

HERESIES OF
SEA POWER

FRED T. JANE





Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation





HERESIES OF SEA POWER

HERESIES OF SEA POWER

BY
FRED. T. JANE

AUTHOR OF
'FIGHTING SHIPS' ETC.; INVENTOR OF THE NAVAL WAR GAME

WITH MAPS AND ILLUSTRATIONS

LONGMANS, GREEN, AND CO.

39 PATERNOSTER ROW, LONDON

NEW YORK AND BOMBAY

1906

All rights reserved

V
27
J3

PREFACE

THIS book is intentionally suggestive only. Though it seem to be all that its title can imply, it has not been produced with a view to casting doubt upon the labours of great men who have made a special study of Naval History, but only in order to suggest the possibility of some great principle underlying all Naval History, as capable of reinforcing theories of Sea Power as of destroying them.

I would only ask those whose first attitude towards the book may be that of hostile criticism to read it to the end before forming too definite an opinion as to the thesis advanced, assuring them that the final conclusion has not been arrived at without very careful thought, earnest study, and every effort to avoid the rôle of the mere iconoclast.

FRED. T. JANE.

PORTSMOUTH, *April* 1906.

CONTENTS

	PAGE
PREFACE	v
INTRODUCTION	1

PART I

SEVEN GREAT NAVAL WARS AND THEIR PARADOXES

I. THE PELOPONNESIAN WAR	24
II. THE FIRST PUNIC WAR	40
III. THE SECOND PUNIC WAR	60
IV. ACTIUM AND LEPANTO	72
V. THE SPANISH ARMADA	77
VI. THE RUSSO-JAPANESE WAR	87

PART II

PROBLEMS THAT 'SEA POWER' DOES NOT SOLVE

I. SOME TACTICAL AND STRATEGICAL PROBLEMS	110
II. BASE POWER	126
III. THE GUERRE DE COURSE	145
IV. COLONIES AND SEA POWER	179
V. INTERNATIONAL LAW	190
VI. THE INVASION OF ENGLAND	215
VII. SECRECY AND SEA POWER	233

PART III

THE TREND OF THINGS

	PAGE
I. ETERNAL PRINCIPLES	254
II. THE EVOLUTION OF NAVIES	277
III. THE DIMENSIONS OF WARSHIPS	296
IV. THE EVOLUTION OF THE BATTLESHIP	310
V. 'FITNESS TO WIN'	321
 INDEX	 335

MAPS AND ILLUSTRATIONS

	PAGE
MAP TO ILLUSTRATE PELOPONNESIAN WAR	27
MAP OF SYRACUSE TO ILLUSTRATE PELOPONNESIAN WAR	35
MAP TO ILLUSTRATE PUNIC WARS	41
ONE OF THE VENETIAN GALLESSES AT LEPANTO . <i>to face</i>	75
MAP TO ILLUSTRATE THE COURSE OF THE SPANISH ARMADA	79
SHIP OF THE SPANISH ARMADA } <i>to face</i>	81
SHIP OF WILLIAM THE CONQUEROR }	
BRITISH SHIP AT THE TIME OF THE SPANISH ARMADA ,,	83
MAP TO ILLUSTRATE RUSSO-JAPANESE WAR	89
MAP OF PORT ARTHUR <i>to face</i>	91
MAP SHOWING PRINCIPAL BRITISH TRADE ROUTES ,,	166
MAP TO ILLUSTRATE CAMPAIGN OF 1805 AND EARLIER	217
EGYPTIAN SHIP ABOUT 2500 B.C.	278
LARGE EGYPTIAN SHIP IN THE RED SEA <i>circa</i> 1200 B.C.	279
EGYPTIAN WARSHIP IN ACTION 1000 B.C. }	280
ASIATIC WARSHIP IN SAME BATTLE }	
PHENICIAN WARSHIP OF <i>circa</i> 700 B.C. FROM NINEVEH MONUMENTS.	281
THE GREAT HARRY <i>to face</i>	302
CYCLOPS—EARLY PADDLE WARSHIP ,,	310
FRENCH FLOATING BATTERY IN THE CRIMEAN WAR	311
THE OLD TURRET SHIP ROYAL SOVEREIGN	313
THE ROYAL SOVEREIGN <i>to face</i>	313

HERESIES OF SEA POWER

INTRODUCTION

WITH the general vague definition of Sea Power as a factor influencing the course of events, no reasonable man can quarrel. But is that influence on a par with and of the same nature as—say—the weather, military equipments, and so on and so forth, or is it a peculiar and predominant factor as—to a certain extent—it is claimed to be by Captain Mahan, and very loudly asserted to be by his imitators and disciples? In other words: Was Sea Power the sole cause that such and such a nation beat another in a war involving maritime interests; or was it that the winning nation *happened to make use of the sea in winning?*

Regarded in one way this question may be held merely to embody a distinction without a difference: regarded in another the difference may be found enormous. For the question may then resolve itself into this: Is the possession of Sea Power a guarantee that the nation possessing, using (and needing) it will

win? If history be found to answer Yes; it can also be found to answer No.

An examination of Captain Mahan's standard work will make the position clearer, though it should be definitely understood that this examination is conducted with a view to elucidating and illustrating the special points made above, and not in a captious attempt to nullify the arguments of that great naval historian.

In his preface to 'The Influence of Sea Power on History,' Captain Mahan brings forward two distinct illustrations—the Punic War and the Napoleonic wars. Dealing with the first he says:—

'The Roman control of the water forced Hannibal to that long, perilous march through Gaul in which more than half his veteran troops wasted away; it enabled the elder Scipio, while sending his army from the Rhone on to Spain, to intercept Hannibal's communications, to return in person and face the invader at the Trebia. Throughout the war the legions passed by water, unmolested and unwearied, between Spain, which was Hannibal's base, and Italy; while the issue of the decisive battle of the Metaurus, hinging as it did upon the interior position of the Roman armies with reference to the forces of Hasdrubal and Hannibal, was ultimately due to the fact that the younger brother could not bring his succouring reinforcements by sea, but only by the land route through Gaul. Hence at the critical moment the two Carthaginian armies

were separated by the length of Italy, and one was destroyed by the combined action of the Roman generals.'

Now it may equally well be advanced that the Carthaginians¹ selected their 'long march through Gaul' because Spain was the base they drew their best troops from and because they proposed extending their Spanish empire down into Italy. All through this Second Punic War Carthage was as able to use the sea as Rome, and Hannibal's brother Mago took his reinforcements to Spain by sea. He took them to Spain for military reasons, though they were destined for Italy direct, and the influence of Sea Power in the war was often trifling save in so far as both sides had full use of the sea as a highway whenever inclined.

Captain Mahan is at some considerable pains to answer this possible objection by a process of inferences² and the assumption that such over-sea expeditions as Carthage undertook were of the nature of those raids which no kind of Sea Power can entirely suppress. If this be granted, then of course the rest of his argument must be accepted; but can it be granted?

The deductions of Captain Mahan are that Sea Power saved Rome. It is to be urged that Rome was saved only by those political intrigues of party-ridden Carthage which kept Hannibal short of reinforce-

¹ See Chapter on 'The Punic War.'

² *The Influence of Sea Power on History*, p. 14 *et seq.*

ments and of that support which could have been supplied.

Thus far one particular case; but if we allow it too much weight, if we seek too carefully for similar instances in which the accepted influence of Sea Power may perhaps have only an imaginary value, we are undoubtedly in danger of forming conclusions as dangerous as if we accept blindly such dogmas as 'Sea Power won the Second Punic War,' or that 'The ships of Nelson at Trafalgar won the battle of Waterloo.' Rather, is it essential that we keep ever before us the fact that where an island is concerned Sea Power assumes a totally different meaning and importance to that which it possesses where continental issues are at stake. The Second Punic War was in sum and substance an entirely military campaign, and therefore is totally distinct from any war in which the British or Japanese empires could be concerned, or (save in the case of operations against Mexico and similarly negligible affairs) the United States. Between these Powers and all possible enemies the water lies. Because that water exists, they, both for attack and defence of commerce require Sea Power to a degree not experienced by most of the sea-empires of the past.

With nations that have controlled the sea in the past,—Athens, Phœnicia, Rome, Carthage, Genoa, and even the island Venice—the same conditions never obtained. Because they never obtained, may it logically be argued that, even were the teaching of history

a certain recipe for future victory, even were the 'facts' of history unassailable truths, nothing in the history of these sea-empires can be of practical value to the two great Island Powers of to-day? That ruin followed the neglect of their naval forces by these by-gone sea-empires may prove nothing of much moment to the islanders, for had that neglect been compensated for by an efficient military force and a diversion of trade from sea to land, they should have continued to exist comfortably. The geographical sea-empires, on the other hand, are in quite different case; and it is patent that, pending the arrival of flying machines, any neglect of Sea Power is for them a surrender of everything. Under no conceivable conditions can an island State remain a Power without being in possession of its own waters. The United Kingdom, for instance, might have five million of the finest troops in the world but, without a fleet, without command of the sea, she would be an absolute cypher, and, not being self-supporting, in a position to be dictated to by any third-rate power with a few ships.

Japan, being self-supporting at present is not in quite the same condition; without a fleet starvation would not face her. But her influence, her progress and her expansion would decline instantly. An invincible army would maintain her integrity, but no more.

Of the three geographical sea nations the United States has the least need of a very strong fleet at present. The immense area of the Atlantic is as yet

a sure bulwark to her, and supposing an invincible army, she, with her vast unexpanded areas inside her borders could continue to grow in peace, though at war with all the world. With a system of strategic rail-ways far removed from the sea she could uphold the Monroe doctrine intact so far as her own portion of the American continent is concerned. Below the Isthmus of Panama, however, no United States army, no matter how invincible, could control the destinies of South America without a fleet to aid it. A hostile fleet could so easily land enough men to cut communications at the Isthmus, and supposing any force entrenched there to be overwhelmed by the American military power, it would only be driven away to establish itself elsewhere at its own choice. So the Monroe doctrine necessitates a fleet: but it is a sentiment and not a necessity all the same. The cost of the United States fleet is the price of this particular sentiment.

It is patent, that the needs of these three empires vary considerably; and that the variable factor is in each case the question of food supply and the power of internal support. So great is the variation here that we may well pause to ask ourselves whether it is not sufficiently immense to render the past history of any one nation valueless to the other two, even were past history an asset of value for formulating the strategy of the future?

Does the past hold lessons for the future? Yes—

if the teachings of history be properly applied, has answered Captain Mahan, and the same answer has been given by the great body of his disciples in every nation. But each and every writer of importance belonging to this school has laid down that history must be read aright. So much has this been insisted on that before questioning the main thesis we may be disposed to ask whether we can read history aright? If we cannot, then the other question is rendered to a great extent superfluous.

Those who 'make history'—individual combatants—rarely have anything but the haziest impressions as to the general facts, as they are seen by subsequent ages. What they desired to do, or hoped to do, is always inextricably mixed with what they actually accomplished. The exact designs and aspirations of the enemy were of necessity unknown to them, surmise had to replace certainty, and finally their field of vision was of necessity focussed on the acts in which they personally took part. Their accounts must always be open to being criticised, and history, therefore, has had to be written by others, who, after hearing and sifting the evidence on both sides, have accepted that version or compromise of versions which appeared most credible. So difficult is this, so hard is it for the historian to eliminate totally any tendencies to unconscious bias, that no trustworthy full history¹ can be

¹ Histories of the Russo-Japanese war compiled while the smoke had hardly cleared are very unlikely to hold their ground a score or

composed till many years after the events dealt with. Till time has elapsed, correct perspective is impossible. Can we ensure that even after the lapse of time it will be correct ?

All are familiar with incidents such as miscarriages of justice. An absolutely impartial judge, an unbiassed jury with all the machinery of the law to help them get at facts, have more than once or twice gone astray. Who then shall claim infallibility for the infinitely more complicated task that is the historian's, even when free from bias ? Few, too, are the unbiassed historians ; the type of mind that can throw over, not only all national sentiment, but also all national bent of thought, is rare. The spell of a great personality, of a Nelson or a Napoleon, does not die with him. Be the historian never so honest, is his relatively lesser individuality absolutely able to dissociate itself from the spell of the great man ? In a word, is the ideal historian possible ? Rather must not every historian fall short of the truth in places ? Can he possibly be *en rapport* with both Napoleon and Wellington ?¹ Can he possibly avoid an unconscious bias for the one or the other, can he possibly give us all the truth even when he aims most sincerely at doing so ?

so of years hence. It will probably be twenty years before the whole facts relating to the Baltic Armada are unearthed.

¹ An instance in point is afforded by the late O'Connor Morris' *Life of Wellington*. The judge was so fascinated by the greatness of Napoleon that Wellington appears to have received less than just treatment. Yet his honesty cannot be doubted.

We are compelled to answer that he cannot always, compelled to confess that the very best he can do is to give us what may be but relative truth. Only of late have historians attempted to do this ; and the historian of to-day, labour as he will, is compelled to give credence to such internal evidence as most appeals to his sense of fact.

As a base for modern naval history there is also the official despatch ; but who that has seen official reports in the making will allow infallibility to them ? To take a great and a small case : If there were one thing that seemed more certainly established than another it was the formation of the British fleet and its plan of action at Trafalgar. Yet a few years ago a great naval authority produced a deal of evidence to show that our accepted version of that attack was entirely incorrect. He failed to convince many that his theory was the true one, but unquestionably he left the matter in a doubt from which it has never emerged. Official reports by the yard are available ; but absolute certainty as to British tactics on that memorable day is not for us. An historian, too, may yet arise to show that the importance of the victory was far less than the world has so far held it. Dumanoir may appear in a new light : even quite a plausible case may be made out to show that the British victory was a triumph of luck over bad dispositions. This is a very extreme case, and it is not suggested that the tendencies of many modern historians will have such an apotheosis ; but, supposing

any writer to have the will, he would have no great difficulty, by a little judicious selection, in making out such a theory. Convinced himself, he could draw proof enough to convince some others. And certainly there are very many students who would grant that the Nile was a greater achievement than Trafalgar. They would grant, too, very possibly, that, but for the detail that the great admiral died that day, Trafalgar might never have ranked with the Nile in the category of famous victories.

Who, too, shall define exactly the parts played respectively by Lady Hamilton and by high strategy in those days when Nelson laid the foundations of the British Mediterranean fleet? Who shall say that no one will ever 'prove' that had the fair Emma¹ not appeared on the scene to keep Nelson in those waters, his strategy there would never have been attempted? The day may yet come when it is proved that our present appreciation of the great admiral is due to unconscious selection of evidence; and his real greatness may be shown to have lain entirely in his magnetic personality and marvellous gift of organisation—greater qualities maybe than the more showy qualifications for which his memory is revered to-day. It is possible.

Thus, a great instance; on a matter that even those who doubt the truth of a great deal of accepted history

¹ See remarks as to Lady Hamilton and Trafalgar in the final chapter of this book.

would not generally quibble about. So are the most accessible naval 'facts' differentiated from the propositions of Euclid.

When versions disagree we have to ask which side had the largest motive for untruthfulness, which had the best or worst reputation that way, and so on and so forth. Enquiries in that direction necessitating endless research, produce a perfect enough balance of evidence: and points cannot really be cleared up. History, as required for naval purposes, is a mass of similar instances; probabilities are the most we can depend on at the best, and probabilities are far removed from absolute facts.

To prove the immutability theory of the great principles of war, we have, too, to dip into ancient history, to take authorities who were avowed partisans, and as likely as not only one side comes down to us.

What, for instance, was the Persian version of the battle of Salamis? We know the Greek tale well enough, but there are possible improbabilities in it. The Athenians had no very special naval skill at that period: they were certainly not technically superior to some of the Persian auxiliaries—the Phœnicians and Egyptians, for example. No doubt there was a battle of Salamis, no doubt the Greeks won; but a Persian version of it would probably tell of two or three of their ships overwhelmed by the Greek fleet! ¹

¹ Such a version in the light of subsequent events would, of course, appear incorrect: it is referred to only to show the possible Persian

This, of course, would be evidence of the immutability of Nelson's 'only numbers can annihilate,' an expression that is an improvement on the equally familiar 'God is on the side of the big battalions,' and a variant on Sir Cloudesley Shovel's 'Where men are equally inured and disciplined in war, 'tis, without a miracle, number that gains the victory.' History is full of evidence of these sayings; but it is equally full of evidence to the contrary. At the battle off Naupaktis, in the Corinthian Gulf, the Peloponnesian fleet, vastly superior numerically, was presumably equal to the Athenian squadron in courage, endurance and many other things, except that the genius lay all with Phormio, and the fitness to win with his crews. Assuming Thucydides to be accurate (he, of course, may not be), at this battle tactics were born. The Peloponnesians adopted the defensive, forming themselves into a circle, bows outwards—a seemingly impregnable formation. Phormio's few ships rowed round and round them, till the morning breeze began to upset the Peloponnesian formation. Then the Athenian ships dashed into gaps in the line, to win a complete victory over far superior numbers. From the time of Gideon onward history can supply innumerable instances of similar happenings—even supposing the accounts to be only moderately true.

version. The subsequent history of Persia shows that either Salamis was a great victory for the Greeks, or else that Persian decline under Xerxes was already considerable.

But, what can we deduce therefrom? First we must know for certain whether our data are correct. We must know exactly the relative efficiencies of the combatants—a thing that, of course, we cannot be certain about. Assuming, however, for the sake of argument that in some mysterious way we have all essential facts, can we in any way apply the battle of Naupaktis to modern naval warfare?

To a limited extent we can. We can or could say that it is hereby shown that genius may in certain circumstances neutralise superior numbers. Alongside this we may as certainly put ‘Only numbers can annihilate,’ or any similar proverb also based on the teachings of history.

More than this we cannot do. We cannot assign any factor to skill in relation to numbers, even if exact data from history were procurable; since they are not to be procured, we are more helpless still. This particular battle off Naupaktis can, in fine, be made to prove or controvert any modern theory according to the taste of the user, and the same thing to a greater or less extent is true of all past warfare. The current dogma runs to the effect that ‘tactics alter, but the main principles of strategy alter not.’ This, of course, will be denied by none in a general sense; but, directly we begin to apply it, are not pitfalls innumerable? Does not a weak point lie in the fact that there is nothing to prevent any faddist from selecting his own incidents to prove any theory he may wish? Is it

possible to prevent the selection of incidents to head off any other set of incidents selected to prove anything else? Thus, in the first case, by dwelling upon the resemblances in the tactics at Naupaktis and the Yalu, and fortifying it with other instances, might not a man prove (with plenty of show of reasoning) that tactics do not change, and that, by studying history carefully, a modern admiral would be fully equipped for war? The case is extreme, of course: still in both battles there was the stronger force on the defensive, and defeat was brought about in either case by the loss of cohesion in this formation. More, the statement would have truth enough in it, but he who would propose our study of modern tactics to be based on history would be swiftly accused of landing us into quagmires. And if this be true of tactics, what assurance have we that it is not true of strategy also—strategy that fades imperceptibly into tactics? Take the main objections:

(1) Our history may be incorrect.

(2) Our theorist may select his instances by a process of eliminating any facts that go to contradict his pet theories, and it must be borne in mind that the average naval officer has neither the time nor the qualifications to study history for himself enough to say whether this method has been followed or not.

(3) There is no theory, based on history, that cannot be plausibly upset by a judicious selection of contra-

dictory facts. Again, the naval officer cannot weigh the facts without an enormous library.

This, it may be suggested, reduces the value of all theories based on history to our individual appreciation of the theorist. And this means, either that his arguments as placed before us commend themselves to us on our own imperfect knowledge of the facts, or that the theorist has a plausible style that carries us away. Are either of these things rocks on which to build? And if we are without a bed-rock of absolute truth, may we not be building on sand?

Consequently in this work no attempt is made to go into the details of past history. Only the main facts are selected for comparison with accepted theories of Sea Power, and thence is deduced a new theory as to what history really does teach.

A preference for the battles of the days of the oar will be noted. This is due to a conviction that these wars more clearly resemble modern ones than those of the middle period when sail was the supreme motive power. Oar and steam have one great feature in common—independence of the wind. In the sailing days wind was the essential factor. The British ships blockading Brest in the great war could now and again go away, knowing full well that *till the wind changed the French could not leave*. On this fact schemes were laid which to-day could have no counterpart. In the oar-age, however, there were no such

limitations and fleets were liable to be confined by nothing but bad weather, which, though to a far lesser degree, is still a restraining influence on steam operations.

Again : the oarsmen needed frequent rest ; so to-day the steam-ships need frequent replenishing of coal. The radius of action of the galley was about one day, whereas the modern warship endures from one to three weeks or more ; but the time now taken to get from one point to another has so decreased that some rough sort of scale is discernible so long as we remember that the area of operations has extended in proportion. The world of the wars of the ancients was a small and curtailed one, and so the tardiness of their movements is balanced by our enormous increase of area. Compare, for instance, the once gigantic over-sea expedition of Athens to Syracuse and its modern equivalent—so far as distance is concerned—the sailing of the Russian fleet from the Baltic to the Sea of Japan. The relative difficulties were not so very dissimilar—greater speed has meant a greater distance.¹

The sailing ship, however, was more self-contained and had to a remarkable degree the power of proceeding immense distances without much difficulty. To this has been attributed the fact that the sail replaced the oar even as steam replaced sail. A careful

¹ It is of interest to note in this connection that we have now reached the limit of the world in our operations. See chapter on 'Eternal Principles.'

examination of facts fails, however, to warrant this very exactly.¹ The oar as 'motive power' was essentially the product of the Mediterranean, where seas were comparatively calm and distances moderate. As in process of time sea empire travelled west, its chief centre shifted from the Mediterranean to the Atlantic and contiguous water in which rougher seas made the oar a far less reliable instrument. In the Mediterranean the ships of the ancients were oar-propelled with auxiliary sail power: in the north even the earlier vessels depended upon sail with auxiliary oar-power.

As habitude with sails grew, a natural tendency to discard the auxiliary oar arose. This may be compared with the gradual abandonment of the auxiliary sails by steamships of a later age. Northern nations found themselves able to do more and more with sails and needing oars less and less.

Then came the introduction of cannon, for which the sides of ships, hitherto occupied by oars, were required. To obtain the advantages of artillery, which was the better of two alternatives, oars were sacrificed. The galley, however, survived for a long period, and practically into the steam age, as a subsidiary craft for special purposes. It could move against the wind and

¹ This statement is made with all due deference to the main thesis in Mr. Julian Corbett's *England in the Mediterranean*. This is that the superior mobility of the sailing ship caused the change. With this I can only agree if mobility be translated as 'radius,' and then only partially, for the reasons stated.

manœuvre in a fashion denied to sailing ships; but these qualities were not necessarily all-important. To-day we accept a limited speed for battleships, finding in their greater power and radius something more utilitarian than the much greater speed but restricted radius of the torpedo vessel. So the galley lived on under various names, fulfilling the rôle of the modern torpedo boat. As gunpowder and sailing aptitude increased, its importance diminished nearly to vanishing point. Its ram ceased to be a serious danger. So—were means found to neutralise torpedoes—the present-day destroyers would soon fall into disuse, no matter what speeds they might make over short distances.

In the Mediterranean different influences were at work, and the oar long maintained a predominance. The advent of artillery and the necessity of carrying many guns on the broadside eventually, however, brought in the sailing ship pure and simple, though it is interesting to note that ‘sweeps’ long persisted.

Steam, when it first made its appearance, did so as a species of substitute for or revival of auxiliary oars. The integral idea of the oar may indeed be found in its adoption. Its superior power and endurance soon caused it to make headway, though its still restricted radius in the early days led to the retention of sails for a long time. Radius of action was more highly esteemed than the power to move against the wind for limited periods—a point that it is well to under-

stand, because it indicates that in all naval history one ideal has remained a constant, one ideal has animated the evolution of construction—the desire for radius. It is not, probably, the constant that anyone would first name offhand: yet it appears to have dominated all others in all time.¹

Now the sailing ship differed from the vessels propelled by oar or steam in two important particulars. It was in the first place far more self-supporting; in the second it was considerably more ‘intermittent.’ With oar and steam an admiral could plan strategies to take effect at definite times with nothing save bad weather in his way. With sail bad weather was not the only drawback, contrary winds were as bad or worse. Timed operations were hardly possible: they were rarely attempted and still more rarely did they succeed. Napoleon’s great scheme, for instance, would have had far more chance of success had he been able to time operations. *Per contra*, had there been no contrary winds Nelson’s pursuit of Villeneuve to the West Indies might have had a different result.

From this it might be argued that a counterbalance existed; which is no doubt true, but at the same time strategical operations based upon the concerted action of separate forces at a given time did not and could not have with the sail the meaning they could have had with the oar and actually have with steam. In fairness, however, it should be pointed out

¹ See chapter on ‘Eternal Principles.’

that there is little record of the ancients having attempted timed strategies on a par with those attempted to-day, and it is also of course true that the certainty of steam is relative rather than absolute. Still there remains the fact that with sail a contrary wind told the blockaders that there was no fear of the enemy stealing out: while with both oar and steam exit was, and is, nearly always possible; and exit in *any direction* instead of in one only. Furthermore, the limitations of sail-power necessitated a technique not required by the ancients or by the moderns; and the result of this was to make the fighting man subordinate to the 'seaman.' It was sheer fine seamanship that enabled the English fleets to maintain their weary blockades of the French in the Great War. In our admiration of these qualities we are apt to overlook the fact that the purely military labours of the blockaders were comparatively easy: owing to the wind, they had but a few points of the compass to consider, where the ancients and the moderns had, and have, most of the thirty-two. The purely military problem, therefore, of blockades like those of Santiago and Port Arthur are more likely to echo incidents of ancient history than of the era of sails. A Togo in the days of sailing ships would surely have found little difficulty in preventing Russian sorties from Port Arthur.

In the following chapters certain incidents of ancient history in the days of the oar are examined,

and then some of the more recent steam wars. In both cases the attempt is made to see how far different conditions would, with due regard to the difference of radius of action, have affected the issue; and to trace with an open mind how far the generally accepted principles of Sea Power were upheld or negated by these incidents.

The term 'generally accepted principles of Sea Power' is used advisedly and of set purpose. The strictly academical definition of Sea Power matters little or nothing. In the restricted and actual sense—that is to say a navy—it is defined by Captain Mahan¹ as 'necessary from the existence of a peaceful shipping, its extent and its existence governed by that factor. Otherwise it exists as a branch of the usual military establishment.'

This, practically, is all the definition of Sea Power to be drawn from the writings of Captain Mahan. It is since the publication of his famous book that Sea Power has become a sort of occult term, eluding exact definition and perhaps meaning different things to different people. It required definition, and the best and most general is, perhaps, the most common conception of it: 'A naval force sufficient to defeat any naval force of the enemy.'

This implies all else that need be included.

There are two general and existing conceptions, of which the first is a vague understanding of an idea,

¹ *Influence of Sea Power on History*, p. 26.

sufficiently old to be found in Gibbon, or for that matter even so long ago as Thucydides, that a power controlling the sea in a war in which both land and sea are concerned will control the land. More briefly it may be put, 'Who rules the sea rules the world.'

A prime object of this work is to examine this theory as applied to history, questioning whether it may be accepted as a certain rule without limitations.

The second general conception is that Sea Power is embodied in a navy of tried skill, power, and general efficiency by means of which the certainty of victory is to be assured ; and so a second purpose of this book is to show why doubts are permissible as to whether this may be accepted as a principle.

At the present time, chiefly through gradual growth and the natural desire of all to make a plausible theory square with facts, both the above conceptions are accepted by the majority of people as dogmas. It is proposed to show in these pages that, although the dogmas may in a great number of cases lead no one astray, yet that there is in them just sufficient alloy to make trust in them undesirable, and that Sea Power has more often been the means to rather than the *cause of* victory. On the other hand, once we attempt to find it, one eternal principle will be found a characteristic of every war that has ever been, and that characteristic is the one which is in these pages described as 'Fitness to Win.' Neither Sea Power nor anything else is a substitute for this.

PART I

SEVEN GREAT NAVAL WARS AND THEIR PARADOXES

THIS section deals with certain well-known wars in which accepted theories of Sea Power were either actually or apparently ignored by the victors. Each war concerned the birth or fall of a great sea empire. For reasons advanced in the Introduction, only the general features and main strategies of these wars are touched on, as it is desirable to concentrate upon the main principles involved. The Napoleonic and other great conflicts immediately preceding it, upon which the 'dogma of Sea Power' generally rests, are omitted, as their chief features and the lessons usually adduced therefrom will already be sufficiently familiar to the reader to need no references beyond such as may casually be made in the following text.

I

THE PELOPONNESIAN WAR

REVIEWED generally, the Peloponnesian war, which involved practically the entire Grecian world and lasted twenty years, was as follows :

Athens, the maritime state, with enterprise, expansive skill and genius, stood the leader of a great confederacy stretching from Zante to Phaselis. The zenith of her power was reached about B.C. 456, but when the war broke out (B.C. 431) she was still mistress of the islands, and the almost unquestioned owner of the world's Sea Power. Whatever else she had lost, Sea Power was unquestionably hers.

Her principal rival was Sparta, the leading military state, unenterprising, slow, and tenacious. With Sparta was Corinth, a maritime state whose commercial greatness had fallen as Athenian Sea Power rose.

The east of Greece was a species of Athenian lake, on the west coast the Peloponnesian power was the greater.

In the war that followed both sides adhered tolerably faithfully to one general idea—to hold the side already controlled and to seek extension on the

side controlled by the enemy. Hence Athens engaged in defensive war on the east and offensive on the west coast ; the Peloponnesians reversed this.

Parallels could be found in the map of the world to-day, or in the map of Europe of a hundred years ago ; but it should always be borne in mind that in this old Greek war there were two elements not to be found in many other wars. In the first place, there was in each belligerent confederacy an element politically favourable to the other side. In every 'allied' state there was a party which, being out of power, favoured the 'other side' as its own hope of returning to power.¹ The sentiment is one that after the lapse of over two thousand years is just beginning faintly to assert itself again.

So in the Anglo-Boer War there was in England a party whose sympathies were in some measure with the Boers, and, more markedly, in the Russo-Japanese War, we have seen in Russia sections of the population seeing in Japanese victories their own political salvation. Though for different reasons, this situation existed acutely in the Peloponnesian war, and the strategies of both sides were coloured with it.

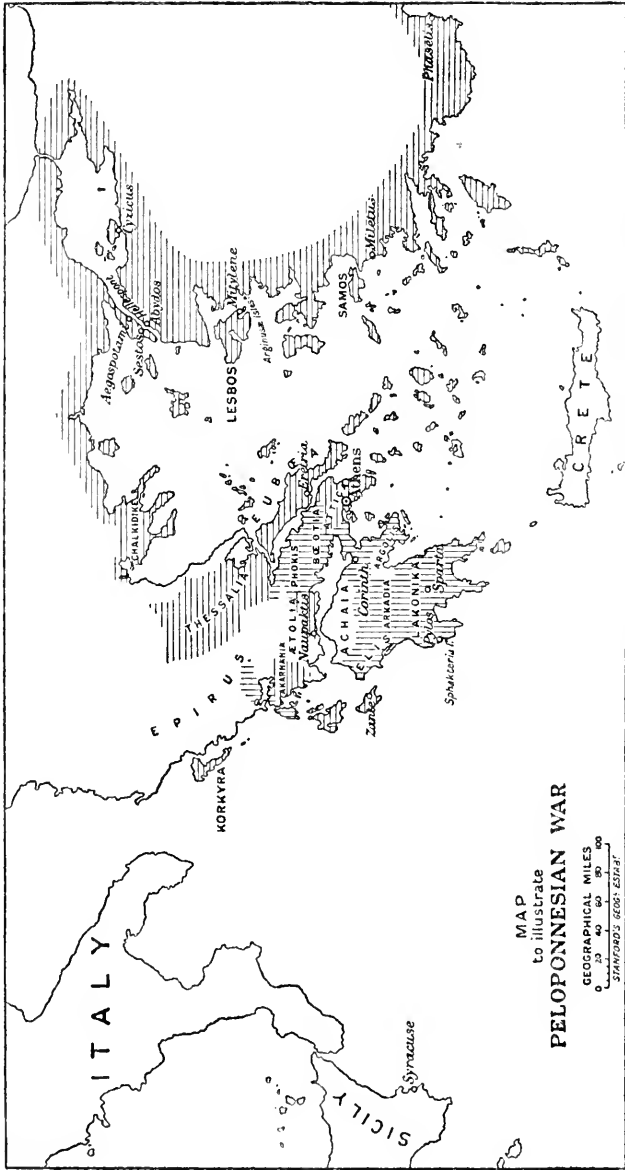
The war began in B.C. 431. Up to B.C. 424 it was chiefly in favour of Athens ; then the tide of fortune turned, and, despite Athenian naval victories, ended ultimately in the destruction of the entire Athenian

¹ So much was this the case that when the oligarchy in an 'allied state' favoured Athens, the democratical party sympathised with Sparta.

fleet at Ægospotami and the consequent surrender of Athens. A second feature of the war is that it saw the birth of naval tactics.

At the outbreak of the Peloponnesian war, 'Sea Power' seems to have been as well recognised by the Greeks as it is a recognised force to-day. The early pages of Thucydides indicate this very clearly;¹ the references to the naval power of Agamemnon, to the fleet of Polycrates, to the lack of 'decked vessels' in the Athenian fleet at Salamis, all show that there was a very distinct recognition of the ship as a war force. The platitudes of to-day were platitudes then; and 'Sea Power' is in no way a modern idea. Call 'Sea Power' the *use* of a fleet, and it has always existed. But it has existed just as the bow existed beside the sword, or to-day the rifle beside the field-piece, the torpedo beside the big gun. It was used as a weapon beside other weapons, or as the most convenient weapon.

¹ Thucydides, I. 4-5, 8, for the navy of Minos; I. 9, for Agamemnon; I. 13, for maritime progress after the Trojan war; I. 14, Athenian navy at Salamis; I. 15, for the importance attached to Sea Power. As showing the importance attached to naval power by the Greeks, two passages from Thucydides may be noted; the first deals with the reason why Agamemnon was able to assemble so strong a force for the attack on Troy. After alluding to his hereditary position as the first reason, the historian continues, ἃ μοι δοκεῖ Ἀγαμέμνων παραλαβὼν καὶ ναυτικῶ τε ἅμα ἐπὶ πλέον τῶν ἄλλων ἰσχύσας, τὴν στρατείαν οὐ χάριτι τὸ πλεῖον ἢ φόβῳ ξυναγαγὼν ποιήσασθαι) (Thucydides, I. 9). The gist of this is that he owed his position to his hereditary power and to his naval power more than to anything else. The second passage points out that in early Greece the only important wars were maritime (Thucydides, I. 15).



PELOPONNESIANS : VERTICAL SHADING. ATHENIANS AND ALLIES : HORIZONTAL SHADING

Of sea tactics, few, if any, ideas seem to have prevailed before the Peloponnesian war. Salamis was not characterised by anything that could be dignified with the name of tactics as we understand them ; in substance it was a land battle fought on shipboard. Incidentally as ship crashed into ship, there may have been born then ideas as to concerted tactical action with ramming as the objective, but these ideas bore no fruit till the Peloponnesian war.

‘Cutting the line’ existed as a battle object, just as indiscriminate ramming existed ; but in both cases only because such things were the nearest analogy to land warfare.

At the same time tactical ideas were evidently being evolved, and in the Athenian navy concerted action—the first necessity of tactics—was fully recognised. In a battle between the Corinthians and Corcyreans which preceded the great war, the Athenian ships, hanging on the outskirts of the fight, acted together in their evolutions with the distinct object of affecting the Corinthian movements, and it goes without saying that this efficiency could not have been acquired without very considerable practice towards a definite end ; and so, when, war having broken out, Phormio with his fleet of twenty ships was in the Gulf of Corinth off Naupaktis, it was but natural that, having the power to use his ships as one, he should think out a means of doing so in order to win a victory.

The Peloponnesian fleet consisted of forty-seven

vessels of various sizes. They were emphatically a fleet of the old *régime*, and they made their first acquaintance with the new order of things when they found that, as they coasted along out of the gulf, they were 'watched' by Phormio, who wished to attack in the open sea.¹

As the Peloponnesians coasted, the twenty Athenian ships kept in line with them, observing. A battle was not expected by the Peloponnesians, who lay to during the night in hopes of evading the watching fleet.

This, however, failed in its object, and some action seeming inevitable, they ranged themselves in a circle, prows outward, with their small craft inside,² also the five fastest ships, which were intended to issue out, and support the circle at whatever point it might be attacked. These dispositions show very clearly that nothing was anticipated save a fight on classical lines.

Phormio, his ships being in line ahead, rowed round and round the Peloponnesian circle, and by keeping very near gave the impression that he purported to attack. This narrowed the circle, and presently, as he had foreseen, this and the morning breeze flung his enemy into confusion. Then, seizing the favourable moment, he attacked and destroyed in detail, while the Peloponnesians broke and fled.

¹ For Phormio's tactics see Thucydides, II. c. 81, where it is stated that Phormio declined to assist the Acarnanians *because he was obliged to watch the Peloponnesian fleet*; cc. 83-84 for tactics leading up to the battle and the battle itself.

² Compare this general idea with the battle of Tsushima, 1905.

This battle of Naupaktis is a clear instance of a victory won by tactical ability.

It was the direct result of training. It teaches us that most tactical ideas are as old as the hills—and that (as ever) the best man will win.

Much interest attaches to the addresses delivered after the fight.¹ On the Peloponnesian side, the situation was rightly grasped: 'Against their greater skill set your own greater valour, and against the defeat which so alarms you set the fact that you were unprepared. But now you have a larger fleet; this turns the balance in your favour; and you will fight close to a friendly shore under the protection of heavy armed troops. Victory is generally on the side of those who are more numerous and better equipped. Even our mistakes will be an additional advantage, because they will be a lesson to us.'

Except for the 'friendly shore' piece, this address might be used as a free translation of a portion of Captain Klado's articles *in re* the Russian Baltic Fleet, 1904-5.

Phormio's address gives us his tactical principles: 'If I can help it I shall not give battle in the gulf or even sail into it. For I know that where a few vessels which are skilfully handled and are better sailers engage with a larger number which are badly managed,

¹ Thucydides, II. 87, speech of Lacedæmonian admirals, c. 89, speech of Phormio. The translation in the text is (except for one or two technical phrases) that of Jowett, *Thucydides*, vol. i. pp. 154-156.

confined space is a disadvantage. Unless the captain of a ship see his enemy a good way off, he cannot advance or ram properly; nor can he retreat at need when pressed. The manœuvres suitable for fast vessels, such as breaking the line or circling under the enemy's stern, cannot be practised in a narrow space, for here the sea fight must of necessity be reduced to a land fight, in which numbers tell. In the moment of action remember the value of silence and order, things always important in war, especially at sea.'

There is any amount of sound principle in either address, and plenty of regard for the science of killing the enemy—which was the business in hand. But is there visible here any conception of the theory that the ancients bothered about grand principles of strategical results elsewhere to follow from their operations as a distinct sequel?

We can, by judicious selection, build up such a theory even out of the fragments here quoted. We can take Thucydides' opening remarks about ships and without any imagination say: This indicates that the general sentiment among the educated Greeks was that Sea Power had won the war against Troy, consequently it was recognised by those in authority at Athens that the 'steady silent pressure' of Athenian Sea Power¹ would, properly applied, bring Sparta to her knees. The long walls to Piræus, the only expenditure on 'bricks and mortar' sanctioned, show

¹ See *The Punic War*.

that Athens was felt to rely on Sea Power alone. In fighting the battle of Naupaktis, Phormio was influenced by the same principles, the same ideas, that animated Nelson when at the Nile and Trafalgar he fought to render possible the battle of Waterloo, etc. We can say it all very plausibly, and absolutely correctly as regards the opening sentences.

But what have we to omit to say the rest of it ?

For one thing we have to omit that the Athenian soldiers were quite unequal to the Spartan ones, that they built the long walls so as to avoid having to fight superior soldiery, because these walls enabled them to neglect the tilling of Attica and subsist instead on food brought to them over-sea. They needed ships to bring that food ; they needed warships to collect the unwilling contributions of their island allies, and to fight any hostile warships likely to interfere with the food ships. But what dreams had they of ships used with the distinct objective of affecting military issues on land ? What ideas had Phormio, an obviously great admiral, beyond killing as many Peloponnesians as possible with the minimum loss to himself ?

We may now follow the result of the defensive tactics adopted by the Peloponnesians.¹ Four deep these skirted the coast, their twenty fastest ships leading. Thus they made a feint upon the town of Naupaktis and their scheme was so successful that they easily drew the Athenians after them. Turning

¹ Thucydides, II. 90-92.

suddenly, they came down upon the Athenians and cut off nine ships. Eleven others escaped into the open sea pursued by the twenty in disorder. Ten reached Naupaktis, but the eleventh lagged behind. Hotly chased by one of the Peloponnesians, this ship dodged round a merchant vessel and rammed her pursuer. Inspired by this success, the Athenians turned and defeated their enemy, and eventually recovered most of the nine ships which had been lost.

After which nothing in particular happened for some while.

To follow this war through its entire length would be as tedious as it is unnecessary. There are, however, certain portions of it—the Athenian expedition to Syracuse, the battle of Cyzicus and the battle of Ægospotami which deserve some close attention.

The Syracusan expedition in the seventeenth year of the war was briefly as follows :

Seeking expansion, the Athenians sent an armada to Syracuse which blockaded the port and besieged the town by land (414 B.C). In the Grand Harbour indecisive actions were fought—the Syracusans making great use of soldiers afloat. A second Athenian armament was sent, but succumbed to the methods adopted by the Syracusans. Thus the bare outlines.

The Syracusan expedition was undoubtedly an example of the use of Sea Power, insomuch that the Athenians, having command of the sea, used that command to invade Sicily. But there was no

'profound determining influence of maritime strength upon great issues' in the matter for them, since they lost their fleets fighting in the harbour with Syracusans who, lacking aptitude for grand sea fights, extemporised barge-like warships filled with heavy-armed soldiery and turned the sea into land for the occasion. They had neither command of the sea nor Sea Power, but they were completely victorious.

Should one use this as an argument that Sea Power, as generally understood, is useless? Hardly: but it is a fair inference that well-trained seamen and ships are not alone factors of determining importance, unless the conditions are otherwise suitable. At Syracuse they were not suitable; but that does not affect the deduction, of which this is a most remarkable instance, that Sea Power is an illusive thing and not a universal weapon. It is only of service in the hands of the better man, and without it he will probably find some other means to win.

In a fight in the open sea Athenian skill would have annihilated the Syracusan barge fleet, but the Syracusans did not give the opportunity. They waited to be attacked by Sea Power under their own conditions, conditions which neutralised the value of Sea Power, and made it of no account. They used their barge ships, it is true; they used them to crash into the light Athenian vessels in that constricted harbour of Syracuse, where seaman-ship availed nothing: their men were 'soldiers at

sea,' and the primary use of their ships to carry these soldiers to destroy the sailors of Athens. They hit on the right antidote, and being the better men, they won. The end of the 'silent pressure of Sea Power'

MAP OF SYRACUSE TO ILLUSTRATE PELOPONNESIAN WAR



on this occasion was the Athenian navy prisoners in the stone quarries.

Can we draw further deductions or press any already made further home? Of what avail is it to do so? There is no call to make points beyond showing that for instances of Sea Power, influencing military and

general history, we may find other instances of military affairs profoundly influencing Sea Power.

The battle of Cyzicus¹ is of special interest from the tactical standpoint. It took place in the twenty-second year of the war (B.C. 410). The Athenians under Alcibiades were inferior in numbers, and by no means sure of victory. They resorted, therefore, to tactics almost identical with those adopted by Togo off Port Arthur in the Russo-Japanese war.

The Athenian fleet was divided into three squadrons, of which only one showed itself. This squadron under Alcibiades being attacked, presently retreated till the Peloponnesians were drawn a long way from their base.

Then at a given signal Alcibiades turned on his straggling pursuers, while the other two squadrons cut off the retreat. A complete victory was the result. Incidentally it may be mentioned that Sparta thereupon sought peace, but the Athenians refused to accept the offers.

From the previous Syracusan disaster, however, Athens never fully recovered, although fresh ships subsequently won battles such as Cyzicus over opponents unduly flushed with the Syracusan victory. But the Athenian naval prestige was gone, destroyed by what was after all a military operation, even as the Athenian fleet was finally so destroyed at the battle of Ægospotami. Here the Athenian fleet, deceived by a clever but fairly obvious strategy, was lulled into a false

¹ Xenophon, *Hellenica*, i. 1. Cf. Diod. Sic. XIII. 50-51.

security by the still non-naval Peloponnesians. Their ships drawn up on the beach, the Athenian crews went inland to procure food, and while they were thus scattered their enemies rowed across the Hellespont and captured or destroyed on land an armada that they could never have successfully faced upon the water.

Lysander, the Peloponnesian admiral, had a large fleet, but Sea Power was in no way his. All that a superior navy could confer belonged to Athens—better ships and better sailors. And it gave her *Ægospotami*!

Her administration was bad, of course, or the fleet would never have been so caught napping by a ruse; but this in no way affects the fact—clear here as at Syracuse—that the greatest sea empire of the period was utterly extinguished by those who only partially, and with ill success, met Sea Power with Sea Power, but very successfully annihilated it in ‘other ways.’

Of course, as ships were concerned in those ‘other ways,’ it is possible to argue that they embodied Sea Power, but such an argument will be academical rather than aught else. Sea Power as understood to-day means battleships and accessory craft and the full ability to handle them. One may argue that the Athenian fleet was the equivalent of a cruiser fleet and that the Syracusan vessels were, relatively, battleships. The Syracusan battleships destroyed the Athenian cruisers as the Merrimac destroyed the frigates of the Northerners in the United States Civil War. If one admits that, Syracuse must be regarded as a normal affair

enough, and it may be legitimate so to look upon it. Again, Ægospotami may be regarded as a huge instance of what was a common war object in those days, catching the enemy on the beach.

Yet still the 'other ways' remain, still to Athens belonged the splendid navy, the well-trained crews, the competent seamen and all the things that go to make up Sea Power ; to her victorious opponents an inferior navy, incompetent seamen, less proficiency in every branch.

Viewed in any light, it is hard, indeed, to find fault with Athenian strategy. Were any student of Sea Power, ignorant of the history of the war, given its conditions, the forces, and shown the Athenian movements, the last thing he would prophesy would be the thing that befel. Except the Syracusan expedition hardly anything could be criticised, and even that expedition has much to be said for its wisdom. It transferred the war from Attica to Sicily, it promised the essential expansion and refilled coffers ; it was precisely the sort of operation that command of the sea is valuable as permitting. Even the landing at Ægospotami is excusable : since it was the invariable custom and necessity of the time.

The war is a little-studied war ; Ægospotami is seldom mentioned like Lepanto and Trafalgar : if mentioned at all, the lessons drawn only concern incompetent strategy, careless neglect, and other hard criticisms such as the actual conditions scarcely merit.

Its real suggestiveness is in the limitation of Sea Power evidenced by it, but most of all should it be remembered and compared with more recent campaigns from which deductions are drawn.

It is not argued that this war negatives the general principles of Sea Power as laid down by Captain Mahan, but it sorts ill with the elaborations of some of his more ardent disciples. It clearly suggests that besides Sea Power and Land Power there is a greater power still—a power which has as yet no name, though we have seen its action in 1904–1905¹ as clearly as in the Peloponnesian war. It is called nameless; but perhaps it may be characterised. And its characterisation is this—*Fitness to win*.

¹ See chapter on the Russo-Japanese war.

II

THE FIRST PUNIC WAR

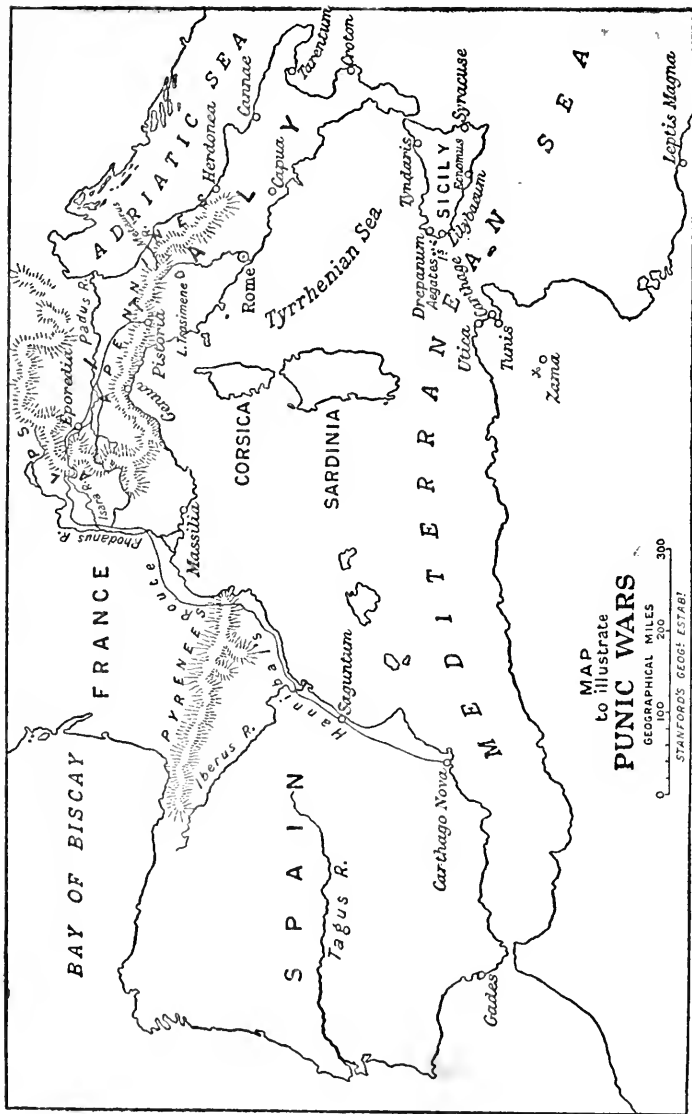
IN many ways the state of affairs at the outbreak of the first Punic war recalls the situation at the beginning of the Peloponnesian war.

Carthage was the mistress of the Western Mediterranean. Absolute Sea Power was hers. Her ships were many, her crews well trained and practised. Born of the sea, she lived by it.

