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NAVAL APPROPRIATION BILL.

The liberal appropriation of \$57,000,000 for the increase of the navy which has been agreed upon and reported to Congress is by far the largest sum ever voted for the purpose. The bill calls for the expenditure of \$32,000,000 more than the appropriation for the current year and \$19,000,000 above the sum voted by the House, most of the amendments made by the Senate being adopted by the conferees.

The bill calls for the construction of three first-class Lakes to cost \$260,000. Fully as important as the construction of warships is the matter of dry docks, and we are glad to note that four first-class docks, to cost \$825,- Manila, the capital, was founded by Legaspi in 1571, 000 each, are to be built, one each at Portsmouth, Bos- and since that time they have been under the dominion these a steel floating and graving dock is to be built at contrast to the usual Spanish methods of dealing with 000 for the construction of new buildings for the An-are the chief exponents. Legaspi with six Augustin-

vision for building any more of those invaluable armored vessels, like the "New York" and the "Brooktleship with the speed of the cruiser, and are known as armored cruisers.

The armored cruiser carries sufficiently heavy armor and guns and has sufficient speed to enable it to fight or avoid almost any type of warship afloat in the world to-day. Our own "Brooklyn" can catch all but a very was restored in 1764. The present insurrections in the few of the fast cruisers afloat, and her battery is so powerful that she would stand more than an even chance of silencing any but two or three of the latest ships of her type. With these exceptions, she could sink or capture any kind of vessel outside of a battleship, and there are many of this type that would be badly used up in a duel with either the "New York" or the "Brooklyn."

Now it is the lack of mobility or the power to move swiftly from place to place that severely handicaps the battleship or monitor in its attempt to protect Spanish fleet, which is reported to have sailed for the west, has a speed of 20 knots, none of the vessels beour swift protected cruisers, like the "Columbia" and "Minneapolis," "San Francisco" and "New Orarmor and 11-inch armor-piercing guns.

armor-piercing guns to 12 inch steel belts, and must cathedral. have speed to match speed, if we are to bring such a fleet to battle and make sure of sinking it.

It is true we have the before mentioned "Brooklyn" and "New York," and, ship for ship, they would be a match for the Spanish cruisers; but not even our sublimest faith in the excellence of our gun crews would make us trust these two ships to the concentrated the year. The hot season lasts from March to June fire of four or six ships of the same class.

Scientific American Supplement even if armored cruisers were ordered, they would not be September and October, the rain comes down in toravailable for service until long after the present war is finished. At the same time it is evident to any one who watches the trend of events that the speed of modern armored warships is rapidly increasing. The "Yoshino," 12,320 ton battleship, built for the Japanese navy, has a speed of 191/2 knots, the 13,860 ton battleship "Sardegna," of the Italian navy, can steam 20 knots, and armored vessels such as the "O'Higgins," 8,500 tons, and "Esmeralda." 7,000 tons, of the Chilean navy, will steam 21½ and 23 knots respectively.

> weather gage was to the sailing frigate. It enables \$13,500,000 and the expenditure \$13,200,000. There is the faster vessel to fight or not, as she pleases, and enables her to place herself at whatever fighting range is best suited to her capacity. The ability of a warship to protect an exposed coast line is largely in the ratio of her speed, and, for quick concentration at strategic points, speed is obviously of the greatest value.

> We think that if two swift and armored cruisers of the type of the Brooklyn were substituted for one of the battleships and one of the coast defense monitors, we should be so much the better prepared to Luzon and is about 600 miles from Hong-Kong. It meet the possible ravages of high speed armored craft in the future.

TRAVEL on the Bulawayo Railroad is exciting The Shashi River rose recently four feet above the bridge tracks, so that engines could not cross. A train was made up as long as the width of the river, pushed across by one engine, and taken up on the other side by another. Soon after the bridge was washed away.

THE PHILIPPINE ISLANDS,

During the last few days attention has been directed toward the Philippine Islands, the objective point of the United States Asiatic squadron, which sailed from Hong-Kong on April 27, to engage the Spanish fleet. The Philippine Islands are an archipelago southeast of Asia. They extend almost due north and south from Formosa to Borneo, and they separate the South China Sea from the Pacific Ocean. The number of islands in the Philippines is variously estimated from 1,200 to sea-going battleships, to carry the heaviest guns and 1,400, and it was not until the last few years that some armor, the cost of each ship, exclusive of armor and of the larger islands were explored sufficiently to enable armament, to be \$3,000,000. It also provides for four their area to be accurately computed. According to coast defense monitors, each to cost \$1,250,000; sixteen! Domann's map (1882) the area of the islands was 114,356 torpedo boat destroyers and twelve torpedo boats to square miles. The two largest islands are Luzon (area, cost \$6,900,000 and one gunboat for service on the Great | 40,024) and Mindanao. Their aggregate area is 52,050 square miles.

