A NARROW ESCAPE.

Submarine Crew Loses Control—Down 200 Feet for an Hour.

One of the greatest naval problems of the day is the real value of submarine vessels. Their efficiency is highly indorsed by many experts and severely questioned by others, though they have not had much of a chance yet to show their destructive powers in actual warfare. The uncertainty connected with the operation of these strange shells, crammed with intricate mechanism, was forcibly expressed to a Tribune writer the other day by a petty naval officer in relating a comparatively recent and almost fatal experience of his in a submarine. He said:

"When we take a dive it's a gamble, more or less, whether we will ever come up and see daylight again. I came out alive from my last trip, but the call was a close one, and I will go down in submarines no more."

Asked to relate the details of his narrow escape, the ex-submarine sailor told how nine men and two officers of the American navy recently escaped a tragic fate, similar to the fatal accidents which have befallen certain French and English submarines. The feature of his story which is of most importance is that which states the depth to which the submarine sank in the course of its uncontrollable dive, the greatest so far known. This is diplomatically mentioned, he says, in the official report by the words "when she touched bottom." So enormous was the pressure of water upon the vessel when this was reached that seams and rents were made in her lining, and interior fittings began to loosen and almost fall apart, while tiny streams of water trickled in at various points. The account of this unrecorded chapter of submarine happenings is as follows:

"In August, not quite two years ago, the submarine I was attached to, with eight others, about 10 a. m. ran out to make a practice attack upon a battleship off the Rhode Island coast. After running on the surface for a certain distance the order was given to fill the tanks and trim down—that is, to take in enough water for ballast to overcome the regular buoyancy, in order to cause sufficient downward momentum and enable the boat to dive. We did so, and after the water had reached the proper height in the tanks the conning tower was closed and everything was shut off tight. The boat then started to sink.

"When ten feet was reached, the depth at which it was meant to run submerged until within a hundred yards or so of the spot where the intended torpedo attack upon the battleship was to begin, orders were given for a hard rising rudder and to go ahead on the propeller. To our dismay, the boat had acquired such downward speed that the diving rudder failed to check her.

"Further down into the depths she kept sinking—twenty, thirty, forty, until fifty feet was reached. At this point orders were given to blow out the water from the midship tank. This was the first indication of genuine danger, for this is an emergency tank, holding one thousand pounds of water, which is emptied and forced out under ordinary circumstances in five seconds by means of a 50-pound pressure of compressed air, and is the first step in a desperate situation. This was done, and should have brought the boat to the surface with a rush, but it only momentarily checked her. She started to rise, then began settling down again—with the screw going ahead all the time.

"Down, down she sank, far down into the inky depths. Suddenly the craft with a thud came to a standstill, and we knew bottom had been struck. This gave our fears temporary relief. The failure to rise to the surface, after repeated trials, had revealed to the crew the great danger threatening them—death by suffocation from poisonous gases. Few, however, realized the full terror of the situation.

"At this moment I was ordered back from my post amidships to the diving rudder in the rear. In passing I quickly glanced at the depth register and noted that two hundred feet below the surface was the reading on the telltale dial Knowing that 147 feet was about the depth pressure the steel shell was calculated to withstand, and that 200 feet was possibly near the bursting point, I was in momentary expectation of a catastrophe. I realized that we now had nearly seventy yards of water over our heads and that the little door of the conning tower, our sole means of egress, was being held down by a weight of over fifty thousand pounds, yet I did not communicate the information to my mates.