A Phœnician colony, the Carthaginians preserved to a large extent the Phœnician characteristics. The Phœnicians were ever a peculiar people. National feeling, as possessed by other races of their time, they had none: they cared nothing for politics, and whatever military power was in the ascendent, to that they willingly became tributary so long as they were allowed to retain their existence upon the seas.

Of this sea existence Carthage was a *piéd à terre*; and being the best harbour in Africa, it rapidly rose to great importance.

The pressure of circumstances and the rivalries of trade brought about a consolidated empire, and the nations round about her were enrolled as subjects,



paying tribute and furnishing troops, the officers of which were Carthaginians.

The system by which in the present age the British have soldiers of Indian, Egyptian and other nationalities, drilled and officered by British, grew at Carthage from similar small beginnings till it became practically the only dependable system. A Carthaginian citizen was regarded as too valuable a man to make a ranker of,¹ and the world was searched for the best material that Carthage could purchase. From the Balearic Islands came the best slingers, from Liguria the best infantry, African tribes made ideal light cavalry and the pick of all served in the fleet. When any military operations were in progress the commander-in-chief was invested with supreme command for no fixed term; and invested with almost dictatorial powers. But he was carefully subjected to the civil authority,² and always accompanied by a civil commission which had the sole power of making treaties and so forth.

¹ The Carthaginians were essentially traders and merchants, and so not physically fitted to be men of war. The government made consistent efforts to induce the citizens to embark upon military service, but failed to do so. The lesson is obvious, and one as clear to-day as then. There was a nominal army of 400,000 Carthaginians, but it was not of the best material, for the reasons stated.

² In the second war, Hannibal himself was so hampered directly failure began to appear.

As the parliamentary candidate for the Navy in the 1906 General Election, who went to the poll at Portsmouth, avowedly against much of the present British system of civil control at the Admiralty, I cannot but emphasise the vivid proofs of the danger of party control of a national service as evidenced in the tragedy of Carthage and the fall of

Carthage, her own citizens being indisposed to military service, had a weak point in her mercenary troops, who, devoid of any national interest in her campaigns, were reliable only while victory and plunder were to be secured upon the Carthaginian side. If defeat were toward, there was no race feeling in the rank and file to compel the continuation of war:¹ but history shows that the Carthaginians were not ignorant of what might be done to mitigate this peril by means of discipline.

Rome was essentially a military power. Wherever the Roman arms penetrated there a miniature Rome was set up, bound to Rome by ties of self-interest, and gradually all Italy had fallen under her sway. Her

her sea empire. The same lesson may be found in the fall of the Athenian sea empire. Theoretically, and actually perhaps in peace time, for the fleet to be an arm of the body politic may be a sound system; but the almost inevitable conflict between civil and naval control of the fleet in war time may have most disastrous results. It is almost absolutely certain that in the next great naval war in which the British fleet is engaged, the civil element will demand (either of its own accord or from pressure of public opinion) that the fleet protects trade first and attempts to destroy the enemy afterwards. Similarly the certain naval attitude will be 'Destroy the enemy and thus put it out of his power to injure trade.' The chief result of the conflict of the two theories will probably be that neither object is effectually accomplished—a heavy price to pay for asserting the principle of Parliamentary control of the navy.

¹ On the whole question, cp. the following criticism of Pelham: 'The chief dangers for Carthage lay obviously in the jealousy exhibited at home of her officers abroad, in the difficulty of controlling her mercenary troops, and in the ever-present possibility of disaffection among her subjects in Libya—dangers which even the genius of Hannibal failed finally to surmount.'—Pelham, p. 109.

troops were all Roman citizens or allies cheerfully fighting for her.

Rome is supposed by many to have had no navy whatever when the war began. This is not, however, true. She had a few ships: thus in B.C. 282 ten Roman ships which had broken a treaty under which they might not appear east of the Lacinian promontory, were attacked at Tarentum. She had, therefore, some naval power and a large mercantile marine; though Roman ignorance of the sea was such that her strength in this direction was a negligible quantity.

Carthage, among her many over-sea interests had concern with Sicily, and here she came first into contact with the Romans. In B.C. 264 the war began, the national clash of two powers with conflicting interests: Rome was expanding her interests, and in her way stood Carthage. The precise nominal causes of the war are immaterial; the real cause was that there was no longer room for both. This, it may be remarked, has been the real origin of all life-and-death wars: it was with Rome and Carthage in B.C. 264 as with Japan and Russia in A.D. 1904.

Appius Claudius, the Roman Consul, representative of the nation without Sea Power, crossed the Straits of Messina and invaded Sicily, and for some time had things entirely his own way inshore. On the coast the Carthaginian navy operated after a time. Speaking generally, the operations of the Carthaginians were

much what they might have been, had some prototype of the present-day 'Blue Water School' been amongst them. Secure in their Sea Power they troubled comparatively little about the Roman invasion and the failure of their army in Sicily. In these years the interior of the island was practically in Roman hands, but the coast towns were all at the mercy of Carthaginian ships—so too the coast towns of Italy, despite the fortified ports specially established against naval raids.

Then it was that Rome suddenly turned attention to the sea. Stories of the ignorant Romans building a fleet upon the model of a wrecked Carthaginian warship¹ are probably not fiction, for though they had ample numbers of naval architects in the Greeks² and Etruscans on their own shores, they had not, however, any practice in building such efficient warships as were the Carthaginian vessels. Few trained seamen were available, and 'shore establishments' were instituted in which rowing was practised.³

The first effort was a sufficiently dismal failure. One hundred quinqueremes and thirty triremes were constructed, and seventeen of these ships—a trial squadron under C. Cornelius Scipio—encountered the Carthaginians under Boodes off Messana in superior force.

The Carthaginians to the number of twenty ships

¹ Polybius, I. 20-21.

² Livy, 16, 39, 36, 42.

³ Polybius, I. 21.

blockaded the Roman fleet in harbour, and Scipio surrendered after his crews had landed and fled.¹

The Romans in their aspirations for Sea Power recognised as clearly as the Syracusans in the Peloponnesian war, the nature of their limitations and the existence of 'other ways.' As the Syracusans invented a species of battleship for their needs in order to overcome Athenian skill, so the Romans evolved a type of warship designed to let their soldiers fight at sea. They invented the *corvi*,² a species of drawbridge, each thirty-six feet long by four feet wide, with a hook at the far end, secured to a twenty-four-foot mast and designed to be let down in battle the moment close quarters were reached. Thus, all the accepted naval tactics of the time were made of no account, for over these boarding bridges the Roman soldiers rushed to victory.

Duilius, the Roman Consul, so soon as the *corvi* were fitted, went to sea to meet the Carthaginians under Hannibal.³ These, full of contempt for their unnautical opponents, advanced to the attack in no particular order, with the result that thirty ships alone began the battle. These were destroyed and Hannibal's attempts to repair his error failed. In

¹ Polybius, I. 21. Zonaras, VIII. 10, gives a story of victory caused by Carthaginian treachery, but it is obviously merely a pro-Roman explanation of a 'regrettable incident.'

² Polybius, I. 22. The exact method of working is not very clear.

³ Not, of course, the great Hannibal, whose exploits were in the second war.

the end he took to flight with the remnant of his fleet.¹

He reached Carthage before the news of the battle. According to a French historian,² suppressing the intelligence, he sent an officer who told the Senate that the Romans were at sea with a fleet. 'Their ships,' said he, 'are like merchant ships. It is their first attempt; they have no nautical experience. On the bows of their ships they have certain machines, the use of which we cannot ascertain. Would it be rash to attack them and preserve our sovereignty of the seas, or shall I allow them to ravage our coasts?'

Orders to attack were given: then he announced the defeat, adding, 'Hannibal thought as you. What you have ordered he has attempted: and, if Fortune has not smiled upon his enterprise, does that make him a criminal?'

Thus diplomatically, if the story be true, he avoided the consequences of defeat: but his diplomacy was more than a clever excuse. Negligent as he had shown himself, his assumption of certain victory when he encountered Duilius was at any rate natural. His contempt for his opponents, however unwise, was exactly the contempt that would be felt in any efficient

¹ Polybius, I. 23.

² *Histoire de la Marine*. A. du Sein, professeur de l'école navale en retrait (vol. i. p. 248). His authority is not given. The story is not in Polybius, Livy, or Zonaras, nor is it mentioned by Mommsen, Ihne, Arnold, Niebuhr, or Liddell. It is probably, therefore, a very late story, but deemed worthy of reference here because the line of argument is so very natural.

navy matched against a notoriously untrained sea force. Yet always in history most danger has come from the despised untrained force—a lesson England learned in her war with the Americans in 1812.

After this victory of Duilius the newly acquired Sea Power of Rome was used to press the Sicilian campaign and for operations against Corsica and Sardinia.

Hannibal with what was left of his fleet went from Carthage to Sardinia which was being attacked, and here in a certain harbour the Romans found and blockaded him. His crews fled to the shore and abandoned their ships. He himself escaped only to fall into the hands of some of his own men, who signalised their view of his second failure by crucifying him forthwith.¹

The loss of the fleet of Hannibal did not exhaust Carthaginian naval resources, for in the following year (B.C. 256) they had a fleet off Tyndaris² under Hamilcar which, passing in bad order, was sighted by the Roman Atilius who lay at anchor in the harbour. He rushed to the attack with ten triremes leaving the rest of his fleet to follow. These ten were surrounded and nine of them destroyed; when the rest of the Romans arrived and captured or destroyed eighteen Carthaginians.

To the ancient historian this action was an example of Roman temerity and over-confidence that culminated

¹ Polybius, I. 24, and Livy, Ep. 17.

² Polybius, I. 25.

in victory only by luck: but it is to be argued that Atilius had a clear tactical design, and did what in all ages since others have done or advocated. Flinging his fast craft upon the enemy he held them with these till his main body arrived and secured the victory.

The following year was marked by great naval efforts; each side putting over 300 ships into commission.¹ The Romans under Regulus collected at Messana, designing an invasion of Africa, and leaving Messana went south, doubling Cape Pachynum (Cape Passaro) and thence coasted westward.

The Carthaginians, meanwhile, under Hamilcar and Hanno, had crossed to Lilybæum and then gone east seeking the Roman fleet, which they encountered off Mount Ecnomus—the Romans being inshore in the formation of an inverted wedge \wedge supported by lines astern of it. The Carthaginians to seaward faced the \wedge with a long line indented on the left to envelop the wedge.² Upon the Roman attack the Carthaginian centre imitated those tactics by which in the past Alcibiades had secured a victory. Feigning retreat, until the pursuing enemy were in disorder, at a signal they turned suddenly upon their pursuers.

This plan very nearly succeeded, but in the end the Carthaginians failed and were defeated with the loss of

¹ Rome, 330 ships, Carthage 350. Cf. Polybius, I. 26 for details. Romans averaged 420 men per ship, of whom 300 were rowers, and 120 fighting men.

² Details of the battle, Polybius, I. 26-28.

thirty ships sunk and sixty-four captured. The Romans lost twenty-four ships sunk.

Regulus after refitting proceeded to Africa and a landing having been effected and Clypæa taken he was left with forty ships, the remaining vessels being recalled by the Senate. The surviving Carthaginian vessels made no attempt to intercept him, and everything seemed open to Roman victory. The 'Blue Water School' at Carthage had controlled matters to the extent of an entire absence of 'bricks and mortar.' Defence lay entirely with the fleet; and so what was left of the fleet was concentrated at Carthage itself for 'harbour defence.'

Regulus advanced to within ten miles of Carthage, and it was a matter of the purest luck that his army was defeated by Xanthippus, a Spartan mercenary who, when all seemed lost, conceived the idea of using elephants on land in a sense much for the same reason that the Romans had used the *corvi* at sea. Regulus was captured, his army scattered, and the Carthaginian fleet held the sea off Cape Mercurius in order to cut off the retreat of the few survivors.

Matters were at this stage when a huge Roman fleet of 350 ships made its appearance.¹ It destroyed the Carthaginian fleet, and the renewal of the invasion was discussed, but the land upon which they might

¹ Polybius, I. 36. According to Zonaras the forty ships of Regulus effected a diversion which caused the victory, but this is probably fiction.

have lived had already been ravaged by Regulus in his advance on Carthage, and the dread that over-sea supplies would be intercepted by Carthaginian ships led to the re-embarkation of the entire Roman force.

They sailed, therefore, toward Sicily, and all but eighty of the 464 ships, which including transports the fleet numbered, were lost in a storm.¹

A new fleet of 200 ships took the Carthaginian post at Panormus in Sicily: but on its way back to Italy, being attacked by the Carthaginians, lost all its transports. In the next year (254 B.C.) this fleet again operated against Africa, but ignorance of navigation got the ships aground and necessitated throwing overboard the spoils of the raid, and subsequently all but sixty ships were wrecked and lost.²

Upon this the anti-Sea Power party in the Senate gained the upper hand: maritime expeditions were decided against, and the fleet reduced to sixty vessels for coast defence.

Carthage got together a new fleet; but the army which it carried to Sicily being defeated, peace overtures were made. Thus encouraged Rome once more made a bid for the mastery of the sea, and equipping 240 ships besieged Lilybæum³ (Marsala) and Drepanum (Trapani)—the only two Carthaginian strongholds left. Here Carthaginian seamanship displayed itself. Another Hannibal took a fleet to the Ægates Islands

¹ Polybius, I. 37.

² Polybius, I. 38.

³ For these and subsequent operations, Polybius, I. 39-54.

and waiting a favourable wind sailed into Lilybæum and revictualled it right in the faces of the Romans. After remaining a few days he slipped out at night and went to Drepanum.

The Romans after a futile attempt to block the harbour of Lilybæum, sailed under Claudius for Drepanum. Warned of Claudius' move, the Carthaginian Adherbal stationed his fleet among the rocks at the entrance, fell suddenly upon Claudius and totally defeated him.

The Roman blockade of Lilybæum was, however, maintained, and a fleet of 120 warships accompanied by 800 transports was despatched to aid in the siege and blockade. This fleet, as usual, collected at Messana, called at Syracuse and thence coasted towards Lilybæum, where it met a Carthaginian squadron off Cape Pachynum, which being in inferior force contented itself with observing the Roman armada.

A gale was coming up. The experienced Carthaginians ran for shelter; the Romans, suspecting nothing, encountered the full force of the storm and lost many ships, while after the gale the Carthaginians easily captured the dispersed remnants.

Thus Carthage secured once more the control of the sea. Rome crushed under the double disaster abandoned fleets, and relied upon a species of *guerre de course* in which small Carthaginian detachments and storeships were occasionally overpowered. Carthage, however, had the command of the sea. Rome chiefly

confined herself to purely military operations, Carthage to naval ones conducted by the famous Hamilcar Barca—father of the still more famous Hannibal. Hamilcar steadily raided the Italian coast, and, of course, easily kept supplied the two strongholds which the Romans vainly besieged in Sicily.

In B.C. 251, the Romans realising that only by defeating the Carthaginian ships could Drepanum and Lilybæum be taken, equipped a fourth fleet by means of private enterprise; the State undertaking to recoup the cost only if success were met with. This fleet of 200 quinqueremes was put under the command of Lutatius and it sailed for Sicily after the Carthaginians had been allowed to command the sea for five years. In the interval these had realised their need of an army, without which, they were equally helpless to raise the sieges. Hamilcar was ashore, conducting military operations in Sicily, and the fleet—the pressing need for it being now passed—had sunk to the status of a secondary arm. Off Sicily, no ships were stationed, and Lutatius reached the neighbourhood of Lilybæum without encountering any opposition. Here he established himself and spent his time in constant evolutions.

The Carthaginians hearing of this blockade of Lilybæum collected 250 ships which they sent under Hanno to Sicily. The ships were laden with stores, the crews apparently more or less raw, and the old technical skill conspicuously absent. The Romans on

the other hand exhibited superior tactical qualities, and their victory was of the easiest description. Hanno's fleet was annihilated.

Communications with Sicily cut, her mercenaries almost in a state of revolt, Carthage surrendered Lilybæum and Drepanum and made peace.

Few wars are more interesting and instructive than this—the first Punic War. The bone of contention was an island: but that island was invaded with considerable success by a military power which had practically no fleet at all.

It may be said that the Carthaginians should have been able to stop the invasion by Sea Power; and gross laxity would seem the only explanation of their failure to do so. But on examination it will be found that Carthage did not desire war, and the invasion was of the nature of a political surprise—in some ways not very dissimilar to that invasion of Korea which began the Russo-Japanese War in February 1904. A nation resolved on war can always undertake a military operation to open that war against a nation less eager to fight. A Continental ideal for the defeat of England is the declaration of war by the landing on British shores of the hostile army. Whether practicable or not in these days of telegraphs and steam, the idea is not at all a novel one, and something of the sort is to be found in the Roman invasion of Sicily. Japan's invasion of Korea in 1904 is not on a par with projected invasions of England, since Japan had the conviction

that her fleet was the better one, and her torpedo attack on the fleet at Port Arthur was planned and expected to produce considerably more results than it actually achieved. Rome apparently had no idea of using such ships as she had for any purpose save as transports.

Let us now, as on a previous occasion, suppose some one conversant with all the theories of Sea Power and deductions therefrom, but entirely ignorant of the actual results of this Roman invasion of Sicily. Let him be given the conditions and requested to forecast the results. In how far would his forecast agree with what actually happened? Would he prove that communications being cut (as they were) the Roman army would accomplish nothing? Would he foresee the 'silent steady pressure of Sea Power' driving the Romans inland till, recognising the inevitable, they surrendered at discretion? Would he foresee, the actual result, the over-running of Sicily by the Roman soldiers; Carthaginian Sea Power doing no more than rendering insecure Roman tenure of coast captures, and permitting raids on the Italian coast—wearying Rome it is true, but achieving nothing towards defeating her? Or would he predict Carthage, having complete command of the sea, pouring troops into Sicily till the Romans, however superior in individual courage, were annihilated by force of numbers?

Carthage, as already stated, was for purposes of defence and offence managed essentially on 'Blue

Water School' principles. She had but a comparatively small army of moderate efficiency available for military operations: and even of this she made no great use. She was content to leave things to her navy and trust to the 'silent pressure of Sea Power.' That silent pressure might have stood her in fairly good stead perhaps, had Rome not turned her attention to 'other ways.'

The Syracusan ships and the Roman ships with *corvi* show, as later, Greek fire, cannon, steam, shells and armour, were to show, how unstable a thing is Sea Power even at its best. On land, once in a way, as with the phalanx, with elephants, possibly (but not certainly) with cannon, new inventions—'other ways'—have neutralised skill, courage, and practice: but the sea is full of incidents whereby high efficiency has been made a mere cipher through the raw man having some new invention, some new idea, placed in his hands. Given the necessary fitness, Fate seems ever to have supplied the necessary weapon. Yet Sea Power as a definite factor is assessed as though such incidents had never been, and 'Fitness to win' is never included as one of its factors.

Confident in the *corvi*, the Romans,—without sea practice be it noted, for they even learned to row in 'shore establishments,'—sallied out and easily defeated the foremost seamen of the age. Is not a true appreciation of this worth a dozen realisations that 'it was the ships of Nelson at Trafalgar which won the battle of Waterloo'?

In the events that followed, the trained seaman once in a way asserted himself. When Lilybæum and Drepanum were closely beleaguered, the skilled seamen of the Carthaginians succeeded in running through the blockading fleet and overcoming the obstacles placed by the Romans to prevent their ingress. At Drepanum, too, the skill of Adherbal and his sailors made short work of Claudius's 'soldiers at sea,' though even here the folly of Claudius in entering a hostile harbour without any precautions is sufficient to account for his defeat. Storms, too, wreaked upon the Romans disaster such as never befell the more experienced Carthaginians. In the end, however, by virtue of the *corvi*, or by virtue of being the fitter to win, the Romans gained the victory.

The war was won by Power of some sort—no war was so surely won by Power as this. But, if we examine that Power, what was it? What was behind the *corvi*, the particular weapon that overthrew the Carthaginian fleets? Nothing assuredly that Carthaginian seamen could not have copied structurally. They apparently made no attempt to do so. This may have been due to the conservatism so inherent with nautical men¹ who as a class are averse to going either forward or backwards, and also partly due to the fact that behind the *corvi* were the Roman 'soldiers at sea.' We lack the necessary details to

¹ Compare the unanimity with which the great majority of retired Admirals decri any new invention introduced into Navies.

show which of these two was the principal reason, but we do know that the Roman was the better man, compared with the Carthaginian fighting man, when it came to a hand-to-hand struggle.¹ How much better the Roman was we cannot say. On land, however, the Carthaginian forces fought well enough to suggest that the disparity was not insuperable, at any rate, hardly enough to account for the crushing nature of the naval defeats inflicted. All that the Romans with the *corvi* did was to turn the sea into land for the purposes of the battle, even as the Syracusans did when they defeated the Athenians, and this was simply a reversion to past methods. The ship originally was nothing but a machine whereby soldiers could fight soldiers on the water as well as on land.

We are compelled, therefore, to imagine that over and above the question of fitness between the combatants, there was also the fact that the Carthaginian sailors, either from pure conservatism to the best existing methods when they were trained, or from the numbing effect of being suddenly faced with novel conditions, found their very proficiency in naval war *à la mode*, fatal to war by unorthodox methods. However, the point of interest is that the Romans, like the Syracusans, despairing of equalling their enemies in a special technical field, reverted to old conditions in which no technical skill was necessary.

¹ Hamilcar Barca's subsequent selection of the tribes inhabiting Spain and Gaul for the soldiers of the second Punic War possibly suggests dissatisfaction with the *personnel* previously available.

Now, can we condemn the 'Blue Water School' of Carthage? Omitting the *corvi*, it is difficult to do so. Carthage could only be attacked by sea, and her sea efficiency was superior to that of any other nation. Yet she failed. The cause of that failure was surely her lack of 'Fitness to win.' Had that been hers, she would surely have found the means of retaining her empire. As it was, though by a combination of luck and skill, she succeeded once in recovering her Sea Power, yet her unfitness to win led her into a neglect of efficiency, so great that in the final fight she was proved inferior to the Romans in purely nautical ability. Here at least is a lesson from history to stand throughout all time.

III

THE SECOND PUNIC WAR

IN the seventeen years that followed the peace, Carthage had first to cope with revolted mercenaries, whose rebellious instincts had led largely to peace being made. Those at home were eventually crushed, but others in Sardinia transferred their allegiance to Rome, and the expostulations of Carthage led to nothing but a threat of renewed war and the exaction of a still further indemnity. Hamilcar Barca, now at the head of affairs, was instrumental in this demand being complied with, and Sardinia was ceded;¹ but the exaction was never forgiven by him. From that day onward he steadily prepared for a renewal of the war, and he made his son Hannibal, then but nine years old, swear an oath of eternal hatred against the Romans.²

Hamilcar was a man of genius. Seeing that war was inevitable he cast about for the best means to conduct that war with success, when it should come about.

¹ Polybius, I. 79-80; Appian, VI. 1; Polybius, III. 10, 28.

² Polybius, III. 11; Livy, XXI. 1.

As one who had seen the successful use of Sea Power in the late war, he might have been expected to concentrate all efforts upon a powerful navy. This, however, he did not do. Either from lack of confidence in Carthaginian naval prowess, or from a recognition of the uncertainties of sea warfare, or because he recognised that it was impossible to equal Rome in a shipbuilding contest he directed comparatively few Carthaginian resources to naval use. Instead he made a plan in which Sea Power had very little part. In Spain he saw a compensation for the loss of Sicily and Sardinia, and free action for himself in a rich and as yet unexploited country, with Celtic and Iberic inhabitants eminently suitable for soldiers. Invested with dictatorial power, he began to build up a new empire in Spain and upon his death the work was carried on by his son-in-law Hasdrubal, and then by the great Hannibal himself, now twenty-eight years old. Always the aim was the conquest of Rome and when all was ready Hannibal threw down the gage and began that famous campaign which will live in history through all time.

He commenced operations by allowing Carthaginian interests to clash with Roman ones, as they had clashed on the eve of the first war. This time, however, Carthage was alive to the need of action and Hannibal moved forward so swiftly that Roman troops sent by sea to dispute his passage of the Rhone, arrived too late. These forces went to Spain and carried on

operations behind his back. There is every indication that he had allowed for, and perhaps courted this. His objective was Rome; the more soldiers Rome dispatched to Spain or Sicily, the fewer would she have to defend the heart of her empire.

With heavy, and perhaps unanticipated, loss, Hannibal crossed the Alps. It has been surmised that he expected to find friends there instead of the enemies that he actually encountered: since his whole plan rested upon appearing as the saviour of Italy and adjacent lands from Rome. Certainly in Italy he expected to find recruits, and his failure to do so considerably hampered him. Still, with his well-trained army he easily inflicted crushing disasters upon the Romans.

Lack of troops and siege engines prevented him from attempting to take Rome: instead he passed to the south and communicated with Carthage by sea, asking for reinforcements. These he failed to secure. Their non-arrival is attributed by Captain Mahan to the influence of Roman Sea Power, but the evidence of this is entirely negative. On the other hand it is a known fact that a party in Carthage regarded him with jealousy and suspicion, and opposed his being reinforced.

Before the battle of Cannæ also he had not had reinforcements for certain definite reasons:

1. He was in no pressing need, the Spanish army was strong in itself and he hardly asked for more

troops. The fleet of Carthage was employed to keep Africa free from invasion and so leave him a free hand.

2. A party at Carthage were opposed to making Hannibal too strong, for political reasons.

3. Uncertainty as to his whereabouts and the risk of reinforcements landed in Italy being cut off before they could join him.

Before the battle of Cannæ, the only effect of Roman Sea Power is to be found in the last difficulty, and that can more easily be attributed to military causes than to naval ones.

After Cannæ, Hannibal needed men, for since Italy failed to join him it became necessary for him to annihilate Rome with his own army. To this one party in the Carthaginian Senate demurred.

Eventually, however, 12,000 men, a quite insufficient reinforcement, were collected by his youngest brother Mago, and these were under orders to proceed by sea to Italy, when events in Spain necessitated the diversion of the force thither. Success was achieved and the brothers, Hasdrubal first and Mago subsequently, proceeded to Italy by way of the Alps, neither meeting with much loss on the march. At the Metaurus Hasdrubal was out-manceuvred and entirely defeated. Hannibal was then left isolated pending the arrival of Mago.

The Roman victory on the Metaurus is attributed by Captain Mahan to the fact that Scipio sent some

troops from Spain by sea to reinforce the army opposing Hasdrubal: but the more reasonable version, surely, is that the large force detached from the army confronting Hannibal was responsible for the crushing nature of the Carthaginian defeat. Rome also had the good fortune to intercept the messengers between the Carthaginian brothers, and so was able to make the necessary arrangements. It is surely improbable that Scipio's 12,000 men sent by sea from Spain would of themselves have contributed much to the victory of the Metaurus. Indeed nothing seems clearer than the impotence of Roman Sea Power in affecting the issues. The real causes appear to be:—

1. The success of the Scipios in Spain, thus 'containing' Hasdrubal.

2. The delay in the completion of the Macedonian alliance and Philip's subsequent inactivity.

3. The action of the peace party at Carthage in restricting reinforcements.

4. The activity of Roman troops in Sicily, which kept Hiero of Syracuse occupied.

Lack of reinforcements and the demoralisation of his army at Capua reduced Hannibal to severe straits and he ceased to be a danger. Then, and not till then was Rome able to consider the invasion of Africa. As soldiers and sailors were to some degree convertible, the fact that this obvious 'counter-irritant' was not earlier employed negatives the theory that Rome had much available Sea Power in this war. Any important

sea force could have been turned into an army to harass Africa. Yet Africa save for a very early raid was left untouched till the battle of the Metaurus broke the Carthaginian power in Italy. Then Scipio sailed in Etruscan ships, and attacked Utica and Tunis. Here his fleet was defeated by the Carthaginian ships, though his invasion was not affected thereby, since he subsequently defeated the Carthaginian home army. This led to the recall of Hannibal and his veterans who returned by sea.

In the following year Hannibal in command of a mixed force of his veterans and raw levies was defeated in the battle of Zama, and by his advice Carthage subsequently secured the best peace terms she could.

Let us now examine the action of Sea Power on this war.

The entire series of naval operations was as follows :—

At the outbreak of war Rome had a fleet of 160 quinqueremes. Of these sixty, under Sempronius, were sent to raid Africa : and sixty under Scipio to Spain. The Carthaginians¹ meanwhile sent twenty ships to raid the Italian coast, but these were dispersed by a tempest off Messina. Some of them were captured by Hiero of Syracuse who was then at Messina, and he, suspecting that Lilybæum was the Carthaginian objective,

¹ Carthage had, according to Livy (XXI. 49) twenty ships to raid Italy, nine at Lipari, eight at Stromboli, three off Messina; Hiero had twelve ships at Messina.

hastened thither with some ships of his own and some Roman vessels. When the Carthaginians arrived they found Lilybæum on guard, so drew up in battle order off the harbour. Here, attacked by Romans using the *corvi*, they lost seven ships: the rest gained the open sea.

Meanwhile the main Carthaginian fleet of seventy ships was ravaging the coast of Bruttium (Calabria). Sempronius was preparing to deal with these, when the news of Hannibal's descent into Italy arrived, and he was at once recalled, leaving only a few ships for the defence of Sicily,—an instance of the influence of Land Power on naval history.

At Carthagera in Spain¹ the Carthaginians had forty ships, which the Romans under Scipio surprised while the crews were ashore; and shortly afterwards a Roman fleet a hundred strong dispersed the main Carthaginian fleet off Italy, compelling it to retire to Africa. This, however, does not seem to have inconvenienced Hannibal.

In B.C. 214 Rome raised 150 ships, but found some difficulty in manning them. The defection of Syracuse to Carthage occupied the attention of these vessels till the famous siege was over. Naval operations on a small scale were also conducted against Macedonia; but nothing further of importance occurred till Scipio invaded Africa, after the battle of the Metaurus.

At the time of Scipio's invasion the Roman fleet

¹ Polybius, III. 95-96.

consisted altogether of about 160 important warships, disposed as follows :

Forty ships defending Sardinia.

Forty cruising off Sicily.

Eighty coastguard service off the Italian coast.

Of how the Carthaginian fleet was disposed we know very little. At least a hundred ships were at Carthage or thereabouts : while the defensive dispositions of the Romans suggest that many more Carthaginian vessels were engaged in raiding the coast of Italy or at the service of Hannibal at Tarentum. There is much to suggest that, at any rate at this period, Carthage had the sea command rather than Rome. In any case Scipio's fleet contained only twenty large warships to defend his fleet of transports. As there were a hundred warships at Carthage, Scipio, at any rate, displayed a fine disregard for the 'fleet in being' and all present-day conceptions of Sea Power.

Scipio reached Africa and landed quite unopposed. He besieged Utica and had advanced on Tunis, before the Carthaginian ships appeared. His naval position was then so desperate that he chained his transports together, crammed them with soldiers, and put his warships behind them,—certainly not the action of dominant Sea Power.

Through this defence the Carthaginians ultimately broke and destroyed half the Roman fleet—after which, for reasons unknown they retired to Carthage, allowed Tunis to surrender, and never more appeared in the

war. To know why, would be invaluable to us, but no reason is vouchsafed. It is to be presumed that they subsequently co-operated in the return of Hannibal's army to Carthage—a task accomplished without any interference from Roman ships—but their failure to take the offensive is inexplicable, unless it be that the Carthaginians, having in mind the invasion of Regulus in the first Punic War, anticipated that, with Hannibal in command, a land victory would be easy, and kept their ships in hand against the arrival of Roman reinforcements, and for cutting off all retreat when the anticipated rout of Scipio should occur.

Roman Sea Power landed troops in Spain, intended to cut off Hannibal. This it failed to do, but under the two Scipios it carried on war in Spain behind Hannibal's back and delayed his overland reinforcements. This action had another result also. Mago, Hannibal's brother, who was sailing with 12,000 troops to Italy to reinforce his brother directly from Carthage, was ordered to land in Spain instead. In a word the Carthaginians were able to use the sea when they chose. Hannibal, too, was in constant communication with his home government and had his demands for reinforcements been complied with, no Sea Power that she possessed could have saved Rome. Carthage having elected to make the issue a land one, Rome did the like, and neither nation relied much upon Sea Power. Indeed, when Scipio invaded Africa,

Etruscan ships were chiefly employed; and the only instance of a naval action in the final stages was the defeat of the Roman fleet by the Carthaginian vessels. Such Sea Power as existed at the time of the invasion was Carthaginian. Hannibal when recalled had no difficulty whatever in returning to Africa with his army by sea, being molested neither when he embarked nor when he landed in Africa, and there is no evidence whatever that Rome won by use of Sea Power. By the absence of it Carthage was unable to repel the Roman invasion by blockade of the Italian coast,—but blockades of that nature were impossible in those days. She also made no attempt to defeat the force of Scipio while on the sea, but here the difficulties of intercepting the force and the lack of certain knowledge as to his destination may have been the reason why. Ancient fleets were quite unfitted to cruise ‘observing.’ Also it may well be that Carthage, adhering to the military policy laid down by Hamilcar Barca, decided to await the issue on land, much as the Russians so decided in the Crimean War of 1854. There is no doubt that in that war the Russian squadron should have been able easily to annihilate the allied fleet, crowded as it was with troops and hampered with transports and store-ships. Russia preferred the land, and Sebastopol fell. As when fifty years later Japan invaded Korea, so also in the Crimean War certain cardinal doctrines of Sea Power were to all appearance ignored, but the ignorers won.

Such evidence as there is points to the fact that Scipio, so far from being an example of the use of Sea Power is an example of complete ignorance of it—also without suffering for it. It is true that luck was with him: it was a series of misfortunes rather than Scipio's genius which compelled Carthage to recall Hannibal and his veterans—for the incidents that led to the defeat of Syphax and the contest with the whole force of Numidia could hardly have been anticipated. Otherwise, and had Hannibal been properly reinforced before the invasion of Africa, the pressure of the Carthaginians outside Rome would probably have rendered Scipio's invasion abortive. Zama made it completely successful, but no ships of Scipio or of anybody else contributed to the victory of Zama.

We may note, then, two salient facts in these Punic Wars.

In the first, Rome, having Sea Power, invaded Africa and met disaster.

In the second she had probably not got the Sea Power. She invaded and succeeded completely.

In the first war the defeat of the Carthaginian fleet and the consequent isolation of Lilybæum and Drepanum, may be cited as an instance of Sea Power and its effects: but even here it is well to remember that the Carthaginian ships were cumbered with stores and apparently not expecting attack. That, however, is somewhat of a side issue: Rome had the ships to win with and she won.

In the second war Sea Power, despite Captain Mahan's classical instance, surely had no part; and such sea advantage as there was lay with the side that was defeated by over-sea operations. Unpalatable as the fact may be to the due recognition of pretty theories, should it not be frankly recognised? It may not be well to deduce therefrom that Sea Power theories are 'merely theories'; yet it is surely fair to deduce from these wars that neither numbers of ships nor ability to handle them can alone confer victory. The real secret of success must be sought in other and more intangible things—things that can only be vaguely classed under the general heading of 'Fitness to win.' This fitness is neither ships nor skill at handling them, neither great leaders nor willing obedience, but the sum of the sentiment of each individual combatant.

IV

ACTIUM AND LEPANTO

THE battle of Actium was one of the decisive battles of the world. Since it was a naval fight, it is always thought of as an instance of the use of Sea Power. The water was between the rival claimants for the empire of the world; and they met in conflict upon the water. But that the fight was a sea one depended primarily on the fact that both Antony and Octavianus had elected to move by water against the other—just as in the second Punic War both sides chose to decide the issues on land.

The fleet of Antony was by far the larger, not only in numbers but also in its individual units. Its efficiency was poor: the fidelity of many crews doubtful and Antony its leader more interested in Cleopatra than in war. The fleet of Octavianus on the other hand, though its units were smaller vessels, was under a competent leader, Agrippa, the men were all well disciplined and each man sure of his companion.

In Antony's fleet dissatisfaction was so great that a retreat to Egypt was contemplated, and only because of a gale was it not put into execution. Cleopatra

wished to go, and in the heat of the action she fled with sixty ships. The love-sick Antony followed her in a light galley leaving his large vessels to fight as best they could. Even so the issue was long in doubt, the smaller ships of Agrippa made little impression on their monstrous antagonists and not till fire-ships were employed was much effect secured. Towards nightfall, however, the entire fleet was captured or destroyed.

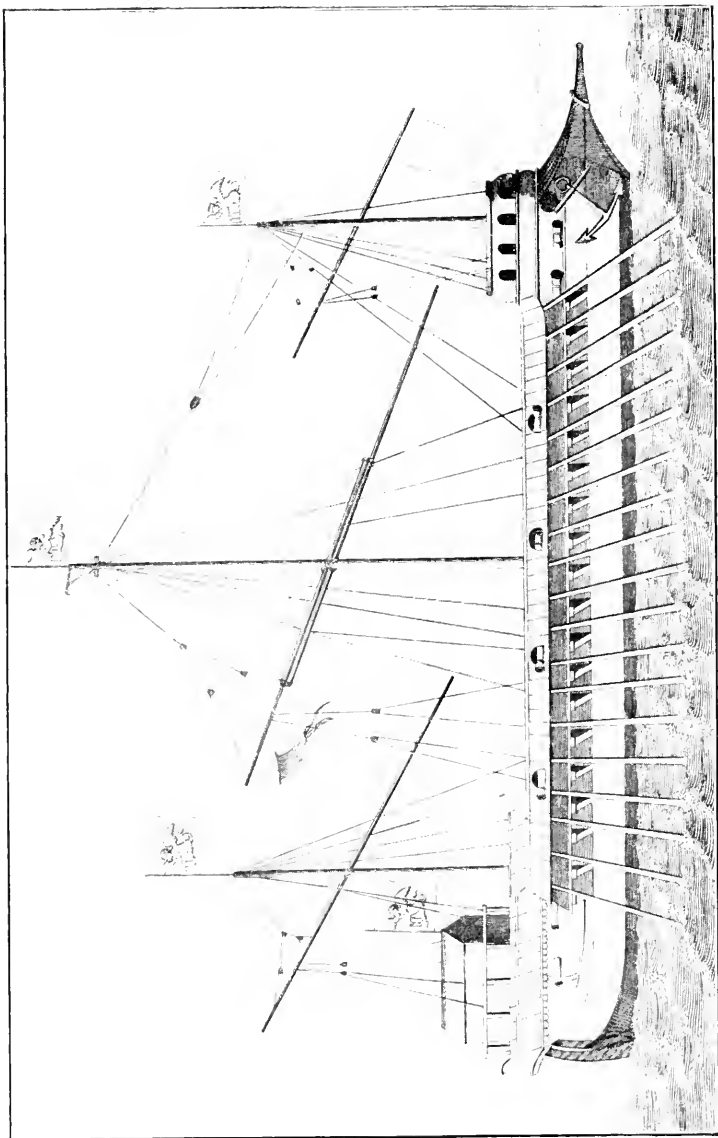
Of this fight the lessons are obvious enough in some ways. There are some details not so obvious: for instance the exact influence that Cleopatra's flight had upon the issue. The accepted story is that she fled about noon; and that her defection, followed by Antony's, led to the subsequent defeat, which else had not been. Every defeat in history has some plausible reason to account for it, and Cleopatra's flight was the most satisfactory explanation to the vanquished.

There is, however, nothing unreasonable in the supposition that her flight may equally well have been the result instead of the cause; and that by noon the larger fleet was in such confusion that the final issue was no longer in doubt to the technical eye. Thus regarded, Actium stands out as a battle in which *personnel* shows markedly superior to mere *matériel*. Yet, in so far as Sea Power could be reckoned as a tangible thing it belonged to Antony with his large fleet of almost unassailable warships. His were the big battleships of the period; the ships of Octavianus were but the equivalent of cruisers at the best. Can

one base on this a theory that cruisers well handled are sufficient to meet battleships? Scarcely: since the difference in *personnel* was so marked. Yet at the battle of Yalu in the Chino-Japanese War the conditions were in many ways not dissimilar, cruisers fought comparatively successfully with a fleet containing two (relatively) monster battleships. On the battleship side there was no leader—for Ting was out of action through the concussion of the first gun fired. At least one Chinese ship fled; whatever the moral effect of such an incident may be worth, it was present. Of course, Yalu was a trifling affair compared to Actium, the issues being narrower; still the comparison is profitable, the teachings of history being worth little except when applied to some modern conditions to enable us to seek for eternal principles—if they are to be found.¹ And what do we find? That the fittest to win were victors despite the inferior *matériel* with which they were handicapped. All other details and conditions are mere embroidery.

After Actium it is natural that we should consider Lepanto. Here after an interval of hundreds of years the issue was fought on very much the same spot, and the territories involved were much the same. The Christians, like Antony, trusted in monster ships, six mastodons being in the fore front of the fight. The Turks had the smaller and handier vessels and the Turks were hopelessly defeated.

¹ See Chapter on 'Eternal Principles.'



ONE OF THE VENETIAN GALLEASSES AT LEPANTO.

Contemporary Picture ex Fincham.

What again does history teach save the victory of the fittest to win? Antony's mastodons and the Venetian mastodons at Lepanto were relatively the same thing,—they embodied the same reliance upon the practically invulnerable.

If we examine Actium, we find Antony's big ships proving as invulnerable as ever the Venetian galleons at Lepanto. They ceased to be invulnerable only when the ships of Octavianus began to ram so as to disable the steering gear and then brought fire to their aid—that is to say just so soon as the superior fitness to win of the crews enabled them to devise a means of overcoming the barriers between them and success.

Speculatively, we may apply this reasoning to the Russo-Japanese War and the destruction of the Baltic Fleet. Suppose the rival sides to have changed ships, and Togo and his men to have been caught on board the Russian ships in the formation in which Rogestvensky was caught. Can anyone doubt that the Russian squadron manned by Japanese would not easily have extricated itself, and easily annihilated the enemy in detail? Yet, since things were the other way about the tactics of Togo will go down to history as the excellent thing to be studied and imitated, and the tactics of Rogestvensky as the hall-mark of the maximum of badness.

Again: suppose Nelson and his men to have changed ships with the Allies at Trafalgar. Is there any reasonable doubt that British ships would have been aught

but annihilated, and then history would have been full of the feeble tactical intelligence displayed by Villeneuve in giving victory to his enemy by his crass folly in attacking an immense line of guns by impinging on them single ships barely able to reply on account of their feeble bow-fire!

Such the main consideration that any comparative study of the battles of Actium and Lepanto must suggest; and yet, just because each has been regarded separately and on its own merits it is the one suggestion that has never been put forward. Either battle gives the lie to the other in all deduction as to *matériel*, but both combine to indicate the supreme importance of Fitness to Win, and show how trifling are all other things beside it.

V

THE SPANISH ARMADA

THE incident of the Spanish Armada falls somewhat into line with the Athenian expedition to Syracuse, with the invasions of Africa in the Punic Wars conducted by Regulus and Scipio, the invasion of the Crimea in 1854, and—though to a limited extent—with the effort of the Baltic Fleet in the Russo-Japanese War.

Conditions and details naturally vary—thus the Baltic Fleet carried no military force; but in each case there was the same underlying principle; the aggressors advanced trusting in a naval superiority. Some of the instances mentioned have been used to illustrate the doctrine that invasion is impossible in face of an unbeaten fleet, but success or failure would seem to have rested more upon the actual power of the aggressors as opposed to their presumed power. The Spanish Armada, had it possessed the superiority that its sender believed it to possess, need not necessarily have failed because English ships held the narrow seas. Its cardinal error lay rather in Philip's inability

to realise the magnitude of his task, and his neglect to provide the power necessary to accomplish it.

The invasion of England was at the time of the Armada a classical idea in Spain. First mooted by the Duke of Alva in 1569, it was revived by the Marquis of Santa Cruz in 1583 after the battle of Tercera. Some ships which ran away in this action were believed to have been English, and the impression was general that the English, whether on land or sea, were easily to be defeated by a firm front.

When the Armada idea first completely materialised in 1586 Santa Cruz had formed very complete plans which allowed of the employment of 556 ships and a total of 94,222 men.¹ Whether this force would have succeeded need not here be discussed, because Philip did not put the plan into operation. The plan actually adopted, though extensive, was on a considerably smaller scale. In brief, Santa Cruz was to take into the Channel a fleet sufficient to destroy the English fleet, and under cover of this Parma was to transport the Spanish army in the Netherlands to England in flat-bottomed boats. Substantially the scheme was not very different from that of Napoleon at a later era, nor did it differ so very materially from the successful invasion of William the Conqueror in 1066. In each case naval superiority in English waters was understood to be a necessity to success.

The invasion was delayed by the operations of

¹ *La Armada Invencible*, Duro.

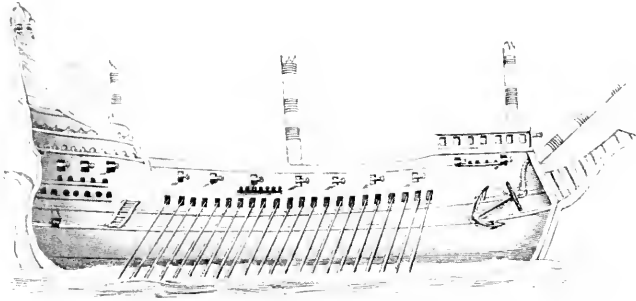


Drake, who destroyed many Spanish ships while they were yet unequipped, and early in 1588 Santa Cruz died. Medina Sidonia was appointed in his stead, despite his protestations of lack of the necessary experience.

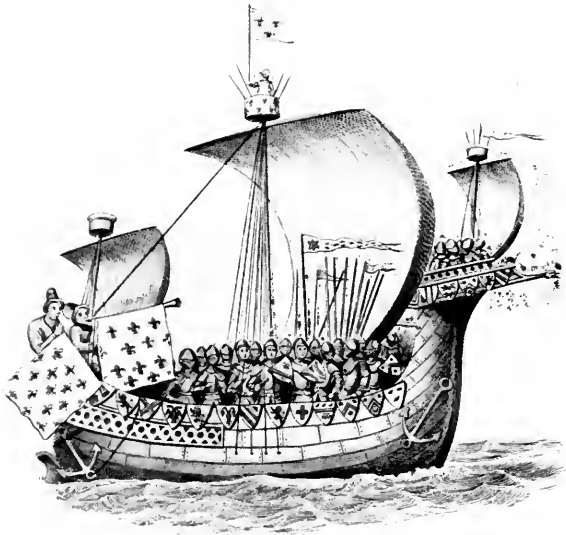
He sailed at the end of May with 130 ships and a total of 30,493 men, a force far inferior to the original Santa Cruz estimate, though, so far as soldiers were concerned, troops from the Netherlands were destined to bring it up to something like the Santa Cruz figure. The lessened number of troops to be transported from Spain reduced the number of ships, for the original estimate embodies 150 'great ships of war'¹ besides many lesser warships, whereas the whole total of Medina Sidonia's force was only about 130 ships of all sorts, and of these several came to grief on the way. Professor Laughton estimates the outside numbers that reached the Channel as under 120 ships and 24,000 men. Of these not more than sixty-two were fighting ships, several of which were but very lightly armed. The *Annunciada*, for instance, carried but three 18-pounders and three 9-pounders in the way of medium-sized guns, and several others were proportionately feeble.² The same authority places the English fleet at forty-nine vessels, a few of them quite as large as the Spaniards in tonnage, though of less freeboard. The English ships carried many more heavy guns than the Spaniards as a rule, had altogether

¹ Duro.

² Laughton.



SHIP OF THE SPANISH ARMADA.



SHIP OF WILLIAM THE CONQUEROR. (See p. 282).

better gunners, and (an important point) ports that admitted of far better training of the guns. The English were also altogether better seamen, and their ships infinitely more handy, so that, despite the numerical inferiority of the English, the Spaniards never had that certain naval superiority which was a cardinal feature both of Santa Cruz's first plan and of the modified plan finally adopted. The Spaniards, indeed, had nothing in their favour except bulk and the prestige of Spain. There is no reason to believe that this prestige had the slightest effect upon the 18,000 men odd who manned the English fleet, whatever opinions may have obtained on shore. Drake and his fellows were well used to conflicts with the Spaniards.

The Spanish fleet, though it carried a very inadequate supply of ammunition and stores, was not altogether so ill prepared as its fate might suggest. Medina Sidonia's instructions specially referred to the English superiority in guns and gunnery and directed him to engage at close quarters.¹ In this way the high poops and forecastles could be used to deliver a deadly small-arm fire upon the English decks, and upon this the Spaniards seem to have relied, as in the first action on Sunday, June 21, all their efforts were directed to a vain attempt to close.

¹ Duro. . . . It is of interest to note here that Rogestvensky appears to have received 'special instructions' with a view to neutralising Japan's salient known superiorities. 'Keep everything together' seems to have been the one great maxim (perhaps the only one) of the Baltic Armada.

But if the Spaniards failed in this, their bulk saved them from any very serious loss, and when the Armada reached Calais on the 27th it had only lost three large ships.

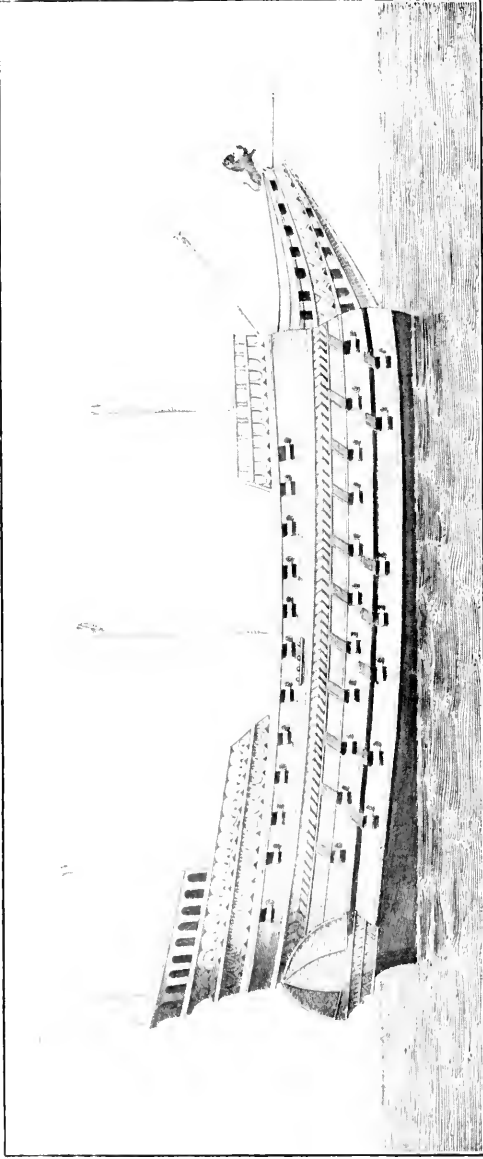
At Calais communication was opened with Parma, who, however, was unable to co-operate, since his flat-bottomed craft were all blockaded at Dunkirk and Newport by the Dutch. This fact rendered the invasion of England impossible; as the Spaniards could in no way raise the blockade in face of the English fleet without first beating that fleet.

