

buy old, secondhand vessels and use them in dangerous waters, at a high cost for repair and for services for which they were not designed. Neither the American people nor congress desire that lives shall continue to be sacrificed when measures can be taken which will stop the sacrifice at trifling cost. Both congress and the American people are willing to spend for needful work well done whatever that work requires for its reasonable performance.

There is so much talk about governmental extravagance that the people hardly understand that some of their services are run upon a basis that it would be lavish to call frugal. They do not want their officers who must stay at sea to be obliged to eat and sleep and wash in the same room as they are now obliged to do. They are just as anxious that their seamen shall have sufficient room and air in which to sleep as they are that their children shall be provided with air in schoolhouses. It has been suggested as perhaps a kindly criticism of administrative officers that they are properly enthusiastic over their own work, but no such disclaimer will do away with hard facts. When a steamer must do work at sea that has not sufficient power for steering-way in heavy weather, the risk and responsibility can not lie upon this department, but must rest with those to whom, when the facts are plainly stated, is given the honorable duty of providing funds that such conditions shall no longer exist.

It is a shameful thing to send officers of the United States to sea in such ships as the Endeavor, the Gedney, and the McArthur. To require the continued use of these ships is but little removed in wisdom from a policy which would refuse to build a modern battleship because the old Constitution was still in existence. With a loyal willingness to accept the dole handed them by a great government, the service has continued these ships in use. It can do so little longer. By the time new vessels can be built to replace them it will be a grave question whether these ships can be sent to sea at all and whether the important work they do must not be stopped till safe vessels are provided.

If for a moment it were conceded, which it is not, that the coast and geodetic survey was itself negligent and extravagant, there would remain no reasonable excuse for the continued use of these ships. They are expensive luxuries, costing largely for maintenance, extravagant in the waste of time and fuel and likely to be even more extravagant in the waste of lives.

These old, obsolete ships, without wireless equipment and deficient in many modern appliances, can not be safely used except in protected waters. The expense of repairing them is great and becoming greater. The Endeavor, now working in sheltered waters on our Atlantic coast, can not be sent to the Pacific, since she could not survive the voyage. The steamers Gedney and McArthur, while still employed on surveys in sheltered waters in the Pacific, are unfit for service. These three old steamers are, respectively, 52, 39, and 38 years old, are single-screw, single-cylinder, and single-boiler coal-burning vessels, without electricity for wireless or for lighting, without refrigerating plants, without condensers to make fresh drinking water, and with quarters such as were, indeed, permissible at a somewhat remote age in our marine development but which, like their other equipment, are now medieval.

There is a very large amount of survey work needed all along the Pacific coast, especially on banks and reefs as yet only imperfectly developed. Such are Blunts Reef, off Cape Mendocino; Heceta Bank, off the Suislaw river; and a bank 12 miles off the Alseya river. The off-shore work from the Mexican boundary all the way to Cape Elizabeth, Wash., a stretch of 1,200 miles, is incomplete, and there is one reach of 150 miles from Cape Blanco to Cape Lookout where no systematic work has been done. Detailed development work is needed off all the projecting points of the coast, such as Points Conception, Buchon, Lopez, Cape Mendocino, Eel river, Humbolt bay, Trinidad point, St. George, Cape Blanco, Cape Lookout, etc. The entire Pacific coast will not be as safe as it ought to be till this work is done. For it strong, seaworthy vessels with ample power and wide steaming radius are necessary. Neither of the three old ships mentioned can be risked in such service.

But the restrictions placed upon the coast and geodetic survey through ancient vessels are not all the burdens this service has to bear. It is not provided with the necessary apparatus for

making the soundings which it is required by law to carry on and for which it exists. Sad experience has shown that the ordinary sounding apparatus will not detect that dangerous foe of the navigator—the pinnacle rock. On various points of our coast sharp spines of rock project from the bottom with points so small that a sounding line glances off. Two such have within recent years caused serious losses. One was the means of sinking the lighthouse tender America on May 20, 1912, causing a loss of \$175,000, and another sank the steamship State of California on August 17, 1913, with a loss of 31 lives and \$350,000 value in property. Half the cost of these two wrecks used in surveying with the only apparatus for the purpose would have gone far to making the coast of Alaska safe. In cases of this kind the use of what is known as a "wire drag" is essential to make channels and harbors safe for vessels. There is no other method by which safety can be assured, and the extension of this work is an urgent necessity not only in Alaska but along other portions of our coast.

The wire drag is a device by which a long wire, maintained at any desired distance below the surface of the water, is towed over the area to be examined. The action of one of the many buoys which support the wire indicates the presence of an obstruction and its location. This device surely finds such obstructions. Nothing else will do so. As the speed at which such a device can be towed is but from 1 to 2 miles an hour, to which must be added the time taken in buoying the obstructions met and in determining their exact depth and position, the work is necessarily slow though thorough.

The plan of discovering hidden rocks by running vessels on them is still in vogue. This does not commend itself as a business proposition, apart from the humanity of the case. It has been such common practice, however, that rocks are commonly named after the steamer which hit them. For example, in Tongass Narrows, Alaska, are Idaho rock, Ohio rock, Potter rock, and California rock, each named after the vessel which discovered it by striking it.

