Aims and the Man.

"Sure Father Flaherty was a good man," Mr. Murphy said of the deceased parish priest. "He hated sin but he loved th' sinner, an' he was all compassion an' patience an' wisdom. There never was another loike 'im f'r holdin' up hope to th' poor batthered man that had anny desire f'r good.

"'Faith,' said he to Con Meehan, th' tolme th' bh'y was down an' out, 'faith, this solde av paradise 'tist all beginning again, over an' over, an' tin tolmes over!'

"An' that keen," continued Mr. Murphy, "'twas niver worth whoile to keep back part av th' price av th' land! Wid a twinkle in his eye he'd see clean through anny Ananias that iver walked.

"An' gin'rous!" Mr. Murphy's voice dropped to a lower key and his eyes were wet as he added, "His hand was always in his pockut, an' whin they prepared him f'r burial they found his right arm longer than his left wid stretchin' it out to th' poor."—Youth's Companion.

A Mean Man.

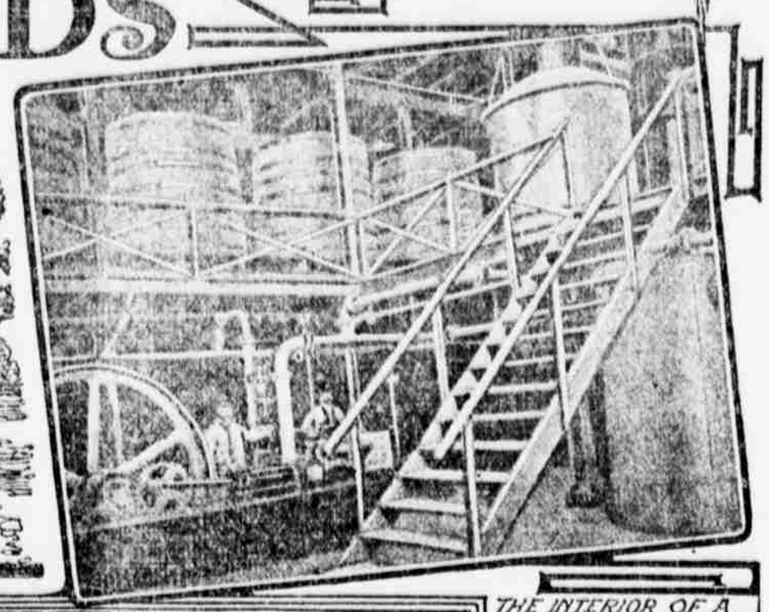
"Is your wife going to Europe this summer?"

"No. I've bribed a fortune teller to warn her to watch for a slim blonde woman who is coming into my life."

HARDEST OF ALL WOODS

TWO of the greatest industries in the world are railway building and the preparation of hides and skins into leather. For the former the sleepers on which the rails are laid are essential and costly factors; for the latter nothing can take the place of some vegetable extract which is the tanning substance of the trade. Sleepers can be made of glass and metal, but these do not give the satisfaction of those made of wood. The oak and the hemlock have for ages supplied tannin by which leather is cured; in fact, the very word tann implies by its derivation its relation to the oak, by which name the tree was called in old Breton language. Railway sleepers have been made from the oak, but the expense grows higher year by year. No wonder, therefore, that the earth is scoured for trees to furnish either the one or the other or both of the substances, and no wonder also that manufacturers and builders hailed with delight the announcement a few years ago of the availability for both purposes of the South American tree called "Quebracho."

Quebracho is a contraction of the colloquial Spanish and Portuguese term quebra-hacha, originally applied to many trees in Latin America. It means "ax breaker," and the character is implied in this meaning. The wood is hard, fine grained, and tough and had been used by the natives for ages in their primitive construction work. Of recent years, however, quebracho is restricted in the arts and industries to a particular tree found only in South America, and even here only within broad limits of the drainage basin of the River Parana. In Cuba there is a "quebracho," so-called locally, which is a member of the Copaiba family. In Chile a quebracho is rather of the Cassia family, and probably in other parts of Latin America the name is indiscriminately given to any hard wood that has tested the metal of the native's ax. No such indefinite use of the word, however, can be permitted today, because the tree of



THE INTERIOR OF A QUEBRACHO EXTRACT FACTORY

A QUEBRACHO TREE IN "THE CHACO"

A SAWMILL BETWEEN "THE CHACO" AND CIVILIZATION

THE BARK OF THE QUEBRACHO TREE

the South American Chaco has become so commercially important that it must be understood to signify only that one tree and nothing else.

