

MISCELLANEOUS SUMMARY.

FRUIT AS MEDICINE.—Ripe fruit is the medicine of nature; nothing can be more wholesome for man or child, though green fruit is, of course, rank poison. Strawberries are favorites with all classes and constitute a popular luxury. Who can tell the number of disordered livers and digestive apparatuses generally restored by that fruit? After them we do homage especially to peaches, and apples, and grapes. We once knew a person who, believing himself in a decline, determined to eat from four to six ripe apples a day, and note the result; in three months he was well. We know of another who was in general ill health that commenced the habit of drinking a glass of plain cider every morning, and never had a day's illness in twenty-five years thereafter. Such remedies are simple enough.

TO HARDEN AND POLISH ALABASTER.—1. Take a strong solution of alum, strain it, and put it into a wooden trough sufficiently large to contain the figure, which must be suspended in it by means of a thread of silk; let it rest until a sufficient quantity of the salt is crystallized on the cast, then withdraw it and polish it with a clean cloth and water. 2. Take white wax, melt it in a convenient vessel, and dip the cast or figure into it; withdraw and repeat the operation of dipping until the liquid wax rests upon the surface of the cast; then let it cool and dry, when it must be polished with a clean brush.

AMERICAN JUTE.—At the late monthly meeting of the Franklin Institute (Philadelphia), held on the 16th ult., specimens of American jute were exhibited by Mr. Howson. It was stated that in its natural condition stalks of the plant when at their full growth are from five to six, and even seven feet high, and vary from a quarter of an inch to five-eighths of an inch in diameter. The number of stalks from one root varies from eight to sixty, and eighteen stalks will, on an average, produce four ounces of disintegrated fiber.

The late census returns of manufacturing establishments in New York reveals the astonishing fact that more capital is employed in carrying on the printing trade than in any other business, the amount being over eight and a half millions! Over six thousand persons are employed in printing, and the various establishments use up about \$5,000,000 worth of raw material, ink, paper, &c., per annum, producing over \$11,000,000 worth of books, papers, &c.

The Port Jervis *Union* says that there is now being erected on the line of the Erie Railway, in that village, the largest water tank between New York and Dunkirk. It is constructed of brick, sixty-five and a half feet long, twenty-three feet wide, and thirty-three feet high. It contains three tubs, each sixteen feet high and twenty feet in diameter, with a capacity of 18,800 gallons to each tub.

The *Alla Californian* states that the population of San Francisco is 32,000 white males over 21 years of age, 17,500 females over 18 years of age. The number of persons of both sexes under 21 and 18 years is 25,000. There are 3,250 Chinese, 1,875 of African descent, and 4,200 other foreigners.

LATE California papers state that sugar and sirup, made from the Chinese cane and a better article than the imported, has been made in considerable quantities in the State. Tulare county will be able to supply her own population with sugar and molasses.

THERE are no less than 384 vessels built and being built for our navy. Their total tonnage is 371,665 tons; guns 434. Of these there are 13 iron-cased gunboats built, and 40 new river and sea gunboats of different sizes in different stages of progress.

A DISTINGUISHED physician in Paris, Dr. Robert De Lambelle, announces that a shock of electricity given a patient dying from the effects of chloroform, immediately counteracts its influence and restores the sufferer to life.

AN infectious and fatal disease has lately appeared among milch cows in St. Albans, Vt., and all persons concerned are warned against skinning and tanning their hides, as fatal consequences have been known to ensue.

THE stage machinery of the new Vienna Opera-house is to be worked by a steam engine of eight-horse power.

VALUABLE RECEIPTS.

BLACK WRITING INK.—In our last we gave Ribancourt's receipt for making French ink; and it is undoubtedly a good one. A very great number of receipts have been published in various works for making writing inks, and as black is the most common and is really the best ink for writing upon white paper, of course, most attention has been devoted to obtaining a superior quality of it. It should possess the qualities of intense blackness, flow freely, be permanent and free from grit. Arnold's (London) writing ink is sold in large quantities in the United States, and it appears to be the most limpid that is in use. It is green when first applied, but it soon becomes a deep black. There are other inks which are also green when first used, but most of them soon become thick and clog the pen. The method of preparing Arnold's ink has not been published in any foreign work under that name, but it is supposed to be the same as that of H. Stephens, indefinitely described in "Muspratt's Chemistry" as follows:—"This celebrated writing fluid is a tanno-gallate of iron dissolved in sulphate of indigo; the common ferro gallic writing inks consist of a liquid in which the tinctorial matter is suspended by means of gum, while in this the color is in complete solution." We will now give Reid's method of making a ferro-gallic ink:—Take bruised galls, 1 pound; sulphate of iron, 3 ounces; gum arabic, 3 ounces; water, 3 quarts. The galls are boiled with three pints of water till one-third of the liquid is evaporated; this is poured off and the remainder of the water added and boiled again until one quart is left. The decoction is then poured off and the sulphate of iron and gum added and dissolved, when the whole is left for twenty-four hours, and then may be used. If the decoction of galls is exposed for several days to the atmosphere before being mixed with the sulphate of iron, a better result will be secured. A decoction of galls or a decoction of sumac containing a small quantity of the sulphate of iron is the base of all the best common writing black inks, but a little logwood added undoubtedly imparts to it a more intense shade. A very small quantity of the sulphate of iron should be used. Professor Brande states that the great object in making good ink is to regulate the proportion of sulphate of iron to the galls. The following is a good receipt:—Ground logwood, 1 pound; bruised galls, 2 pounds; sulphate of iron, 1 ounce; gum arabic, 1 ounce; water 16 quarts. The logwood is scalded first with the 16 quarts of water; then the clear is poured off and the galls boiled in it until it is reduced to half the quantity, when the sulphate of iron and gum are added and stirred until dissolved, and the whole is then poured off through a strainer and cooled. The gum is used to keep the black coloring matter in suspension. About the one-eighth of an ounce of creosote added will prevent the ink from becoming moldy. A few drops of the oil of cloves answer the same purpose. Runge's chromate black ink is made as follows:—Logwood, 22 pounds; neutral chromate of potassa, 1½ ounces. The logwood is boiled for about three hours in fourteen gallons of water, the clear poured off and the chromate added. It must be remembered that it is not the bichromate of potash which is so much used now to make dirty ink, but the chromate that must be employed, and no gum is added. Most inks contain too much gum, thereby causing it to clog the pen. This ink has been highly commended. Copying ink is made by simply adding a little sugar or sugar candy to common inks which contain gum. The addition of a little neutralized sulphate of indigo to any of the ferro-gallic inks imparts to it a bluish-green shade which disappears after writing when exposed to the air. In our next issue we will describe indelible inks.