The islands were discovered by Magellan in 1521, and ton, League Island and Mare Island. In addition to of Spain. Their conquest and retention was in marked Algiers, La. The Senate amendment calling for \$1,000,- | conquered people, methods of which Cortez and Pizarro napolis Naval Academy was agreed to by the conferees. ians and a handful of soldiers accomplished the won-Taken altogether, the programme of new construct derful work of conquest. Without greed for gold and tion is an excellent one and, with one important excep- without any exhibition of cruelty or persecution, these tion, it meets the more pressing needs of the navy. The devoted men labored among the docile people until exception is to be found in the fact that there is no pro- they won their confidence, so that the islands were seized with little bloodshed and no massacre or depopulation. The name "Islas Filipas" was given by Lelyn," which combine the fighting qualities of the bat- gaspi in 1567. Contests with frontier rebellious tribes, attacks by pirates, earthquakes and typhoons serve to break up the monotony of an otherwise uneventful

Manila was captured by the English under Draper and Cornish in 1762, and ransomed for \$5,000,000, but islands were put down with an iron hand and many atrocities were committed, so that it is little wonder that many of the inhabitants look upon the arrival of the Americans as a deliverance.

While none of the islands have very high mountains (the highest, Apo, in Mindanao, being over 9,000 feet), still all the islands may be described in general as mountainous and hilly. Volcanic forces have had a large share in shaping the archipelago, but few of the peaks are now volcanic. In 1814 a terrible eruption destroyed 12,000 people at Camalig, Budiao, Albay, a long stretch of coast line, such as we possess. The Guinobatan and Daraga. In 1867 the same district was visited with another eruption. The Philippines are also notorious for terrible typhoons. In 1876 one ing slower than that. Such a fleet could cruise in the of the storms burst over Luzon, pouring down the same waters as a fleet of 15 or 16-knot battleships for sides of the mountain Mayon, bringing destruction to months, without the latter being able to bring it to an a number of cities, completely ruining 6,000 houses. engagement. Nor would it be prudent to dispatch Typhoons on the coast are also common. The third great evil to which the islands are treated are the earthquakes, which visit them so frequently that they leans," against the Spanish boats with their 12-inch affect the style adopted in the erection of buildings. The most violent earthquake occurred in 1880, destroy-We must oppose armor to armor-piercing guns, and ing an immense amount of property, including the

The Philippine Islands are peculiar in having three seasons—a cold, a hot and a wet. The first extends from November to February or March. The winds are northerly and woolen clothing and a fire are desirable, the sky is clear and the air bracing, and Europeans in this strange clime consider it the pleasantest time of and the heat becomes oppressive and thunderstorms We speak of course with reference to the future: for of terrific violence are frequent. During July, August. rents and large tracts of the lower country are flooded. The population of the Philippines is 7,670,000, the capital, Manila, having 154,062 inhabitants. There is a small Spanish resident population and about 100,000 Chinese, in whose hands are the principal industries. The native inhabitants are mostly of the Malayan race. The government is administered by a governorgeneral and a captain-general, and the forty-three provinces are ruled by governors, alcades or commandants, according to their importance or position. Superior speed is to the modern warship what the The estimated revenue of the islands in 1894-95 was an export duty on tobacco and nearly every article imported is taxed. The chief products are sugar, hemp, coffee and indigo, and there are large coal fields which are now being opened, so that it is expected that 5,000 tons of coal per month may be mined. The imports in 1896 were about \$12,000,000 and the exports \$20.500,000. There are 70 miles of railway on the islands and 720 miles of telegraph.

Manila lies on the western side of the island of has one of the most spacious and beautiful harbors in the world. The shores are low and inland can be seen the outline of mountains. The city of Manila resembles a dilapidated fortress surrounded by stone walls 300 years old. There is also a wide, shallow moat. The gates are never closed and it is doubtful if the city could make any defense. There is also an old fort. Several creeks branch off from the landlocked bay and afford a means of communication with the suburbs.