

again. In Germany, this method has not met with any approval, but it is said to be employed in England.

In 1850, Rostaing proposed to divide metals in their melted state by means of a centrifugal machine, and Fuchs announced that he succeeded in preparing bronze powder by amalgamation. The highly injurious effects of mercury vapors do, however, not allow the introduction of this latter method.

Copper powder may be prepared chemically in various ways which results in forming, with one single exception, crystalline and brittle products, which, in crushing, are converted into a dull powder. In reducing oxide of copper with rhigoline and gasoline, the two lightest products of the distillation of petroleum, Prof. Wagner, for the first time, obtained copper in minute scales. In conducting the process, it is necessary that the metal be left to cool in the vapors of these hydrocarbons. The bronze color is thus obtained is somewhat dark, but may, perhaps, be changed into brighter hues, by passing vapors of zinc or cadmium over them. In one instance where gasoline containing sulphur was used, the copper bronze exhibited a fine iridescent appearance.

It is only within the last decade that various substitutes for the above described bronze powders have been brought to the notice of consumers. We mention:

1. *The Tungsten bronzes.* Of these the "tungstate of oxide of tungsten and soda" is the most important. It forms beautiful crystals of a golden-yellow color and gold luster. The potassa salt, discovered by Laurent, forms violet needles with copper lusters, and possesses great similarity with sublimed indigo. The lithian salt appears in prismatic scales and leaves of the color of slightly tempered steel. In glowing the potassa salt, a brilliant dark blue steel color may be obtained. The tungsten, or wolframium bronzes first appeared at the World's Fair in London, in 1862, and they then attracted considerable attention. The soda compound appeared under the denomination of saffron bronze, the potassa compound under that of magenta bronze. At the exhibition at Paris, in 1867, these bronzes were only present in small quantities. The reason for this fact is stated by Prof. A. W. Hofman, as follows:

"It appears, that in order to cover well, and reflect the light with intensity, it is necessary that the smallest particles of the bronze powders should possess the property to split in lamellae. If their crystalline structure shows this glimmer-like character, their covering capacity remains the same when reduced to a finer state. If these bodies, however, crystalline in cubes, they are in being crushed, not reduced into lamellae but again in cubes. A certain quantity of such a powder covers a much smaller surface, than an equal weight of bronzes consisting of scales. They also reflect the light not in the same degree as purely metallic bronzes."

2. *The Tin Bronze, or Magic Gold.* This variety may, as regards brilliancy, well compete with the lighter bronze colors. It is also more durable. Kletzinski proposes to prepare it, by subliming the amorphous sulphide of tin, which is obtained in boiling a tin salt solution with dilute oil of vitriol and saturating the liquid with the gas of burning sulphur. The sulphid of titanium also deserves attention; it forms scales of a brass color.

3. *Chromium bronze*, or chloride of chromium, forms brilliant violet foliae, which, in transmitted light appear blood red. It may be rubbed into the skin like all bronzes.

4. *Crystallized iodide of Lead*, a beautiful yellow substance, is proposed for decorative purposes; gold-luks, shell-colors, as a mass for pencils, for the painting of fabrics, wall paper, for filling glass pearls, etc.

5. *Organic bronze colors.* To these belong the derivatives of the haematoxylin, already extensively employed in the manufacture of bronze paper, the numerous tar-pigments, of which the corallin is one of the most recent discoveries, the murexide and the green hydrochinon.—*Scientific American.*

Preparation and Properties of Tar Water.

M. J. Lefort, read at the Academie de Médecine on June 9th, 1868, an elaborate paper on tar water, now so much in vogue in Paris as a therapeutic agent. The following conclusions were arrived at:

1st. Norway tar and that of France yield to water equal quantities of soluble matter.

2d. That medicinal tar water may be prepared with either exotic or indigenous tar.

3. The semiliquid tar is preferable to that which is thicker for the preparations of which this substance is the base.

4th. That tar water prepared hot, in close vessels, represents better the natural principles of tar, and is more constant in its composition than when made cold and followed by long maceration in contact with air.

