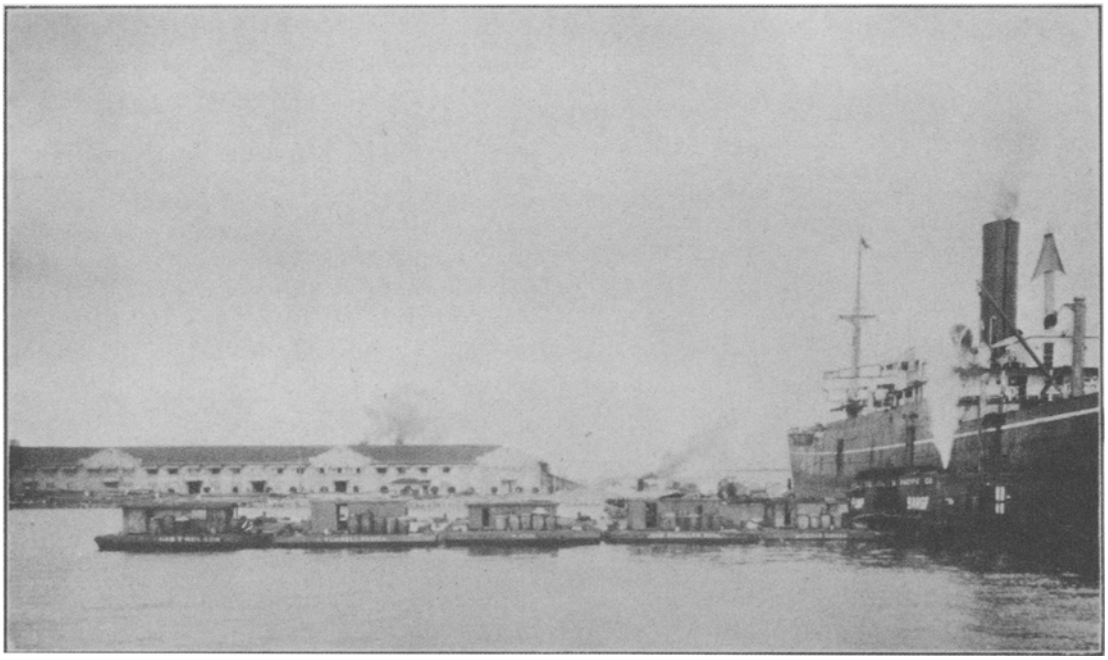
Oil Handling Facilities at the Port of Manila

Describing the Interesting and Efficient System for Transferring Coconut Oil from Tank Lighters to Steamers

By C. W. Geiger



Loading coconut oil from tank barges into steamer's tanks near U. S. Army base at Manila, P. I.

COPRA production for export and the coconut industry in general in the Philippines had not grown to any considerable proportion prior to American Sovereignty. Practically all of the coconuts then grown were consumed locally. The exports of copra amounted to only 15,000 metric tons, valued at 1,453,000 pesos, in 1899; whereas, the exports of copra, coconut oil, copra meal and desiccated and shredded coconut products in 1927 amounted to 450,000 metric tons, valued at nearly 100,000,000 pesos. The manufacture of copra into coconut oil by modern methods was first undertaken in the Philippines in 1913. During the years immediately following, a number of large oil pressing plants and a considerable number of small ones were established. The coconut oil manufacturing industry has experienced a rather varied career due to the abnormal profits which the industry offered during the latter part of the World War, and immediately thereafter. With the return to normal levels of market prices, all of the small plants and a number of the large ones ceased to operate. Among the leading plants now in operation in the Philippines are those of Spencer Kellogg and Sons of Manila operating a plant in Manila; Philippine Refining Company, controlled by Lever Bros. of London, who have a large plant in Manila and one in Cebu, Island of Cebu; Philippine Manufacturing Company, who manufacture soap in Manila and who also refine coconut oil. Exports of coconut oil reached their maximum in 1927 when they amounted to 145,000 tons valued at 50,000,000 pesos.

