

SOME FACTS ABOUT TEA.

BY L. LODIAN.

Notwithstanding the almost universal use of tea, folks in general know very little about it—certainly little beyond that they drink a decoction of it, usually of the cheaper grade known as "mixed tea"—rarely a properly-made infusion; and that thrifty housewives use the refuse tea-leaves to "lay the dust" in sweeping. With the innumerable uses to which tea is put in other countries, they are unacquainted.

In China, tea-leaves are also used in sweeping floors, but this does not end their utilitarian purposes. In regions where fuel is scarce, the refuse leaves are pressed into bricks, dried, and used in the same manner as blocks of peat. This fuel is particularly prized for pork-curing—and the tea-cured or tea-smoked meat is to the Chinese what beech-nut and sugar-cured bacon and ham are to us. The ashes from the fuel are used as a fertilizer. But even before its use as fuel, the refuse tea serves another purpose. The leaves are vigorously stewed or allowed to steep in cold water, in order to recover the tannic acid which they contain (about 12 per cent). This is used in tanning leather and in dyeing textiles. It gives a fine, permanent nut-brown color, requires no mordant, and is unaffected by sunlight, bleaching, or washing. Sometimes the refuse tea-leaves are used as fodder for farm stock—at least providing bulk if not much nutrition. Again, they may be dried, mixed with the low-grade, factitiously-scented teas of commerce, and are then known as "lie-tea." The decoction resulting from such tea cannot be far superior to one made from the common hay with which we are all acquainted.

The queerest use to which brick-tea has ever been put in the orient is in the capacity of money. We find mention of this peculiar form of currency in Knight's Mechanical Dictionary, in the Encyclopedia Americana, and in Abbé Huc's Travels in Tartary, Tibet, etc. It is still in circulation as a medium of exchange in the far-inland Chinese towns and central Asian marts and bazars, southward to the Pamirs and Tibet, and northward across Mongolia, to the Siberian frontier. Between the Mongolian town of Urga and the Siberian town of Kiakta, there is usually as much as half a million taels of this money in circulation. At the latter place it ceases to be used as currency, and enters into the regular brick-tea trade of Siberia and Russia. As brick-tea, it is largely used in the Russian army, by surveying engineers, touring theatrical companies, traveling hunters and sportsmen, and tourists in general.

The value of the specimen illustrated in the accompanying engraving is about 2 taels, say \$2.25; it is a high-grade bohea or black tea. The farther it gets from the eastern tea-growing regions, the more its value increases. By compressing more expensive teas, similar-sized bricks are produced representing values of \$10, \$20, \$30, and upward. According to Abbé Huc, payments in Tartary are generally made for all commodities in brick-tea currency. Many of the highest-grade Chinese teas never leave the country—that is, are never exported in commercial quantities. Tea specialists in Europe and America manage to obtain specimens through corresponding firms in Chinese export centers, but these samples are not for sale. These rare teas are preserved for occasional comparison and testing with the general commercial teas; they are known as "unexported teas." I have known of only one person (outside of the tea-producing countries) who supplies the trade or the general public with specimens of the rare teas. His prices range from \$75 to \$100 per pound. As not even an expert can safely judge such tea by its appearance alone, it is necessary to taste it in the cup before purchasing. The vendor can hardly afford to dispense this \$100-tea gratuitously, so a charge of \$1 to \$1.50 per cup is made; and as a judiciously-prepared infusion allows the making of about 200 cups per pound of tea, the profit from this tasting is almost gigantic. On rare occasions, exceptionally valuable teas, sold at auction in London, have brought from \$225 to \$275 per pound. But these fancy teas—almost literally worth their weight in gold—are rarely seen by ordinary people; they are preserved in sealed glass jars in the safes of the tea specialists who own them. Such exceptional teas are worth the high valuation placed upon them, and the purchases are not merely the results of some fad, for London's tea-center experts include some of the shrewdest tea-connoisseurs living.

Tea, not from the leaves, but from the flowers alone of the plant, is rarely encountered in commerce. The petals, stamens, etc., are sun-dried, and the resulting tea is of a rich, deep-brown hue of peculiarly delicate odor, and gives a pale amber-colored infusion rather more astringent in taste than that from the average fair-grade leaf. The taste for it is an acquired one, and even if this tea could be made commercially possible, it is doubtful if it would ever become popular.

The American tea-trade could advantageously take

a suggestion from the brick-tea of the far east. In our country, the tea-dust, some of which is of good quality, is not properly utilized. In Europe it is a regular article of trade, and is advertised and sold as tea-dust. In America it is sold to thousands of cheap restaurants, who make from it the mixture of tannic acid, sugar, and boiled milk which they sell as "tea." If, as in the Orient, this dust were compressed into bricks, good tea could be made from it, and the product would find a ready market through the multitude of uses for which it is adapted. A beginning in this direction has been made by the Pinehurst tea estate in South Carolina, and in Europe similar advances have been inaugurated.

The virgin tea (*biepjkci-chi*), so called from its use at Chinese weddings, is the sun-dried leaf intact, tied up with three strands of colored silk. After infusion, these fagot-like little bundles are pickled in vinegar and used as salad. This tea is sold in especially handsome silk-covered and glass-topped boxes. The rarest of all teas, and one that has never been known to reach this country, is a naturally-sweet tea, produced in western China on a very limited scale. Its culture is centuries old, and the secret has been jealously guarded from generation to generation. The saccharinity is probably due to grafting and years of patient study and care, such as only the small Chinese tea-farmer is capable of bestowing.

