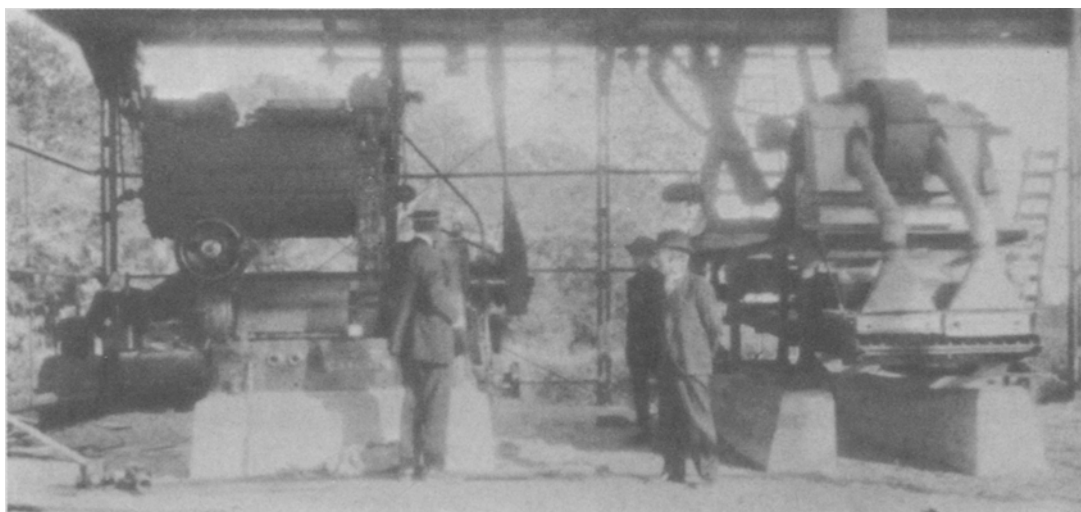


American Tung Oil Production

First Commercial Unit for Manufacture of This High Grade Varnish Oil Established in Florida

By FRANCIS COOPER



First American tung oil mill—Gainesville, Fla.

THE world's first mill to employ power in the production of tung oil (China wood oil), has recently been completed at Gainesville, Florida, to handle the 1928 and future crops of tung oil nuts from the plantations of the Alachua Tung Oil Corporation and the American Tung Oil Company. The trees on the properties of these companies have just come into bearing, consequently the managements have deemed it advisable to install crushing equipment this winter.

Tung oil, as is well known to many of our readers, is used in the manufacture of high quality waterproof paints and spar varnishes, and is also extensively employed in the manufacture of linoleum. Until this year the only sources of supply have been interior points in China, with the exception of small quantities of a slightly different grade produced in Japan.

The quality of the oil imported into the United States from China has always been variable, because of very unsatisfactory conditions of production at the different points of origin in the latter country. During recent years an effort has been made to establish cultivation of the Chinese wood oil tree (*Aleurites Cordata*) in America, and the plant has been tested at a large number of points in the Southern United States, and in California. It seems to thrive best in the interior of Florida, near Gainesville, through Western Florida, and on

the Southern coastal plains of Georgia, Alabama, Mississippi, and Louisiana. There are approximately four thousand acres of the trees now under cultivation in these areas.

From the photograph published herewith it will be seen that the layout of this pioneer tung oil crushing mill is extremely compact, and that the machinery consists entirely of equipment well known to all American oil millers, with only slight modification. The shelling and separating machinery, shown on the right in the cut, consists of a hopper for receiving the whole dried nuts, a rotary decorticator, shaking separating screens and air-suction hull-conveyors. In operation the whole unshelled nuts are fed by an elevating conveyor into a hopper above the decorticator, which removes the shells, permitting kernels and shells to fall by gravity onto the shaking screen below, from which the hulls are removed by the air-suction conveyor to the fuel-pile outside the mill-building. These shells or hulls constitute the plant's chief source of fuel.

