

The Drying and Packing of Teas.

Tea is the dried leaf of various species of the *Thea* plant, a hardy evergreen shrub, cultivated in China, Japan, India and Ceylon.

There is probably nothing more interesting connected with the stock of goods usually carried in a grocer's store than the history of the little dried leaves contained in the gaudy-colored Japanned cans marked Oolong, gunpowder, Young Hyson, Imperial, etc., etc. How few realize that the contents of perhaps a dozen chests of tea, which one sees piled up in the rear of a retail grocery, or stacked conspicuously near the front door or window, would have more than filled the entire room from floor to ceiling, when first gathered in bamboo baskets from the tea plantations. Take for example Japan tea (there being more of that variety consumed in the United States than all others combined), when the leaves are just plucked from the plants by the native women and children (who perform a large share of the work), they are exceedingly bulky, and are reduced in size very gradually as the curing proceeds. At first they are spread out in the air on mats made of straw or grass, in which they are occasionally rolled up to start and hasten the curing, which is the form that the leaves are desired to take as the moisture evaporates.

After drying in the manner the firing process is begun. For this purpose the Japanese use a sort of deep, oblong tray made of paper and wood, about three feet long, twelve or fifteen inches wide, and three or four inches deep; the bottom consisting of stout native paper, and the sides and ends of wood. The tea leaves are dried over charcoal fires in these trays, and when the Japanese consider them properly cured after repeatedly turning and stirring them about, the sorting is done on long, low tables; this consists of breaking off and discarding the larger stems, and separating the small or fine, medium and large or coarse leaves, all of which is accomplished in great part by women and children, and require pretty nimble fingering. The Japanese then regard the work done, and to preserve the tea for future use pack it away in large wooden boxes and earthen jars. The boxes are oblong and contain ninety pounds. The jars are usually three or four feet high, holding from fifty to sixty-five pounds. Both boxes and jars have strong, tough paper pasted over their entire surface, which seals their covers and lids and further protects the teas from dampness, of which there is a superabundance during the summer season, and sometimes as late as the early part of November.

White teas thus dried satisfy the natives, they would be regarded, if forwarded in such condition to this country, as having too raw a flavor, and in short time would appear very stale, if not actually musty. Consequently the teas that are exported from Japan are all re-fired. In the shipping ports—Yokohama and Niogo—large tea firing warehouses called "godowns" are erected for this special purpose. Such a building usually contains from 300 to 500 iron pans set in masonry—generally stone, and under each pan is a small furnace of charcoal fire. The pans are kept so hot that the coolies only escape burning their fingers while stirring and rubbing the tea, by dexterously keeping some of the leaves between their hands and the hot iron. The quantity of tea (which is taken from the jars or country boxes previously described) put in each pan, is generally four or five pounds, and the re-firing consumes from 50 to 75 minutes. It requires very skillful superintending to exhaust all the moisture in the leaves and at the same time avoid burning them, and just when the right point is reached, the tea-firing coolies scoop up the tea into baskets which they carry to one end of the building or an adjoining packing "godown," where they are emptied over sieves through which a portion of the finely broken leaves and dust falls. This is necessary because the long stirring in the iron pans produces too large a percentage of dust to admit of shipping the tea without sifting. The tea and dust are

then packed separately in strong boxes, in which are first placed linings made of patent tinned lead which is imported in sheets from England where it is manufactured expressly for this purpose.

The boxes or half chests are usually covered on all sides with figured paper. This has a coating of native prepared oil which hardens with a gloss like varnish. A printed face mark is then pasted on one end of the half chest, which must then be given time to dry, for it also must be oiled to agree with the other sides, or the Japanese would consider the work imperfect. Next comes putting on mats; then another printed face, the same as under the mat; and when the rattaning is neatly done, the wonderful Oriental herb is at last in fit shape and condition for its journey to New York of either 8,600, 15,000 or 30,000 miles, according to the route, whether by steamer and railroad via San Francisco; by steamer via Suez Canal; or by sailing vessel via Cape of Good Hope or around the Horn.

Macaroni.

Every housekeeper has asked the question: "Why is my cook's macaroni doughy and tough?" She follows the recipe EXACTLY.

It is because it is made of American flour; and no skill in manufacture or cooking can make it good. Good macaroni can be made only from exceedingly hard and flinty wheat; and the most suitable variety is produced only in the province of Taghnarak, in Southern Russia. None of this comes to America; it is all taken by the principal Italian and French manufacturers; and we have no suitable substitute. One must look to Italy and France for thoroughly good macaroni—that which dissolves instead of becoming dough, when cooked.