The next night fireships were sent into the Spanish fleet and on the following morning, June 29 the battle of Gravelines was fought. It lasted from nine till six at night, at which time the Armada mauled and shattered bore away to the northwards, pursued by the victorious English. Its exact loss of ships in the battle was not, however, very great—only some seven ships being actually destroyed. The remainder, unable to return by the Straits of Dover essayed a course home by the north of Scotland, where the majority of them perished by wreck and storm.

Stripped of its romance, the failure of the Armada is no conclusive proof that its conception was a great strategical error. Had it been on the lines first conceived by Santa Cruz, carrying all the necessary soldiers instead of having to go to the Netherlands for them, it is difficult to prove from the results of the early fights in the Channel, that it could not have

111

1



BRITISH SHIP AT THE TIME OF THE SPANISH ARMADA.

From Fincham.

occupied the Isle of Wight or effected a landing at a dozen other spots upon the south coast of England. From what we know of Santa Cruz there is no reason to believe that he would have attempted to use it so ill-found as it actually was; and had it been less ill-found, had it not run out of ammunition, had it been properly handled, the English plight would have been undoubtedly serious. Its own utter failure is proof that it failed; but it is less clear that it proves invasion in face of a fleet to have been impossible in the sixteenth century when invaders lived upon the country invaded in ways impossible to-day. Scipio Africanus invaded Africa and reduced Carthage to sue for peace in face of a defending fleet which once at least attacked him with some success. Coming to more recent events the Allies invaded the Crimea in face of a fleet which, had it only acted as the English acted against the Armada, might or might not have reproduced the Elizabethan tragedy. It made no attempt to do so—Russian imagination being overwhelmed by the magnitude of the oversea expedition of the Allies, or else, as has been suggested elsewhere in this book, because the Russians elected to fight the issue on land. In any case, an oversea operation bearing a remarkable likeness to the Spanish Armada in its general conception—that is to say, attack by a very powerful naval force without any previous attempt to secure the command of the sea, was undertaken and succeeded.

The conception involved in the move of the Baltic

Fleet to the Far East in the war of 1904–5 was very like that of the Spanish Armada as it actually occurred. The Russian fleet was numerically very powerful. Unlike the Spanish Armada it had no transports with it, but its many store-ships formed something of an equivalent.

It had more conceptions as to the orthodox theory of Sea Power than had the Spaniards: that is to say its definite object¹ was to defeat the Japanese fleet, cut off the invading army in Manchuria and so reduce it to defeat or surrender from lack of supplies, and then at some future date convey an invading army of Russians to Japan. In this last, its objective was very similar to Medina Sidonia's—an army was to be picked up near the scene of conflict, and a defending fleet existed—conditions which have obtained in countless wars, in fact in every war in which both sides have had ships and either has attempted oversea operations.

The end of the Baltic Fleet was destruction, more complete and absolute than that of the Spanish Armada, but in both cases the most obvious cause of destruction was that the force employed was insufficient for the particular task before it. Had Rogestvensky been a Scipio Africanus, had the Japanese fleet been no more

¹ Presumably its object—Admiral Nebogatoff (*Fighting Ships*, 1906) proves clearly that had evasion been desired there was nothing to prevent the La Pérouse passage being selected; whence it is to be inferred that Rogestvensky selected the Tsushima passage with a view to fighting there. Nebogatoff proves quite clearly that the idea that coal scarcity compelled Tsushima is purely fanciful.

enterprising than the Russian ships in the Crimean War success was quite possible—in the light of these parallels nothing was wanting save fitness to win.

With sufficient fitness to win, that is to say with crews individually superior to the Japanese, Rogestvensky would have won with the ships at his disposal, and Medina Sidonia, had he and his men been all that they were not, would also have won in all probability. The causes of defeat surely lay elsewhere than in the ships or strategies : or how shall we explain the success of Scipio Africanus's armada against greater odds? In all the history of such failures is written the way that might have led to success, or rather the things without which success is impossible. It is a platitude to say that the Spanish Armada would have succeeded had it been the fitter to win, but history conveys very little lesson beyond that its failure was due to lack of this fitness. Whatever its relative inferiority in heavy guns cost the Spanish Armada, its inability to use effectively such guns as it had, and to secure sufficient ammunition for them—both *personnel* matters—cost it a great deal more. Whatever Spanish ships lost from being unable to close with the English, technical inability to manœuvre to do so—a *personnel* thing again—cost still more. In the Great War with France slower English ships time and time again brought swifter and handier Frenchmen to battle ; and Drake's men in the Spanish ships fighting Sidonia's in the English ones would in all probability have succeeded

in compelling close quarters by virtue of fitness to win. Indeed, the probabilities are that they would have destroyed the English fleet far more effectually than they destroyed the Spanish. If this be admitted (and to avoid admitting it is difficult) how can we trace the defeat of the Spanish Armada to anything having to do with ships or strategies or any of that ignoring of these 'principles of war' of which it is always made an object lesson?

VI

THE RUSSO-JAPANESE WAR

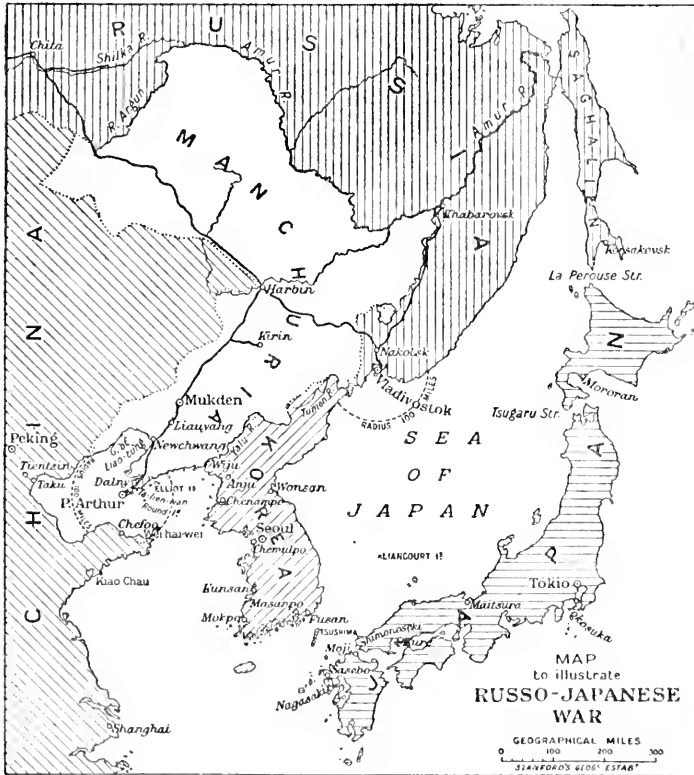
WHEN the war began the two active fleets were, on paper, not unequally matched, while in the matter of reserves the advantage lay entirely with Russia. The Japanese fleet consisted of four first-class and two second-class battleships, six armoured cruisers, one old battleship, and a number of small protected cruisers eminently suited for minor operations. There was also a very considerable torpedo division. At sea, *en route* for Japan, were two armoured cruisers, (Nisshin and Kasuga,) which had been purchased just before war was declared. A few small craft were in hand in Japanese dockyards, but nothing was building there likely to affect the war. The entire existing fleet was in commission, well trained and ready for war, and the whole was under the command of Admiral Togo, who, as captain of the Naniwa, had earned laurels in the war with China ten years before.¹

The Russian Pacific fleet consisted of two first-class and five second-class battleships, two armoured

¹ See chapter on International Law.

cruisers, two belted cruisers—of which one, the Rurik, was obsolete,—a few protected cruisers individually more powerful than the corresponding Japanese vessels, but numerically fewer, and a torpedo force considerably inferior numerically to the Japanese one. There were also at least one submarine and some gunboats. This force was divided, in that four cruisers were at Vladivostok and one with a gunboat at Chemulpo—a condition necessitated, so far as the Vladivostok division was concerned, by the smallness of Port Arthur harbour. The fleet was under the general command of Admiral Alexieff, with Admiral Stark as commander-in-chief at Port Arthur. At sea, on the way out, was a reinforcement under Admiral Virenius, consisting of one second-class battleship, one protected cruiser, some details and some destroyers. Owing to trouble with the destroyers this squadron never got beyond the Red Sea. At home, building or completing, were five first-class battleships and some destroyers. There were also two old battleships, several obsolete belted cruisers, and three modern fast protected cruisers. Russia, then, had a force that on paper was one fleet on the scene slightly inferior to the Japanese and another fleet slightly inferior at home. In the matter of bases Japan was most adequately provided for, while Russia had at Port Arthur and Vladivostok only two second-class dockyards, though directly war was declared she sent to the former the pick of her mechanics.

Japan's first move was, in appearance at any rate, a defiance of the Mahan principles of Sea Power, because in the face of an almost equal hostile fleet she

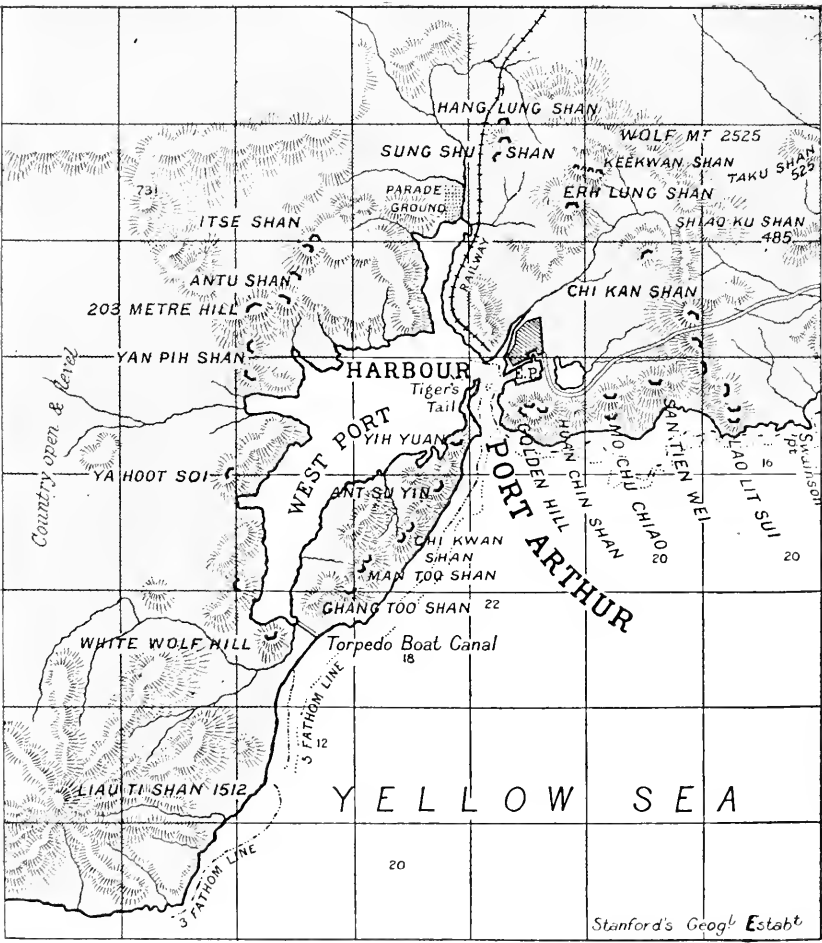


embarked an army in transports and sent this force with a small escort to Chemulpo. Here a Russian cruiser was encountered, and blown up by her captain after a short action that was not particularly creditable

to either side. Had Captain Roudineff, of the *Variag*, been a man of genius there is little doubt but that, in view of the lack of caution displayed by the Japanese Admiral Uryu in his attack, he might have accomplished something. As it was, he seems never to have attempted anything serious.

Before this event occurred Admiral Togo had acted elsewhere. On the night of February 8-9th, he sent his destroyers to attack the Russian fleet lying outside Port Arthur, a dangerous place to lie in, but necessitated by the fact that the Port Arthur entrance was so small and the fleet so inefficient that it had to collect outside because it could not emerge on a single tide. War had been officially declared about six o'clock on the evening of the 8th, but this information was (so it is said) suppressed by Admiral Alexieff, and many Russian officers were on shore. Only one Russian ship, the cruiser *Bayan*, appears to have been in any way prepared for war.

Owing to mishaps incidental to torpedo attacks, only one division of Japanese destroyers delivered an attack. Two first-class battleships and one cruiser were hit, and the surprise was so complete that the Russians never even fired till the Japanese boats were gone. It now seems established that the surprise was effected through the Japanese destroyers being taken for Russian boats—Russian signals being imitated, a perfectly legitimate war ruse concerning which the Russians subsequently protested very unreasonably.



PORT ARTHUR, DIVIDED INTO SQUARES OF ONE SEA MILE.

On the following morning Togo's main fleet appeared, and a desultory battle, chiefly remarkable for the bad shooting on both sides, followed. The Russians were supported by their land batteries, and it appears that such slight advantage as there was rested with them. The Iwate was very badly hit, and so were one or two battleships, chiefly from the fire of the forts. The Russian cruiser Novik got within torpedo range of Togo's flagship, the Mikasa, and missed her only by extraordinary bad luck for Russia or good luck for Japan. Most of the damage by ship fire was inflicted by the Bayan, and practically Captains Wiren and Von Essen of the Bayan and Novik fought the battle. As, counting the shore defences, Russia had the advantage on her side, her fleet, had it been properly handled, ought to have done far more than it did.

After this engagement nothing of any great importance happened for some while. The Japanese expended many old merchant ships and many valuable lives in futile attempts to block the Russian fleet inside Port Arthur. These operations were conducted with fanatical bravery, but were, it is now known, complete failures in every case. As an instance of the bravery exhibited, it may be mentioned that it was quite a common thing during these incidents for half-a-dozen Japanese, unable to escape to seaward, to try to carry some Russian ship or fort by boarding¹ or rushing.

¹ *Three* Japanese so attempted to capture the 'Retvizan' on one occasion.

Meanwhile, Admiral Stark had been replaced by Admiral Makaroff, an officer, who, in early life, had earned considerable renown for torpedo exploits in the war with Turkey. His first task was the Herculean one of attempting to organise his fleet; his plan being to skirmish till all ships were repaired and then fight a big action.¹ The Russian destroyers at this time made many attempts to find Togo's fleet, but Togo was far too good an admiral thus to be caught. All the attempts were failures, and but for the cover afforded by the Bayan, most or all of the Russian torpedo craft would have been cut off by Togo's light craft acting inshore. In one of these affairs, the Japanese battle fleet suddenly appeared, attempting to cut off four cruisers, but, curiously enough, sustained more losses than it inflicted.² In April the Bayan was all but cut off again, and Makaroff, coming out to the rescue with the battle fleet, was very nearly intercepted by Togo. Retreating, his flagship Petro-pavlosk ran on to a mine, and the admiral, with almost all his crew, perished. Another battleship was also damaged.

Within a month Russia recouped herself from this reverse. In one day, the Japanese lost the battleships

¹ 'A Voice from the Russian Navy,' *Fighting Ships*, 1906.

² The damage was, of course, trifling on either side; but the incident suggests that fast cruisers are more able to run the gauntlet of battleship fire than has sometimes been supposed. The use of battleships for attempt to cut off enemies is interesting.

Hatsuse and Yashima,¹ and the cruiser Yoshino was also sunk. The incident is remarkable for the skill and patriotism with which the Japanese concealed much of the disaster, and for the crass inability of the Russians to follow up their advantage. Victory was then within their reach, or, at least, nearer than at any time before or since. At one blow the Japanese had lost one-third of their battle fleet, whereas the Russian definite loss stood at one-seventh of the battle fleet only. Nothing, however, was attempted until the Japanese had been given time to adapt themselves to the changed conditions. Not till July did the Russians make a feeble sortie. They met, and repelled without loss to themselves a vigorous torpedo attack; then returned ingloriously to harbour. Meanwhile, the ships at Vladivostok had attempted a *guerre de course*. Fishing-boats and other small fry were equally acceptable to them as more important ships, and they accomplished nothing of moment beyond compelling Togo to detach four armoured cruisers to deal with them (which however was a distinct result). They were eventually defeated off Tsushima on August 11. At Port Arthur, the Bayan ran on a mine and was totally disabled. The rest of the fleet under Admiral Witgeft went out on August 10 with orders to go to

¹ On this day or about this time the Mikasa hit a mine which did not explode, and another mine actually exploded against the Asahi without, however, inflicting any injury worth mention.

Vladivostok—where, it may be suggested, they should have been all along. The fleet had not gone far when Togo appeared and the battle of Round Island took place. The ships engaged were :—

	Japanese	Russian
1st class battleships	3	2
2nd „ „	1	4
3rd „ „	1	0
Armoured cruisers	4	0

Both sides had some light craft and torpedo vessels with them. The proportions in line of battle in fighting value were, reducing all ships to the value of first-class battleships, approximately as 6·6 Japanese to 5·2 Russian, but as many of the Russian ships were but partially repaired the Japanese superiority was really greater in *matériel*, and it was, of course, infinitely greater in *personnel*. Japanese shooting was good, the Russian gunnery has been described as ‘excellent but unlucky.’ Witgeft manœuvred his ships well enough, and the first part of the battle was quite indecisive. About a quarter to six Togo, who had drawn out of range, closed in again. Witgeft was killed, and his flagship, injured but not totally disabled, crept away to Kiao Chau. Togo’s flagship, the Mikasa, equally injured, kept the line. The death of the admiral threw the Russians into confusion, and Prince Ukhtomsky, the second in command, ordered a retreat. The ships, except a few that interned themselves in neutral ports, crept back to their base seriously injured, but with the relatively small loss of 81 killed

and 420 wounded. The Japanese lost 77 killed and 148 wounded. Togo, attacked by the Russian destroyers, and compelled not to hazard his battleships, did not pursue, and during the night both fleets appear to have steamed hard away from each other.¹

Witgeft dead, Wiren, the former captain of the Bayan, was made admiral of what was left of the Russian fleet. He was the only man among the Russian captains who had ever done anything; indeed, all the foreign attachés inside Port Arthur speak of him as constituting the entire effective Russian force. The rest, excepting Captain Von Essen, were more or less incompetent, and many of them suffered badly from 'nerves.' The Japanese land bombardment made it, however, impossible for Wiren to repair his ships, and both men and guns were taken for shore service by General Stoessel. He lay inactive,² therefore, after telegraphing to the Tsar a request for the Baltic Fleet to be sent at once. In December Stoessel surrendered Port Arthur, and for nine days was a popular hero. It was then discovered that the fortress was well supplied still and might have continued to resist for

¹ In this retreat the Mikasa is said to have dropped astern and to have been taken for the Tsesarevitch by a Japanese destroyer which fired a torpedo at her. The story has never been officially admitted, but is more probably true than false.

² There seem to have been some Russians anxious to go out, and a majority holding the view that to remain inside in addition to being safer would better assist the defence of the base. At no time do any of them appear to have realised that a base when not serving as a base to a military fleet has no value.

months, and the capitulation must ever remain as a disgrace to the Russian arms.

After the capture of Port Arthur, nothing was done by the Japanese except to await the arrival of the Baltic Fleet under Rogestvensky. The fleet merely lay in Tsushima Straits. It drilled industriously for battle, but it certainly did not contribute to carrying on the war. The Baltic Fleet was badly officered, though Rogestvensky himself was a capable man, and according to his lights tried to drill it into efficiency.¹ No one, however, seems to have realised what war meant, the genius of Togo and the capability of his men were not at all understood. The result was a foregone conclusion—at the psychological moment it was found that the Russians could not shoot in bad weather, and some ships seem to have been in a state akin to mutiny. Mostly, however, the Russians fought bravely enough, as they lay in a muddled circle with the Japanese around them. The affair was almost a battue, as ship after ship came up and crumbled away under the well-directed Japanese fire and then succumbed to equally well-directed torpedo attack. Four ships surrendered. The Japanese sustained no damage worthy of the name. And so the naval war ended.

It is the fashion to attribute Japan's success to Togo's genius and Japanese nautical skill, but these reasons are hardly the real ones. Togo's genius,

¹ He did much tube-cannon practice, but big guns were never once fired all the way out.—'With the Baltic Fleet.' *Fighting Ships*, 1906.

though of a high order, was nothing out of the way, nor was Japanese efficiency anything specially remarkable. The real cause of victory lay rather in the splendid patriotism of all ranks, the readiness of every Japanese to die for his country. Every single man in the Japanese fleet contributed his full share to the result. Of not a single Russian—save perhaps Captain Wiren—can that be said. Many Russians fought bravely enough, and the story of the Oushakoff and Borodino at Tsushima which, by all accounts, went down firing to the end, is a story of which any nation might be proud; but such cases were rare. For the lack of patriotism the Russian Government is to be blamed; but equally, too, the Russian people. A nation which places its political salvation before its success in war, no matter how justified, is bound to go under in conflict with a nation like Japan. Japan had political malcontents, but with war each one became silent. The political situation, the fruit of corrupt government, made itself felt in the Russian fleet. A Japanese killed in the war died for the salvation of his country, died for something; but the Russians who died, died for nothing. There is no doubt that this told in battle. Consequently the Russians, apart from their natural deficiencies, were handicapped in this matter also. For the ignominious defeat, the Russian Navy has perhaps been unduly blamed. Free from blame it certainly was not; but the contemptible attitude of the Russians as a nation was to blame as much or

more. To everyone in Japan the war was a thing of life or death : the object of all Japanese, victory. The Russian nation contained an enormous number of people who more or less openly avowed a desire for defeat because thereby the political situation at home might be improved. The conditions which made men capable of holding such views, allowing the war to have been totally unjust, the conditions which permitted the expression of such views whatever they may have indicated ethically, emphatically indicated 'unfitness to win.' Never perhaps in history has there been so marked an instance of a nation earning and deserving defeat.

We may now proceed to examine in somewhat fuller detail certain of those incidents of the war which will be valuable for all time. Of these the invasion of Korea in face of an unbeaten and nearly equal fleet especially demands attention. The situation, as has elsewhere been remarked, was in some ways not very dissimilar to the invasion of Sicily by the Romans in face of the existence of the Carthaginian fleet.¹ An extremely important point is that Russia, despite political bluff, was obviously not anxious to go to war. Carthage was in exactly that condition in her first conflict with Rome. Owing to this Rome was able to invade Sicily with impunity ; and so it is perhaps wrong to accept her success as bearing on the question whether invasion in face of a hostile fleet is possible.

¹ See Chapter II.

Japan's ignoring of the 'cardinal principle' must also be put in the same category. The official Russian correspondence, published just about the time that peace was agreed on, indicates this very clearly. For by the correspondence before the war it is plain that Japan was entitled by Russian agreement to land troops in Korea, and Chemulpo, where a landing was actually effected, was particularly specified. Consequently an invasion of Korea was not a warlike act in itself. More, it is clear that those Russians who expected war were anxious rather than otherwise to see the Japanese land, hoping this to prove to their ultimate advantage. The Russian orders were not to interfere with the Japanese unless they attempted operations against northern Korea: otherwise the Japanese were to be allowed to commit the first act.

Exactly what Russia really intended will probably never be known with certainty. Presumably, (as the Japanese undoubtedly believed,) the Russian plan was to temporise and evade until such time as the Russian force should be sufficiently superior to crush Japan by menace. However, this is a point of minor importance: the essential fact is that Japan's preliminary invasion was not a defiance of Sea Power principles in itself. It became so, only with the threats to the *Variag* and the torpedo attack at Port Arthur—after which Japan felt herself strong enough to continue invading.

Her invading army never seems to have been in

any serious danger. The Vladivostok cruisers now and again had a slight and very temporary effect on communications : but generally speaking it was found that the 'fleet in being' of Russia was a negligible quantity. But the lessons to be drawn from this are rendered doubtful by the fact that Russia in the Crimean war pursued identical tactics in the matter of not using her fleet to attack an oversea invasion. We know then, that this was a matter of definite policy. How far a similar policy was in force in the war under review we cannot yet ascertain. Till it is known, we cannot assign a cipher to the 'fleet in being' remedy against invasion, on the grounds that the Russian fleet to all intents and purposes was innocuous to the invading army of Japan.

Perhaps one of the most prominent features of the war, certainly the most novel was the large use made of floating mines. These were used promiscuously by both sides : indeed most of the so-called Russian floating mines destroyed in the Gulf of Pechili were Japanese.

Strictly speaking the laying of mines outside the three-mile limit is illegal ; but in these days the three-mile limit is obsolete and illogical. If mines have any object at all, that object is the prevention of bombardments. Bombarding range is, however, at least anything up to five miles or so, hence the absurdity of expecting any belligerent to observe strictly a rule which would render his mines half useless. From

this, it is an easy step for him to go far out to sea: indeed to be effective blockade mines must be laid where they are least expected. In this war they were frequently so laid.

The most was not, however, made of them. For instance after the first torpedo attack the captain of the *Yenesi* wished to go and lay mines off all Japanese harbours, but permission was refused him; and though the Japanese laid mines off Vladivostok they did not lay them in effective places.

Though a good many ships were sunk by mines, it was in no case clear that the fatal mines were hostile ones.

As regards the Japanese losses, some of course are not proved to be by mines at all. The *Takasago*, for instance, which 'struck a mine one dark night off Port Arthur' may very possibly have been torpedoed. If not, the mine is just as likely to have been Japanese as Russian. The loss of the *Hei-Yen* may also have been by torpedo: at any rate, the ship was within easy radius of Russian torpedo craft. More, then, may have been attributed to mines than was due to them; and of the authentic cases the nationality of the mine is often doubtful.

On the whole it may be said that this was the first war in which the mine appeared as an important factor, although ships had been destroyed by it in the past, especially in the U. S. Civil War in estuaries and rivers. Neither side can be said to have

utilised the 'new arm' to the best advantage, and—the nationality of those mines which were effective being in doubt—it cannot be shown that either side gained to any great extent by their use. It is quite possible that if the Japanese had used no mines at all they would have been a ship or two better off.

The uncertainty of mines was also demonstrated. Undoubtedly many broke adrift by accident or stress of weather: there are also cases in which ships passed uninjured over mine fields.¹

The torpedo hardly came up to expectation in this war. Except in the doubtful cases of the Mikasa all torpedo attacks on ships in motion were failures till the last battle, and in that only ships already disabled by gun fire seem to have suffered.

The limited radius of torpedo craft was heavily felt by both sides. Thus, the Russian boats were never able to go far enough to encounter the Japanese fleet. Japanese boats were remarkably ubiquitous, but for four days work they had to have eight days rest, during which time their defects and injuries were made good. Repairs were effected at a phenomenal rate,² and, whatever is to be said upon the limits of torpedo craft utility or the success of Japanese torpedo attack, there is no

¹ Mikasa, Shikishima, and Asahi got on to a mine field just after the loss of the Hatsuse and Yashima. The flagship hit a mine which failed to explode, the Shikishima avoided it, finally one hit the Asahi and exploded but did no harm, as it was floating.

² One destroyer was entirely rebuilt from amidships within, it is said, three weeks.

question that no nation could have got more work out of the boats than did the Japanese.

Whether Japanese torpedoes hit or missed is a comparatively unimportant detail ; there is probably no lesson for the future in their percentage of misses. The point of historical importance is how often or how seldom were the Japanese able to have their boats at the necessary spot at the necessary moment. On this matter we know that, as boats served only one-third of their time, 66 per cent. of the force was useless at any given moment. From this it may be argued that three boats on paper means one boat actually and continually in service—a proportion not at all likely to be exceeded in any future war. But, on the other hand, there is the evidence of Round Island and Tsushima to show that at psychological moments the whole, or nearly the whole of the Japanese torpedo force was available. This would suggest that torpedo craft are a complete force, acting intermittently, rather than a partial force, acting constantly. On the whole it must be admitted that the influence of torpedo craft on the result of the war was small, even though the torpedo paralysed the Russian fleet at the outbreak of the war, and gave the *coup de grâce* to it after Tsushima.

In the first case the conditions that obtained were altogether abnormal ; in the second, as the Russians had only a trifling torpedo force (and that apparently not detailed for torpedo work) special conditions also

obtained, as between the Japanese boats and their objective, there was none of that counter-attack which may be depended on to neutralise the operations of torpedo craft in the majority of instances. At Round Island, where torpedo craft figured both sides, the results secured were negative. In the general night attack on the Port Arthur fleet in the previous sortie, no ships were torpedoed though attacks were pressed home all night. Only at Tsushima were hits secured, and here apparently only after several attacks upon demoralised and damaged vessels.¹ Certainly the operations cannot be said to substantiate most of what the advocates of the torpedo claimed for it ere the war broke out.

Of gunnery, as of torpedo, it must be said that the war taught nothing new. Every lesson corresponded with the result of experiment or the experiences of former wars. Ships, indeed, sank more easily under gun fire at Tsushima than had been expected, but it was subsequently shown that the conditions were artificial. The Russian battleships—none of them triumphs of the ship builder's art—were overloaded and unduly submerged. Consequently the thin upper belts were in actual result their water-line belts, so that to all intents and purposes the Borodinos were no

¹ The statement of Admiral Nebogatoff (*Fighting Ships*, 1906) still further discounts the torpedo, for according to this account only ships that burned searchlights got torpedoed. All Nebogatoff's own ships—though hampered by 'quick firers' that fired one round a minute and unprotected by light craft—survived the night attack.

better protected than the Japanese armoured cruisers. All, too, appear to have had a fore and aft bulkhead down the centre line.

The career of the Baltic Fleet was, perhaps, the most interesting feature of the campaign. Its modern ships were hastily completed; its old ships obsolete units more detrimental than assisting. Its officers were mostly either cadets hastily promoted or military officers pressed into the sea service. Its men were chiefly raw, and in some ships mutinous as well. Sea experience was lacking to all the *personnel*, and the coal problem was acute.

Yet by the time the fleet reached Singapore it kept station well enough to excite remark, and in several other matters it was found to be at least superior to what had been anticipated. The credit of this belongs entirely to Admiral Rogestvensky whose abilities, owing to the defeat of Tsushima have not perhaps been properly recognised. The task he faced was undoubtedly a great one. When all things are considered impartially the wonder is rather that his men shot as well as they did than that they shot so badly, that his ships offered so much resistance as they did rather than that they were so easily defeated.

So far as, so soon after the event, the truth can be got at, it appears that Rogestvensky's scouts sighted what they took to be the main Japanese fleet off Formosa. Either the Japanese had—as Russians assert—a dummy fleet lying there, or else Rogestvensky's

scouts were peculiarly imaginative—a quality for which the Baltic Fleet was generally distinguished. In any case it appears that the Baltic Fleet when it entered the straits of Tsushima believed the bulk of the Japanese navy to be behind it, and the way to Vladivostok barred only by a certain number of torpedo craft and cruisers, through which in the fog it had a fair chance of passing unobserved. Rogestvensky's formation in two battle lines was a sound enough one in view of attacks from small craft only: it was so hopelessly bad against a battle-fleet attack that it is almost in itself evidence that he never expected to meet Togo when he did. Meeting him thus it is probable that a considerably better fleet would have been annihilated with equal ease.

It is said by the Russians, probably truly, that the sudden discovery that they were faced with a fleet action overwhelmed them completely. Whether this be so or not, it speaks much for the Russians that they were able during the night that followed to act in unison sufficiently to beat off two of the torpedo attacks: the wonder is that they held together so long, not that they scattered so soon. Once scattered, of course their destruction was very simple. Even at the end only four ships, the division of which Admiral Nebogatoff was in command, were sufficiently demoralised to surrender.

Of Admiral Nebogatoff's surrender two views may be taken. There is first of all the humanitarian view

that to continue fighting was only a needless sacrifice of life. This view was true, but few naval officers will question that it was also wrong, and the degradation inflicted on Nebogatoff by the Russian Admiralty justified by expediency. We know perfectly well that Japanese similarly circumstanced would never have surrendered. We know that the Oushakoff similarly circumstanced refused to surrender, and sank still firing. So, too, the Rurik in an earlier fight near the same spot. 'Death or victory' is a melodramatic phrase; but it is also a necessity, and the leader who is prepared to accept the latter alternative is not properly prepared for it (or likely to attain it) unless he is equally ready to accept the former. However useless the deaths of those who went down in the Oushakoff may appear, their deaths were at least almost as useful to the Russian Navy of the future as if they had died in the course of a victory. Once the principle of justified surrender be admitted, it is impossible to draw the line, and the slightest suggestion of *force majeure* becomes a logical excuse for capitulation.¹ This may be ethically defensible; but a navy with such ethics is quite useless for the purpose for which it is created. The action of the Russian Admiralty in its merciless degradation of Nebogatoff and his captains is perhaps its one strong action during the war. Alongside it we may lay the action of the Chinese authorities who executed every man

¹ The process was witnessed at one stage of the South African war.

left alive after the surrender of Wei-hai-wei in the Chino-Japanese war: an action of great barbarity but—making due allowance for peculiar Chinese ideas and customs—not altogether to be blamed. Or we may go back to the Carthaginians and their cruel but probably useful practice of crucifying the defeated leader. It did not insure victory; but it was certainly a safeguard against defeat wherever victory was possible. So were the Chinese and Russian regulations on the matter.

The Russian ones were very clear: that in the event of defeat a captain was to destroy his ship. This was done by the captains of the *Varaig* and *Korietz*: it was done (not very thoroughly) when General Stoessel surrendered Port Arthur: it was done by most of the captains of the ill-starred Baltic Fleet, and ought to have been done by Admiral Nebogatoff,¹ so that his omission to do so indicates better than any list of sunken ships the completeness of the Tsushima victory.

¹ It may, however, be noted that the final reason given by Admiral Nebogatoff in his article in the 1906 *Fighting Ships* gives a justification outside the *naval* standpoint.

PART II

PROBLEMS THAT 'SEA POWER' DOES NOT SOLVE

THIS section deals with incidents selected from various wars of ancient and modern times, which either afford examples of minor paradoxes or else indicate problems that are no nearer solution now than they were in the past.

I

SOME TACTICAL AND STRATEGICAL PROBLEMS

THERE are two problems the solution of which has always been before belligerents in all ages.

These are as follows :—

(1) A fleet is between two hostile forces, each inferior to it, but which combined are superior. What is its right course of action?

The other is :—

(2) How can the weaker succeed in beating the stronger?

These questions have always existed ; and they are just as near to or as far from solution now as they were five thousand years ago when Nile boats were battleships and the sea an untraversed unknown tract. It may be profitable and should certainly be interesting to take a few historical instances of these problems, and see whether the answer in one age was the same as in another.

The first problem confronted the Japanese to some considerable extent in 1904. There were Russians at Port Arthur and Vladivostok, with a trifling force at Chemulpo in between. Nominally at any rate these

forces combined were slightly superior to the Japanese : divided they were inferior. Japan's solution of the problem was to annihilate the intermediate unit with a detachment and then fling her whole force on the Port Arthur fleet. At a later date she modified this : first making a considerable show off Vladivostok and then lying between with two divisions, each facing a Russian division, and these fought separate actions each with its own enemy in the affairs of August, 1904. The loss of the Bayan at Port Arthur and the Bogatyr at Vladivostok (both matters of chance) gave the Japanese a better force than they would otherwise have had at both points, but this paper advantage was not very great and Togo's fleet at Round Island, for reasons hereinafter stated, was hardly superior to the Russian Port Arthur fleet under Witgeft. Kamimura had a distinct superiority in his division ; but he had it at Togo's expense.

The results were in favour of both Japanese divisions, though fully conclusive in neither case.

This is the only instance of the problem (except in naval manœuvres) since Captain Mahan wrote¹ :—

‘ A position . . . threatened with attack from two quarters, presents one of the subtlest temptations to a commander. The impulse is very strong to meet both by dividing his own numbers . . . but unless in possession of overwhelming force it is an error, exposing both divisions to be beaten separately.’

¹ *Influence of Sea Power upon History*, p. 113.

Togo disregarded this *dictum*. He was not in overwhelming force, and in view of the fact that he had to preserve his battleships at all costs he became to that extent the more inferior so far as the division facing Port Arthur was concerned. If Russian stories be true—and they are borne out to some extent by the fact that the Russian casualties were not much heavier than those of the Japanese—it was somewhat a matter of luck that Togo's fleet at any rate was not 'beaten separately.' On the other hand, Togo certainly claimed Round Island as a victory, and the fact that the Russians never came out again stands by way of proof to his claim. Kamimura, being two to one, had of course no great difficulty in settling the Vladivostok cruisers, although for reasons not made clear he failed to complete his victory.

Let us now turn to the past. Instances of the inferior force splitting itself to meet the attack from two quarters are not very numerous. The English fleet did it in the time of the Napoleonic wars, but it was (save in one instance) in 'overwhelming force' off both Toulon and Brest and so cannot be cited. The instance of division without overwhelming force in both parts occurred with Cornwallis. Villeneuve with twenty-seven ships had returned from the West Indies, having given the pursuing Nelson the slip and got away from Calder's fifteen ships which tried to intercept him. Off Brest was Cornwallis with thirty-five ships which he split into two fleets, one to watch Villeneuve near

Ferrol, the other to watch Brest. Had Villeneuve gone towards Brest he would have met one of Cornwallis's division with superior force : however, unaware of the division, he went to Cadiz—so nothing came of Cornwallis's splitting up.

For a good instance of division at all like Togo's we have to go back to the second Anglo-Dutch war. Here in the strategy preceding the Four Days' Battle (1666) the English detached about a quarter of their force under Prince Rupert to meet a French fleet to the westward and the remainder under Monk to meet the Dutch fleet coming east. Practically Rupert was in Kamimura's position and Monk in Togo's. The force encountered by Monk was not very greatly superior, but he was compelled to retreat before it and but for the return of Rupert would have been handsomely beaten. As things were he suffered severely.

Here there are three instances : in the first and most modern, splitting led to no disaster but victories : in Cornwallis's case nothing happened : in Monk's, defeat was the result.

Other instances might be sought, but they would not sensibly alter the above ratio and they are not very plentiful. As a rule splitting has not been in favour.

Now comes an important consideration. In splitting his force was Togo split in the sense that Monk and Cornwallis were? Split he certainly was, but speed and wireless telegraphy made his divisions far nearer.

Had he been defeated at Round Island he would far more easily have been able to fall back on Kamimura than were the others who in the past essayed the same thing. This, of course, is another way of saying that conditions have altered, and that it is much more easy to decentralise or spread now than formerly.

The trend towards decentralisation is now, indeed, great. In the war with Japan we have seen Russia disposing part of her fleet at Port Arthur and part at Vladivostok. It is difficult to assert that this division was bad—that is to say concentration at Port Arthur, had the harbour admitted of it, would assuredly not have led to a Russian victory: it would merely have simplified Togo's task. It was bad in that the division of forces might have been better made—all cruisers might have been at Vladivostok, for instance. It was bad in that, being divided, the Russians made subsequent attempts to unite,—for no better reason apparently than that the uniting of two separated forces is the pet problem of naval manœuvres. Being divided they had better have remained so, and reaped such advantage as compelling the Japanese to divide also conferred. They were the wrong people to evolve a new thing in warfare out of divided squadrons; but it is well on the cards that in some such feature the Nelson of the future will make his mark. Supposing a brilliant leader at Port Arthur, backed up by an efficient fleet, and a similarly brilliant and efficient squadron at Vladivostok, the difficulties before Togo

would have been very great. He could have blockaded Port Arthur only with his entire force and then with great difficulty, leaving the Vladivostok division free to cut the communication of the invading army. The Russians did things badly and failed, but this is no proof that the brilliant possibilities alluded to did not exist; or that in some such division in the hereafter unexpected power may not be found.

Tactically, the 'divided squadron' is usually put under the head of a twentieth-century idea. It is an idea somewhat difficult to define, but in essence it embodies decentralisation as a means for truer concerted action. To take the case in a simpler form it is easier for two squadrons of six ships each, properly placed, to concentrate the guns of twelve ships on a portion of the enemy than it is for twelve ships in one long line to do so. It rests also on the fact that whereas each broadside had an equal value in the old days so that one ship between two others could give each her full power, in these days the principal armament being mounted to bear on either broadside a ship can put full power upon one side only. And since in a line of twelve ships there are bound to be some at one or other end of the line unable to deliver an effective fire at the psychological moment, it follows that the divided ships may have greater chances of securing a 'two to one' advantage. On the other hand, unless well-handled they may be separately engaged and lose more than they gain. Only a very efficient fleet,

with units well used to acting together is, therefore, likely to succeed with such tactics.

Whether divided squadron tactics are really a new thing is open to debate.

Alcibiades at the battle of Cyzicus¹ did something of the sort when he divided his fleet into three. Again in the first Punic War Atilius off Tyndaris flung ten triremes on the Carthaginians, and held them thereby till his main body arrived. In neither case were the operations very akin to those of the modern divided squadron, but the integral idea of securing victory by using the fleet in detachments instead of as a whole was equally present. Again, Togo off Port Arthur was continually more tactically divided than was academically desirable. As already stated his tactics were more than once those of Alcibiades,² and the results were satisfactory to him. Nelson at Trafalgar employed a species of divided squadron³ of set purpose and with a definite object, and Togo was divided at Tsushima, though for some time apologists with views of their own as to what he should have done, attempted to prove that he was not. The man who did not divide was Rogestvensky—who of all men ought to have done so, in order not to hamper his few good ships.

On the whole it may be argued that history has

¹ See 'Peloponnesian War.'

² See 'Peloponnesian War.'

³ As both were on the same bearing the application is of course only partial.

nothing conclusive to teach in answer to the first question; but that something may be surmised of the existence of a law of evolution in the matter tending towards greater division in the future than was safely to be attempted in the past.

The second problem 'How can the weaker succeed in beating the stronger' was answered by that Peloponnesian leader who, after the battle of Naupaktis finding himself the weaker, except numerically, said:— 'Against their greater skill set your own greater valour,' and by the Athenian Phormio on the same occasion when he appealed to skill against numbers.

It was answered by Alexander the Great when he made his historical remark 'It matters not to the wolf how many the sheep number.' It was answered by Hannibal when he beat the Romans at Cannæ; by Drake and Effingham when they fought the Spanish Armada, pitting against bulk and many guns, efficient gunnery and heavier pieces. Times without number has it been answered, but never in quite the same way, and because the way has always been different the question has continually remained, and will go on being asked—not always with an answer—whenever any man with a few ships encounters a fleet of double his force.

Supposing three cruisers met six of the enemy, all units being about equal. Common sense suggests that the three run for it; but this may not always be possible. History tells that often three have beaten

six, but no study of history will teach how it is to be done except by being doubly fitter to win. Once there were days when by passing under the sterns of the enemy the three might have a very good chance, supposing the manœuvre to succeed—to-day such a manœuvre would almost certainly lead to the three being torpedoed. Once, as at Lissa, where the weaker Austrian fleet rushed the stronger Italians, victory was won by daring valour—to-day the torpedo would probably intervene long before the terror of the ram could create any confusion. Cutting the line in the past accomplished much—to-day the torpedo again intervenes.

Yet, to-day, if the three can 'cross the T' by passing across the bows of the six they may do a great deal and destroy in detail. It is possible; but possible only to very efficient ships and to a leader of remarkable skill. It is harder than it was, and as years go on is likely to become harder still.

This indeed is the tendency of all tactics, though probably cycles obtain. Take, for instance, the case of a fleet lying in battle order in a bay—a situation which has obtained off and on continually throughout history.

In ancient times it was a very favourite formation to adopt. The Greeks were so disposed at Salamis, and emerged the winners. In the Peloponnesian war the Peloponnesian fleet took up a very similar position behind the island of Sphacteria; but the Athenians

who attacked them there did so quite successfully. The Romans under Scipio Africanus so lay at Tunis, and the results were indecisive, with the balance of success to the attacking Carthaginians.

The Octavian fleet so lying off the Campanian coast was defeated by the ships of Pompey; and at Actium the fleet of Antony very similarly disposed was defeated.

Coming to more modern times we find that in the eighteenth century it was a tactical axiom with the French that a fleet moored in battle order with its flanks protected by batteries was immune from attack. For this they had immediate historical warrant. Professor Laughton¹ cites a variety of instances of this doctrine in action. D'Estaing twice declined to attack an inferior British fleet so lying and was beaten later at St. Lucia when he did attempt it—his twelve big ships being beaten by seven smaller English vessels.²

Guichen and Cordova with thirty-six ships feared to attack Darby so placed with twenty at Torbay; and De Grasse attacking Hood, anchored at St. Kitts, failed. Suffren with twelve ships off Madras declined to attack Hughes with nine anchored and supported by batteries.

So when the French fleet thus lay before the battle

¹ *Nelson*, by Professor Laughton.

² On this occasion Suffren, then one of D'Estaing's captains tried to persuade him to attack by anchoring on the English buoys—tactics very similar to those employed by Nelson at the Nile. D'Estaing however refused to do so.

of the Nile they had plenty of warrant in the study of recent history to support their belief that they were quite safe. A study of ancient history would have told them that such positions had sometimes been safe and sometimes not, and perhaps impressed Brueys with the fact that the real teaching of history is that 'there is nothing to be learned, save that "the impossible" may always occur.' It was left for Nelson, in the signal victory of Aboukir Bay to shatter all theories as to the immunity of a fleet anchored in a protected bay. Yet at Algeçiras, not so very long afterwards, Sir James Saumarez with six ships was handsomely beaten by four French ones lying in the bay. At Navarino on the other hand the Turkish fleet found no safety in a bay.

If we select the Nile, Navarino, Actium, Sphacteria and other similar instances a fleet lying in a bay is doomed to destruction: but if we turn our attention to Algeçiras, and many an action between that and Salamis, the exact opposite is to be proved. Obviously then it is unsafe to draw any deduction from history in this matter other than that 'it is the unexpected which happens.'

Modern history does not supply much in the way of instances of battles in this particular situation. The Russians on February 9, 1904, inferior in ships but supported by forts were to some extent so situated in Port Arthur Bay when attacked by Togo with a superior force of ships. Togo never pressed home his

attack, but generally speaking it may be said that such results as there were pointed to a possible sequel more akin to what befel Saumarez at Algeçiras and D'Estaing at St. Lucia, than Nelson at the Nile.

As a corollary to the second problem there is the question of battles between equal or very nearly equal forces. A consideration of the question leaves us in doubt just as do the others already discussed.

In the decisive battle between Suffren and Hughes, April 12, 1782, the French concentrated on and severely injured two of the English ships, while the English fire was so distributed amongst the French that though the sum total of damage was about the same in both squadrons, yet the English were minus two ships for a long time, while all the French were able to make good their defects at sea. This is perhaps the best historical instance of the effects of what we now describe as 'fire control.' Something of the sort, of course, has always been an objective, whether in those innumerable battles in which one fleet concentrated on a portion of the other by contact, or in fights such as that of Round Island, where the Russians had hardly fired a shot at anything except the Mikasa, and the Japanese till late in the day devoted themselves to the Tsarevitch. The highest pitch was reached in those British peace manœuvres in which a fleet was umpired as defeated because, when results were being assessed, it was found that every ship in the defeated squadron had during the

entire action fired only at one and the same vessel in the opposing fleet—that is to say, done pretty much what the Russians did at Round Island.

Here, then, we have two distinct results of the application of the doctrine of concentration of effort. Suffren by employing it secured, despite an indecisive action, moral and material results equal almost to a victory, since for over a month he had two units less to contend against. This incident of Suffren's concentration, figuring as it does very largely in the pages of Captain Mahan's 'Influence of Sea Power upon History,' was undoubtedly known to the Russian admiral Witgeft and to the Japanese admiral Togo. Both, no doubt, fully recognised how advantageous it had proved to Suffren, and evidently ordered a similar thing. As a result, the Mikasa was very considerably knocked about, sustaining, in addition to other bad hits which reduced her gun fire, a water line penetration which might well have served as an excuse for her leaving the line, though as a matter of fact she did not do so. As for the rest of the Japanese fleet, it might for all the harm it sustained from the Russians, never have been in action at all.¹

The Japanese fire was directed almost solely at the Tsarevitch till that vessel left the line; thereafter, with the exception of a concentration upon the

¹ It is true that some of them had big guns out of action, but this was due to premature explosion of their H.E. shell, not to the Russian fire.

Retvizan in special circumstances, it distributed its attentions, and every Russian ship was more or less damaged. The resources of Port Arthur dockyard were not sufficient to put these ships into fighting trim again, and so, though they sank no ships and captured none, the Japanese reaped a material advantage. Of course, Port Arthur might have been a first-class dockyard, in which case, after some two or three months, the Russians might again have emerged; but taking all things into consideration, it seems apparent that a policy of general damage rather than an attempt to destroy one unit absolutely paid best in this particular case.

Now, out of these two battles is it possible to draw any deductions likely to be of future use? We can draw from Round Island the lesson that too much concentration may be worse than too little, from the Suffren action the exact reverse. Had some of the Russian hits on the Mikasa been on some other vessels the sequel might, it may be argued, have been different. The Mikasa was hit amidships around the funnel bases several times. The first hit did all the possible mischief, and the others were to that extent wasted. Similarly, the Japanese wasted some effort on the Tsarevitch, though later they gave attention to other vessels.

Here, then, is another case interesting to compare with those already mentioned. Taken by itself it might well be used to show that the first statement

of 'Tactics alter while strategies do not' is correct. That is the obvious lesson. But is it necessarily correct?

If we accept such an explanation we must, to be logical, say that Nelson won the battle of the Nile because 'tactics had altered' since experience had shown that a fleet anchored like that of Brueys was safe from attack. Yet both before and after the Nile similar attempts were failures: and so we are driven to confess that the Nile was probably a victory just because Nelson and his men happened to be the men fittest to win in such a conflict, and that tactics were a secondary matter.

Pursuing this train of thought, we may ask whether results would have been materially different had the Japanese at Round Island elected to destroy entirely the Tsarevitch and Retvizan, or the Russians attempted a scheme of general damage, instead of trying to annihilate the Mikasa?

The only conceivable answer is surely in the negative; and a similar answer results from any other battle being considered in the same light.