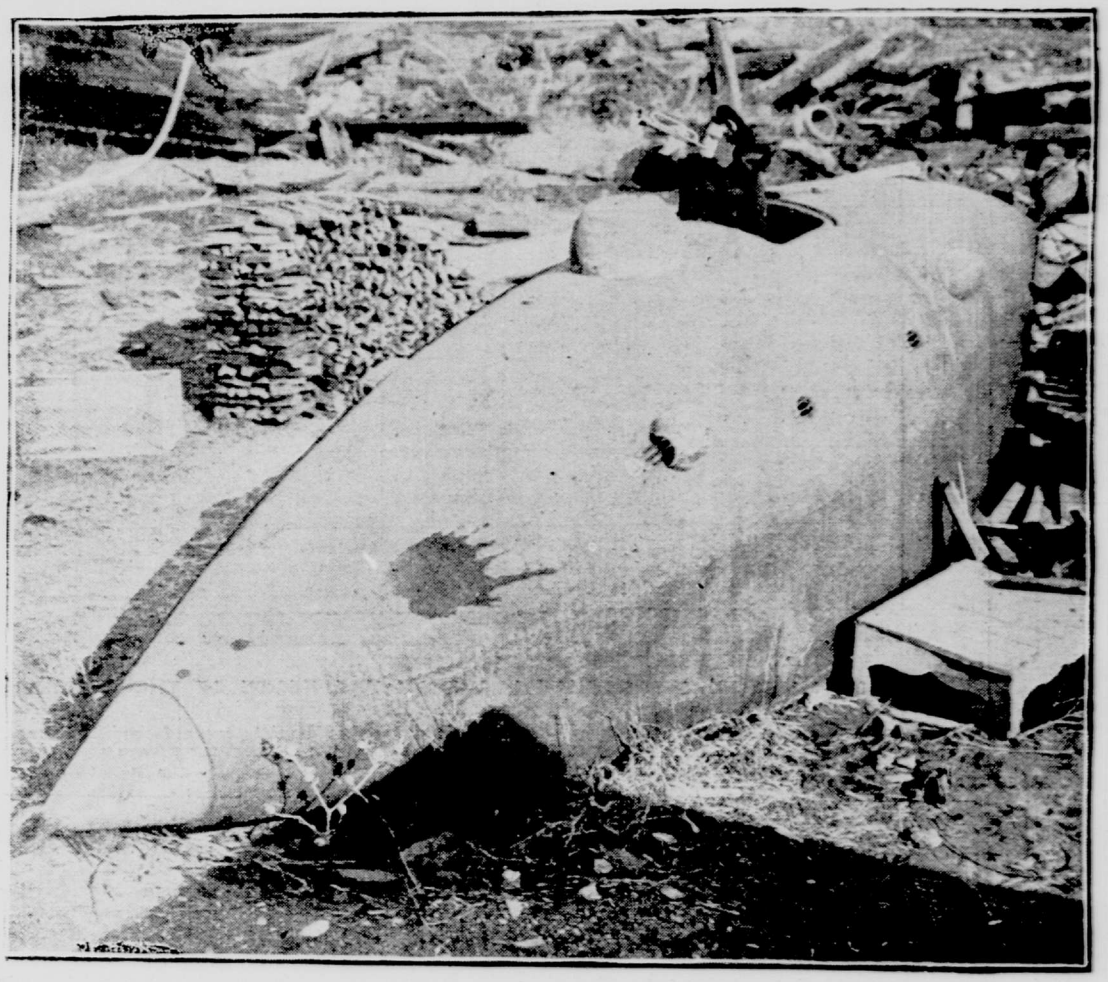
"Soon this terrific pressure, which was squeezing the steel shell like a vise, began to tell on the inside. The main valves started to leak, and water was forced through the torpedo tube into the vessel. We tightened the valve and this stopped; but leaks started around the sea connections to the bilge pump, the air compressor and the shaft, and trickles came in from a seam rent in the main ballast tank and around the deadlights or portholes.

"This additional water was likely to give negative buoyancy, a much dreaded obstacle to overcome, but we had to watch it come in, realizing that only a thin sheet of steel stood between us and destruction, and with no avenue of escape we were veritably being locked in a death grip of the sea with the force of some grim monster unceasingly gnawing at the boat's exterior with increased energy. It seemed only a question of seconds when the waters outside would crush down the hatches and cave in the sides, and, in fury, drown and jellify us all.

