflicted upon officers and men. A heavy projectile entering an armoured steel ship, hurls jagged fragments of metal, and smashes, twists, and buckles steel plates and bulkheads. Men are pinned down, rent and torn.

The engineer officer, going about his duty below, passed and repassed a seaman who lay beside the ladder. The man's hand had been blown off, and he had other serious wounds. He could not be taken to the sick-bay, because the sick-bay and its medical appliances had

been completely demolished by a shell. The engineer officer bound up the man's wound as best he could.

"I think this is good enough for Blighty, don't you, sir?" said the man cheerily.

Each time the officer passed, he spoke to the man, and presently the seaman said: "It's no good, sir. I shan't see Blighty after all. Good-bye, sir." When the officer next came to him, he was dead.

All this time the engineer officer was keeping his men in the stoke-hold to their work, amid the choking fumes of cordite. The poison had suddenly rushed into the stoke-hold, and the officer instantly ordered the men to put on their gas-masks, and called upon them to stick to their work. The men had seen their wounded, and they needed no spur. So furiously they wrought, masked and sweating, that in the half-hour which elapsed before the fumes were blown away by the fans, they actually increased the speed of the ship.

This fragmentary instance is but one example of the spirit of the Navy out of very many; so many that they would fill volumes.

Besides the general action of the Battle of Jutland, there were lesser engagements, which must be briefly indicated.

On 28th August, 1914, was fought the action of Heligoland Bight. It was a reconnaissance in force of destroyers, reinforced by light cruisers. The British force was led by Commodore Reginald Y. Tyrwhitt, flying his broad pennant in H.M.S. Arethusa. The Arethusa and the destroyer flotillas were engaged with

the enemy's destroyers and light cruisers when the British flotillas were reinforced by a squadron of light cruisers and subsequently by a squadron of battle-cruisers. The enemy was defeated with loss.

The powerful German cruiser squadron, which had been stationed in the China seas at the outbreak of war, was known to be at large in the Pacific in October, 1914. The German squadron consisted of the armoured cruisers Scharnhorst and Gneisenau and the light cruisers Dresden and Leipzig. It was commanded by Admiral Graf von Spee, flying his flag in the Scharnhorst.

The British squadron in the Pacific consisted of the Good Hope and Monmouth cruisers, the light cruiser Glasgow, and the auxiliary cruiser Otranto. It was commanded by Rear-Admiral Sir Christopher Cradock, flying his flag in H.M.S. Good Hope.

Sir Christopher Cradock met the enemy on Sunday, 1st November, 1914, and fought a hopeless action in a heavy gale. He had but two heavy guns to oppose to the broadside of twelve heavy guns of the enemy.

The Good Hope and the Monmouth were sunk with all on board.

Admiral von Spee went south, and rounded the Horn, and steered for the Falkland Isles. He probably intended to capture the Falkland Island harbours, coal there, and proceed to Cape Town. In the meantime, a British squadron, consisting of the battle-cruisers Invincible and Inflexible, the cruisers Carnarvon, Cornwall, and Kent, the light cruisers Glasgow and

Bristol, and the auxiliary cruiser Macedonia, had been despatched from England under the command of Vice-Admiral Sir Doveton Sturdee, flying his flag in H.M.S. Invincible. The squadron fetched up at the Falkland Islands on 7th December. The next morning, 8th December, came the German squadron, which now included the Nurnberg, light cruiser. The action began at one o'clock and lasted till six. It was fought at an average range of seven miles. The Scharnhorst, Gneisenau, Leipzig, and Nurnberg were sunk. Thus Sir Christopher Cradock was avenged.

The note-book of a German officer on board the Gneisenau has been preserved. The German officer kept a record up to within a few minutes of the sinking of the Gneisenau. The Gneisenau was being engaged by the Invincible. The last notes are as follows: "5.10, hit; 5.12, hit; 5.14, hit, hit, hit again; 5.20, after turret gone; 5.40, hit, hit, on fire everywhere; 5.41, hit, hit, burning everywhere and sinking; 5.45, hit, hit, men lying everywhere; 5.46, hit, hit. . . ." Fourteen minutes later the Gneisenau turned over and sank.

On 24th January, 1915, an action was fought between the British battle-cruiser squadron under the command of Vice-Admiral Sir David Beatty, flying his flag in H.M.S. Lion, and the German battle-cruiser squadron. With Sir David Beatty's squadron was a destroyer flotilla under the command of Commodore Reginald Y. Tyrwhitt, flying his broad pennant in H.M.S. Arethusa. With the German battle-cruiser

squadron were the Blucher, armoured cruiser, and a squadron of light cruisers and flotillas of destroyers. The enemy was intercepted while steering for the English coast. Upon sighting the British squadron the Germans went about and retreated at full speed. There followed a running fight, in which the German armoured cruiser Blucher was sunk, and two out of the three battle-cruisers were seriously damaged. The Lion, Sir David Beatty's flagship, was hit, and Sir David Beatty transferred his flag to the Princess Royal. So deeply was the Lion down by the bows that, when the destroyer H.M.S. Attack came to take the Vice-Admiral to the Princess Royal, the forecastle of the Lion, properly some twenty feet above the deck of the destroyer, was nearly level with it, and Sir David Beatty stepped from the deck of one vessel to the deck of the other.