The same reasoning may be applied to strategy. We may supply Rogestvensky with the best possible strategy, but who will contend that had he adopted the best possible to be derived from a study of history he would have fared any better than he did? His defeat would not perhaps have been in Tsushima Straits, but would there have been any other material

difference? If Togo had led the Russian crews would any strategy of his have produced victory?

He would be a bold man who would contend that any strategical genius¹ could have led the Russian *personnel* to victory. But if the contention cannot be maintained, of what value or purport is it whether the principles of strategy be eternal or not? However academically interesting, of what value is the principle to victory? Is it not clear that Fitness to Win is an infinitely more important asset?

¹ On the other hand, Nelson (who was no particular genius in strategy or tactics) possibly could have done so, because he possessed to so extraordinary a degree the power of producing and cultivating Fitness to Win, and was *great* rather than merely 'able.'

II

BASE POWER

Togo's action in Port Arthur Bay on February 9, 1904, alluded to in the last chapter, draws attention to the whole question of arsenals and bases. The 'Blue Water School' lays down as a general theory that fortifications, save to a few arsenals and bases, are undesirable. Extremists tend to carry this a considerable distance, but the extremist school is not worth consideration here. What may be termed the 'limitations of passive defence' school,—those who admit the desirability of fortifying arsenals strongly, and outlying posts more or less slightly demand attention. These are they who assign the first and second places to the fleet; the shore and the shore forces come but a bad third. The advocates of naval command of naval bases may be found amongst these.

That an important place like Portsmouth must be heavily defended is accepted as an axiom by practically all schools and parties. Forts able to repel any kind of bombardment are usually admitted as quite necessary.

The extremists, perhaps, would argue that provided the fleet is intact and victorious, no serious attack on a main base is to be expected or indeed possible; and it is difficult to argue that this is untrue. To those who contend that 'the fleet might suffer a reverse,' the extremists reply 'All the more reason why money should be spent entirely on ships and not be devoted to bricks and mortar. Build enough ships, and your contemplated reverse cannot occur.'

Undoubtedly there is a very great deal in this argument, and it might be accepted as conclusive were it not that base attack is likely to be recognised sooner or later as the main objective of naval warfare, and to leave bases open to attack would court such a state of affairs. If the base be weak then a fleet must be tied to it to protect it, and so the extreme opponents of 'bricks and mortar' would, were they given rein, probably defeat their own ends.

Long custom, rather than logical reasoning, has created a system of first-class bases, secondary bases and so on down to minor bases of the fifteenth rank or thereabouts protected by a couple of six-inch guns 'to keep off a hostile cruiser.' How or why the hostile cruiser should come to such a place as—for instance—Lough Swilly, in order to test the six inch-guns, and what harm the guns would do to a modern armoured cruiser are questions that have not apparently entered into the scheme of things to any extent. Custom has decreed that 'moderate fortifications' should exist at

certain places, and there is no doubt a pious hope that the hostile cruiser bent on destroying a mercantile port defended by a few six-inch guns will be sufficiently obliging to fire at the fort instead of at the docks and shipping that it 'protects.' The cardinal and obvious axiom that the enemy will not come unless in force calculated to make the defence of no account is invariably ignored altogether. Our forefathers put up martello towers, and the enemy, for lack of anything better to do, used now and again to attack them. On these classical grounds we have erected the martello towers of our own age.

Now, bearing in mind the axiom that the attack will only be delivered in force sufficient to overcome all opposition—unless we presuppose the enemy insane he will attack under no other conditions—it would seem essential to have all fortifications of the very strong order, and at least able to defy anything except perhaps a very considerable battle fleet. In theory, perhaps, such a principle is accepted: in practice the prohibitive expense is in the way. It would cost altogether too much.

A recognition of this fact, coupled with the idea of being able to use the defence elsewhere as offence is undoubtedly the origin of 'coast-defence battleships.' These in the original idea of them were to be scattered around the different harbours to take the place of forts, while, the need for such defence being past, they could be used for various offensive purposes as ships.

Gradually it was perceived that coast-defence ships thus scattered were an attraction to an enemy and an invitation to him to destroy them in detail; and so the idea of concentrating defence squadrons came into being.

At the same time it was found that coast-defence ships were poor sea-boats and practically useless with a sea-going battle squadron, and on such grounds every navy now has dropped them in favour of ships able to act anywhere in all weathers. Thus, by a process of cycle we have returned to the equivalent of the martello tower and batteries. As a result big bases are crammed with guns rarely if ever likely to be fired at an enemy, and lesser places are supplied with a few guns that if attacked at all will be overwhelmed. The situation is on the face of it illogical; but it is also the result of an attempted evolution of something better.

If the fort system be wrong, then there is probably some error in the course of that evolution which took us from forts to ships and then back to forts again. Examined, one is inclined to imagine that perhaps the coast-defence ships idea was not wrong save in its application.

Its application may have been wrong in this wise. The coast-defenders, even the early American monitors, were always primarily *ships*. They were bad ships in the matter of nautical qualities, but they were still always more ships than floating forts. The floating battery proper hardly survived its first inception, when

the needs of the Crimean war produced it for offence against land fortifications. In the Crimea the floating batteries were eminently successful, and at Kinburn accomplished in a short time what no battle fleet of those days could ever have done in any time. Unfortunately, perhaps, the idea then fell into the hands of the 'seaman,' and there emerged things with masts and yards—palpable imitations of the old steam ships-of-the-line. Compromise was immediately sought and the first idea—save in so far as protection was concerned—went by the board, never to be revived. For though a later age built coast-defence monitors, these were always the ship rather than the fort, and the equivalent of the martello tower was constructed on land as heretofore.

Now suppose instead of the compromise the armoured ship had been evolved as the armoured ship, and the floating battery as the floating battery. Let us imagine floating batteries on raft bodies, or some other species of monitor in which speed is sacrificed for invulnerability. Ability to move is all that is required, their heavy guns fitted for high-angle fire would mainly constitute their radius, which would be the horizon. The primary defensive use of such monitors would be against long-range bombardments.

A long-range bombardment may be defined as an attack from below the horizon. Comparatively few ships can as yet use the necessary elevation, but most modern gun mountings are designed with an eye to

such application ; and almost all ships can be inclined to admit of it. A bombardment of this kind is, of course, absolutely aimless, and little likely to do harm save by a lucky shell—unless continued for a considerable time. A dockyard, however, covers a very large area, and that area can be exactly located by chart. The futility of bombarding land towns is held to be proved by the Boer bombardment of Ladysmith in the South African War, but such bombardments were carried out with little intelligence: had the British bombarded Pretoria, it is probable that bombardments would occupy a higher place in the scale than they now do. At Ladysmith no special area was selected, had the Boer guns taken the town piece by piece they would certainly have razed it in time, even as Port Arthur was being razed when it surrendered. A dockyard, moreover, is infinitely more vulnerable than a town, and there is little or no comparison possible between the destructive effects of big naval shell and those of shore guns which average a hundred pounds at the very most, and are apt to be much nearer twenty pounds. The big high-explosive shell is a *fait accompli* now and one such shell dropped into a dockyard would if it fell anywhere near shops, slips or docks do indescribable mischief. Probably a big common shell would do little less harm. It is true that Santiago de Cuba was subjected to a bombardment from the dynamite guns of the Vesuvius (which simulated a long-range bombardment fairly well) and the Vesuvius

seems to have done no harm at all ; but against this it must be remembered that the American vessel discharged very few projectiles all told, and had no large dockyard to aim at. Of the few that she did fire one fell near a destroyer. It might as well have been a ship, and that ship would undoubtedly have been injured or destroyed.

Port Arthur is another story. Here there is no doubt that the bombardment caused a cessation of repair work in the dockyard, destroyed many important shops in the yard and generally contributed largely to the inability of the Russian fleet to repair damages after the battle of Round Island. This result was mostly achieved by land batteries, the naval guns afloat took little part in the affair. But it is a matter of some wonder that the Japanese never managed to originate armoured floating-batteries with which to attack Port Arthur by sea. It could have been done ; and it would surely have been effective to a degree.

Supposing merely twelve guns to be engaged in bombarding an arsenal from beyond the horizon, and assuming a rate of fire per gun of one round every five minutes, in four hours only no less than 250 projectiles will be discharged. Each gun would be laid on the big area of dockyard, and probably a balloon would be employed to locate the hits. It is certainly conceivable that from ten to thirty projectiles would fall in the aimed-at area, and they would very probably accomplish damage that it would take at least a month to remedy.

Each ship having fired 48 rounds per gun would have some ammunition left to fight with in the event of an attempted counter attack, even if they did not (as they in all probability would) carry a special extra supply for bombarding. Unless within a hundred miles at the time, no friendly fleet, however powerful, would be of the slightest utility against this attack. The defensive capacity of a fleet is, therefore, limited by its ability to blockade the enemy in his own harbours, or annihilate him on emerging.

For the present it is obvious that if a fleet is able to slip out, it is certainly able, and might certainly attempt, to conduct a long-range bombardment: no sane commander would attempt directly to engage forts on the chance of silencing them; he would be silenced himself first, given any efficiency on the part of the shore-gunners. But if he keeps below the horizon the forts cannot hit him. They may locate him with a balloon, or even see him from high-site forts; but at a distance of some miles a ship is an infinitesimal speck. She averages, say, 400 by 75 feet, less than $\frac{1}{10000}$ of the target offered by a square mile of dockyard. Be range-finders never so perfect, the chances of a damaging shell from the ship on to the Yard are infinitely greater than the chance that the ship is hit, even if stationary. By damaging a main dockyard a fleet ensures that, if it be subsequently defeated in a naval battle, its opponents will be unable to repair damages and so be heavily handicapped. Considerations such as these may

induce a losing action which otherwise would not be attempted. In other words, this means that *the course of affairs may be governed by the conditions of the bases of the other side* and the ease with which damage can be done to them. A realisation of this fact gives bases an added importance.

Bases—not fleets—will surely eventually be the aim of all naval warfare, a truth all will incline to admit in principle even now, though few may clearly recognise it in detail. To destroy a base is worth far more risk and far more loss than to defeat a fleet, which, like the Russians at Port Arthur between February and August 1904, may retreat to the base for repair and then come out again. That base attacks are always the ultimate end of a *guerre de course* is generally ignored by those who affect to despise the *jeune école*.

France is the home of *guerre de course* theories, and her naval policy is always tinted by these theories. Hence the long adherence to coast-defence battleships which are small and cheap, little able to engage big sea-going battleships, but eminently fitted for long-range bombardments and coast operations generally. In the Siegfried class Germany imitated these ships without embodying or perhaps understanding their *raison d'être*; for the German coast-defenders have short-range guns.

The objection to coast-defence ships is that their range and utility are limited, and that they are relatively

more vulnerable than large ships. Hence the advocacy of floating batteries in which speed is entirely sacrificed to invulnerability. Such craft are probably best armed with something very superior to the best modern 12-inch and a strong battery of 4·7 or 4-inch against torpedo boat attack, though, as they would have to carry little that any ordinary ship needs, it should be possible so to build them that torpedo attack is little to be feared. They could safely move a few miles out to attack a fleet attempting a long-range bombardment, while their moral menace would probably prevent such a bombardment being attempted by an enemy liable to be interrupted by a defending fleet coming up. To close them would be a very grave risk—from afar off they could not be hurt.

Garrison Artillery would well serve to man such batteries, with possibly a naval warrant officer as 'master,' and a navigator, locally employed in general command of the masters. There would be no need for other sailors on board them, let alone that it would be a long day before sailors could be spared for such duties. As things are at present Garrison Artillery are in a great measure a wasted force, or rather so much sunk and unemployed capital. In mobile batteries they would not only be better able to defend their harbours against attack, but they would also (a most important point) be eminently able to attack the forts of the enemy.

It is surely the enemy's bases not his fleets that

must be attacked. If a stronger power wars with a weaker, and the weaker battle-fleets remain in harbour declining combat on the sea, the stronger battle-fleets have but a limited utility and will come to represent sunk capital that cannot be realised save in bad weather, when monitors and the like would have to make harbour.

It is of the nature of a digression, but one may well pause here to inquire whether the battleship is really logical, or really needed save to oppose other battleships. The 'ironclad' was born in the American civil war. The combatants there were ill-matched, the South had not the building resources of the North. Had things been otherwise, had the combatants had equal resources in the construction of monitors, it is at least permissible to speculate as to whether the battle-fleets of to-day would ever have grown into existence. The Thunderer, the Kearsage, and the Trisvittelia would perhaps seem the line along which ship-building would have proceeded, and naval warfare, realising the spirit as well as the substance of modern times, would have become solely a matter of attack on bases. As things are we would seem to have taken the substance without the spirit. Nothing is so conservative as the sea service, and as already noted, directly almost that the ironclad was formulated, efforts were made to harmonise it with old conditions. The most modern ironclad is merely the three-decker *redivivus*, controlled and directed chiefly by the spirit

of the old days. This may partly be attributed to the existence of 'seamen.' When the ironclad idea first entered, the seaman appeared likely to be superseded by the 'soldier at sea'—the integral idea of the earliest ages. Fleets and sailors represented an immense amount of sunk capital,—so much 'stock' as it were.

The true inwardness of this may perhaps be made clearer by a reference to an incident of every-day life. A publisher, let us say, prints 2,000 copies of a book upon some subject that quickly grows out of date. Having sold 1,000 of his first edition, he finds that the book is out-of-date, new facts having come into existence since the work was published. To reprint an up-to-date book means practically a new book, and it certainly entails the sacrifice as waste paper of half the first edition. Business instinct forces the publisher, first to postpone any new edition as long as possible, so as to sacrifice as little as may be of his stock, secondly all his efforts are directed to utilizing the stock to bring it to date by adding addenda pages to the original book.

This is exactly what happened with the navies of the world: all nations that had large fleets of unarmoured ships avoided the ironclad as long as they dared, and, forced to adopt it, sought to do so as cheaply as possible. It was grafted on to the old navies and evolved to suit the old navies. Thus masts and yards—bound up with the existence of

seamen—were adhered to as long as possible, and the mastless ship only very slowly evolved. The very existence almost into the twentieth century of a school which claimed the utility of mast and yard work as sound training for bluejackets who would never have to apply their knowledge; is a proof of how the new navy was grafted on to the old. Long before the ironclad appeared it was obvious that steam alone was fully sufficient as a motive power. A hundred million pounds were expended to avoid the wasting of less than ten millions of ‘invested capital.’ To create a modern navy in the early sixties would have entailed heroic sacrifices, the sweeping away of all the naval service and the substitution of the oldest sea warrior, the soldier at sea. It has taken the nations nearly forty years to realise and accomplish that fact; even to a partial extent. It has needed, in fine, a new generation of sailors who are not ‘seamen,’ sailors still in name, but, in actual fact, compounds (in the wide sense) of engineers and marines. Such an assertion is hardly received afloat; but that is because men forget that this is what the great early sailors were. The ‘seaman,’ though such famous names as Nelson are enrolled in his lists, is simply the rower of the past put to do the fighting as well as the moving. The process of a similar evolution to-day would be to eliminate all except the naval engineers and put them to do the fighting; the opposite alternatives to convert the military ranks

into engineers. Most nations have adopted a compromise whereby the engineer partially replaces the old time seaman, and the deck officer and his men the old time soldiers-at-sea.

Ancient history has only a relative bearing on modern practice. Learned professors have evolved wonderful histories of military strategy in the early and middle ages and in past centuries, the study of which is supposed to help the modern soldier. But such modern soldiers as are out of the rut of ordinary progress seem to pin little faith in the Past as a criterion for the Future. Its utility is a classical idea, and in great measure bounded by the fact that the enemy has the same fancy. It was the modern idea not the Past that enabled Germany to beat France in 1870-71.

On the sea greater changes have been at work. On the land there has been a steady and constant evolution, nothing approaching a complete revolution has occurred. On the sea the revolution has been immense, and if there has not been a complete *volte face*, it is due only to the retarding influences alluded to above. 'Tactics alter, but principles of strategy do not,' says the gospel of the day. It is not true. Tactics remain much as they were, because the old idea of a warship still remains—strategy on the other hand has completely changed. The destruction of bases by Sea Power in the days of the great French war was impossible—to-day it is fully possible to the

nation that chooses to avail itself of modern advance, and has the power to carry it through. Substantially it is what Japan did do at Port Arthur in 1904, though her policy was hampered by traditions and the means for effective warfare against a base were not hers. A respect for tradition caused Togo to make the Port Arthur fleet his objective; but those much-condemned bombardments of his show that he also had a clear conception that, the base destroyed, the fleet would matter nothing. This is where strategy has so altered: in the old days the fleet not the base was the heart of things: to-day the base is the heart pure and simple and the ships, whatever their radius, are but arms of the base. Admiral Togo's real claim to immortality is, perhaps, not that he won the battle of the Sea of Japan, but that he bombarded Port Arthur, did enough damage to retard the repair of ships and subsequently landed a naval brigade whose shore battery made it out of the question for the Russians to repair their damaged vessels.

Still Togo (or Japan) imperfectly understood base-attack, since the Japanese Fleet lay inactive till Rogestvensky, after many delays, drew near. It then took the unnecessary hazard of a naval battle which it could have avoided had it taken Vladivostok in the months of waiting. The brilliant success of the battle in which the Baltic Fleet was annihilated is a detail and a side issue. Had Russian shooting been good, had Rogestvensky had a proper supply of torpedo craft,

victory *might* have been his. It was always possible that he *might* win. Hence the risk of the sea fight upon which Japan staked everything—because of tradition.

The army of Nogi, transferred to the front after the fall of Port Arthur very probably contributed to the victory of Mukden; but Mukden was relatively a useless victory. Oyama, with half as many men as he had, entrenched anywhere in Korea, would have served to occupy Kuropatkin enough for Nogi to begin investing Vladivostok. Vladivostok is a far superior base to Port Arthur, but Japan after the fall of Port Arthur could certainly have installed a land battery capable of destroying the dockyard, and Togo's ships by long-range firing could have assisted that end. Without a base before him Rogestvensky would never have come to the Far East at all. Thus Russia would have preserved her Baltic Fleet; but that would have been immaterial to Japan. If the base be destroyed, it is immaterial whether the fleet belonging to it floats or lies under the waves—it has ceased to be a weapon. With Vladivostok taken or rendered untenable, six months of the war would have been saved, for Japan would then have been supreme upon the water and in possession of all for which she fought. By delaying the attack on Vladivostok, she left the taking of that place dependent on the chance of Russia being prepared to make peace or else upon a siege begun six months later than it need have been. And six months in a

modern war costs a very great deal. To Japan it meant that Vladivostok remained Russian.

A remarkable illustration of the importance of bases has been afforded by Russia herself. When the crew of the *Kniaz Potemkin Tavritchsky* mutinied (1905) and declared 'war,' what possibilities might have seemed to be theirs. They had nothing to fear from the remaining Russian battleships, coal was to be had for the seizing of Russian colliers, food for the demanding. And the ship did—nothing. Lack of agreement amongst the mutineers, some for the bold course, some for the safer, might account for this in part, but by no means wholly. They had, however, no base, and so drifted to a neutral harbour and inglorious surrender. This the Russian Admiralty, which had had ample opportunity to realise the importance of the base question probably recognised: hence the casual official acceptance of the situation when the mutiny began.

It may be urged that had the Japanese invested Vladivostok and so prevented *Rogestvensky* from coming East, the Baltic Fleet would have been left to damage Japanese commerce in the Indian Ocean or around the Straits of Malacca. Its lack of a base, however, would have prevented this, even supposing appreciable commerce to have been open to attack. *Rogestvensky* could have done nothing except morally; and moral menaces do not long bring forth fruit. The failure to destroy or neutralise Vladivostok was, there-

fore, surely a grave error, condoned only by the lucky chance that Rogestvensky proved easy to defeat at Tsushima. Is not the hostile base rather than the hostile fleet the true objective of modern naval war?

The importance of bases is usually fully recognised afloat: indeed it is afloat that all the apostles of what—for want of a better term—may be called ‘Base Power’ are to be found.

In the days of sailing ships the base was almost non-essential. Six months’ stores were carried, and the base was necessary merely for powder, shot and spars. Powder and shot were, however, easily to be found anywhere and did not need frequent replenishing, while any forest almost was able to supply spars. In the matter of spare sails any merchant ship could be commandeered, consequently a fleet was able to extemporise bases anywhere. Orthodox bases, at the same time, were easily defended and made impregnable and liable to no dangers save that of blockade—tedious work for which few navies were fitted. The hostile fleet was the only objective. Base attacks were rarely if ever attempted later than the seventeenth century—practically they ceased to be made long before that except in exceptional circumstances. Generally speaking the base was impregnable.

To-day hardly an impregnable base exists, though by courtesy nearly all bases are so styled. Actual impregnability is conferred only by the existence of a fleet, which, in its relation to a base exactly reproduces

the conditions of the members in relation to the belly in the fable. Fleet and base are inter-dependent, except that whereas the fleet cannot exist without a base, the base can go on existing for a considerable period without a fleet. While it exists, unless invested, it is a constant danger because of its ability to create fresh ships. It must be taken or neutralised. Surely the cheapest way to take it is with monitor-batteries which can go in, invulnerable, to victory; and the most economical way to create such floating batteries would seem to be to build them instead of forts. If, however, they are built as of old as adjuncts of the sea-going navy then presumably the old cycle will be imitated with the old results.

III

THE GUERRE DE COURSE

To every nation with a sea-borne trade the defence of commerce is an acute question. So difficult and complicated is it that there is a general conspiracy now and again to shelve it.

Let us first examine the attack. Attacks on commerce are part of the programme of the *guerre de course*, that much scorned system which has far more method in its madness than most authorities are wont to allow. It is very easy to take history and prove therefrom that the side which adopted the *guerre de course* did not win. Therefore, it is argued, the *guerre de course* is a bruised reed on which to rely.

The facts are correct, but the deduction is often unwarranted. To appreciate the question we must ask—which we never do—how else could that side have won? If we go into the matter a little from this point of view, we shall see that it never had a chance of winning by the ‘grand war.’ The *guerre de course* is not, and perhaps was never intended to be, a recipe for victory, but is simply the scheme which promises best to the weaker side which, accepting ‘grand war,’

would accept inevitable and rapid defeat, whereas by a *guerre de course* it prolongs operations very considerably and knows that before going under it will do some damage. Can we conclude, therefore, that the *guerre de course* is other than logical for the weaker side?

The best—being the simplest and least confused—instance of the application of a *guerre de course* is to be found in the Chili-Peruvian War of 1879-1881. In this conflict the two principal Peruvian ships were entirely unfitted to meet the two principal Chilians—a ‘grand battle’ would have been a foregone conclusion. The possibility of taking the Chilians in detail offered no prospects, since the two Peruvians together were barely equal to one Chilean. Also, one of them, the *Independencia*, was lost at once, and so the effective Peruvian force was reduced to the turret-ship *Huascar*.

Peru, therefore, in adopting the *guerre de course* did the only thing that promised a prolongation of the naval war. The Chilean coast was harried, a Chilean army in the north cut off from its base through the interception of transports, and generally damage was inflicted almost as though no Chilean Fleet existed.

Of course the end came at last. The *Huascar* was caught in Angamos Bay and after a fine fight captured. But what would it have availed Peru had she accepted that battle in the beginning instead of at the end? As things were, much mischief was inflicted, and once at least the *Huascar* in her depredatory course

secured an opportunity to torpedo one of the opposing battleships. She failed, because the torpedo did not run truly, but this is in the chapter of bad luck rather than anything else. Had she succeeded, the advantages of a *guerre de course* would have been patent. The 'might have been' is, however, as valuable to our purpose as anything else, since it indicates the possibilities of the strategy adopted by Peru.

The Huascar was further hampered by Chili making what—without dogma—may be called the correct reply. There was very little in the way of splitting up to protect commerce and coasts, the Chilians kept together, having the definite objective of cornering their antagonist always in view.

This war then indicates the intelligibility of the *guerre de course* as the refuge of the weaker power.

It is, curiously enough, the only instance of it in the ironclad age. In the Austro-Italian war of 1866 the Italian fleet, which was the stronger, wasted its efforts on other objects than the hostile fleet, but hardly sufficiently for the operations to be called *guerre de course*. The Chino-Japanese war and the Hispano-American conflict were of the nature of ships fighting each other, and so also, except partially, was the Russo-Japanese War.

The exception was the action of the Vladivostok squadron, which unfitted to fight successfully with the Japanese cruisers, attempted raids and commerce attack. In this it had some success, and had it not

been burdened by the company of the slow Rurik, and the loss by grounding of the fast Bogatyr it might have accomplished more. Yet Russia never attempted a properly thought out *guerre de course*. Her Port Arthur fleet acted with the grand battle in view, and the Vladivostok cruisers at the time of their defeat by Kamimura were apparently engaged, not on a *guerre de course*, but in trying to join the Port Arthur ships for a grand battle. Moreover, when upon *guerre de course* cruises, fishing boats seem to have been as acceptable to them as Japanese transports: there was little design in their operations and still less intelligence.

The *guerre de course*, as a danger to the stronger Sea Power, cannot be gauged from the Russian travesty of it. Let us, however, consider what Russia might have done, had she frankly recognised inferiority after the first torpedo attack. She had at Port Arthur the Bayan, Askold, Diana, Pallada, and Novik—all ships not easily caught and the Bayan at least moderately powerful, and efficiently handled. What might not have been accomplished by these vessels? Sooner or later, each would have been destroyed; but certainly they would have done considerable mischief, which as certainly is what they never accomplished in the war as it was actually conducted. There was always the chance at least that depredations upon the Japanese communications might have seriously impeded Oyama's armies and perhaps raised

such excitement in Japan that Togo would have been compelled to split his fleet to hunt for them; in which case the Russian battleships might have found some opportunity. Of course, this splitting would have been rather in the category of things hoped for than things to be expected: still it is a possibility of a vigorous *guerre de course*, and Japanese 'Fitness to win' would have been the only bulwark against it.

There is a reverse side to the shield. The Russians may have desired to attempt some such strategy but failed to see any prospect of getting out on account of the Togo blockade; certainly the answer to it was a rigorous blockade. But to force Togo into accepting the dangers and risk of a close blockade would certainly have been more effective than allowing him to maintain a loose blockade such as sufficed to meet the actual situation.

However, there was no *guerre de course* proper, and the only modern instance of it is the Chili-Peruvian War already mentioned. Let us now investigate the past and see whether history has anything that bears upon the matter.

Ancient history does not record any characteristic *guerre de course*: the grand battle sufficed for the ancients' simple aspirations. Combatants of those days were fully persuaded of the advisability of that doctrine, of which Captain Mahan has been the modern apostle, that all sea dominion depends upon the issue of the grand battle. The Peloponnesians beaten by

the Athenians, simply collected another fleet and tried again. Romans and Carthaginians almost always did the like; and it is only to the Roman operations against the Illyrian pirates that we can turn to find any conspicuous conflict between the grand war and the *guerre de course*.

In this conflict the seas about Illyria were infested with ships carrying on a general career of piracy—between which and the *guerre de course* the difference is not excessive, however different the motives may be.

Apparently the whole piratical fleet numbered but twenty ships. Against these Rome dispatched two hundred and a considerable army. Each Illyrian base was invested and the ships in it captured or destroyed—in a word, the policy of ‘stopping the earths’ was carried out. It is worthy of note that Rome appears to have done little in the way of convoys, and nothing in the way of attempted suppression by the system of sending individual ships to ‘protect trade routes.’

It is to the sailing ship days that we must look for all other instances—saving always the famous Alabama campaign, which will be dealt with further on. The most remarkable war from the amount of commercial interests involved was the Anglo-Dutch conflict of 1665–1667. Both sides had great commercial interests, indeed the destruction of commerce was an objective to both to a degree that has never been witnessed before or since, though it may one day come between England and Germany.

Commercial rivalries produced the war; and in England this cause was avowed in Monk's 'What matters this or that reason? What we want is more of the trade which the Dutch now have.'

The usual sea fights occurred with varying results, but on both sides trade suffered heavily—so heavily that both English and Dutch were growing exhausted and anxious for peace. Then it was that, worn with the expense of maintaining great fleets, the English resolved to make the war into a war upon commerce alone, seeing in this the surest way to attack the Dutch pocket and resisting power. The Dutch kept their fleets, and—there being nothing to oppose them—went up the Thames so far as Gravesend; England then signed peace.

This war is a favourite text for those who preach the uselessness of the *guerre de course*, and the failure of the English in it is used as an illustration. Yet it is necessary to beware of drawing false conclusions. We have always to remember that the *guerre de course* is ever of the nature of a device for making the best of a poor cause and delaying defeat, rather than a bid for victory. It is naturally an absurd strategy for the stronger side to adopt.

Nominally, the English were the stronger: when they adopted commerce attack as their chief object they had just emerged from a successful fight. Their resources, however, were very strained, and the Great Plague was heavy upon London. The *guerre de course*

conducted was a mild sort of affair; at any rate not the most serious that a nation might encounter. Whatever it was, the Dutch met it by proceeding to the English Coast and the Thames. They wasted little or no strength in chasing the English commerce destroyers—the ‘Earths’ were their objective.

A more serious *guerre de course* was carried on by the French in their war with England in 1702–12. The Channel and North Sea were covered with privateers, which, however, were unsupported by big fleets and so very liable to capture. Yet the damage done to British shipping was very great indeed. Again in a later war the same policy was pursued. In the four years ending in June 1760, 2,500 English merchantmen had been captured with the loss of 242 privateers. Approximately the ‘life’ of a privateer was ten British ships.

It has been shown by Captain Mahan that under these conditions British trade prospered and increased: and when the war ended, it was to England’s advantage in both cases. But in neither instance can the French system be fairly described as *guerre de course* proper. This should be borne in mind: because the essential to a successful or partially successful *guerre de course* is that its infliction of greater losses than have been anticipated, shall so break up and disconcert the stronger sea Power trying to overcome it, that the weaker naval Power shall be able to use its battle fleet with some prospect of success. That is the dangerous

guerre de course, for which history affords no object lesson unless it be that incident in the Chili-Peruvian War when the Huascar, but for sheer bad luck, would have destroyed half the serious naval force arrayed against Peru.

A final instance of partial *guerre de course* remains to be quoted—the careers of the Confederate Alabama and her consorts. A total of 261 Northern merchant ships were captured and American trade practically destroyed. This was done on purely piratical lines, that is to say there was no *guerre de course* having subsequent action by an inferior battle fleet as its objective, but a *guerre de course*, bent only on sheer mischief, and consequently less dangerous. Yet it annihilated the American merchant marine.

From this it is very easy to draw deductions, plausible in themselves, but considerably more obvious than accurate.

In the first place, beyond some coasting corsairs, only two of the Confederate cruisers issued from Confederate Ports. Of these the Tallahassee (subsequently named Olustee) came from Wilmington and after making some prizes was turned into a blockade runner. She was subsequently seized in England and handed over to the Northerners.

The Sumter, commanded by Semmes, slipped through the Northerners' blockade, and was chased afterwards by various Northerners which attempted to block her earths—and finally did so at Gibraltar.

The other vessels were fitted out at British ports, and though they occasionally ran the blockade into Confederate harbours they chiefly subsisted on the good offices of neutrals. British islands supplied coal contrary to the neutrality laws, but as Northern vessels were similarly accommodated,¹ the main issue was perhaps not affected.

The career of the *Florida* ended in Bahia Harbour, Brazil, where she was captured by a Northern vessel in defiance of existing neutrality laws—an act quite morally justifiable. The *Florida* had practically lived on neutral ports. When neutral remonstrances ensued, she was ordered to be returned to Bahia, but the Northerners wisely saw to it that she sank in Hampton Roads.

The *Alabama*, the most successful of the commerce-destroyers, was fitted out in England. Under Semmes she had a long run, but was finally earthed at Cherbourg, though here perhaps she might have escaped had she not elected to fight the *Kearsage*.

The *Shenandoah*, also fitted out in England, was never captured and continued to the end.

The *Georgia* ran for a year and was then sold out of the Confederate Service.

The total number of commerce-destroyers was 11 steamers and 8 sailing ships. The steamers destroyed or captured about 215 ships, the sailers 46,—always small craft in the latter case. The captures

¹ Bulloch. *Secret Service*. Instances nine cases.

of the steamers varied from 69 to 2 per ship, of which 13 were recaptured, so they averaged about 19 per ship—which is nearly double the average ‘life’ of the French privateers in the war previously referred to.

The most serious effect of the Southern corsairs was, however, that the terror of them laid up American commerce in neutral harbours or drove it under a neutral flag: and this, it must be remembered, was practically accomplished by half a dozen steamers, for a full half of the corsairs did very little harm indeed. Six ships, therefore, belonging to an absolutely minor naval power (the Confederate States), accomplished a practically permanent destruction of the mercantile marine of a relatively very strong naval power (the Northerners). So far, however, as the main issues of the war were concerned, this commerce destruction accomplished nothing, that is to say it:—

(1) Entirely failed to shake the grip of the Northern blockade (a thing it was perhaps—probably indeed,—designed to accomplish).

(2) In no way affected the victorious march into the Confederate States of the Northern soldiers.

In our examination of the situation, this second consideration need not, however, be given much attention. Indeed, it demands none, save in so far as the action of the Northern Fleet in bringing about the end of the war is concerned, and this overlaps the first consideration.

The Northern Fleet accomplished, or is credited with having accomplished, two things:—

(1) Its blockade reduced the food and war material supply of the South, and by checking imports and exports very effectually damaged Southern commerce.

(2) By penetrating the Mississippi the Northern Fleet cut the Southern Confederation into two.

The first operation was in its results not very dissimilar to the ideal results of a *guerre de course*, that is to say it ruined Southern trade very effectually. The situation here, it will be observed, reproduces tolerably closely (despite such differences as the fact that the South was not self-supporting and England in those days was) of the Anglo-Dutch War in the time of Charles II. when England abandoned grand war for commerce war. England was then much in the position of the Southerners, and Holland of the Northerners.

The second operation of the Northern Fleet is more of a compliment to the Northern Navy than the statement of a serious fact. For though all that is alleged is true enough; yet it could all have been accomplished purely by land power in a somewhat longer time. Incidentally, so, perhaps, could the first operation. Once Northern soldiers had got inside a Confederate port, they became more effectual at preventing Confederate ships using the harbour than any number of Northern ships outside, since they destroyed the base.

This consideration tends to depreciate the value of Sea Power in the campaign : but it is not to be denied on that account. Northern Sea Power accelerated the end of the Confederate States : it did not cause it, because the war was primarily a land war. Except, therefore, in so far as the Northern Fleet contributed to the destruction of bases or the earthing of Southern corsairs its part in the war was merely of the nature of an auxiliary force to the Army.

In attacks on bases it was not very effectively used : more might have been done in this respect had it been well supplied with soldiers to form landing parties in force.

In its operations against the commerce destroyers, its task was in many ways peculiar.

(1) The fitting out of corsairs in England was a situation which could hardly have been anticipated effectively. The laxity of the British Government has, perhaps, been exaggerated ; but still laxity existed. It was to have been met, however, once the situation was realised, by the stationing of a strong force in the Channel to intercept any corsairs issuing from British ports. This, of course, would have weakened the blockade of the Southern coast ; but that blockade was (in the circumstances) less essential than the suppression of the corsairs.

(2) Throughout the war both sides were granted extraordinary facilities by neutrals. As already mentioned, coal for the express purpose of carrying on

depredations or for checking depredations in certain waters was to be had for the asking almost anywhere. In addition docking facilities were equally easy to obtain—thirteen Northerners and eleven Confederates being repaired in British ports alone.¹

(3) The ships actually preyed upon were mostly sailing vessels: the transition from sail to steam being just then in process of accomplishment. It is infinitely easier for a steamer to intercept sailing vessels, than for steamers to intercept steamers.

Now these three peculiarities will not occur in any future war: nor are any of them to be found in any past one to an appreciable extent. Consequently the task of the Northerners was unusually hard.

On the other hand it was, in another respect, remarkably easy, in that the corsairs were :—

(a) Few in number.

(b) Of small account as warships.

Therefore, on the grounds of absolute fairness and on the grounds that in examining this matter it is better to over- than under-estimate the danger of commerce attack, we may perhaps with logic, hold that *a* and *b* did much to neutralise the peculiar conditions set out under the head of 1, 2, and 3—certainly those under heads 1 and 2.

The matter then still resolves itself into this:—
The few corsairs of the insignificant naval power ruined the sea-borne trade of the strong naval power—

¹ Bulloch, *Secret Service*, II.

a loss America was far better able to stand than England would be, for such a destruction of commerce would be absolute ruin to the British Empire, and war won at the cost of commerce would be worse than a Pyrrhic victory.

In the Anglo-French wars cited English commerce survived the depredations of French privateers which had lives of approximately 10 merchant ships per corsair. Nineteen ships per corsair destroyed American commerce altogether. Why was this?

The possible reasons may perhaps be given as follows :—

1. Luck.

2. The greater attractions of over-sea trade to the British than to the Americans.

3. The existence of other causes which naturally tended to the decline of American merchant shipping.

4. Better anti-corsair dispositions.

Let us examine them in detail.

1. *Luck*. The question of luck is one that cannot easily be examined. It was probably an important factor : but this is all that can be said about it !

2. *Trade Adaptability*. Trade was more essential to the English than to the Northerners. This especially acted as regards ships laid up. The inducements to put to sea and take risks were greater with the English. In the Northern States these inducements did not obtain : further, of course, there was the additional disruption of a Civil War almost at the door as it were—for when

there is nothing but land between a man and the hostile armies, he is very apt to forget the extent of the distance or his own armies barring the way.

3. *Decline from other causes.* This should by no means be forgotten. The change from wood to iron was of itself sufficient to greatly dislocate the American shipping industry.

4. *Anti-corsair dispositions.* The English in the war with France carried on a vigorous campaign against the privateers with little mercy and much hate. This tended to render the corsairs nervous, and if one eye was still on attack, one was also always on escape.

To the Confederates 'escape' was less ever present. If captured the crews had no barbarous treatment to dread, they were recognised 'naval men,' and—the war being a civil one—many of them, inspired in their career by the desire of gain as much, or more, than by any convictions, probably had in mind that sides could be changed if the worst came to the worst. Such considerations were of some assistance to them. Then, too, the principal Northern effort was concentrated in the blockade of the Southern Coasts: the ships devoted to dealing with the corsairs were neither many nor, as a rule, well suited to the task. The general dispositions were poor. Individual ships wandered blindly about seeking individual corsairs: only a portion of effort was devoted to 'stopping the earths.' The inordinate number of these 'earths' has already been alluded to:

also the error made in not stopping egress in the first place from neutral harbours. Had the North devoted greater attention to this question, it is probable that the Southern campaign would have been less successful than it was.

All this has been said before to-day: indeed, points have been strained to show that commerce attack besides being incapable of anything save negative results so far as the success or otherwise of the war is concerned is not necessarily serious in its effects.

On the whole, even though history shows the American Civil War to be almost the only instance of really disastrous results following commerce attack, it is probably extremely dangerous to under-estimate its danger—certainly for a nation situated as the British, whose over-sea trade constitutes the means of existence. Always it must be remembered that—save in the very small case of Chili and Peru—the real *guerre de course* has never been attempted. A corsair war having results such as the Southern War against commerce would be absolutely fatal to the United Kingdom—and nothing is gained by attempts to minimise it.

The *guerre de course* must, therefore, be prepared against: and that, too, not a partial and immature attempt such as history only records, but a really scientific *guerre de course* based on the fact that this form of war is the best for the weaker Power, and that it may be definitely adopted to split the stronger Power's fleets and efforts, because the result of things

is so felt that an uninformed and non-technical public insists upon such naval dispositions as appeal to its crude judgment. Here lies the most serious danger of all.

In strict International Law a captured merchant ship must be taken to a port of the capturer, where lawyers will argue at great length as to the exact definition of the word contraband, the legality of the capture and half a dozen other things. Were there any guarantee that all such formulæ would be strictly observed, then lawyers would be almost as useful and valuable as cruisers, and the problems of commerce defence much simplified. There is not, however, the slightest prospect that any nation at war is going to tie its hands with legal questions more than it is absolutely compelled to do. When Monk, on the eve of the Anglo-Dutch war made his famous remark, 'What matters this or that reason? What we want is more of the trade that the Dutch now have,'—he uttered an eternal verity, capable of wide application. In any future war in which the British are likely to be engaged and in which British trade is imperilled, the enemy will undoubtedly 'want' that trade. And the want will exceed any respect he may have for International Law that is likely to interfere with his aims.

Consequently the legal aspects of the question may be dismissed as not worth consideration—Might alone will make Right.¹ Probably only the threat of the

¹ See Chapter on 'International Law.'

British Fleet will prevent every neutral harbour being used as a corsair base when convenient: certainly no belligerent will be sufficiently foolish to try and take prizes into his harbours through British cruisers certain to recapture. He will sink them first—just as the Russians (quite soundly) sank everything that they captured and could not take away in their war with Japan.

In a well-conceived *guerre de course* the capture of British merchant ships for *gain* will be quite a secondary object. The destruction of British commerce in order to produce financial straits and popular agitation will be the prime objective—and if there exists any Eternal Truth about the strategy of this form of war the prospects of British commerce going the same way as American commerce would be very strong.

Fortunately there is no Eternal Verity in this matter: and the teachings of history to the effect that provided you can escape the enemy you can destroy his merchant ships with impunity is no longer a truth.

With the advance of civilisation two entirely new things have arisen to interfere with the full success of commerce attack:—

- (1) Public opinion.
- (2) International complications

(1) *Public opinion*. This has gradually become a source of grave inconvenience to the corsair. In

ancient times there was no problem about the crew of the captured ship. Unless they were worth keeping for sale as slaves and so in the same category as 'specie,' their throats were cut and they were thrown overboard.

Then a consensus of public opinion declared against these primitive methods: the merchant sailors must not be injured to this extent. They could still, however, be quickly disposed of by shutting them down in the hold or they could be set adrift in a boat to take their chance.

Again public opinion gradually intervened, and to-day the captured crews must be sumptuously treated, allowed to retain their private property, and generally as little inconvenienced as possible.

The net result of all this is that, whereas in ancient times the actual capture was a matter of two or three minutes, it is now an operation extending over several hours, during all of which time the risk of interference from a hostile warship is great. Yet public opinion is so strong on the matter that the corsair must prefer to risk this to risking seeing his name coupled with an 'Inhuman Outrage' in very large capitals on the Contents Bills of the World's press.

As time goes on these difficulties will continue to grow and increase. Public opinion cannot be defied like purely legal opinions can. Consequently the meaning of private property and effects will be ever-extending, till there will be so much to remove before

sinking a capture that the task will entail a day or two's work even to a belligerent entirely without regard to International Law. In the Russo-Japanese War it seems to have taken the Russians, with the minimum of regard for public opinion, something like six hours to dispose of a ship after they had overhauled her.

There is, too, the question of the merchant ship that refuses to stop when overhauled. What is to be done? Suppose British merchantmen made a rule of still going on. The enemy, after the necessary number of 'blank shots across the bow' demanded by public opinion, is entitled to put a shot into the machinery or otherwise wing the escaping vessel. He does it and someone gets killed or injured. Public opinion will have headlines about the 'Brave Britisher' and describe the death of the man who got killed as a 'Regrettable necessity.' But it will probably compel the man responsible for firing the fatal shot to go out of his way to express much sorrow and grief for having done what he was perfectly justified in doing, and generally he will have a species of stigma on him for doing it.

There the incident, if a solitary one, will end. But supposing the refusing-to-stop tactics are continued, and more people continue to get hurt. Public opinion will get very excited. The Russians—the least sensitive nation to public opinion—were most heavily censured for firing into the Japanese transport which gave them

this problem, and it hampered them afterwards to some degree. A nation more sensitive to public opinion would be hampered a great deal more. Probably those responsible would be censured by their own authorities seeking a *placebo*.

As a result some of the non-stop merchantmen might escape altogether: the corsair fearing to take the responsibility of firing. Then some strong man—determined to check a system that rendered war on commerce null and void—might be expected to arise and fire too well.

The world would have its head-lines on the matter, and the British press would to a certainty be very free with such epithets as 'Murder,' 'Piracy,' and so forth. It would undoubtedly demand that 'Piracy shall be treated as such': it is quite possible that British opinion, duly inflamed, would force the Government to make such a declaration. The position of the wretched corsairs, blamed and threatened on all hands for doing what, after all, they were entitled to do and the only thing they could do, would then become extremely awkward, and commerce attack practically killed.

Between the present state of affairs and this there is only the improbability that any merchant captains would so act. But men with great risks at stake are apt to be obstinate on occasion, and the knowledge that such a non-stop policy would swiftly lead to immunity might outweigh its dangers, especially if the corsair was reducing the nation to desperate straits.

The reward of escape would be so high that the temptations to brave dangers would be correspondingly great.

Such a death of war against commerce is not necessarily probable, but it is in the possibilities none the less.

(2) *International Complications.*—In ancient times the neutral was very little inconvenienced if his trade got mixed with the designs of the belligerents. No one lived to give the neutral's version of the matter : and piracy was so common that the disappearance of a merchant ship more or less evoked no surprise. In later times the neutral ship had learned complacency before the belligerents, and its status was in any case that of a blockade-runner. Unless the case was very flagrant, interference with neutrals provoked no comment ; it was accepted as part of the eternal order of things.

To-day this is in no way accepted, and in addition, countries are knit by trade relations of an intimacy that is of quite modern origin. For instance, Great Britain and America are connected by innumerable commercial ties, so interwoven in many cases that it is almost impossible to disentangle them. An enormous number of Americans earn their daily bread by growing food and raw material for the British market, and any interference with British over-sea trade would dislocate any number of American interests. Instantly the scene would bristle with delicate international

complications—a terrible handicap upon any power warring against British commerce. The incessant clashing with the interests of a powerful neutral would be a most serious handicap—how serious it is impossible to determine until it is attempted. At its mildest, it could never be neglected: at its greatest it might render war on British commerce abortive. This is a matter upon which history—save the most recent—has nothing to teach. But there are not wanting indications that neutral powers will only submit to the existence of a war on commerce in view of the fact that they may one day require to carry on such a war, or that they are gaining by it.

There is the case of the Russian Volunteer cruisers for instance. The matter was complicated by some legal technicalities about exit from the Black Sea; but the main issues were on more common grounds than that.

The Russians had very good reason to believe that on board the *Malacca* was some machinery intended for Japanese destroyers. They intercepted the ship, and found the suspicious articles marked with the British broad-arrow. These—if the Russian story be true—were cheek by jowl with some consignments for Hong Kong dockyard. The Russians were practically given two alternatives ‘international complications’ or to give up the *Malacca* without any enquiry as to whether she had anything on board her other than consignments for Hong Kong dockyard.

Now whether or no the *Malacca* actually had

contraband on board, the Russian undoubtedly believed that she had, also there is no doubt whatever that any amount of contraband was sent to Japan as Dutch cheeses, agricultural instruments, etc., etc. It was important to Russia to stop these things, but to have gone on doing so practically meant war with Great Britain.

Now the Russian war on commerce was a very mild and half-hearted affair; the sum of it all being more indignation amongst neutral ship owners, loss and inconvenience to neutrals, than worry or loss to Japan. Yet it aroused a great deal of neutral indignation. A war against British commerce to accomplish anything, would have to be on an infinitely larger scale, and the interests of neutrals involved would be infinitely larger than in the few cases Russia managed to make for herself.

Taking these two new conditions together there is no denying that commerce war is not what it was, and the nation that undertakes it on the grand scale will be embarking on an enterprise the limits and dangers of which it can never measure. All this augurs half-hearted operations, which would be comparatively innocuous even if not interfered with by the British Fleet. Probably, therefore, against any one nation British commerce is in far less danger to-day than it was in the old wars with France.

It is not, however, possible to act on that assumption: because the attitude of the neutral powers might

be sufficiently unfriendly, or they might see sufficient gain to themselves in the destruction of British commerce to waive their more immediate interests. This is at least a possibility. So, too, is a combination, and always the real *guerre de course* is the danger to be guarded against—that is to say a war against commerce supplemented by occasional action or attempted action of battleships.

It has, further, to be borne in mind that the platitude ‘Commerce destruction cannot win a war,’ is useless, when no British victory can atone for the loss of the world’s carrying trade which, once lost, is hardly likely to be regained. Hence, therefore, commerce must not only be protected from destruction: it must also be so defended that it can be carried on with comparative impunity.

There are two ways by which this end may be sought—the first by a vigorous offensive on the hostile fleet and a blockade so severe that very few commerce destroyers or cruisers can get out and fewer still return. The objective, however, would not be the commerce destroyers but the enemy’s fleet in general, by the destruction of which a still more vigorous blockade would be assured and the number of possible corsairs very materially lessened. If necessary, even commerce should be sacrificed for the single end of destroying the enemy’s fleet. Combined with this system a few powerful cruisers, easily able to destroy any corsair met with, would perhaps be stationed off

certain points upon which the trade routes converge, but there would be no patrols stationed along the trade routes and the minimum of division of forces.

This approximately embodies the modern naval view of how commerce attack should be met. It is, incidentally, how the Dutch successfully met the English attempt to fight a commerce-destroying war in the time of King Charles II. It is how the Romans successfully met the Illyrian pirates. It is also in part—how the Northerners—very unsuccessfully for their trade—met the Southern war on commerce.

A perception—an over perception—of this last point is the characteristic of the popular view of how commerce should be protected. It should be understood that the popular realisation of all that commerce attack might mean is in all probability greater than the naval realisation of it: and probably the popular estimate of this danger is better to accept than the naval one, certainly that naval one which bases any of its arguments upon the old platitude that war against commerce cannot bring victory.

Now, in the popular view there is only one way in which commerce can effectively be protected. This way consists in covering the seven seas with cruisers 'patrolling the trade routes.' These cruisers, we are told, do not need to be very powerful or very fast; a fairly good speed and numbers, especially numbers, will suffice.

This idea, is on the surface, fairly plausible; and

many years ago at the time of the Naval Defence Act it was god-fathered by many distinguished retired admirals who had the old wars with France in mind, and failed to realise that the conditions which then obtained will never be reproduced in the future.

The future will see no more little privateers: letters of marque cannot be resuscitated. Public opinion will not sanction the privateer; and all corsairs will be either orthodox cruisers or else armed liners—the supply of which is by no means very numerous. The ‘any moderately fast vessel’ days are over—a fair speed and a good coal supply are essential to a corsair.

It is doubtful also, whether many fast liners are available as corsairs. In the first place few Powers have many, in the next such vessels are likely to be found very excellent and much needed as destroyers of destroyers, since they can be so much more safely risked than cruisers.

