

I will not deny that they are very good mouth-washes, and as such prize them for their antiseptic and astringent qualities. Do not understand me as denying their valuable properties, but do not forget at the same time that very few persons ever learn to gargle properly. I have heard of some people who could go so far as to let the fluid penetrate into the larynx, yet have never seen such a patient in my own practice. Of course in the case of children this class of remedies is not to be thought of.

II. LOZENGES.—I look upon this form of preparations as the most valuable we have at our command. When we come to speak of lozenges, the American pharmacopœia is almost poverty-stricken when compared with those of other countries, for in Europe they are more skillfully prepared and much more used than in this country. They are generally small, dry, solid masses, usually of flattened shape, consisting for the most part of powders incorporated with mucilage and sugar. They are to be held in the mouth and dissolved slowly in the saliva, and are therefore well adapted for the administration of remedies which do not require to be given in large quantities, and are destitute of any very disagreeable flavor. One great recommendation in favor of troches is that they are convenient, and I look for the time to come when the throat specialist will be armed with many of his drugs in this shape. Here we get not only an immediate local effect, but also the constitutional action of the drug, and this is often greater in proportion than if a corresponding amount had been taken direct into the stomach. Guaiacum may be instanced as an example of this.

One great drawback to the use of lozenges is to be found in their hardness, their consequent slowness to dissolve, and their liability to produce erosion—inconveniences which may be obviated by incorporating their ingredients with fruit paste which not only renders them more palatable but also facilitates their dissolution. Right here permit me to call attention to their effects upon the stomach and their liability to interfere with digestion. The U. S. Dispensary contains 14 formulæ for lozenges, one of the most valuable of which is that of morphine and ipecac (in the proportion of $\frac{1}{16}$ of a grain of the former to $\frac{1}{8}$ of the latter) in the treatment of an irritable and painful cough. The troches at the Golden Square Hospital are, with the exception of those containing carbolic acid and marsh mallow, all made of fruit paste, tragacanth and a small quantity of refined sugar. I have often thought that one reason why Morrell Mackenzie has such great success in his specialty is due to the fact that he gives the strictest personal attention to the purity and elegance of his preparations.

III. INHALATIONS.—These are subdivided into vapors, sprays and fumigations. We cannot give too much praise to this class of remedies, for it includes the most reliable and effective methods of applying remedial agents to the throat and

larynx. From earliest time the inhalation of vapors has been a recognized means of medication. In the treatment of bronchitis, asthma, and other pulmonary affections the inhalation of watery vapor impregnated with stramonium, hyoscyamus, camphor and substances of the same class, has been found a useful means of allaying spasm and irritability of the bronchial tubes. During the last decade great strides have been made in the application of remedies to the diseased mucous membrane of the air passages, which has been attended with the most gratifying results.

(a) VAPORS.—Vapors are of two kinds, aqueous and volatile, and these may be further subdivided into moist and dry, and the former into hot and cold—hot when the temperature ranges from 130° to 150° , and cold when it is from 60° to 100° . Dry inhalations should always be hot, *i.e.*, heat must be applied in order to vaporize certain volatile matters. Of course it is understood that a suitable inhaler should be used.

Inhalations are employed for their action as antiseptics, antispasmodics, hæmostatics, resolvents, stimulants and sedatives. Truly a wide range of application, and hence the remark just made in regard to their value. The best time to administer them is before meals. If hot vapor is used, every precaution should be taken against the danger of taking cold, and for this purpose the patient should not go out of doors for at least 30 minutes. In the case of cold inhalations this precaution is not necessary; indeed it is very often the case that the use of a cold inhalation will procure for the patient an immunity from catarrh which he had not previously enjoyed. Morrell Mackenzie, at the Golden Square, Prosser James, at the North London Consumption Hospital, and Lennox Browne, at the Central London Throat and Ear, all make use of volatile oils—the oil being held in suspension in water by means of light carbonate of magnesia in proportion of one-half a grain of the mag. to one minim of oil. These are divided into sedatives, antispasmodics and stimulants. Of the strong stimulants, liquor ammonia, vapor of chlorine and iodine are at the head; speaking further we have a list of milder ones, beginning with carbolic acid and running down through camphor, cinnamon, cubebs, creosote to juniper and pinus sylvestris. Of the sedatives, chloroform, ether, benzoin, conium and lupuline are the most trustworthy. Although very inconvenient on account of its bulk, the old inhalation made by macerating hops in hot water is very soothing.

Of the antispasmodics we may briefly mention, hydrocyanic acid, ether and nitrite of amyle. It is best to reduce these inhalation mixtures to a uniform standard of one ounce—a teaspoonful to a pint of water at a temperature of 140° constituting an ordinary dose.

The vapor should be inhaled by means of deep, full inspirations—five or six to the minute, kept up for ten minutes—twice a day. Be careful when