Mitchell's Steam Shipping Journal states that a large ferry steam vessel, to run between Dover and Calais is proposed, and it is intended to have a speed of 40 miles per hour. It is to be 300 feet in length, 100 feet wide and draw but 5 feet of water. It is designed to carry carriages, the same as the ferry boats on American rivers. It will be constructed of iron, and composed of a series of tubes.

Gas is now manufactured in Canada from crude petroleum; its cost is but \$1 70 per 1000 cubic feet

Cotton-spinning in Russia.

Every Russian peasant, male and female, wears cotton clothes. The men wear printed shirts and trousers, and the women are dressed from head to foot in printed cotton also. When it is remembered that Russia contains something like 33,000,000 of serfs, besides other classes amounting to 20,000,000, all using this article more or less, one can estimate the demand for cotton goods. But a calculation is not to be made from data afforded by free and more prosperous countries. The peasantry are poor, the cotton prints are dear. Hence there is not a tithe of the right amount of consumption. Still the cotton trade in Russia is a large trade, and it is supplied chiefly by native labor, in mills containing machinery made in Oldham and Manchester, and superintended by Englishmen from the same neighboring towns. There may be five or six millions of spindles at work spinning this cotton; together with the weaving and printing of the same, that forms indeed a large item, perhaps the largest among the manufacturing processes of Russia, and employs a capital of thirty millions sterling. The largest mills are in the neighborhood of St. Petersburg, one of these having some one hundred and twenty thousand spindles, and a few others are of seventy thousand and sixty thousand; but the great bulk of the trade is in the Moscow district, and scattered about the land in that direction. The number of spindles there may not be so great in any individual mill as in some of the large St. Petersburg establishments; but the mills are more numerous, some of them nearly as large, and all of them are of respectable dimensions, even according to an English estimate.

Cents.

This kind of coin, at one time, was looked upon with disdain, and in many cases, parties who received large amounts had to sell them at a discount. At present, cents are in demand, and bring a good premium. Considering the large quantity coined at the Mint, it becomes an interesting question as to the whereabouts of the numerous cents which have been distributed by the Government. The Mint in Philadelphia coins daily from one to two thousand dollars of them, all of which are distributed almost as soon as made; but still they are scarce. It was thought that speculation in them could be prevented by giving only five dollars' worth to each applicant; but the effort was a failure, as some persons employ a number of boys to wait their turn, and thus accumulate quite a pile, which can afterward be sold at a premium. A large number of the cents made at present go out of the city, to fill orders received some time since. As the Government pays the cost of transportation, it is their interest to send them in large quantities; therefore these orders are kept back until a sufficient number is received to justify the payment of the cost.—*Dollar Newspaper, Philadelphia.*

How Mist is Generated.

The production of mist is the subject of a note by Dr. John Davy, (brother of Sir Humphrey), in the *Edinburgh Philosophical Journal*. The cause usually assigned for mist is the access of cold air, and its admixture with warmer air, saturated, or nearly saturated with moisture (such as that resting on the surface of large bodies of water), and strikingly exemplified in our autumnal and winter fogs, when the water, owing to the heat absorbed during summer, is of a higher temperature than the flowing air. Dr. Davy, however, refers to another cause, not so much noticed, viz:—a mild moist air, coming in contact with a colder air, equally humid, resting on cold surfaces, whether of land or water, about the end of winter or beginning of spring. He describes mists which he considers to have been thus formed in the lake district of Cumberland. To a similar cause, also, he refers the phenomenon termed sweating, which is the precipitation of moisture on walls and flagged floors excluded from the influence of fire. He also attributes to a warm south wind, succeeding a very cold north wind, the deposition of a large quantity of moisture in the gallery of a nobleman in Devonshire, and quotes the saying in Homer:—"The south wind wraps the mountain top in mist."

THERE are now twenty-four steamers, English and American, plying on the great Chinese river, Yangtse-Kiang, which was lately opened to the commerce of the world.