The genuine quebracho tree is found in Brazil, Paraguay, and the Argentine Republic. There are two important varieties and a third has been distinguished, although it has no great significance botanically or value commercially. Locally and in the trade the names given are Quebracho colorado (red), and Quebracho blanco (white). Quebracho colorado has the scientific designation of Loxopterygium lorentzii, and belongs to the order of Anacardiaceae. This is the particular tree from which both the sleepers and the better quality of tanning extract are derived. The other, Quebracho blanco, is neither so straight nor so serviceable as the red variety, but is nevertheless of definite commercial value, as it furnishes some tanning extract and the logs can be used for fence posts and axles. From it is taken also a drug extensively used for bronchial diseases; in fact, as a plant it was studied for this purpose long before its other advantages were exploited. The scientific name is Aspidosperma quebracho.

Railways must have sleepers on which to lay their rails. In some instances wooden ones are imported at great expense, or substitutes therefor are used if climatic conditions are favorable. As a rule, however, it is preferred to take supplies from native timber whenever procurable. This was the case in the Argentine Republic when railway building away from the coast had begun, and no more fitting wood could be discovered than that recommended by the natives, both by the name and by the experience of those who had used it. The quebracho wood proved by far the most serviceable for sleepers on South American railways, and its reputation grew so steadily that today many miles of European rails are supported by sleepers brought from the River Plate.

In one respect quebracho resembles rather mahogany than oak or pine. The trees do not grow in clumps or groves, but are dispersed through the forests and the less dense woods, singly or in groups seldom more than four or five to the acre. The tree itself is tall, about two or three feet in diameter, and is crowned by a rather thin, oval, or V-shaped, mass of branches and leaves. The white quebracho is somewhat smaller than the red, and begins to branch lower to the ground, so that it is not hard to distinguish them from each other. The leaves are oval, or lance shaped, smooth, somewhat shining and leathery; they do not fall completely in the winter, but cling to the branches in company with the fruit. The tree seems to thrive best on a sandy soil, where the atmospheric moisture is not very great, but where abundant water is provided for the roots, either by dews or sufficient rain. It is neither a mountain nor a river growth, but lives best in the subtropical stretches between water courses. Although the age of the tree has been given as measured by hundreds of years, it is well enough established that at ten years from planting the first small shrubs are big enough to use for posts. The future promises, therefore, an opportunity for the actual cultivation of quebracho, because, although savage inroads have been made into the supposedly inexhaustible forests of the Chaco, it is not too late to restrict the cutting of the tree, or even to adopt modern forestry methods of planting and conservation for the supply of coming generations. In fact, the Argentine Republic has already passed suitable laws in this direction, and it is more than probable that under the wise administration of that government there will be developed an arboricultural industry to proceed hand in hand with the preparation of quebracho posts for fences and construction work, sleepers for railways, and of tanning extract, the three industries for which this unique tree is at present utilized.

"Rollizos" is the Spanish word commonly employed in the trade for the rough and untrimmed logs (which the word means), from which only the bark has been removed. They are still supplied by smaller camps from dwarfed undergrowth not great enough for other purposes than posts, beams, cabin pillars, or cart axles. When the forest was first invaded these logs were the only product brought out of it, and the stories told of the primitive methods adopted by the natives for transport carry one back before the days of steam and machinery. A popular way of loading the logs was to lay them on the ground on ropes; then the animals were unharnessed and the cart was tilted bodily upside down over the logs; these were then made fast to the body of the cart, after which maneuver it was brought back to its normal position. Of course only two-wheeled carts were used. As soon as modern methods were introduced, and better carts or wagons became known, these primitive and cumbersome habits disappeared, although in the far interior even today rollizos are still brought to market in this manner. "Durmientes," according to the Spanish, or sleepers, in the English idiom, are probably the most important product of the quebracho of the Argentine Republic.

The industry of making sleepers has assumed huge proportions. The difficulties of former days have been largely overcome by the introduction of modern machinery, especially saws, and some of the mills many miles distant from any main railway are equipped and organized in a manner which would reflect credit on any similar plant in the United States. Special saws are needed to penetrate the wood, but they are furnished from the factories of England, France, and America. This mill business is carried on by many companies, although the tendency is to concentrate the management into fewer but larger organizations. One company owns a tract of land of about 4,000,000 acres, and is prepared to cut timber, fashion it into logs and sleepers, prepare tanning extract, and utilize every other resource which the land provides. Another company can turn out 20,000 to 30,000 sleepers a week. This number, however, can by no means meet the steady demand for railway building which is characteristic of this portion of South America. Sleepers are laid at about an interval of two feet from center to center. Assuming, therefore, only 2,000 sleepers for every mile, it will be seen that 30,000 are enough for only 15 miles. A year's supply at fullest capacity will consequently build only 750 miles of railway. But the Argentine Republic, Uruguay, Chile and Bolivia, all contiguous to the Chaco, are constructing more than this mileage, so that it is easy to see that every sleeper turned out from modern mills can at once find a local market. These sleepers are now finished at the mill, and the mill is situated at the spot in the forest itself most convenient for carrying on the process.

