American. Scientific

306

ESTABLISHED 1845

MUNN & CO., - - EDITORS AND PROPRIETORS. PUBLISHED WEEKLY AT

No. 361 BROADWAY, - NEW YORK.

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Combined Rates.—The SCIENTIFIC AMERICAN and SUPPLEMENT will be sent for one year, to one address in U.S., Canada or Mexico, on recept of seven dollars. 'To foreign countries, eight dollars and fifty cents a year, or £1 14s. 11d., postage prepaid.

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NEW YORK, SATURDAY, MAY 14, 1898.

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THE NEED FOR MORE ARMORED CRUISERS IN OUR NAVY.

We feel constrained to urge again the necessity for the addition of more armored cruisers to our navy. The naval appropriation bill this year is, we believe, not yet past the stage where it is possible for changes to be made, and we are firmly convinced that the interests of the country will be served by the reconsideration of this very important question. We think that the bill, as finally signed by the President, ought certainly to include provision for at least two or three of this invaluable type of ship. Even if they were to be included at the cost of some of the coast defense monithe opinion that the new programme of construction would gain in strength. If it is considered that the monitors are imperatively needed, the appropriation, large though it already is, should be increased to the serviceable ships.

The fact that Spain has a fleet of 20-knot, heavily armed and armored cruisers at sea, threatening to strike at one of half a dozen important points, and capable, after striking a blow, of escaping by virtue of its superiorspeed from our powerful battleships and monitors, emphasizes the value of this type of vessel both for offense and defense. For it is evident that the proper safeguard against a fleet of armored cruisers is a fleet of the same kind, having the same combinations of "New York." If we had but twice this number, we to cruise in company with the "Brooklyn" and "New the enemy.

Beyond all doubt the most pressing need of the navy is the addition of more "Brooklyns" and "New Yorks" are now built, building or authorized thirteen battlethree heavily armored vessels. If any general criticism can be made of this, our first line of defense, it is that it lacks in mobility-that while it is admirable for defense, it is not capable of those swift movements which at a critical time may turn the fortunes of a campaign. The addition of two or three 20-knot armored ships, however, would remove this defect and render us capable of making a swift concentration of powerful ships at any desired point, either for attack or defense. Such a fleet distributed among our seacoast cities and of the bugbear of bombardment by the enemy.

It should be borne in mind that unless provision is made in the present bill for additional armored cruisers, it will probably be four years before we shall have any more of this class afloat. One year, at least, will intervene before the matter can again come up for consideration, and it would probably take three years after authorization before they could be put in commission.

very ill balanced in its composition.

THE CAPE VERDE FLEET AND THE "OREGON."

What is the probable destination of the fleet of armored cruisers and torpedo boat destroyers which recently set sail from the Cape Verde Islands? Has it gone north to effect a junction with the second division of Spanish ships now about to sail from the main-² land? Is it on its way to cruise along our northern n_1 coasts and inflict what damage it can upon our less off the coast of Brazil, strung out in scouting order

tobal Colon," "Oquendo," "Maria Teresa" and "Vizcaya." The first ship is, we think, the best of the four, and, taken all round, is perhaps the most formidable, though by no means the largest, in the Spanish navy. She is an Italian built ship of 6,840 tons and 20 knots speed, and carries a complete belt from stem to stern of 6-inch Harveyized steel, while above this is a continuous armored redoubt of 6-inch Harveyized steel which protects a battery of ten 6-inch rapid-fire guns. Above this again is another battery of six 4.7-inch rapid-fire guns protected with 2-inch plates and revolving shields. The heaviest armament consists of two 10inch armor-piercing guns in 6-inch barbettes. There is tors already provided for in the bill, we are strongly of a secondary battery of ten 6-pounders and ten 1-pounders. The three others are sister ships. Two of them are familiar to residents of New York, the "Maria Teresa" having lain in the North River during the Grant dedication and the "Vizcaya" visiting this port shortextent necessary for the construction of more of these ly after the "Maine" was destroyed. Each ship is of 7,000 tons displacement and twenty knots speed, with a 3-inch deck, 12-inch waterline belt and $10\frac{1}{2}$

inches of steel protecting the heavy guns. Each is armed with two 11-inch guns, ten 5½-inch quick-fire guns, and fourteen 6-pounders and 1-pounders. The three destroyers are of about 400 tons displacement and 30 knots speed.

