

principle, whilst others consider it to be a poisonous constituent. Experience shows, however, that a well made watery extract possesses all the medicinal properties of fresh ergot.

NOTES ON THYMOL.

BY H. R. GRAY, MONTREAL.

Thymol, or thymic acid, has recently attracted attention as an antiseptic and disinfectant. It is obtained from the essential oils of common garden thyme, *Thymus Vulgaris*; ajowan fruit, *ptychotis ajowan*; American horsemint, *monarda punctata*; and probably other plants. So far, the essential oil of thyme is the only source from which thymol is procured by chemical manufacturers.

Thymol is a crystalline, colorless body, formula $C_{10}H_{14}O$, with an odor resembling oil of thyme, and a burning aromatic taste. It dissolves readily in alcohol, ether, bisulphide of carbon, chloroform, fixed oils, glacial acetic acid and vaseline. It is soluble in water in the proportion of 1 in 1000. It is analogous with carbolic and cresylic acids and creosote, and isomeric with cuminic acid and carvol.

Thymol may be readily prepared by treating the volatile oil with an equal volume of a 20 per cent. solution of caustic soda, and neutralizing it with hydrochloric acid, when the thymol will rise to the surface in transparent rhomboidal plates. It can also be made by exposing the oil to prolonged refrigeration, under the influence of which the thymol readily crystallizes and floats on the surface. Wood states that there are two isomeric forms of thymic acid,—one crystalline, and the other liquid. The latter, however, is not obtainable commercially, consequently the crystalline is the kind which has, so far, been experimented with. Bouilhon, a French pharmacist of Lille, first suggested its use, to deodorize unhealthy wounds, to Dr. Paquet of that city, who states, as the result of his experiments, that thymol is adapted to all those purposes to which carbolic acid has been hitherto applied as a disinfectant and deodorizer. Lewin reports that thymol has greater power than either carbolic or salicylic acids in arresting fermentation in solutions containing sugar. It undoubtedly retards the coagulation of milk, and, in a concentrated state, its caustic properties are sufficiently powerful to destroy the dental nerves. Several German surgeons consider it much more powerful, under certain circumstances, than carbolic acid, while its pleasant odor on dressings is a decided advantage with sensitive patients.

Mr. Gerard, member of the Pharmaceutical Society of Great Britain, Pharmacist to the University College Hospital, London, has worked out the following formula, approved by Dr. Crocker, of the same Institution, who has instituted a series of experiments, and who has already had much success with this new anti-

septic, especially in skin diseases:—Two grains in one ounce of spt. vini rect. is miscible with water in any proportion. A solution of 7 grains of caustic potash in $1\frac{1}{2}$ drams of water will take up 15 grains of thymol.

LOTION.

℞ Thymol..... grs. v.
Spts. vini rect.
Glycerine, of each.... ̄j.
Aqua distil. ad..... ̄viij.

OINTMENT.

℞ Thymol grs. v to xx
Vaseline ̄j.

When required stronger than 20 grains to the ounce, it is better to dissolve the thymol previously in alcohol.

Dr. Crocker has not as yet had occasion to use stronger lotions than the above.

Professor Volkmann, of Halle, has substituted thymol for carbolic acid in the antiseptic treatment of surgical cases by Professor Lister.

FOR THE SPRAY SOLUTION.

℞ Thymol..... 1 part.
Alcohol 10 "
Glycerine 20 "
Aqua distil 1000 "

FOR THE GAUZE DRESSINGS.

℞ Spermaceti 500 parts.
Resin 50 "
Thymol..... 16 "

A form for pills prescribed by a London physician is as follows:—

℞ Thymol grs. iij.
Sapo Castil..... grs. viij.
Conf. rosæ ʒ ss.
Mx. et divid. in pil. xx.

One three times a day, followed each time by a draught of milk.

In France, it is used in the hospitals according to the following formula:—

℞ Thymol..... 1 part.
Alcohol..... 4 "
Aqua..... 995 "

ERYTHROXYLON COCA.

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This plant belongs to the order *Erythroxylaceæ* (sapindales). There are several species, some of them yielding useful products, as for example:—*Erythroxylon suberosum*, from which is obtained a brownish dye. The young branches and leaves of the *Erythroxylon areolatum* are said to be cooling, and when mixed with benne oil form a refreshing liniment for the head. The bark is also used as a tonic. (Ainslie ii. 422.) The bark of the *Erythroxylon anguifugum* is thought to be an antidote against snake-bites in Brazil, and that the *Erythroxylon campestre* is employed in the same country as a purgative. (Martin's Mat. Med. Bras.)

But the *Erythroxylon coca*, so called from the Indian "Khoka," signifying a tree or plant, is by