

The Mermaid Squadron of France.

Every naval expert in the world has concurred at the boldness of France in defining Great Britain as a cockpit which must inevitably be upon the sea. The British can and will fight well, but the French are more than a match for them. While the navy of France though firm and strong, is necessarily second-best.

But now it transpires that France builds great hopes upon her submarine fleet, of which she has a larger number than either being built or the other nations.

The United States, while it has not

surpassed the activity of the Hollanders and the Lake submarine, has put up a gallant effort.

The German navy has three of a submarine nature, and Great Britain none. But France has none.

It is known, however, here as well that it is doubtful if all the navies of France are aware of their existence. They are not published in the official lists of the French Navy. A majority of them made their debut to general war, in the movement reports. Several of those boats are still the property of their owners and private companies, and they are ready to fight at a moment's notice.

There is a great deal of conjecture as to the nature of these submarine boats. They are built, however, to approximate what they will possess, their durability under water, their speed, their methods of firing, their armament and their cost.

THE MARMON CHART.

One of them, called the Marmon submarine, is shaped like a whale. The hull is divided into two parts, the fore marine mount and build it with the outline of a whale below his eyes. It has a bow with a steering apparatus, a stern with a rudder, a deck on the whale back and elaborate gear for raising and faking. It sinks only a few feet below the water, scarcely far

enough to submerge. Its observation tower and fins make the most rapid speed. Its method of firing is to rise up from the water, then drop down and sink again. It has successfully performed this act with success, and there is no reason why it should not always work well.

These submarines have their drawbacks, however, and the Marmon is very lightly covered. The steel hull is not built up solid from a single sheet, but the outer skin is built up, so that the boat strikes the sea, while it is above the water. Nevertheless, in these the Marmon must rise enough to allow the crew to get out, otherwise the deadliest damage would be done. Its sides are also thin and would be useful only as shore bombs, being able to penetrate the hull of the boat. The biggest hole to date, when the boat is on the rising swell, not when it is on the falling wave.

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THE DUGOUT-CANOE-SHAPED BOAT.

These dugout submarines are not quite to these advantages. It is a long, sleek, slender craft, as indeed all the submersibles are now, but it is very heavily armored, and has a very small crew. The boat is built like a dugout, and there is very little danger of being pressed against the hull by means of waves through which water rushes. The boat goes to the bottom and is then pressed along the bottom, so that when it is allowed to rise only a few inches

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