

THE NEW FRENCH BATTLESHIP "DEMOCRATIE."

BY LIEUTENANT-COLONEL C. FIELD, GLASGOW.

The fine French battleship "Democratie," which was put upon the stocks at Brest in the course of last year, was very recently launched in the presence of a large and enthusiastic crowd of spectators. The displacement of the new war vessel is 14,800 tons, and the weight of her armor alone when complete is estimated to reach 4,000 tons. She is 439 feet in length with a beam of just over 79 feet, and will draw nearly 28 feet of water.

She will carry an armament composed of four 12-inch guns, placed in turrets at bow and stern; ten 7.6-inch quick-fire guns, of which six are in turrets and the remaining four in casemates, two on the main deck forward and two on the lower deck aft; and twenty-eight lighter pieces of ordnance. The ten 7.6-inch guns are a change from the original design, which provided the "Democratie" with sixteen 6.4-inch weapons, of which twelve were carried by pairs in the turrets, which are now to contain a single 7.4-inch gun apiece. Besides her artillery the new ship will be provided with five torpedo tubes, two of which will be placed below the waterline, the remaining three being protected by the armored side.

The armor carried by the "Democratie" will be strong and extensive. She will have a complete armor belt at the waterline extending from stem to

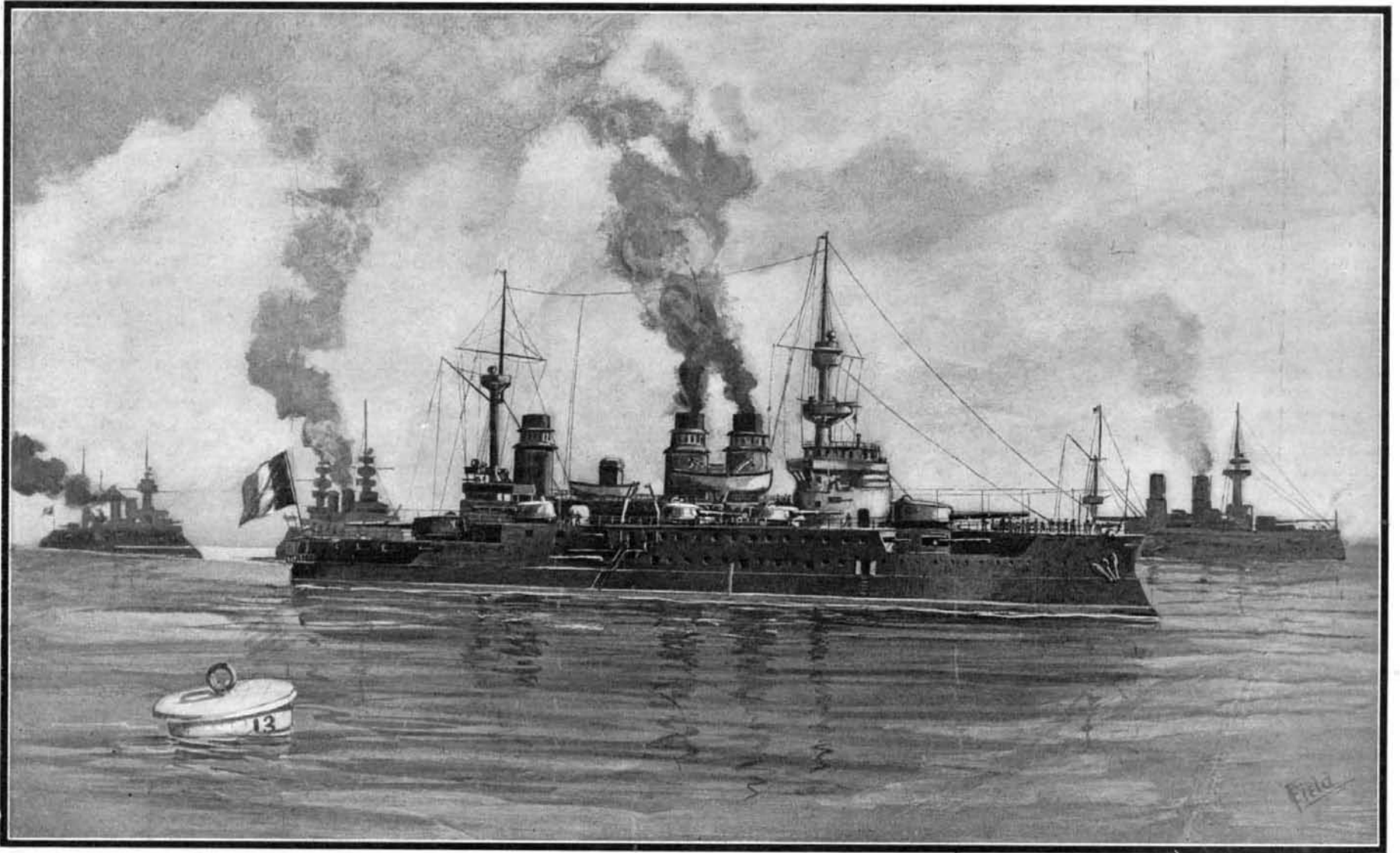
THE GOVERNMENT PHILIPPINE EXPOSITION.

BY THE ST. LOUIS CORRESPONDENT OF THE SCIENTIFIC AMERICAN.