However, if the swifter be used as corsairs, the popular ‘cruiser patrols’ are not likely to concern them much; as little cruisers will never catch a liner designed always to travel at top speed.

Supposing the hostile armoured cruisers to be utilised, again the popular cruisers do not promise well. They can do little save get sunk with a loss of men that will entail in pension funds about as much money as the value of any mercantile shipping that they are ever likely to protect.

What in fine can they do at all?

When we come to consider it—nothing, except with great good luck. Weak units—and numbers must mean relatively weak units—cannot even act as scarecrows. Spread over the ocean they would be merely so many attractive prizes to armoured corsairs. Grouped at strategical points they would be little more dangerous—a single large hostile cruiser with moderately large guns could steam round and sink them out of range of their pop-guns. Protected cruisers on the trade routes would benefit no British traders at all, unless it were the makers of monuments to the departed.

Consequently armoured cruisers must be employed. These are necessarily few : and to send them scouring the ocean on the off chance of meeting an enemy would be wasting them completely. They are much better employed from bases, whence they can observe hostile harbours and run down anything that issues out and catch anything trying to return.

The rub is that something now and again is sure to get out ; and having got out, to do some mischief. It will be difficult to convince the British public that a corsair getting out is hardly likely to average one prize a day and hardly likely to be able to go more than a week without coaling. Wherever it goes to coal will be its 'earth,' and there, ere it can reissue, a big armoured cruiser with a large coal endurance ought to be able to get and wait for it coming out.

Supposing the 'earth' to be a neutral harbour, it

must in most cases be left within twenty-four hours on pain of internment ; and a big cruiser outside is likely to make internment accepted easily. On the whole, therefore, provided only the British public can keep its head and accept a few losses as inevitable, the system of stopping earths is almost bound to succeed reasonably quickly ; whereas the alternative system of patrols and ocean hunting, promises no success whatever, besides being a system which allows a totally unnecessary number of hostile cruisers to get out on the high seas. Those who advocate the small cruisers on patrol are really no more logical than he who would suggest that instead of destroying the nest individual hornets should be slain on the wing.

On the whole there is only one really serious danger. This is that some large corsair might manage to slip out crammed with prize crews and small guns, and, with a gun and some men convert every tramp captured into an armed tender.¹ It is the kind of thing that some power—Germany for instance—might think of attempting. The commerce war would then be on a species of snowball system, and incalculable mischief might be done. In such a case only drastic measures could save British trade. There would probably be nothing for it but to declare all commerce attack except by proper warships ‘Piracy’ and to treat it as such.

Of course, all commerce attack is really legalised piracy : and the old system of commerce defence which,

¹ In the U. S. Civil War there were one or two mild cases of this.

if not avowing the letter of this, accepted the spirit and acted on it, had much to recommend it. Only very great necessity, however, would allow of such action being taken now-a-days. I once at the Royal United Service Institution read a paper in which it was tentatively suggested that if we declared that for every merchant ship captured we should destroy some unfortified town of the enemy, the mere threat of this would ensure perfect safety to commerce. A number of distinguished admirals, however, rose one after the other and with perfect unanimity condemned the scheme in most scorching terms on the grounds that it was brutal and inhuman. Public opinion would no doubt say the same about the hanging of corsairs' crews. At the same time both remain as England's *derniers ressorts*—and might seem more reasonable in the stress of war than when calmly discussed in peace.

Still there is every reason to believe that such a necessity ought not to arise, if only the British public representing the interests concerned can be persuaded that whatever defence scheme may be organised by the Navy, and whatever seeming failures may result, the really serious failures would arise over a scheme, half naval and half designed to satisfy popular notions as to what is most likely to constitute safety.

If past history of Parliament is any criterion Members of Parliament are probably the most dangerous menace. Compelled by the nature of things to voice any popular clamour, however 'engineered,' they

are in the habit of reading up whatever subject is to the fore. Such hasty cramming tends to produce an intellectual *pâté de foie gras*: and the better the intentions the worse the result.

Compare, for instance, the anti-Belleville agitation of a few years ago. With the introduction of Bellevilles there were the troubles incidental to any new departure—they may fairly be compared to the losses that our commerce would sustain in war. The judgment of the Navy was set aside, and a tribunal, practically civilian, appointed to re-judge the matter. In the result the Navy was fitted with five alternatives of which three failed at once and the other two burn far more coal, cannot be repaired upon board ship if damaged in action; and are generally un-equal to the discarded boilers of naval choice. For this travesty of efficiency Members of Parliament, perfectly well intentioned, were mainly responsible. In due course the Navy may reassert itself and the Belleville type be returned to—but what has happened in the meantime?

The danger is acute that were we involved in a commerce war, a similar display of lay as against professional judgment would be witnessed, with results more deplorable than it is possible to estimate.

Right or wrong, the scheme for defence of commerce must be left to the Navy alone, and the naval plan of a vigorous offensive, of 'stopping earths,' of acting as the Romans against the Illyrians, as the

Dutch against the English, has far more to recommend it than any scheme resting on a negative defence.

A final word may be added about convoys. These in the old days were rarely very successful: the principal problem being the difficulty of keeping the merchantmen together. That difficulty would probably be still greater to-day. Moreover, unless the enemy's ports are sufficiently blockaded to prevent the egress of anything but isolated ships, a convoy merely offers in these days of telegraphs and full information a splendid prize already prepared for the enemy. The trade loss of waiting for convoy is also probably considerable—convoy must, therefore, be regarded as a very heavy insurance.

National insurance is probably a better system; as under it the suffering shipowner would have no cause to rouse complaints, and so there would be nothing to interfere with the maintenance of that vigorous offensive by the Navy in which the surest salvation lies. It cannot too frequently or emphatically be laid down that for success the Navy must be unhampered with popular plans, and it must be free to leave commerce to look after itself for a while should the need and occasion arise.

For a nation to exhibit the necessary patience and confidence in such circumstances (on a small scale Japan in 1904-5 is an example) requires the existence of that quality which elsewhere has been described as

'Fitness to win,' and perhaps in this Fitness to win may be found the surest security of the survival of commerce in war.

Japan did it without 'national insurance,' but her trade ran no great risks and in no way compared with British trade in importance. Also 'public opinion' was less of a factor. She cannot therefore be accepted as a criterion. Arguments against national insurance are easily found, but the matter is not to be settled by nicely balanced *pros* and *cons*. It is broad generalities that are at issue. And these really whittle down to one thing: to whether the Navy is to be given a free hand to do as it thinks best or whether it is to be hampered in its operations by popular fancy raised to fever heat by mercantile losses. If the naval system of 'earth stopping' be correct, national insurance will be a very small burden: if it be wrong, national insurance becomes a duty. Right or wrong, it is an insurance against Parliament interfering with naval strategy; that is to say an insurance against certain disaster.

IV

COLONIES AND SEA POWER

COLONIES and Sea Power are supposed to be closely connected: it is to be proved that Colonies are only born of Sea Power, and also that Sea Power is born of Colonies.

The natural birth of colonies is admirably described by Captain Mahan. As a nation sent out commercial shipping it felt the need of distant stations—commercial bases—and these grew into colonies. ‘A foothold in a foreign land, a new outlet for what it had to sell, a new sphere for its shipping, more employment for its people, more comfort and wealth for itself.’¹ This was the old idea of colonies when the world was vast and mostly unexplored. So were founded those Phœnician colonies which developed into states like Carthage, in no way bound to the mother state, but sympathetic in many matters from ties of self-interest, chiefly through a supreme distrust of other nationalities. Those who went forth, however, went always to found a new empire, not to create a foreign possession.

¹ *Influence of Sea Power on History.*

In later times the colonising instinct manifested itself in a variety of ways. Thus the Dutch colony in Japan never aimed at possessing Japan or in securing anything save a *pied à terre* for the convenience of trade: the 'imperial idea' was totally absent here though present elsewhere. Spain on the other hand colonised imperially only, the colony was a foreign possession out of which to extract wealth as tribute¹ and the spoils of war. Then came the English colonising era, which had a good deal of its birth in a desire to steal from Spain the good things which Spain had stolen from others.

Other colonies were founded in emulation with other nations. Speaking generally the British colony was imperial in the sense that it was always a piece of England set down on foreign soil (as in Virginia, where the squire with his country mansion was an early feature); but it was primarily a commercial undertaking. Then there were colonies taken from other nations by force of arms, like South Africa; huge colonies like Australia; colonies that came near to being independent allied nations, like India in the days of John Company; and colonies established purely as military posts, like St. Helena and many another island. Each colony, in fine, had something different in its inception and probably only one thing

¹ Cuba was so regarded by Spain up to the last. The Spaniard who went there invariably regarded the Cubans merely as something out of which he could make a fortune to take back to Spain.

was common to them all and this that they never had about them any notions as to 'Sons of Empire' or (saving perhaps Virginia which is a British colony no more) any poetical idea about 'founding a new England across the seas.' The settler went much as he might have migrated from Northumberland to Cornwall because he considered that he would better himself by doing so. It has been reserved for the present age to discover the 'Sons of the Empire,' 'Britain beyond the Seas,' 'the men who can ride and shoot,' and all those other phrases which sound so big and mean so little because the day of them is passing. When the colonies were peopled by emigrants from home there was no occasion to create sentiments on imperial lines, the colonist was an Englishman and had no more need to proclaim the fact than the man in Cornwall. His descendants, however, are not Englishmen, they are Australians, Canadians, South Africans, or whatever the colony may be, with essentially different interests. A stream of fresh emigrants serves to preserve something of the Old Country sentiment, but the native-born Australian is Australian, reared under a different climate and different conditions. He is 'Britain beyond the Seas' when sensible of advantages to be derived therefrom, but quite ready to 'cut the painter' and cease to be a 'Son of the Empire' when his material advantages run in that direction. And it must be confessed that he could hardly be a good colonist or a logical one without being so. He may

appreciate the very flattering descriptions of himself to be found in the verses of Kipling, he may in some cases be wrought up to the Imperial Idea so far as the sentimentality of it goes, but despite Kipling and a Navy League Envoy he does not contribute his share to the maintenance of the British Navy. An attempt to make him do so would probably result in something akin to the tea chest incident in Boston Harbour in the days of George III. From the standpoint of the British Imperialist this is deplorable; but from any independent standpoint it is really quite reasonable. The English are a Teutonic race, but this never led them to bother about their German fatherland in the past, simply because they had become of another nationality. So the colonials must, by the nature of things, drift into other nationalities if they have any stamina, unless their interests and those of England are identical—an unlikely event.

Interests, indeed, are tending to do anything except converge. Each colony has its own problems. Australia for instance, and British Columbia can never regard the advent of Japan as a world power as that advent is regarded in England. The problem of Japanese immigration will never be felt in England, but it is even now a real thing both in Australia and British Columbia. If Australia shuts out Japanese and Japan objects to any marked extent, what is England's position? Australia has a perfect right to shut out Japanese, Japan, has an equal right to demand

admission, merely following the practice of nations in the past. Supposing matters to become acute, is it England's duty to fight Japan if necessary on the question at her own expense for a matter that concerns only Australia? It is obviously not to England's interest so far as Japan is concerned, but of what use is England to Australia unless she is ready to do this? Australia by herself certainly could not offer any military resistance to Japan worth the name.

Again, there is the case of Canada and the United States. A dispute in which England must fight the United States or sacrifice Canada is quite possible. It is palpably not to England's interest to fight the United States for the sake of retaining Canada as a piece of red upon the map; but the chief use of the Mother Country to Canada is as a safeguard against American expansion northward. Of course did Canada desire to unite with the States the Mother Country would offer no military objection; but the question is: In what way does the Canadian colony benefit the Mother Country? This is a hard question to answer, except on the grounds of sentiment. Corn comes thence, it is true; but corn, wherever it comes from, is sent by people who wish to make money by selling it.

The policy of knitting the colonies closer to the Empire by drawing fighting material from them has much to recommend it; but equally so has that policy of gradual dissociation which contemplates the eventual establishment of the colonies as independent republics,

and of the two it is the more logical, because the tendency of colonies to become independent units is an historical fact.

The best argument for the retention of the colonies so long as possible is that if independent to-day they would become the property of Germany or some such nation to-morrow. Were England to renounce all ties, South Africa would become German South Africa, Canada part of the United States and Australia a portion of the Japanese Empire. What England would actually lose thereby is difficult to assess. She would certainly not lose financially, for the colonies represent no income while they do represent a loss in the expenses of their naval defence. On the other hand it is probable that trade outlets would be restricted thereby through tariff walls created by the new proprietors—all of whom would rule with heavier hands than England. Canada as a portion of the United States might continue to flourish; but South Africa and Australia would alter very considerably and the present inhabitants become something like 'hewers of wood and drawers of water' to their German and Japanese conquerors. Therefore these two at any rate are very considerable gainers by the existing state of things—a point by no means sufficiently recognised. The question, indeed, is far more whether the Mother Country can afford to continue owning them, than whether they should demand sacrifices from England. It is they who are the chief gainers by things as they

are ; since except in the matter of trade they are of no value at all to England.

The general colonial ideal, and one that will eventually be accomplished, is, however, to be self-supporting entirely. This is a perfectly natural and legitimate ideal, having nothing to do with the subject of this chapter except in so far as it may be regarded as evidence towards the theory that British colonies are or will be luxuries rather than necessities to the nation.

From the naval standpoint the colonies represent nothing worth consideration in the way of assistance financial or otherwise. The colonies are simply something to be defended.

Colonial defence is proposed to be conducted on two lines :—

(1) By the Imperial Navy acting on its own general lines.

(2) By local colonial defence.

This last is the one more in favour with the colonials who, far removed from any conception of war preparations and so forth, appear totally unable to realise that they can only be attacked at all should the Imperial Navy fail to operate effectively nearer the centre of operations.

It is furthermore little recognised that whatever colonial defence may exist, if anything is sent against a colony it will assuredly be a force amply sufficient to annihilate any defence force.

It should, however, be borne in mind that a colonial defence force of ten ships would necessitate a more powerful attack than would one consisting of two ships, and therefore colonial aspirations towards colonial navies are not so altogether unreasonable as some might imagine.

Yet the point is of small importance owing to the fact that the Imperial Navy bars the way to any hostile expedition. Consequently the only possible conditions under which a colonial local naval force could be used would be after the defeat of the Imperial Navy: in which case it would be used merely to experience annihilation at the hands of a superior force. Thus regarded the best colonial defence, and the only feasible one, is in direct contribution to the Imperial Navy, to the upkeep of which the colonies ought to contribute the same sum per head of population as is contributed by the people of the British Isles.

Were such a contribution made there would probably be a not unreasonable demand for a voice in the distribution of the Imperial Fleet. The question of the distribution of the fleet is one that demands an appreciation of great generalities possessed by few men: for however self-evident it may be to the thinker that to be in superior force wherever the enemy may be is the surest defence, an enormous number of people are firmly convinced of the possibility of 'raids conducted by forces which have evaded the defending fleet'—a condition possible only when

that fleet is inadequate. One of the strongest of popular conceptions is that local defence is a sovereign remedy—and there is every reason to suppose that colonial influence upon the question of fleet distribution would be almost entirely made up of demands for local defence. As the population of the colonies is so small in proportion to the area to be protected it would thus follow that either totally inadequate and useless local defences were provided, or else undue calls would be made upon the Imperial fleet to its detriment.

The naval defence of Australia for instance is probably best assured by a fleet some ten thousand miles or so away from Oceania; but it will be a long day before Australians as a whole will realise this and a still longer day before its people will be satisfied to pay their share to an invisible navy. The demand on the faith of the colonial man in the street is too great.

Consequently the colonies are likely to remain a tax upon an Imperial Fleet to which they contribute practically nothing; and this may be the lesser of two evils.

The nightmare of colonials—when such matters enter their thoughts at all—is that some large hostile cruiser may ‘get through’ and devastate their coasts. In actual fact the devastation so caused by a ship far from a base would be trifling, and would certainly be unlikely to remunerate the enemy for the loss of the cruiser’s services nearer home, nor is it probable

that it would equal in many cases the loss to the Imperial Fleet caused by the detachment of ships beforehand in contemplation of such an eventuality. It may be taken, however, that the colonial view of the matter would be in different perspective to the English view of it.

On the whole it may be said that colonies whether born of Sea Power or not, are assuredly a drag upon it.

The colonies of other nations are of considerably lesser extent, and also of still less utility. Of what value for instance are the Philippines to the United States? They may some day indirectly swell the national revenue; but they represent also a very probable cause of future friction with Japan, for which there is no commensurate advantage. Kiao Chau again, is probably nothing but an expensive toy to Germany, despite its nominal reputation as a trade base. It is certainly a tax on the German navy just as the Philippines are on the United States fleet. In the case of war between any two countries it is clear that all over-sea possessions will fall into the hands of the nation with the superior fleet. This patent fact is used as an argument of great power by naval expansionists, but whether such over-sea possessions really benefit a nation has never been altogether determined. It is in no way clear that a big mercantile marine is the child of colonies, or depends upon the existence of colonies for its own existence. England has much

the largest mercantile fleet in existence and she has much the largest colonial empire. But Norway with no colonies at all has about one and a half million tons of mercantile marine to a population of about two and a quarter millions. The British mercantile marine is somewhere about ten and a quarter million tons and about one and a half million more for the colonies, &c., with a population for the United Kingdom of about forty-two millions: that is to say the United Kingdom with an immense colonial empire has about .25 of a ton of shipping per head of population where Norway without any colonies at all has .66 of a ton of shipping per head of population—or a good deal more than double as much! The two cases are extreme, but still undoubtedly suggest that there is no necessary connection between the possession of colonies and a large mercantile marine.

It is not the purport of this chapter to try to prove that England's colonies are useless to her—apart from other considerations the question is outside the scope of the book. But it is certainly to be suggested that colonies are of no advantage whatever to the Navy, and that there is a good deal of scope for someone to convince colonials that, instead of the empire depending upon them for its existence, it is they that owe their existence to the empire. It is a point which colonial opinion is often unaware of.

V

INTERNATIONAL LAW

INTERNATIONAL law has been defined—nautically at any rate—as ‘a series of rules drawn up by a number of learned pedants, and agreed to by a number of other learned pedants, for the conduct of operations of which the said pedants have no practical conception.’

This definition is, of course, a more or less humorous generalisation; though for practical purposes not always so very inexact. For whereas with individuals Common Law is enforced by the power behind it, where nations are concerned no such power exists.¹ A belligerent will break as many laws as he pleases without fear of interference from any nation, so long as his law-breaking does not cause inconvenience. Should it do so he is then liable to be met by protest or force according to the circumstances of the nation concerned. He is nearly always able to count the exact risk, and to reason out where he must be careful and where he can break the law with impunity.

¹ This general principle is, of course, recognised by the jurists themselves.

For instance, when the Japanese seized the Russian destroyer *Retchitelni* at Chefoo in the Russo-Japanese war, there was a clear breach of International Law so far as the sanctity of a neutral port is concerned. China, however, if she had the will, was totally unable to enforce the law, and no other nation was sufficiently interested to concern itself in the matter. On the other hand, Russian vessels which took shelter at Kiao Chau and Saigon were not interfered with by Japan, and law was operative. But it would not have affected results had there been no law on the subject at all, for the simple reason that it was not to the interests of either Germany or France to see Russia suffer too severely at the hands of Japan or to have conflicts in their harbours, while it was not to Japan's interests to attempt the capture of the *Tsarevitch* at Kiao Chau as she seized the *Retchitelni* at Chefoo. Yet we know very well that had the *Tsarevitch* been at Chefoo no respect for International Law—other than the fear of international complications—would have prevented the Japanese from capturing the battleship. We know further that, however technically illegal, such an action would have been perfectly sound and rational.

Indeed, the right of sanctuary in a neutral harbour is an altogether illogical law. It is unfair to the victor that the vanquished should be able to evade the consequences of defeat, and easily suggests intolerable situations in the case of a neutral half inclined to enter the war. Had Germany, for instance, joined

forces with Russia at any time after Round Island there would have been an important battleship added to Japan's enemies—a battleship which would have been sunk or captured to a certainty but for the existence of a law on the question of internment and Japan's need for observing the law.

Legal moralists have enlarged upon Japan's criminality in seizing the *Retchitelni* at Chefoo, but in point of common-sense it was quite the correct course. In the matter of a destroyer it was of minor importance, but had the *Tsarevitch* been the ship in question, the uncertainty as to China's attitude in the war would probably have rendered her capture imperative as a mere measure of self-protection.

Had the incident occurred it is clear that no nation would have taken action against Japan on account of regard for the laws of neutrality as Law: any action, whatever its nominal cause, would have been dictated solely by self-interest or a regard for 'precedent.' Nations able to conceive a similar state of affairs in connection with their own ships at some future date might, on the score of precedent, have protested; but even so the measure of the protest would have been entirely determined by the strength of Japan in relation to themselves. The law in this particular matter, therefore, is in substance, a theory which belligerents agree to observe when observance would be necessary without any law on the matter at all.

The neutral harbour and its sanctity was the bane

of Japan throughout the war. The outcry about Russia's misuse of French harbours in the voyage of the Baltic Fleet was (so far as the legal aspect of the matter is concerned) probably based to some extent on misconceptions bound to occur through the vagueness of French rules upon the subject of belligerents visiting French harbours. Japan as the interested party protested to the full extent of which she was capable, but no other nation interested itself on the legal points involved in France's benevolence to her ally.

The chief trouble that neutral harbours caused to Japan was, however, in connection with the fugitives from Round Island. The Tsarevitch and the other runaways were ethically Japanese prizes. Being separated from their fleet they would, in a wider ocean, have fallen into Japanese hands or have been sunk by Japanese ships; but, owing to the existence of neutral harbours near at hand, they were able to escape the full consequences of defeat by internment in places where it would not have paid Japan to follow them.

Then there is the Chemulpo affair. Here the Japanese took up positions so that the Russians were liable to immediate annihilation—torpedo-boats being placed ready to discharge.

The Variag's captain then appealed to the neutral warships present, and on the grounds that neutral (British) property might be damaged did an action take place in the harbour, the Japanese agreed to

withdraw, if the Russians would agree not to interfere with the Japanese troops being landed.

Next day, February 9, the Russians were informed by the Japanese that they would be attacked where they lay unless they came out to destruction before 4 P.M. The captains of the neutral warships signed (so it is said) a protest against this, but this protest was apparently not received by the Japanese admiral until after the Russians had left the anchorage and were just about to engage in the battle which—it is important to note—still took place in Korean territorial waters.

None of the neutral ships protested against this action, which from the legal standpoint was quite as improper as an attack at the anchorage would have been. They were concerned simply with the property of their fellow-countrymen which might get injured in a fight at the anchorage, and there are no indications of the slightest real regard for the law of the matter as Law on the part of any one concerned. Were International Law a living force the Russians would have lain at their anchorage free from molestation. The only actual law was expediency. It was expedient for the Japanese to destroy the Russians and they consequently did so. It was expedient for the Russians not to involve neutral property in their own destruction, so they steamed clear of this neutral property. It was expedient for the neutral warships to guard the interests of their own people—so they did so. For all the

bearing that it had on results in this case International Law might never have existed at all.

The attitude of any naval officer so circumstanced would have been the same as that of the Japanese Admiral Uryu, whose prime duty was to destroy the Russians rather than to work out the exact legality of his action. Incidentally it may be mentioned that the exact legal aspect of the question almost defies working out. Korea was a 'neutral state,' but in how far did the landing of Japanese troops make Chemulpo a Japanese harbour? In how far is the question affected by the fact that Russia had allowed Japan's right to land troops in Korea and specifically mentioned Chemulpo? ¹

As a nation the Japanese have probably more regard for International Law than any other. For instance in their war with China, Professor Takahashi was embarked in the flagship Matsushima as legal adviser to the admiral commanding. Yet that war gave us the Kowshing affair, in which this neutral British vessel chartered by the Chinese Government to convey eleven hundred soldiers to Korea, was sunk by Togo, then captain of the cruiser Naniwa. The Kowshing had left Taku before war broke out and Togo's action in capturing her was quite illegal. But on the other hand what would his action have been had he allowed her to proceed? He would have been an admirable example of a law-respecting citizen, but a

¹ See Chapter on Russo-Japanese War.

singularly bad naval officer. That he sank the Kowshing and allowed the Chinese soldiers to drown without any attempt to save them was, as it turned out, merely a necessary sequence of the really illegal act of stopping the vessel at all. Both acts were dictated by expediency. With the best will in the world it would have been quite inexpedient for him to have bothered about the legal position of the Kowshing and her cargo of Chinese soldiers, and it is to be observed that the British Government allowed the Kowshing incident to slip, though there was no Japanese alliance in those days and little if any partiality for Japan. Togo's entirely illegal act was sanctioned as sound common-sense.

Questions of contraband are those which most nearly affect naval officers. In actual practice things work out to the effect that a belligerent by declaring an article contraband is able to seize neutrals carrying it to the enemy without risk of remonstrance from the neutral's government. When in 1904 Russia declared coal contraband, there is much reason to believe that she hoped thereby to solve some of her own coal problems. At a pinch it would have been possible to seize any neutral collier destined for a neutral port on the plea of 'contraband intended for Japanese use,' burn the coal, and pay compensation afterwards for the 'mistake.' No such incident appears to have occurred, but there were valuable possibilities in declaring coal contraband. Something akin to this actually happened

at Vladivostok where much-needed neutral steamers were seized, declared confiscated and used, compensation being paid at some subsequent date in some cases when the 'judgment' of the Vladivostok Court was reversed. This action was obviously illegal: but it was one that no naval officer would hesitate to take, given the need of the vessels. The demands of expediency must override any legal considerations agreed to in time of peace.

Then there is the question of neutral waters, referred to in the case of the Chemulpo affair. It is quite illegal for a warship to enter neutral waters for the purposes of advantage in an action, but saving the presence of a neutral force to ensure the sanctity of such waters what ship would hesitate to ignore all laws on the matter if it had anything to gain thereby?

It is quite illegal for submarines to lie in neutral waters awaiting victims, and at the close of the Russo-Japanese war proposals to frame some regulations under this particular head were mooted. Some day they are likely to take shape and be agreed to by every nation; but what submarine will be deterred from entering unwatched neutral waters on that account?

It is illegal to lay mines in the high-seas or anywhere outside the three-mile limit. The knowledge of this is an almost direct incentive to laying them further out to sea, where they might be less expected. A mine laid where the enemy expects to find one is a perfectly useless weapon. It may be that in any case,

on the ground that it is likely to break adrift and damage its own side; but the obvious thing to do with it if laid at all is to lay it on some illegal and, therefore, less to be expected spot.

From all of which it is abundantly clear that International Law is an effective law only so far as the weaker is concerned—the strong nations obeying it or enforcing it only so far as such action suits their necessities or the expediency of the case.

In theory International Law rests for its action on public opinion. In practice, the value of public opinion is a small factor. If the United States Fleet—for instance—outraged International Law in war, public opinion in the United States would be with the Fleet and not with the Law. Similarly opinion in England—assuming that sympathy with the United States, which would exist in almost any war in which America might be engaged—would be a considerably more powerful factor than any regard for the letter of the Law. Throughout the world generally only those nations which were anti-American to commence with would possess a public opinion at all in favour of the enforcement of the Law. It would, in fine, be simply a vehicle for the expression of self-interest.

An interesting example of this sort of thing in operation was afforded by the Russo-Japanese war. Coal was shipped to either belligerent. The illegality of supplying coal to Russia was much discussed, but nothing was said about coal supplied at the self-same

time to Japan. Public opinion was concerned not with the Law in the matter, but with its self-interest—the success of Japan.

Again, there was the case of the Malacca. Had the Black Sea been Japanese is it likely that anything would have been heard in England about the illegality of warships passing the Dardanelles? Would it not have been an expedient (and therefore justifiable) act? In Germany, however, instead of being ‘reasonable enough,’ as it was in the case of Russian ships, it would have been a gross violation of treaties and so forth *ad lib.*

There is a good deal of reason to believe that the Russian story of the Malacca incident is substantially true on several points. This story in full is as follows:—

The Malacca was watched by a Russian agent who saw on the wharf a number of cases believed to contain machinery for destroyers building in Japan and other war requisites. Observed watching, he retired. The next morning a broad arrow was upon each suspected case: though the official broad arrow should only have been put after the cases were received on board.

Hence the Malacca incident—the capture of the vessel and her subsequent release upon imperative British demands. Had the Japanese captured her under corresponding circumstances as suspected of carrying essentials for the Russian fleet would British

public opinion have so eagerly supported International Law on the matter ?

Then there are affairs like the Dogger Bank incident where the Russian Baltic Fleet opened fire and sank or injured some British fishing vessels. Public opinion rose to fever heat and more. Supposing a British fleet going to a distant war to have sunk some Russian fishing vessels under similar circumstances would British public opinion have viewed the incident in the same way ?

International Law of course hardly legislates for incidents like that of the Dogger Bank, but it will probably have to do so ere many years have passed. Whatever views were entertained by the civil population there is no doubt that naval opinion was slow in condemning the Russian admiral, probably because it had in view precedent and the possible framing of some inconvenient law on the matter—inconvenient, because were the Baltic Fleet's offence to become a duly recognised offence, very awkward and dangerous situations might result in certain cases.

Briefly the facts were as follows :—

The Russian Baltic Fleet before leaving for the Far East was warned to be on its guard against a possible attack in the Baltic or North Sea. Near the Dogger Bank the first division—out of its direct course, either from bad seamanship or of set design, passed through a British fishing fleet. A little later the second division came up and suddenly opened fire on

what the Russians alleged to have been two torpedo boats, but which others have asserted were the Aurora and Dmitri Donskõi. In the firing damage and loss of life were sustained by the fishing fleet. The Russians proceeded on their course without stopping to aid the victims.

Now it is immaterial whether the Russians fired at their own ships or not, the main point is that they believed themselves to be attacked and at once opened fire without regard to anyone else in the neighbourhood who might get hurt. This was an absolutely proper act from the naval standpoint—'Fire at anything suspicious' is the only possible order for a fleet that believes itself to be in danger of torpedo attack; to wait to ascertain may be to court destruction. Similarly, an admiral believing an attack to have been delivered would commit a more than error by waiting to save any innocent victims of his fire.

These points were evidently borne in mind by the Commissioners whose full report was as follows:—

1. The Commissioners, after minute and prolonged examination of the whole of the facts that have come to their knowledge concerning the incidents submitted to them for investigation by the St. Petersburg declaration of November 12/25, 1904, have in this report proceeded to give an analysed statement of those facts in their proper order.

In communicating the principal opinions of the Commission on each important or decisive point of

this summary, they believe that they have thrown sufficient light upon the causes and the consequences of the incident in question, and at the same time upon the responsibilities resulting therefrom.

2. On October 7/20, 1904, the second Russian squadron of the Pacific Fleet, under the chief command of Vice-Admiral Aide-de-Camp General Rogestvensky, anchored near Cape Skagen with the intention of taking in coal before continuing its voyage to the Far East.

It appears, according to the deposition made, that from the time when the squadron left the roadstead of Reval, Admiral Rogestvensky had caused the vessels under his command to adopt minute precautions, with the object of placing them fully in a position to repel an attack by torpedo-boats during the night, either at sea or when anchored.

These precautions seem to be justified by the information frequently sent by the agents of the Imperial Government respecting hostile attempts that were to be apprehended, and which in all probability would take the form of attacks by torpedo-boats.

Furthermore, during his stay at Skagen, Admiral Rogestvensky had been informed of the presence of suspicious vessels off the Norwegian coast. Besides, he had learned from the captain of the transport *Bakan*, who had come from the north, that on the night before he had seen four torpedo-boats, which had only a single light at the masthead.

This news caused the Admiral to leave twenty-four hours earlier than he had intended.

3. Consequently each of the six different sections of the squadron steamed off separately in turn, and reached the North Sea independently of each other in the order mentioned in Admiral Rogestvensky's report ; this general officer commanding in person the last section, composed of the four new battleships, Kniaz Suvaroff, Imperator Alexander III., Borodino, Orel, and the transport Anadyr.

This section left Skagen at 10 P.M. on October 7/20.

The first two sections were ordered to proceed at a speed of 12 knots and the following sections at 10 knots.

4. Between 1.30 and 4.15 on the following afternoon, October 8/21, all the sections of the squadron were passed in succession by the English steamer Zero, the captain of which vessel examined the different units closely enough for them to be recognised from his description of them. Moreover, the results of his observations are in general agreement with the indications given in Admiral Rogestvensky's report.

5. The last vessel passed by the Zero was the Kamchatka, according to the description which the captain of the Zero gave of her.

This transport, which at first formed part of the same group as the Dmitri Donskõi and the Aurora, was, therefore, at the time alone and about ten miles

behind the squadron, having been obliged to slacken speed owing to a machinery defect.

* This accidental delay was perhaps incidentally the cause of subsequent events.

6. Towards eight o'clock in the evening this transport met the Swedish vessel *Aldebaran* and other unknown ships, which she fired upon, doubtless owing to the apprehensions aroused in the momentary circumstances by her isolation, the damage to her machinery, and her slight fighting value.

However this may be, at 8.45 P.M. the captain of the *Kamchatka* despatched to his commander-in-chief by wireless the statement respecting this meeting that he was 'attacked on all sides by torpedo-boats.'

7. In order to understand the influence which this news might have had upon the subsequent decisions of Admiral Rogestvensky it must be remembered that in his anticipations the attacking torpedo-boats whose presence had thus been announced to him, rightly or wrongly, as being some fifty miles astern of the section of ships under his command, might overtake him towards one o'clock in the morning in order to attack him in turn.

This information decided Admiral Rogestvensky to signal to his ships towards ten o'clock at night to redouble their vigilance and to expect an attack from torpedo-boats.

8. On board the *Suvaroff* the Admiral had deemed it indispensable that one of the two senior officers of

his staff should be on duty on the bridge during the night, in order to superintend in his stead the progress of the squadron, and let him know immediately should any incident occur.

Moreover, on board all the ships the permanent orders of the Admiral prescribed that the chief officer on duty was authorised to open fire in case of a manifest and imminent attack of torpedo-boats.

If the attack were made from ahead he was to do so on his own initiative, and in the contrary case, much less pressing, to refer to his commanding officer.

With regard to these orders, the majority of the Commissioners considered that they involved nothing excessive in time of war and particularly in the circumstances which Admiral Rogestvensky had every reason to consider very alarming in view of the impossibility he found of verifying the accuracy of the warnings that he had received from the agents of his Government.

9. Towards one o'clock in the morning, on October 9/22, 1904, the night was semi-obscure, somewhat overshadowed by a slight and low mist. The moon only showed itself at intervals through the clouds. The wind blew moderately from the south-east, raising a long swell, which made the vessel roll five degrees.

The course followed by the squadron towards the south-west necessarily led the last two sections, as was eventually proved, to pass in the neighbourhood of the habitual fishing-ground of the flotilla of the Hull

fishing-boats, consisting of some thirty small steamers and covering an area of some miles.

It is proved from the consistent depositions of the British witnesses that all these boats carried their regulation lights and trawled according to their customary rules under the lead of their 'admiral,' and pursuant to the indications conveyed by conventional rockets.

10. According to communications received by wireless telegraphy nothing unusual had been signalled by the sections which preceded that of Admiral Rogestvensky in traversing these regions.

It subsequently transpired that Admiral Folkersam in particular having skirted the flotilla on the north, very closely examined the nearest trawlers with his searchlights, and having recognised them as inoffensive, proceeded quietly on his way.

11. It was shortly afterwards that the last section of the Fleet led by the Suvaroff, flying Admiral Rogestvensky's flag, arrived in its turn near the trawlers' fishing-ground. The course taken by this section carried it nearly into the midst of the flotilla of trawlers, which it would have been obliged to skirt, but to the southward, when the attention of the officers on the watch on the bridge of the Suvaroff was attracted by a green rocket, which put them on their guard.

This rocket, fired by the 'admiral' of the trawlers according to their conventions, indicated in reality that

the trawlers were to trawl on the starboard side to windward.

Almost immediately after this first alarm, according to the depositions, the observers on the bridge of the Suvaroff who were scanning the horizon with night glasses, discovered 'on the crest of the waves in the direction of the starboard cathead' and at an approximate distance of eighteen or twenty cables a vessel which appeared to them suspicious, because they saw no light and the vessel seemed to be coming straight towards them.

When the suspicious vessel was lit up by a searchlight the men of the watch believed that they detected a torpedo-boat steaming at high speed.

It was for these reasons that Admiral Rogestvensky opened fire on the unknown vessel.

The majority of the Commissioners express on this point the opinion that the responsibility for this act and the results of the cannonade sustained by the fishing flotilla rests with Admiral Rogestvensky.

12. Almost immediately after opening fire on the starboard side, the Suvaroff perceived ahead a small boat barring her course, and was obliged to turn to port in order to avoid colliding with it. But this boat lighted up by a searchlight was recognised as a trawler.

In order to prevent the firing of the vessels from being directed against this inoffensive boat, the axis of the searchlight was immediately raised 45 degrees.

Thereupon the Admiral signalled to the squadron the order 'Do not fire on the trawlers.'

But while the searchlight illuminated this fishing-boat, according to the depositions of the witnesses, the observers on board the Suvaroff perceived on the port side another vessel which appeared to them suspicious because of its resemblance to that at which they were firing on the starboard side.

Fire was at once opened on the second object, and was thus carried on from both sides, the line of ships having by a retrograde movement returned to its original course without having modified its speed.

13. In accordance with the permanent orders of the squadron the Admiral indicated the object on which the fire of the ships was to be directed by fixing the searchlights upon them, but as each ship swept the horizon in every direction around it with its own searchlights in order to guard against a surprise it was difficult to avoid confusion.

This firing, which lasted from ten to twelve minutes, caused serious damage to the trawler fleet. Two men were killed, six others wounded; the Crane sank, and the Snipe, the Mino, the Moulmein, the Gull, and the Majestic suffered more or less serious damage.

On the other hand, the cruiser Aurora was hit by several projectiles.

The majority of the Commissioners declare that they lack precise elements to identify on what object the ships fired, but the Commissioners unanimously

recognise that the boats of the flotilla committed no hostile act, and the majority of the Commissioners, being of opinion that there was no torpedo-boat either among the trawlers or on the spot, the fire opened by Admiral Rogestvensky was not justifiable.

The Russian Commissioner, not believing himself warranted in concurring in this opinion, stated his conviction that it is precisely the suspicious vessels that approached the Russian squadron for a hostile purpose which provoked the firing.

14. Respecting the real objects of this nocturnal firing, the fact that the Aurora was hit by a few 3-pounder and 12-pounder projectiles would seem to be of a nature to give rise to the supposition that this cruiser, and perhaps even other Russian vessels, delayed on the track of the Suvaroff without that vessel being aware of it, may have provoked and attracted the first firing.

This error may have been caused by the fact that this ship seen from astern showed no visible light, and owing to a nocturnal optical illusion experienced by the observers in the flagship.

In this connection the Commissioners declared that they lack important information enabling them to ascertain the reasons which brought about the continuation of the firing on the port side. In presence of this conjecture certain distant trawlers might have been confounded with the original objects, and thus directly fired on. Others, on the contrary, may have been hit by a fire directed on objects further off.

These considerations, moreover, are not in contradiction with the impression of certain trawlers who, finding themselves hit by projectiles and remaining lit up in the radius of the searchlights, might have believed themselves to be the object of direct aim.

15. The duration of the firing on the starboard side, even from the standpoint of the Russian version, seemed to the majority of the Commissioners to have been longer than appeared necessary.

But this majority considered that it is not sufficiently informed, as has just been said, with regard to the continuation of the firing on the port side.

In any case, the Commissioners willingly acknowledge unanimously that Admiral Rogestvensky personally did all he could from beginning to end to prevent the trawlers, recognised as such, from being the objects of the fire of the squadron.

16. However that may be, the Dmitri Donskõi having eventually made her number, the Admiral decided to give the Cease Fire signal. The line of his ships then continued its route to the south-west without having stopped.

In this connection the Commissioners are unanimous in recognising that, after the circumstances which preceded the incident and those which gave rise thereto, there was at the Cease Fire sufficient uncertainty as to the danger incurred by the section of the ships to decide the Admiral to proceed on his way.

At the same time the majority of the Commissioners regret that it did not occur to Admiral Rogestvensky, while going through the Straits of Dover, to inform the authorities of the neighbouring maritime Powers that, having opened fire in the vicinity of a group of trawlers, those boats of unknown nationality required assistance.

17. The Commissioners, in closing this report declare that their appreciations formulated therein are not in their spirit of a nature to cast any discredit either on the military value or the sentiments of humanity of Admiral Rogestvensky and of the *personnel* of his squadron.

SPAUN.

FOURNIER.

DOUBASSOFF.

LEWIS BEAUMONT.

CHARLES HENRY DAVIS.

The report was not over well received by public opinion in either England or Russia, and in concentrating attention upon this actual incident rather than in regarding it as a case for a 'precedent,' the civil population—which indirectly, by the constant expression of opinion, has much to do with the framing of International Law—showed itself singularly unable to grasp the importance of the problem.

The heated imagination of the captain of the Kamchatka most probably produced the entire incident,

but there is nothing to show that similar imaginations will not exist in the next war. Hence the grave importance of the subject.

Supposing a war between England and Germany, what will be the exact status of French fishermen who get mistaken for torpedo-boats, as assuredly they will if they are out at night anywhere in the paths of belligerents? The Paris Commission on the Dogger Bank Incident could not deal with all the possibilities opened by the subject. Russia paid lavish compensation to the injured, but nothing has been heard as to compensation for interference with normal work, due to the risk of being shot at by mistake, which will be the neutral fisherman's lot in the next naval war. It is quite conceivable that this question will involve grave complications at some future date.

The incident is mentioned as indicating another of the problems (one of a series) that bristle around International Law. It is practically impossible to frame anything to meet the case: no sane admiral or captain would obey a mandate about inspecting before firing at a suspicious object at night, and the incident will probably turn out to have put a premium on disguising torpedo-boats as fishing craft—a favourite peace-manceuvre device at all times.

Certain other matters of International Law involve less abstruse problems, usually, however, because they hardly need a law on the matter at all. In this category may be placed the bombardment of unfortified

towns without notice for non-combatants to withdraw. Common humanity would compel such a course in forty-nine cases out of fifty; in the fiftieth, a cruiser-captain, undeterred by humanity in a chance to wreak destruction with no time to wait, would hardly be deterred by any law upon the matter.

And so all through. In practically every case laws as to the conduct of naval war are superfluous either because ordinary humanity already forbids or else because expediency would in any case counsel a similar course. Laws may now and again be useful perhaps in enabling an officer of the skilful sea-lawyer type to know exactly how far he can impose upon a neutral without creating a *casus belli*, but the stronger man may be relied upon to guide his actions only by expediency, like Togo in the Naniwa when he sank the Kowshing. He will be a very poor naval officer who throws away any chance of damaging the enemy on account of legal considerations. The enemy may esteem his moral rectitude, but that is about all the esteem that he will earn. Even if complications are likely to follow upon his performing an illegal act in order to destroy the enemy, his duty demands that he shall still proceed to destroy. If the worst comes to the worst his country can always 'disavow the action after its accomplishment.' He may or may not be punished for it, but in any case he will have done his clear duty to his country by destroying the enemy, which, had he been more law-abiding, he would not

else have done. The predicament is an awkward one for any naval officer to be placed in, perhaps; but the man who acts upon the definition set forth at the beginning of this chapter will never fail at serving his country whatsoever else he may be deficient in. The nation fittest to win is that which with a single eye takes every opportunity to win. It may be bad law, but it is sound common sense.

VI

THE INVASION OF ENGLAND

THEORETICALLY, so long as the British Fleet maintains command of the sea, an invasion of England, other than a trifling and purely local raid is impossible. Against this theory, military men are now and again wont to urge that the fleet 'might be decoyed away,' but this particular hypothesis hardly needs refutation. Whether 'decoying away' was possible in the old days is a matter open to dispute: in the present day it may be dismissed as impossible. The incident of Nelson 'decoyed on a wild goose-chase in the days of the Great War'—a decoy which incidentally led to nothing—can hardly be paralleled in these days when ship movements are far more certain and touch far more easily maintained. Even were it possible, wireless stations like that of Poldhu render recall easy¹ should the dreaded 'invasion during the absence of the fleet' take place, so that a fleet to-day half-way across the Atlantic is really considerably nearer the scene of action than was a fleet at Milford Haven in the old sailing

¹ Poldhu messages are continually taken in the Mediterranean 2,000 miles or more away.

days. The modern increase of radius is a preponderating factor.

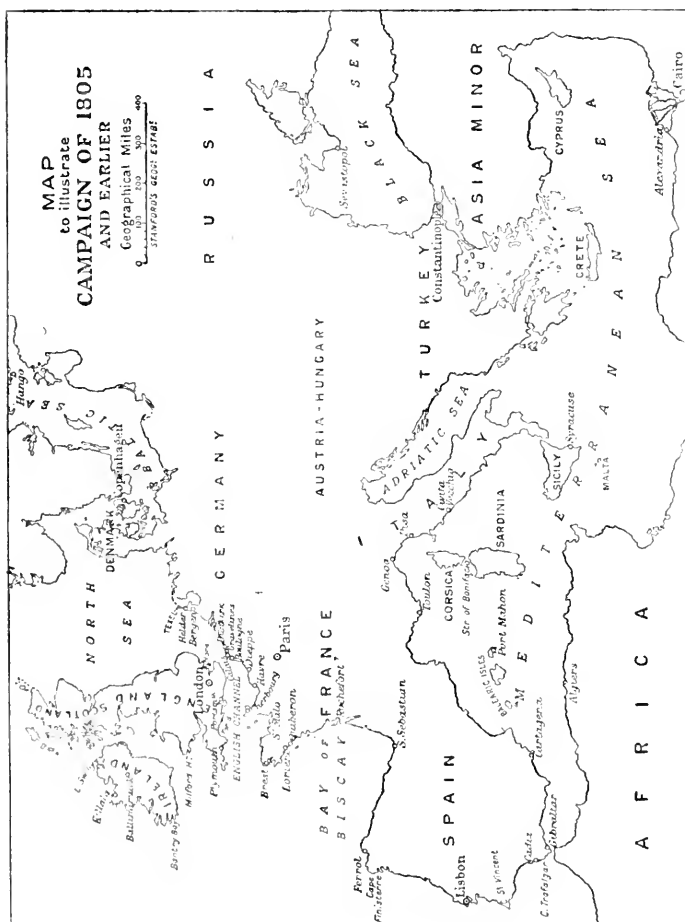
This being so, historical analogies, even were they applicable to the 'invasion during the absence of the fleet' theory, can hardly be said to bear upon the matter although compensations may exist, as so many assert. The supposed working of the theory of compensations may be put as follows:—

To-day, owing to wireless telegraphy and the absence of any delaying effect from contrary winds, a distant fleet is relatively comparatively near, and though it be a thousand miles away, it is only four days or so off. But against this the compensating factors are that invading troops can be conveyed across infinitely more surely and quickly than in the days of sail,¹ also the torpedo craft of the invader have a prospect of dealing with the defending fleet on its return far greater potentially than any vessels had in the old days.

Hence the tendency to balance things and to say that when the new and balancing conditions are subtracted from both sides, the resultant is much what the resultant was in the days of sailing ships. Napoleon's attempted invasion of England is then taken; its failure demonstrated, and the deduction drawn that invasion (other than a raid) is impossible so long as

¹ Napoleon's row-boats in the beginning of the nineteenth century could hardly have made an average of three miles an hour at the best. Twelve knots is a low average for a modern transport fleet bent on getting across quickly.

a British fleet holds command of the sea. To which those who may loosely be termed the military party



respond that all this may be true and obvious, but Napoleon's was not a surprise invasion.

The details of Napoleon's attempt are very well known. In bare fact they are usually described as follows:—

On the northern shores of France an army was openly massed and flat-bottomed boats for its transport collected at all available ports, towards the end of the first war. In the second war more boats were collected. At a pre-arranged time the three fleets blockaded at Brest, Rochefort, and Toulon were to break out and rendezvous at Martinique, return *en masse* and hold the Channel while the troops crossed in the flat-bottomed boats.

The plan so far as it existed failed because for one thing only the Rochefort squadron arrived to time. The Toulon fleet under Villeneuve arrived after long delay, to find the Rochefort ships already returned to France, while the Brest fleet never got out at all. Nelson followed the Toulon fleet, but he was certainly not 'decoyed away' by it, since the sole and only object of the fleet he commanded was to bring Villeneuve to battle; and so long as he 'contained' Villeneuve the *locale* mattered little. Napoleon's object was simply an attempt so to mass his ships that the British fleet should be defeated, after which, of course, he could deal with the small craft opposed to his boats and then invade at leisure, if he wished.

Much of the reality of the proposed invasion is, however, open to doubt. What Napoleon actually did and what he really intended to do are not necessarily

one and the same thing. England believed absolutely in the invasion threat: it is not impossible that the threat was his chief purpose,—the invasion to be materialised only in the somewhat unlikely event of his fleets succeeding in combining and in winning a big battle at sea.

The reasons against the Napoleonic invasion being a really serious project are numerous. In the first place, Napoleon was undoubtedly a marvellous genius, a man little likely to make miscalculations, and altogether unlikely to fail at profiting by past experience. Past experience in Egypt cannot but have convinced him that to attempt over-sea operations in face of a superior and unbeaten fleet was dangerous; therefore it is extremely unlikely that he contemplated any replica of the invasion of Egypt, or any imitation of the Spanish Armada such as was believed by the people of England. It is infinitely more probable that, as suggested above, his design was to try to win command of the sea, and after that materialise his invasion project. His scheme if taken thus was, of course, sound enough.

As for the boats intended to convey the invaders, they first became a factor in 1801—that is towards the end of the first war. Those collected were then altogether inadequate for any invasion. When Nelson was put in command in the Channel to defend against the dreaded invasion, almost the first thing he did was to demonstrate that the invasion was

impracticable. He estimated that at least two hundred boats would have to be collected about Boulogne, and as many in the Dunkirk district. But the total he actually found at Boulogne was about sixty, and these could not sail and seemed extremely unlikely to be able to row.

‘The information respecting the number of troops assembled at Boulogne cannot be true.’ . . .

‘Whenever it [the invasion] comes forth it will be from Flanders; and what a forlorn undertaking! Consider cross-tides, etc. As for rowing, that is impossible. It is perfectly right to be prepared against a mad government; but with the active force your lordship has given me, I may pronounce it impracticable.’

