The First Triple-Turreted Warship

A New Italian Battleship Marks a Departure From Existing Types

By Percival A. Hislam

THE triple-turret warship is now an accomplished fact. The Italian battleship, "Dante Alighieri," and the Austrian battleship, "Viribus Unitis," both equipped on this system, have successfully completed their trials. In both cases it is reported that the three-gun turret gave every satisfaction, as regards both the mountings and the rapidity of fire. A long-discussed question is thus definitely answered.

The distinction of being the first warship with three guns in a turret to pass into commission belongs to the Italian vessel. The "Dante Alighieri" was laid down at Castellamare on June 6th, 1909, launched on August 20th, 1910—she was the first all-big-gun ship to be launched by a Mediterranean power—and was commissioned in the middle of August. She is 520 feet long on the water-line and 87½ feet in beam, her lines being, therefore, considerably finer than those of the majority of modern battleships. This is largely due to the fact that Italy is more or less combining the battleship and the battle-cruiser in her newest ships. Indeed, no distinction is officially drawn between the two principal classes of armored vessels in the Italian fleet, ships of both types—battleships and cruisers—being known collectively as "nave da battaglia."

As a result, speeds are unusually high. Italian designers have for many years past produced fast and heavily armed vessels on comparatively small displacements, but only at the expense of armor, and also, it is believed, of structural strength.

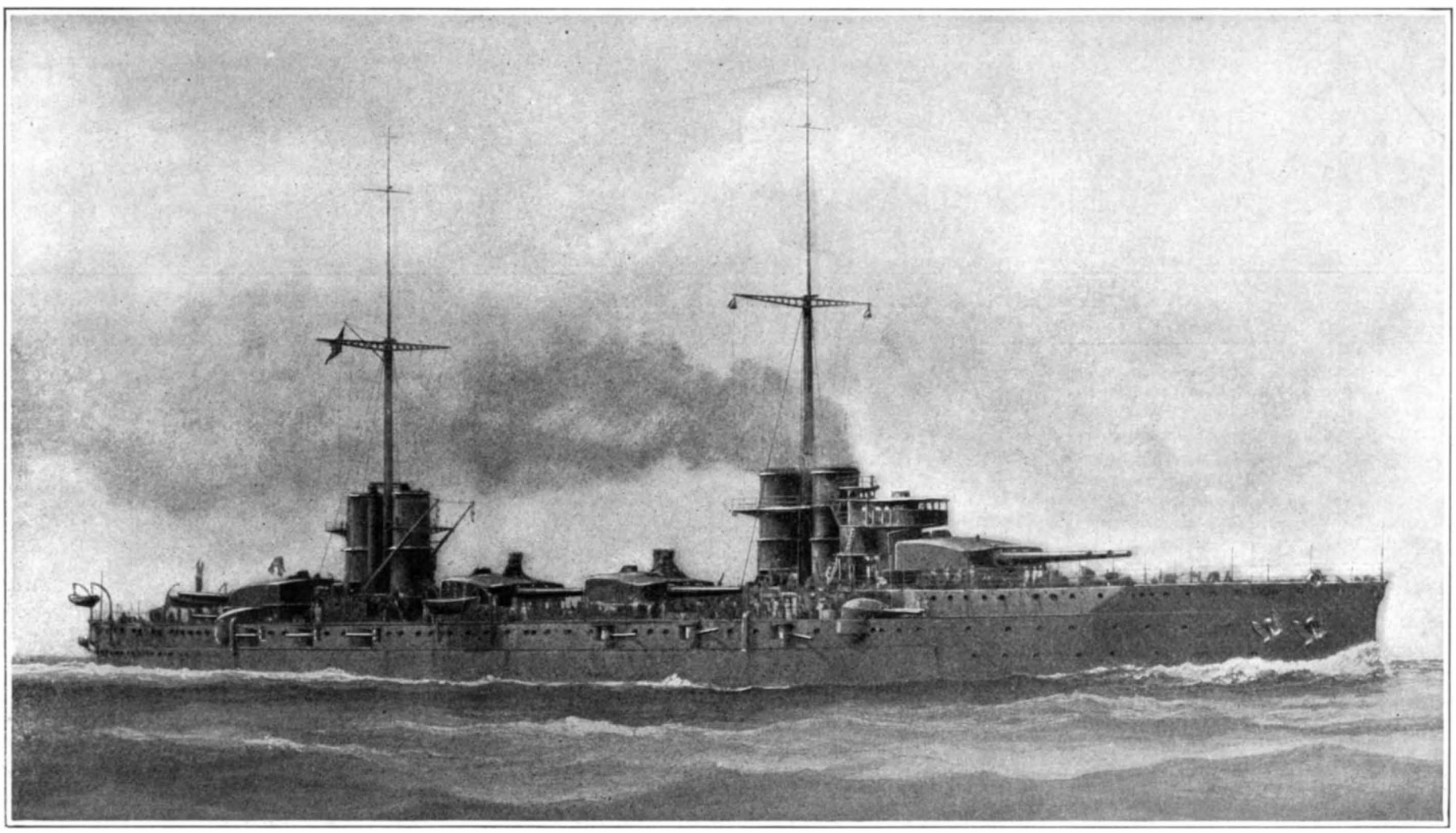
The "Dante Alighieri" has a displacement of 19,400 tons, and for her main armament she carries twelve 12-inch 46-caliber guns in four center-line turrets. The arrangement of the turrets is rather unusual in four-turreted ships, one being placed fore and one aft, and two close together amidships. The disposition may fittingly be compared with that adopted in the Austrian "Viribus Unitis," which has two superposed turrets fore and aft, and with that of the Russian battleships of the "Gangut" class, in which the two interior turrets are arranged on the *echelon* principle. In the last two cases there is a full broadside and an end-on fire of six guns, while the Italian vessel, though firing twelve guns on the beam, brings only three to bear ahead and astern.

