

THE BLOCKING OF ZEEBRUGGE

By

CAPTAIN ALFRED F. B. CARPENTER, V.C., R.N.

With an introduction by

ADMIRAL EARL BEATTY

And Appreciations by

MARSHAL FOCH and

REAR-ADMIRAL SIMS, U.S.N.

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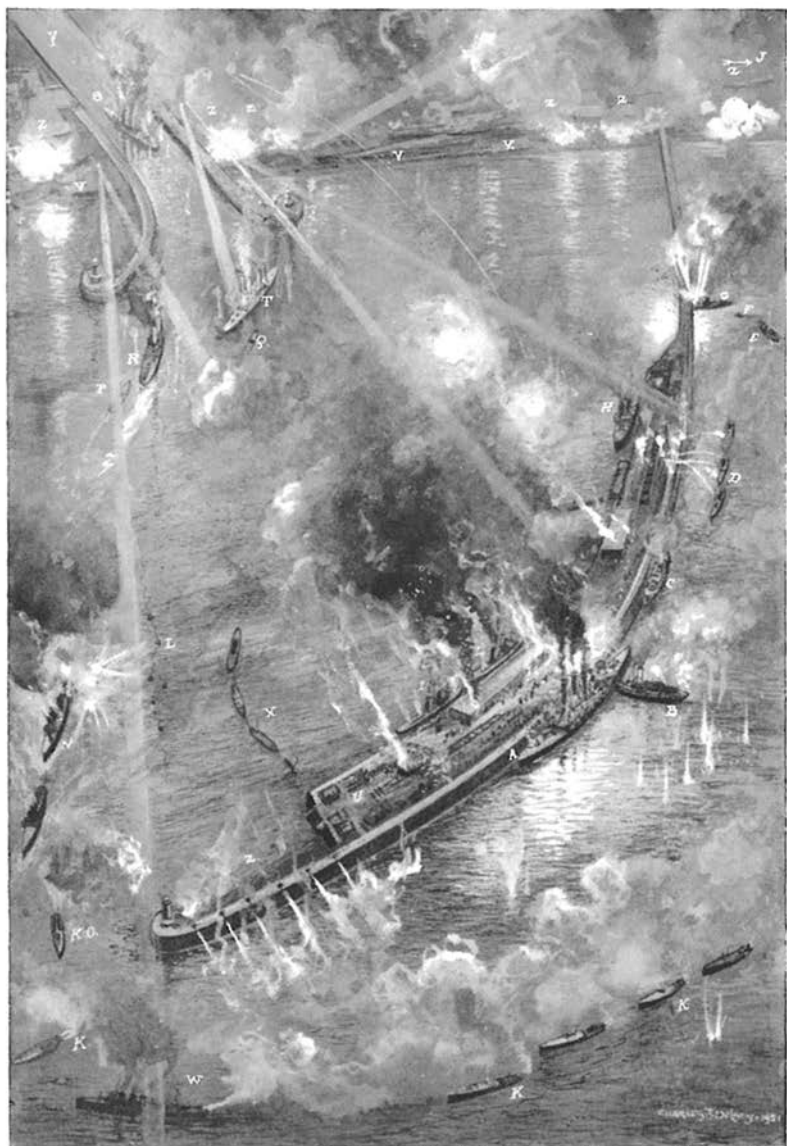
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THE BLOCKING OF ZEEBRUGGE



Drawn by Charles de Lacey from details supplied by the Author.

DIAGRAMMATIC SKETCH OF THE ATTACK.

A—H.M.S. "Vindictive."
B—H.M.S. "Daffodil."
C—H.M.S. "Iris."
D—C.M.B.s.
E—Steam pinnace.
F—Motor dinghey.

G—Submarine "C3."
H—S.S. "Brussels."
I—German destroyers.
J—To Blankenberghe.
K—Motor launches.
L—Entanglement net boom.
M—H.M.S. "Phœbe."

N—H.M.S. "North Star."
O—Position of approach channel.
P—Rescue craft.
Q—Rescue craft.
K—H.M.S. "Iphigenia."
S—H.M.S. "Intrepid."
T—H.M.S. "Thetis."