‘I am certain that in the towns of Boulogne and the surrounding hills the total number (of troops) could not exceed two thousand men. . . . The boats collected at Ostend and Blankenberg may amount to sixty or seventy; . . . they could not carry more than fifty or sixty men each. . . . Where, my dear lord, is your invasion to come from?’

So Nelson wrote about the invasion, and, having investigated, proved it to be an affair of quite a few thousand men at the most.

Following upon this he made an attempt upon such boats as there were at Boulogne: an attempt which proved a disaster, since they were all found to be specially protected against any possible attack. All of

which suggests that Napoleon may have collected the boats with a view to their being so attacked, so as to occupy the British fleet and British public opinion, with the possible idea of using the boats as a nucleus for some effort in the future if several other plans succeeded.

When war broke out again, the invasion question once more came to the fore. More boats were collected: but the boats were never so plentiful nor the army at Boulogne so large as was believed in England, and it is even possible that to the end the whole thing was merely a mask for Napoleonic intentions which found their expression later on at Austerlitz. Indeed, Napoleon himself, despite his explicit instructions to Villeneuve,¹ spoke of the boat flotilla as a sham and told Metternich that the Boulogne army 'was always an army assembled against Austria.' . . . 'I could not place it anywhere else without giving offence,' he is reported by Metternich to have said when in conversation with the prince. Whatever Napoleon said or wrote never revealed to a certainty his plans and intentions, so this alone need not go for too much; but equally it may well have been that in impressing upon Villeneuve the necessity of coming off Boulogne he was only taking steps to insure a battle in the Channel which Villeneuve might otherwise be disposed to evade.

¹ 'The principal end of the whole operation is to give us, for some days, a superiority before Boulogne. Masters of the Straits for four days 150,000 men embarked in 2,000 vessels will entirely complete the expedition.'—*Draft instructions to Villeneuve.*

The victory of Trafalgar rendered impossible any invasion that may have been contemplated, because it destroyed a large number of the ships which in Napoleon's design (if it existed) had to destroy the British fleets before successful invasion was in any way possible; but the successful blockade of Brest also did the same thing. There is no reason to suppose that Napoleon contemplated any invasion in face of the unbeaten British fleet. If this be granted, then we must say that the fleet saved England from invasion mainly by the fact that Napoleon did not believe in attempting any over-sea operation without having command of the sea. And, therefore, whatever lessons it may convey, Napoleon's 'projected invasion' is not evidence as to what would befall an attempt at invasion to-day or to-morrow in face of a superior fleet.

Everything that can be brought forward points to the fact that Napoleon, in holding the doctrine that invasion without having command of the sea was not possible, was right: though historical examples to show that invasion in face of a superior fleet is doomed to failure are rare, because hardly ever in history have such attempts been made. The Romans did it when they invaded Sicily in the First Punic War,—but they met with success. All other serious invasions have been either with superior naval force or with a force believed to be superior, as in the case of the Spanish Armada.

Of course the Roman invasion was over a very small space of water, and the Carthaginian fleet was somewhere else. It was also not expecting the invasion or, at any rate, not on the spot to try to prevent it.

These conditions were peculiar ; but this invasion is of infinitely more importance to Great Britain than anything attempted or believed to have been projected by Napoleon. Assuming Napoleon's projects to have been as serious as Englishmen of his day believed, the action of the British fleet spells no more than the obvious moral which needs no historical demonstration whatever, that the defending fleet must be discounted. The fate of crowded transports with a few hostile cruisers among them is too certain to need discussion. The essential of success is to discount the defending fleet.

There are two ways in which this can be done : the first by the obvious and historical method of beating it ; the second by the Roman method against which the fleet is of very small avail, because surprise landings in force being once effected, it is—at any rate if the invading troops be good enough material—relatively easy to run over stores and fresh troops in individual ships, as the Japanese did in 1904 when the Vladivostok cruisers threatened communications. By 'relatively easy,' something that looks sufficiently possible to cause it to be attempted should be understood. The problem of an invading army once landed in England being solved, other risks would be faced cheerfully

enough in the certainty that the invaders would make themselves felt even were their communications cut.

The invasion of England is a common continental problem, both as a mental exercise and as something more serious. Its possibility is a constantly recurring nightmare to the English people, who are as periodically soothed with official statements that 'in face of the Fleet invasion is impossible.' This statement is usually sufficiently obvious to allay any qualms. It, however, takes no account of an invasion *not in face of the Fleet*.

Rightly or wrongly possible invasion is always looked for from Germany; and undoubtedly Germany is the country in which its possibilities have been most carefully considered, certainly Germany is the nation with most ability to plan and accomplish such a thing. It may be taken for granted, too, that ample consideration is given to the point of view of that general who said, or is supposed to have said, that he 'could think of twenty ways of throwing an invading army into England, but not one way for getting it out again.' More, it may be taken that any definite plan does not presuppose necessity for the 'getting it out again' save on the conclusion of peace. If disaster befel the invaders, an army of 100,000 men would be no serious loss to a military power of Germany's rank.

Let us now take one of these German possibilities and examine it. The effective German fleet can be

roughly put for the immediate future at from 15 to 20 battleships of medium power, about a dozen old or small coast-defence ships, a few very moderate armoured cruisers, a dozen or so of small cruisers, and about 100 effective destroyers or torpedo-boats.

The British fleet on the immediate scene may be put at 12 or more battleships in the Channel Fleet, about as many again in the Reserve, an ample supply of cruisers and very nearly a hundred torpedo craft of one kind and another; in fine a fleet large enough with ordinary luck to defeat the Germans without aid from the Atlantic Fleet of eight very superior battleships or the Mediterranean Fleet of more battleships, cruisers, and a large torpedo force. Roughly, it may be said that the Atlantic and Mediterranean squadrons combined would form a fleet quite capable of annihilating the German fleet even were all the ships in British home waters destroyed.

This being the situation: it stands approximately that there are two British fleets, either of which is capable in the ordinary way of destroying the German Navy, so there is very little, if any, scope whatever for a German invasion after war has been declared. Though individual transports might get through the British fleet, it is impossible to suppose that enough would do so to form an effective invasion. The absolute minimum of invaders would have to be 100,000 sure of early reinforcement; and probably 200,000 might be nearer the necessary mark. If

20,000 ran through a blockading British fleet to various points they would be most extremely lucky.

The German fleet might of course plan to sail for some apparent destination such as Canada in order to 'draw the British fleet after it'; but since to sail it would have to break the blockade, it would be brought to action long before it reached any distant point, and in any case the lighter blockading vessels would still remain in the way of any fleet of transports. The 'decoyed away' idea is altogether and in every way an absurd one to any careful student of naval problems.

From all of which it is abundantly clear that a German invasion would have to be accomplished as a 'bolt from the blue' in time of peace. The landing of the invaders on English shores would have to be the first sign that a state of war existed or could possibly exist. That is to say:—

(1) Nearly 100,000 men would have to be massed on the German coast without exciting suspicion.

(2) The necessary vessels to carry them and their supplies—something like two hundred ships at least—would also have to be collected without exciting any suspicion.

(3) The British fleet would have to be disqualified from arriving on the scene too immediately after the disembarkation.

(4) The invading army would have to march on London (or the naval bases) carrying all before it.

Now, none of these four things is absolutely impossible. There are always a good many ships in and about German harbours and by the aid of some imaginary manœuvres it is just possible that troops could be collected in transports without exciting suspicion across the North Sea or bringing it about that a British army also chanced to be doing manœuvres not far from some of the likely landing places.¹ Invaders with their paths blocked, even by considerably inferior forces, would probably have each day's unopposed advance altered into a week's slow progress.

A large army, no matter how well drilled and efficient, cannot be landed in an hour or so upon a strange beach. Even if the transports are successfully beached, nothing but men are to be got ashore that way. Where there are convenient docks so that a transport can come alongside, quick disembarkations may be made, but a hundred thousand men are not going to be landed in a few hours,² however carefully the disembarking transports are spread along the coast. It is pretty safe to assume that British warships upon the scene any time within twelve hours

¹ It may be pure coincidence, but the 1905 British army manœuvres took place in the east of England just after German military manœuvres began.

² In the Crimean War, with primitive appliances 60,000 men were landed in twelve hours. There was no opposition. Recently it took 36 hours to land 12,000 men and 3,000 horses at Clacton, but the Crimean incident of fifty years before indicates that this Clacton landing must have been managed very badly. It is probably not unreasonable to accept the Crimean record as a quite possible minimum—that is to say 5,000 men an hour.

would make sad havoc of the invasion; and quite a large number should arrive before that.

Consequently the Fleet would have to be provided against, even in a surprise invasion, A time would have to be selected when the Channel Fleet was west of Dover and refitting in its home ports. Of course, much could be done here. In profound peace it would probably not prove impossible to block Sheerness, and consequently Chatham, by destroying lightships and buoys, and by merchant ships sunk at the convenient moment. 'Blocking' in war has so far proved impossible both at Santiago and Port Arthur—each ideal harbours for the operation—but without the confusion of gun fire and searchlights the operation might be feasible and everything inside the Medway—except perhaps torpedo craft—shut in. It might be possible to do the same thing at Portsmouth; at any rate it is tolerably obvious that some such action would occur together with the first landing or immediately before it.¹ Outside both places and outside Plymouth mines could also be dropped. Finally the Straits of Dover would have to be held by the entire German fleet.

¹ Torpedo craft unsupported could do little harm to beached transports. Torpedoes would be ineffective and the invaders' light craft would be in the way of even such attempts as might be made. It is likewise conceivable that those who contemplated a surprise invasion would also be able to contemplate the annihilation of the Channel Fleet by a surprise torpedo attack while on cruise. This, however, would only be possible when no serious 'strained relations' existed.

This is practically the only scheme that offers prospects of a successful German invasion; and though success must be admitted as possible, the difficulties in the way of securing the necessary conditions are very considerable indeed. Its best chance of success would lie in the seeming wild impracticability of it all: that fact alone would allay the suspicions that any large collection of ships in German harbours would otherwise arouse.

The question is essentially a military rather than a naval one. If means were found to discount the Fleet for the first few days, it is easier to assert than to prove that the presence of the fleet later on would save the situation, especially as, were the bulk of ships in home waters destroyed or shut in, the combined Mediterranean and Atlantic fleets would not very greatly outmatch the German navy. They could not force the Straits of Dover without delays, difficulty, and perhaps heavy loss,¹ and even having forced them and destroyed the German fleet, their influence upon the land operations would for some days be infinitesimal. They would certainly, having forced Dover Straits, stop the bulk of supply ships, and cut sea communications, but it is easy to overestimate the value of these to a powerful army marching through a prosperous country to the no distant goal of London,

¹ The German fleet would, however, have to meet submarine attack: to repel which the Straits of Dover are hardly ideal.

especially indeed as it might have reached London ere the British fleet had passed Dover Straits.

The military question is whether the fall of London would be the fall of England. The capture of the capital is always regarded as a sort of checkmate in the game of war, and undoubtedly the loss of Woolwich Arsenal would be a blow of tremendous importance. Chatham also would either fall with London or be rendered harmless by investment; but Portsmouth and Devonport, certainly Devonport, could not be seized as part of the main surprise. Portsmouth, perhaps, may be more really the capital of the Empire than London, being the metropolis of the Navy. Supposing the army able to defend these two great naval bases—which is not supposing anything unreasonable, crude though the actual land defences of Portsmouth are—it may be allowed that the fleet, if handled by a sufficiently merciless leader might do a good deal towards discounting the German success inside England, because devastated coasts and ruined trade would mean much to Germany. Everything, therefore, turns upon whether London is the real as well as the nominal heart of the Empire, or, to put it another way, on whether the Navy could continue to exercise its functions unimpaired by the loss of all that internal machinery which has its seat in Whitehall. If it could not so continue, then a successful surprise invasion should be fatal: if, however it could

continue to function, then a surprise invasion would probably be expensive rather than fatal, since invaders permanently cut off from their supplies would be doomed to certain ultimate failure.

The thing is, of course, unlikely, apart from its difficulties. Also, once the principle of surprise wars is admitted, what nation could consider itself safe? Still the 'bolt from the blue' school are somewhat unduly characterised as vague alarmists, because after all the main object of all wars is success, and that hesitation which usually precedes all wars is probably a deal more due to reckoning up chances than to moral restraints felt by the contending governments. And the mere existence of the idea that every war must be preceded by a long series of diplomatic discussions, is a temptation to every virile nation to seize on the obvious advantage of a sudden and unexpected action. In a small way Japan did this in 1904, and secured valuable initial advantages. Her preparations for the blow, however plain they may now seem, went practically unheeded by the Russians. Negligence may count for something here, but the Russian conviction that there would be no war counted a great deal more. This element of belief that all war-talk will end with words, is one of the factors that lead to surprises being possible. And so a surprise invasion of England is quite possible enough to give ample reason to those who demand that some military should, like the navy,

be always on a war footing : for the possible situation is one in which the limitations of Sea Power are very apparent. To succeed against Britain Germany must invade : since she cannot invade in face of the fleet, if she does anything at all she must act by surprise, and unable to discount the fleet by ordinary war methods have recourse to ' other ways.'

VII

SECRECY AND SEA POWER

IN the modern philosophy of Sea Power secrecy is coming to bulk more and more largely, and indications are not wanting of a tendency, in the mere exercise of the means, to lose sight of the ends which it is supposed to attain.

Secrecy, though the fact is generally unperceived, is on the same plane as 'evasion,' and may indeed be termed the mother of evasion. A fleet anxious to evade can do so only by the exercise of the greatest possible secrecy, and the failure of evasive tactics is usually brought about through a failure in secrecy of movement.

Evasion is the handiest weapon of the weaker. That 'evasion' cannot win a campaign is a commonplace so general that it scarcely needs discussion. The mere act of evasion is only another form of flight, the evading fleet is for all practical purposes running away, and seeking to stave off that defeat which on account of its inferiority looms ever over it.

Of course there is evasion of a more logical nature than that which is generally understood by the term—

for instance the evasion of two inferior squadrons attempting to form a combined fleet. The needs of secrecy in evasions so designed are too obvious to need discussion, since it is evident that A seeking to avoid the superior C till he has joined B, will be destroyed by A should his whereabouts be known. Secrecy on such lines is perfectly intelligible. It, however, by no means covers the general modern application of secrecy—a growing official tendency to shroud everything under the mask of ‘strictly confidential.’

Examples of this are on every hand. For instance, the British battleship Dreadnought was made a confidential construction. Newspapers were requested to publish nothing in the way of descriptions of the vessel and the public generally was kept quite in the dark about her. The intention was excellent enough—to keep rival powers from building something of the same sort at the same time. Yet it needs a very robust faith to believe that the secret was really kept from those most interested in knowing all about the matter. On the other hand the curiosity of rivals was deliberately excited, and it is difficult to imagine that any real result was obtained beyond enabling a certain number of Admiralty officials to experience that sensation of security enjoyed by the pursued ostrich when its head is hidden in the sand.

France with her submarines made frantic efforts after secrecy. The mere photographing of the exterior of a submarine was made a penal offence, and

every possible precaution was rigidly adopted. To a certain extent temporary success was obtained; but there is now every reason to believe that the mere fact of the secret submarines reacted disadvantageously on their possessors. From observing the secrecy to believing that mechanism so jealously guarded must be very near perfection was no very long step, and after five years of the system the French submarine service awoke to the fact that in contemplating its own perfections it had forgotten the progress of rivals; while it was also suspected that the jealously guarded secrets had leaked out one by one and been so improved upon by rivals that the originals were no longer of much value.

Germany became a convert to secrecy with her 1905-6 naval programme. Previous to 1905, though the destined names of ships were secrets locked in the Kaiser's heart, everything else was made public. In 1905 it was decreed that no details of new ships should be made known until the vessels were launched—a replica of the British Dreadnought case. The net result must stifle that public interest in the Navy which German policy had for so long laboured to create. Public interest in things naval always centres in the latest new ship and rarely survives her launch.

The country *par excellence* for naval secrets is or was Russia. Russian secretiveness has been known to go the length of keeping guns covered in the presence of foreign ships and the rigging up of dummy

armour to batteries when foreign officers were visiting on board. This was actually done on board the *Rossia* when she was a comparatively new ship. No civilian Russian ever took interest in the Navy—to have done so even in a general way would almost have risked his liberty. The Navy was a secret machine; and the war with Japan very clearly indicated that secrecy had been a splendid cloak for incompetence.

Other instances could be cited, but these suffice. The trend of official ideas everywhere is to 'secrecy,' and the advocates of this particular panacea invariably cast their eyes upon the Press as the chief obstacle between them and their desires.

At frequently recurring intervals, notably in such cases as that of a paper¹ by Lord Ellenborough at the Royal United Service Institution, on the possibility of our fleets and harbours being surprised, and the subsequent discussion on it, very great prominence is given to the subject of the Navy and the Press. At the lecture in question speaker after speaker devoted his attention to the probability of the enemy being assisted unintentionally by learning in newspapers of projected movements. This opinion, sometimes veiled, was in other cases openly enunciated, and a wealth of compliment passed upon the Japanese press laws. Some law to muzzle the British press was advocated, as it has been advocated elsewhere.

The case for it may be briefly put as follows.

¹ *Journal of the Royal United Service Institution*, July 1905.

Secrecy is the essential to success in naval strategies. In the rush to be first with any important news few editors will consider the result of the news becoming known to the enemy, and supposing a certain number to be sufficiently patriotic and self-denying to withhold publication of news of movements, one here and there may be depended upon to lay bare important secrets without hesitation. This and more is the case for the introduction of a muzzle.

In support of it Japan's reticence is quoted, also a Russian statement to the effect that in the Crimean war Russian movements were always governed by intelligence as to Allied intentions gleaned from British and French newspapers. The fact that Kamimura learned from newspapers whenever the Russian Vladivostok ships put to sea in 1904-5 is also instanced and dwelt on: so also incidents of the South African War. Altogether an almost perfect case is made out—till we come to examine it.

To take the principal case—Japanese secrecy in the war with Russia. By means of that secrecy the news of the loss of the *Yashima* at the time of the *Hatsuse* disaster was concealed from the Japanese public and most of the rest of the world. The thing was done with unexampled thoroughness: long after the *Yashima* was at the bottom official references were continually made to 'a detachment from the *Yashima*,' and when rumours of the disaster got into foreign newspapers it was shown that 'the ship could not

have been lost, because it would have been impossible to conceal so momentous an event.'

So far so good. It is possible, though not very probable, that non-concealment of the loss of the *Yashima* might have caused some abstentions from a Japanese Loan, but it is absolutely certain that no war gains resulted from it. The Russians were perfectly aware that the ship was *hors de combat* if not sunk, and if the concealment had any military value at all the Russians were the gainers, since they may well have argued that the secrecy was an effort to hide from them that they were getting the better of the naval war. Certainly it could never have conveyed to them the impression that they were being worsted.

It was no benefit to Japan for her people to feel that they were told only of victories and nothing of defeats—the logical result of rumours which could not be suppressed. In the case of Japan such suppression seems not to have been actually injurious, though the public disappointment at the peace terms which manifested itself in some rioting, may suggest that Russia was popularly supposed to be more crushed than was actually the case. A press ignorant of the exact progress of the Japanese arms was perhaps by its comments the first cause of the riots.

The ill results of secrecy were, however, in this case not really serious to Japan; but suppose her to have suffered serious reverses and other losses which were concealed, sufficient, let us say, to make it necessary

for her to take the first chance of peace at almost any price. In such a case the policy of press-muzzling during the war might have had very serious results indeed, for how could a public fed on long tales of victory have been induced to accept the consequences of defeat?

Coming nearer home it is easy to see both sides of the question in bolder relief. The Japanese navy neither in size nor importance can be compared with the British or American navies. The number of people directly interested in the fleet in England is very much larger—at least a million people coming under the heads of relatives or close friends of naval men. The operations of a Press Censorship would seriously affect this considerable section of the community were the censorship anything but a sham. Any official censor of news may be depended upon to go on the principle ‘When in doubt cut out.’ ‘Newsy scraps’ and excellent stuff for headlines mean nothing to him, nothing has any meaning except that should anything but the baldest and most useless information leak out he is likely to get into trouble over it. Hence many of the censor’s vagaries. His superiors behind him have probably an inherent dislike for publicity of any sort, at any rate for that publicity which is attained through being criticised. The whole training of an admiral—the most necessary training in all probability—is to place him on a pedestal even to himself, and criticism of any kind, merited or unmerited, strikes him as pure

impudence or something on a par with blasphemy. The average admiral has this feeling not only as regards himself but also as regards all his brother admirals. Once the principle of a Press Law is established it may be taken for granted that the nation will have the foggiest notions as to what is going on.

This, we may be assured, will be resented by the million already referred to, and the question might quite possibly become a political one. Becoming that there are ample probabilities that the censorship might be suddenly abolished; with the result that a tale of losses, natural and incidental to a naval war would come upon the public with cumulative and unreasonably depressing effect.

This, of course, is an extreme case, purposely put—selected on that very account. A far more probable result would be a lack of public interest in the war—about as fatal a thing as can well be conceived. And just as the Russians at Port Arthur knew quite well about the lost *Yashima*, so probably the enemy would have full cognisance of every disaster that it was sought to keep secret.

Real secrecy, indeed, is probably an impossible thing. It is doubtful whether the 'confidential secrets' of any navy, jealously guarded from all save a few officers concerned, are not as good as public property in every possibly hostile navy. The British public, and most of the British Navy also, are quite

unaware of the exact abilities of British submarines, but probably the Germans know everything there is to know for practical purposes ; and can assess the fighting value of them to a nicety. Similarly there are plenty of jealously guarded German secrets that are common knowledge in the British Navy. Ordinary naval secrets are indeed more suggestive of the hidden head of the ostrich than aught else ; and it may be taken for granted that the concealment of losses or blunders in war will be impossible where the enemy is concerned. It may be successful at home ; but such methods of bolstering up the leader who is a failure (for in sum that is what it amounts to) can never win wars and may conceivably help to lose them.

Of course the hypothetical press muzzle would chiefly be used (in theory at any rate) to conceal movements and prevent the enemy discovering the whereabouts of the fleet. This was done by the Japanese ; who saw nothing ludicrous in the intelligence that 'a certain squadron left a certain place on a certain date to arrive at a certain place at a certain date, as prearranged.' Such a policy may do for a time ; but the resulting loss of public interest in a war is a heavy price to pay for it. Wars are won by the fittest to win, by the fitness of the nation rather than by the fitness of a few individuals ; and a nation that is bored over its war news is not well in the way to exhibit those staying qualities so necessary for the successful conduct of a great war. Here is the crux of

the whole question—the man in the street at home does contribute to victory or defeat. His letters to his friends who are fighting, the tone of the newspapers which reflect his thoughts, the effect of his determination to go on fighting or not—all these things are inseparably connected with the results in the fighting line.

In the past secrecy has rarely led to any definite results. Old time leaders were wont to send out trusted agents with misleading reports, a system much used by Nelson in the Mediterranean in the great French war. But Nelson at one and the same time diligently studied French and Spanish newspapers to glean intelligence, without—so far as we can gather—reflecting that other newspapers were carefully supplied by him with false news of his own movements and intentions. He employed secrecy also when he joined his fleet before the battle of Trafalgar, ordering no salutes to be fired lest the enemy should suspect his arrival. Here he had a definite object in view, his desire was for Villeneuve to come out and be beaten, and he imagined, rightly or wrongly, that the knowledge that he was in command would keep the enemy in harbour. But even here it is permissible to wonder whether containing the enemy in harbour, as Cornwallis did off Brest, would not really have been a sounder step. Due allowance must be made for the moral effect of a glorious victory upon both the victorious and vanquished sides ; but even when that is

considered, the bloodless victory is possibly the more economical and more scientific exercise of power.

Supposing Nelson to have joined his fleet heralded by all the usual signs of a new admiral's arrival, and supposing this to have detained the French in harbour; there would have been no Trafalgar. There would, however, have been forced and fatal inactivity on the part of the Franco-Spanish fleet at no cost of British ships and lives. An exercise of secrecy produced Trafalgar, it gave us dramatic results at a certain cost. To estimate exactly after the lapse of a hundred years whether this was a best possible is a task beyond human power, because completely accurate data are not available as to whether an indefinite blockade could have been maintained. In a general way we can surmise, but beyond surmise we can hardly go. We cannot say exactly how far the question of maintaining the blockade entered into Nelson's calculations; and so here the matter must be left, since it is only in flights of imagination that we can conceive of the ideal war in which every man is so perfect that the enemy is brought to his knees without a single battle.

Supposing secrecy, or rather, strivings after it, to be abolished, it in no way follows that ideal war will be produced. Indeed, paradoxical as it may seem, real secrecy is probably only to be found in the abolition of secrecy. For instance, it is relatively easy to conceal any particular detail when there is a general show of

publicity of hundreds of other details. When there is apparently nothing to find out, curiosity is disarmed, and of half a dozen conflicting reports any one may be true or false. If a fleet puts to sea in war time, it is the simplest thing in the world to conceal the actual destination and allow everyone to mention the goal that he happens to believe in. In a multiplicity of destinations the right one may be given, but there will be nothing to indicate that it is correct. Similarly, the policy—till recently pursued by the British Admiralty and the American Navy Board—of allowing everything in the dockyards (with reservations) to be public property was an essentially sound idea. Ideal secrecy is not to be decried or disputed, for it is the duty of every fleet to neglect nothing that may contribute to victory: the deleterious secrecy is that which is apparent rather than real, and effective only with those who are not possible enemies.

The advantages to be gained from secrecy of the ideal sort in certain cases are too obvious to need dwelling on and the fact that they are not mentioned here in detail is not to be construed as an ignoring of their existence. But unnecessary and superfluous secrecy whether on small issues, such as that which by labelling certain works 'strictly confidential' prevents naval officers from studying the subjects dealt with, from such as this to larger issues as exemplified by the theatrical secrecy employed by the Japanese in their war with Russia are to be condemned. The gain

at the best is slight; but far other than slight is the loss in public interest, in the necessary stimulation of public effort, in confidence, and in half a dozen other things essential to victory in war. Irritating as half-informed press criticism upon war events may be to the principal actors concerned, it is, however bad, an earnest of that public interest which is an absolutely essential concomitant to a successful national war. And it is difficult to lay a finger on any form of secrecy that can be found entirely free from an official desire to avoid criticism.

Criticism of individual leaders is, however, more altogether bad than aught else. It is bad, because the effect upon a fleet of reading hostile criticisms on its admiral can only be deleterious, can only tend to shake confidence without supplying any substitute. This was just the one thing that the much-admired Japanese Press Laws failed to touch. When Kamimura was unable to find the Vladivostok cruisers in a thick fog, Tokio criticisms ran high and violent. Kamimura's house was either actually burned, or threatened to be burned, by an angry mob, and the news of such a proceeding cannot have fortified the confidence of his men in him. Again, because the Japanese *were* Japanese, no very serious danger resulted—but it might have. Partially informed civilian criticism is in this respect a grave possible danger, and a law forbidding criticism of admirals until some while after the event might prove very

advantageous—the most dangerous criticism being ever that which is based on a bald knowledge or results without any information as to details and special circumstances.

On the other hand it is well to remember that the dread of hostile criticism is always a safeguard against an incompetent man becoming a leader in war, and to take a case bristling with suitable points,—the British Press and the Boer War—we find that, despite the absence of restrictions, criticisms on ‘regrettable incidents’ were in the main moderate, restrained and such as exhibited a sound grasp of the main necessities. ‘You must either succeed or make way for a man who can’ was the gist of what the British Press hurled at defeated leaders in that not very glorious campaign.

Let us now turn to another campaign still more inglorious, still more plentifully scattered with ‘regrettable incidents’—the Russian part of the Russo-Japanese war. Most things point to Kuropatkin as an able man swamped by incompetent inferiors about him. A Russian press free to speak its mind would probably have laid its hand on that sore. To some degree despite all censorship it did, but only to a very curtailed extent and carpet warriors held the destinies of the nation—to be more correct failed to hold them. Is it not probable that a free Press would have made for valuable reforms—too late to achieve victory, perhaps, but certainly not too late to better things?

Would not a free Press have voiced that large section of Russian opinion which—despite the pro-Japanese revolutionary element—did, (so those who know Russia best all assure us,) hold the view of that ‘We must muddle it through,’ which saved England in the S. African war.

In contemplating the victorious Japanese we are apt to forget that only in defeat can the real strength of a nation be assessed. Only an unrestricted press can show the nation what its real sentiments are, and this fact is a heavy thing to put in the scales against the palpable enough dangers of having leaders who have failed criticised to the men under them. Really perhaps the answer rests with ‘Fitness to Win.’ If Fitness to Win is a matter of leaders only, then a muzzled press is desirable; but if it be an affair of all the nation, of the nation as a whole, then freedom of the Press despite all the obvious disadvantages in specific cases is surely more desirable. Just as, whatever advantages Protection may convey, a Free Trade nation exposed to fierce competition must of necessity have a hardier trade, so the protection afforded by muzzling the Press is apt to produce ‘hot-house’ leaders. Terrible though the responsibility on an admiral in war may be, greatly as this may be increased by his being the target for half-informed and at times perhaps unjust criticism, a strong man is likely to be all the stronger for having to weather the additional storm. In all public careers such storms

have to be weathered to the advantage of the man who succeeds and to the strengthening of his followers. The weaker go to the wall thereby, but that is the best place for the weaker to go to in any affair of life or death.

There is danger, of course, that admirals inclined to play to the gallery may be evolved by unlimited Press freedom, but playing to the gallery is an evil that can be overrated. Nelson undoubtedly did it; but his own ships' companies were part of the gallery and their devotion to him served to make his deeds possible. Togo the Silent by his very silence did something of the same sort, though the Japanese Press Laws rendered such action unnecessary. 'Playing to the gallery' is after all only another way of expressing a man's becoming a vivid reality to his nation and to the men of his fleet; and the gallery which will applaud an actor who successfully plays to it, will hoot him quickly enough if his performances are not equal to his promises. And finally, whatever Nelson accomplished, it is hardly possible to deny that had he not been a popular figure, had a Press law been able to muzzle all popular comment, he would have had to pay for a certain early *laches* to the extent of never rising above the rank of captain. There is surely no doubt that some of his superiors would have broken him had convenient Press laws enabled them to do so without publicity. Whether Collingwood could have won Trafalgar is perhaps a moot point, but it is clear

that he could not have won it as Nelson did by 'personality.'¹

And so, obvious though the advantages of secrecy and a muzzled Press may be in certain cases, it is hard to believe that these can outweigh the less obvious but far more weighty advantages that come from an unmuzzled Press and throwing upon the nation itself the responsibility for successful war. Togos may be produced by the first system, so may Collingwoods; but never Nelsons or Hannibals. On England's fitness to win Nelson flew from victory to victory, while because Carthage was unfit to win, its unmuzzled opinion led to the neutralising of all Hannibal's successes. Had he and his supporters possessed a means of muzzling hostile opinion in the Carthaginian senate it is possible that Hannibal might have carried his victories further. He might even have taken Rome. But the lack of fitness to win in Carthage itself would still have borne its fruit, despite all the efforts of perhaps the greatest man who ever lived. Had Carthage been fit to win, its own public opinion would soon have made short work of Hannibal's detractors and party opponents. No muzzling of opinion will ever keep the unfit long in power, and there is only one fate deserved by the unfit nation. Victory by Press laws can never be achieved, and it may even be argued with some show of plausibility

¹ Compare *Nelson*, Laughton, XI. pp. 209-211, where the wonderful effect of Nelson's personality is very clearly set forth.

that every effort after secrecy is a symptom of decaying fitness. Possibly, indeed, it may be said that (for reasons indicated earlier in the chapter, or as a sequence to those reasons) Japan's relative failure against Russia at the last was partly due to the fact that its Government feared to take the nation into its confidence.

This however is carrying the argument farther than is necessary. The point is that every war should be an absolutely national affair, conducted by strong men who have forced their ways to the top in face of everything and who hold their positions by the confidence of the nation—a war of All for All. Press muzzling laws do not contemplate war on such lines, they contemplate wars conducted by a committee sitting *in camera*. If two nations otherwise equally fit come into conflict, surely the national determination to win will lie with those who are All for All. The men at home in England surely contributed to the victory of Trafalgar just as those in France contributed to its failure. So far as a muzzled or unmuzzled Press had to do with the course of events, it was Napoleon who best understood the art of muzzling the Press.

More than this it is difficult for one in the ranks of journalism to say, lest he be suspected of special pleading. Yet no special pleading is intended or desired; the case resting rather on the fixed conviction, emphasised throughout this book and indeed its very *raison d'être* and its main 'heresy' against conventionally

accepted 'axioms of Sea Power,' that victory rests with the nation rather than with any individual. Press muzzling must rest upon the opposite conviction—that victory depends upon individuals and not upon the nation as a whole. The general conviction of the individuals concerned is that this is so, but the fact of the conviction is not proof of its correctness.

At the same time it may be well to record the opinion that press correspondents should be absolutely barred from accompanying fleets in war time. The reason lies not with the risks of movements being prematurely disclosed and all the other stock arguments, but with the fact that 'incident' is the breath of life to the journalist, whereas absence of incident is probably the more essential to successful naval war. Those weary days of the endless blockade without any incidents to relieve broke the back of France in the Great War against Napoleon. The recording of such weariness may be the means of transmitting a similar weariness to the nation.

PART III
THE TREND OF THINGS

I

ETERNAL PRINCIPLES

MUCH is written and spoken about the eternal principles and grand truths of warfare. The general idea has been crystallised into an apt phrase that 'though tactics alter, the great principles of strategy remain the same.'

This is very generally accepted as an axiom. Undoubtedly it embodies a truth; but is it all the truth? Are the eternal principles no more and no less than those we generally have in mind? What indeed have we in mind? And what is the dividing line if any between strategy and tactics?

For convenience, rather than that any such line can be drawn, we are apt to define the two to ourselves by characterising as strategical moves everything that takes place before the hostile squadrons sight each other, as tactical operations all that they do when within sighting-distance.

It is, of course, merely a convenient convention: else the addition of top-gallant masts to our ships and the fitting of crows' nests thereto would suddenly make strategy into tactics! An academical definition

matters not ; though the two merge even as day and night merge, though there is a time when it is neither day nor night, yet all have a clear conception as to what day means and what night means, and do not get confused by the sunset gun which officially separates the two.

Apply this to strategy and tactics : is the generality 'the principles of strategy (translated by most into "strategy" pure and simple) alter not,' a statement that any gain by accepting too fully? At any rate before doing so it is well to try to discover what those eternal principles are.

Strategy has been defined by someone with a taste for neat definitions as 'The art of overwhelming a portion of the enemy with a superior force'—which is excellent, save for the difficulty of defining the 'superior force.'

Can we define it as superior numbers, saying 'Only numbers can annihilate'? At Actium Antony had numbers both in individual units and in the superior power of each unit. Whatever his tactics may have been, his strategy in bringing his forces to the essential point was excellent enough. His portion was complete defeat. There were reasons for it, of course, but this—and a dozen other instances that anyone can recall—indicate that 'two to one' is not of itself enough to ensure victory.

Is it to be defined as superior skill coupled with superior numbers? The Carthaginians under Hannibal

the admiral had both in their first big sea fight with the Romans, and they sustained total defeat. Defeat was the direct result of the Roman *corvi* perhaps, the flying bridges over which the hordes of unexpected soldiers, men of fierce courage and discipline, poured on to the relatively unprotected decks. A new invention, which the Carthaginians were powerless to anticipate, powerless to train against, rendered worthless all their skill, naval efficiency and sea aptitude. Yet as they sighted the Roman fleet they had every logical reason to expect an easy victory and the wisest and cleverest among them could have foretold no other result.

Of course the Roman fleet, thanks to its *corvi*, was infinitely the superior in power, and what really happened was that Carthaginian strategy sent a totally inadequate force to meet the enemy. By no possible means, however, could they understand this beforehand. The truth that the stronger and in every way superior would defeat the inferior remained eternal: but all that they could have regarded as eternal in the way of principles proved an unstable Will-o'-the-wisp.

Suppose Captain Mahan to have lived in that age and that he had employed himself in writing criticisms of the operations, full of all knowledge of what history has had to teach since so far as strategical operations are concerned, could he have written otherwise than to suggest that the move of the Romans would be as the move of Rogestvensky in A.D. 1905? By all the canons

of naval art as then known the Carthaginians were not merely two to one but ten to one.

That 'two will beat one, other things being equal' will ever remain an 'eternal principle'; but where the sea is concerned can any man ever say with certainty what makes 'two,' or 'other things equal'? If not, what workable eternal principle is left to us? That the x superior will beat the x inferior— x being the unknown quantity. The superior *if* he be superior will beat the inferior; but he cannot be sure of his superiority till the battle is lost and won.

In tactics as in strategy the same thing obtains—we cannot eliminate x any more than we can exactly define it.

All men will concede that the existence of an eternal principle would be extremely useful; indeed, many are so convinced of this that they stretch points to create eternal principles, for their own convenience and the comfort of feeling that there is some sure rock upon which they can plant their feet in the quagmire of uncertainty suggested by a contemplation of future naval warfare. To do so is, of course, very dangerous; to rely upon a rock that is no rock all, but merely a stone lying in the swamp, is a sure prelude to disaster. It were better to lay down as an eternal principle that all is luck and blind chance; but here, too, we may also be little less wrong, since there has never been a war the results of which can be so attributed.

Why was Athens beaten in the Peloponnesian war?

Why Carthage? Why Antony? Why the Spanish Armada? Why France in the Trafalgar campaign? Why Russia in her naval conflict with Japan? In these and a hundred other wars we can definitely say that there was no blind chance in the matter. Reading the history of any of these wars we can find many a reason why, but every possible strategical or tactical reason that we can think of applies to some and not to others. To be wise after the event is easy: but could we, given the conditions known to either side, have forecasted accurately any result where the combatants were fairly equal on paper by means of any eternal principle of strategy or tactics?

If we collect all the facts of all the wars and spend years in tabulating them the utmost we are likely to produce will be a paradox. We shall find the startling underlying fact that in the majority of cases when there has been the nearest apparent approach to equality the results have usually been far more decisive, far more annihilating to the vanquished than when a considerable obvious disparity has existed!

Russia and Japan, by all calculations that could be made beforehand on paper, were comparatively equal,—considerably more so than America and Spain a few years before or England and France in the Great War. Yet Russia was hopelessly beaten at sea. Why?

The relatively equal Peloponnesians and Athenians produced a far more annihilating result than did the

(as it proved) greatly superior Romans over the Carthaginians. Why?

The answer is not so plain as is the glimmering suggestion of some eternal principle, that 'equality means the annihilation of one; disparity, the survival of both'—about as crude a paradox as can be conceived. Yet the answer is to be perceived on careful examination. When something of the nature of equality exists both sides are more confident, more eager to engage, more prepared to take chances. The Russians, for instance, were never convinced of their inferiority to the Japanese,¹ as were the Spaniards against the Americans. Hence the Russians were ready to fight great fleet actions, while the Spaniards convinced of the hopelessness of things kept many ships at home and made peace before they lost them. Similarly in the Great War, convinced by Trafalgar of the hopelessness of the sea-struggle, France attempted no more grand battles and so, when the war ended, had many fine ships left to her. It was French *Naval Power*, not the French navy, that was annihilated at Trafalgar; the bulk of the French ships still existed at the close of the war, blockaded in their harbours by the overwhelmingly superior British fleet. The Carthaginians in their worst troubles always had ships left to them, their fleet was never annihilated like the fleets of Russia in 1904-5; while the Athenians, convinced of equality

¹ The mere fact of the despatch of the Baltic Fleet is proof of this.

to the last, had practically their entire fleet annihilated as well as their naval power.

On this it is possible to build a theory and make of it an eternal principle that 'only equality can annihilate'! It clashes with 'only numbers can annihilate' and clashes badly. But this last has obvious limitations when we come to think the matter out. If one side has too many numbers (assuming numbers here to mean superiority) the other will decline to risk annihilation in the material sense. He will, of course, experience it in the moral sense, for declining the combat is an acknowledgment of defeat, but—there is a good deal left with which to try again some other day or in another war. Ships always can be and always have been replaceable: the fatal thing in an annihilation has been the loss of trained men who can only be created in long time-spaces. It takes a very appreciable part of a lifetime to make a trained admiral or captain: raw material, however enthusiastic, cannot supply the deficiency. Russia, after the battle of the Sea of Japan could at once have laid down a considerable battle fleet, and raised men for the crews. But where were officers of experience to come from? The absence of these was the full sum of the annihilation of her navy.¹

Spain, on the other hand, had plenty of officers

¹ One cause of the utter defeat at Tsushima was that Rogestvsky was short of trained officers. In several ships military officers were carried for naval duties.—See chapter on Russo-Japanese War.

left, and the existence of these and a few ships probably counted for something to her advantage in the terms of peace. They represented some kind of menace—a weak one no doubt, but still something. It is probably better to be distinctly inferior than nearly equal—the loser's fleet is more valuable so.

There have, of course, been exceptions to the rule that equality rather than disparity means the annihilation of one without much loss to the other, but such exceptions are few. Peru, for instance, was very inferior to Chili and her fleet was annihilated, and Austria and Italy in the Lissa campaign though balanced fairly evenly did not end by one fleet only being left. But in all such cases some obvious reason is to be found. The first-mentioned campaign had so few units engaged that it is rather out of count; also before the ironclad *Independencia* was wrecked Peru probably considered herself 'nearly equal' to Chili, in which case the war would illustrate the eternal principle rather than negative it. As for the Lissa campaign; this war ended too soon for the principle involved to have any real opportunity of demonstrating itself. Had the war continued, by all we now know of it, there is every reason to believe that it would have ended with the annihilation of practically all Italy's warships and the loss of few if any Austrian ones. To any other exceptions that can be brought forward some similar answer is always or nearly always to be adduced, and of course the situation is really a logical

sequence. So long as bases are impregnable or nearly so, so long will the greatly inferior shelter there and survive: so long as something of an equality appears, so long will each side imagine that it possesses advantage enough to take the chances of victory. Then the fitter to win is certain to win—'x' will operate.

It may be noted that in all big battles (in which a real or fancied 'nearly equal' must have existed or else there had been no battle) one side has been practically annihilated and the other little hurt. In the battle of the Sea of Japan the Russians lost almost everything, the Japanese were practically unhurt. The Nile and Trafalgar were equally one-sided in result, so were Lepanto, Actium, Ægospotami and any number of other naval fights. There have been indecisive conflicts like Yalu, Lissa and others; but in these neither side had much hurt the other and that determination to fight to a finish characteristic of the grand battle was absent. None of these were 'grand battles,' they were more of the nature of 'engagements'—skirmishes and a feeling of the other's strength on each side. In grand battles the eternal principle has always obtained and one side has always suffered entirely out of proportion to the other.

It is logical that this should have been. With fleets in contact strategy is at an end and tactics in operation. The bases which interfere with strategical operations are absent: the fight is in the open, there

is no shelter. With forces of 10 to 9 engaged there is no deducting one from each till 1 is left one side and 0 the other. The winner has always won by the eternal practical principle of two to one, the 'whole of his force on part of the enemy's'—tactics have always been the eternal and unchanging thing, simple and unobscured, and at Tsushima as at Trafalgar two (that is 'two' in every way) has annihilated one (that is in every way 'one' only) and continued to do so in ever-increasing superiority up to the end. If 9 fight 10 and the 9 (or the 10) are concentrated on 5 for a little while, the result is obvious.

But whether the eternal principle of the past that 'nearly equal' is an essential to annihilation of one side is an eternal principle of the future—and, therefore, an eternal principle at all—is another matter. Men now fight with two weapons—gun and torpedo; in the past they had virtually but one. In the early days of the gun, the ram co-existed with it but gun and ram were virtually very akin. It is easy enough to draw a parallel; to say the ram being of shorter range represented the torpedo, and the galleys which used to ram sailing ships torpedo-boats. Really the galley had little in common with the torpedo-boat—neither had the fire-ship which has also been likened to the torpedo-boat. It is easier to see the likeness than the difference, but the difference exists. It exists in the fact that the torpedo-boat does not have to make actual contact as the galley-ram and the fire-ship

did. Torpedoes have been avoided—but rarely; whereas the history of the ram is the history of its being avoided. The fire-ship had not the mobility of the ship it attacked: the torpedo-boat and the torpedo have both a speed advantage. These differences are everything. Many learned articles have been written to prove that the torpedo menace is much exaggerated; but the writers have not had to face torpedo attack. The torpedo menace kept Ito from following the Chinese fleet after the Yalu; it drove Togo away at the battle of Round Island, it rendered Rogestvensky helpless at Tsushima. ‘The sea was full of torpedo-boats. We might sink one, two or three, but of what avail with dozens more to come?’ Thus wrote a Russian of that great battle. Of course the Russians lacked boats of their own with which to neutralise the Japanese boats, due perhaps to their having lent too ready an ear to those who preached that the torpedo menace was exaggerated, and the situation may have been to that degree unique. But still the torpedo menace exists. It colours all ideas of strategy, it is remembered in all tactical plans, so that academical discussions as to its exact actual value matter very little. There still remains the fact that to-day *two* weapons exist where practically only one existed before and that the navies of all nations recognise the existence of two weapons, and either hold or are cognisant of the belief that a battleship fleet may be annihilated by a lucky torpedo attack. How often in

torpedo exercises have fleets been torpedoed or ever they sighted the boats. There is nothing to stop this happening in war sooner or later; and nothing can render an admiral impervious to such a possibility. A splendid strategical move may end in nothingness thereby; after a grand battle the torpedo may annihilate all that floats.

How does this affect the eternal principle—well established from history—that there must be virtual equality to render possible annihilation of a navy? It affects it largely. It means that this new factor of the torpedo of the small craft being potentially able to annihilate the big ship, necessitates a reserve of big ships and trained crews for them to an unprecedented extent. It was Japan's luck rather than aught else which saved her fleet from being torpedoed after Round Island—luck and strategies which the old days had no need for. Russia had her opportunities despite all Togo's precautions. She made little of these opportunities; but that is no criterion for what future belligerents may attempt. Consequently, though it was an eternal principle in the past that too great a preponderance of force was a disadvantage for the annihilation of the enemy's navy: it is a useless verity now. An immense preponderance is now essential to guard against new chances of loss or paralysis by the torpedo menace, also no fleet is absolutely safe against being sunk in error by its own torpedo craft—certainly an absolutely new condition.

Wherefore it is now true that 'Only numbers can annihilate.'

Every reader, ere he has got so far as this will perceive that these and the remarks preceding them are altogether contradictory. Such a method of arguing round the circle has been purposely adopted, for it is the strongest proof of how unreliable any so-called eternal principle may be.

Of course the torpedo menace, once it is fully realised will be met. The constructional problem of the unsinkable big ship will be solved, and then the eternal principle of Equality of number to secure annihilation will reassert itself. Meanwhile however a transition stage has to be passed through.

Now it is manifestly absurd to regard as eternal a principle that is even to a small degree intermittent: we are far better without it. Wherefore we are left with no eternal principle at all save the one enunciated earlier in this chapter that the x superior will defeat the x inferior, x being the unknown quantity—a principle far too vague to be of service to anyone unless we can solve the mystery of x .

Cases have been cited in which it has not been sea habitude, tactical skill, general efficiency, courage or enthusiasm. It may be the sum of these, but it is not any particular one and rarely the same one.

The fact that radius has been sought by Sea Power in all ages has already been remarked upon briefly. To increase their radius the early Egyptians and Greeks supplemented the oar by the sail. At a later period the sail supplanted the oar, because it gave an increased radius, and, finally, steam did not replace the sail until the use of it conferred a radius at least sufficient for all practical needs. The early steamers were masted so that radius should in no way be reduced by the limitations of bunker capacity ; the masted warship though a wretched sailer only died out when it became clear that by the establishment of coaling stations and increased bunker capacity there should be no loss of needful radius to counterbalance the gain which steam conferred in other directions. Here, then, appears a principle which, having controlled all the past, may confidently be expected to affect the future.

As regards the immediate future we have seen the law in imperfect operation in the adoption of water-tube boilers, all types of which increase effective radius by conferring the ability to raise steam quickly and, in most types, to maintain high powers over extended periods. These two facts made the abandonment of the old-type cylindrical boilers certain ; and those who fought for the retention of cylindricals clearly ignored the trend of history throughout all time.

As things are, the universal adoption of the water-tube boiler must be said to rest chiefly on its advantages

due to the increase of radius through quick steam raising and the consequent saving in ability to lie at a base consuming no coal.

In the war with Russia it was found that Japanese ships with cylindrical boilers consumed *five* times the coal burned by those with water-tube generators, owing to the fact that, having to be ready for sea at two hours' notice, they had to keep fires going while the Belleville boilered ships were able to let fires out.

At some time in the future steam is destined to be replaced by some other motive power, possibly some form of the internal combustion engine, but this can only come about by a further increase of radius or some great advance in speed which shall be equivalent to an extension of radius. Finally electricity is looked upon as the eventual motive power, and this will no doubt endure for a considerable while.

History, however, shows us that motive power when it was the oar, was profoundly affected and finally displaced by the necessity of adopting artillery. The relative merits of oar and sail were comparatively nicely balanced when artillery demanded the space occupied by the oars. Artillery also, from its ability to strike over a relatively great distance where previous weapons had had a very small radius of action made itself more important than motive power. Masts and sails, oars and rowers were alike at its mercy tactically, and the need of motive power declined. At Lepanto, for instance, the six great galleons which won the day

for the Christians were relatively floating fortresses, their tactical radius instead of depending upon the speed with which their rams could crash into the enemy was governed by the range of their heavy artillery and the general impossibility of assailing it.¹

Now it is conceded by all that progress in weapons does not stand still ; hence it is surely quite permissible to imagine that at some future date there may be evolved a weapon of extreme potency, as superior to the gun as the gun was to the catapult, and of which we can no more conceive than could the Athenians dream of the gun. It is also quite permissible to imagine that this weapon might require the space now occupied by motive power just as the gun did in the case of the oar. If so, and if its powers are so great both in destruction and in range (which might well be that of wireless telegraphy), motive power will become a secondary consideration. Thus were there a choice, as in the past, between the weapon and the motive power the latter would go, even if it meant that sails had to be reverted to. Such a return to sails is, of course, extremely unlikely, but it is an inference from the old struggle between the oar and the sail—which was a conflict between the radius of the weapon and

¹ In these days when, after a period of the reverse, there is a tendency to regard motive power as all-important and its manipulators as the principal figures on shipboard, it is well to remember that its real importance is of a changing nature, that it is and must ever be an adjunct to and a means of using more effectively the weapons for which alone the ship primarily exists.

the radius of the ship. The reasons that led to the adoption of steam were essentially those which made men cling to the oar as long as possible. Sail replaced the oar because it left room for the weapon: steam came into use because it did not interfere with the use of the weapon. It—or some similar motive power—can remain only so long as no weapon needs the space occupied by it.

