

some proved rascal of great political influence in Cavite. He gave the men who came to him that quizzical look over his glasses which was a characteristic and challenging pose, and then said: "You gentlemen have taken the same oath of office that I have. If you can show me, without violating that oath, how I can do what you ask me to do without violating mine, I'll do it!"

That, of course, was the end of that. On another occasion it was Governor Yeater who wanted a favor from his cabinet—more salary for some one at Malacañang, or something of the sort. The cabinet was disposed to act, but a regulation seemed to bar the way. How-

ever, one man at the table gave the regulation a special interpretation, saying if it were taken in that way the action could be approved.

Very anxious for the approval, Yeater said, "Let me see that regulation." It was passed up to him. "Now, what is your suggestion?" The suggestion was repeated while the governor read for himself. Then he laid down the paper and shook his head. "No," he said, "you can't interpret that *that* way. It can't be done." Against him or against the other fellow, he was for the law.

Is it any wonder that he is remembered, and well nigh universally loved in these islands? Not at all.

office, and is now practically all in place. The work was done entirely by local labor, under the direction of George A. Kerr, the general manager, and E. A. Robertson, who will be the factory superintendent. Mr. Kerr has nothing but words of praise for the Filipino as an intelligent and efficient worker. He has erected cutch factories in all parts of Latin America, handled all kinds of labor, and is in a position to judge.

The writer recently visited the factory with Mr. Kerr and spent a most interesting forenoon. The manufacturing of tannin extract from the bark of tidewater swamp woods seems on its face a simple process, but it not only requires a heavy investment in complicated apparatus which is mostly constructed of bronze and copper because of the corrosive qualities of tannic acid—one copper installation alone weighing over 65 tons—but it is an intricate scientific process of great delicacy and has to be conducted under the constant control of expert chemists.

The bark, after careful sorting to eliminate the unfit, is crushed to a pulp in a specially designed machine. It is carried from the grinder by mechanical conveyors to a battery of 12 vats, locally constructed of *calantas* wood, each having a capacity of 25 tons of liquid. In these vats the tannin is extracted with water chemically treated. This is a delicate process as a variation of only a few degrees of temperature will ruin a whole day's output.

The liquid resulting from this extraction is then refined and carried to a triple effect vacuum evaporator where it is reduced to a heavy syrup. This apparatus evaporates 120,000 gallons in 24 hours. After this reduction a final refining is applied and the liquid extract then carried through a complicated rotary-coil finishing apparatus where the water content is reduced sufficiently to render it solid when it becomes cool.

While still hot the finished extract runs into burlap bags. It is then hung in racks to palm and solidify, after which it is repacked in palm-

The Romance of the Lowly Mangle

Habitat of Crocodiles and Monkeys will now bring Prosperity to Hundreds of Moro Families

By JOHN A. HACKETT

The great natural resources of Mindanao and Sulu—the vast potential wealth of the soil, forest and sea—have been given wide publicity, and now that conditions favor the safe investment of capital, development is beginning and will rapidly increase in volume.

Rubber, hemp, sugar, coconuts, lumber and cattle are, and will continue to be, the great staple products of Mindanao, but it remained for a minor forest resource to give Zamboanga her second important industrial establishment. The first was the Philippine Desiccated Coconut Corporation.

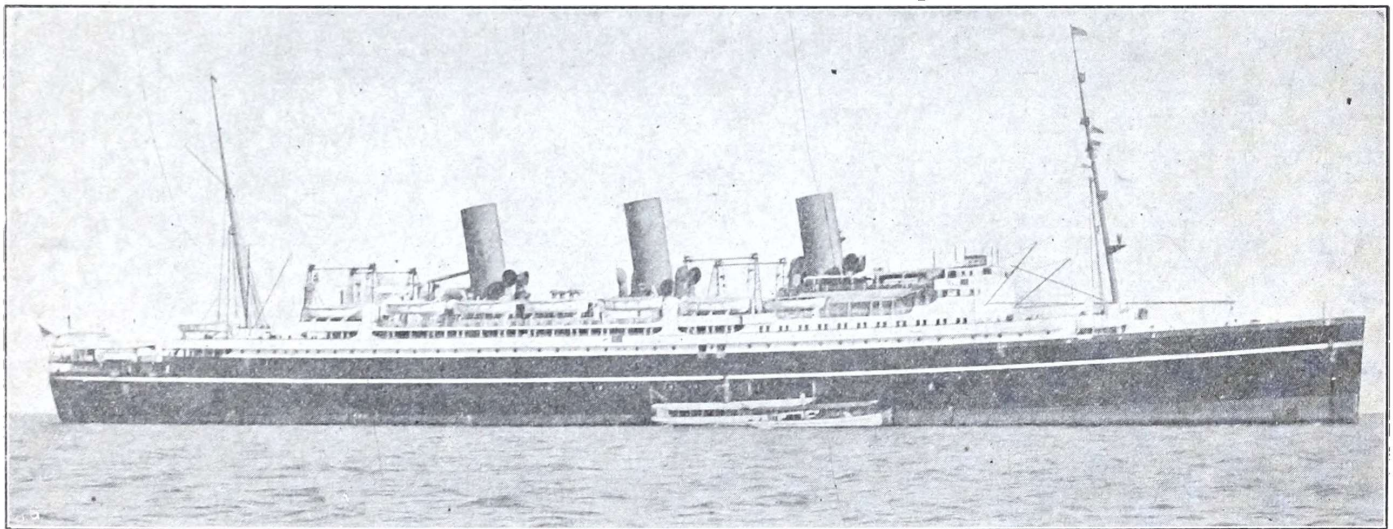
The mangrove (mangle) swamps, which border a large part of the coastline of these southern islands, have for ages been the habitat of crocodiles, monkeys and wild pigs, their only utility for man being the infinitesimal amount of firewood taken from

