The Manila hen every foot of the world, Industry's Growth substitutes.

Manila hemp is the basis of every foot of good cordage in the world, other fibers are substitutes.



Manila hemp, the world's prime cordage fiber, is indigenous to low mountain regions of the Philippines with an abundant rainfall distributed throughout the year, but not to Manila or indeed to this coast, where the dry season is distinct. It grows without replanting, or practically wild, in southeastern Luzon and the Bisayas, and is replanted in the Davao-gulf region about every 10 or 12 years. On Luzon, too, the fiber is commonly stripped from the petioles (it is a relative of the banana) by hand, one of the hardest labors man performs; but in Davao machines do this backbreaking, gut-rupturing work, and the industry is more advanced there, where the plantations date with the American oc-

cupation and later. than in the regions where feudal farming still prevails and owners are indifferent about unit costs and production. Hemp goes loosely bundled in piculs of 1371/2 lbs. from the farms to the shipping ports. and from them to Manila or aboard ocean steamers in well-pressedbales of 275 lbs. A monthly average of 13,087 metric tons of this fiber is exported from the Philippines. A little is ma-

nufactured locally. The public's buying power is largely determinable by its price, because about 2 persons in 5 in the Philippines live in the hemp regions and directly or indirectly support themselves from the hemp industry.

Filipinos have always used Manila hemp, abacá as they call it, for making cloth. They laboriously strip the fiber clean of cellulose, wash it and dry it in the sunlight, and tie the fibers into threads long enough for the loom. They macerate the fiber in a mortar, to soften it as much as possible. But, though it takes color well, it makes a harsh cloth at best. Hemp cloths, pinokpok and sinamay, are made in Albay and Marinduque, Samar and other provinces where easy means of transportation has not entirely supplanted the native fabries with cotton cloth, which is of course much preferable.

Hemp cloth is a good sail cloth and still used as such on hundreds of little craft in Philippine inland waters. Hemp cord can also be made into seins, and hemp is very resistant to the action of salt water.

It was for such domestic purposes, cloth, seins, sails, rope, that hemp was used in the Philippines until Britain and the United States began trading at Canton and frequently running ships to Manila, a trade that grew rapidly after the Spanish monopolies of overseas trade were abolished in 1830 and smuggling was no longer necessary. Both the Yankees and the British soon discovered that Manila hemp made superior cordage; they liked to outfit their ships with it, and began buying homeward cargoes of it. The Yankees experimented with it for making paper, with success, too, because there was a free press in America, where popular education created more demand for newspapers and books than the scanty



Drying Hemp Fiber After Stripping

linen-rag supply could satisfy. England and Scotland had more linen and less public-schooling, and confined their use of hemp to the cordage trade.

Both Britain and America used Manila hemp liberally in equipping the big merchant fleets of sailing vessels they trafficked with on the seven seas, and Britain found it of equal value in her warships while she was defeating Napoleon, humbling France and making herself mistress of the seas. When steam replaced sail, there was still use for hemp in the massive cables steamships require; in this function hemp from Manila divides honors with the finest steel today.

After the Civil War in America, Britain gained the ascendancy in the Manila trade; America was practically off of the seas, though Germany was claiming her place fast enough, and America bought Manila hemp via England, e. i. f., landed in American ports by British ships. It is still thought necessary to have foreign ships in the carrying trade between the Philippines and the United States, but Manila hemp for the American market has been bought in the islands and ship-

ped directly to America since the Philippines came under the sovereignty of the people of the United States. The United States gives the Philippines a market for higher grades of hemp than England buys; whereas American and Philippine banking and insurance and steamship interests share the benefits of the direct trade, Filipino labor gets the grading and conditioning work that was formerly done in England on the hemp fiber destined for America.

Japan comes in of late as a third good customer for Manila hemp, taking both the ordinary cordage grades, even the lower ones, and very high fine grades that make into hat braid. Japan also knows how to crack away the crust from

> the bundles of fiber. and what is left is a cotton of long staple and the finest strength and whiteness. Not much is known, however, of the practicability of this process when cotton is at normal prices; it may not pay excepting when cotton is high, but low cheap grades of hemp can be used for it.

> The Philippine government takes an interest in grading hempfor export in order that the

growers may obtain the prices pertaining to the grades they sell; there is a fibergrading board doing this work, formerly in the indifferent hands of a government bureau.

Manila hemp is on the American free list. Such a product, absorbing torrents of rain in its growth, can not be cultivated in the United States; yet for ships, for well drills, for rope and cordage generally, such a product is needed. England, of course, had it monopolized in '98; even the grades of the stripped fiber, of which there were few, were England's; it was a profitable commerce to buy hemp but half-classified, insure it with a British company, ship it on a British ship to Scotland or England, clean and properly classify it there, then, with charges, insurance and freight collected once more, reship and sell it wherever there might be demand. An export duty applied in Manila, which became a wedge to case Britain out of this trade so far as it concerned America; the Taft commission decreed a rebate of the duty if the hemp was

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Cane Sugar....

