

canners who are considering the feasibility of selling goods on the other side of the Pacific. Americans who have been influenced by the Orient to the extent of taking their tea clear, without milk or sugar, will be astonished to learn from this report that the Occident is now bent on teaching the Chinese to use milk with their decoction of tea leaves — and condensed milk at that. An enterprising condensed milk company is pushing the campaign, and expects to be successful. This concern has already introduced condensed-milk ice-cream to the Chinese, and they like it so well that many of the restaurants keep it always on hand. Canned salmon is another western staple that has made a decided impression on the far east.

The third report relates to the "Canned Tomato Industry in Italy." The tomato was given to the world by America, but Italy is today teaching the rest of the world by example how it should be raised and how it should be preserved. Italian canned tomatoes have practically pushed the American product out of the English market, and have gained an enormous market in the United States. The Italians raise a solid meaty tomato of fine color, and it is so packed in the cans that the consumer is not obliged to pay for a large percentage of water. Canned tomatoes, however, are put up principally for the export trade. The Italians themselves prefer their tomatoes in the form of sauce, or paste, which is nothing more or less than boiled down tomato pulp, minus the skin and seeds. This sauce is put up in cans and is used by the Italians in a great variety of dishes, of which spaghetti is perhaps the most familiar to Americans. According to fairly accurate statistics the area planted in tomatoes in Italy is about 22,000 acres, producing about 285,000 tons. The exports to the United States amount to about 20,000,000 pounds of canned tomato and tomato sauce, and some 8,000,000 pounds of the product go to South America. The total value of the tomato exports from Italy is well over \$6,000,000. The skins and seeds that were formerly wasted are now utilized, the former as stock feed and the latter as a source of oil. The crude oil is suitable for soap making and for lamps, and the refined oil is said to be edible.

Copies of these reports may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5, 10 and 15 cents each, respectively.

IMPORTS OF COFFEE

Coffee imported into the United States in the calendar year 1914 exceeded one billion pounds, a record made only twice before in the history of our foreign trade—in 1904, when the total was 1,113 million pounds, and in 1909, 1,140 million. The value of last year's coffee imports from foreign countries was 105 million dollars, or 25 million dollars less than in 1912, when an unusually high import price, in conjunction with an increase in quantity, brought the total up to the highest value ever recorded.

Brazil is the chief source of supply of the coffee imported into the United States. Out of 1,011 million pounds imported from foreign countries last year 726 million pounds were from Brazil, 99 million from Colombia, 60 million from Venezuela, 45 million from the Central American states and British Honduras, 44 million from Mexico, and 37 million from other parts of the world, chiefly South America, Java and other Java Dutch possessions in the East Indies. Brazilian coffee has a little more than held its own in the proportion of the total; Colombian coffee has increased from less than 3 million to nearly 100 million pounds in the last twenty years.

An increasing share of the coffee consumed in continental United States is produced in its insular territories of Hawaii and Porto Rico. Last year, 2,793,052 pounds of coffee arrived from Porto Rico, compared with 372,427 pounds in 1894; and 3,501,698 pounds were from Hawaii, against 103,265 pounds in 1894. The superior quality of the coffee grown on the American territories in question is suggested by the fact that it commanded better prices than that imported from foreign countries, Porto Rican having averaged 13.4 cents per pound and Hawaiian coffee 14.8 cents, while that from foreign countries averaged only 10.4 cents per pound at the points of production. In each case, however, these prices are below the wholesale price in the United States, as they are exclusive of transportation charges, brokerage, and other expenses which would be included in the valuation in the markets of this country. The United States is the world's largest consumer of coffee, Germany, the Netherlands, France, Belgium, and Austria-Hungary having been in recent years the next largest

consumers. The domestic consumption of coffee is now over 10 pounds per capita as against 8.3 pounds in 1894, 9.3 pounds in 1884, 6.6 pounds in 1874, and 3.76 pounds in 1864.

The following table shows the growth in the importation of coffee into the United States and the range of import prices at decennial periods from 1874 to 1914:

IMPORTS OF COFFEE

Calendar year	Million pounds	Million dollars	Av. import price in cents per lb
1874	288.07	53.26	18.5
1884	250.96	46.90	9.0
1894	587.06	90.59	15.5
1904	1,112.71	87.43	7.9
1914*	1,011.07	104.79	10.4

*Exclusive of 6,295,000 pounds valued at \$894,000 from Hawaii and Porto Rico.

IMPORTS OF FERTILIZERS

The increasing extent to which American farmers must rely upon domestic fertilizers as soil foods is suggested by figures compiled by the bureau of foreign and domestic commerce which show an increase last year of 240,000 tons in the receipt of potash salts as compared with 1912 or 1913. The imports of that group of potash salts most largely used for fertilizer purposes amounted in the calendar year 1914 to 702,800 long tons, compared with approximately 942,000 tons in each of the two years immediately preceding.

The imports of guano increased from 19,100 tons in 1913 to 25,600 tons in 1914; and those of ammonia sulphate, from 58,300 tons to 74,100 tons. Calcium cyanamid, or lime nitrogen, is not reported monthly, but for the fiscal year ending June 30, 1914, the imports were 30,000 tons, or double the amount for the preceding year. Only a slight change occurred in imports of bone dust and ash, the total increasing from 34,600 tons in the calendar year 1913 to 36,000 tons last year. Of basic slag the imports in 1914 were approximately 10,000 tons, a decrease of 33 per cent from those of the preceding year. Crude phosphates, of which the United States is the world's chief producer, show importations to the amount of 24,000 tons, while apatite, a phosphate of unusual purity, decreased in quantity of imports from 3,000 tons in 1913 to less than 100 tons last year.