U—Trenches on Mole.
V—Trenches ashore.
W—H.M.S. "Warwick."
X—The barge boom.
Y—The Canal.
Z—German batteries

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WITH AN INTRODUCTION BY
ADMIRAL EARL BEATTY

: : AND APPRECIATIONS BY : :

MARSHAL FOCH AND
REAR ADMIRAL SIMS

ILLUSTRATED BY 2 PLANS, 39

REPRODUCTIONS FROM UNIQUE
PHOTOGRAPHS & 5 DRAWINGS

BY CHARLES DE LACEY



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TO
THE MAN-IN-THE-STREET
AS A REPRESENTATIVE
OF THE
BRITISH PUBLIC

INTRODUCTION

BY ADMIRAL EARL BEATTY

IN appreciating the military reasons which directed the operations connected with the blocking of Zeebrugge, it is desirable to recall to mind the general naval situation at the beginning of 1918.

Briefly stated, the German High Seas Fleet was contained within the waters of the Heligoland Bight by the British Grand Fleet, whilst German submarines were engaged on vast operations, having for their object the stoppage of the trade of Great Britain, and interference with our lines of communication.

In the face of such an attack, the aim of Great Britain was either to destroy the enemy submarines, or, failing destruction, to prevent their egress from their bases. Convoy operations, patrol operations, and mining operations in all seas were carried out to achieve the former aim, and accomplished great results.

But enemy submarines continued to be built almost as rapidly as they were destroyed. It was essential, therefore, to take what measures were

possible to render useless their bases and interfere with their freedom of exit, and it was with this military object that plans for the blocking of Zeebrugge were initiated.

Emphasis has been laid on the military reason which underlay this operation, because an erroneous impression has existed in some quarters that the Zeebrugge operations were more in the nature of an offensive designed to lower the *moral* of the enemy and enhance that of the British Navy, which, as a whole, had little opportunity of coming to grips with the enemy.

Whilst these moral results undoubtedly were felt after the operation, they were not the military reasons, reasons alone which justified so complex and difficult an undertaking, reasons which were never lost sight of during the planning and carrying out of the operations.

The plan was surely laid; simple in general design, details were worked out with foresight and exactitude. The factors of surprise, mystification, and diversion were utilised to the utmost. The resources of science were given full scope. Training to carry out the plan proceeded with energy and understanding, co-ordination and co-operation being apparent throughout. It was carried out with determination.

In Captain Carpenter's book we are let into the full secret, and are led step by step through the various phases referred to above, which were to be crowned by the glorious achievement of

St. George's Day, 1918. His pages bring out once again the moral and military virtues of the British Navy, Officers and Men. They demonstrate that the spirit which existed in our Naval Wars of past centuries, wars which laid the foundation of the Empire, remain undiminished in the naval personnel of to-day.

It is for us to ensure that these glorious traditions are understood by all, and in being understood are handed on to those who come after us. This book, in placing on record the matchless qualities displayed by all concerned in the blocking of Zeebrugge, I welcome for this purpose.

BEATTY

Admiral of the Fleet

19th July, 1921

APPRECIATION

BY MARSHAL FOCH

C'EST dans un sentiment de solidarité que s'est réalisée l'union des Alliés, en 1914, quand la cause de la Civilisation s'est trouvée menacée.

A tous les moments critiques de la guerre, l'union s'est ainsi resserrée devant le danger, et lorsqu'il s'est agi de fermer un des repaires d'où les sous-marins ennemis menaçaient les communications vitales des Alliés, dans une manœuvre splendide, avec un esprit commun de sacrifice absolu, le port de Zeebrugge a été attaqué et définitivement fermé.

Le Commandant du *Vindictive* a tenu à rappeler les détails de l'opération dans laquelle il a joué un rôle si brillant, et son livre constituera un précieux enseignement et donnera aux générations futures un exemple splendide.*

F. FOCH

* When in 1914 the cause of civilisation was menaced, it was the instinct of solidarity that brought about the Union of the Allies.

At every critical moment of the war, in the face of peril, this bond was renewed ; and when it became a question of closing one of the lairs from which the enemy submarines threatened the vital communications of the Allies, the port of Zeebrugge was attacked

and closed once and for all by a superb manœuvre involving a common spirit of supreme sacrifice.

