within the country itself as oak was once used in England. Except in the heart of the large towns, where brick and mortar are compulsory, the private houses and public buildings are built of it exclusively, and so is ordinary furniture, such as tables, chairs, and the like. This faith in the durability of the wood is more than justified. So solid and iron is its heart that the weather boards torn from huts rudely put together by the pioneers of fifty years ago, and lately demolished to make room for the improvements of progress, have been found in a perfect state of preservation, and are now exhibited as a curiosity. Kauri pillars sunk in the earth, or in fresh water, seem alike impervious to damp or the attacks of insect life. These merits having become known to the contractors who pave London streets, quite recently small blocks of the flexible, close-grained pine of the Antipodes were laid down in one of our great thoroughfares. If used before it is sufficiently dry, however, kauri timber is apt to shrink endways. Nor does the value of one of the royallest trees in the world end with its death. When it has exhausted the properties of the soil necessary to its existence, large stretches are left rich in the gum which dropped from its mighty arms and trunk. After the lapse of time it solidifies into a brown or sherry-coloured substance not unlike amber, from which the finest varnishes are made. So important has the trade in this article of commerce become that it far exceeds in value the export of kauri timber. At intervals in the forests, too, the bushman comes across a tree whose trunk, instead of being smooth and dark as an ebony column, is rough and knotty. It yields the most ornamental of all New Zealand woods, and is described as mottled kauri, to distinguish it from the ordinary kind. Creamy rather than white in colour, and beautifully marked in rich designs of a deep, warm brown, it takes on a very high polish, and is so much prised for artistic and decorative purposes that the fortunate possessor can clear a profit of from 500*l.* to 600*l.* without any difficulty. One of the colonels of the 73rd Regiment, of Maori war fame, bought an estate near the once-renowned Gate Pah, and discovered in it a mottled kauri, with the timber of which he was able to line the whole of his house, and to have made a duchesse dressing-table, coffee-table, eight chairs, a wash-stand, a work-table and a bedstead. The profit on an ordinary kauri tree, whose height is 50ft. and whose girth at base is 20ft., averages 100*l.*

This huge tree, whose trunk is more like a factory chimney than anything else, which is unequalled for size in the whole realm of nature, upon which, when laid low, a party of eight can dance a quadrille with ease and upon which a small house can be built, is sometimes the victim of an enemy before which it is as powerless as the veriest sapling. This is the rata, a parasite with a bright red blossom. In the woods, where it reigns supreme, perhaps as in the human would for mutual protection, its beautiful enemy dare not intrude. It is only when it stands alone among the mixed bush that it falls a prey. Against the coy advances of the ropes of verdure that swing so alluringly from the boughs of a neigbouring tree it is as vulnerable as one under the spell of a witching woman. But not until they twine themselves in serpent-like windings round the trunk is the doom of the monarch of the woods a certainty. Month after month and year after year the murderous embrace grows tighter until the rata proudly flaunts its scarlet flowers from the crown. Then the end comes. An equinoctial gale sweeps through the forest, and with fierce delight assails the kauri, which has defied it for a thousand years. Sapped of its strength, it rocks to and fro and shivers in agony. Then it falls to the earth, dragging down with it the beautiful parasite which has been its ruin. Sometimes the rata grows downwards from a fork of a woodland giant, when, rooting itself firmly in the ground, it shoots upwards, clasping the trunk in its arms. After the final decay of the support by which it has raised itself to the light, it develops into one of the most beautiful of New Zealand forest trees.—London *Standard*, Aug. 11.

LIME CULTIVATION IN THE WEST INDIES.

There is an interesting note on the West Indian lime in a recent number of the *Kew Bulletin*. The sour lime-tree (*Citrus medica*, L. var. *acida* Brandis) which yields the lime-juice and essential oil of lime familiar in the drug-trade was probably introduced into the West Indian islands from the East. Lime-juice is obtained by compressing the fresh ripe fruits between heavy rollers. It is exported in the raw state or concentrated. The concentrated variety is obtained by evaporating the raw juice in copper or enamelled-iron pans until it is reduced to about one-eighth or one-tenth of the original bulk. When exported it is a dark, viscid fluid of the consistence of treacle. From the rind of the fresh fruits there is obtained by the ecuelling hand-process a fine essence of limes exported in copper vessels. The process which is a slow one, is performed by women and girls. The task per day is measured in fluid ounces. By distilling the raw lime-juice a spirit is obtained known as oil of limes. The essential oil of limes extracted by hand is far more valuable than the oil of limes, as the perfume of the latter is injuriously affected by the heat necessary in distillation.

Lime-trees were abundant in Dominica as long ago as 1791, but at that period they appear to have been grown only for their fruit. The lime-juice industry appears to have been started in Dominica by the late Dr. Imray, but shortly after the commencement of that gentleman's venture the Messrs. Sturge of Birmingham, quite independently of Dr. Imray, and without any knowledge of his experiments set to work to establish similar plantations in the neighbouring island of Montserrat. The industry appears to hold out prospects of being a remunerative one, for, according to a Dominica planter it takes about 1000*l.* to purchase about twenty acres of land and plant them with lime trees, to build a house for the manager, to erect a mill with copper boilers to concentrate the juice, to pay for superintendence, and cover all expenses for seven years. At the end of this time the estate would yield forty hogsheads of concentrated lime-juice a year, worth 480*l.* The yearly cost of cultivation and manufacture would amount to 240*l.*, the rest being gross profit.—*Chemist and Druggist.*

CHEMICALS AS INSECTICIDES.

According to Professor Long, the agricultural station of the Pas de Calais has just published some particulars with regard to the materials used for the destruction of insects, from which it appears that insecticides are often used which really have no destructive power over insects of various kinds. He says some of these products, manifestly efficacious, not only destroy insects but the cultivated plants upon which they thrive; others he says, are extremely dear; while again, others, deadly to an insect of one order, have no effect upon those of another. Some insects, he remarks, have a resisting force which is really prodigious in face of the means of destruction which are commonly opposed to them. He gives an instance in which the larvæ of a destructive insect were plunged in pure sulphide of carbon, but after an immersion of five minutes the little creatures, having been again exposed to the air, acquired their first vigor. M. Huet has made some experiments u