It may be recalled that the United States battleships "Nevada" and "Oklahoma" will have their big guns (14-inch) arranged on the principle of the "Viribus Unitis," save that the superposed turrets will contain two guns instead of three, giving an end-on fire of five, and a broadside fire of ten. In the "Pennsylvania" there will be three 14-inch guns in each of the four turrets.

The protection of the Italian ship shows plainly in what direction sacrifices have been made to secure high speed and a powerful armament on a small displacement. The main belt is only 9⅞ inches thick, and even this thickness is not maintained over the whole length of the citadel. The main belt is roughly terminated at the outside funnels, and the bases of the end turrets are protected by only 7 inches of armor. The barbettes, or gun-bases, are protected by only 9 inches of armor, and the hoods over the guns are half an inch thicker. Here again it is interesting to recall the case of the "Nevadas," which have a uniform belt of 13½ inches inclosing the whole of the vital parts, while the guns are protected by 13-inch bases and 16 to 18-inch turret faces. The "Dante Alighieri" has one protective deck an inch and a half thick; the American ships have two, one of 3 inches and one of 1½ to 2 inches.

The designed speed of the Italian ship was 23 knots, with turbines of 26,000 horse-power. On her trials she is reported to have made 24 knots with something in hand. Her armament against torpedo-craft comprises twenty 4.7-inch guns, twelve mounted behind 4-inch armor on the main deck and eight in small turrets abreast of the big-gun turrets at either end. Three submerged torpedo-tubes are fitted; the maximum coal capacity is 2,500 tons, and the complement is 900 officers and men.

Three other and larger Italian dreadnoughts are completing afloat—the "Conte di Cavour," "Leonardo da Vinci," and "Giulio Cesare." On a displacement of 22,340 tons these ships will carry thirteen 12-inch guns in five center-line turrets. The first, third and fifth will have three guns in each, while the second and fourth will be superposed over the first and fifth, and will contain two guns each. Two similar ships, "Duilio" and "Andrea Doria," are building, and two more, to be armed with 14-inch or 15-inch guns, will shortly be laid down. It is interesting as bearing on the differences between contemporary dreadnoughts to notice that the first four French ships of this type will have a combined broadside of forty 12-inch guns, while the first four Italian ships will total fifty-one.



Displacement: 19,400 tons. **Speed:** 24 knots. **Armor:** Belt, 9⅞ inches; turrets. 9½ inches. **Armament:** Twelve 12-inch guns, twenty 4.7-inch guns. **Coal Supply,** 2,500 tons.

Italian battleship "Dante Alighieri."

Wrongly Named Substances

BLACK lead does not contain a single particle of black lead, being composed of graphite.

Brazilian grass does not come from Brazil, or even grow there; nor is it grass at all. It is manufactured from strips of palm leaf (*Chamærops argentea*) and is imported chiefly from Cuba.

Burgundy pitch is not pitch, nor is it manufactured in, or imported from Burgundy. The best is a resinous substance prepared from common frankincense and brought from Hamburg; but by far the greater quantity is a mixture of palm oil and resin.

Cuttle bone is not bone, but a structure of pure chalk, once embodied loosely in all the substance of certain extinct species of cuttlefish. It is inclosed in a membranous sac, with the body of the fish, and drops out when the sac is opened, but it has no connection whatever with the sac of the cuttlefish.

Galvanized iron is not galvanized. It is simply coated with zinc; and this is done by dipping it in a zinc bath containing muriatic acid.

German silver is not silver, but a metallic alloy, which was not even invented by a German. It has been used in China for ages.

Honey soap contains no honey, but is one part palm-oil soap and three parts yellow or crude soap, scented.

Japan lacquer contains no lac and is made from a kind of nut tree.

Meerschaum is a composition of silica, magnesia and water. The name implies petrified sea foam.

Mosaic gold has no connection with Moses or the metallic gold. It is an alloy of copper and zinc, used in the ancient musivum or tesselated work.

Mother of pearl is the inner of several sorts of shells, but not the real mother of pearl, rather being the matrix of pearl.

Pen means a feather (Latin *penna*). A steel pen then is a misnomer.

Salad oil is not oil for salad, but for cleaning salades.

Whalebone does not possess any of the properties of bone, but is a substance attached to the upper jaw of the whale and serves to strain the water which the creature takes up in large mouthfuls.