Now, what has the "Oregon" to oppose to the four cruisers (we will suppose that the "Buffalo" and the "Marietta" can take care of the destroyers) in a battle high speed, powerful guns and good protection. At upon the high seas? To the two 10-inch and six 11-inch present we have only the "Brooklyn" and the armor-piercing guns, whose total energy is 132,000 foottons, she could reply with four 13-inch armor-piercing could dispatch the quartet against the Cape Verde guns, with a total energy of 134,500 foot-tons. In addifleet, with the certainty that they could catch and tion to this, if the attacking ships ranged on one side destroy it. But, as matters stand, we have no two of the "Oregon," she could reply with four 8-inch guns armored ships with sufficient speed to enable them of 32.000 foot-tons energy, and if on two sides, she could reply with eight 8-inch guns of 64,000 foot-tons com-York" and join with them in a full speed pursuit of bined energy. In ability to pierce the vitals of the

enemy, it will be seen our ship has an advantage of 34,-500 foot-tons over the combined Spanish fleet. In respect of protection, the "Oregon" is even stronger than to its fighting line. In the United States pavy there she is in heavy gun fire. To reach her 13-inch guns, the 11-inch shells of the enemy must penetrate at least ships and ten monitors, making a total of twenty- 15 inches of face-hardened Harveyized steel. To get into the engine or boiler rooms they must pass through 18 inches of the same protection. Now, the Spanish 11-inch gun is barely able to penetrate 15 inches of common steel at 2.000 vards (the probable fighting range), and it can do this only if it strikes at right angles to the surface of the target and if the steel plate is of the ordinary quality. The "Oregon's" steel armor, however, is face-hardened, and would easily break up or resist complete perforation by such few shells as might strike normal to the surface. We are capable of quick assembling would effectually dispose now speaking of the vitals and the main gun positions, and, turning to the Spanish cruisers, we find that they have only $10\frac{1}{2}$ and 12 inches of an inferior grade of armor (i. e., inferior to our Harveyized steel) to oppose to our 13-inch guns, which are capable of penetrating 20 inches of steel at 2,000 yards. Now, these guns, because of their excellent protection, could fight for hours with little likelihood of being disabled, and the question arises what would become of the Spanish barbettes We cannot but feel that should the changes suggested and waterline belts in the meantime? Under the exabove not be made, our navy of the year 1901 will be cellent marksmanship which characterizes our gunners, it is safe to say that in a stand-up fight of any duration the "Oregon" would disable every heavy gun of the enemy and place her 13-inch shells in the vitals of every cruiser.

There are other elements of strength and weakness, however, which must be considered. In the matter of heavy rapid-fire guns, the advantage would be the other way, the cruisers being able to open fire from one broadside with five 6-inch, fifteen 51/2-inch and three 47-inch rapid-firers. To this we could oppose from $_{6}$ strongly fortified cities? Will it attempt to make one broadside two 6-inch slow-firers. Taking the Porto Rico and shelter itself inside the harbor mines average assumed speed of fire per minute for each and beneath the guns of the fortifications and await type of gun, the energy of the metal thrown by the there the arrival of the second squadron; or, is it now cruisers in one minute would be about 500,000 foottons against 10,000 foot-tons for the slow-firers of across the track of the "Oregon," waiting to close in, on the "Oregon." The effect of this awful hail of burstsighting her, and crush the ship by the sheer force of ing shells would depend upon the accuracy of the Spanish gunners and the part or parts of the "Oregon" against which it was directed. It would be harmless against the 17-inch barbettes, the 15-inch turrets or the 18-inch belt. If it were directed against the thin plating beneath the 8-inch gun barbettes the guns would, of course, be put out of action. The real danger would be that it would be aimed at the unarmored ends of the vessel beyond the armor belt. which would be blown away and admit water above the protective deck, throwing the ship off an even keel and interfering with the working of the main guns. The greatest danger, however, to the "Oregon" would be from the ram, and it is probable that the swift cruisers would close in from opposite sides in the effort to deliver the fatal blow before they had themselves receiv d a mortal blow from her powerful guns. It is certain she could be sunk by these tactics, but it is more than probable that she would cripple all of her antagonists and eventually take one or more of them with her to the bottom. Unless the Spanish naval authorities are criminally

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Of the May Number of the SCIENTIFIC AMERICAN, BUILDING EDITION.

(Illustrated articles are marked with an asterisk.)

Subscription, \$2.50 a year. Single copies, 25 cents.

numbers?

There has been much fear expressed that the last is the move which has been undertaken, and that, before any reinforcements can reach her, the "Oregon," with her little consort the "Marietta" and the unprotected "Buffalo" ("Nictheroy"), will find herself confronted by an overwhelmingly superior force. It seems to us, however, that, in spite of the tempting opportunity presented to get rid of one of our four first-class battleships, the cost of victory will appear too great to warrant the attempt. Leaving out of consideration the unarmored and unprotected "Marietta" and "Buf falo," which would only invite destruction by coming within range of the 11-inch guns of the Spanish cruisers, we think that the tremendous offensive and defensive powers of the "Oregon" should enable her to sink one or two of the enemy and seriously cripple the others before she was sent to the bottom, for it goes without saying that no American flag will ever be struck in the present war.

The Spanish fleet consists of four cruisers : the "Cris-