

### Chemical Flowers—A Beautiful Experiment.

Recently a very beautiful experiment was shown in Dr. Phipson's laboratory, which was first performed many years ago in Professor Plateau's physical cabinet at Ghent University. A certain length of thin copper or brass wire is twisted into loops so as to form the outline of a flower of five petals around a circular centre. The stalk of the flower is fixed into a piece of wood, or fastened around a stone, or a tile, which serves as a support. The petals are then dipped carefully into a solution of glyceric liquid, of which we give the composition below, and the flower and its support are placed on a table near a window in such a manner that the light falls on the petals, and it is covered with a bell jar. Between the bell jar and the window is placed, in a slanting position, a slip of dark wood about three inches wide, which forms a dark background to the spectator who views the flower from a seat in front of the table facing the window. At first the petals appear white and almost transparent, but soon they acquire the most gorgeous tints of the rainbow, slowly varying from the aspect of the opal to that of polished, labradorite, and finally rivaling even the diamond itself in brilliancy of color. This marvellous effect will last a whole day or longer, when the wire form is covered with a bell glass that protects it from the dust and from currents of air, and provided that the table receives no strong vibration from passing carriages, a railway train, or by persons stamping upon the floor of the room. The glyceric liquid is prepared in the following manner: 1 part of best quality of Marseilles soap is cut up fine and dissolved in about 40 parts of boiling distilled water; when cold, it is thoroughly mixed with pure glycerine in the proportion of three parts of the soap solution to 2 of the glycerin. These proportions may vary somewhat with the quality of the soap used, but the glycerin must be pure. Sometimes a larger proportion of water may be found preferable, and if the soap solution is not clear, it may be filtered before the glycerine is mixed with it.—*Monthly Magazine of Pharmacy.*

### Recent Hypnotics.

Dr. H. Delio gives the results of trials of various hypnotics in the Dorpat Clinic for Nervous and Mental Diseases. Hypnone in doses of 10 to 15 drops was useless, and methylal and chloralamide were found of little use in the few cases in which they were tried. Paraldehyde was and remains the most reliable hypnotic used in the clinic. In severe cases a dose of five to six grammes was followed by another of three to four grammes; this was found sufficient to give a night's rest. As a rule the drug acted well, but sometimes only slight sleep followed, and in other cases tolerance was soon established. But these occasional disadvantages are counterbalanced by the fact that the drug,

even in large doses, does not influence the heart or respiration. Paraldehyde may upset the digestion, causing diarrhoea. The medicine must be pure, it must not redden litmus paper. If kept exposed to daylight or in badly stoppered bottles it soon becomes acid. After the prolonged use of paraldehyde the following symptoms may appear: loss of appetite, grey coloration of the face, dryness of the skin, and loss of body weight; at the same time the drug does not produce somnolence. These symptoms soon disappear on discontinuance of the drug. Paraldehyde, however, is the sheet anchor in the Dorpat Nerve Clinic. Amylene hydrate was also found of use, and has the advantage of not affecting the digestive tract, although it may produce headache and depression. Urethan is of service in doses of 45 to 90 grains in mild case of insomnia. Sulphonal was given in doses of 15 to 60 grains. It was not found so useful as paraldehyde and amylen hydrate. Drowsiness, weakness and inco-ordination of gait were noticed after its administration. In mania it acts only slightly, also in progressive paralysis. In many cases of excessive motor disturbance, such as occurs in mania and delirium tremens, all these hypnotics are practically useless. Hydrochlorate of hyoscyne ( $\frac{1}{4}$  of a grain) is the best remedy in these conditions.—*Chemist and Druggist.*

### Rapid and Simple Method of Procuring Pure Gases.

For the rapid and simple preparation of pure gases, such as carbonic acid, sulphurous acid, etc., Borntrager recommends (*Zeitschrift f. Anal. Chem.*) the employment of a neutral salt containing the desired acid, mixed with an equivalent amount of acid sodium sulphate in powder. The mixture should be placed in a development tube (or, if a large quantity of gas is required, in a carbonic acid apparatus) and water poured over it. A pure but somewhat wet gas is at once evolved. When the carbonic acid apparatus is used, the shell which ordinarily contains the marble dust is packed with sodium bisulphate in solid pieces, and the neutral salt is put into the lower chamber. The moistening of the sulphate with water (distilled) causes a concentrated solution to drop on the salt. The evolved gas passing up through the bisulphate is tolerably well dried. It is entirely free from acid and other impurities.

### Keep Busy.

The secret of success in life is to keep busy, to be persevering, patient and untiring in the pursuit or calling you are following. The busy ones now and then make mistakes, but it is better to risk these than to be idle and inactive. Keep doing, whether it be at work or seeking recreation. Motion is life and the busiest are the happiest. Cheerful, active labor is a blessing. An old philosopher says: "The firefly only shines when on the wing; so it is with the mind; when once we rest we darken."



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