The Captain of the *Vindictive* has undertaken to tell in detail the story of this action in which he played such a brilliant part, and his book will afford a valuable record and set forth a fine example to future generations.

APPRECIATION

BY REAR-ADMIRAL SIMS, U.S.N.

FEW incidents of the Great War had a greater influence in inspiring enthusiasm in the fighting forces and increasing their *morale* than the successful attack upon Zeebrugge ; and it will long remain as an example of what can be accomplished by the thorough co-ordination of the elements of a sound plan with the various limiting conditions of place, time, state of sea and air, and the material equipment suitable and available.

The reader of this volume will at once be struck by the painstaking care with which it was necessary that each detail be worked out, and each unit assigned its particular task to be executed at a specified time and place. Also that the amount of detail was necessarily so great, and their dependence one upon another so vital to ultimate success, that the whole may be compared to a complicated mechanism so designed to meet peculiar conditions that the failure of any part—any unit or group—or a material change in any of the conditions, would have deranged essential elements of

the plan and might have jeopardized the success of the expedition.

But the principal lesson to be learned from the attack is not so much the thoroughness of the preparation and training and the efficiency of the weapons, essential as they of course were, as it is the influence of the spirit and the initiative and loyalty of the personnel that carried it out. These elements supplied the "steam," the flexibility, and the lubrication that insured the harmonious working of the whole mechanism of which they were the soul. The basic principle was the splendid *morale* of the personnel inspired by the high character of its leaders.

Apart from the great interest of this narrative to the laymen, as a military exploit of the most brilliant character, and an inspiring story of heroism in war, it will always prove of great value to those military men of both branches of the service who realise the tremendous influence of the *morale* of their forces—the confidence in the ability of the leader which encourages initiative and inspires the highest type of loyalty.

WM. S. SIMS

AUTHOR'S PREFACE

AS a result of having delivered many lectures, under official auspices and in compliance with private invitations, on "The Blocking of Zeebrugge," the author has received several requests to record the story in more permanent form. Underlying these requests there appears to be a feeling that first-hand accounts of enterprises in the Great War should be of some value towards preserving that spirit which rallied all classes of individuals in the British Empire, the Allied Countries, and in the United States of America, to the common cause of upholding civilisation in the face of danger. That opinion, indeed, has been openly stated to the author in Great Britain, by leading members of the educational profession and of the Church, by naval and military officers and others. Opinions of a similar type also have been received from the United States where, during a recent series of visits to many of the larger cities, the author personally experienced that solid friendship for Great Britain which is sometimes hidden beneath surface irritations of a political nature.

Misunderstandings must occasionally arise between communities and between the members of any single

community ; they readily take root and develop into serious argument where the existence of a *common cause* is forgotten. For that reason the author feels that the above-mentioned opinions are not without foundation. Whilst attempting to show that co-operation between the several units of a fighting force and confidence between superiors and subordinates are important factors towards success in war, he has made this humble endeavour to induce the belief that co-operation and confidence in other walks of life are no less necessary.

There is danger of this blocking enterprise being allotted a false position in the contemporary histories of the late war owing to the somewhat prevalent custom of describing war operations with little reference to the various considerations, factors, and events which gave them birth.

The man-in-the-street is sometimes carried away by enthusiasm or despondency, as the case may be, when unexpected events occur during hostilities ; he is apt to give little thought to the " why " and " wherefore " of the occurrences. That fact has been exemplified clearly enough with respect to this particular event, for, on all sides, one heard the public verdict, given in the colloquial vulgarism of the period, that the affair was a fine " stunt." The word " stunt," as unmusical to the ear as it was offensive to those concerned in the operations, has been defined as " a voluntary act, spectacular, usually unnecessary, sometimes involving risk, and designed to attract attention." However, the

man-in-the-street meant well, and, after all, could justifiably plead that his lack of education on naval matters was to blame. The author has therefore addressed this book to the man-in-the-street, and has endeavoured to "put him wise," as our cousins across the water are in the habit of remarking.