If one were called upon to name the one exhibit at St. Louis which, in its completeness and intrinsic value and interest, takes precedence over any other, his choice must surely fall upon the Philippine Exhibit, which was gathered together, constructed, and is now being run, under the auspices of the United States government. The name of its sponsors is of course a sufficient guarantee that this work has been done with conscientious thoroughness, and too much cannot be said in praise of the completeness and highly instructive character of this display. The object of this costly exhibit is to familiarize the people of the United States with the Philippine possessions. To quote the words of its officials: "One thing that has stood in the way of the proper development of any colonial possession by its governing country, has been the fact that a lack of knowledge of the real conditions and affairs of their colonies has blocked the way of the legislation most necessary for such development and exploitation." The credit for the work is due largely to the initiative of Secretary Taft, who induced the Philippine Commission to make an appropriation of over \$1,000,000, for the purpose of securing and making an exhibit of Philippine products, manufactures, art, ethnology, and education, to say nothing of the customs and habits of the Philippine people, at the Louisiana Purchase Ex-

and, in fact everything pertaining to this exhibit, is of Philippine origin, the very material of which the villages are constructed having been brought over, together with the Philippine natives themselves, from our new possessions. The visitor can stroll through village after village, and see these naked savages wearing nothing but the loin cloth, following the round of their daily life, cooking, sleeping, and engaging in their pastimes and sports, exactly as they do in their native islands. They are a bright, sunny race, glad to talk with the *Americano*, and ever ready to respond, with a smile that shows their pearly-white teeth, to any questions which they are able to answer.

Down in the shady canyons of the Exposition grounds, and along the shores of the lake, one may study the Filipino as he was when the United States took charge of the islands. On the central plateau of the grounds above, may be seen the Filipino as the United States government has improved him; for here, strutting around in their natty khaki uniforms, and looking every inch the United States soldier, are to be seen several companies of the native scouts, a body of soldiers which owe their origin to that ever-to-be-lamented army officer, Gen. Lawton. The original body of scouts did good service under Gen. Lawton, and later under Gen. Young; and they proved so serviceable, and gave evidence of such good soldierly qualities, that in 1901 an act of Congress authorized the enlistment of 12,000



Displacement, 14,800 tons; Length, 439 feet; Beam, 79 feet; Draught, 28 feet; Armament: four 12-inch, ten 7.6 inch, two submerged and two above-water torpedo tubes.

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stern. It will have a maximum thickness of 11 inches amidships, but will taper off toward bow and stern. A lighter cuirass will surmount this, protecting her sides from all but the heaviest kinds of projectiles. On the top of the waterline belt will be an armored deck 2.4 inches in thickness, while the armor is reinforced lower down by a second deck 2 inches thick on the flat and 2.8 inches at the ends. The two main turrets will be covered with armor from 11 to 12½ inches in thickness, while the smaller turrets and casemates will have the protection of plating about half that thickness. The "Democratie" will have three screws actuated by three engines having a combined horse-power of 17,500. She will have, it is estimated, a full speed of 18 knots an hour and will carry 1,800 tons of coal in her bunkers. Her crew will consist of 793 officers and men, and it is hoped that she will be ready for commissioning in a couple of years' time.

Probably few botanists would know how to distinguish the apple and pear when not in fruit, except, perhaps, in a general way by the habit of growth, the branches of the pear tree being usually more erect and outline more pyramidal. The horticulturist, however, has noticed that the young leaf of the apple unrolls on one side, but that of the pear on both sides at the same time.—Gard. Chron.

position. The work was carried out by a special board with Dr. W. P. Wilson, director of the Philadelphia Commercial Museum, at its head.

This unique exhibit, which occupies 47 acres of rolling woodland, contains nearly 100 buildings, which range in size and variety of construction from the hut of the aboriginal native to the palatial Spanish Administration Building. It contains in its various structures 75,000 catalogued exhibits, and no less than 1,300 representatives of the various Filipino tribes.

Entrance to the ground is made across a lagoon by means of the Bridge of Spain, which leads through a massive gateway into the walled city. This work is a reproduction of the actual structures at Manila, and it has been done with such perfection of architectural detail and such faithful coloring, that it carries all the atmosphere of the ancient structures of the city itself. In fact, the walls are an exact reproduction of those which encircle the city of Manila proper, and within them are found a collection of war relics, furnished by the United States army and the Philippine scouts and the constabulary. The lake crossed by the Bridge of Spain is a facsimile of the Laguna de Bay, and along its shores are built the Moro, the Bagobo, and the Visayan villages, while on its waters float several large *cascos* (or scows) and various marine craft used by the islanders. Now, it must be borne in mind that these villagers, the boats on the water, the utensils,

natives as scouts. They have always proved loyal, have all been under fire, and after the civil government took charge, the scouts formed part of the many garrisons throughout the island.

Here and there one meets representatives of the Constabulary Battalion, which is composed of 11 officers and 280 enlisted men. All the Christian tribes of the islands are represented in this battalion, and, like the scouts, they have done good service. The scouts have an excellent band, which gives daily performances on the main plaza of the Exposition.

Of the native tribes to be seen in the Exposition, the most primitive are the Negritos—little fellows of a distinctly negro type, who are remarkably skillful with the lance and the bow and arrow. Nothing makes them so happy as to show their skill, by knocking a five-cent piece out of the twig of a tree at a distance of fifteen paces.

Then there is the village of the Head-Hunting Igorotes, a race that is greatly superior to the Negrito, and a fine type of agricultural barbarians. They are copper colored, and the men have a splendid physical development, the women being also well formed and of graceful carriage.

In another village are the fierce Moros, one hundred of these fiery followers of Mohammed being present at the Exposition. The Samal Moros, of whom there are forty from the island of Mindanao, are the sea rovers