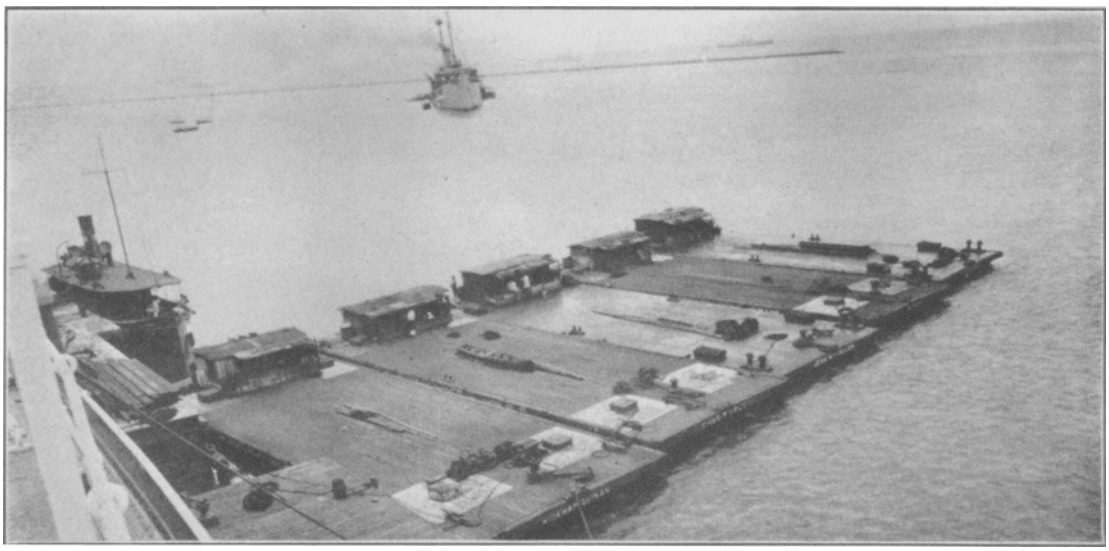
The imports of manufactured articles from the United States almost equal in value the exports of raw material from the Philippines to the United States and any disturbance of the present free trade ar-

rangement is considered likely to divert the trade which is now in American hands to European countries. German machinery importers are particularly active now and would probably be far more successful if the exportation of Philippine products to the United States should be handicapped by any duties or limitations.

The Philippine Government maintains permanent concrete piers and wharves at Manila for the accommodation of vessels engaged in foreign trade as well as for vessels engaged in the Philippine coastwise trade. No charge is made at any port for the anchorage of vessels in the harbor and, except at the Port of Manila, no charge is made for berths at piers or wharves. Towage in harbors or to and from piers is optional. At Manila, the principal entry port of the Philippine Islands, the Government has expended large sums and exerted its greatest energy toward providing the port with a good harbor and with adequate modern port facilities. There is a good deep water harbor protected by a breakwater seawall. Three excellent concrete piers and a wharf are available for the exclusive use of foreign commercial vessels. The piers and wharf have a total berthing footage of about 6,000 feet along which ten large vessels may berth at one time. Each pier is provided with wide concrete aprons on each side and at the end for the convenient handling of cargoes, with heavy lift cranes, covered cargo sheds equipped with interior traveling cranes and hoists, floor tractors and the like, Pier No. 7, the largest and newest, is the pride of Manila, and is recognized by well-informed shipping men as one of the best-constructed and equipped piers in existence today. It is built entirely of reinforced concrete and steel, 1,400 feet long and 240 feet in width. It has a cargo shed 160 feet wide extending the entire length of the pier except over a wide apron at the outer end. It is equipped with six 5 and 15 ton electric semi-portal gantry cranes mounted upon tracks on the aprons, and with twenty-three interior overhead electric traveling cranes of 2 and 3 ton capacity. A special feature of this pier is the elaborate and convenient provision for the transfer of passengers by way of upper story passenger corridors extending the entire length of the cargo shed on each side and capable of connection with ships' decks by electrically operated movable steel gang ways.

A most interesting feature of the coconut oil industry in the Philippines is the efficient and modern oil handling equipment available for handling bulk oil from the storage tanks of the mills to the cargo tanks of the steamers which carry the oil to the world's markets.