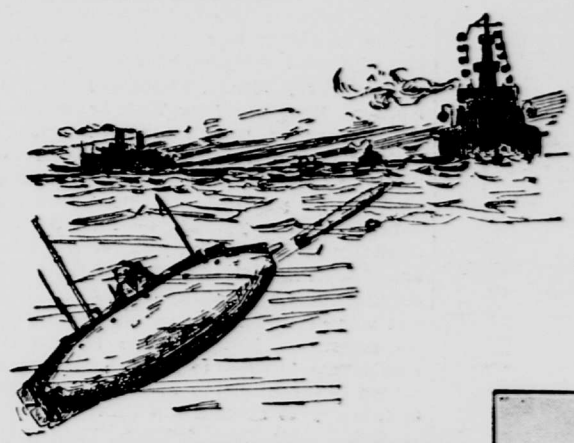
"To rise to the surface as quickly as possible was our only salvation. The rotary pump and air pressure were put on the main ballast tank and forward trimming tanks, but these it was found could not work against the tremendous force from the outside. One last resort was left—the hand pump, which was then put on the forward trimming tank. This was our final and supreme effort, a real tug of war with death. Would the hand pump be able to hold out against the mighty strain we were about to put upon it? That was the question in every mind, though none voiced it. With desperate strength the men bent to the task, and bent to it every ounce of energy they possessed.

"To our delight the hand pump held, and in a few minutes the water inside the submarine grew less as we slowly forced it into the surrounding sea. Soon a tremor went through our vessel as she loosed herself from the bottom, and at once we felt that the pressure which had threatened to destroy us had now become our friend and would bear us to the surface if we could pump more water out before the shell collapsed. Harder and harder we pumped, and slowly we rose, until finally we reached the surface again after being submerged for over an hour. The sweat poured from us in streams, and our heads ached from foul air, but we were at the top again, and that was enough joy for the moment. Had we been in deep ocean and had not struck bottom at two hundred feet there is no doubt there would have been no survivor left to tell the tale. As we crawled out of the conning tower half dazed and in a state near collapse I and some others decided that we had enough of submarine work, and on request have been assigned to other duties.

"After this accident the craft was docked and her damaged interior and weak valves, piping, etc., were replaced by stronger equipment, and the limit of experimental diving for her was set at 100 feet. It was found that about one thousand pounds of water had entered one of the

