

A PECULIAR ASIATIC FRUIT.

A writer in the *Gardener's Chronicle*, in an article on the edible fruits of the forests and gardens of the Eastern tropics, gives a long and interesting account of that singular fruit, the durian, which the *Scientific American* condenses as follows: He says that the regal durian (*Durio zibethinus*), like the finest of nectarines or melting pears, must be eaten fresh and just at one particular point of ripeness, and then it is a fruit fit for a king. So highly is this vegetable custard valued that as much as a dollar each is often paid for fine specimens of the first fruits of the durian crops brought into the Eastern markets. It is a universal favorite with both Malays and Chinese, but the opinions of Europeans vary as to its merits. It is a paradox, "the best of fruits with the worst of characters," and, as the Malays say, you may enjoy the durian, but you should never speak of it outside of your own dwelling. Its odor is so potent, so vague, so insinuating, that it can scarcely be tolerated inside of the house. Indeed nature here seems to have gone a little aside to disgust us with a fruit which is, perhaps, of all others, the most fascinating to the palate when once we have "broken the ice," as represented by the foul odor at first presented to that most critical of all organs of sense, the nose. As a matter of course, it is never brought to table in the usual way, and yet the chances are that whoever is lucky enough to taste a good fruit of it to begin with, soon develops into a surreptitious durian eater. There is scarcely any limit to durian eating if you once begin it; it grows on one like the opium habit or other acquired taste; but, on the other hand, the very suggestion of eating such an "unchaste fruit," is to many as intolerable as the thoughts alone of supping off cheese and spring onions, washed down with beer, and following it by a whiff from a short "dhudeen," by way of dessert.

About the middle or end of July, durian fruits are very common in Singapore, and their spiny skins lie about the streets in all directions. As you pass along you become aware of a peculiar odor all around you—an odor like that of a putrid sewer when half suppressed by holding a perfumed handkerchief to the nose—a blending of a good deal that is nasty with a *soupeon* of something rather sweet and nice. On opening a fruit for yourself, you find that the perfume, like that of musk plant, ceases to be evident after you have once had a fair whiff at it at close quarters. The flavor of the straw-colored, custard-like pulp surrounding the large chestnut-like seeds is perfectly unique; and to taste it, as Wallace tells us, is a "new sensation worth a journey to the East to experience." The pulp is sweet, rich and satisfying, but never cloying; the richness seems counteracted by a delicate acidity, and the want of grape-like juiciness is supplied by the most creamy softness of the pulp as it melts away, ice-like, on your tongue. The durian is one of Dame Nature's "made dishes," and if it be possible for you to imagine the flavor of a combination of corn flour and rotten cheese, nectarines, crushed filberts, a dash of pineapple, a spoonful of old dry sherry, thick cream, apricot pulp and a *soupeon* of garlic, all reduced to the consistency of a rich custard, you have a glimmering idea of the durian, but, as before pointed out, the odor is almost unmentionable—perfectly indescribable. The fruit itself is as large as a Cadiz melon, and its leathery skin is protected by sharp broad-based spines similar to those of a horse-chestnut. There are many varieties in the Bornean woods some but little larger than horse-chestnut fruits, and having only two seeds; others larger but with stiff orange-red pulp, not at all nice to eat, however hungry you may be, and even the larger kinds, with creamy pulp and many seeds, vary greatly in flavor. The trees vary from 70 to 150 feet in height, with tall, straight boles and spreading tops, and the foliage is oblong acuminate, dark green above, paler and covered with reddish hairs or scales below. The fruits of the finer varieties

fall when ripe, and are often the cause of serious accidents to the natives. The clusters of large white flowers are produced about April, and form a great attraction to an enormous species of bat, a kind said to be one of the greatest pests of Eastern fruit groves. The finest fruits are obtained from cultivated trees.

The tree does well in Sumatra, Java, Celebes and the Spice islands, and even as far north as Mindanao. Forests of it exist on the Malay peninsula, and very fine fruit is brought to Singapore from Siam about July or August. It does not succeed well in India, and cannot be grown in the West Indies.

FOSSIL FOOTPRINTS IN COAL.—At the last meeting of the New York Academy of Natural Sciences, Dr. Joseph Leidy read a letter from Mr. W. Lorenz, chief engineer of the Philadelphia and Reading Railroad Company, referring to a fossil specimen presented to the academy by Mr. William D. H. Mason, of Williamstown, Pa. The specimen is a mass of coal shale with footprints, and was discovered by the donor at the Ellengowan colliery, in the Mahanoy coal field. Mr. Lorenz remarks that it is of special interest as having been the first specimen of the kind found in the anthracite coal field. The specimen is an irregular slab, upwards of a foot long, and less than half the breadth. The upper surface is obscurely ripple marked longitudinally, and is crossed in a slant by seven tracks, which are in pairs, except one, in advance on the right. The four tracks on the right occupy a line of six inches, and are about an inch and a half apart from those on the left. The more perfect impressions exhibit four widely divergent toes, successively increasing in length from within outwardly, excepting that the fourth toe is slightly shorter than the third. The expanse of the tracks is about one inch. The impressions probably pertain to some salamandroid animal, and as it had been found useful to refer to fossil foot tracks as the representatives of the animal by which they were made under distinct names, he would in accordance with a suggestion from Mr. Lorenz, name the form represented by the Ellengowan anthracite.

