

benzoic ether, aldehyd, and cœnanthic acid, each 1 part.

Essence of Strawberry.—Butyric ether and acetic ether, each 5 parts; amyl-acetic ether, 3 parts; amyl-butyric ether and glycerin, each 2 parts; formic ether, nitrous ether and methyl-salicylic ether, each one part.

Essence of Raspberry.—Acetic ether and tartaric acid, each 5 parts; glycerin, 4 parts; aldehyd, formic ether, benzoic ether, butyric ether, amyl-butyric ether, acetic ether, cœnanthic ether, methyl-salicylic ether, nitrous ether, sebacylic ether, and succinic acid, each 1 part.

Essence of Pineapple.—Amyl-butyric ether, 10 parts; butyric ether, 5 parts; glycerin, 3 parts; aldehyd and chloroform, each one part.

Essence of Melon.—Sebacylic ether, 10 parts; valerianic ether, 5 parts; glycerin, 3 parts; butyric ether, 4 parts; aldehyd, 2 parts; formic ether, 1 part.

Essence of Orange.—Oil of orange and glycerin, each 10 parts, aldehyd and chloroform, each 2 parts; acetic ether, 5 parts; benzoic ether, formic ether, butyric ether, amyl-acetic ether, methyl-salicylic ether, and tartaric acid, each 1 part.

Essence of Lemon.—Oil of lemon, acetic ether, and tartaric acid, each 10 parts; glycerin, 5 parts; aldehyd, 2 parts; chloroform, nitrous ether, and succinic acid, each 1 part.

The different manufacturers of artificial fruit essences doubtless prepare them by formulas of their own, and this explains the difference in the flavor, which is particularly noticeable on largely diluting them with water. If the essences have been prepared with a dilute alcohol their odor is more prominent, and they are apparently stronger; but, on mixing a small quantity with a large quantity of water in given proportions, the true flavoring strength may be better discerned.

A fruit essence, which is much employed in the United States, is *essence of banana*; it consists usually of butyric ether, and amyl-acetic ether equal parts, dissolved in about 5 parts of alcohol.

The red color of strawberry and raspberry essence is produced by aniline red (fuchsin), the bluish tint of which is conveniently neutralized by a little caramel. If caramel alone is used for coloring essences a yellow or brown color is obtained, according to the quantity used.

The *Confectioners' Journal* gives formulas also for the following essences:—

Essence of Blackberry.—Tincture of orris-root (1 to 8), 1 pint; acetic ether, 30 drops; butyric ether, 60 drops.

Essence of Nectarine.—Extract of vanilla, 2 parts; essence of lemon, 2 parts; essence of pineapple, 1 part.

GELSEMIUM FOR HECTIC.—Practical experience with gelsemium in small doses has long shown its influence upon the circulation and its sedative effect in certain neuralgias. It has also been shown to have a sedative effect upon the respiratory centres. From these facts it ap-

peared to Dr. Edgar Holden that it should act favorably in the treatment of a respiratory affection characterized by irritation, as Dr. Holden believes the hectic of phthisis is, and having its seat and origin in the pulmonary tissues. In a very large number of cases it has not failed, and Dr. Holden has found that, even after the failure of favorite and well-known remedies, doses of two drops of the fluid extract, or 10 to 12 of the tincture every two hours, will, in most instances, within forty-eight hours, arrest the chill, moderate the cough, and allay the fever. The period of administration, however, is not always so short. It may be used continuously, if necessary, to maintain sedation, and without interference with other medicines or effect upon digestion or the excretions. It should be added that exceptions are likely to occur in cases with mesenteric complications and colliquative diarrhoea, and while, not contra-indicated, it may sometimes disappoint expectations.—*Dublin Journal of Med. Science.*

THERE are now 13,309 registered chemists and druggists in Great Britain, of whom about 28 per cent. have passed the minor examination, showing an increase of 3.85 per cent. for the past two years. Ten per cent. of the total number have passed the major examination, and have thus become qualified to take the title of "Pharmaceutical Chemist." The number of such persons now on the register is 1,346.

SCANDIUM, A NEW ELEMENT.—F. L. Nilson has succeeded in separating from the ytterbium group of earthy metals a new one, which, although not yet obtained in a pure state, has nevertheless been shown to be a new element by its spectrum deviating from that of all other known bodies. The author proposes for it the name *Scandium*, since it occurs in the mineral gadolinite or euxenite, which are only found in the Scandinavian peninsula.—*Ber. d. Deutsch. Chem. Ges.*, 1879, 554.

A NEW PRESERVING AGENT. (H. JANNARCE.)—In the course of a series of experiments made for devising a method of separating the crystallizable sugar from the molasses, a double salt of borate of potassium and sodium was accidentally formed, which exerted an antiseptic influence on the sugar. Further experiment showed this salt to be a most powerful antiseptic agent. It is now being made in larger quantities by dissolving in water equal parts of chloride of potassium, nitrate of sodium, and boric acid, and evaporating to dryness after filtering. The salt obtained is, of course, not a pure borate, but a mixture of potassium-nitric borate, potassium nitrate, and sodium chloride. Its action is very prompt, and continues undiminished for a long time. It has no injurious effect either as regards taste or smell or healthiness of the substances impregnated with it. It is easily soluble in water, and quite deliquescent, so that it has to be kept in closely stoppered bottles. It is at present sold for 25 cents a pound.—*Deutsche Gew. Zeit. in Scient. Amer.*