which, in view of the fact that it is often mixed with arsenic acid, is to be taken into consideration. To distinguish genuine syrups from artificial ones, the following reactions are indicated: Both are discolored by chlorine, but in the latter a precipitate is produced similar to the oxide of iron formed by the addition of ammonia to one of its solutions. Sulphurous acid discolors both kinds of syrup. Sulphuric, nitric, and muriatic acids turn genuine syrups brighter, while artificial ones assume a yellow orange color. Caustic potash discolors syrup colored with aniline, and turns genuine syrups a dirty green. The color of artificial syrups is not altered by an addition of carbonate of potash, but genuine ones are turned green. Acetate of lead colors genuine syrups greenish, fuchsine syrups red. Adehyde colors fuchsine syrups red.—*Journal of Applied Chemistry.*

Preparation of Bromide of Sodium on the Large Scale.

M. Castelhaz.—The author, a manufacturing chemist, states, in the first place, that, according to the communications received by him from several physicians who have applied bromide of sodium in their practice instead of potassium, the efficacy of the former is far greater than that of the latter. As regards the preparation of this salt, the author says: The best plan is to prepare, first, bromide of ammonium, by causing bromine to fall drop by drop into dilute, but pure, liquid ammonia contained in a series of Woulff's bottles, in order thus to prevent the loss otherwise inevitably resulting from the volatilization of the products formed by the great heat disengaged on the bromine and ammonia uniting. The liquids, after saturation, are evaporated in a cast-iron retort, to which an earthenware receiver is fastened, wherein are collected the vapors of water, any excess of ammonia, and some bromide of ammonium, which is accidentally carried over. The bromide of ammonium thus obtained is converted into bromide of sodium, by being mixed with pure carbonate of soda, and the application of sufficient heat to volatilize and sublime the carbonate of ammonia formed by the reaction. This mode of preparation yields, after re-solution of the bromide in water, and evaporation similar to that used for chloride of sodium, perfectly pure and anhydrous bromide of sodium.—*Comptes Rendus.*

Detection of Logwood Colour in Wines by means of Neutral Acetate of Copper.

J. Lapeyrère—The author states that while studying some of the properties of the coloring principle of logwood *(bois de Campêche)*, he found that the hematine it contains yields a sky-blue color with salts of copper. In order to apply this test to wines for detecting if they are doctored with logwood, it is only necessary to place strips of good filtering paper—Swedish being preferred, into an aqueous solution of neutral acetate of copper, and, after drying, use one of these slips to test the wine suspected to be adulterated with logwood color, by dipping the paper into the wine; on removing it from that fluid, care should be taken to cause the adhering drop of wine to flow backward and forward over the paper, which is next rapidly but carefully dried. If the wine be as it naturally ought to be, the colour exhibited after drying will be grey, or rose-red grayish; but if logwood is present, the tinge will be distinctly sky-blue.—*Journal de Pharmacie et de Chimie.*

On the Presence of Manganese in Milk and in Blood.

Professor E. Follacci, after analysing several varities of human blood, differing in respect to the sex, age, and temperament of the persons from whom they were derived, arrives at the conclusion that manganese is one of the essential constituents of the blood. The analysis of the milk of woman, the cow, the goat, and the ass, indicated that milk contains manganese even in greater proportion than the blood. The amount of manganese in these two fluids is not, therefore, in relation to the amount of iron which is found in greater proportion in the blood. The author describes in detail the process by which he detects the presence of manganese in the milk, of which the following is a brief account:—300 grammes of milk are evaporated to a pasty consistence, and then completely carbonized, and subsequently calcined in a platinum crucible. The ash is then exhausted with successive quantities of distilled water, the extraction of all the soluble parts being ascertained by the fact that nitrate of silver ceases to give a precipitate with the decanted fluid. The residue is then introduced into a test-tube, treated with a small quantity of nitric acid, and evaporated to dryness. The residue, after cooling, is treated with a small quantity of dilute nitric acid, and heated to 212°; binoxide of lead is then added, and the mixture again boiled for about a minute. After subsidence, the purple colour of the fluid may be readily seen, due to the presence of permanganic acid derived from the manganese contained in the milk. A similar method may be employed to determine the presence of manganese in the blood—*Chemist & Druggist.*

Pyrophosphate of Iron and Soda.