Quebracho extract prepared for tanning skins and hides into leather is, however, the most serviceable product of the tree. All the timber companies are adjusting their plants so as to utilize the wood, either in its entire output, or in that portion not reserved for posts and sleepers, for this extract. In Paraguay and areas in the Chaco remote from good roads, so that the cost of supplying timber is excessive, every particle of the wood is turned into extract, because the demand is usually in advance of the supply, and it is therefore more profitable to manufacture the more concentrated article, which can be easier and more economically carried to market.

One feature of quebracho, in which it is superior to other sources of supply, is that the bark, the sapwood, and the whole of the central part of the tree produce the extract in considerable quantities. The bark contains 6 to 8 per cent. of tannin, the sap 3 to 5 per cent., and the heart 20 to 25 per cent. As the heart represents two-thirds and often three-fourths of the total quantity of wood, the amount of tannin in the Quebracho colorado is seen to be considerable. It is merely a chemical question whether this tanning material is equal or inferior to that from the oak, but later methods of preparation point to a full justification of the claim that the leather from quebracho extract grades up to that resulting from any other tanning substance. So serviceable is it, however, that since its discovery, the tanning industry of the Argentine Republic has made noticeable advance, because, with both hides and extract as great natural products of the country, the government is making every effort to foster the leather industry within its own border.

"Quebracho extract," as it is called in the trade is easily manufactured when the machinery is once installed. All the wood is passed through a machine that cuts it into shavings or the smallest possible chips. It is then collected into immense kettles, in which it is treated by chemical processes until all the tannin is removed; after this the fluid preparation is reduced by evaporation to a thick, jelly-like mass, which is poured into sacks, where it is finally dried into the substance sold in commerce.

The difficulty of gathering the raw material far outweighs the preparation of the finished article, especially as the extract is no longer to be considered a by-product, but is coming to have more importance and value than posts and sleepers. In Paraguay particularly, where all the wood is utilized for extract, the hardest part of the business lies in gathering wood for the factory. The trees are cut in the heart of the virgin forest and hauled by ox teams to the nearest clearing. Only native Indians have proven themselves suitable for the work, as they are thoroughly acclimated, understand the wilderness, and can withstand the plague of insects which make life at night miserable for the foreigner; and exposure for nights as well as days is unavoidable, because the cutting stations are usually remote from any settlement.

In 1895 the first real exportation of quebracho extract from the River Plate was recorded. The increase has been rapid—from 400 tons in the first year to 9,000 tons in 1902, 120,594 tons in the next five years, and 28,195 tons in 1907. Of this quantity the United States received 17,733 tons, or almost 65 per cent.

She Lives in Bingville.

A south Missouri paper is carrying this ad.: "Attractive woman, not a day over thirty, would be pleased to correspond with eligible man. Not absolutely necessary that he should be young. Would prefer one with property, but one with a good paying position would be satisfactory. The young lady is of medium height, has brown hair and gray eyes, not fat, although, most decidedly, she is not skinny. Her friends say she is a fine looking woman. Object matrimony. Reason for this advertisement, the young woman lives in a little dinky town, where the best catches are the boys behind the counters in the dry goods and clothing stores, and every one of them is spoken for by the time he is out of his short pants. Address Hazel Eyes, Box 23, Bingville, Mo."—Kansas City Star.

VISIONARY.

Jiggson—If a man could only sell coal at the north pole or ice in hades!

Wiggson—But that's out of the question.

Juggson—I know; but, gee! just think of the prices he could get!

Novelty.

"I thought you told me you had something original in this libretto," said the manager, scornfully. "Here at the very outset you have a lot of merry villagers singing, 'We are happy and gay!'"

"You don't catch the idea at all," replied the poet, wearily. "The 'g' is soft. It should be pronounced 'happy and jay.'"

Awfully Busy.

Jim—A stitch in time saves nine.

Tom—Who said that?

Jim—Gee! Ain't you read your Bible?

Tom—Nope; I ain't even had time to read the sporting page this morning yet.—Cleveland Leader.