In the manufacture of Macaroni the hardest and flintiest varieties of wheat are selected first washed and then thoroughly dried in the sun. The wheat is then coarsely ground, and run through an immense revolving sieve to separate the starch from the bran and flinty portions. It is then successively passed through a series of six hand sieves, each a little finer than the preceding, for the purpose of separating the flinty portions from the bran. This apparently simple process requires a considerable skill, and a certain knack which it takes time to acquire. The motion which is given to the sieves by the sifters is half rotary and half up and down, with an indescribable side motion which can only be compared to a "boomerang," for it throws the mass which is being sifted in an opposite direction to that taken by the sieve. Every few minutes each sifter pauses and skims off the bran which has worked to the top and centre of the sieve, and after these various manipulations, there remains a clean, flinty farina, known as *Semolina*. This is then mixed with warm water into a stiff dough, and this dough is thoroughly kneaded by means of a long prism like, hardwood lever, so adjusted that the spring of the timber may be utilized in alternately raising and depressing it upon the mass of dough, which is then pressed and kneaded into the required consistency. It is rather amusing to see two or three men sitting on the end of this lever, and bobbing up and down, so as to throw their weight at one instant on the lever, bringing it down into the dough, and then allowing it to spring up again in order that it may be brought down in a new place.

After it has been thus mixed and kneaded for about an hour the dough is put into presses with perforated bottoms and pressure being applied it comes out through these holes in the shape shown to us as Macaroni. At this stage of the process it is of course soft and flexible, and in order to keep the various little strings of dough from sticking together it is constantly fanned by a boy in order that the current of air thus made may slightly dry the outside of the strings and prevent them from adhering. It is then cut off and hung on racks or frames made of bamboo, to dry. As it hangs on the frames the different pieces are of unequal

length, and a boy passes rapidly over them, wringing off the longer ends to make them uniform. The drying has to be done in the shade, and in a place not exposed to the wind; for if dried too quickly, or if the slender pieces were blown against one another, they would be apt to break. When sufficiently dry it is removed from the frames, and packed in boxes such as are familiar to all grocers.

The different sizes are made by changing the movable bottoms of the press, and employing different sized perforations. Each of these perforated holes has a core or centro around which the dough has to pass, and this produces the hollow which is a characteristic of the macaroni. The reason of this arrangement is, if the macaroni is made solid it would take very long to dry when hung upon racks, and also when dried it would be very difficult to cook it without a great deal of boiling, and impossible to do so uniformly. So important is this considered and so defective do the Italians regard the product if not thus perforated, that a proverb has arisen in Italy to the effect that "A foolish person is like macaroni without any hole in it."

Vermicelli is made from the same material, and in the same way as macaroni, except that it is not so low, it being so small that it is neither practicable nor necessary to make it so.

Coffee.

The coffee plant in its wild state is a tree attaining medium height, but in cultivation it is kept trimmed so that it does not reach over eight feet in height. A tree matures in about three to four years, and will bear fruit for about twenty to thirty years, although it is known that there are trees in Java that are over one hundred years old; but of course these ceased bearing some time ago. This plant generally grows on the upland, and is planted in rows from eight to ten feet apart. The berry when ripe and ready to pick resembles a cherry and is of about the same size. After it is picked it is allowed to dry in the sun, and then hulled, during which process a series of two or three coatings come off. The beans are then washed in water in order to free them from the albuminoid substance, and are again dried in the sun, when they are ready for market. All coffees come from the same species of plant, the difference in the flavor of the bean being due to climatic influences. The Mocha coffee, for instance, has an acrid flavor because it is grown in hot, dry places, where it is often necessary to irrigate the land. The amount of real Mocha coffee produced is very small, and most that is sold under that name is not genuine.

In Java and Sumatra, where the commercial Java coffee is produced, the fruit is first brought in and allowed to ferment. It is then placed in the sun for three or four weeks and allowed to dry thoroughly. It is then put into a machine and hulled in order to free it from its several coatings; after this it is ready for the market.

This delicious little berry is supposed to have originated in Abyssinia or Ethiopia, where it has been found growing in a wild state. Coffee was first used as a beverage in Arabia, the berry being brought from Africa. The Arabs soon began to grow coffee in their own country, and about the fifteenth century it was introduced from Arabia into Europe as an article of commerce. The coffee which was grown in Arabia was called Mocha from the name of the port on the Red Sea, where nearly all the coffee was gathered and shipped; and for more than fifty years the Europeans used this Mocha coffee alone. About this time Java commenced growing coffee, which had been steadily increasing in popularity, and in the early part of the 17th century, Holland imported into Amsterdam through the Dutch East India Trading Company a quantity of this so-called Java coffee. It was merely Mocha coffee transplanted to Java, and the climatic changes gave to the article a peculiar taste and flavor, somewhat milder than the