In the Philippines coconut oil is, of course, a liquid, but solidifies at a relatively high temperature, becoming a hard, dense material, resembling butter or lard in texture. Consequently it is necessary to pro-



Coconut oil tank barges loading steamer in Manila harbor near the breakwater

vide heating pipes in the steamers' tanks oil, so that the oil may be heated for pumping into storage tanks or tank cars when the steamer reaches a temperate climate. It is the usual practice to start heating the oil several days before the tank steamer arrives in port, so that the contents of the tanks will be liquid, permitting discharging operations to begin as soon after docking as possible. A low head of steam is usually turned into the heating pipes at first, this pressure being gradually increased until the oil is heated to about 100 degrees F.

Originally, coconut oil was shipped from the Philippines to San Francisco and other Pacific Coast cities in five gallon cases, but recently a new system has been perfected by means of which the oil is shipped in tank steamers and in deep tanks of passenger and cargo vessels operating between the Philippines and American ports. This practice immediately revolutionized the transportation of the commodity. For years the great trans-Pacific tank steamers had been carrying petroleum from American ports to the Orient and returning in ballast, until methods of cleaning the petroleum tanks well enough to permit carrying coconut oil on the return voyage were perfected. Now, a number of tank steamers engaged in carrying petroleum from San Francisco to the Orient, return with a capacity cargo of coconut oil stowed away in the tanks.

A very effective system is employed to thoroughly clean the steamers' tanks after the oil has been unloaded, so that the petroleum will not affect the quality of the coconut oil and vice versa. After the petroleum cargo has been discharged at the Orient, live steam is injected into the tanks over a period of from 12 to 14 hours. After pumping out the bilges, and waiting a sufficient length of time for the interior to cool, workmen are sent down into the tanks to clean them as well as possible. Later upon arrival at Manila, where the coconut oil is to be taken on, the work of cleaning the tanks is completed, this being performed by experts using special equipment. One company at Manila operates a fleet of eight coconut oil barges having a total carrying capacity of approximately 2000 tons of oil and two special barges, each equipped with two 8 inch duplex pumping outfits, each pumping outfit has capacity for pumping 100 tons an hour from the barges to the storage tanks aboard the steamers. The same company also operates a fleet of six launches for towing the barges between the coconut oil plants and steamers.

Norwegian Whaling Notes

The successful whaling season 1927-1928 led to the organization of a number of new companies this season, while several of the existing companies increased their tonnage. While last season's catching fleet consisted of 32 expeditions with 114 whaling boats, 28 floating cookeries and 6 fixed land stations, this year there are 44 expeditions with 199 whaling boats, 39 cookeries and a crew of about 9,000 men, a fleet without parallel in the history of whaling. Efforts are now being made to bring the sellers of whale oil together in order to form a ring similar to that of the buyers so as to strengthen their position. Latest reports from the Antarctic indicate that nearly all the expeditions have started operations and so far the catch has been uniformly good, with 120,000 barrels of oil reported by October 31, as compared to 65,000 barrels last year on the same date. This figure refers to Norwegian companies only. (Report from Trade Commissioner Gudrun Carlson at Oslo, Norway.)

As a result of the recent merger of Lever Bros. and Margarine Union it is found necessary to retire Lever Bros., copartnership shares which amount to a nominal value of £2,352,548, and will be exchanged for £7 per cent cumulative preference shares in the new combine. The amalgamation became effective at the start of the year under the name of Unilever, Ltd., and involves capitalization of approximately $350,000,000. The combined soap sales of Lever Bros., enterprises during the past year increased 35,494 tons, the greatest sales expansion the company has had in several years.

The new plant of the Copra Oil & Meal Co., a subsidiary of the Los Angeles Soap Co., Los Angeles, Calif., was opened recently with a barbecue and entertainment. The new plant which is located on Mormon Island cost $250,000 and will be able to handle 30,000 tons of copra annually. Its products will be completely used by the Los Angeles Soap Co., according to announcement.

Cudahy Packing Company, Chicago, reports for the year ended November 2 a net profit of $2,512,850, after all charges, compared with $2,567,327 in the previous twelve months. This is equal, after dividend requirements on the 7 per cent preferred, to $4.13 a share on 467,489 common shares, compared with $4.68 a share on 424,990 common shares in the previous twelve months.