

soluble forms, and, while some of the soluble salts are astringent there are safer astringents that can better be used in their stead. The proprietary preparations intended to combine the antiseptic properties of the benzine derivatives are not approved. It is better to use the simple astringents and antiseptics separately; subsalicylate and subgallate of bismuth, however, are official. The official lead salts are also noted. The principle one for internal use is the acetate and this is usually combined with opium in the treatment of diarrhoea. For dysentery it is not nearly so useful, and it should always be employed with caution for fear of chronic lead poisoning. The local treatment of mucous membranes may also call for the use of mild astringents, though the use of hydrogen dioxid has greatly lessened their employment. Zinc salts are considerably used in certain situations, and the sulphate is probably the best of the astringents when used for emetic purposes. The copper and iron salts are also discussed and nitrate of silver, the internal use of which as an astringent is largely empirical, as the actual action of silver nitrate in contact with organic matter must be rather complex. The chapter concludes with a notice of the vasoconstrictors, the most useful of which are hydrastinin, a derivative of hydrastin, and the alkaloid of the suprarenal gland. The desiccated suprarenal gland itself is inferior to the alkaloid, though it is official. In view of the numerous trade names under which the solution of the alkaloid passes it is regretted that in the revision of the pharmacopeia, the alkaloidal substance was not recognized and made official in some way.

Stomachics, including bitters and aromatics, are discussed in the special article, March 31st. Little is known of their mode of action, and it is possible that their psychic effects may have some part. It is possible that these preparations excite the digestive secretions in a reflex way and similarly the gastric movements. Bitter substances in the stomach have been found to increase the number of leucocytes in the blood, and if these are concerned in the transportation of the digestive proteids they may also have an effect in this way. Out of a considerable number of official preparations it has been thought necessary to enumerate only a few of the more important and popular, such as gentian, calumba and quassia, to illustrate the variety and uses of these drugs. Aromatics, which are next taken up, owe their flavour, and slightly irritant action on the mucous membranes to the contained volatile oils. It is possible, owing to their generally agreeable flavour, that they exercise a reflex action on the gastric secretion. It is claimed also that they reflexly excite the pancreatic secretion, and that they have an anti-ferment action and may lessen gastric fermentation. Their slightly irritant and hyperemic effect is probably the main factor in affecting