

GREATEST FIGHTING SHIP EVER PLANNED—UNCLE SAM'S NEW "CONSTITUTION"



By Arthur H. Dutton, Late Lieutenant U. S. Navy.

A MONSTER battleship which will hurl five tons of steel projectiles at a single discharge of all of her guns!

That is the vessel upon which the experts of the Navy Department are now working, with a view of securing for the United States navy a man-of-war superior to anything that floats, even the great British battleship Dreadnought, about which so much has been written recently in the press of the civilized world. The Dreadnought was the outcome of the theorizing of the most advanced school of naval architects, confirmed by the practical experience of the Russo-Japanese war, in which the huge ship with a large number of guns of heaviest caliber was proven to be the most effective for modern marine warfare.

The proposed new American battleship for which the honored name of Constitution has been suggested will displace 29,000 tons at her normal draft, which will exceed the displacement of the Dreadnought by 2,000 tons. She will carry no less than twelve 12-inch guns in her main battery, against the eight of that caliber designed for the two monsters of the Michigan class authorized by Congress at its last session and the ten of the Dreadnought. Whatever of superiority the Dreadnought possesses over the Michigan class will be more than compensated for by the great offensive and defensive powers of the Constitution.

To carry the maximum battery and maximum armor protection, and at the same time to possess the speed necessary for the attainment of the highest general fighting efficiency, the great displacement of the Constitution was found necessary. She will be at once the largest and the most powerful man-of-war built anywhere, although some of the latest transatlantic liners are larger.

Big Battleships Best.

There was long a belief that it was bad policy to build a man-of-war overlarge. This was regarded as, in the nature of placing too many eggs in one basket. The idea has been abandoned in recent years, both theory and practice giving evidence that the vessel meant to hit the hardest blows and at the same time to resist the hardest blows of an enemy should have gun power and armor of the heaviest kind. During the Russo-Japanese war it was shown that the Japanese battleships carrying the guns of highest power were able to carry on an engagement at great range and to wreak havoc on the less powerfully armed Russian ships. At the same time their greater speed enabled them to take up and to maintain the most advantageous point of attack. In the past, four guns of 12-inch caliber were regarded as all that should be carried by a battleship, even of the largest size. In addition to these four, others of lesser caliber, such as 8-inch, 7-inch, 6-inch or 5-inch, were carried. With the increase in range and accuracy of modern guns it has been shown that the 12-inch gun is quite effective at ranges of five or six

miles. It has therefore been decided that the ideal battleship of the future should carry as many of these monster weapons as practicable. The result is the record-breaking number—twelve of them to be carried by Uncle Sam's proposed terror of the seas. There will be a large number of lesser guns—probably forty—but they will be of small caliber, probably 20-pounders, or 20-pounders at the outside. They will be used only to repulse torpedo-boat attacks, to end the range, or to hail rapidly the shell should close quarters ever be determined upon for engaging an enemy.

The advantages of such a big warship are many in addition to that to be derived from having so many guns of maximum caliber. Her great size will make her a steady, stable gun platform, enabling her to fight in any kind of weather. A high and steady gun platform is one of the most desirable things about a man-of-war. As in the case of Great Britain with the Dreadnought, the United States Government is keeping secret many of the features of the proposed new battleship, upon the designs of which the Navy Department is now at work; but it is acknowledged that she will carry mounted in turrets, one turret will be forward on the forecastle and the others on the quarterdeck and the others on the two broadsides. This arrangement will give her a fire ahead or astern from six 12-inch guns and from eight of them on either broadside. The turrets will be low, with slanting sides, so constructed as to produce deflection in most cases of a shot that strikes them. The turrets will be of thick steel, probably from 12 to 15 inches. There will be an armor belt 12 to 6 inches thick, along the water line; the belt, shields around the smaller broadside armor 11 inches thick above the belt, shields around the smaller guns, a heavy protective deck extending from side to side all the way across the ship and fore and aft. The subdivision of the hull beneath the water line into water-tight compartments will be extensive. Furthermore, the double bottom will be more extensive than in any vessel, to lessen the danger from torpedoes and marine mines. This double bottom in certain parts a triple bottom will be such as to enable the vessel to float even after a torpedo or mine has exploded against her.