We have never sized up the work of surveying the dangerous coast of Alaska on a scale as large as is necessary. We have gone at the matter on a scale as futile as the poor woman's attempt to sweep back the Atlantic with a broom. We put thirty millions into a railway to develop a growing national possession from which we have drawn hundreds of millions in value without providing the ordinary apparatus required to make surveys to insure safety in waters known to be dangerous by their continuing terrible record.

Under these circumstances it will ask congress for a sufficient further sum to permit keeping its vessels in operation throughout the year, to provide for the early building of new ships to take the place of the three which are antiquated and dangerous, and for the use of a wire-drag apparatus in Alaskan waters throughout the short season incident to that territory. It earnestly hopes that the cogent reasons that have been given will lead to the providing of the necessary funds. This will call for an increase of the appropriation for Pacific waters of from \$165,000 to \$225,000 and for an appropriation of \$500,000 for the construction of vessels.

#### BUREAU OF FOREIGN AND DOMESTIC COMMERCE

At a recent interview between the Argentine ambassador and Secretary Redfield, an important cable message from the Argentine government bearing upon the commercial relations between the two countries was presented. Through the courtesy of the Argentine ambassador, and with the consent of his government, this dispatch, a cablegram, dated October 31, 1914, from the minister of foreign relations of Argentina to the ambassador of that country, has been given publicity. It is as follows, and its importance is obvious:

"There is at present no congestion of merchandise in our ports. Wheat and flour are not exported at present because of the embargo established by the executive power on those products. Corn, meat, and wool are exported without great difficulty, but we fear the scarcity of the means of transportation for our production in the near future. A very effective outlet would be the arrival of steamers from the United States with usual cargoes—that is to say, impure naphtha, wood, iron, agricultural machines and implements, petroleum, furniture, lubricating oils, etc. Those boats would return with

our products—that is to say, meat, wool, hides, quebracho, livestock, etc. American manufacturers can occupy the place left vacant by European industry in all the branches that have been served by it. The present moment offers to American manufacturers very appreciable advantages for occupying positions, profiting by the present European inability. In order to get these advantages they must take the initiative themselves, sending, at least, small cargoes and also agents, and especially adapting themselves to the custom of not demanding cash payment, as has been practiced by others with very well known success."

The department of commerce hopes and expects that American manufacturers will take full advantage of the opportunity thus extended them through the courtesy of the Argentine government.

That Latin American countries are looking to the United States for the capital and the market for their products which they formerly found in Europe is emphasized in a pamphlet just issued by the bureau of foreign and domestic commerce giving the addresses made by representatives of Latin American countries at a conference with American business men recently held in Washington. The pamphlet, entitled "Statements on the Latin American Trade Situation," contains the statements made by the ministers from Bolivia, Uruguay, Peru, and Cuba to the United States, the consuls general of Costa Rica and Colombia in New York, the minister from Ecuador to England, and others, besides the opening remarks of Secretary of State William J. Bryan, and a statement by Secretary Redfield. Many obstacles to the development of Latin American trade with the United States were commented on, notably the matter of credits and that of a proper understanding of the Latin American way of doing business on the part of business men in the United States.

#### THE NATION'S GROWTH

An epitomized record of our nation's growth in area, population, and resources is contained in the "Statistical Record of the Progress of the United States, 1800-1914," a recent publication of the bureau. In all cases where the statistical data permit, the tables cover more than a century; the later inauguration of certain lines of statistics necessarily restricts, in those cases, the period covered.

Since 1850 the population of the United States has more than quadrupled, being approximately 100 million at the present time. In the same period, however, foreign commerce has grown from 318 million to 4,259 million dollars and the per capita of exports from \$16.96 to \$23.27. National wealth has increased from 7 billion dollars in 1870 to approximately 140 billion; money in circulation, from 279 million to 3,419 million; and the New York bank clearings from approximately 5 billion to over 98 billion dollars, while for the entire country bank clearings have grown from 52 billion in 1887, the earliest year for which figures are available, to 174 billion in 1913.

Evidences of improved social conditions among the people are also found. There are 19 million children now enrolled in public schools and about 200,000 students in colleges and other higher institutions of learning, and the total expenditures on behalf of education now approximate \$500,000,000 a year, the result being a rapid increase in general intelligence and a marked decrease in illiteracy. Over 22,000 newspapers and periodicals are now published, and a steady growth is shown in the number of libraries in the country. In 1850 depositors in savings banks numbered 251,000; today the number is 11 million with deposits, exclusive of those in other savings institutions, aggregating 4 1/2 billion dollars, or more than 100 times as much as at the middle of the last century.

Increased activity on the farms, in the factories, and in the great transportation industries has also developed during the last half-century. The value of farms and farm property increased from 4 billions in 1850 to 41 billions in 1910; the value of manufactures, from 1 billion to over 20 billion; and the number of miles of railway in operation, from 9,021 in 1850 to 258,033 in 1912. In the last quarter-century the number of passengers carried has increased from 492 million to 1,004 million, and the volume of freight handled from 632 million to 1,845 million short tons.

The range of subjects extends to many other factors of national life, and broad outlines are shown with respect to the world's development in population, production, commerce, carrying power, etc.