

tures remain practically without alteration two or three years. They further assert the superiority of gravimetric methods to volumetric in estimating these preparations. E. W. Lucas recommended that extract of nux vomica be prepared by exhausting with acidulated chloroform water, instead of spirit, and adding a small quantity of glycerin to the evaporated product. He further advocated a more general adoption of the form of liniments as semi-solid, such as we have in liniment of iodide of potash with soap. P. Ransom reported that ignatia beans contained a much smaller percentage of total alkaloids than nux vomica. A. Turner advocated the use of prepared chalk with a small quantity of bicarbonate of soda and oil of cinnamon as a typical dentifrice. W. Elborne dealt with the stems of *Gnetum*, as resembling Pareira. R. H. Parker concludes, from experiments duly recorded, that displacement of the residual spirit in the marc by water, when making tinctures, etc., is more economical than by pressure. This applies only to manufacture on the small scale. F. C. J. Bird suggests the following improved formula for B. P. liniment of turpentine:—Oil of turpentine, 16 fl. ozs.; camphor, 1 oz.; stearic acid, 80 grs.; solution of potash, $\frac{1}{2}$ fl. oz.; distilled water, $1\frac{1}{2}$ fl. ozs. H. W. Jones showed that extract of malt with cod liver oil is not so definite in composition as it should be. Samples of well-known brands were examined and the proportion of oil varied from 2 to 30 per cent. In a succeeding paper he commented on the loss of ethyl nitrite from samples of spirit of nitrous ether after keeping at least twelve months in well stoppered bottles. C. E. Stuart gave directions for making most of the animal extracts that have been in demand since the latest vagary of therapeutic fashion. W. Naylor communicated the proximate analysis of *Leonurus cardiaca*. Dr. Rideal added some further evidence as to the digestive activity of papain; apparently concentrated solutions are best and 40° C. is the temperature when the digestion is most rapid. C. J. Thompson recommended a mixture of cocoanut stearin and white wax as a basis for suppositories. It is cheaper and cools more rapidly than cocoa-butter. An interesting paper was contributed by Richard Usher, the medicinal herb-grower of Banbury. It dealt chiefly with English rhubarb and henbane. The remaining papers on extract of Indian hemp, Chinese rhubarb, analysis of tincture of iodine, etc. At the conclusion of the business, the next meeting was arranged to take place at Bournemouth.

A short and sharp controversy has been waged in the pages of the *Lancet*, between Dr. Pavy, F. R. S., and Sir George Johnson upon the subject of sugar in normal urine. For many years the former distinguished physician has maintained that sugar, in minute amount, probably not more than 0.05 per cent. is a constituent of normal urine. Lately Sir George Johnson, basing his remarks upon the researches conducted by his son, has revived the

question by plainly stating that in his opinion there is not a trace. Mr. George S. Johnson removes all uric acid and kreatinine from the urine by means of mercuric chloride and sodium acetate, removing the excess of mercury afterwards by means of ammonia. After this treatment he failed to get any evidence of the presence of sugar in normal urine, whilst the addition of glucose, before such treatment, was always discovered in exactly the same proportion afterwards. Mr. A. H. Allen has improved this method by removing the mercury by boiling with zinc dust and subsequent filtration. The zinc in solution is retained by the addition of ammonia which in no way affects the result. Curiously enough, Mr. Allen arrives at precisely an opposite opinion to Sir George Johnson and his son, so that evidence on either side remains balanced. This is a field which pharmacists can materially assist physicians by cultivating, as the chemical work involved is too much for the busy practitioner.

The distilled extract of witch hazel is not used in pharmacy as much as its merits deserve. It has been left to a few manufacturing chemists to develop its uses under the proprietary names of hazeline, Pond's extract, etc. It is supplied in bulk by several of the large American houses and is well worth a position in every pharmacy as a select proprietary. It has been used for some years in this country as a substitute for tincture of arnica in the treatment of cuts and bruises with the best results. The advantage of a preparation almost entirely free from spirit, which is added only as a preservative in very small amount, and perfectly harmless for internal and external use, is obvious. Although its styptic properties have possibly been over-rated by interested persons, it certainly has astringent and mild anodyne action which make it useful in the treatment of simple wounds, whilst its freedom from color and staining is a great advantage. In combination with alum and zinc sulphates it forms a very powerful injection. With a basis of lanoline and vaseline and the addition of salol it is useful as an ointment for abrasions of the skin and irritation of mucous surfaces. In collapsible tubes it is advantageous to fit a nozzle for its use as a remedy for piles, etc.

The attention which Mr. Jones' paper on extract of malt and cod liver oil has attracted will probably result before long in an official formula for the preparation by the Formulary Committee. It is undoubtedly a fact that, in spite of vague opinions on the subject, the best brands do not contain anything like 50 per cent. of oil. Nor is it advisable to try and make such a preparation, as it is bound, sooner or later, to separate. Still there is no excuse for such minute proportions as were found in one or two instances. A good working formula can be made using 25 per cent. of oil, and the addition of a small quantity of orange-flower water, with a trace of phosphoric acid, is a pleasant and useful combination, facilitating digestion

Thioform, the basic bismuth salt of dithio-salicylic acid, has been considerably lauded of late as a substitute for iodoform. Certain German clinics have reported that it is superior to iodoform in its antiseptic and desiccative properties, and in veterinary practice it has been found most useful. It does not form a solid cake but a supple protective layer which absorbs the serum from the wound and allows it to pass away. It has also been employed with success for dusting the conjunctival sac in cases of conjunctivitis and keratitis. It is inodorous, free from any toxicity, and causes very little irritation even on raw surfaces. It is supplied by the German agents in London at \$10 per kilo.

Note on Cocoanut Stearin as a Basis for Suppositories.

Read by C. J. S. Thompson at B. C. Conference.

Some years ago several experiments were made with a view to utilising cocoanut stearin as a basis for suppositories and pessaries, but lack of time prevented their completion. The matter had slipped my memory until recently, when a sample of the base was discovered prepared at that time, and still in excellent condition.

The suggestion is by no means a new one, as Brady, in a paper read before the Pharmaceutical Society in 1866 on "Medicated Pessaries and Suppositories," drew attention to the fact that a satisfactory base for suppositories could be prepared from cocoanut stearin.

For this purpose I recommended the following formula:

Cocoanut stearin	9 ounces.
Lard	1 ounce.
Oil of pimento	20 minims.

The essential oil was added to prevent rancidity, and the lard as a tempering medium. This base, the author states, "will keep unchanged for any reasonable length of time, and leaves little to be desired."

From my own experience with this base it was found much too soft, as it melts at 82° F., and the product when set will scarcely bear handling.

The cocoanut oil of commerce, with which you are all familiar, is the fixed oil of the *Cocos nucifera*, usually obtained by expression. When pure it should be of a fine white color, above the consistence of lard at ordinary temperatures, becoming solid at 40° or 50° F., and having a melting point of about 80° F. It has a bland taste, and its pleasant characteristic odor is well known.

Most authorities now agree that it mainly consists of a peculiar fatty principle called cocoin with small amounts of olein.

Cocoin, when saponified with alkalis, yields glycerine and cocostearic acid, the formula being given as $C_{11}H_{24}O_2$. According to Allen, the main constituent is the glyceride of lauric acid, $C_{12}H_{24}O_2$, and that the glycerides of myristic, palmitic and stearic acids are also present in notable quantities. It is readily soluble