A unique departure will be the protection of the magazines and the machinery from damage from beneath. During the Russo-Japanese war several vessels on both sides were damaged or destroyed by the blowing up of the magazines or mines under water. The fate of the United States battleship Maine in Havana harbor in 1898 was also made more awful by the exploding of her forward magazine after the mine was set off beneath her. In the Constitution it is proposed to remove or at least to lessen this danger by armoring and otherwise protecting the magazines and boilers from submarine attack.

The Constitution will be about 310 feet long, with an extreme breadth of 80 feet with a draught of about 23 feet. She will have a speed of 20 knots, which is nearly as high as the speed of the latest and swiftest cruisers, which rarely exceed 21 or 22 knots.

Submerged Torpedo Tubes.

There will be four submerged tubes, for discharging torpedoes. Not long ago the Washington authorities thought that torpedoes should not be carried by any but the small torpedo vessels, but since the Russo-Japanese war this opinion has changed. Having the torpedoes at all times submerged, out of the way of an enemy's projectiles, the old fear that they would be as great a source of danger to the vessel carrying them as to the vessel they were meant to attack has been removed. The Constitution's crew will number about 1,000 officers and men, including marines. She will be fitted up with commodious quarters for all and will have plenty of storage room for am-

munition, general supplies and 3,000 tons of coal, which will give her a wide cruising area without stopping to replenish. Some idea of the power of this great battleship may be formed by comparing her with other battleships with which the American people are more or less familiar. She could with ease single-handed defeat together the Keatsarge, the Kentucky, the Ohio, the Wisconsin and a couple of our older battleships, such as the Oregon. She will be more than a match for the new Louisiana and Connecticut combined. She would probably be the victor in a combat with the Dreadnought and any other two battleships in the British navy. Admiral Cusiberti, chief constructor of the Italian navy, who has long been an advocate of the big battleship and who is recognized as one of the foremost naval architects in the world, has said of the general plans of the Constitution: "Such a ship could fight without throwing away a single shot; without

wasting ammunition. Secure in her exuberant protection, with all her twelve twelve-inch guns ready, she would swiftly descend on her adversary and pour in a terrible converging fire at the belt armor. Having disposed of her first antagonist she would at once proceed to attack another, and almost untouched, dispatch yet another." With the improved loading contrivances of the present day the big twelve-inch guns may be fired with deliberate aim once a minute. It takes little imagination to picture the terrible onslaught of eight of these, each throwing an 850-pound shell, fired at the rate of even four a minute from the Constitution's broadside battery, with even half the accuracy that American sailors have developed in their continuous target practice since the Spanish war. There will be no military masts, with their so-called "fighting tops" on the new Constitution, these having been shown by experience to be cumbersome and inefficient. Instead there will

two comparatively slender masts, fitted only with signal yards and with platforms and tops from which to keep the vessel's telegraph apparatus and an elaborate electric plant will be installed on the new ship. While the ammunition hoists, turret-turning and gun-training gear will derive their power from electricity, there will also be means for quickly applying steam power should the electric gear get out of order during an action. The great features of the new monster for our navy will, then, be high speed for a vessel of her class, excellent armor protection and a battery consisting of twelve 12-inch guns and an array of very small rapid-firers. When this great vessel takes the sea by time of war it will indeed be a proud commander who walks the bridge, for he will have beneath him the greatest man-of-war ever built.

It is roughly estimated that the new Constitution will cost about \$5,000,000 for hull and machinery alone. Armament, equipment and outfit will be extra. But her prowess will, it is firmly believed, justify the expenditure. Smaller battleships, three or four of which she would be able to conquer single-handed, would each cost about one-third as much as she. It is the intention of the Navy Department to ask Congress at its forthcoming session to authorize the construction of this new man-of-war. An effort was made at the last Congress to arrange for her building, but at that time the designs were not sufficiently advanced to justify the undertaking. Congress contenting itself with providing for the two 18,000-tonners of the Michigan class, with their eight 12-inch guns. Now, however, the development of the plans of the Constitution, the success of the British Dreadnought and the spread of knowledge of the details of the Russo-Japanese war and its lessons are believed to be sufficient to prove the immense advantage of the "big-gun, big ship" over prevailing



THE FIRST CONSTITUTION.