which are really durable, teak has always been used for buildings, particularly for temples, and in India it has been the chief timber employed for shipbuilding. When iron commenced to be exten­sively used for the last-named purpose, it was supposed that the demand for teak would decrease. This, however, has not been the case, for the wood is still very largely used for the backing of iron­clads and for decks of large vessels. It is also used for furniture, for door and window frames, for the construction of railway car­riages, and for many other purposes. White ants eat the sapwood, but rarely attack the heartwood of teak. It is not, however, proof against the borings of the teredo, from whose attacks the teak piles of the wharves in the Rangoon river have to be protected by a sheathing of metal.

Once seasoned, teak timber does not split, crack, shrink, or alter its shape. In these qualities it is superior to most timbers. In contact with iron, neither the iron nor the teak suffers, and in this respect it is far superior to oak. It is not very hard, is easily worked, and takes a beautiful polish. It has great elas­ticity and strength, and is not very heavy. The average weight of perfectly seasoned wood fluctuates between 38 and 46 lb per cubic foot.@@1 Its weight, therefore, is a little less than that of English oak. Green teak timber, however, is heavier than water, and unless thoroughly seasoned it cannot be floated. In Burmah, therefore, where the rivers are used to float the timber to the sea­ports, a peculiar mode of seasoning teak by girdling has been practised from time immemorial. Girdling consists in making a deep circular cut through bark and sap into the heartwood, so as completely to sever communication between bark and sapwood above and below the cut. In teak, as in oak and other trees with well-marked heartwood, the circulation of the sap only takes place in the sapwood, and the girdled tree therefore dies after a few days if the operation has been effectually performed. But if even the smallest band of sapwood is left connecting the outer layers of wood above and below the girdle, the tree is not killed, and often recovers completely. The girdled tree is allowed to stand one or two years, and longer if a very large-sized tree. Being exposed to the wind and to the action of the sun, the timber of a girdled tree seasons more rapidly and more completely than that of a tree felled green. The teak produced in the presidencies of Madras aud Bombay and in the Central Provinces is as a rule felled green, and even when dry it generally is a little heavier than the timber from Burmah.@@2 For a long time to come, the rivers of Burmah and Siam will continue to afford the most convenient and most economical routes for the transport of timber. Indeed the forests drained by the Salwin and its feeders are not likely ever to be worked otherwise than on the present plan, under which the logs are floated singly over the rapids and are caught and rafted lower down, at the kyodan or rope station, 70 miles above Maulmain.

As already mentioned, teakwood contains an aromatic oil, which gives it a peculiarly pleasant smell and an oily surface when fresh cut. To this oil may probably with justice be ascribed its great durability. In Burmah oil is extracted from the timber on a small scale, for medicinal purposes, by filling an earthen pot, which is placed inverted upon another, with chips of wood, and putting fire round it, upon which the oil runs down into the lower vessel.

According to the colour and texture of the wood, several varieties of teak are distinguished in India, Burmah, and Java ; in the timber trade, however, these distinctions are of no importance. Teak as well as other trees, when standing isolated, forms side branches far down the stem, and the wood of such trees is more knotty and wavy, and generally heavier and darker-coloured than the timber of trees which have grown close together in a dense forest. Apart from the manner in which the tree had grown up in the forest, soil, elevation, and climate have a great influence upon the grain and the mechanical qualities of teak as of other timbers. Most of the larger logs brought to market have an irregular crack or hollow in the centre, which commences at the butt and often runs up a long way. There is little doubt that this is generally due to the action of the fires, which scorch and often destroy the bark of young trees. Such external injuries are apt to induce decay in the wood. Moreover, most teak seedlings which come up naturally are cut down to the ground by the fires of the hot season ;

some are killed, but many sprout again during the rains, and this is generally repeated year after year, until a sapling is produced strong enough to outlive the fire. Such saplings have a very large pith, which dries up, causing a hollow in the heart. Or a piece of the old shoot killed by the fire is enclosed by the new wood, and this also is apt to give rise to a hollow.

The leaves of the teak tree contain a red dye, which in Malabar was formerly used to dye silk and cotton. Natives of Burmah uso the leaves as plates, to wrap up parcels, and for thatching.