(Continued from page 6)

and he apparently has far more interest in milling than in farming.

The result is that since 1895 the Philippines have scarcely more than doubled their output of sugar. The 800,000 tons they sell America each year, though it buys American manufactures enough, is merely that much less sugar bought from Cuba. American sugar prices are still determined by the Cuban production and the American tariff, and the Philippine planter can raise sugar only because he does not pay the tariff. If he had to pay the tariff this year, his sugar would bring him about \$1 a picul of 139.44 lbs.

The centrals, getting about half the sugar, on their milling contracts with the planters, are in the better statistical position. But to pay the tariff, with the present average production of sugar per hectare, would do them up, too. It would wipe out, in other words, a capital of some \$200,000,000 and contribute tangibly to the pauperization of the Philippines. In the figures just mentioned the value of the plantations is not included; without the sugar they would, of course, be a questionable asset. Mortgages would take thousands of them, perhaps, without in the least enriching the creditors. It is needless definitely to point out the fact that the Philippine sugar plantation is the least vigorous element in the industry; it is there that production fails, because the mills are comparably as efficient as the best, and ocean freights are comparably as favorable as Java may enjoy, not even much above what Hawaii pays. But Java grows on one hectare what the Philippines grow on three; and Hawaii grows on one hectare what the Philippines grow on $2\frac{1}{2}$.

Time can be the one remedy of such a situation. The Philippine planter, though ostensibly he has always been a farmer, is not that thrifty, scientific cane-grower his country requires for the sugar industry to survive. Yet sugar is very important in the economics of the Philippines; even during the past year it has been bringing the islands \$4½ millions every month.

The Manila Hemp...

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bought by American concerns and manufactured in the United States.

While this developed a direct American trade in Manila hemp quickly enough, it gave rise to abuses. A Philippine customs inspector sent to Europe found hemp there that had enjoyed the draw-back and should have been manufactured in the United States instead of being sold and exported. When the tariff for the Philippines was enacted, export duties were prohibited. There have been lamentations at the Univer-

sity of the Philippines over steps taken to break the British monopoly of Manila hemp and give the Philippines a better market while benefiting American cordage interests and consumers, but the record is really not dishonorable; everything the Philippines produced at that time, left Filipinos' hands in the rawest possible state; whereas now the tendency is to manufacture locally.

There are five cordage mills in Manila. A Filipino, Valenzuela, for whom calle Valenzuela in Santa Mesa is named, had established a ropewalk in that district prior to the revolutionary period and did a thriving business in making cordage for ships. This ropewalk, skirtting calle Cordeleria, to which it gives name, on the river side, is now a property of the Johnson-Pickett Rope Company; which has another, of lesser linear capacity, in its fine new works across the river in Pandacan. Valenzuela was a victim of the revolution against Spain; the Guardia Civil, suspecting him of disloyalty, drumheaded him to face a firing squad. The incident is memorialized in a painting in President Rafael Palma's office at the University of the Philippines. As usual, the thrifty middle-class bore the brunt of the disorders in the Philippines at the end of the century that led to the change of sovereignty. Valenzuela's career deserves a place in a textbook.

Manila hemp was not grown commercially outside the Philippines until the Dutch stole plantings and got fields of it growing in Sumatra-on plantations still prohibited, it is said, to foreign visitors. This hemp is now on the market and sells on a par with the Philippine product. An excellent review of Manila hemp appears in this journal every month, the work of L. L. Spellman, a leading authority. Reference to that review will reveal how much hemp Japan now buys, much of it from Japanese hemp-growers in the rich Davaogulf region-the only immigrant farmers in the Philippines.

Rubber

(Continued from page 8)

own rubber company because of what he considered unfair treatment at Firestone's hands. The feud is a lengthy story but I need not dwell on it here, since it can vitally affect the industry only if General reaches the huge proportions of the Big Four companies. That will probably never happen, for Mr. O'Neil is too wary to be caught in the over-expansion net.

The story of Firestone's connections with the various organizations of rubber manufacturers throws a lot of light on the present situation. The first attempt at getting together was the Rubber Club. It soon became the Rubber Association of America, from which Firestone, chafing under any restraint, resigned. A few years later he joined the Rubber Institute of America, rubber's contribution to the Czar craze among the more farcical industries of the nation. General Lincoln C. Andrews, of Prohibition enforcement notoriety, was named head of the Institute, to exercise the same sovereign sway in the tire realm that Will Hays had in the movies and Judge Kenesaw Mountain Landis in baseball. A higher code of ethics was the goal to which this spotless organization aspired.

Unfortunately, Harvey wouldn't stand hitched. In September, 1928, he leaped