The British squadron, coming to a minefield, was prevented from pursuing the enemy farther. The Arethusa and some destroyers saved 123 men from the Blucher. While rescuing the Germans, the British ships and boats were attacked from the air by a Zeppelin and an aeroplane.

In February, 1915, began the bombardment of the Dardanelles by the combined British and French fleets, consisting of twelve British and four French battleships. The theory of the attack was that the long range and great power of modern naval artillery enabled ships successfully to engage land forts. It proved to be an erroneous theory. The object of the attack was

to force the straits of the Dardanelles. The bombardment of February, 1915, inflicted great damage upon the defences of the enemy; but the attempt to force the Dardanelles failed, with the loss of two British battleships and one French battleship. It was then decided to send troops to the Dardanelles. Thenceforward the action of the naval force, which was greatly augmented, consisted in serving as supply and transport for the Army, and in assisting its military operations.

The Navy began to land the Army on the Gallipoli Peninsula on 25th April, 1915. The combined operations continued until the troops were compelled to withdraw from the Peninsula after a disastrous campaign, in which the British fleet lost five battleships, besides other losses.

Thus, during 1915, the Navy, besides maintaining its position in the North Sea, and keeping ships on all seas, furnished a great fleet complete with all auxiliaries to serve as a base for a large Army in the Mediterranean.

Upon the night of 22nd-23rd April, 1918, was achieved one of the greatest exploits in naval history. Vice-Admiral Sir Roger Keyes, commanding the Dover Patrol, equipped a force, where men were all volunteers, to block the two naval bases of the German Flanders Submarine Flotilla, Zeebrugge and Ostend. Three old cruisers, Intrepid, Iphigenia, Thetis, filled with cement, steamed under heavy fire into Zeebrugge harbour and were sunk in the harbour and across the canal

entrance. At the same time, Captain Alfred F. B. Carpenter, in H.M.S. Vindictive, with the armed ferryboats Iris and Daffodil, landed a storming party on Zeebrugge Mole under concentrated fire, and an old submarine, commanded by Lieutenant R. P. Sandford, was blown up under the railway bridge connecting the Mole with the mainland, destroying the bridge and numbers of the enemy: Vice-Admiral Sir Roger Keyes, flying his flag in H.M.S. Warwick, destroyer, was present at the action.

Commodore Herbert Lynes commanded the expedition to Ostend. Two blocking ships, the old cruisers Sirius and Brilliant, were sunk in the channel leading to Ostend harbour; but owing to a shift of wind, the enemy opened fire before the ships were in their allotted positions. On the night of 9th–10th May, 1918, Commodore Lynes took a second expedition to Ostend, flying his broad pennant in a destroyer. Vice-Admiral Sir Roger Keyes, flying his flag in H.M.S. Warwick, was present at the action. H.M.S. Vindictive, commanded by Commander Godsal, who had commanded H.M.S. Brilliant in the previous attempt, was sunk between the piers of Ostend harbour under heavy fire. Commander Godsal was killed.

The result of these two immortal actions was that both Ostend and Zeebrugge was closed to submarines and all vessels except small craft.¹

These, then, are some of the principal actions of the

¹ A full account of these actions appeared in "The National Record," June, 1918.

Navy during the War: the general engagement of the Jutland Battle, the several lesser actions, and the operations in the Dardanelles. The Navy also kept a squadron with auxiliaries in the Mediterranean, and assisted the Army in Egypt, in Palestine, at Salonica, and in Mesopotamia.

When the command of the sea has been obtained, either by destroying the main fleet of the enemy, or by shutting it in its ports, the enemy is thus prevented from winning the war at sea. But he is still able to inflict loss and injury upon the stronger power by sowing mines, by attacking merchant ships with cruisers and submarines, by making sudden dashes out of harbour and attacking isolated ships or patrols, and by bombardments of coast towns. In all naval wars, the defeated or the inferior naval Power has been thus able to damage and weaken the stronger Power, but in no instance have these methods affected the main course of the war.

In the Great War, Germany, by means of submarine warfare, has attempted to make the command of the sea exercised by the British Navy of no effect. By the continued destruction of merchant ships bringing supplies across the sea to the Allies, Germany resolved to win the War at sea. The scheme has one inherent defect. The destruction of merchant ships, while it weakens the Allies, does not bring supplies into Germany, nor does it enable her to trade with other countries across the seas. For the command of the sea exercised by the British Fleet, while it cannot

entirely prevent the enemy from gaining small advantages, can prevent German merchant ships from putting to sea, and can prevent neutral ships from carrying supplies to Germany. That operation is called blockade, or siege by water. Its duties are discharged by the ships which patrol the seas in order to keep them clear of enemy cruisers and merchant vessels.