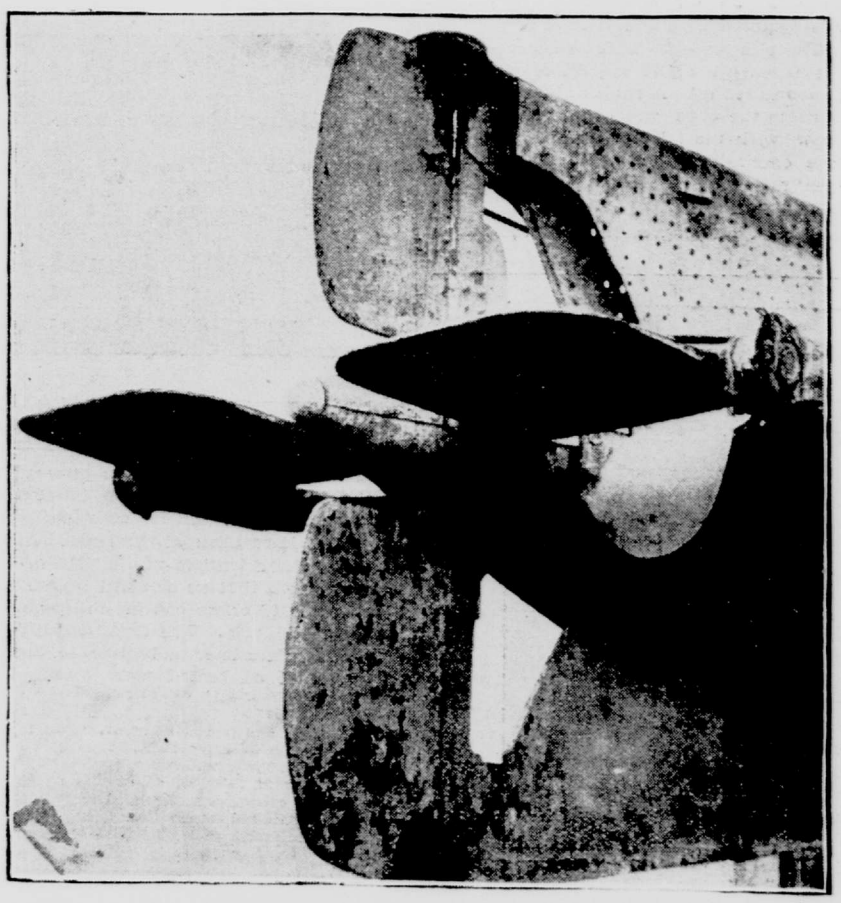


FIRST SUBMARINE BUILT IN AMERICA.
Fifteen men in all lost their lives in experimenting with her.

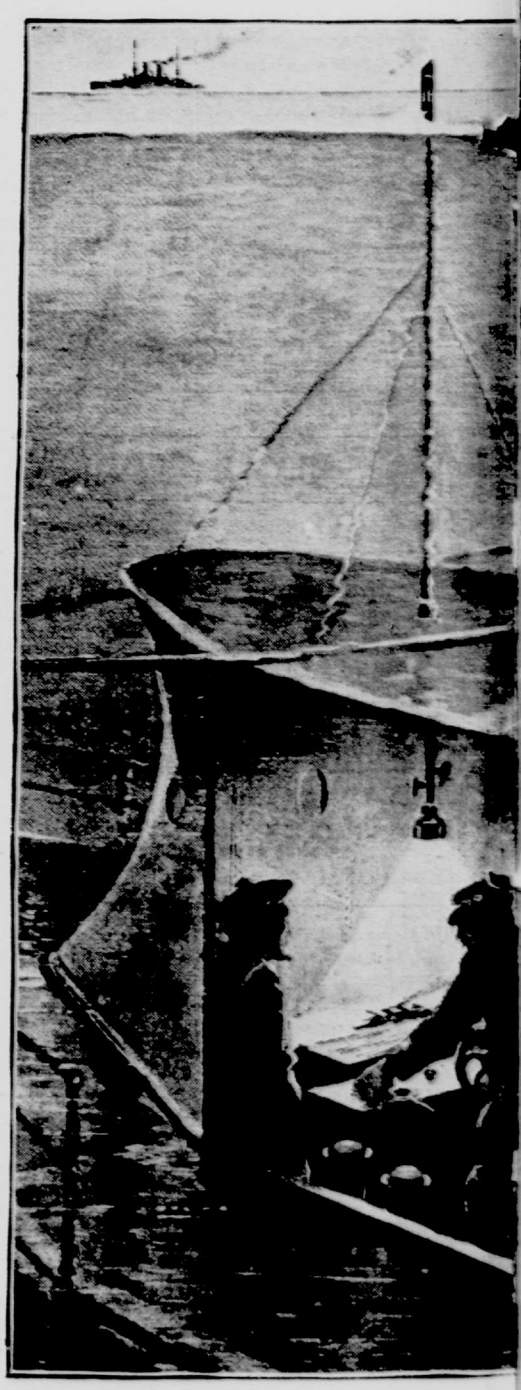


SHOWING THE DIFFICULT POSITION WHICH MUST BE HELD BY THE SUBMARINE WHILE DISCHARGING HER TORPEDO AGAINST A WARSHIP.

STEEL FLASKS FOR STORING CO
The air is breathed by the men a



STERN OF SUBMARINE, SHOWING TWO RUDDERS AND SCREW.
The horizontal rudder is used for diving.



SUBMARINE WATCHING HER F