It is also possible that this potential weapon will have so great a radius that motive power will become entirely superfluous. Suppose it—as is likely rather than otherwise—to partake of the nature of the *vril* of the Coming Race. Ships then might become entirely useless for its application, because the ship exists and has always existed only to enable men to reach opponents who were otherwise not to be reached. It has been shown that the radius of activity of warships has increased from a small portion of the world to the entire world, and every increase of speed, by demolishing distance, must now tend to reduce the area of operations. In the past speed increases were met by increasing the area; but the world's limits are now reached. The almost daily increase in the range of artillery is slowly contracting the area. Every increase of speed contracts it. In other words we have reached and passed that limit of geographical expansion which in the past met and neutralised the increase of radius in range of weapons and speed—which are convertible terms. For instance, the galleons at Lepanto already

referred to. Or let us imagine a modern warship at the disposal of the ancient Greeks in any of their naval fights. Motive power would have been of relatively small importance to her because of the radius of her artillery—the former would have been cheerfully sacrificed for the latter had only one of the two been possible to possess. It is very important to realise this.

To resume: the geographical area expanded to meet certain conditions, therefore many or most strategical problems are, or till quite recently were, the same thing over and over again upon a larger scale. But now that the geographical expansion has ceased with the limits of the world, now that owing to increased speed and radius, it is daily contracting in its relation to belligerents and destined to go on being contracted, is it certain that the great principles of strategy remain eternal? Will they exist at all when the radius of the weapon shall in the distant future have been so increased that the radius of the ship has become of no account? Will there then be any scope for strategical genius, or scope for anything save the original brute courage to face death more readily or more often than will the enemy: the fighting requisite of the Homeric age—the integral factor of Fitness to Win?

It may be argued that so long as merchant ships plough the seas and war exists, there will be hostile vessels to attack those merchant ships and friendly

ones to defend them—a condition necessitating strategies. But it does not follow. To-day a fort protects to a great extent anything within its range of vision. Both range of vision and range of the weapon may be indefinitely extended by some at present inconceivable means. Then what room for strategies of any kind? Or will there still be room for scientific combinations, for the annihilation of one wonderful weapon by the concentration on it of two others which are situated at two different points and so cannot be simultaneously destroyed? Or will radius have so increased that there is no room anywhere for two points sufficiently far apart?

Such speculations and questions may seem the idlest of idle dreams. But this is merely a superficial view. If we use the history of the past to aid us in the present and in preparing for the immediate future, it is not safe to accept a 'law' unless it is applicable to any reasonable conditions of evolution that we may conceive. Otherwise we may find ourselves in the same error as the Carthaginian admiral Hannibal when he found himself faced by the Roman *corvi*.

The Carthaginians must assuredly have been familiar with the history of the Athenian expedition against Syracuse, and the collapse of Athenian Sea Power before the 'other ways' of the Syracusans. They were familiar with crash tactics as opposed to the more scientific ramming tactics—pecking tactics—that might be employed. They were familiar with

the carrying of soldiers at sea for definite destructive purposes. The lessons of the past could teach them what dangers crash tactics might imply, and enable them to think out replies. It is probable that all this was considered. But they did not carry their researches into the future as well as the past.

Had they done so, they would not necessarily have divined the advent of the *corvi*. They might have to a certain extent, because the *corvi*, like everything else, were an evolution and part of a cycle reverting to past methods—they might have anticipated or they might not have. But the mental exercise of speculating as to whether at some future date their present methods would be equally efficacious, whether such principles as then obtained were eternal faced with imaginary but logical conditions of the future, would undoubtedly have rendered them fitter to meet the terrible surprise of the *corvi* when it came, and fitter to evolve an answer to it. Hence the wisdom of testing every eternal principle by the future as well as by the past.

By the *corvi* the Romans extended the striking radius of their soldiers at sea—they extended it from their own decks to the decks of the enemy.

It is an eternal principle founded on the past that progress is always on the lines of extended radius of ship or weapon. For geographical reasons it can no longer be counterbalanced strategically by extending the ship area; but we have seen it counterbalanced

tactically by a great and steady increase of the weapon radius. The tactical area is expanding as the strategical one relatively contracts. It has gone from inches to feet, from feet to yards, from yards to miles. To-day it averages three to four miles or more; but this seems nothing in the 12,000 mile half-circumference of the world, which is the maximum available limit. Yet as to-day's fighting range is 30,000 times the original maximum range and the present range can only be multiplied by less than 3,000 to reach absolute finality, it may be said that no weapon of the future can be more inconceivable to us than ours of to-day would have been to the earliest aquatic fighters.

The strategical area was once less than a hundred miles. It did not exceed a few hundreds for nearly two thousand years. Then it went up rapidly till it covered the world. Its contraction has been brought about by speed and endurance making different points relatively nearer than they were. The increase of tactical radius for which men seek eternally is producing this.

We may assume then that radius will go on increasing. Eventually—unless wars cease first—it must reach near its limit either some form of vessel with a speed which almost annihilates time for practical purpose or a weapon of practically unlimited range. Neither of these radii limits is appreciably near as yet, nor can we properly conceive of their being so. But the cycle can be perceived: also the end of it—the expansion of radius till there is no more

room to expand and the earliest conditions are reproduced in a new form. Expansion of radius is, therefore, an eternal law. But it is a law the existence of which has been little perceived; perhaps not perceived at all.

But, however expanded, what advantage can it confer if Fitness to Win be absent? What advantage does 'two to one' confer without this factor? What gain is there in anything without this essential quality?

Naval efficiency *qua* naval efficiency cannot replace it. Athens and Carthage had that, but the Fitter to Win found ways to overcome them. Superior weapons cannot accomplish it—Russian guns were as good or better than the Japanese, nor was the Russian gunnery bad had it had a chance. The Fitness to secure the chance was lacking. Genius in the leaders cannot necessarily confer it: surely Hannibal was as great or greater a genius than Scipio, Napoleon than Wellington. Nelson was no greater tactical or strategical genius than many of his opponents. Personal courage does not supply it; the Russians fighting the Japanese lacked nothing in the way of courage.

In daily life how often do we see a man, without advantages, hampered often in innumerable ways, enter some profession and rise over the heads of others with infinitely superior advantages. Why does he so rise? It is not blind chance. We call it 'ability,' but we know that, in nine cases out of ten, whatever the profession adopted the result would have been the

same. It is general superiority—Fitness to Win. It is with nations as with individuals. And so the destiny of every nation does not primarily reside in its Sea Power or its Land Power or any of these things, but in the individual fitness of its units, and in this collective average superiority to the collective average of the enemy.

II

THE EVOLUTION OF NAVIES

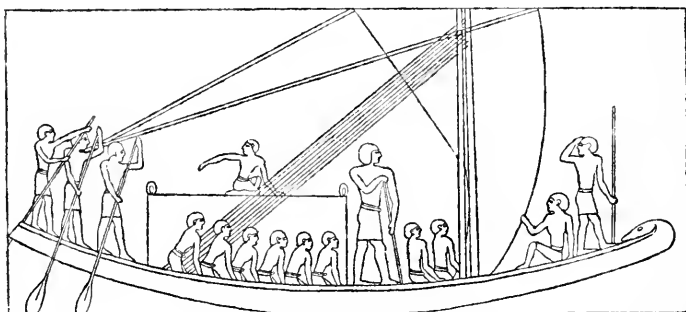
THE root idea of the warship, as has already been suggested in these pages, was the evolution of a means whereby soldiers could fight each other on the water as well as on the land. In the course of many thousand years that idea has often been almost entirely lost sight of, but it has nearly always been reverted to in times of great stress and of life and death struggles. It is lost sight of to-day, but sooner or later is bound to reappear as the integral factor.

The elementary ship has often been pictured as a log of wood used by prehistoric man to cross rivers that were wider than his bridging appliances and too deep to ford. The hollowing out of the tree trunk and the shaping of it into rude boat form were early and natural evolutions, so early that the most ancient historical records show us the ship in a comparatively late stage of development.

Egyptian monuments dating from B.C. 2500 or thereabouts show boats propelled by several rowers, fitted with some species of sail and steered by paddles

aft.¹ The existence of ornamentation in the form of a snake figure-head indicates that the type had been brought to some considerable state of finish and that the boat was already an evolved article.

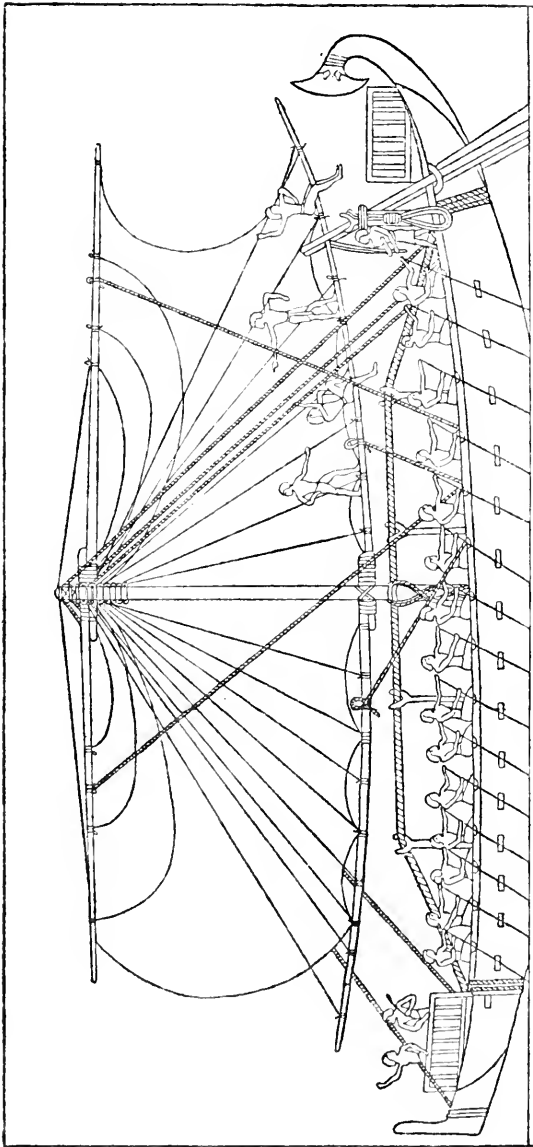
By B.C. 1000, judging by the relative sizes of men and ships, considerable advance had been made in size, lateen sails were in vogue, and, in the case of warships the fighting top (or else a look-out station) had appeared, as well as an armoured breastwork to protect



EGYPTIAN SHIP ABOUT 2500 B.C.

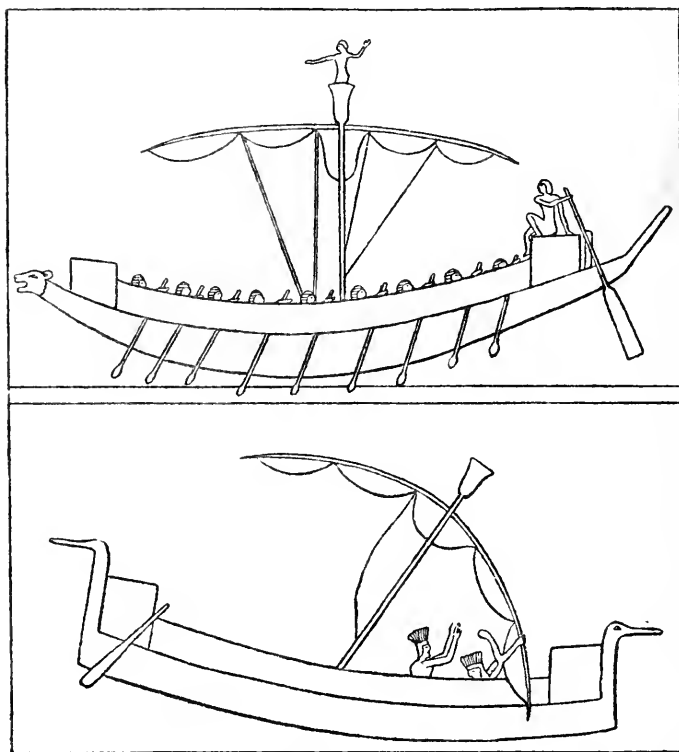
the rowers. These last two features may be presumed to be the result of experience gained in unknown sea fights. A glance at the illustrations taken from the monument which records the first historical naval battle gives us the warship *qua* warship, already something that had differentiated from the every-day merchant vessel for a specific purpose.

¹ I am indebted to Mr. Cecil Torr M.A. for permission to reproduce the first four illustrations in this chapter from his *Ancient Ships* (Cambridge University Press).



LARGE EGYPTIAN SHIP IN THE RED SEA *circa* 1200 B.C.

By B.C. 700 the Phoenicians had evolved a warship in which the oars were in two banks, presumably so



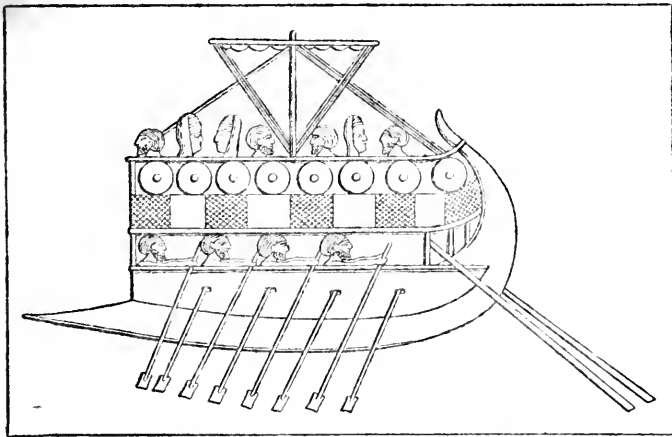
1. EGYPTIAN WARSHIP IN ACTION 1000 B.C.
2. ASIATIC WARSHIP IN SAME BATTLE.

arranged in order to secure increased motive power in a limited length.¹ Over the heads of the rowers appears

¹ To increase the length has always been the main problem in warship construction. See chap. 'Dimensions of Warships.' The two and three decks-ships 1600-1800 all had the duplicated or triplicated gun-decks on account of the difficulty of satisfactorily increasing length.

a flying deck protected by shields for the fighting members of the crew and finally a distinct ram bow is to be observed.

Now this warship besides marking an advance in attack and defence also marks some kind of return to the original conception of the warship as an instrument for enabling soldiers to fight each other on the water



PHOENICIAN WARSHIP OF *circa* 700 B.C. FROM NINEVEH MONUMENTS.

as well as upon the land. The Egyptian warships of three hundred years before lack this feature to a considerable extent—defence is to be found in them in the breastwork to protect the rowers, but the offensive and military feature so conspicuous in the Phoenician warship is absent.

This type of vessel long survived, but it eventually gave way to the Athenian trireme, of which the

exact form is still a matter of some conjecture. We do know, however, from the evidence of contemporary historians, that the Athenian trireme was essentially a 'naval' vessel. The idea of a craft primarily destined to enable soldiers to fight each other on the water was gradually lost in the idea of a ship especially designed to fight and destroy other ships. This object was sought and secured chiefly by speed and handiness, and to obtain these qualities the military element on board was considerably reduced and lightness of construction gone in for. What may be described as the 'heavy and clumsy battleship idea' was abandoned in favour of the 'cruiser idea,' 'the light swift craft able to strike sudden blows.' The crews of the Athenian warships were principally 'sailors' in the narrow meaning of the term. After a career of considerable success¹ the Athenian navy vanished before the heavier 'battleship-craft' of the Syracusans and Peloponnesians.

When Carthaginian Sea Power became predominant in the Western Mediterranean the cruiser idea had, however, again worked itself into favour. The Carthaginian sailor was a 'seaman' rather than a 'soldier at sea.' Sea aptitude was his main characteristic and if hand-to-hand fighting were not lost sight of, it certainly did not occupy the sole prominent position.

This navy was annihilated by the Roman soldiers at sea, by craft that essentially embodied the battleship

¹ See chapter of 'The Peloponnesian War.'

idea, which carried men bent upon killing other men in ships and relied nothing at all upon skilful tactics or the sea-aptitude necessary to manœuvre ship against ship.

Thereafter for a long time the 'seaman' disappeared as a factor of importance. Ships increased in size and soldier-carrying capacity, Antony's ships at Actium were little removed from floating fortresses. Their opponents to a certain extent relied upon the Athenian and Carthaginian ideals, their ships were small and handy and the men who propelled them were the fighting men. As on previous occasions the result was obscured by other issues than that of specialists against 'all-round men.'

The all-round seaman did not recover his old status to any very appreciable extent, and with a few exceptions for centuries the warship carried soldiers to do the fighting and seamen in the subordinate capacities of rowers or managers of the sail motive power. Battles were chiefly decided by the military element right on to the days of Drake and his fellows, when there was again evolved the all-round seaman able to sail his ship and fight it too.

The defeat of the Spanish Armada which was manned upon the specialist system soon brought the all-round man into vogue. As ever, there were other issues involved than the specialist problem, but these were either not perceived or else not considered worthy of appreciation against the, at that time, obvious

advantage of having 'every man on board a combatant.'

Not so very long afterwards the mutinous condition of the seamen necessitated the creation of soldiers on shipboard in a new *rôle*,—that of marines. The marine, however, appeared distinctly as a police force and that he participated in the fighting was mere utilitarianism. The seamen fought the guns and in no way reverted to the old position of specialists in motive power.

In the Nelson era the seaman was supreme and seamanship won the battles.¹ This endured till the advent of steam introduced entirely novel conditions, and a new body of men, engineers, who gradually took over the old seaman duties of control of motive power, while the seamen slipped, almost imperceptibly at first, into the specialist position of the soldiers at sea. There has been, however, one important distinction between this change and similar changes in the past. The seamen changed into soldiers at sea retained the old navigating duties in a more complete form than in previous revolutions, though this of course may mean nothing more than that we are now in the transition stage. Here it is of interest to note that the Russians about the time that steam came in or a little before—it is difficult to trace any more exact date—

¹ The interesting fact, however, of Nelson's 'hammer and tongs' system should be kept well in mind. It suggests that Nelson at any rate had some conception of the old root idea of the ship as a means of carrying men to fight other men as opposed to the ship as an instrument intended to fight other ships.

introduced into their warships a corps of artillery, gunners who had no naval training whatever. The Marine Artillery of the British Navy may also be mentioned. In both one can detect the germ of a return to the old idea of strict specialisation. The Russian Artillery Corps, however, ceased to exist as a distinct body several years ago, and there are some indications of a similar ending to the British Marine Artillery.

At the same time there is a tendency in all navies to merge the executive and engineering branches. Consequently the present position may be put down to an attempt to return to the Drake conception of 'every man able to fight the ship and work it too.' As already noted this conception was destroyed through the chance arrival of steam as a motive power.

'Engineer' is of course a term that to-day has the same effective meaning that 'seaman' had in the days of Drake, saving always that the engineer has in the present transition stage no concern with the steering and manœuvring of the ship. In the future—given evolution upon the lines at present projected—he probably will, and presumably also in the process of time he will take over control of guns and torpedoes, the present military branch being merged into him, and he into them. That would be the Drake idea returned to.

In the old days the military branch was in a great measure dispensed with by being put on shore. At

the present time, owing to the vastly increased complication of and the general adoption of machinery, torpedo officers (almost entirely) and gunnery officers (to a very great extent) are in sum and substance members of the engineering profession in its widest sense. Out of these and the engineers proper the navies of the early future will—with evolution following its present course—be compounded. As hinted above, the tremendous complication of modern machinery is a difficulty in the way of return to the all-round man and many people question its possibility. However, it is probable that in the days of Drake it was hotly debated as to whether a seaman could ever acquire proficiency in handling guns, or a soldier in the proper management of ropes and sails—very difficult problems to the lesser intelligences of the men of those times. Still, whatever difficulties present-day critics may see, this is the thing that is likely to come about, and with it—if history goes for anything—some modification of the warship to suit the new order of things, and that modification probably in the direction of the big cruiser.

History does not tell us of the internal naval arguments if any which preceded the evolution of the Athenian trireme. But we may take it for granted that arguments were plentiful enough before the bulk of the heavy-armed fighting men were put on shore, before the heavy protection for these men was dispensed with, before the ship emerged light and swift,

trusting for victory to her speed, her manœuvring qualities and her ram.

It may, and indeed has been argued that the rowers merely moved the ship and did not fight it. Academically this is true, but otherwise it is incorrect. The free Athenian citizens who toiled at the oars knew perfectly well that with those oars they propelled the ram upon which they trusted for victory,—the ram was their weapon and it needed oars being pulled to use it just as a gun needs loading for use. They, using the oars, replaced the bulk of the fighting men who added weight to hostile warships. The end of this Athenian seamanship was disaster. They had built their ships too light in the pursuance of their ideal, and the day came when weight told. Incidentally of course fitness to win had passed from them to their enemies, also the circumstances were peculiar, so that it is hard or impossible to say how much their defeat was due to the failure of the cruiser idea opposed to the battleship idea and how much to lack of fitness to win. At Ægospotami the latter was painfully in evidence; but there still remains the fact that the fitter to win relied on the battleship idea and the specialisation necessitated by carrying out what constituted the battleship idea in those days.

The Carthaginians failed in exactly the same way. Different conditions obtained, but still there was the main fact that the fitter to win relied, like the Peloponnesians, upon the military as opposed to the purely

sea-aptitude qualities of their crews. Then once more there came a time when the military element being unduly exaggerated it fell before sea-aptitude. The working of a cycle is apparent, so apparent that the thing right for one age may be the thing quite wrong for another. And yet it is difficult to avoid some inkling of a thought that the military idea is the really right one, that though sea-aptitude and intelligence may win naval battles, the brute force and weight of the soldier-at-sea idea is the more likely to triumph in the long run. The besetting danger of the 'seaman' appears ever to have been a tendency to lose sight of the end in the means, gradually to concentrate upon details and skill at those details for the sake of the details alone. The sin of the 'military' element on the other hand was usually to forget and neglect the means in seeking the end.

The probable course of future naval warfare may at least be suspected upon these lines, once the all-round man asserts his predominance. In the post-Nelson days the all-round seaman took to 'spit and polish,' the neat orderliness which assisted his work became a fetish as important to him as the work itself, once there was a period of peace; the absence of specialists each interested in the predominant importance of his own particular line told. The all-round navy of the immediate future is not likely to fail from 'spit and polish,' because there is nothing, or very little, in the modern warship to cause a re-birth of it

for legitimate use. That 'spit and polish' was merely a really essential thing, overdone in the course of long years, cannot be too clearly kept in mind in these days of its decline as a naval accomplishment. The machinery of the far future, whether explosion engine or electric, will no doubt be kept beautifully clean, and this will increase its efficiency. But it is hardly likely to go short of oil on the grounds that 'lubrication is dirty,'—the odds are all against a slavish imitation of the days when guns were not fired for fear of damaging the paintwork. Spit and polish is the overgrown child of seeking after efficiency, but it is not the vice to which those who handle machinery are prone. Rather the errors of the navy of the future are likely, when they come, to take the form of an undue respect for speed. It is sure to be a good thing overdone that brings the decay, not a bad habit acquired. And so very possibly the decaying navy of the future will, just before that decay becomes obvious, make a fetish of speed at any price. It will probably—especially if the times are peaceful—sacrifice armour to increase speed. It will very possibly sacrifice a good deal of seaworthiness and stability to the same ideal. It will strive hard after the lightest possible form of construction, spend its energies perhaps in seeking to reduce superfluous pounds in a 40,000-ton ship. Stores will be cut down, the supply of fuel kept meagre, and speeds undreamed of to-day become the ordinary thing.

Very probably a marvellous precision of tactics will be arrived at for the sake of the means without much thought of the end. The suggestion of this is already to be noted in the wedge-shape formation, destroyer almost touching destroyer, evolved by the Germans and copied by the Americans. It may conceivably become the pride of future navies to do this and kindred things at fifty knots with 50,000-ton ships.

Target practice is another very probable form of dry-rot. Already gun-layers' competitions have been elevated to a position altogether out of proportion to their utility. The target practice of the future is tolerably sure to be wonderful. Trick shooting can be foreseen already. Some gun of special precision will appear, not perhaps at all the largest possible, but one in which one or two qualities are sacrificed to a splendid precision. With perfect range finders, perfect speed indicators, and a more or less perfect propellant, hitting the target will be absolutely certain be it still or in motion, and the only uncertainty as to whether the hit is in the centre of the bull's-eye. Torpedoes will probably reach a similar certainty, and speed trials and target practice be done with a precision to evoke unstinted praise. And little by little things will be introduced that will aid these practices to become still more perfect and some small war may serve to demonstrate the perfection.

And then a war with some nation hopelessly

inferior in these arts, China¹ perhaps, or Russia. And this other nation, because of its very incompetence in the trick nautical exercises of the future will be driven to fall back on some type of ship, slower, heavier, unable to execute beautiful manœuvres, but carrying, may be, some heavier gun absolutely annihilating when it hits, and heavily defended with armour because the gun specialists want to take care of themselves. It is all too conceivable that such a fleet might go forth, controlled by people with no notions about pretty tactics or target practice, but full of the crude old idea of killing the enemy, and attain the victory which has usually followed the whole-souled pursuit of that simple idea.

If this be not the true picture of the future, it is at least the picture most fully in accord with past history, with the fall of the Athenian and Carthaginian navies.

This should not be taken as implying that sea-aptitude may be of no avail. Undoubtedly it is the most valuable thing so long as it remains, as it should remain, a means to an end. Once it becomes the end only, danger is very near at hand. To cultivate the means without ever losing sight of the one and only main objective, the killing of the enemy, is the ideal to which no Sea Empire has yet succeeded in reaching, and the doom of every once important Sea Empire has

¹ It may be noted that there is a tremendous latent naval possibility in Chinese sailors, judging by the reports of those who have had full opportunity of studying them.

lain in its losing sight of the primary reason for which navies exist. The difficulties of the case lie in the fact that danger lurks not in imported vices but in the overdoing of things of themselves good and useful. And this is so true that no Sea Empire can endure for more than a space any more than summer greenery can last beyond the autumn, or the fruit that has ripened to perfection long resist the ravages of decay.

It is in perfection that danger lies. An imperfect, inefficient navy has always a possible future before it. That is why the Russian Navy will probably exist long after the British and Japanese Fleets have sunk into relative non-existence,—the Russian Navy being very singularly far from ripeness. This doctrine of decay through perfection is a pessimistic one; it is also, perhaps, in some degree dangerous, in that taken too literally it may suggest that it is dangerous to aim at perfection, and that badness is the true test of ultimate merit! Fortunately, however, there are modifying qualities. So long as powerful rivals exist no navy is very likely to reach a stage of perfection. It is the Navy which is supreme beyond all possible question that goes in danger of decay. The rivalry of other Powers is the breath of life to a Fleet. Nothing for instance could be better for the British Navy than Germany's avowed ambition to challenge the sovereignty of the seas. Germany's decision in 1905 to build monster battleships of the very first rank was

(or should have been) a better tonic for the British Fleet than all the reforms and improvements internally introduced over a period of five or six years. So true is this, that the worst blow Germany could strike at the British Navy would be to declare war and have her entire fleet easily and completely annihilated! It was probably the fact that French ships remained in harbour as a standing menace which saved the British Navy from going to seed after the striking victory of Trafalgar—that, and the excellent fight made by a few of the French ships at Trafalgar.

The navies which at the present day are in the greatest danger of going to seed are the Japanese and United States—the former especially. The ease with which they annihilated the Spanish Fleet did the Americans no good; but the dangers to which they are liable are nothing to the dangers threatening Japan, after her two signal victories over China and Russia. She was saved after the war with China by having to bow to the superior naval power of Russia, France and Germany. But the very ease with which the Baltic Fleet was annihilated must ever be a terrible danger to Japan's future efficiency. The most deadly blow that Russia struck was when Admiral Nebogatoff with a squadron of little-injured ships, including one first-class vessel, surrendered after Tsushima without firing a shot. He surrendered to the mere menace of some distant battleships,—the actual surrender being to some mere cruisers. Had he fought, his annihilation

was certain, but it would have been well for Japan had he done some harm before going under.

Had there been the faintest grounds for believing that Nebogatoff surrendered with the idea of creating a moral rot in the Japanese, then the situation might have been saved. But it was perfectly clear to all concerned that he surrendered from sheer despair before the triumphant fleet of Japan. It was the flag he surrendered to, rather than to any particular ship or ships.

The British Fleet is Japan's firm ally, the United States Fleet in no way appeared as a possible enemy. France and Germany, though more or less hostile, both gave indications that their navies were afraid of the Japanese. Some form of 'swelled head' was the inevitable result—victory was secured so very easily.

Japan, no doubt, may fight yet another successful naval war, but her future is bound up in the details of that war. If she wins with the same ease that she won against China and Russia her decay will probably be the immediate sequence. A hard-fought fight will save her; but the dangerous sequelæ of easy victory are thick about her. Efficiency can only be maintained when menace exists; when there is no danger there will not long be any efficiency.

There is, however, one thing which tends to arrest naval decay, and that is the advance of invention. The ever-present danger that some new form of weapon will be sprung upon the naval world tends to keep all

fleets on the *qui vive*. The terrible celerity with which the most powerful ship in the world becomes an 'obsolete old crock' hardly worth consideration, the uselessness of old guns and torpedoes—these facts are bound to cause continual uneasiness and render difficult any arrival at perfection. After the Great War the sailing ship remained much as she had been under Nelson, till steam came and worked its revolution. In such conditions perfection was easy. None could feel the danger of falling behind, ideal perfection was visible to all. To-day there is a different ideal every year, and it is a blessed thing that it is so.

III

THE DIMENSIONS OF WARSHIPS

No theory has relied more upon 'the teachings of history' than the theory of moderate dimensions. It is a known fact that in the days of the Great War the seventy-four was found to be the handiest ship and the best compromise. Using mostly the seventy-four-gun ship, Nelson and his compeers used to beat opponents whose larger ships they overwhelmed with superior numbers. Nelson also once made a remark to the effect that 'only numbers can annihilate.' With these facts as a base, history has been searched for examples to prove that moderate dimensions and numbers are better than larger dimensions and fewer numbers.

The 'moderate dimensions' advocates have, however, always been careful to explain that they mean moderate dimensions and not *small* dimensions—which, examined, will be found to be but another way of saying that they advocate a size smaller than the largest possible. This, they say, won battles in the past. Undoubtedly it did: but before the argument can be accepted it is necessary to ask two things:—

1. Were the 'two to one' tactics necessitated by the existence of moderate dimensions?

2. Is any reasoning from the old wars with short ranges applicable to the present days of long ranges?

As regards the first, 'two to one,' though practised by Nelson, was certainly not invented by him. To overwhelm a part of the enemy with the whole of your own force has always been a principle of war, eternal because obvious. It is hard to find a period when it did not exist as the ideal objective. Alcibiades used it in the Peloponnesian war, and so has every winner since, and so will he go on doing till the end of time. But the 'two' (by which the superior force is meant) need not be a numerical superiority—it is a matter of indifference whether the superior power be made up of greater numbers of ships, superior skill in gunnery, superior courage, superior leadership, or superior anything else, so long as the sum of these things is superiority to the enemy.

Of all factors in war, superior gun-fire is one of the most important: to secure it—that is to say, to secure concentration of fire—those with the moderate-sized ships had, in the old days, to concentrate vessels.

Obviously it is begging the question to argue therefrom that moderate-sized ships gave victory—Trafalgar would have been won equally well with half the number of ships of double the power, or one third the number of ships of thrice the power, supposing such ships to have existed.

They did not, however, exist. As has been pointed out by Sir Philip Watts,¹ in the days of wooden ships it was almost impossible to increase length to any extent in order to get more power, because of certain technical difficulties of construction. Consequently increased power was only to be obtained by adding an extra deck, and this entailed a loss of handiness, a loss of speed, a loss of seaworthiness, and such general disabilities that for all-round work the seventy-four was almost the largest unit practicable. Bigger ships were built, but they were always, to some extent, experimental, and never fully satisfactory. That is the real reason why the bulk of the British fleet in the Great War consisted of seventy-fours.

There is now the second point to consider. In the old days, moderately effective range was a matter of a hundred yards or so and really effective range was ship touching ship. Concentration of power was, therefore, necessarily the concentration of ships.

To-day these conditions have entirely vanished. The gun radius is so extended that any number of ships can concentrate effectively on one after another of the enemy, without ever approaching inside a couple of miles. It is, however, far easier to handle six big ships than twelve smaller ones of equal total power, because the twelve will be occupying about double the space and, therefore, less easily able to act as one in the matter of concentrating on a single unit.

¹ Institute of Naval Architects, July, 1905.

Furthermore, size now entails no loss of speed or handiness, but instead means, if anything, more of both, and certainly entails superior endurance, seaworthiness and ability to receive heavy blows.¹ There is, in fine, no single argument against the 'mastodon' except that her loss is more heavily felt than the loss of a smaller unit.

Even this, however, is mostly an imaginary drawback, since there is no evidence of five moderate-sized ships ever having been built instead of four larger ones. Thus Germany has adhered strictly to her five-battleships-a-class rule, as much with the Kaisers as with the larger Deutschlands.

The United States, acting under the influence of one of the most extraordinarily illogical fits that ever seized men responsible for Naval construction, did in the Idaho and Mississippi, construct two moderate ships as part of a programme consisting mostly of big units. But it is clear that these two moderates were built instead of two monster ships, so that the net result was the loss of a knot speed in two fighting units, also a loss of power both for offence and defence. And what was gained? Nothing, save the triumph of a principle which has nothing to recommend it, and the establishment of the fact that certain Americans are unable to read history except through their own glasses.

It would be little more illogical to demand sails

¹ Also, relatively smaller cost of upkeep.

and smooth-bores because Nelson won using sails and smooth-bores than to demand moderate dimensions because his ships were seventy-fours! The processes of reasoning applied to the one can equally well be applied to the others. Let us, however, suppose for a moment that a nation, instead of determining to build so many ships, determine instead (which no nation does) to build so many thousand tons of shipping and decided to have five moderate ships instead of four more monstrous ones. Suppose, for instance, Japan had constructed five Fujis instead of four Shikishimas,¹ then the loss of the Hatsuse, instead of being the loss of one sixth of her battle fleet, would have been the loss of one seventh; but would a Fuji have survived the hammering that the Mikasa took at the battle of Round Island? The Hatsuse struck by one mine kept afloat (it was pure chance that another struck and caused her to sink), whereas the smaller Yashima was totally disabled and finally sank from the effect of one. We cannot logically base an argument on the fact that the Hatsuse was struck twice—yet this is what the moderate dimensionists unconsciously do. They ignore that big ships are much better fitted to survive damages which will assuredly sink smaller ones.

Tsushima occasionally resolved itself into duels.

¹ Shikishima, Asahi, Hatsuse and Mikasa—the Mikasa being the same as the other three, except for the dispositions of her secondary battery.

There was a duel between the heavy Asahi and lighter Borodino, entirely in the former's favour. The result could not have been otherwise unless the Russians had possessed some considerable superiority of *personnel*, for the Asahi being heavier was so much better fitted to take punishment. Some fifteen per cent. heavier she had more than a fifteen per cent. advantage, ship to ship.

The most absurd thing, however, about the 'plea for moderate dimensions based on history' so continually set up, is that only the shallow thinker can possibly find historical warrant for his ideals. In all ages the tendency has been to increase size, else we were still in the stage when men fought battles mounted on logs.

We may go right back so far as Thucydides. In his opening pages the great historian of the Peloponnesian war refers to the absence of 'decked vessels' in the Athenian fleet and their gradual introduction. These 'decked vessels' were the 'mastodons' of those days, the undecked ones 'moderate dimensions.' It was the former that came into general use, presently to become moderate dimensions because triremes appeared. In the Punic wars the trireme gave place to ships with six or more banks of oars, and by the time of Actium ships of fifteen banks had become the standard. These were defeated by the smaller ships of Octavianus, but dimensions, as history clearly shows, had nothing to do with the matter.¹ The fitter to win

¹ See chapter on Actium and Lepanto.

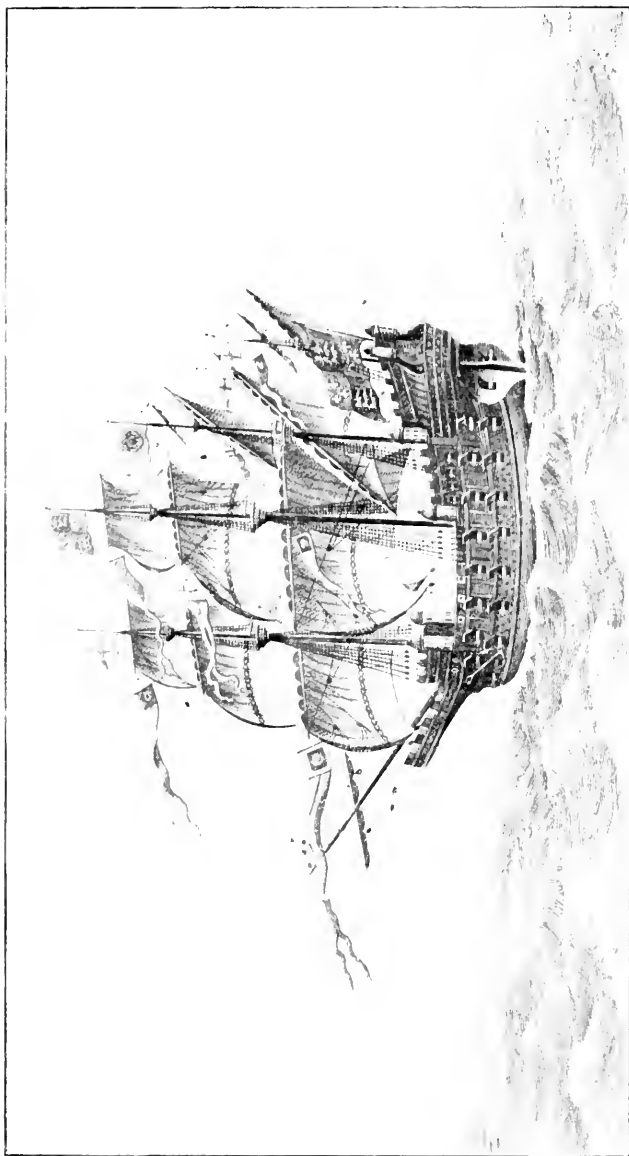
overcame the opposition of the mastodons, but it was the inferiority of his *personnel*, not the dimensions of his *matériel*, that lost to Antony Actium and the world. At Lepanto size had gone up again, and the mastodon proved itself eminently all-powerful and ideal as a fighting machine.

When King Alfred founded the British Navy in the ninth century, the special feature of his galleys, built to compete with the Danish raiders, was that they were bigger than the Danes.

In the time of the Crusaders, much of the Saracen Sea Power rested on big dimensions. Now and again, of course, these big ships were captured. The more moderate dimensioned ship of King Richard himself captured one, but owing to the size of the Saracen his men were several times repulsed and only succeeded in the end when the King assured them that death by torture would be the fate of all if the Saracen got away.¹

The Harry Grâce à Dieu, the Great Michael, the Great Harry and all such ships were strivings after the mastodon. Uniformly successful they were not, but they soon became the moderate dimensions of a succeeding age. In the Spanish Armada the Spanish mastodons did not win against the smaller ships of England, but no thoughtful student can see in that an argument for moderate dimensions. Would the Spaniards have won had the two sides changed fleets?

¹ See account of this fight in Nicholas.



THE GREAT HARRY

From Fincham,

Assuredly not. They failed for other than constructional reasons : their size indeed helped them in their battles in the Channel, since relatively little impression was made upon them by the English vessels. Had the galleons been of moderate dimensions few probably would ever have passed the Straits of Dover.

In the Nelson era and thereabouts, size many a time proved advantageous, despite the already stated drawbacks that the mastodon then suffered from.

There is, for instance, the well-known case of the *Révolutionnaire*, 110, in Lord Howe's battle of 28th May, 1794. She was first engaged by the *Bellerophon*, 74, for an hour and a quarter. She was then engaged in succession by two other seventy-fours, but survived all three attacks of ships aggregating just double her gun fire, coming in succession against her. 'The concentration upon her,' says Captain Mahan, 'though eminently judicious, served to bring out vividly the advantage, which should never be forgotten, of one heavy ship over several smaller, though the force of the latter may, in the aggregate be much superior.'

Again, in the battle of Cape St. Vincent, the *Santissima Trinidad*, 130, though she bore the brunt of the British attack, was neither captured nor destroyed in the defeat sustained by the Spanish Fleet. Her dimensions saved her.

The teaching of history, therefore, is surely that, though men in ships of moderate dimensions have succeeded at times, in defeating men in big ships, the

fact of big opponents has always rendered their victory more difficult, and at times half neutralised it. Nelson's 'Only numbers can annihilate' surely meant very clearly 'Since the bulk of available ships are of moderate size there must be plenty of them to secure victory,' or more baldly still, 'Since you cannot give me quality, give me quantity.'

Those who wish to do so will always go on seeing in the victory of the Japanese ships at Yalu a triumph for moderate dimensions in modern days; but the thoughtful will remark the defects of *personnel*, ammunition and leadership from which the Chinese suffered, and remember, too, that the big battleships held out to the end of the day and covered the retreat of the beaten Chinese. Also that the Japanese subsequently ordered mastodon battleships in preparing for the war with Russia, though advised not to by all the advocates of moderate dimensions. The Russians, on the other hand, went in for moderate dimensions.

Of the mastodons, and the modern trend towards having nothing but monster ships with quite small auxiliaries; history can say nothing except that to strive after the mastodon has been the invariable tendency; though in all ages there have been those whose voices have been raised against it. When ships were of 100 tons there were many who advocated 75 instead; just as when in the future 100,000 tons is reached there will be men to argue for 75,000 tons. In dimensions there is no finality, to plead for

moderation can, therefore, hardly be logical, since in essence it resolves itself into an attempt to hold back the clock of time. As science progresses, so will demands upon dimensions increase, the best offence and the best defence must ever demand more and more bulk to carry them. Moderation is, therefore, of the nature of a handicap, which certain excellencies of *personnel* have to be used to overcome.

The application of this question of dimensions to the future is important; though in all ages, till quite recently, the tendency has been to overlook the point. Thus the dimensions of big ships have been kept down by the fact that docks have always been built for the present rather than for the future. The docks initiated in the twentieth century have been more wisely planned: allowances for increased dimensions in the future have been made, and so the prohibitive expense against normal increase will no longer exist so acutely as in the past.

A very few feet of beam added to the plans of any existing 'mighty cruiser' would give a battleship of at least 30,000 tons, therefore, it may confidently be expected that 30,000 tons will come in a few years. Such a size might well be nearly torpedo proof, it would certainly admit of an armament capable of blowing any present day 18,000-ton ship out of the water, certainly render the mastodon difficult to injure by any gun now existing. There have been those who have foreseen the advent of explosives so powerful that

a single hit will be decisive and from this they have argued that a return to small units is bound to come.¹ Temporarily such a thing is in the possibilities, but the chances are against it; the immunity of sufficiently large dimensions will always be obvious and, therefore, probably always be sought in the future as in the past. Constructional problems grow less and less serious, only those connected with seamanship and so forth promise to remain. These, in matters relating to draught, may possibly remain constant, but this is in no way certain, since all objections as to increased draught limiting utility are to be met by an appeal to history. In ancient times six-foot draught or so represented the utmost possible maximum; modern navies, though they have multiplied this by five, are still quite suitable to their environments. It is rash, therefore, to assume limits in this direction just because such limitations most naturally occur to us.

In any case length and beam admit of great expansion without much difficulty; increased bulk must, therefore, be looked for as a factor in the natural order of things. Economy acts as a drag and a retarder of increase, but size will obviously go on expanding. Whence the only logical course of each and every Admiralty seeking sea dominion, is to build every new warship a little larger and consequently a little more powerful than its possible opponents. It

¹ The Maxims have been associated with such a theory.

cannot cry a halt and adhere to moderate dimensions without giving hostages to fortune.

The best known modern examples of moderate dimensions are the *Swiftsure* and *Triumph* of 12,000 tons odd. Designed about the same time were the *Lord Nelsons* of 16,760 tons, so that approximately seven of the former could be built for the tonnage (not the cost) of five of the latter. Let us compare the total of guns. We get :—

<i>5 Nelsons</i>	<i>7 Swiftsures</i>
20 12-inch.	28 10-inch.
50 9·2-inch.	98 7·5-inch.
12-inch belts.	7-inch belts.

On the question of attack all the power is with the five, the seven have numbers only. In defence the five are practically invulnerable at the water line, the seven are vulnerable at almost any range. What chance is theirs? The only possible chances reside in extremely superior *personnel* (a matter outside dimensions) and the chance of using the extra torpedo tubes,¹ which would hardly be theirs except by virtue of luck and very superior handling. Is not this but a way of saying that to advocate relatively moderate dimensions is to advocate leaving everything to luck?

It is argued, of course, that whereas five successful torpedoes would annihilate the one squadron they would leave two ships afloat in the other. This is so :

¹ The larger dimensions of the *Lord Nelsons* would also easily admit of fitting more torpedo tubes if deemed necessary.

but the constructional error would rather be of too little bulk than too much—in sufficient bulk protection against the torpedo is certainly to be found. Also, since no weapon is without its antidote, the argument is to be met by the statement that if the Lord Nelsons are to be so disposed of, it simply means that the antidote has not been sufficiently sought for in them. At the same time this is undoubtedly the strongest argument advanced by the ‘moderate dimensionists,’ and one that would demand more examination were it possible to believe that five or six medium ships would ever be built instead of four larger ones. The money for building ships is found by a public which reckons battleships by numbers and by numbers only, and in these days when powerful voices cry out against ‘bloated armaments’ it would be very difficult to secure sanction for the additional ships necessary to produce the same tonnage total as the four large ones.

This particular point is one generally overlooked, but it is going to be an extremely important one in the future, as Members of Parliament prepared to argue against the vote for New British Construction increase. In the United States men with similar ideas have arisen also. These advocates of economy have one invariable method: they take the number of battleships existing (without regard to age or size) and therefrom deduce that the need for increase in numbers is comparatively small. Their arguments are directed on those who hold the national purse strings, and in

the United States they already carry enough weight to have, once at least already, reduced the number of ships to be built. The direct result of such influences must be a desire on the part of those responsible for naval construction to embody the maximum of power in each unit. Such a policy will tend to increase dimensions rapidly, and render abortive any attempt at the building of medium-sized ships, even could the advantages of so many small and relatively weak units be proved.

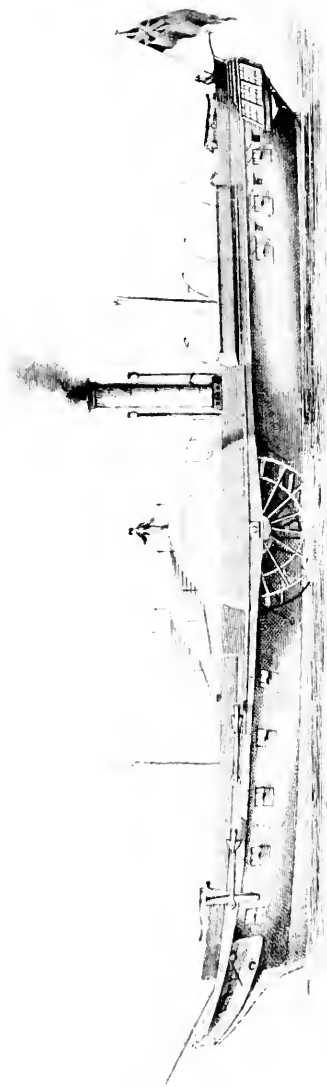
IV

THE EVOLUTION OF THE BATTLESHIP

IN a previous chapter reference has been made to the tendency of navies to evolve themselves in cycles. A similar tendency is to be found in warships besides their eternal tendency to increase in dimensions. It is the cycle tendency which retards that increase in dimensions which would otherwise probably be swifter than it is.

Old-time navies are not of much interest in this connection : the principle involved is also better to be seen in the warships of the last forty years or so.

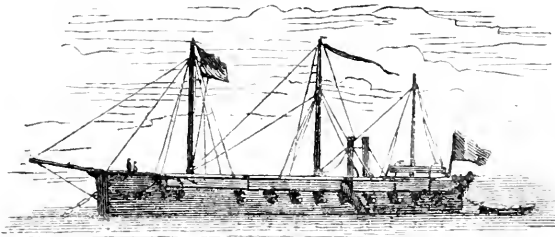
The first warship that belonged distinctly to the present era was the American Monitor. She embodied an absolutely new principle : the employment of a few of the heaviest possible guns against a larger number of lesser pieces. She also embodied an attempt at invulnerability as opposed to partial armour protection. Another integral idea may be said to have been the employment of all the guns on either side instead of having only half the guns available for use against any one target at any given moment.



CYCLOPS—EARLY PADDLE WARSHIP.

Fincham.

Here it may be observed that all the old wooden battleships were in a sense 'armoured.' Specially thick sides were employed for the specific purpose of keeping out projectiles, and it was rare for harm to be done save by shots that entered portholes. The Crimean floating batteries and the early broadside ironclads like the *Gloire* and *Warrior* were lineal descendants of the steam line of battleships that preceded them. They were built of iron instead of wood



FRENCH FLOATING BATTERY IN THE CRIMEAN WAR.
(*Contemporary print.*)

and so had iron instead of wood armour (their armour being nothing but an increased thickness of the side, with wood backing).