The "body solidity" of Chinese teas is said to be far superior to that of the Indian product. Experts claim that if Chinese teas and those of India or Ceylon be comparatively tested, it soon becomes apparent that the cup qualities of the latter are far more ephemeral, while those of the former are far more staying. This is believed to be the result of the tea-culture in India and Ceylon on large plantations by means of hired coolie labor, where there is no incentive to personal effort in the betterment of the product. In China, on the other hand, tea-raising has, since time



CHINESE COMPRESSED-TEA MONEY (ONE-QUARTER ACTUAL SIZE).

immemorial, been conducted by small farmers, each owning a few acres of land, and bestowing upon his crop his entire time, labor, and intelligence, knowing, as it were, the condition and peculiarity of every bush; and this intensive culture has resulted in bringing the body-solidity of the tea to a remarkably high state of perfection. This is one of the reasons why we hear of Chinese teas—never Indian ones—sometimes bringing more than \$100 a pound. In late years the plantation and coolie system has been introduced into China by foreign concerns controlling the entire output of large tracts of country. The result has been the partial deterioration of Chinese tea, as has been commented upon by various writers, but China will probably always be able to hold her own with regard to the production of the higher-grade leaves.

In buying tea, a good rule for the uninitiated to follow is never to pay less than \$1 per pound. Numbers of firms sell teas at \$2, \$4, and \$6, and these are usually worth the price, though it is possible to purchase really good tea for \$1. Fair grades of leaf may be obtained for 75 and 50 cents, but those selling under the latter value are not worth considering. It is very rare, by the way, to find good teas in small grocery stores, as these have not sufficient call for them to warrant carrying a stock. The leading kinds of black teas are *peko*, *kongu*, and *suchong* (*cianchang*). "Peko" is the Chinese word for "down," in reference to leaves so tender and undeveloped that they are still covered with a soft down—nature's protection for the budding leaf against sudden and undue chill. Among green teas we have the imperials, hisons, formosas, ulongs, etc. The latter are sometimes classed among black teas, though ulong is really a green tea of blackish leaf. The Chinese themselves class it among green teas

It is estimated that 75 per cent of the world's copper is obtained from sulphide ores.

Jamestown Aeronautical Congress.

In connection with the Jamestown exposition, an aeronautical congress will be held which, we trust, will be somewhat more successful than that of the St. Louis exposition. A committee recently met at the Hotel Astor in New York city for the purpose of arranging a series of demonstrations at the exposition with the latest apparatus. A comprehensive pamphlet is in course of preparation, which will set forth the expectations of the committee fully. Besides making experiments and flights, it is the intention of the committee to organize an exhibit of aeronautical material based upon that which the Aero Club of America has gathered during the last two years. Papers upon subjects which may be most timely and of the greatest value to the present stage of aeronautical developments are also to be obtained. Cups and trophies will be offered for the various aerial contests by the committee.

The Aero Club of America offers the Lahm Cup for the longest continuous flight made in the United States, exceeding 648 kilometers (402.64 miles) under conditions and regulations formulated by the contest committee of the club. This competition is open to balloons, dirigibles, and flying machines. Since the Gordon Bennett International Aeronautic Cup race in 1907 will be held in the United States under the auspices of the Aero Club of America, there will be many distinguished sportsmen from foreign countries in the United States. It is quite probable that they will assemble at the Jamestown exposition.

International Aeronautic Contest of 1907.

The Board of Directors of the Aero Club of America has decided in favor of holding the contest for the International Aeronautic Cup in 1907 at St. Louis. The city authorities of St. Louis have set apart for the starting point of this contest a portion of their city park known as "Forest Park." This place can be in-

closed in such a way that there will be no interference with the inflation of the balloons, and the supply of gas will, in every way, be sufficient for quickly inflating all the balloons that will enter the contest. The ground is reached by a 24-inch main which leads from a gasometer one-quarter of a mile distant, which holds over 4,000,000 cubic feet of pure coal gas. The gas will be forced by very large pumps, so that inflation can be accomplished in the speediest possible manner. The average specific gravity of the gas furnished by the local gas company during the year 1906 was 0.42.

The club proposes to hold the contest during the period of full moon in the month of October—probably on October 19. According to the information obtained by the Weather Bureau during a long period of observations with kites and pilot balloons, the usual wind prevailing at that season of the year in the upper altitudes proceeds in an easterly direction toward New York, avoiding the Great Lakes, going to the south of them. Fine weather is invariably to be expected at this season of the year, there being usually but three or four days of rain in the month of October. The average temperature at the surface of the earth in this month is about 68 deg. F. It will be recalled that the greatest known balloon flight ever made in the United States was made from St. Louis by John Wise in 1859. He landed in Jefferson County, New York State.

Gas will be furnished free of cost to all contestants for the International Aeronautic Cup.

The Aero Club of America is at work on an arrangement by means of which the balloons of contestants will be admitted in bond free of duty during their stay in America.

Besides the prizes annually offered in the International Aeronautic Cup contest, various organizations of St. Louis will offer supplementary prizes for second, third, and fourth places, amounting altogether to about 5,000 francs (\$1,000).

For those wishing to make trial flights in preparation for the International Cup contest, or for those wishing to compete for the Lahm Cup, which will be offered for competition by the Aero Club of America after March 1, 1907, arrangements have been made to supply gas at a specially reduced rate. This applies only to pilots recommended by the Aero Club of America. The rules of competition for the Lahm Cup will be announced later. Contestants will be afforded every facility by the gas company at St. Louis.

Entries for the 1907 contest for the International Aeronautic Cup close on February 1, 1907.

Tweezers are so frequently used for removing infinitesimal particles from the skin that it has occurred to some genius to make a combination of tweezer and magnifying glass. This is a small folding affair taking up little room in the pocket, and in use the glass is held suspended directly over the point of the tweezers.