them for local consumption. Now these swamps will supply in abundance the raw material for the manufacture of that essential chemical of the leather industry—tannin.

The reducing plant of the Philippine Cutch Corporation, now being erected in Zamboanga, is rapidly nearing completion and before the first of April the first bag of refined cutch (tannin) ever produced in the Philippines will be ready for shipment.

Just two months ago the freighter "Atlantic City" discharged at the Zamboanga pier the equipment for the factory, consisting of 400 tons of heavy apparatus and castings, many of the castings of bronze and copper weighing from three to nine tons. All of this was moved out to the factory site in Baiuasan, a distance of three kilometers, with the assistance of the personnel and facilities of the district engineer's

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"Emp. Russia" . . .	May 5	May 9	May 12	May 15	May 18	May 27
"Emp. Asia"	May 26	May 30	June 2	June 5	June 8	June 17
"Emp. Canada" . . .	June 17	June 20	June 23	June 26	June 29	July 8
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leaf retainers especially made for that purpose and is ready for shipment.

The production capacity of the plant requires from 100 to 150 tons of green bark daily, or a minimum of 35,000 tons annually.

To harvest this quantity of *Lucrative* bark daily and transport it to *Employment* the factory will require the labor of at least 1,000 men continually in the mangrove swamps. In addition nearly 200 more or less skilled employees will be used around the factory and in transporting the bark.

Mr. Kerr is now having constructed in a local shipyard twelve specially designed barges, and these, with two powerful tugs, will transport the bark from the distant stations to the factory.

The company has entered into a contract with Jos. S. Johnston to handle the raw material department. Within six weeks Mr. Johnston expects to have 500 men in the mangle swamps stripping bark and will build up the organization to 1,000 or more as rapidly as possible.

This new industry will give lucrative employment to a class of the population that has heretofore eked out a meager existence from the sea. The money distributed in the immediate vicinity of Zamboanga will amount to more than P2,000 a day, practically all of which will eventually reach the tills of the local merchants.

The factory will utilize the bark of the various species of the *bacauan*, *potolan* and probably the *langaray* trees. There has been no market for these species heretofore and great quantities have been destroyed and wasted by the Moros in getting out firewood, inflicting great loss upon the community and the government.

Another phase of this industry, of almost equal importance to the bark, is that of the wood products. The company is required by the government to clear out all the *Firewood* in wood after the bark has been *Abundance* stripped therefrom, in order that it may replant the mangrove area. This will produce an enormous quantity of wood for fuel and other purposes, assuring an ample supply for the community at large and such manufacturers as may need it.

This department will eventually employ as many men as the bark department, and will practically double the payroll of P2,000 a day already mentioned.

There is no doubt that through the scientific management and control of harvesting and replanting which the company will carry out, this hitherto unused and valueless natural resource will be preserved as a source of wealth to the community in perpetuity.

Hereafter when the fair ladies of Zamboanga go shopping for the latest styles in high-heeled slippers, chinelas and traveling bags, and their men folks barter with the merchants for shoes, saddles, harness and such like articles, they should feel much satisfaction in the knowledge that their community contributes no insignificant part to that wonderful process of making "purses out of sows' ears."

No substitute has yet been discovered for tannin, the essential chemical used in making fine leather from the skins of animals, and tannin (cutch) is manufactured from the bark of the mangrove trees that grow in such abundance in the vast tidewater swamps in the close vicinity of Zamboanga.

For ages this potential wealth has gone to waste, except for the firewood the Moros have cut for their own use and for sale in the neighboring towns. Now it is to be turned into a valuable commodity to supply the world's demands, and all the people of this region will profit thereby.

The cutch factory, which will soon be in operation in Zamboanga, is the first industry of its kind to be established in this locality and the people do not yet understand and appreciate its magnitude and the benefits that will come to them because of it.

In the production of cutch more than eighty per cent. of the total cost is for labor. When the factory is running to capacity about 1,500 men will be employed, and the great majority of them will be Moros gathering bark in the swamps. With ordinary industry a Moro will earn P2 a day. More than he ever earned before in his life. Not less than P3,000 will be paid to these

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men every day; more than P1,000,000 every year. It is not hard to visualize what this will mean in better food and clothing for thousands of poor people and to the merchants of Zamboanga.