The aggregate value of potash salts and fertilizer materials imported into the United States in the calendar year 1914 was 38½ million dollars, as compared with 47 million dollars in the preceding year. Nitrate of soda decreased in value of imports from 21½ million to 15¼ million dollars.

BUREAU OF STANDARDS

TESTS OF TIMEPIECES

The test and certification of watches, chronometers, and other timepieces has been carried on for many years at the Kew observatory in England, at the Besancon observatory in France, and at the observatories of Geneva and Neuchâtel in Switzerland, but no such tests have been made for the public in this country, except for a few years at Yale university many years ago. This line of work is now started at the bureau of standards, and circular No. 51, entitled "Measurement of Time and Tests of Timepieces," has just been issued giving the regulations under which the tests will be made, the methods employed, together with sections on the use and care of watches, and on standard time, and the sources of reliable time standards with which one may make frequent comparisons of his watch. The first edition of the circular announces the regulations for the test and certification of watches only; the test of other timepieces will be taken up later.

For the purposes of test, watches are divided into two classes, designated as A and B, adapted to watches adjusted for five positions and three positions respectively. The former test lasts 54 days, the latter 40 days. Both tests include a test of the temperature compensation of the watch, at temperatures of 5, 20, and 35 degrees C. In the class A test is also included an examination of the isochronism adjustment of the watch. Four tests a year are carried out, beginning on the second Tuesday in January, April, August, and October, respectively. The daily rates of the watches under the various conditions are determined within about 0.1 second. If the performance of a watch is within certain tolerances set for the different conditions, a certificate is granted showing the results of the test. If a watch fails to meet the requirements, a report is rendered showing wherein it fell short of

the tolerances and giving its actual performance in the trial. Watches may be submitted by manufacturers or jobbers of watches, by retail dealers, or by the individual owners of the watches, a fee being charged which is estimated to cover the actual cost of the test. It is expected that the tests will be especially valuable in cases where watches are to be used for scientific purposes or exploration, and also to purchasers of high grade watches in giving them assurance that the watch is reasonably adjusted and in good condition at the time of the test. Copies of the circular and of the application blank to be filled out by those submitting a watch for test may be obtained from the Bureau of Standards, Washington, D. C.

STANDARD FIRE-HOSE COUPLINGS

An account of the advance toward a national standard for hose couplings and fittings for public fire service is contained in Circular No. 50 of the bureau.

The movement for the adoption of standard fire-house couplings dates from the great Boston fire of 1872, which showed the impossibility of the fire departments of adjacent towns acting in unison when provided with the diverse sizes of hose fittings then prevailing.

The matter was taken up at the first convention of fire engineers, in 1873, and was discussed at various conventions in succeeding years, but little was accomplished toward bringing about the desired changes until the agitation received a new impetus from the Baltimore fire in 1904, when neither the Washington, Philadelphia, nor New York fire engines on their arrival, could make connection with the local fire hydrants.

This condition led the Merchants and Miners Transportation Co., in April, 1904, to request the secretary of the department of commerce and labor to investigate the subject of fire-hose couplings. The secretary referred the matter to the bureau of standards, and in the investigation which followed, it was found that there was a great diversity in sizes and threads of couplings throughout the United States. At a conference of the committees of the National Fire Protection association, held in New York City, April 24, 1905, the bureau proposed the adoption, either of the thread which could be shown to be most extensively used, or that thread which possessed the greatest advantages in other respects. Following the latter course, the conference resolved that 7½ threads per inch should be recommended for 2½ inch fire-hose couplings. This thread was not regarded as an ideal standard, but was considered the most practicable basis for unification under prevailing conditions.

At the annual convention of the International Association of Fire Engineers, at Duluth, in 1905, this standard was adopted after lengthy discussion, and at Dallas, in 1906, the convention reaffirmed the action taken at Duluth, and made its record complete by adopting the national standard specifications covering couplings of 3 and 3½ inches inside diameter, each to have six threads to the inch, and 4½ inch couplings having 4 threads to the inch.

Up to 1913 the national standard had been put into service in 73 cities or towns, either as new equipment or by adaptation of non-standard couplings to interchange with the standard.

TAKE PROFIT OUT OF WAR

If we are to have more battleships, let the government build them at government navy yards. If we must have more guns, let the government make them in its own shops. If we must have powder, bullets and shells, and other implements of death, let the government manufacture them. And so with aircraft for war, so with mines and submarines.

Admitting that we need all those things, yet it is true that we do not need a war lobby at Washington, nor do we need the constant, inspired agitation through newspapers for the "preparedness for war" that means private profit to those engaged in building ships, making armor-plate, powder, guns and other implements of war.

It is of very little consequence whether or not such things can be made more cheaply by the government—can be made at lower cost than by private firms or individuals. Profit in war and "preparedness for war" is an incentive to agitation for war.—San Francisco Star.

It will be noted that when the democratic administration discovered that there was a likelihood of the government income failing to equal the government outgo prompt steps were taken to remedy matters. The republican plan was to allow the deficit to pile up and then ask for permission to raise the tariff.