

that feature of Henry's character which led Shakespeare to take him as the type of what seventeenth century kingship might and should be, that is to say, his deep-lying instinct of broad democratic humanity, seems to lie wholly outside the compass of the mediæval ideal.

The Unseen Death.

Submarine Warfare. By Herbert C. Fyfe. (Grant Richards. 7s. 6d. net.)

MR. FYFE has taken for his theme a subject upon which the popular mind has the vaguest ideas, and which, until quite recently, even the official mind regarded with an aloofness not easy to understand. A perusal of this most interesting volume will put any reader in possession of practically all the most important facts concerning those engines of destruction which may revolutionise naval warfare. There remains a strong doubt; experts differ; in the opinion of some, the active submarine is destined to play no more than an uncertain part in matters of defence; in the opinion of others it will carry unseen and terrible devastation to the heart of an enemy's fleet. Between these two extremes Mr. Fyfe finds some approximation to what he conceives to be the probable truth of the matter. But wherever the precise truth may lie it is obvious that no naval power can afford to neglect a weapon which may, at any moment, and perhaps at the call of a single brain, spring into monstrous activity. The day when the Admiralty could assert that the submarine was "the weapon of the weaker power, and not our concern" has long gone by.

Mr. Fyfe traces the history of submarine navigation from its somewhat uncertain beginnings with Cornelius van Drebbell in 1620 to the modern "Gustave Zédés" and "Hollands." Once the idea of attacking a ship by means of an explosion from below the surface of the water took root, it was natural that science should set itself the task of discovering some means of sending the explosive medium against an enemy under cover of the sea. But it was long before much advance was made. In the War of Secession twenty-five Federal vessels were destroyed, and nine injured, by torpedoes of various kinds; but they were of kinds which necessitated the "close proximity of the craft attacking and the craft attacked," and the result was often the destruction of both. In an exceptional case such a catastrophe might be deliberately foreseen and deliberately brought about, but as an instrument of warfare the spar-torpedo was too promiscuous in its destructiveness. Then came the automobile fish torpedo, which could be discharged against its mark from a distance, and the highest expression of that torpedo is found in the modern Whitehead. The Whitehead is capable of travelling at the rate of 29 knots for 1,000 yards, and, thanks to the invention of the gyroscope, it may be run practically dead straight for twice that distance. This marvellous engine is fired from the conning tower by the pressing of an electric key. "When you have been shown lovingly over a torpedo," says Mr. Kipling, "by an artificer skilled in the working of its tricky bowels, torpedoes have a meaning and a reality for you to the end of your days."

The invention of the automobile torpedo provided the armament with which the submarine could alone be effectually equipped. The submarine "David," in the American Civil War, had, indeed, sunk the Federal corvette "Housatonic," but she was found sticking in the rent she had made, with all her crew dead. The automobile torpedo made it possible for the submarine to discharge her projectile with comparative safety to herself. There naturally followed rapid improvement in submarine vessels, until the "Gustave Zédé" and the "Holland" were produced, the types now mainly accepted as the best. But these have never been used in actual warfare, and such experiments as have been conducted appear to have been inconclusive. If the submarine could be provided with eyes she would at once

become the most deadly of offensive instruments, but so far science has failed to discover any means other than his compass by which the helmsman may steer. At a depth of from 10 to 12 feet the periscope or optical tube may be employed, but below that depth is darkness. Hence it becomes necessary for the submarine to rise to the surface from time to time, so indicating her presence to the enemy whom she must see to attack. Even so she remains a terrible menace, for extraordinary accuracy in fire would be necessary to hit a submarine awash. "When the submarine torpedo-boat goes into action," wrote Mr. John P. Holland in 1900, "she will bring us face to face with the most puzzling problem ever met in warfare. She will present the unique spectacle, when used in attack, of a weapon against which there is no defence. . . . If you cannot run away you are doomed." But when the submarine has been given sight she will have submarine pitted against her in the deeps, which suggests to the fancy an almost unimaginable warfare, a new and awful vision of sudden death.

And here comes in the question of the morality of submarine warfare. Mr. Fyfe quotes the following passage from an article in the *Naval Chronicle* in the early years of the nineteenth century. The article is apropos of Fulton's torpedoes and submarine boats:—

Guy Fawkes is got afloat, battles in future may be fought under water; our invincible ships of the line may give place to horrible and unknown structures, our projects to catamarans, our pilots to divers, our hardy, dauntless tars to *submarine assassins*; coffers, rockets, catamarans, infernals, water-worms, and fire-devils! How honourable! how fascinating is such an enumeration! How glorious, how fortunate for Britain are discoveries like these! How worthy of being adopted by a people made wanton by naval victories, by a nation whose Empire are the seas.

"It is quite evident," says Mr. Fyfe, "that . . . there exist many Britons who in their heart of hearts agree with this writer." It appears to us that the matter is a very simple one. So long as international arbitration remains a dream, so long will international armaments increase, and so long will science devote itself equally to devising implements of death and to perfecting the means of saving life. It is idle to attach particular immorality to the employment of submarines; they are no more immoral than lyddite shells, or, for that matter, than Lee-Enfield bullets. It is, indeed, pretty obvious, as Mr. Fyfe says, that "if wars ever die out, it will certainly *not* be owing to the destructive capabilities of the weapons employed." The remarkable thing is that the more deadly the weapon which is employed the smaller, very frequently, is the mortality. A bayonet at close quarters will account for more men put out of action than a Lee-Enfield at 1,500 yards. The science of destruction is met by the science of protection, and a reasonable hope of life is carried into the very shadow of death. We cannot follow Mr. Fyfe's clear and admirable account of submarines without being profoundly moved by their terrible possibilities; it gives the old phrase "the command of the seas" a new meaning, and, it must be added, carries with it a new responsibility. The Admiralty was not anxious to take up the subject of submarines; it seemed inclined to allow other nations to experiment, and then, if necessary, it would adopt the most desirable invention. Fortunately that impossible attitude has been abandoned, and we are now at least in line with other powers. Until submarines are abolished by international agreement it is our plain duty to endow them with every possible element of destructiveness, to make them, indeed, as the peril by night and the pestilence at noonday. To the strong is strength only by reason of constant vigilance and serene watchfulness, and it is one of the penalties of our civilisation that our greatest strengths should appear to clash in our power of sowing life and scattering death. But the apparent paradox is a profound truth, and one constantly exemplified in the world's history.