

Eucalyptus and Eucalyptol.

THE introduction of eucalyptus oil has for years been an important commercial enterprise which has been an excellent auxiliary to the ordinary business of colonial pharmacists. The oil was at first derived solely from Australia, but some few years ago Algeria and California began what has since turned out to be a powerful competition with the antipodal colony.

The first species of eucalyptus worked on the large scale for the preparation of the ethereal oil seems to have been *E. globulus*, the product of which was soon found to possess valuable medicinal properties, either externally as a liniment in rheumatism and neuralgias, and is an antiseptic dressing for atonic ulcers and the like; or internally in chronic bronchitis, pulmonary gangrene, asthma, catarrhal affections of the urinary tract in intermittent fever.

As soon, however, as the demand for eucalyptus oil became steady and constant, Australian distillers found out that it would be impossible to meet it with the product of *E. globulus*, and hence the oil of another species, *E. amygdalina*, was put upon the market. This article attracted the attention of the school of antiseptic surgery, who made trials with it and pronounced it to be a valuable member of the class "antiseptics."

At the same time there were many people, and they seem to be still represented among us, who had got into the way of looking upon *E. globulus* as the only species of the genus, and hence the term "ol. eucalypt. glob." came to be very loosely applied to all kinds eucalyptus oil. All varieties of cheap oils have been and are introduced under this title, which to day is of no significance in determining the value of an oil of eucalyptus. We depend now upon chemical factors.

Of course, as soon as the oil assumed commercial and medicinal importance, it was subjected to chemical examination, and during the course of the seventies the composition of the oils of eucalyptus was determined by Cloez, Faust and Homeyer, E. Jahns, Wallach, Brass and others. As a result of these researches, it was found that the oil of *E. globulus*, at least, contained a constant constituent, and this was called "eucalyptol."

Early in the history of the subject there seems to have been some doubt as to what "eucalyptol" was, but a few years ago the investigation of Wallach and Jahns determined for eucalyptol the formula $C_{10}H_{18}O$, the unvarying boiling point 176° to 177° C, and specific gravity of 0.930 at 15° C.

The classification of eucalyptus oils has been based upon this factor of the presence or absence of eucalyptol, and for medicinal purposes preference has been given to those which contained this oxygenated constituent, and the value of any new variety has been estimated by this standard.

It was for this reason that the Austral-

ian oil of *E. oleosa* attracted at once so much attention. Messrs. Schimmel, the well-known essential oil producers of Leipzig, said of this oil in the early part of this year:

"We recently received a lot of Australian oil of the species *Eucalyptus oleosa*, which is so extraordinarily rich in eucalyptol that in a freezing mixture it solidifies to a pasty mass. The oil has also the agreeable property of being free from the light constituents which excite cough, and it is, therefore, quite suitable for spray in the sick room. Cinnamaldehyde is also abundantly present, as is evident from the odour."

"This new oil has a specific gravity of 0.923 at 15.5° C., 72 per cent. of it boiling between 170° C. and 180° C."

This oil was also examined by others—R. H. Davis, H. Helbing, C. R. Blackett—who also found it to be rich in eucalyptol and well suited for therapeutical application. It will be fresh in the memory of our readers that in a recent investigation of the eucalyptus oils of commerce—the results of which were read before the meeting of the Conference last month—the richness of the oil of *E. oleosa* in eucalyptol again attracted attention. From 500 cc. of this oil 120 grammes of approximately pure crystalline eucalyptol were obtained with a specific gravity of 15° C. of 0.9190. Pure eucalyptol has been ascertained to be optically inactive, and this body had a specific rotatory power of only 1.46° in the 100 mm. tube.

There seems to be no doubt that among the oils which contain eucalyptol this of *E. oleosa* takes a foremost place. It is a superior product, especially prepared for inhalation because it is more penetrating and does not produce any unpleasant sensation in the bronchial tubes.

On the other hand, it seems likely that the oils not distinguished by their richness in eucalyptol are also of value. So far back as the Colonial and Indian Exhibition, specimen samples of a variety of oils from different species of eucalyptus were exhibited. Several of these, among which is the oil of *E. maculata*, var. *citriodora*, have since attracted much attention, owing to their delightful fragrance, resembling melissa, lemon and verbena. These oils, especially that named, have been also recommended for internal and external use in fevers, colds, rheumatism, throat affections, &c., but the largest and principal field for their employment will be in perfumery. For some years after the first appearance of samples of these oils in this country they were eagerly sought after in bulk, especially that of the species *maculata* named above. Only recently however has this particular variety mentioned been obtainable in any quantity, and so soon as its properties are practically studied and understood further uses will no doubt be found for it.

There is further a strictly pharmaceutical application for the fragrant eucalyptus oil, obtained from *E. maculata*, var. *citriodora*, viz., in the deodorization of various medicinal agents possessing a disagreeable

odor. Thus it has been found that this oil of the spotted eucalyptus annuls or covers very effectually the characteristic smell of iodoform; and we have also learned quite recently that it is being used in combination with ichthyol, the now familiar remedy for skin affections; the objection to the peculiar, and to many persons disagreeable, odor of this substance is readily overcome by the addition of a small quantity of the perfumed oils of eucalyptus to the ointments containing it.

Thus, with the multiplication of the sources of eucalyptus oil, new applications have been and are being opened up, in which it may prove to be of great use. At the same time our knowledge of the chemistry and pharmacology of the subject will be added to, and, as we have already indicated, there is room in both these departments for continued investigation.—*British and Colonial Druggist*.

Chemists' Curious Customers.

The curious articles for which a chemist is asked almost every day would astonish anyone not intimately acquainted with the peculiarities of the British public.

My "pharmacy" is situated in the main street of a small provincial town, but the rear part of the premises is surrounded by a number of narrow streets and alleys, the tumble-down houses of which are inhabited for the most part by poor people; and, as there is not another chemist's establishment within some little distance, I do no small proportion of "penny-trade," as well as a better class trade; in fact, mine is what is known as a mixed business.

Amongst the poorer classes it is generally a small child of from four to seven years of age who is sent with a piece of paper and some coppers, with the message: "It's writ in the paper what I want." From this class of customer I give a few samples, copied from the originals, which I keep by me when of sufficient interest.

Amongst others are "One penny of stone amano, half penny of guman Beeb," for which was supplied a pennyworth of ammonia and a halfpennyworth of gum arabic.

"Borealmuac" becomes bole Armenia.

"I canoils" is intended for a pennyworth of chamomiles.

"Clauder lime" stands for chloride of lime.

"Penny scrips rhubarb and hippyquick-er mixed" suggests "a pennyworth of syrup of rhubarb and ipecacuanha wine mixed."

A young lady, who evidently was desirous of producing an impression on her swain, sent her little sister with a piece of paper bearing the following legend:—"Please to send some invisible powder to make the face pale for an hour or so"; for this we supplied the ordinary face powder, and trust that it answered the purpose.

Another paper reading: "4n coxy-combes," was interpreted as requiring four pennyworth of capscums or cayenne pods.

"Pennyworth of sugger of led for a