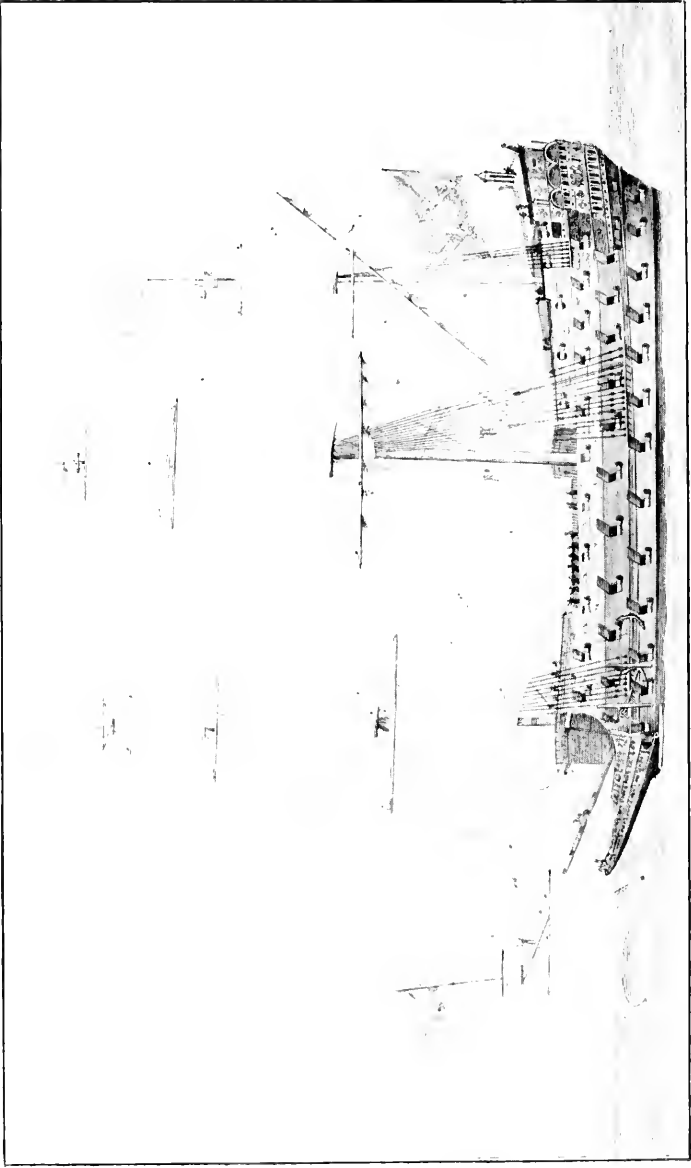
The *Monitor* was not in any way a lineal evolution of past efforts. She was not a new idea in the matter of years, because so far back as the Crimean War, Ericsson, her inventor, had submitted plans of her to the French Emperor. At the same period Captain Cowper Coles of the British Navy actually produced a raft which carried on it a species of turret, and in 1860 he had lectured at the Royal United Service

Institution upon a proposed 'cupola ship.' This ship was to carry no less than *nine* turrets each with a pair of guns in them. Ericsson's idea was not made public till a year later.

Each has been accused of plagiarising the other, and Coles especially has been so attacked; but probably each was working ignorant of the other. A quite novel idea, it has been noticed, usually occurs to two or three different people about the same time. Not, however, that the turret, except *qua* turret, was an absolutely novel notion, because the 'swivel gun' and the 'pivot gun' were existing ideas; and so long ago as the sixteenth century something of the nature of a turret had been proposed. Coles and Ericsson were, however, the first to build turret ships. The American Civil War gave Ericsson the benefit of a battle test and the resulting advertisement.

The Monitor quickly developed into the double turret ship with four heavy guns and there—so far as America was concerned—progress ceased. Improvements in detail were effected, but no further advance was made in the direction of evolution of the original idea.

The British at the time of the Monitor were building broadside ironclads armed with medium guns of only $12\frac{1}{2}$ tons, but large numbers of these guns in each ship. At the same time, however, there was evolved a vessel which in many ways was nearly forty years ahead of her time.



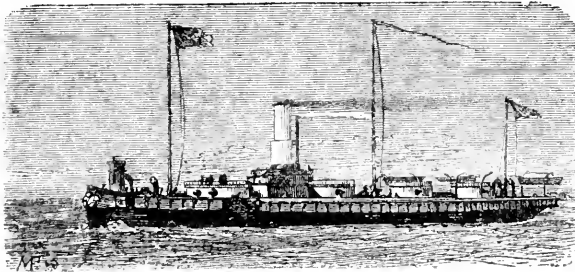
THE ROYAL SOVEREIGN.

Vandereelde.

EVOLUTION OF THE BATTLESHIP 313

This was the Royal Sovereign completed in 1864, an old three decker turned into a turret ship. Being a comparatively small and experimental vessel she only carried guns of 12½ tons, but none the less one general idea embodied in her was not touched again till the Dreadnought was designed in 1904-05.

The Royal Sovereign had no less than four turrets, all in the centre line. The foremost turret carried two



THE OLD TURRET SHIP ROYAL SOVEREIGN. (*From a contemporary print in 'L'Art Naval.'*)

guns, the others only carried a single gun; so she was a long way behind Captain Coles's ideal of 1860; but still the 'ideal' remained an ideal, whereas here was a ship actually built able to use all her guns on either broadside, in other words representing the ideal maximum of broadside power for the power available. It was always obvious that all her guns could be paired. About the same time the four-turreted Prince Albert was built. From the 1860-64 Royal Sovereign design to the 1904-05 Dreadnought design is not a very great

step. An evolved Royal Sovereign would have produced something very akin to the Dreadnought in quite a few years.

The idea, however, was not evolved for forty years. The Monarch and Captain, masted turret ships, were produced, and finally the Devastation, which was the original Monitor idealised to the full. No vessel so perfectly adapted to the battle conditions of the day had ever been conceived.

Meanwhile, everywhere the masted broadside battleship, the evolution of the old wooden ships, continued to be built. In some, as in the Sultan and the later Alexandra, two decks of guns were frankly adopted and probably only a change in fashion prevented three decks from coming in,¹ once that the central box-battery of limited extent became the custom. The question as to whether it were better to build ships carrying a few of the heaviest available guns or ships carrying a larger number of lesser pieces was left quite undetermined by the construction of both types.

The principal naval powers of the period 1870-1880 were England, France, Turkey, Spain, Russia and to a mild extent Germany.

Of these France displayed the most originality. She never attempted any imitation of the British Devastation, but evolved a way of carrying the heaviest

¹ The Alexandra, at the time she finished her career, was a three-decker, as 4-inch quick-firers were mounted above the double battery.

guns in broadside ships. The heavy gun stood for everything in those days. In the *Amiral Baudin* and *Dévastation* types France mounted heavy guns in small barbettes, carried high up for the express purpose of being used in all weathers and for a plunging fire on to the decks of ships of lesser freeboard. She also mounted in the *Baudin* a number of small guns, for no more definite reason apparently than that space chanced to be available for them, because at the date of her design, 1872 or before, there were none of those ships with huge unarmoured areas such as became so conspicuous later on.

Turkey purchased broadside or box-battery iron-clads in England, so also did Germany. Originality was only to be found in Russia, where the amateur spirit of imitation led to the building of some coast defenders with three turrets, and then, towards the end of the period were designed some distinct improvements upon past efforts in the *Tchesma* class, with six heavy guns as the main armament. These vessels took so long to build and were begun so long after their conception that they never attracted the attention that they deserved. The earliest of them was not commenced till 1883, but the design is believed to date from 1880 or before.

Italy took to the turret ship, and vied with England in building vessels which, while nominally improvements upon the *Devastation*, really fell away from that ideal except for their more powerful guns.

It was the day of big guns: Italy ran to 100 tons, England to 81 tons, and France to 75—all pieces of 16 to 17 inch calibre.

The situation was thus:—

(1) France mounting a number of small guns in addition to the heavy pieces, in high freeboard ships.

(2) England and Italy concentrating armour amidships in low freeboard vessels with unarmoured ends *after* France had adopted the secondary battery.

(3) Russia, the amateur of all naval constructing nations, evolving a type that foreshadowed the Dreadnought of 1904–5.

(4) Other nations marking time or copying more or less obsolete plans.

Then, suddenly, Italy startled the world with the *Italia*, designed about 1877–78, an enormous vessel without any side armour whatever, with the four most powerful guns in existence and speed as a tactical feature of the design—a cruiser with a battleship's armament.

No nation followed up the idea, though England in the *Collingwood* has been accused of exaggerating its defects without securing its advantages.

The ease with which the *Italia*'s unarmoured sides could be attacked by small guns was so obvious that the small gun immediately began to have a universal vogue. Though British design reverted to the Devastation idea in the *Victoria* and *Trafalgar*, both designs had small guns as a feature and the cult of the quick-

firer of six inches or thereabouts was supreme for the rest of the century.

France in 1889 laid down the *Brennus* which was really a *Trafalgar* of higher freeboard; and Germany in 1890, as the 'blundering amateur,' laid down four *Brandenburgs*, ships with six big guns and no secondary armament worth the mention. Both types were regarded unfavourably, and the *Brandenburg* with her six heavy guns was more or less an object of derision—so derided that Germany followed with a type of ship in which everything was sacrificed to a huge quick-firing armament. England alive to the dangers of low freeboard evolved the present Royal Sovereign type about 1889—ships which when all is said and done were nothing but large *Devastations*, more built up and carrying ten secondary guns for which the *Devastation's* armoured ends were sacrificed.

The *Majestics* differed by embodying a wide belt of medium thickness amidships instead of a narrow thick one. More protection was introduced for the quick-firers, which were advanced to a dozen, and right away on to the *Queen*, *Majestics* were built without any radical change beyond the introduction of a mild belt forward.

Every nation copied the 1889 Royal Sovereign idea in its own way. France did so by keeping the belt complete, but otherwise adhered to the idea of a couple of heavy guns fore and aft and small secondary guns in between.

The United States, just beginning to build sea-going ships, did at first succeed in evolving a novelty in the *Indiana*, an effort after carrying something better than the four heavy and many light guns. Intermediate guns were mounted, but the idea was not developed and subsequently American versions of the *Majestic* were built. Germany like America preferred a continuous battery to casemates for the secondary guns, but the likeness between the *Majestic*, *Wittelsbach*, *Alabama* and *Maine* is very clear. France after some experiments with guns mounted singly in lozenge formation reverted to that *Brennus* idea which foreshadowed the *Majestic*, and the *Suffren* is little but the *Majestic* with a complete waterline belt. In every ship it is only the *Devastation* with higher sides and a number of little guns added, and as a rule the less the likeness to the *Devastation* the poorer the ship.

At the end of the century the 6-inch gun was paramount; and *Yalu*, in the Chino-Japanese war, was proved (as all battles usually are) to indicate the excellence of current ideas. Only the more or less amateur designs of America showed a hankering for some secondary gun superior to the 6-inch. The 8-inch returned to American ships and Italy copied in the *Benedetto Brin* the idea of three calibres. So did the British in the *King Edward*, which as originally designed was intended to carry four 12-inch, eight 7·5- and ten 6-inch. The 7·5 were to be paired in turrets

replacing the upper deck casemates of the *Majestic*, though at a later stage of construction a 9·2 was put in place of each pair of 7·5. Italy and Germany evolved ships with something heavier than the 6-inch as secondary gun, while France reverted to her early ideas and in the *République* produced a ship with all guns high up as the main feature.

When the *King Edward* was laid down the 6-inch fetish was well under suspicion, and the *Lord Nelson* type was evolved as a *King Edward* without any 6-inch and with more 9·2 on the deck above.

The conception of a ship with nothing but 12-inch guns belongs to Colonel Cuniberti, the distinguished Italian naval architect, who in 1903 aroused a certain amount of derision and a good deal of suspicion as to flightiness by his 'Ideal Battleship for the British Navy'—published in 'Fighting Ships' of 1903. This ship was of 17,000 tons, carried twelve 12-inch guns, had a 12-inch belt and 24-knot speed. She was an enlarged *Vittor Emanuele*. The following year (1904) some Italian officer writing in the '*Rivista Marittima*' discussed the idea and suggested that to be fully efficient the ship should abandon the old idea of some guns firing on one side only. The Cuniberti ship bore seven 12-inch of her twelve on the broadside. The Italian officer suggested four turrets in the line of keel—the old *Royal Sovereign* and *Prince Albert* idea. He put two guns in each, and—to keep the turrets small—placed one gun on top of another, it being apparently

impossible to squeeze the four turrets in in any other way.

Early in 1904 came the Russo-Japanese war and the swift discovery that only big guns were of much use in war. All nations at once abandoned the small gun idea (it is to be noted that they had begun to do so before the war began). The first new type warship to be laid down was the British Dreadnought—practically the old Russian idea of the *Tchesma* with a couple of extra big gun positions fore and aft in place of the *Tchesma*'s secondary pieces. A bit of the *Brandenburg* may also be found in her.

The Dreadnought era marks the first real step (except isolated efforts) since the *Devastation*. Naval architects beyond taking advantage of improved guns, armour and speed had been working back while seeming to go forward, or rather they have now returned to the main line from which they had been diverted.

At the end of 1905 all nations were preparing to lay down Dreadnoughts, ships easily able to sweep the seas of earlier models.

Eventually no doubt the Dreadnoughts will pass before some type of ship (probably a *Devastation*) carrying infinitely heavier guns than obtain to-day and therefore fewer of them. And then, presently, by dint of increases in dimensions the old cycle will be worked out again.

V

'FITNESS TO WIN

IN concluding this book some definition of 'Fitness to Win' should perhaps be attempted, though it must be confessed that it is a singularly elusive thing to define. So elusive indeed, that it was originally intended not to make the attempt, but to leave it at that vague conception which most of us hold of the qualities entailed. This, however, is hardly satisfactory, consequently an attempt is here made, if not to define very exactly what it is, at least to indicate to some extent what it is not.

It has been shown throughout this work that in *every* war almost the only solid fact common to all is that 'the fittest to win' were the eventual victors. It has been shown that these victors often lacked technical skill equal to that of their opponents, or were tactically inferior, strategically inferior, or had not such good ships or weapons. But they always had the 'fitness to win' quality which made up for every other deficiency and brought certain victory at the last. The 'fittest to win' have never gone under before superior *matériel* or before superior weapons.

Sometimes, as in the case of the Romans against the Carthaginians, their original deficiencies in *matériel* have been enormous; sometimes, as in the case of the Japanese against the Russians, they have started with a superiority (more or less) in *matériel*, but the eternal verity of 'fitness to win' is at once obvious if we imagine sides to have been changed. We can be quite sure that the Russians would never have won, would never have had any more success, had they changed fleets and positions with the Japanese. We can produce nothing to show that the invasion of Korea would not then have been the invasion of Japan, and the siege of Port Arthur the siege of Sassebo, and the voyage of the (Japanese manned) Baltic Fleet one long demonstration of the 'silent resistless pressure of Sea Power.' This we know, because with the best will in the world we cannot logically conceive of any other result. But if we ask ourselves Why? we certainly cannot give a clear and direct answer, we can do little if anything more than answer 'Because the Japanese were Japanese—because the Russians were Russians.'

Allowing that; can we draw any real lessons of value from what the Japanese did with Japanese ships? As suggested in an earlier chapter, if Togo and his men had changed fleets and positions with Rogestvensky and his men the lessons of Tsushima would be the exact opposite of what they now are; and in similar case the lessons of Trafalgar. No one can prove this logically, but no one is likely to try to

prove it otherwise. It might indeed be argued that Togo would never have been caught in the formation in which Rogestvensky was discovered, but this is not easy to prove. Rogestvensky's formation, supposing (as there is every reason to suppose) that he expected torpedo attack only, was not a bad formation at all and it is not easy to conceive of Togo, with Rogestvensky's general orders and with Rogestvensky's special problems to be solved, doing anything very materially different up to the hour of battle.

Yet we cannot conceive of his losing the fight, simply because we cannot throw away our conception of Japan as the ‘fittest to win.’ We can arrive at that conclusion in two ways—

(1) By an unprejudiced study of all past naval history.

(2) By the mere exercise of ordinary common-sense.

And so with any other war. While a war is actually in progress we frequently see a dozen reasons why the losing side ‘might win.’ Every careful student saw ways in which on paper Rogestvensky and the Baltic Fleet might possibly win. It is often impossible while a war is in progress to estimate the ‘fitness to win’ factor correctly—in part, because it is so intangible a thing even at the clearest—in part, because it involves qualities that only war brings to a head.

Now as to these qualities. A crude desire to ‘kill

the enemy' seems ever to have been a most valuable asset. Nelson, when he said that a good English officer should 'hate a Frenchman like the devil' was very crude, but very far-seeing. However shocking ethically, to hate the enemy with a living personal hatred is undoubtedly a most valuable practical asset.

The Japanese had this quality to a marked degree in the war with Russia—to kill Russians was perhaps the main objective present to every man of them. The Russians undoubtedly disliked the Japanese, but the very contempt for the Japanese affected by Russian officers prevented them from hating properly. As for the Russian men, there are no indications that they hated the Japanese at all. They tried (very ineffectually as a rule) to kill them when ordered to, but there the matter ended. The Japanese tried to kill with a definite object, and the whole Japanese nation was behind them urging to kill.

An instance of the value of the killing spirit is to be found in the South African War, which would probably have ended in a compromise had there been no Majuba before it. Some genius raised the 'Remember Majuba' cry and created a bloodthirstiness that had previously been lacking. The cry was greatly deplored by arm-chair moralists, but it won the war. The memories of Iéna, so carefully worked up in Germany, probably stood the Prussians in as good stead as any of the dispositions of the great Moltke; he might plan, but the factor of Prussian hate and desire for

vengeance was most valuable in the carrying out of his designs. If France ever beats Germany in the future *la revanche* will go further than any military genius. What Nelson did with hate we know, though we seek the secret of his genius in other and more showy qualities. It is easier and pleasanter to rouse admiration for his tactical and strategical qualities, or sentiment over Lady Hamilton, than to lay a finger on that crude elemental quality of hate and desire to kill the enemy.

To go further back—back to perhaps the very greatest man who ever lived—Hannibal. Hannibal was reared from early childhood to hate the Roman with all his strength. In the power of that hate, over obstacles and difficulties of the most tremendous nature, Hannibal marched to the ruin of Rome and never met with failure till the attractions of a petticoat swamped the single-mindedness of his hate, and he was no longer able to infuse into his legions the desire to kill the enemy as the mainspring of their action.

Capua spelt ruin to Hannibal and his army. Had Lady Hamilton been an ordinary woman there is little doubt that Trafalgar might not have been. It chanced that she was a woman of far-seeing ambition—perhaps the story of Capua was not unknown to her and she had the brain to read its lessons. In any case she never came between Nelson and his fervent desire to kill the enemy, but had the wit to accentuate it. Those ‘services to the country’ in connection with which

her claim was so scornfully denied were greater perhaps than has yet been realised; certainly she was better able to have prevented Trafalgar than Villeneuve. Scores of books have been written on the strategies and tactics of the Trafalgar campaign, scores of lessons have been drawn therefrom, yet never a one has sought to pierce through the tactical embroidery and see that the Trafalgar campaign resulted as it did, because a clever woman accentuated instead of diminished Nelson's fitness to win and through Nelson the fitness to win of the British Navy.

It is probable that Fitness to Win embodies little else besides the fixed desire to kill the enemy. Good seamanship, good gunnery, good torpedo, good engineering—all these things may aid it, but apparently *all* are not absolutely essential. If essential, or in so far as they are essential, the desire to kill the enemy will produce them. If good gunnery be essential to fitness to win, the fittest to win will of necessity be good practical gunners, compelled thereto by instinct, though good gunnery will not of itself make them fit to win. Russian target practice, before the war was as good as or better than the Japanese.

For instance, a few years before the war Russian gunners trained by Admiral Rogestvensky fired under weigh at 12 knots at targets towed at 10 knots through the gaps of a squadron that steamed between them and the target at full speed in the opposite

direction. The thing would seem incredible, were it not vouched for by any number of German officers who witnessed it. Nothing done by the Japanese could compare with this.

Capua, and its share in the ultimate ruin of Hannibal and his army, has already been referred to. Capua spelt ease, comfort, and relaxation—all things to negative fitness to win. The danger lies there to-day as much as ever it did. Modern warships tend to become floating hotels chiefly by the advent of very rich men into the officer class. As officers at one and the same time efficient and very wealthy are to be found, the matter is somewhat complicated; but as a general principle the outlook of any navy depends much upon how few rich officers it may have.

Moreover the existence of rich yet efficient officers, in the British Navy at any rate, is to be explained by certain facts that recently came to light, when a midshipman whose father was sufficiently foolish to allow him six hundred a year or so pocket money, was submitted to a process of basting till he should come to realise that wealth did not make him different from his poorer messmates. In this particular case the midshipman sought vengeance with a revolver. An Admiralty, presumably ignorant of the existence of such a thing as fitness to win, weakly gave in to an hysterical public agitation, allowed the wealthy midshipman to retire unpunished for his attempted murder and punished those who, however brutal their methods,

were unquestionably acting so as to preserve the 'fitness to win' quality in the Fleet.

Turning to foreign navies, the French Navy is as eaten into as any by the 'steam yacht' element. Perhaps because France is a republic it takes its own peculiar form. A wealthy junior officer of good family in a French warship is by far the most important person on board: even his captain being subservient to him. Ease and luxury are the first considerations in the French fleet. It is often difficult to discern fitness to win or its absence in the days of peace, but it is hard to see any use for French warships save for the giving of balls and acting as mark boats at regattas. There is not the slightest doubt in the world that in a war between France and Germany the French fleet would be crumpled up and destroyed far worse than were the French armies in the war of 1871. There are brave and brilliant officers in the French Navy but the 'steam yacht' swamps them utterly.

As the French, so the Russians were and are. Charming hosts, delightful companions, with here and there a brilliant man, but 'steam yachtsmen' almost every one. Exceptions do not count: it is the mass that tells.

The Italians are not much better. Lissa ended their last naval war and another Lissa is likely to end their next. Yet the percentage of individual genius in Italy is perhaps higher than anywhere else.

The United States Navy is in a somewhat different state, but its difference is of degree rather than aught else. The men have little to bind them to the Service, and a man who is a bluejacket this year may conceive that he had better be a dentist the next. The officers are mostly too old to have energy, they tend to be fond of ease and comfort and thoroughly self-satisfied. There are men among them distinctly otherwise. There are fine ships but they do little war training. There is very little fitness to win to be perceived. Yet America is a young nation, and one takes it for granted that there is latent fitness somewhere unperceived. This may be; America at any rate rests confident that it is there.

Of the Austrian Navy not much is known, but what little there is is suggestive of fitness. The same applies to the Swedish and Norwegian navies.

The Japanese Navy is absolutely free from the ‘steam yacht’ element. It is extremely doubtful whether it excels in anything, certainly before the war it had no very excellent gunnery or torpedo men and the percentage of genius is lower than in any navy. Even Admiral Togo never did much to merit the term of ‘genius’: no one else was even conspicuous. Only its high *average* was remarkable. Yet its fitness to win was made evident, as clear as noonday.

There remains the German Fleet. In the matter of ships the German Navy is of no great account: it probably occupies the fifth place—that is just below

the Japanese. There are few if any 'steam yachtsmen' in the German Navy, and, like the Japanese, German officers have few interests outside their profession. They are great people for 'spit and polish,' but this is just an instance of how 'spit and polish' is not of itself necessarily bad. A German engine-room is as clean almost as the gun deck of the ships of any other navy, but German steaming is invariably good.

There is next to no genius in the German Navy: indeed indications of its absence have been conspicuous features of German manœuvres. There is indeed nothing remarkable except a steady plodding thoroughness, obtained to some extent at the expense of initiative. But it is 'thorough' to the core. There is a peculiar business-like spirit, impossible to explain, but of the existence of which there is no question. The Japanese have something of the sort, but not quite of the same nature, not quite the same thing as the German naval spirit. It is, so far as one can judge in peace, the victorious spirit; certainly it savours much of fitness to win, though German guns are weak and German ships are poor.

As an instance of German thoroughness a visit of a German fleet to Plymouth may be mentioned. In that fleet every bluejacket knew, not only the forts and the guns in them, but the arcs of fire of all those fort guns and their dead angles. They knew everything there was to know. It was useless knowledge

perhaps; but the spirit which led to its study was anything but useless. The knowledge of what is inside carefully guarded forts is of course common to the Intelligence Departments in all navies and to any officer who takes the trouble to read the matter up. The German officers not only read it up but lectured on it to the petty officers who in turn lectured on it to the men.

Knowledge is not fitness to win,¹ but the spirit suggested by the men seeking after knowledge suggests the fitness. It suggests a very keen desire to ‘kill the enemy’ in the day of battle.

These views about various navies perhaps seem to have been put down with a candour that may in several cases be displeasing to many. But they are not so much a matter of the navy concerned as of the race. The dividing line between fitness and the absence of it is rarely fully visible till there is a war, because fitness is made up of national qualities, which may in some cases atone for and in others negative the symptoms or lack of symptoms of fitness exhibited by the navies only.

In attempting to define Fitness to Win I feel like one groping for a fact in the darkness. Narrowed down to a ‘desire to kill the enemy’ it is, as already

¹ The Russian officers were quite *au fait* with most details of the Japanese Navy, while in the land operations Russian maps were always used where possible by the Japanese as being far more accurate and thorough than their own.

observed, crudely elemental. Carried to its logical sequence it robs many great men of the past of the tactical genius with which history has invested them. It makes waste paper of all teachings about the strategies and tactics that have led to victory in the past; for, the theory accepted, it matters nothing that Rodney cut the line on the day that made his name. Had his line been cut instead victory would still have been his, because he was Rodney and able to infuse fitness to win into his men, and because those men had it latent in them. How Nelson went into action at Trafalgar becomes no longer of significance or even of interest, because the way he placed his ships is a trivial detail beside the fact that the fitness to win lay with him and his men. Having the ships and guns he won as he did; had he not had them, could Villeneuve have won? Yes—in so far as the possession of the necessary ships and guns is part of the fitness, but otherwise No. Rome devoid of any Sea Power succeeded in beating a great sea empire upon the sea; and so, Nelson and his men, suddenly robbed of all their battleships would probably have succeeded still. They would have anticipated the shell or the torpedo, or resuscitated the Roman battleship idea, so only the nation were sufficiently fit to win.

So wild the fancies to which a logical thinking out of the 'Fitness to Win' theory may lead. It is a great deal easier to sit down and say 'Because he made certain moves he obtained an advantage, because

he made (or is believed to have made) certain others, he obtained more advantages, these led to others yet again, and so, step by step, to victory.’ It is all so simple and clear, and there is the analogy of the chess-board to make it clearer and simpler still. It is so simple to point out the obvious road to victory, to say—‘Here is the road to future victory for those who will study, not precisely in the same details but along the same general lines and by the observance of great truths that do not alter.’

Though history teem with incidents in which the selfsame path that led to victory with one led to defeat with another, it is easy to get over this by believing in the exception that proves the rule. It is easy to overlook that of two trees, though the branches of both be trimmed identically, one will weather the winter gale and the other not; though both have rooted equally, one is in stronger soil. No doctrine as to the training of branches will save the tree that fell.

This book was begun, some ten years ago, principally with the object of differentiating between the relative value of *matériel* and *personnel* in various naval wars. Only gradually did it take its present form, only gradually appeared the idea that under all the strategies lay the main root truth of the ‘survival of the fittest test,’ that in all ages men have owed victory only to just what prehistoric man trusted to for victory, and that all strategies and tactics are

merely embroidery about this primal fact. Save in so far as he develops in his men and nation this fitness to win, the leader is of little more account than his officers, his men, and the mass of the nation whence they all come. And the great men of history have been not those who have planned the most brilliant strategies but those who have been able to carry out what they have planned through those below them being also inspired with the single-hearted desire to destroy the enemy. The full possession of that desire has implied caution where caution was required, rashness when rashness was the better way, cunning when cunning was needed ; but always because of the fulness of the desire. It is the secret of victory in the world of Nature and was as fully in evidence with battleships and destroyers in the Sea of Japan as with triremes round the Islands of the Ægean in the centuries long since dead. It was as great a power then as now, no greater and no less, since it alone is the eternal verity in the struggle to control the seas.

INDEX

ABILITY, 275
 Aboukir Bay, battle in, 120
 Actium, battle of, 72 *et seq.*, 119,
 255, 262, 283, 301
 Adherbal, 57
 Admirals :—
 Adherbal, 57
 Agrippa, 73
 Alcibiades, 36, 49, 116
 Alexieff, 88
 Antony, 72, 255, 258, 283
 Boodes, 45
 Calder, 112
 Collingwood, 248
 Cordova, 119
 Cornwallis, 112, 242
 Darby, 119
 De Grasse, 119
 D'Estaing, 119
 Drake, 80, 117, 275, 283
 Duilius, 47
 Dumanoir, 4
 Effingham, 117
 Guichen, 119
 Hanno, 53
 Hasdrubal, 61
 Hood, 119
 Howe, 303
 Hughes, 119, 121
 Kaminura, 114, 245
 Lysander, 37
 Makaroff, 92
 Medina Sidonia, 80
 Monk, 113, 162
 Nebogatoff, 104, 108, 293
 Nelson, 2, 4, 11, 32, 75, 114, 116,
 121, 124, 138, 215, 219, 242,
 248, 254, 275, 284, 295, 324,
 332
 Octavius, 73, 301

Admirals :—
 Phormio, 11, 29, 32, 117
 Pompey, 119
 Regulus, 49
 Rodney, 332
 Rogestvensky, 75, 84, 116, 124,
 140, 143, 202, 256, 260, 264,
 322, 326
 Saumarez, 120
 Scipio, 63, 83, 275
 Shovel, Sir Cloudesley, 11
 Stark, 92
 Suffren, 119, 121
 Togo, 20, 36, 75, 87, 112, 116,
 120, 140, 195, 213, 264, 322,
 329
 Uryu, 90
 Villeneuve, 19, 76, 218, 221, 242
 Wiren, 92, 95, 97
 Witgeft, 93, 122
 Ægentine Islands, battle of, 51
 Ægospotami, battle of, 26, 33, 36,
 262, 287
 Agamemnon, 26
 Agrippa, 73 *et seq.*
 Alabama, the, 150
 Alcibiades, 36, 49, 116
 Alexander the Great, 117
 Alexandra, the, 314
 Alfred, King, 302
 Algeciras, 120
 Americans, 48, 101, 167 (*and see*
 United States)
 Amiral Baudin, guns in the, 315
 Anglo-Boer War, 25, 131, 246,
 324
 Anglo-Dutch War, 113, 150
 Anti-Belleville agitation, the, 171
 Antony, 72, 255, 258, 283
 Arca, 15, 273

- Armada, the Spanish, 77, 117, 219
 Armchair moralists, 324
 Armour, 289, 308, 311, 328
 Artillery Corps, the Russian, 285
 Athenians, 11, 24 *et seq.*, 34, 149,
 257, 286, 291, 301
 Atilius, 48
 Atlantic, 16
 Australia, 180, 187
 Austrians, 261, 329
 Austro-Italian War, 147, 261, 328
- BALTIC FLEET**, the, 15, 75, 77, 83,
 140, 200, 322
 Base Power, 126 *et seq.*
 Battle of Aboukir, 120
 Actium, 72, 119, 255, 262, 283,
 301
 Ægentine Islands, 51
 Ægospotami, 26, 33, 36, 262,
 287
 Algeciras, 120
 Angamos, 153
 Cannæ, 62, 117
 Cape St. Vincent, 303
 Chemulpo, 88, 193
 Cyzicus, 33, 36, 116
 Ecnomus, 49
 Kinburn, 130
 Lepanto, 38, 74, 262, 268, 270,
 302
 Lissa, 118, 261, 328
 Metaurus, 63, 66
 Naupaktis, 11, 29, 117
 Navarino, 120
 Nile, 4, 120
 Round Island, 94, 112, 121,
 123, 192, 264
 St. Lucia, 119
 Salamis, 10, 118, 120
 Santiago de Cuba, 131, 229
 Sphacteria, 120
 Trafalgar, 3, 93, 116, 143, 260,
 264, 293, 296, 322, 325
 Tsushima, 93, 116, 143, 260,
 264, 293, 300, 322, 324,
 334
 Tyndaris, 48
 Utica, 65, 67
 Yalu, 13, 74, 264, 304, 318
 Zama, 70
 Battleships, 282, 305, 310
- Bayan, the, 92 *et seq.*
 Belleville boilers, 176, 268
 Belt protection, 307
 Benedetto Brin, the, 318
 Blockades, 19
 Blocking, 91
 Blue Water School, the, 45, 50,
 56, 59
 Boer War, *see* Anglo-Boer War
 Bombardments, 131, 212
 Boodes, 45
 Borodino, the, 97, 104, 301
 Box batteries, 314
 Brandenburg, the, 317, 320
 Brennus, the, 317
 Brest, 111 *et seq.*, 244
 'Bricks and Mortar,' 50
 British, 75, 77, 121, 150, 167, 240
 244, 302, 308, 326
 British press, 246
 Broadside fire, 115
 Broadside ships, 312
 Bulk, 306
- CALDER**, 112
 Canada, 180
 Cannæ, battle of, 62, 117
 Cannon, introduction of, 17
 Cape St. Vincent, battle of, 303
 Captain, the, 314
 Capua, 325
 Carthaginians, 39 *et seq.*, 83, 98,
 149, 179, 249, 255, 258, 322
 Caution, 334
 Chance, 275
 Chemulpo, battle of, 88, 193
 Chili-Peruvian War, 146, 153, 161,
 261
 Chinese, the, 291, 304
 Chino-Japanese War, 74, 304
 Civilisation, its effects on war, 163
 Claudius, 52
 Cleopatra, 73
 Clypæa, 50
 Coaling, 157, 173, 198, 268
 Coles, Captain, 311
 Collingwood, 248
 Colonies, 179 *et seq.*
 Commerce, attack and defence,
 142, 145, 154, 161
 Complications, international, 163
 Concentration, 122

- Confederate States, the, 155
 Confidential matters, 244
 Construction, 299, 308
 Contraband, 196
 Convoys, 186
 Corbett, Julian, 17
 Cornelius Scipio, 45
 Cornwallis, 112, 242
 Corsica, 48
 Corvi, the, 46, 56, 272
 Courage, 275
 Crash tactics, 272
 Crimean War, 69, 130, 227, 237, 311
 Cruisers, use of, 170, 282, 305
 Crusaders, 302
 Cuniberti, Colonel, 319
 Cunning, 334
 Cupola ship, Coles's, 312
 Cutting the line, 332
 Cycle tendency, 274, 288
 Cylindrical boilers, 267
 Cyzicus, battle of, 33, 36, 116
- DANES, the, 302
 Defence, 299
 D'Estaing, 119
 De Grasse, 119
 Deutschland class, the, 299
 Devastation, the, 314, 320
 Dévastation, the, 315
 Dimensions, 296 *et seq.*
 Divided squadron, the, 115
 Docks, 305
 Dockyards, 131
 Dogger Bank affair, the, 201 *et seq.*
 Drake, 80, 117, 275, 283
 Dreadnought, the, 234, 313, 316, 320
 Drepanum, 51 *et seq.*, 70
 Duilius, 47
 Dumanoir, 4
 Dutch, 113, 151, 180
 Dynamite gun, 131
- ECNOMUS, battle, 49
 Efficiency, 289
 Effingham, 117
 Egyptians, 277
 Electric motive power, 268
 Elementary ships, 277
 Elephants, 50
- Engineering, 326
 Engineers, 285
 English, 19, 77, 198, 212, 218, 239.
 See British
 Ericsson, 311
 Eternal verities, 163, 334
 Evasion, 233
 Evolution, 277, 285
- FERROL, 112
 Fetishes, 288, 289
 Fighting tops, 278
 Fire-ships, 17, 263
 Fitness to win, 22, 71, 125, 149, 275, 287, 321, 326, 334
 Fleet in being, 67
 Floating batteries, 129, 311
 Forts, 128 *et seq.*
 French, the, 19, 121, 139, 193, 234, 242, 250, 258, 293, 294, 311, 314, 328
 Fuji type, the, 300
- GALLEYS, 17, 263
 Garrison artillery, 135
 Genius, 275, 329
 Germans, 134, 150, 183, 191, 212, 224, 235, 241, 292, 294, 315, 317, 329
 Gibbon and Sea Power, 21
 Gibraltar, 153
 Gloire, the, 311
 'Grand War,' 145
 Great Harry, the, 302
 Great War, the, 19, 85, 112, 139, 169, 172, 215, 251
 Greek fire, 56
 Greeks, 11
 Guerre de course, 134, 145, 161
 Guichen, 119
 Gun-layers, 290
 Gunnery, 81, 104, 117, 132, 140, 263, 275, 290, 296, 326
- HAMILCAR Barca, 53, 61, 69
 Hamilton, Lady, 4, 325, 326
 Hannibal (Admiral), 46, 272
 Hannibal (Second Admiral), 51
 Hannibal (the Great), 53, 61 *et seq.*, 249, 255, 325

- Hanno, 53
 Harry Grâce à Dieu, the, 302
 Hasdrubal (the Just), 61
 Hasdrubal, 63
 Hate, value of, 324, 325
 Hatsuse, the, 93, 300, 304
 Hiero, 64
 High explosives, 131
 History, lessons of, 59, 118, 145, 267, 286, 303, 306, 323, 333
 Hood, 119
 Howe, 303
 Huascar, the, 147, 153
 Hughes, 119, 121
- IDAHO class, the, 299
 Ideal battleship, the, 319
 Illyrian pirates, 176
 Inferiority, 259
 Influence of Sea Power, 20, 33, 55, 62, 68, 70, 99, 148, 238, 251, 272, 276, 322, 332
 Intelligence Department, 331
 Internal combustion engines, 268
 International complications, 167
 International law, 162, 190 *et seq.*
 Invasions, 49, 66, 98, 215
 Ironclads, 136
 Italia, the, 316
 Italians, the, 147, 261, 315, 328
- JAPANESE, he, 15, 84, 121, 132, 147, 165, 191, 223, 231, 238, 244, 258, 275, 293, 322, 329
- KAISER class, the, 296
 Kamimura, Admiral, 114, 245
 Kiao Chau, 191
 Killing the enemy, 291, 324, 331, 334
 Kinburn, bombardment of, 130
 King Edward, the, 318
 Klado, Captain, 30
 Korea, 54, 69, 195
 Kowshing affair, the, 196
 Kuropatkin, 246
- LADY HAMILTON, 4, 325, 326
 Ladysmith, 131
- Laughton, Professor, 80, 119, 249
 Lepanto, battle of, 38, 74, 262, 268, 270, 302
 Lilybæum, 49, 51, 65
 Lissa, battle of, 118, 261, 328
 Long-range bombardments, 131 *et seq.*
 Lord Nelson, the, 307
 Lutatius, 63
 Lysander, 37
- MAGO, 63, 68
 Mahan, Captain, 1, 20, 39, 62, 63, 111, 149, 152, 179, 256, 303
 Majestic class, the, 317
 Malacca, the, 168, 199
 Marine Artillery, 285
 Martello towers, 128, 130
 Mastodons, 304, 305
 Masts and yards, 137, 268
Matériel, 321
 Medina Sidonia, 80 *et seq.*
 Mediterranean, 16
 Members of Parliament, their menace, 175, 308
 Mercantile ports, 128
 Merchant ships, 165
 Mercurius, Cape, 50
 Merrimac, the, 37
 Messina, 45, 49
 Metaurus, battle of the, 63, 66
 Metternich, Prince, 221
 Mikasa, the, 121, 300
 Military branch, the, 283, 285, 288
 Mines, 97, 100
 Moderate dimensions, 296 *et seq.*
 Moltke, 324
 Monarch, the, 314
 Monitors, 129, 310
 Monk, 113, 162
 Motive power, 269, 271
- NAPOLEON, 2, 78, 216, 249, 275
 National insurance, 177
 Naupaktis, battle of, 11, 29, 117
 Naval construction, 299
 Navarino, 120
 Navy League, 182
 Nebogatoff, 104, 293
 Nelson, 2, 4, 11, 32, 75, 114, 116, 121, 124, 138, 215, 219, 242,

- 248, 249, 275, 284, 295, 304,
324, 332
Nelson, the Lord, 307
Neutrals, 157, 192
Nile, battle of, 4, 120
Non-technical public, 162
Northerners, the, 153 *et seq.*, 156
Norwegians, the, 329
Numerical superiority, 296
- OARS, 14 *et seq.*, 267, 270, 277
Octavius, 73, 301
Offensive, the, 176, 299
- PACHYNUM, Cape, 52
Parliamentary interference, 178
Parma, 78
Passaro, Cape, 49
Passive defence, 126
Patriotism, 97
Peloponnesian War, 11, 24 *et seq.*,
46, 118, 149, 257, 282, 287
Perfection, dangers of, 292
Persians, 10
Personnel, 305, 307
Peruvians, 146
Philip of Spain, 37
Phœnicians, 10, 39, 179, 288
Phormio, 11, 29, 32, 117
Piracy, 150, 166, 174
Piræus, 31
Pivot guns, 312
Playing to the gallery, 248
Polycrates, 26
Pompey, 119
Port Arthur, 20, 87 *et seq.*, 110,
120, 131, 140, 148, 228, 240, 322
Portsmouth, 126, 230
Press laws, 236
Prince Albert, the, 313
Public opinion, 163
Punic War, 39, 98, 230, 287, 301
- QUEEN, the, 317
Quick firers, 316
- RADIUS, 267, 273
Raids, 186
Ram, 17, 269
- Range, 274
Rashness, 334
Regulus, 49
'Remember Majuba' cry, 324
République, the, 319
Richard I., 302
Rich officers, 327
Rodney, 332
Rogestvensky, 75, 84, 116, 124,
140, 143, 202, 256, 260, 264, 322,
326
Romans, 39 *et seq.*, 98, 117, 149,
171, 222, 256, 322, 332
Round Island, battle of, 94, 112,
121, 123, 192, 264
Rowers, 270, 277
Royal Sovereign, the, 313, 319
Russians, 5, 20, 69, 83, 120, 148,
165, 192, 235, 238, 240, 258,
275, 291, 304
Russo-Japanese War, 20, 25, 54,
75, 87 *et seq.*, 147, 202, 223, 258,
275
- SAIL, 16, 267, 269, 299
Salamis, battle of, 10, 118, 120
Santa Cruz, 78
Santiago de Cuba, 131, 228
Saracens, 302
Sardinia, 46, 60
Sassebo, 322
Saumarez, 120
Scipio Africanus, 63, 83, 275
Sea aptitude, 288
Seamanship, 81, 284
'Seamen,' 19, 138, 282, 288
Sea Power, 20, 33, 55, 62, 68, 70,
99, 148, 238, 251, 272, 276, 322,
332
Seaworthiness, 289
Secondary guns, 316
Secrecy, 238 *et seq.*
Sevastopol, 69
Seventy-fours, 298
Ships :—
Alabama, 150
Alexandra, 314
Amiral Baudin, 315
Annunciada, 80
Asahi, 301
Askold, 148
Aurora, 202

Ships :—

Bayan, 92, 148
 Bellerophon (old), 303
 Borodino, 97, 104, 301
 Captain, 314
 Deutschland class, 299
 Devastation (British), 314, 320
 Dévastation (French), 315
 Dreadnought, 234, 313, 316, 320
 Dmitri Donskoi, 201
 Fuji, 300
 Georgia, 154
 Gloire (old), 311
 Great Harry, 302
 Great Michael, 302
 Harry Grâce à Dieu, 302
 Hatsuse, 93, 300, 304
 Huascar, 147, 153
 Idaho, 299
 Independencia, 261
 Italia, 316
 Iwate, 299
 Kaiser class, 296
 Kamchatka, 203
 Kearsage, 136
 Kniaz Potemkin Tavritchesky, 142
 Kowshing, 196
 Malacca, 168, 199
 Merrimac, 37
 Mikasa, 121, 300
 Mississippi, 299
 Monarch, 314
 Monitor, 37, 129, 310
 Naniwa, 87
 Nelson, 307
 Novik, 91
 Olustee, 153
 Oushakoff, 97, 107
 Petropavlosk, 92
 Prince Albert, 313
 République, 319
 Retchitelni, 192
 Révolutionnaire, 303
 Royal Sovereign, 317
 Royal Sovereign (turret), 313, 319
 Rurik, 107
 Santissima Trinidad, 303
 Shenandoah, 154
 Souvaroff, 204
 Suffren, 319
 Sultan, 314

Ships :—

Sumter, 153
 Swiftsure, 307
 Talahasse, 153
 Tchesma, 315, 320
 Thunderer, 136
 Trisvittelina, 136
 Triumph, 307
 Tsarevitch, 121, 191, 193
 Variag, 193
 Victoria, 316
 Warrior, 311
 Yashima, 93, 240, 300
 Yoshino, 93
 Shovel, Sir Cloudesley, 11
 Six-inch guns, 127, 317, 318
 Skill *v.* numbers, 12
 Small guns, 316
 Soldiers at sea, 273, 288
 Southerners, the, 155
 Spain, 180
 Spanish-American War, 258
 Spanish Armada, 77, 117, 219, 283, 302
 Spanish sea power, 61, 283, 302
 Specialists, 283
 Speed, 289
 Sphacteria, 120
 Spit and polish, 288, 289, 333
 Stability, 289
 Stark, 92
 Steamers, early, 267
 Steam power, 18, 268, 285, 295
 'Steam-yacht' element, 328
 Stoessel, 95
 Strategy, 124, 139, 254, 262, 272, 333
 Submarines, 197, 241
 Suffren, 119, 121
 Sultan, the, 314
 Swedes, 329
 Swiftsure, the, 317
 Swivel guns, 312
 Syracusans, 15, 33, 35, 46, 56, 66, 272, 282
 TACTICS, 13, 28, 32, 36, 124, 139, 254, 268, 290, 297
 Tchesma, the, 315, 320
 Three-mile limit, 100
 Thucydides, 11, 21, 301
 Timed operations, 18

- Ting, 74
 Togo, 20, 36, 75, 87 *et seq.*, 112,
 116, 120, 140, 195, 213, 264, 322,
 329
 Torpedoes, 17, 101, 140, 228, 263,
 290, 323
 Toulon, 111
 Trade, 159
 Trafalgar, 3, 38, 75, 116, 242, 258,
 293, 296, 322, 325
 Trick shooting, 290
 Triremes, 286, 301, 334
 Triumph, the, 307
 Tsarevitch, 121
 Tsushima, battle of, 93, 116, 143,
 260, 264, 293, 300, 322, 334
 Turks, 6, 120, 315
 Turrets, 312, 319
 Two to one, 297
 Tyndaris, 48

 UNFORTIFIED towns, 213
 United Service Institution, 236,
 311
 U.S.A., 167, 183, 198, 239, 244,
 294, 299, 308, 318, 328
 U.S. Civil War, 37, 101, 136, 161
 Uryu, Admiral, 90
 Utica, 65, 67

 VICTORIA, the, 316
 Vittor Emanuele, 319

 Villeneuve, 19, 76, 218, 221, 242,
 326, 332
 Vladivostok, 88 *et seq.*, 110
 Vladivostok squadron, 88, 140,
 147, 223, 245
 Volunteer cruisers, 169
 Von Essen, 91, 95
Vril, 270

 WARRIOR, the (old), 311
 Warships, 277
 Water-line belt, 307
 Waterloo, 32
 Water-tube boilers, 267
 Watts, Sir P., 298
 Weak units, 309
 Weapons, 294, 321
 Wedge formation, 290
 Wellington, 3, 275
 William the Conqueror, 78
 Wiren, 92, 95, 97
 Witgeft, 93, 122
 Wittelsbach class, the, 318

 XANTHIPPIUS, 50
 Xerxes, 11

 YALU, battle of the, 13, 74, 264,
 304, 318

 ZAMA, battle of, 70



WORKS BY JULIAN S. CORBETT.

ENGLAND IN THE MEDITERRANEAN.

2 Vols. 8vo. 24s. net.

*** This is an account of the rise of England as a Mediterranean Power from the Peace with Spain in 1604 to the Peace of Utrecht in 1712, showing how the revolution in naval warfare under Elizabeth enabled England to take a new place in European politics by action within the Straits, and dealing incidentally with the progress of naval strategy and organisation which led, through the tentative expeditions of James I. and Cromwell and the abortive occupation of Tangier, to the developed policy of William III. and Marlborough, and our final establishment at Gibraltar and Minorca.*

DRAKE AND THE TUDOR NAVY: with a History of the Rise of England as a Maritime Power. With Portraits, Illustrations, and Maps. 2 vols. Crown 8vo. 16s.

THE SUCCESSORS OF DRAKE. With 4 Portraits (2 Photogravures) and 12 Maps and Plans. 8vo. 21s.

WORKS ON NAVAL ARCHITECTURE.

By EDWARD L. ATTWOOD, M.Inst.N.A.,
Member of the Royal Corps of Naval Construction.

WAR SHIPS: a Text-Book on the Construction, Protection, Stability, Turning, &c., of War Vessels. With numerous Diagrams. Medium 8vo. 10s. 6d. net

TEXT-BOOK OF THEORETICAL NAVAL ARCHITECTURE: a Manual for Students of Science Classes and Draughtsmen Engaged in Shipbuilders' and Naval Architects' Drawing Offices. With 114 Diagrams. Crown 8vo. 7s. 6d.

PRACTICAL SHIPBUILDING: a Treatise on the Structural Design and Building of Modern Steel Vessels, the work of construction, from the making of the raw material to the equipped vessel, including subsequent up-keep and repairs. By A. CAMPBELL HOLMS, Member of the Institution of Naval Architects, &c. In 2 vols. (Vol I., Text, medium 8vo.; Vol. II., Diagrams and Illustrations, oblong 4to.), 48s. net.

A COMPLETE CLASS-BOOK OF NAVAL ARCHITECTURE: (Practical, Laying-off, Theoretical). By W. J. LOVETT, Lecturer on Naval Architecture at the Belfast Municipal Technical Institute. With 173 Illustrations and almost 200 worked-out Answers to recent Board of Education Examination Questions. (With 26 pages of ruled paper at end for Notes and References). 8vo. 7s. 6d. net.

NAVAL ARCHITECTURE: a Manual of Laying-off Iron, Steel and Composite Vessels. By THOMAS H. WATSON, Lecturer on Naval Architecture at the Durham College of Science, Newcastle-upon-Tyne. With numerous Illustrations. Royal 8vo. 15s. net.

LONGMANS, GREEN, & CO. 39 Paternoster Row, London,
New York and Bombay.



DATE DUE

DEC 28 '66		
RECD JAN 11 1967		
RECD JUN 6 1968		
RECD DEC 27 1972		
RECD MAR 3 1972		
APR 1981		
RECD MAR 17 1981		
RECD JUN 20 1981		
GAYLORD		PRINTED IN U.S.A.

UC SOUTHERN REGIONAL LIBRARY FACILITY



AA 000 205 567 1



3 1970 00441 2208