The official despatches dealing with the blocking operations on the Flanders coast were published early in 1919, and, as far as despatches can go, gave a splendid account of the enterprise forming the subject of this book. But despatches are strictly limited in length and necessarily deal more with cold-blooded statements of fact than with psychological aspects. When one reads despatches of the great leaders of the past concerning the operations in their campaigns one cannot fail to notice the almost complete absence of any reference to the moral factor in war. Yet Napoleon himself declared, "The moral is to the physical as three is to one." Material results can easily be gauged under peace conditions, whereas moral effect on human nature in war is only discoverable from one's own war experiences, which are necessarily limited, and from the experiences of others as set forth in the historical records of past wars. It was partly for that reason, presumably, that Napoleon studied the campaigns of Cæsar and Hannibal although their instruments of war were long since out of date.

The usual reasons for the omission of the moral

factors from despatches are twofold. Firstly, the leader from whom the despatch emanates may consider it inadvisable to publish his preconceived ideas as to the eventual effect of the operations on the morale of the enemy; this concealment is especially necessary if the despatch is published before the declaration of peace. Secondly, the writer of the despatch is often unaware, at the time of writing, of the effect already obtained against the enemy's morale; such effects may not be discoverable for many months after the operations have been concluded. Under certain circumstances it may also be temporarily inadvisable to present to the enemy, through the medium of despatches, information concerning psychological effects on one's own personnel. These omissions, therefore, must not be taken to infer that the moral factors were ignored. It is clear, then, that post-war accounts of operations may be far from superfluous whether considered from the point of view of the man-in-the-street or that of the student of war.

Without some conception of the strategical situation arising from the German occupation of the Flanders coast it would be difficult to grasp the true nature of the enterprise described herein. An examination of the strategical outlook, alone, however, would be insufficient. The geographical and hydrographical, and even the meteorological, situations largely influenced the choice of tactical methods to be pursued for the attainment of the object in view. It is therefore important to consider the

situation from these various standpoints in some detail.

Occasional references to the ineptitude and other bad qualities of the German naval personnel have been made in this volume ; the sole purpose is that of recording our feelings of moral ascendancy *at that time* resulting from our contemptuous regard for our opponents. One's estimate of the enemy's efficiency must always govern one's own actions against them ; this is a truism which is sometimes lost sight of by the historian who, in the absence of knowledge of the antagonists' opinions of one another, is apt to concentrate his criticism on the degree to which accepted principles of war were adhered to, or departed from, rather than on the mental outlook which influenced such adherences or departures. It is a truth which often provides the explanation for otherwise inexplicable decisions made by the leaders of the past. The author has, of course, no desire whatever to preserve an unworthy attitude of contempt towards either a beaten enemy or their successors.

The book has been divided into two parts. Part I deals with the Situation, the Object, the General Plan for the attainment of the Object, the Preparatory Work involved, and the various occurrences up to the eve of the Attack. Part II describes the events which occurred during the operation itself, and includes some consideration of both the material and moral results of the enterprise and the lessons to be drawn therefrom.

For the illustrations the author is much indebted to the Admiralty, Air Ministry, Imperial War Museum, and Press, to whom he makes this grateful acknowledgment.

With regard to the personal side of the story, it may be as well to point out that many of the officers and men concerned were mentioned in the official despatch ; that fact lessens one of the difficulties attached to the author's task. A compromise between the purely impersonal attitude and the very natural desire to render full justice to each individual, regardless of the reader's patience, has been aimed at.

The author trusts that the reader will be tolerant of omission and repetition, and will forgive the rather obvious shortcomings of a literary nature which, alas, appear all too frequently in the book.

ALFRED F. B. CARPENTER.

8th March, 1921.

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PART I

THE BLOCKING OF ZEEBRUGGE

THE BLOCKING OF ZEEBRUGGE

CHAPTER I

THE STRATEGICAL SITUATION. THE GERMAN BASES
IN FLANDERS. THE CONCEPTION OF THE PLAN

THE main function of a navy in war is that of obtaining the command of the sea. The purpose for which such "command" is desired is the utilisation of the sea-lines of communication and the denial of the same to the enemy.