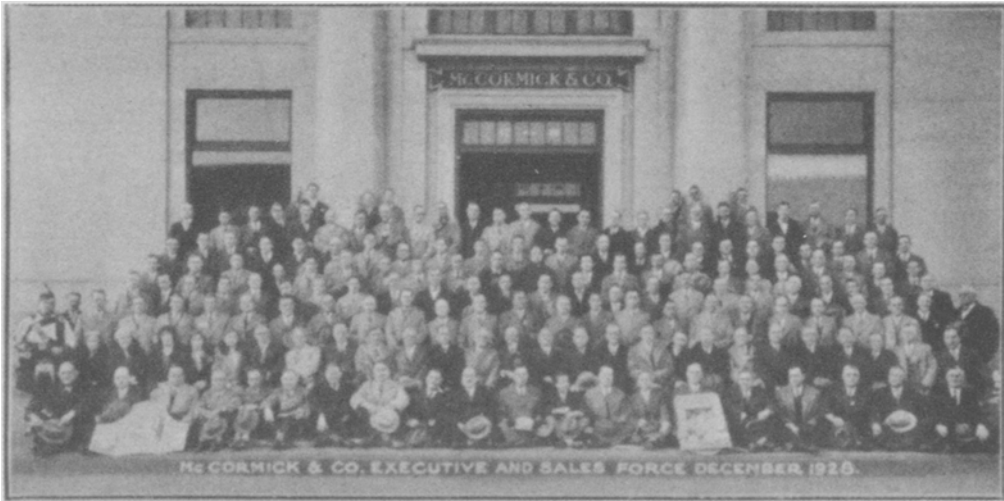
The kernels are conveyed from the separating screen to a set of cracking rolls (not shown in the cut) where they are rolled just sufficiently for efficient expelling of the oil, and are then conveyed to the tempering apparatus above the expeller. The expeller, shown on the left in the photograph, is the latest type Anderson, belt drive, equipped with tempering

conveyor and all latest improvements. The cracked kernels are subjected to slight heating only in the tempering apparatus, with the result that the tung oil produced in this equipment is practically a cold pressed oil, and is lighter in color and higher in quality than any of the Chinese grades. As usual in expeller operation, the broken expeller cake is automatically conveyed to grinding and sacking machinery, for sale as meal, and the oil flows by gravity to receiving tanks for subsequent filtration and shipment. Obviously, the initial capacity of this one-expeller mill is small, but the plant will be expanded as more of the trees come into bearing and the crop increases.

This small but modern mill is in vivid contrast with the type usually encountered in China, the native habitat of the tung oil tree. There the China wood oil crusher, who is usually the farmer who owns a few trees only, first

hollows out a log to form a roughly rectangular trough, which he then divides into two compartments by means of a plank placed on edge lengthwise. After filling one of the compartments with the shelled tung oil nuts, he drives wedges into the other compartment of the hollowed log, thus forcing the dividing plank against the nuts and obtaining the oil from them by the pressure set up between the plank and the other side of the hollow log. This very crude method, naturally, does not remove all the oil from the seeds and that produced is often of very inferior quality.

The dedication of the new American crushing plant was attended by several prominent paint and varnish officials, who expressed themselves as gratified at the progress shown toward the establishment of an American supply of tung oil.



McCormick & Co. Sales Convention

At the recent bi-annual sales convention of McCormick & Company, manufacturers of mayonnaise and distributors of a full line of flavoring extracts, teas and spices, held at the company's headquarters in Baltimore, there were one hundred and fifty of the sales representatives present, representing territories stretching from coast to coast.

The week's activities included addresses by the Mayor of Baltimore, W. M. McCormick,

President of the company, F. W. Ensey, Advertising Director, George F. Mitchell, Supervising Tea Examiner of the United States, and H. P. Warwick of Cecil, Warwick and Cecil, Advertising, New York. The week's meetings were interspersed with several entertainments which afforded the members of the firm and house organization the opportunity of fraternizing with those who represent McCormick & Company in the field.

Production of pilchard oil in British Columbia is reported as follows in a recent dispatch from American Consul Harold E. Tewell, Vancouver, B. C.:

		Oil	Meal
1928	23 plants	3,966,970 gals.	14,473 tons
1927	19 plants	2,666,948 gals.	12,319 tons
1926	15 plants	1,898,721 gals.	8,481 tons

The A. W. Dodd Company, of Gloucester, Mass., is planning to establish a branch plant for the manufacture of medicinal cod liver oil at Yarmouth, Nova Scotia, according to the Department of Colonization and Development of the Canadian Pacific Railway, who state that the establishment of this plant will no doubt prove a benefit to Yarmouth.