

or in degree may be seen from the historical instance of the American submarine *David*, whose fatal disasters and equally fatal success are referred to in Mr. A. Hilliard Atteridge's article on "The Tactics of the Submarine," which appeared in this Review in August 1901. The *David* was built at Mobile in 1863 and first tried at Charleston.

The experiments in the harbour were carried out at a terrible cost of life, but, nevertheless, there was no difficulty in finding crew after crew to face the imminent risk of death. On her first trial the whole of the crew of eight were drowned; on her next attempt, which was made flush with the water and with the dome open, she was sunk by the wash of a passing steamer. Only one man escaped, by climbing out of the little hatchway as she went down. He was an officer of the Confederate navy, and nothing daunted, he took her out for a third time, after she had been raised, only to see her sink again. He escaped with two of his men; five others were drowned. Again she was raised, and the officer who had twice so narrowly escaped from death found a fourth crew for her. This time the dome was closed, and an under-water voyage was attempted. But her trim was so defective when under way that instead of sinking horizontally she went down diagonally, bow foremost, and stuck her sharp cigar-point in the muddy bottom. All on board were dead when she was brought to the surface.

After all this she was once more manned, and sent against the *Housatonic*, a Federal vessel lying some four miles out. The submarine successfully blew up her enemy with a fixed torpedo, but sank at the same time, and once more her crew of seven all perished. She had been swamped by leakage through her dome under pressure of the wave caused by the explosion and the sinking of her victim. No one will deny that her five crews all "died in action" and all contributed to the final victory.

The dangers then are undoubtedly great; but there will never be any more difficulty in the English Navy than in the American in finding men ready to face them; and they must be faced, for the submarine is for us of all peoples in the world an indispensable weapon of defence. Owing to the slowness of men's minds and the weakness of their imaginative powers, there are at present two opinions upon this subject. There