Soon after the commencement of the war in 1914 the sea-lines of communication across the English Channel assumed considerable, if not paramount, importance for the transfer of personnel and material from Britain to the allied forces in France. It was equally incumbent on the navy to maintain the transatlantic and other lines of communication along which the necessities of life and war were carried to the Allies in all theatres of war.

The first step towards obtaining "command of the sea" is the removal of the obstacles which stand

in one's way. In this particular case the main obstacle (admittedly constructed for the purpose) was the German High Seas Fleet. Thus the first duty of the British Grand Fleet was that of destroying the so-called High Seas Fleet, or, if destruction was found to be impracticable, of reducing it to inactivity. The German Fleet was fully alive to that fact, and, almost throughout the war, hid themselves away in their naval bases under the protection of their coast defences. Thus, as events showed, the High Seas Fleet did not prove to be a very serious obstacle to our command of the sea; but, and this fact is easily forgotten, we could not *foresee* the continuance of their ineptitude and lack of spirit; our fleet had to remain in a state of instant readiness. The German submarines, however, were a formidable obstacle indeed.

Submarines, by their nature, have certain limitations. Except in the case of the submarine cruisers, which only materialised in the latter part of the war, such craft are considerably hampered in their movements by their comparatively small radius of action. Owing to the geographical situation of Germany, her submarines were forced to expend an important percentage of their fuel during the outward and homeward voyages between their bases and the trade routes. This expenditure cannot merely be judged by the distances which had to be traversed; the expenditure of fuel in the submarine bears some relation to the *whole circumstances* of the voyage.

The endurance of the personnel is another

important factor, and is similarly affected by the circumstances under which they are employed. For instance, in waters patrolled by enemy vessels, high speed must always be readily available and the strain on the personnel, consequent on the danger of sudden attack from surface craft, aircraft, or other submarines, to say nothing of the presence of mine-fields, is increased. Thus the longer the passage that the German submarines were forced to undertake in comparatively narrow and dangerous waters—such as the North Sea—the less work could they do on our more important trade routes. That statement is closely connected with the subject of this book.

It did not require very much intelligence on the part of the German Admiralty to realise that the possession of bases in Flanders would greatly facilitate their submarine campaign owing to the consequent reduction of the voyages to and from the transatlantic, or Channel, trade routes. Flanders was therefore used, as will be explained later in detail, to provide advanced bases for German submarines.

The coast of Flanders lent itself to other naval uses. In addition to the *guerre-de-course* tactics of the enemy—i.e. the direct attack on Allied merchant vessels—it was always open to Germany to take their whole main fleet to sea for the purpose of seeking advantageous conditions for bringing a portion of our Grand Fleet to action.

Movements of modern fleets under war conditions necessitate the use of various types of small craft

to precede them—e.g. mine-sweepers for clearing channels for the fleet to pass through, destroyers for supporting the mine-sweepers and for driving back the enemy's small craft, light cruisers for scouting purposes, etc. Mine-sweepers and torpedo craft, by virtue of their small size, are unable to keep the sea for long periods. It will therefore be realised that, in the event of the High Seas Fleet putting to sea for operations in southern waters, the Flanders coast provided Germany with an advanced base from which their light craft could operate.

The German torpedo craft based in Flanders, therefore, would be able to serve a double purpose, viz. that already mentioned and that of attacking our patrol craft, our coast and our merchant vessels when opportunity offered. The mine-sweepers could also serve a double purpose in that they were required to sweep channels for the ingress and egress of submarines based in Flanders whilst being suitably placed for sweeping duties in advance of the main fleet. That Flanders was also suitable for aircraft bases is as well known as it is obvious ; but it may not be generally understood that such aircraft would also be of special value to the main fleet under the conditions stated above. Thus, to sum up, the occupation of the Flanders coast by the German sea forces would be of treble value—to provide, firstly, a base for the submarines employed on commerce destruction ; secondly, a base for the advanced flotillas and aircraft operating in conjunction with the main fleet in the event of the latter coming south ; and, thirdly, a base from which