The *Journal d'Anvers* gives the following method for preparing this double salt:—

A solution of 6 parts of pyrophosphate of soda in 120 parts of water is mixed with another solution containing 13 parts of liquid perchloride of iron of 1.44 sp. gr. and 78 parts of water. The precipitate is washed, and then dissolved in a warm solution of 4 parts of anhydrous pyrophosphate of soda in 36 parts of water. The liquid is evaporated till a pellicle forms, and allowed to crystallize. The crystals are dried at the ordinary temperature. Or the concentrated solution may be precipitated by the addition of four times its volume of strong alcohol. A translucid white precipitate is obtained.

The ferric pyrophosphate of soda occurs in the form of yellowish transparent plates. Its composition is stated to be $(Na_4 P_2 O_7)_3 (Fe_2 2PO_4)_2 20H_2O$.

Miscellaneous, &c.

Novel Application of Aniline Colours.

The *Chemical News* relates the following incident: Some few weeks ago, Madame A. W. Hofmann gave a grand entertainment and ball to a large number of her eminent husband's pupils. In the grand ball-room were placed, on the table, a large number of bouquets of flowers (artificial, of course,) all snow-white, and close by, on the same table, a large number of pieces of beautifully-white silk ribbon; at the other end of the room a fountain was arranged, throwing, from narrow openings, jets of exquisitely-perfumed eau de Cologne. The bouquets were taken by the ladies, and the ribbons by the gentlemen; and while waltzing together, and thus arriving at the end of the room where the fountain played, the ladies holding their bouquets to be sprinkled over with the perfume, beheld the white flowers become suddenly beautifully red, violet, blue, yellow, and green coloured, while the ribbons carried by the gentlemen assumed, under the same influence, similar colours. The secret of this trick is simply that the objects alluded to had been very gently dusted over with the dry powders of variously-prepared aniline colours, and, on becoming moistened by the eau de Cologne (alcohol), these powders became dissolved, and imparted colours to the objects.

The Cause of Left-Handedness.

We find the following item in the *Independent*:—It would be worth while for our anatomists to record their observations on this point. "The cause of right and left-handedness is generally anatomical. Prof. Hyrtl says that in two cases out of 100 the left subclavian artery has its origin before the right, and in these cases complete left-handedness exists. The blood is ordinarily sent with more force, according to Hyrtl, through the right than through the left subclavian artery, thus nourishing the muscles of the right arm more fully. In the rare cases where the internal organs are transposed, the heart being on the right side, there is also left-handedness."—*Med. & Surg. Reporter.*

Poisoning by Copaiva—Examination of the Blood.

In the *Australian Medical Journal* for January, a case of sudden death is described, which was supposed to be caused by the free use of copaiva. The patient had been sleeping, uttered a scream, was found sitting up in bed, and died immediately. The kidneys were found red and congested, the bladder empty, and the brain congested. The blood being examined, three grains of copaiva were extracted from four ounces—giving an ounce of balsam in the entire circulation. It was supposed by some that the death was occasioned by a spasm of the heart, and not directly by the copaiva.—*Pacific Medical and Surgical Journal.*

First Importion of Cinchona Bark from Java.

It appears that, toward the end of last year, a quantity of some 930 lbs. of this bark has been exported from Java to the Netherlands. According to analysis made by Dr. Moens, in Java, this bark contains from 2·4 to 7·5 per cent. alkaloids, of which quantity 0·59 to 3·67 is quinine. The loss of weight occasioned by the drying of the bark has been