



FAIENCE AND ITS MANUFACTURE, No. 2.

These materials are finely pulverized and then mixed in large rectangular tanks with sufficient water to form a thin, easily flowing liquid. The stony particles subside, and the supernatant mass is then drawn off through a sieve provided at one end of the tank, into large ditches dug in the ground in the neighborhood of the factory. These ditches are lined with cement, and in them the clay is exposed to the influence of the air. By this means its qualities are greatly improved. This is probably due to the action of the air on the iron and other metallic oxides present in clay. After three or four months the pulp is taken out and worked for some time on a table like dough. It is then formed in large balls, and again laid aside for several months in cellars or excavations to "ripen," by which it is said to be further improved in quality. Previous to use it is thoroughly kneaded with the feet and divided into portions of about 50 lbs. each, which are distributed among the formers for further manipulation.

Circular vessels are shaped on the wheel, moulds of wood, metal, and plaster of Paris being used for other shapes. Figs. 1 and 2 represent the wheels used in the operation. Fig. 1 shows a wheel used for pottery of larger dimensions; Fig. 2 one for making small ware. After being moulded the articles are dried either in the air or in special drying rooms, and then go to the "finisher," who, with an iron or steel tool, perfects the form and makes the necessary impressions. Next, the handles and various ornaments are attached and dried again in a hot air chamber, when the goods are ready for the oven.

A correspondent of the *Scientific American*, rendered highly sanguine by recent achievements of science in skin-grafting and the regeneration of nerves, proposes to remedy blindness by grafting healthy eyes on the blind—the required eyes to be taken from criminals condemned to death, who may well spare them!

COATING METALS WITH TIN.—The process of coating metals with tin promises to extend its use for culinary and other purposes. Its electro deposition is proposed by means of a zinc and carbon battery. The inner cell containing the zinc is filled with dilute sulphuric acid. The articles to be coated with tin are put into a bath composed of eight parts of protochlorid of tin, 16 of cream of tartar, and two of the chlorid, if the latter is used. When it is present the tin coating is effected more rapidly, whereas, when the bath is composed of protochlorid of tin and cream of tartar only, the tin coating is very white, but is not produced so rapidly as when the chlorid is used. These ingredients should be dissolved in about 100 gallons of distilled water. The black plates are first "pickled" in any suitable manner, and then immersed in the above-described bath or solution, and are allowed to remain in the same for a longer or shorter time, according to the thickness of the deposit or coating of tin required on the plates. While in this bath the plates or other pieces to be coated are connected by a wire with the positive end of the battery, while the negative end of the battery is connected with a piece of tin hung in the same bath. When the plates or other pieces or articles have been sufficiently coated with tin, they are held over a fire in order to give the tin a lustrous appearance.

STOUT calico is made water-proof by the Chinese with a preparation which proves efficient in any climate, and is supposed to be composed of the following ingredients: Boiled oil, one quart; soft-soap, one ounce, and beeswax, one ounce, the whole to be boiled until reduced to three-quarters of its quantity when mixed. The calico treated with this mixture answers well for life-saving apparatus.

STARCH soaked for a year in a cold saturated solution of common salt is gradually converted into glucose.