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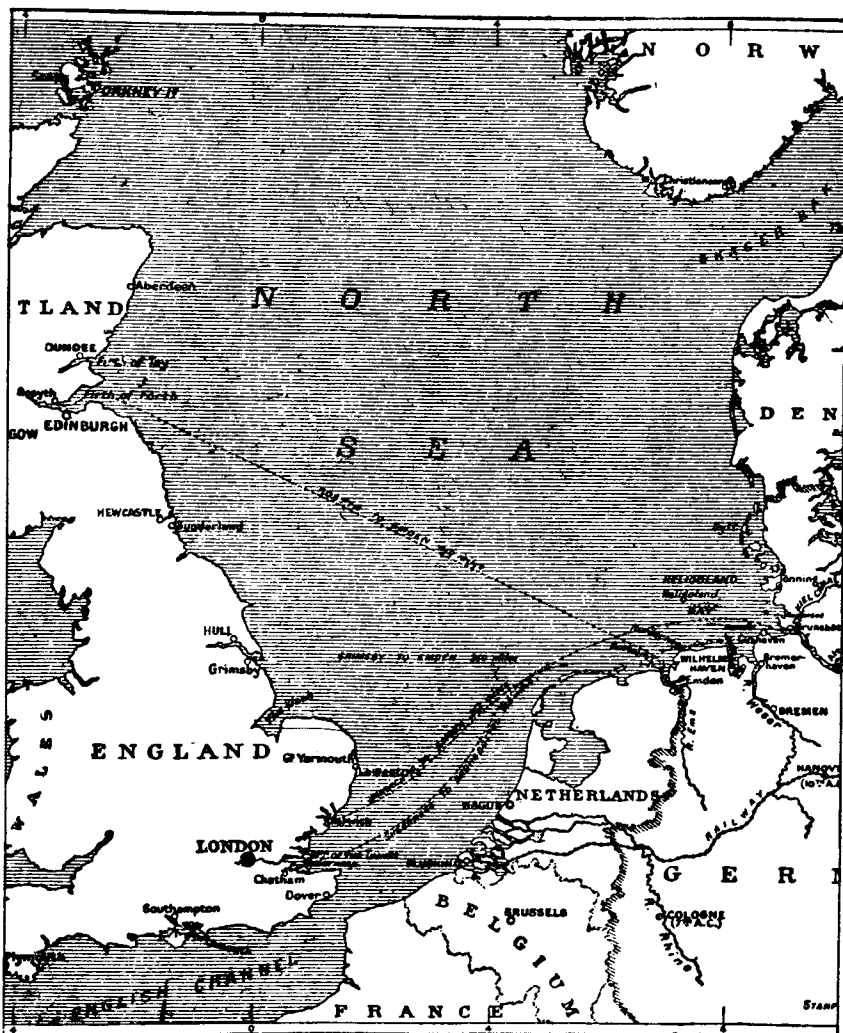


Chart showing the relative positions of Dover, Zeebrugge, Heligoland and the exits from the North Sea.

to attack our southern coasts or sea-patrols and from which to indulge in air raids against British and French territory.

The foregoing consideration of the possible uses of Flanders to the German Navy shows the inherent value of an advanced base in that locality; the intrinsic value obviously depended upon the existence of suitable harbours for use as bases. Let us now examine the geographical situation.

In the latter part of 1917 the Flanders coast as far westward as Nieuport, was in the possession of the Germans. The northern extremity of the line separating the German and Allied armies was situated approximately on the Yser Canal, which emanates from Nieuport harbour. The latter was dominated by the gun-fire of both armies; its use was, therefore, denied to both. The only other harbours on the coast of Flanders were Ostende, Blankenberghe, and Zeebrugge. These will be described in some detail presently.

The Flanders coast consists mainly of flat country barely elevated above the level of the sea. Sand-hills along the shore act as a barrier between the sea and the land. Parallel to the shore the tidal current runs to and fro with considerable velocity. The tendency for the tidal current to wash away the sand from the shore is partially countered by the use of groynes, such as are similarly used to maintain our own coast-line in many parts of England. Although the groynes on the Flanders coast are carried well out into the sea—they are often 100 yards in length—the movement of sand along the coast is very considerable, and, as will be explained

later, has a strong influence on the harbour situation in that locality.