Due to a misunderstanding a rumor has become current locally that a hardhearted government has given a great corporate octopus a monopoly of all the mangle swamps and that the people's firewood supply is to be fed as fodder into its capacious maw. Nothing could be farther from the truth. Local dealers have taken advantage of this rumor to boost the prices of firewood temporarily, but prices will soon return to a lower scale than they were three months ago.

It must be remembered that the cutch company is interested principally in the bark of

the mangrove trees. The concession from the government provides, however, that in taking the bark they must also clear out the wood and replant the areas for future generations. In order to protect the consumers of firewood the company has just signed contracts with local dealers, turning over to them all the wood they can possibly sell, with the specific provision that it shall not be sold at higher prices than prevailed before the concession was granted.

For every ton of bark gathered in the swamps there are left three tons of firewood. When the cutch factory is in full production it will consume 150 tons of bark a day. This means that there will be 450 tons of firewood available every day—enough to supply the demands of all of Mindanao and Sulu, with Manila thrown in for good measure.

Heretofore firewood has been gathered by the people in a most wasteful manner. Regulations of the Forestry Bureau provided that an individual or a company must secure a license to cut from a specified area. This provision has never been adhered to as the bureau was never able to enforce its rules. A Chinaman in Zamboanga would apply for a license to cut firewood from a small area, near Manicahan say, that he had never seen and never expected to see. He would then hire a dozen Moros to go out and cut anywhere their fancy or the abundance of good wood took them. The result has been that the whole coast line for miles is now stripped of the best trees, the tops and branches of which have been left to rot and interfere with new growth, causing a mass of twisted and stunted jungle that has little or no commercial value.

All this will now be changed. The cutch corporation will see that the bark and wood are gathered systematically and that all cut-over areas are reforested. It will do this not only because the government requires it, but to assure a perpetual supply of raw material for its factory.

—Mindanao Herald.

Public Works Release of 1928 Waterworks Funds

The release of P550,000, representing the waterworks funds in the 1928 public works budget, has been requested as follows:

"For completing construction work on the following waterworks projects:

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|--|------------|
| 1. Tabaco, Albay | P 1,500.00 |
| 2. Guindulman, Bohol | 11,000.00 |
| 3. Pasacao, Camarines Sur | 3,100.00 |
| 4. Carcar, Cebu | 15,000.00 |
| 5. Minglanilla, Cebu | 4,000.00 |
| 6. Santiago, Ilocos Sur | 12,000.00 |
| 7. San Vicente, Ilocos Sur | 11,000.00 |
| 8. Santa Catalina, Ilocos Sur | 2,000.00 |
| 9. Lumban, Laguna | 15,000.00 |
| 10. Bo, Toboso, Escalante, Occidental Negros | 10,700.00 |
| 11. Calatrava, Occidental Negros | 23,500.00 |
| 12. Bacong, Oriental Negros | 1,500.00 |
| 13. Libertad, Oriental Negros | 2,200.00 |
| 14. Badajoz, Romblon | 4,000.00 |
| 15. Cajidiocan, Romblon | 4,000.00 |

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|---|-------------|
| 5. Meycauayan, Bulacan | 25,000.00 |
| 6. Capiz, Capiz (Capiz-Ivisan Waterworks) | 25,000.00 |
| 7. Ivisan, Capiz (Capiz-Ivisan Waterworks) | 18,000.00 |
| 8. Naga, Camarines Sur (Camarines Sur Metropolitan Waterworks) | 15,000.00 |
| 9. Megarao, Camarines Sur (Camarines Sur Metropolitan Waterworks) | 15,000.00 |
| 10. Tanjay, Oriental Negros | 12,000.00 |
| 11. San Fernando, Pampanga | 25,000.00 |
| 12. Atimonan, Tayabas | 14,500.00 |
| Total | P550,000.00 |

ISLANDS' ASSESSED PROPERTIES

The total assessment value of real property in the Philippines in 1927 was P1,668,242,205, compared with P1,612,984,270, in 1926, an increase of P44,291,162.

In the 39 regular provinces alone, the total value of taxable property last year amounted to P1,330,362,853 compared with P1,286,071,691 in 1926.

The value of property in special provinces last year amounted to P78,217,470 compared with P74,612,966 in 1926, or an increase of P3,604,504. In Manila, the assessment value of real property last year amounted to P256,624,907, compared with P249,510,93 in 1926, or an increase of P7,114,014. The assessment of real property in Baguio last year amounted to P3,036,975, compared with P2,788,120 in 1926, or an increase of P248,255.

CIRCULATION

The total of money in circulation in the Philippines on February 4, according to the insular auditor's report, was P139,212,042.70: Philippine coins, P21,300,144.50; Treasury certificates, P89,376,388; banknotes, P28,335,510.20.