At the outbreak of war, therefore, the Navy, in addition to the main fighting duties of the Fleet, was suddenly compelled to provide defence against the following dangers: mines; cruiser attacks upon merchant ships; the supplying of the enemy by enemy and also by neutral ships; attacks upon Army transport; raids upon the coast or upon patrol squadrons; and, most dangerous of all, the submarine.

The force available for these purposes was wholly insufficient. Therefore, when war came, the Navy, while fighting the war, must at the same time create a new Navy. The Admiralty immediately took over a large number of vessels of all kinds from the mercantile marine; and with them entered many hundreds of the officers and men of the mercantile marine, together with yachtsmen and other civilians.

It was first of all necessary to keep the waters round the coast clear of mines. For mine-sweeping duties fleets of trawlers and drifters were enlisted. At first these were unarmed. They worked in all weathers, day in and day out. Sometimes they were blown up by mines, sometimes they were sunk by hostile cruisers or submarines; but they kept the fairway clear of mines.

For patrol duties, to guard against attacks upon merchant ships and to arrest enemy and neutral ships, yachts and cargo boats and liners were equipped and sent out on all seas. These were a match for enemy armed auxiliary cruisers, but a hostile man-of-war could send them to the bottom.

Against hostile men-of-war and heavily armed raiders were despatched H.M. cruisers of the regular Navy, and later in the War they escorted convoys of merchant shipping.

The immense daily and nightly volume of transport across the Channel is protected by destroyers; and so admirable has been their work that out of many millions of persons no more than something over two thousand of them have lost their lives during the whole course of the War. The daily and nightly traffic across the Channel of troops, passengers, supplies, and ammunition is incessant like the traffic on a main line of railway. The country will never know all that it owes to the officers and men of the destroyer service, upon whom falls the duty of patrolling the narrow seas, protecting cross-Channel traffic, guarding, convoying, and rescuing merchant ships, harrying the enemy, hunting submarines day in and day out, fair weather and foul, for years on end.

The War has been called a war of destroyers. Certainly, but for the work of the destroyers, alike in general engagements, squadron actions, and patrol ser-

vices, Germany would have achieved her object, which is to win the War at sea, without having gained the command of the sea, by submarine warfare.

The submarine war upon sea-borne commerce, belligerent and neutral alike, is the greatest danger England has ever encountered. It began in February, 1915, when Germany issued the following proclamation:

"The waters around Great Britain and Ireland, including the entire English Channel, are hereby declared a military area. From 18th February 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."

Here, then, was the formal announcement that Germany repudiated all obligations of international law. Germany entered, even before the date specified, upon that course of murder, destruction, and brutal outrage at sea, which have branded her for ever as the pirate nation. Ships sunk without warning, crews and passengers turned adrift in open boats hundreds of miles from land, women and children drowned, hospital ships torpedoed: these are some of the German methods of sea warfare.

If we consider what would be the position at sea were there no submarine warfare, we can understand the danger of the submarine. Apart from the submarine, the exercise of the command of the sea by the British Navy would be virtually complete. The fleet

¹ See "The Merchant Seaman in War." By L. Cope Cornford. (Methuen, London, 1917.)

of the enemy is shut up in harbour. Excepting the occasional excursions of cruisers or destroyer flotillas the seas are cleared of hostile ships, and not a single German merchant vessel sails. The fleets and ships of the Allies can move when and where they will. They can stop all neutral ships carrying supplies to the enemy.

Now it is the desire of the enemy to make the whole of that immense and triumphing achievement of no effect by the use of the invisible vessel, the submarine. Unseen, the submarine can leave harbour, and go unseen to the places where the roads of the sea converge, as the lines of rail meet in a junction: off the coasts of Ireland; in the entrances to the Channel; off harbours where a submarine can lie on the sea-bottom for a day or a night, and far out on the trade routes of the Atlantic.

The task of the Navy was to find and kill an invisible foe; to find a charm which would break the spell of the cloak of darkness. The greatest magicians of science and the cleverest men in the Navy have been toiling, and are toiling, to invent the charm. What they have invented may not be told. But it is known that the submarine hunters use depth charges, bombs which explode under the water, and that the airship and the aeroplane spy out and track the submarine.

The German, to destroy England, turned himself into a mole on land and into a cannibal fish at sea. The Englishman, to destroy the mole and the fish, turned himself into a bird. It is a fight to the death

between the fish and bird; and the bird is winning. For the powers of the air are stronger than the powers of darkness.

And for a last word, this "Admonition," which Mrs. Eden very kindly allows me to quote: 1

Remember, on your knees,
The men who guard your slumbers——

And guard a house in a still street
Of drifting leaves and drifting feet,
A deep blue window where below
Lies moonlight on the roof like snow,
A clock that still the quarters tells
To the dove that roosts beneath the bell's
Grave canopy of silent brass,
Round which the little night winds pass,
Yet stir it not in the grey steeple;
And guard all small and drowsy people,
Whom gentlest dusk doth disattire,
Undressing by the nursery fire
In unperturbed numbers
On this side of the seas——

Remember, on your knees, The men who guard your slumbers.

¹ From "Coal and Candlelight and other Verses." By Helen Parry Eden. (John Lane, London, 1918.)

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