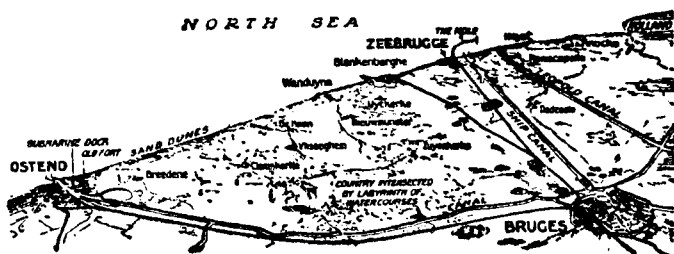
The approaches to the coast are beset with shoals reaching to a distance of 8 miles from the land. These shoals have always provided serious obstacles to navigation. During times of peace the charts of this locality had been kept corrected by virtue of continual surveying. The shoals were frequently moving and new shoals appeared from time to time. The channels required almost constant dredging. For obvious reasons, during the occupation of Flanders by the Germans, it was not possible for the Allies to continue either the surveying or the dredging.

Before the war, navigation off this coast required the use of many facilities such as buoys and lighthouses. At the best of times buoys are not very dependable as navigational aids owing to their tendency to break away in heavy weather or to drag their anchors along the bottom. Their positions need to be "fixed" from time to time by means of angles to shore objects, or by methods of astronomical observation, and then compared with the positions shown on the charts. Lighthouses, however, unless they are of the small type without lighthouse-keepers, are more efficient aids to the navigator. During the war the lighthouses east of Nieuport were only used by the Germans during short periods when specially required for their own craft; the majority of the buoys were withdrawn and the remainder were moved to new positions which were frequently altered to prevent the Allies from making use of them. Thus, during the war,

the charts available to the Allies were very soon obsolete ; no others were obtainable. Navigation off the Flanders coast, for Allied vessels of any size, therefore, became decidedly hazardous.

The tides on the coasts, in addition to running alternately eastward and westward with considerable velocity, also caused large differences in sea-level amounting to 15 feet between the highest and lowest states of the tide.

Mention has already been made that the only harbours on the coast eastward of Nieuport were situated at Ostende, Blankenberghe, and Zeebrugge.



BIRD'S-EYE VIEW OF CANALS

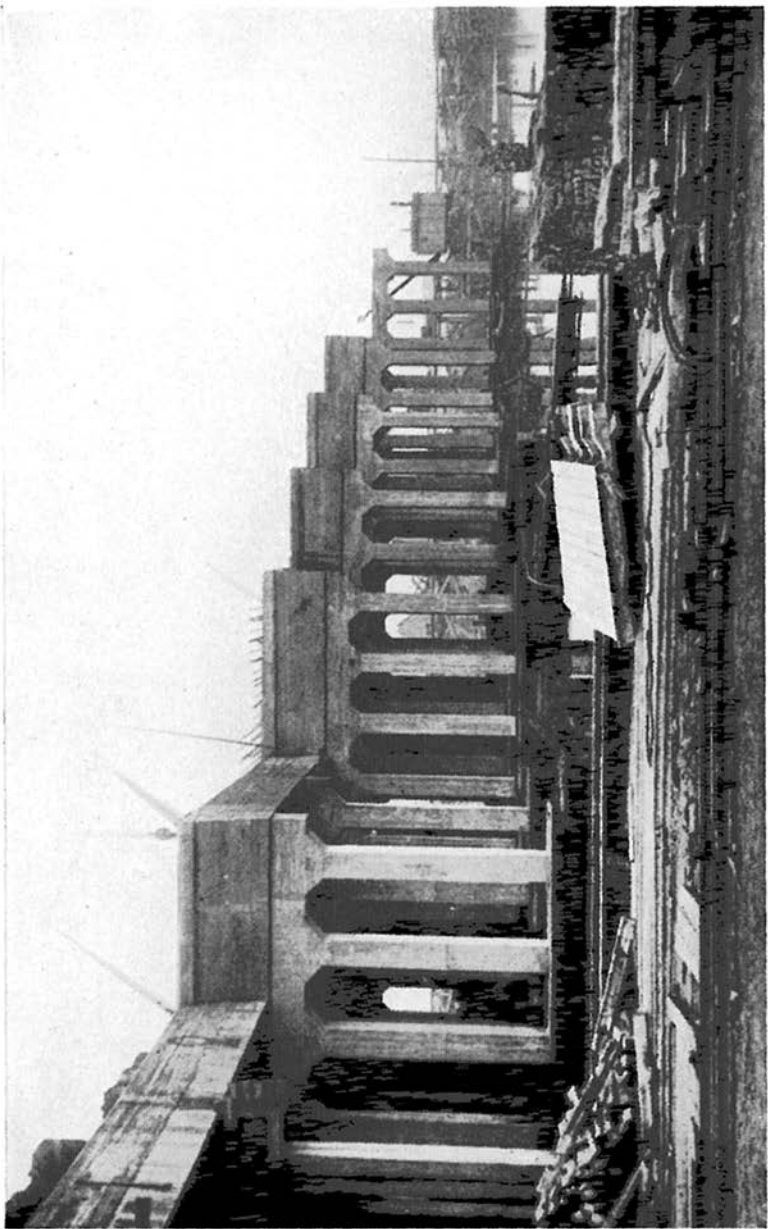
But these were not natural harbours. They had been cut out of the coast-line by means of excavation and dredging. The entrance channels were preserved by piers built out into the sea and by dredging operations designed to retain the desired depths of water.