A BOTANICAL USURPER.—A curious instance of the invasion of a country by a plant of foreign origin is seen in the history of the mango in Jamaica. In 1782 specimens of the cinnamon jack-fruit and mango were sent to the botanic garden of the island. There the cinnamon was carefully fostered, but proved to be difficult of culture in the island; while the mango, which was neglected, became in 11 years as common as the orange, spreading over lowlands and mountains, from the sea level to 5,000 feet elevation. On the abolition of slavery, immense tracts of land, especially coffee plantations, relapsed into a state of nature, and the mango being a favorite fruit with the blacks its stones were flung everywhere, giving rise to groves along the roadsides and around the settlements; and the fruit of these, again, rolling down hill, gave rise to forests in the valleys. The effect of this spread of the mango has been to cover hundreds of thousands of acres, and to ameliorate the climate of what were dry and barren districts by producing moisture and shade, and by retaining the rain-falls that had previously evaporated; all this, besides affording food for several months of the year to both negroes and horses.

PALMETTO FIBER FOR PAPER.—The *Fernandina* (Fla.) *Mirror* reports that the machinery, lately brought to that place by Prof. Loomis, for the preparation of palmetto fiber is working satisfactorily, and that the experiment is an assured success. The stalks of the scrub palmetto are used. It is said that the fiber is likely to prove useful for cordage, paper, tubs, pails, flour barrels, boats, powder kegs, and no end of other articles of general use.

DISTINGUISHING BUTTER FROM LARD, BEEF FATS, ETC.

Mr. William Gustavus Crook, public analyst for Norwich, England, describes a method which will in a few minutes distinguish butter from the fat of beef, mutton, or pork, or mixtures of them.

The sample to be examined (if in the form of butter) must be first melted and rendered pretty free from water and salt, by filtration if necessary; 10 grains are then to be put into a test tube and liquified by placing the tube in hot water at about 150° Fah.; remove the tube when ready, and add 30 minims of carbolic acid (Calvert's No. 2 acid, in crystals, one pound; distilled water, two fluid ounces). Shake the mixture, and again place it in the water bath until it is transparent. Set the tube aside for a time. If the sample thus treated be pure butter, a perfect solution will be the result; if beef, mutton, or pork fat, the mixture will resolve itself into two solutions of different densities, with a clear line of demarcation; the denser of the two solutions, if beef fat, will occupy about 49.7%; lard, 49.6%; mutton, 44% of the entire volume; when sufficiently cooled, more or less deposit will be observed in the uppermost solution. If olive oil be thus tested, the substatum will occupy about 50%; with castor oil, there is no separation. With some solid fats (not likely to be used fraudulently) no separation whatever takes place; the addition of a minute portion of alkali root will render the reading of the scale extremely distinct by artificial light. The author states that the above method (although not intended to surpass other processes) is capable of wide application, the saving of a large amount of time, and the reliability of its results will at once recommend it as a "first step" in butter analysis.

IMPROVEMENT IN ELEVATED RAILROADS.—Peter Cooper, of New York, makes the subject of a long letter, addressed to the press, the improved methods of rapid transit. To obviate the annoyances attendant on the present system of elevated railroads, he advocates the adoption of a plan of which the salient feature is the use of an endless chain. After considering the advantages of this method of propelling the cars, he recommends a plan for the noiseless running of the cars over the rails. The constant pounding of the wheels in passing from one rail to another is to be avoided by the use of a chair which will give support to the wheel. The wheels themselves are to be made with a groove over the whole face, which is filled with hard gutta-percha. "An elevated railroad so constructed," Mr. Cooper says, "with the propelling power under the ground, and the rails so arranged as to take up the momentum in stopping and hold it ready to be given out in starting, with the wheels of the cars covered with gutta-percha, working on gutta-percha covering, and the rail held in a firm grasp in an India rubber chair, so that it would not touch iron in any of its parts, would have nothing to convey sound except the mere rubbing of the flange against the side of the rail. This rubbing could be avoided mainly by the shape of flange." The advantages claimed for this method of rapid transit are the small cost of operating, absolute safety, and the perfect freedom from noise, sparks, dust and gases.

A NOVEL WAY OF PRESERVING GRAPES.—It is said that the Chinese have a method of preserving grapes during the entire year by cutting a circular piece out of a ripe pumpkin, or gourd, making an aperture long enough to admit the hand. The interior is then completely cleaned out, the ripe grapes are placed inside, and the cover replaced and pressed in firmly. The pumpkins are then kept in a cool place, and the grapes will be found to retain their freshness for a very long time.