SOAP BEARING TREES AND SHRUBS

A NEW industry has sprung up in the West. Once again it is proved that a plant commonly despised as a weed oft hides a valuable quality of usefulness. It has been discovered that from the leaves of a certain species of yucca a soap free from alkali can be extracted, and therefore is especially fine for toilet purposes and for washing woolens. The leaves yield a fiber useful for many purposes. Its fruit, similar in shape to a banana, has long been a favorite food with the Indians. This plant that grows so abundantly in arid regions that it has been spurned and hated as a troublesome pest now brings to the ranchmen, who formerly were annoyed by it, from $5 to $8 a ton at a factory erected, like an alchemist's crucible, to convert these useless weeds into a valuable soap.

There are a number of other plants in the United States which possess a similar saponeous principle. The soap berry (Saipindus saponaria) bears small white berries which are, so writes an early explorer of southern Florida, "like a musket ball that washeth as white as sope." These small white berries produce an excellent lather when rubbed in the hands or upon cloth. The Asiatic plant of this same species has long been used for washing silks and fine woolen fabrics such as cashmere shawls. The leaf is quite like our roadside sumac.

In the West grows a soap plant of the lily family known as amole, the root of which, as every camper knows, makes a fine lather. In the summer, when the fields are golden, countless white feathers seem to be blowing over them. They are airy, fairy, feathery blossoms that tell where good soap may be found. Their stem is almost invisible, for it is thin, brown, wiry as the grass of the field. In the spring these useful soap bulbs may be located by the slender wavy leaves that lie upon the ground in a whorl. The bulb is so close to the surface that it protrudes like a bit of brown, old manila mat. The early Californians used this bulb as soap and also as a hair tonic. The Indians used to go down to the pools with a few bulbs and rub a fine lather with them upon the rocks. This stupefied the fish, which would come to the surface and be easily caught.

From the blossoms of the California lilac or soap bush (Ceanothus divaricatus) a fine lather is obtained. Surely a handful of these beautiful, fragrant blossoms is the very poetry of toilet soaps. Tourists are often given a cluster to rub in their hands with a little water by the natives, who enjoy their astonishment over the delightful soft and abundant lather.

There are three species of soap nut trees indigenous to the tropical and sub-tropical portions of the United States—Saipindus saponaria, S. marginatus, S. drummondii. There are two other species which occur in our south Atlantic, Gulf and southwestern States. The S. marginatus is a tree of medium height found from Louisiana to Kansas and southern Mexico. It has leathery leaves with wingless stems and yellow berries, from which an excellent soap is obtained. The wood of this tree is tough, hard and divides into plates which are easily separated, stripped and woven into baskets. This is a relative of our buck-eyes.

There is a tree imported from China called the China soap tree which has been quite extensively cultivated in the southern and eastern parts of this country. Many escapes of it are found which lead one to believe it indigenous. It is a shapely tree reaching in height fifty feet and more; the wood being close grained and capable of taking a high polish is admirably suited for furniture. The crop from a full grown tree is about 200 pounds of fruit, which averages an income of $10 to $20 a year per tree. The fruit of this strange tree, which begins to bear when six years of age, is a nut-shaped shell in which is a seed. The hull is shredded into pieces, which are used as though they were pieces of soap. No manufactured soap can compare with it for toilet or cleansing purposes. The hull is sometimes ground into a powder, which in turn is made into a cake. An excellent hair wash, a dentifrice and other household commodities are extracted by very simple, inexpensive processes. The seed yields an oil said to be equalled in value to olive oil. When the raising of this tree becomes an industry warranting the making of proper machinery for extracting this oil it can be produced much more cheaply than cotton seed, so that it seems destined to develop into a notable industry. The leaves of this tree supply a fodder of much nourishment. After its detergent quality has been extracted from the shell the residue makes an excellent meal for poultry. It is said that from the seeds various remedies for diseases are made.