Ostende, before the war, had been much used as a commercial harbour, and was therefore provided with numerous wharves, basins, and docks. It was a suitable harbour for all classes of submarines and torpedo craft. Blankenberghe was a little harbour

about 9 miles east of Ostende and 3 miles west of Zeebrugge. Its depth was exceedingly small; it could, therefore, only be used for shallow draught vessels such as fishing boats, motor boats, and the like. It was true that the rise of tide, amounting to approximately 15 feet, would enable larger vessels to enter or leave near the time of high water, but any naval vessel stationed in a harbour from which it can only proceed to sea during a limited portion of the twenty-four hours at once loses much of its value. Zeebrugge could accommodate vessels up to a considerable size: the harbour works and depths will be described in detail presently. Although these three places provided the only harbours on the coast, there was a harbour of great importance at Bruges, about 8 miles inland from Zeebrugge.

Bruges harbour was also entirely artificial, consisting of locks, basins, and waterways built on the canal system. Bruges was connected to the sea by means of canals running to Zeebrugge and Ostende, these canals converging on the waterways of Bruges in such a manner that vessels of a certain limited size could pass from Ostende to Zeebrugge, and vice versa, without actually proceeding into the open sea. A series of small canals also connected Bruges to Antwerp, via Ghent, but this canal system, being only constructed to accommodate barges, did not materially add to the value of Bruges as a harbour for sea-going vessels.

Of the three canal systems connecting at Bruges, the canal to Zeebrugge easily held first place in importance. This canal was built by the Belgians.



THE GERMAN SUBMARINE SHELTERS AT BRUGES.

Showing the great thickness of the concrete roofs.

It was commenced in 1896 and completed in 1907. Six and a quarter miles in length, it was almost entirely straight throughout. It could accommodate torpedo-boat destroyers or submarines, both of the largest size, and could, if required, have been used by light cruisers.

At the seaward end of the Ostende and Zeebrugge canals, locks were constructed so that vessels could pass from the canals to the sea, or the reverse, at any state of the tide, without lowering the level of the water in the canal.

The various harbours were used for naval purposes by Germany as follows. Bruges was chosen as the main naval base. Shelters for protecting submarines from aerial attack, floating docks, repair workshops, all the other facilities which go to make a modern dockyard for small vessels, and the necessary stores and ammunition, were to be found there. The number of naval craft based on Flanders appeared to vary considerably ; but, at the beginning of 1918, approximately eighteen submarines and twenty-five destroyers or torpedo-boats would be at Bruges on an average day. The submarines lay in the special shelters which were covered by roofs of reinforced concrete several feet in thickness. Bruges, then, was not only the dockyard but also the resting-place of practically all the German naval craft based on Flanders.

The sea exits from Bruges, as already mentioned, were situated at Ostende and Zeebrugge. There was some doubt, however, whether the Bruges-Ostende canal could be used for the passage of anything larger than very shallow draught vessels such as