

## Pyrotechnic Formulas.

### FLASH POWDER.

Flash powders serve for theatrical purposes and are also particularly valuable as a source of light for instantaneous photography. Since the mixtures explode on concussion the materials should be mixed immediately before being used, by means of a piece of card or paper. Small capsules can also be made of from one-half to two grammes (7 to 30 grains) capacity, paper saturated with nitrate of soda or potash being used as an envelope for the capsule or cartridge. When this is done it is only necessary to apply a match to the exterior of the cartridge to set it off.

#### Grammes.

- (a) Potassium permanganate in number 50 powder . . . .40 (617 grains)  
Magnesium, number 30 powder . . . .60 (926 grains)
- (b) Aluminium in number 30 powder . . . .30 (462 grains)  
Antimony sesquioxide in number 30 powder . . . .15 (232 grains)  
Potassium chlorate in number 20 powder . . . .65 (1080 grains)

Both mixtures are very satisfactory in operation.

## Translucent Emulsion.

W. H. Prestwich, of Tottenham, England, has patented a very simple, but, we believe, valuable addition to the ordinary gelatino-bromide emulsion. It is the addition of starch in the proportion of about 200 grains to 20 ounces of emulsion, which, according to the patentee, will prevent solarization and halation—which we very much doubt; and give to transparencies the appearance of being on finely-ground glass—about which we have no doubt at all.

In an emulsion for printing-out paper the starch gives a beautiful mat surface, and the following formula is recommended as giving excellent results:

Water . . . . .	20 ounces
Starch . . . . .	200 grains
Gelatine . . . . .	600 grains
Citric acid . . . . .	50 grains
Sodium carbonate . . . . .	50 grains
Barium chloride . . . . .	53 grains
Silver nitrate . . . . .	150 grains
Alcohol . . . . .	1 ounce

The mixture of water, gelatine and starch to be raised to a temperature not exceeding 150° Fahr. and the barium chloride and silver nitrate to be added at a temperature not exceeding 110° Fahr. — *Photo Beacon*.

## Ozokerite.

Ozokerite appears as a natural product which it is said is found only in Utah. Prof. Hirschling, of the Salt Lake Chamber of Commerce, has prepared an analysis of several specimens of the product and accompanies his report with some interesting information about it. He finds the specific gravity to be 0.85 and the fusing point 60 deg.

It is used as a substitute for Bees Wax.

It occurs in beds of Bituminous deposits near thistle and contains from 66 to 86 per cent of Paraffin. If Ozokerite be dissolved a White Paraffin is obtained which can be employed in the manufacture of candles and can also be used in ointments, pomades. With diluted Sulphuric Acid it is rendered perfectly white, and after fractional distillation a hard black waxy residue results, which is valuable as an electrical insulating material. — *Pacific Drug Review*.

## Alkaloidal Reactions.

The paper lately published by M. Turrel on this subject, gives a vast amount of detailed information with regard to the methods it is necessary to employ in preparing reagents which will give constant results, and also with regard to the phenomena observed when the conditions are varied. Theobromine, he says, will not precipitate with Valser's reagent, but gives a black precipitate with Bourchard's solution. Colchicine behaves as if it were a mixture of true alkaloids, one of which is precipitated in acetic, and the other in sulphuric solution. No glucosides, he states, are precipitated by iodo-mercurate of potassium in acetic solutions, whereas some of them are if in sulphuric solution. Such are vincetoxine, convallamarine and digitaline. The paper concludes with an account of the reactions of albumenoids, albumen and peptones, with the usual alkaloidal reagents. — *Journal des Pharmacie*.

## How Licorice is Grown.

As grown at Pontefract, England where 300 acres are under cultivation, the plants are grown in rows, and attain a proper size in about four years. If allowed to grow five years the root is tough and woody. During the last two years, the plants being small, potatoes and vegetables can be grown between the rows, and these are of a superior sort, as the licorice ground is heavily manured. The roots extend downward from four to six feet, and as they are all dug up by hand the expense is quite an item. The digging takes place in September. The roots are stored in a cool place or packed in hand. They are next trimmed of all superfluous shoots and fibers, which are ground into powder, while the root proper is used for its juice. The buds and runners of the plant are saved, as it is from these that new roots are grown and not from seed.

## Asaprol.

Still more notes on this new remedy are appearing. The last is a most useful account of its more characteristic reactions. Of these the following may be cited:—(1.) Acid nitrate of mercury gives in a 16 per cent. solution of asaprol a wine red color. (2.) With nitrate of uranium in acetic solution a puce colored solution results. (3.) With KOH and

chloroform a fine blue color results. (4.) With perchloride of iron a green color results, changing to blue. M. Ismail points out that the salts of quinine are incompatible with this new remedy, since they at once precipitate a resinous body which adheres to the sides of the vessel, which is quite insoluble in water. — *Reparteur de Pharm.*

## A New Test for Albumen in the Urine.

Dr. F. Spiegler (*Germ. Speciale di Farmacia*) recommends the following reagent, in testing for albumen, in the urine.

R	Distilled water	200 gms. (5 vss).
	Sublimite	8 gms. (5 ij).
	Tartaric acid	4 gms. (5 j).
	Cane sugar	20 gms. (5 v).

Some of the reagent is poured into a test tube and the urine is added, little by little, after previously being filtered and acidulated, taking care that the two fluids do not mix. If it contains albumen there appears at the point of contact a white precipitate at the zone of separation. This reagent will detect one part of albumen in one hundred and fifty parts of urine. — *Medical and Surgical Reporter*.

## Indian Native Pharmacy.

Competition among the natives is intensely keen, especially dispensing of physicians' prescriptions, which are taken from door to door, till a price lower than any already quoted is obtained, purity of drugs being left entirely out of question. In one street alone, near the Medical College, there are no fewer than 95 druggists' shops, all carried on by natives, some of them the merest hulks or boxes, where the proprietor (Messrs. Small Price & Co., or Messrs. Cheap John & Co., as actually copied from their signs) sits outside in the street inviting the patronage of a drug-loving public. — *B and C. Druggist*.

## Testing Plaster of Paris.

Plaster of Paris is tested by simply rubbing a portion of it between the fingers; if particles of grit are felt, it indicates that the plaster has absorbed water and become deteriorated. A supplementary test may be observed by taking a pinch of the plaster again and immersing the fingers in water, then rubbing again. If, in both these tests, no grit is felt, and the plaster forms a thin creamy mixture in the water which easily rubs off the fingers, the plaster is fit for use. — *Charlotten Med. Jour.*

Guaiacol iodoform is prepared by digesting 4 parts of guaiacol, 1 part of iodoform and 1 part of expressed oil of almonds on a water bath. The oil is necessary to keep the iodoform in solution. It is recommended in tuberculosis of the joints. From 0.5 to 1 gm. is given at one injection. — *Pharmaceutisches Centralblatt*.