In its youth the tree grows with extreme rapidity. Two-year- old seedlings on good soil are 5 to 10 feet high, and instances of more rapid growth are not uncommon. In the plantations which have been made since 1856 in Burmah, the teak has on good soil attained an average height of 60 feet in 15 years, with a girth, breast high, of 19 inches. This is between 160 and 18o N. lat., with a mean annual temperature of 780 F. and a rainfall of 100 inches. In the Burmah plantations it is estimated that the tree will, under favourable circumstances, attain a diameter of 24 inches (girth 72 inches) at the age of 80. Timber of that size is market­able, but the timber of the natural forests which is at present brought to market in Burmah has grown much more slowly, the chief reason being the annual forest fires, which harden and im­poverish the soil. In the natural forests of Burmah and India teak timber with a diameter of 24 inches is never less than 100 and often more than 200 years old. In future, the timber grown in plantations and in forests under regular management may be ex­pected to grow much faster ; and there is no ground for anticipating that rapidly grown timber will be less valuable than that of slow growth, which is at present brought to market.

Like the other trees of the dry deciduous forest, teak does not attain any extraordinary size. The trees are not generally more than 100 to 150 feet high, even under the most favourable circumstances, and stems more than 100 feet to the first branch are not often found. Exceptionally tall trees were measured in 1861 in the Gwaythay forest in Pegu, east of the Sitang river, on gneiss. The stems had 106 to 114 feet to the first branch, with a girth, at 6 feet off the ground, from 7 to 16 feet. Larger girths, up to 25 feet, are not uncommon.

The teak tree does not usually form pure forests. It is asso­ciated with bamboos and a great variety of other trees, which have little market value, and, as a rule, thrives best in such company. Hence in the plantations established in Burmah, the object has been to raise forests of teak mixed with bamboos aud other trees.

Most of the teak timber produced is consumed in India. The produce of the magnificent forests of Travancore, Cochin, the Madras presidency, Coorg, Mysore, Bombay, Berar, and the Central Provinces is all so consumed. Formerly there was a considerable export from the ports of the western coast,—Malabar, Kanara, Surat, and Broach,—but the country at present requires all the teak which its forests can produce ; indeed the demand is in excess of the supply, and large quantities are imported from Burmah to Calcutta, Madras, Bombay, and other Indian ports. Small quantities are still exported from the ports of the western coast to Arabia and the coast of Africa. The chief export is from Burmah, principally from Rangoon and Maulmain. Of the other teak-producing countries, Java exports a little ; there have also been exports from Saigon ; and since 1882 Bankok has sent considerable quantities to Europe. But the Burmah coast is the chief source of supply at present. Rangoon has for a very long time been an important place for shipbuilding, teak being the chief timber used : between 1786 and 1825 111 European vessels were built at Rangoon, aggregating 35,000 tons. At the same time timber was exported, and, when the place was taken by the British in 1852, teak was the chief article of export. Maulmain became British territory at the close of the first Burmese war in 1826. At that time the place was a large fishing village, and it was mainly through the export of teak timber and the shipbuilding trade that it attained its present importance. From 1829 to 1841 upwards of 50,000 loads of teak timber were exported, and, in addition, 68 vessels were built during that period, aggregating 15,680 tons, and estimated to have required for their construction 24,000 loads of teak timber. The forests from which Maulmain first derived its supplies are situated on the Attaran river, a feeder of the Salwin. In 1836, however, timber began to come down from more distant forests, and in 1841 one-fourth only of the supply was brought from the Attaran forests.

The increase in the export of timber from the Burmah ports was slow at first, but has gone on rapidly since Rangoon became a British port. Since that time the timber brought to the Burmah ports has come from the following sources:—(1) from the forests in the British coast provinces, Pegu and Tenasserim ; (2) from the forests in the former kingdom of Burmah, floated to Rangoon down the Sitang and Irrawaddy rivers ; (3) from the forests in the Shan states formerly tributary to Burmah, from the Karenni country, and from Siam, which is all floated to Maulmain by the Salwin river. Since 1856 the increase of the supply derived from these three sources has been large, as will be apparent from the following

preservation and showed the peculiar structure of teak timber in a very marked manner. They had been in the building for 500 years *{Indian Forester,* vol. vii. p. 260). Tn the wall of a palace of the Persian kings near Baghdad, which was pillaged in the 7th century, two Americans found in 1811 pieces of Indian teak which were perfectly sound (Ouseley, *Travels in Various Countries of the East,* vol. ii. p. 280, note 67). In the old cave temples of Salsette and elsewhere in western India pieces of teak have been found in good preservation which must have been more than 2000 years old.

@@@1 At 44∙8 lb per cubic foot a load of 50 cubic feet weighs a ton (2240 lb), hence in the Burmah ports a ton of teak timber is taken as equivalent to a load of 50 cubic feet.

@@@2 It has been erroneously stated that the tree in Burmah is tapped for its oil before felling.