tion from time immemorial upon the high, sandy lands less suited for the more exacting crops. Seed is generally sown in April or May, and in August the plant, if grown for its fibre, is pulled or cut close to the ground, laid in long rows till the leaves begin to rot and separate from the stalks, which are then steeped in water for a few days, till the bark separates freely. The average yield is about 640 pounds of fibre per acre. The fibre is not so strong as hemp, but good cables, canvas, and cloth are made of it. It is now exported in considerable quantity and is known by various names, as brown hemp, Bengal hemp, etc. Jubbulpore hemp (Crotalaria tenuifolia) is considered by some authorities to be a variety of Crotalaria juncea. See Crotalaria

HEMP, SISAL. The fibre of Agave sisalana, order Amaryllideæ, native of Yucatan, Mexico, Central America, and West Indies, and closely related to the century plant. It has been introduced into the Bahamas and Florida. As a cordage fibre, it is second only to Manila hemp in strength. Its straight smooth strands of fibre become white upon drying without washing. The plants yield best on a gravelly, rocky soil in comparatively arid districts only a few feet above the level of the sea. It thrives upon the Florida Keys, upon the almost naked coral rock, but will not thrive when even slightly shaded. Plants set out at 18 inches high from the nursery will produce leaves fit for cutting in three years. The life of a plant when undisturbed is six or seven years, after which it sends up its blossom stalk and then dies. Cutting, however, extends its life 15 to 20 years. No special cultivation is needed except that the land be kept clean and the suckers kept down. The cutting of the leaves is done in Yucatan by Indians, who use a heavy-bladed, sabre-like knife called a machete. The spine at the leaf end is cut off, and the leaves bundled for removal to the machines. On large plantations they are transported by steam power over tramways which reach different parts of the estate. The fibre is separated from the fresh leaf by a specially constructed machine called a raspador. The annual yield of fibre is from 1000 to 1500 pounds per acre, 50 to 70 pounds of fibre being derived from 1000 leaves. Sisal hemp is largely used in the United States in the manufacture of ropes and binder twine, the imports of 1913 being 154,000 tons valued at \$17,804,000. See HENEOUEN.

HEMP, SUNN. The fibre derived from the bark of Crotalaria juncea, order Leguminosæ, a native of India. The plant has been in cultiva-

FIBRE PLANTS



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