5th. That tar water made with heat contains a mean of about 2 parts in 1000 of fixed and volatile principles.

6th. That tar water contains principally pyrogenous oil of turpentine, creasote, volatile resinoid principles, one or more isomeric acids natural to turpentine, and lastly acetic and oxyphenic acids.

7th. That tar water dissolves from $\frac{3}{4}$ to 7 grains of iodine to the pint, and that the resulting liquid retains its physical properties containing iodized phenic and oxyphenic acids.

8th. That iodized tar water gives no indications to reagents of the characters belonging to free iodine or the iodides.—*Jour. de Pharm., Sept., 1868, in American Journal of Pharmacy.*

Poisonous Anilin Dyes.

Several statements have appeared in the *London Times* tending to prove that some of the brilliant dyes derived from anilin are poisonous to the skin. So long as these colors were used only for dress goods this was not discovered, but recently socks and stockings have been dyed with them and worn to the detriment of some individuals. A report by Dr. Farrel to the *Times*, in May last, in the case of a Mr. M——, states:

"The question now rises, how fuschine, which has been used largely in dyeing for ten years past, has never been discovered to possess any poisonous property. The reply would be, that up to the present time it has been used only for articles of dress not coming in direct contact with the skin. The present is the first case in which I have met with fuschine used for stockings. The stocking is of all others the article of dress brought most in contact with the skin, around which it is, moreover, compressed tightly by the

shoe. I must remark also that fuschine is soluble in weak acids. Perspiration is acid, and is nowhere more profuse than in the feet, where confined within the shoe it is absorbed by the tissue of the socks."

It was thought possible that arsenic was concerned in the poisoning, as magenta (arsenate of rosem) contained it largely; but Mr. Crooks states that arsenic has nothing to do with it, as for several years they have ceased to use arsenic in anilin colors, but that all the injurious compound dyes contain anilin orange, which is the poisonous substance, having acid properties and rendered soluble by an alkaline solution; and directly contrary to Dr. Farrel, Mr. Crooks thinks that where the perspiration is acid in its normal state no danger exists; but that when the perspiration is alkaline, as in certain abnormal conditions, the dye would be absorbed and become active.—*Pharmaceutical Journal*, Nov. 1868.

Etherized Cod-Liver Oil.

In a paper recently published in the *British Medical Journal*, by Dr. Balthazar A. Foster, there are certain results of his investigation and observation stated, on the advantage of combining ether with cod-liver oil, which, although in the main, for the consideration of the physician, may not be uninteresting, nor perhaps unimportant, to the pharmacist. Taking it as an established fact, that the difficulty of assimilating fat is a constant characteristic of the dyspepsia of phthisis, and further, that a marked improvement in such patients is observed when the ability to digest fatty matter is restored. Dr. Foster has set himself to work to determine the best means of "augmenting the secretions which are specially devoted to the digestion of fatty matters," and has determined to his own satisfaction that, "ether not only obtains for us the secretions required to digest fats, but promotes the absorption of these fats when digested." In some cases the ether has been given in water alone before the oil; but the favourite method seems to be to combine the two, in the proportion of from ten to twenty minims of ether purus, P.B., to two drachms of oil. One advantage of the combination seems to be the power of the former to mask the unpleasant properties of the latter. Dr. Foster recites many cases to prove that where cod-liver oil by itself had failed to produce improvement and to arrest the wasting, the addition of ether has been eminently successful in allaying nausea, and producing a decided increase in the weight of the patient.

Carrageen: Something new about it.

The uses of carrageen (Irish moss) in manufactures make it an article of some importance; and the present high price of glue and isinglass, for which it is an excellent substitute, have created a demand for it heretofore unknown. It is also cheaper than eggs for clearing coffee. Up to about the year 1848 all the carrageen used in this country was imported from Ireland. It was collected on the southern and western shores of that island. In 1849 several parties commenced making a business of gathering and curing *Chondrus crispus* at Scituate, Plymouth county, Massachusetts, and produced the first considerable quantity of the domestic