

praise of the exploit, I would add that the officers and men, who eagerly undertook such hazards, are deserving of their Lordships' highest recognition. They were all well aware that if their means of rescue failed them, as through untoward circumstances it nearly did, and they had been in the water at the moment of the explosion, they must almost inevitably have been stunned and drowned, or killed outright, by the force of such an explosion. Yet they disdained to use the gyro-steering which would have enabled them to abandon the submarine at a safe distance, and preferred to make sure, as far as was humanly possible, of the accomplishment of their duty.

90. Submarine C. 1 (Lieutenant Aubrey C. Newbold), owing to delay caused by the parting of the tow, did not arrive in the vicinity of the viaduct till the retirement had commenced. He had previously seen a big flash, but had not heard any sound, and was therefore in doubt as to what the force in general had done, but realised that his boat might be required for another occasion. He therefore retired, though he and his crew immediately volunteered for similar service. They were naturally disappointed, but in my opinion Lieutenant Newbold was perfectly right, and their Lordships will not lose sight of the fact that they, equally with the officers and men of C. 3, eagerly embarked on the enterprise in full realisation of what the consequences might well be.

91. The picket boat employed for rescuing the crew of C. 3 was commanded by Lieutenant-Commander Francis H. Sandford, D.S.O., who had organised the method of attack on the viaduct. The picket boat displayed bad qualities when towed above a certain speed in the prevailing conditions of wind and sea. She was steered only with great difficulty, and was twice on her beam ends, being saved from total capsizing by the tow parting. She then proceeded under her own steam, and endeavoured to reach the viaduct before the explosion. Her speed was not as much as was expected; still she arrived in time to pick up the motor-skiff very shortly after the explosion, and transferred the officers and men to the "Phœbe." This boat subsequently returned to Dover under her own steam, as her fore compartment being holed and full of water made towing inadvisable. From first to last she had made a voyage of 170 miles to and from the Belgian coast in unpleasant conditions, and effected the rescue in the face of almost insurmountable difficulties, due to enemy action, weather, and tide. I have already recommended Lieutenant-Commander Francis Sandford for promotion on this and previous grounds. His boat's crew were all volunteers, and I am including them in my general list of recommendations to their Lordships' notice.

#### VIII.—BLOCKING OPERATIONS.

92. The blocking of the Bruges Canal and the entrance to Ostend Harbour was the principal part of the whole objective, the damage to the Zeebrugge Mole being subsidiary thereto. To the "Intrepid," "Iphigenia," and "Thetis" was assigned the duty in the Bruges Canal; "Brilliant" and "Sirius" being detailed for Ostend.

93. *Zeebrugge*.—The orders to the blockships were to proceed into the canal. If her two consorts were seen to be following, the leading vessel ("Thetis") was to ram the lock

gates; the second and third ("Intrepid" and "Iphigenia") were to be run ashore near the entrance at the southern end of the piers, this being the narrowest part of the channel and the position best calculated to block the channel by silt. This opinion as to the best position was based on local knowledge, and the decision to attempt the project in this way was come to after much consideration, and bearing in mind the fact that if the leading vessel should fail to block the lock gates, and should sink in the channel short of the gates, she would have been no obstruction; whereas two ships well athwart the channel at the entrance would be certain to set up silt and cause great inconvenience to the enemy.

94. The proceedings of these ships were as follows:—

"Thetis" (Commander Ralph S. Sneyd, D.S.O.).—Sighted the Zeebrugge Mole ahead, and signalled the fact to the ships astern. She was greatly assisted by rockets fired from "Vindictive," which showed up the Mole extension and the lighthouse, and also by Captain Ralph Collins in a motor launch, who hailed the "Thetis" and gave her the bearing of the lighthouse. After rounding the latter the barge-boom came into view, and "Thetis" was steered for the barge furthest from the Mole, opening fire at the lighthouse, and then at the barge, which is reported from subsequent observation to have been sunk. The ship was under a fairly heavy fire from the light guns on the Mole extension, but her captain did not see any firing from the 4.1-inch battery at the Mole head. As the ship approached what appeared to be an opening between the barges and the net obstruction extending to the south-eastward from them she commenced to swing to port. She was given full port helm, but ran into the nets between the two end buoys, and continuing to forge ahead, took the nets with her. The piers of the canal entrance were in sight when both engines were reported to have brought up. "Thetis" had thus cleared the net obstruction away enough to enable the ships following to pass to starboard of her, and she signalled to them to do so. Being then about 300 yards from the eastern pier-head, and having drifted slightly to port (shoreward), she appears to have grounded. She had a list to starboard, and was settling down, having been frequently holed along the starboard side by gunfire. She continued to be hit from the Mole, from craft alongside it, and from guns on shore east of the canal. One or two machine guns were also firing at the ship, her 6-inch fore-castle gun engaging these guns until her own smoke made it impossible to see. Communication with the engine-room having broken down, a messenger was sent, and Engineer Lieutenant-Commander Ronald C. Boddie ("Hercules") succeeded in starting the starboard engine, which moved the ship ahead; and being still aground aft, her head swung to starboard into the dredged channel. As she appeared to be sinking, the commander cleared the boiler rooms, sent the boat-keepers to their boats, ordered the smoke to be turned on and the ship to be abandoned. Owing to the death of the petty officer in charge of them, the forward firing keys were not in position; smoke and shell fumes prevented their being found, so that the charges were fired by the after keys; they detonated well, and the ship then quickly sank. The ship's company manned the one remaining cutter and pulled to M.L. 526 (Lieutenant