

tion, in which opiates are useless and injurious. It has been employed successfully as a calmative in children. It is contra-indicated in cases of marked anæmia.

8. Sulphate of quinine, like the bromide, appears to exercise the action of relieving the congestion of the cerebral nervous elements.

9. Hydrate of chloral is an excellent hypnotic in almost all cases of insomnia, but it is to be given with caution to persons suffering from dyspnæa, cardiac affections, or great debility.

10. The insomnia of old persons or patients suffering from great debility or anæmia is sometimes successfully treated by tonics, stimulants and hydro-pathy.

THERAPEUTICS OF TETANUS.

An anonymous writer in the *Practitioner* for August gives an interesting retrospect of the medical treatment of tetanus, from which we extract the following notes:—*Chloroform* has had an extensive trial; it has been administered in large quantities, sometimes with apparent success. Simpson narcotised a child for thirteen consecutive days, using $\frac{3}{4}$ 100 with mercury. But the general result is that while all the fatal symptoms disappear on the inhalation of chloroform, they return on its removal with unabated violence, and the disease generally lands them to its fatal conclusion without delay. *Chloral hydrate* has now taken the place of chloroform in the treatment of tetanus, but without more success. There appears to be great tolerance of the drug, and a case is quoted of a child of 12½ years who took more than 100gr. a day. Dr. Ballantyne, of Dalkeith, gave $\frac{3}{4}$ iij. in twenty-four hours, and $\frac{3}{4}$ vj. in five weeks, with success, the patient during this time being easily aroused to speak. It seems, however, to be a valuable drug in alleviating the symptoms. Its injection into the veins and its subcutaneous injection have not been so successful. *Calabar bean*, which, like chloral, affects the spinal chord, and has little or no action on the motor and sensory nerves, has been recently much employed. As with other drugs, its administration has been at one time apparently successful, and at another a perfect failure. It has, moreover, to be given in comparatively large doses. The spasms are controlled and the body heat sinks, and if the drug be withheld the paroxysms return, while if it be pressed the patient comes into a somewhat dangerous condition. A large dose is required to produce by subcutaneous injection contraction of the pupil; sometimes as much as $\frac{3}{4}$ gr. every two hours. There is not much to be said in favour of either *opium* alone, or *opium* combined with chloral; while *nitrite of amyl*, *bromide of potassium*, and *conium* have been alike tried in vain. A more favourable report is given of *aconite*, the exhibition of which has been attended in some cases with remarkable results. It lowered the pulse, which fell in one case from 135 to 60, with a simultaneous decrease of the convulsions; but the effects of the drug constitute in themselves a new danger which must be carefully controlled. Tendency to syncope, wakefulness, vertigo, dilatation, and insensibility of

the pupil; small, intermittent, and irregular pulse, and increased irritability of the nervous system are often the result of giving this remedy. The writer of the article referred to believes that such a summary as he has given makes an appeal to pathology to throw fresh light upon this disease, and he hopes that some combination of these agents will be able to accomplish what each one of them singly has been found unable to accomplish.

We have no doubt that we shall one day find a remedy that is as really successful in the treatment of tetanus as the bromide of potassium has been found to be in some forms of epilepsy; but just as we are not indebted to pathology for the discovery of the therapeutic virtues of the bromide in epilepsy, so we are far from being sanguine that pathology will point out by-and-by the drug or combination of drugs which will cure the disease under consideration. In all probability the chemist or the botanist has already provided the remedy; and perhaps it remains for empirical experiment, rather than for physiology or pathology, to find it out.—*Dublin Medical Press*.

ON RUPTURE OF THE MEMBRANES IN LABOR.

Dr. William Stephenson, Professor of Midwifery in the University of Aberdeen, in an article in the *British Medical Journal*, proceeds to discuss the diagnosis of the conditions which warrant us in having recourse to rupture of the membranes before the full dilatation of the os. The first point is the determination of the degree of expansion of the lower uterine segment. We have seen that the size of the external os is no criterion of expansion. The os, in fact, may be very small, and yet expansion may be complete. It is by the internal os that we can best judge, but this is hard to reach, and difficult to determine its exact site. There is one means, however, of ready access, whereby we can form a proximate opinion; it is the degree of dilatation or updrawing of the vaginal cul-de-sac. This is a point which has been entirely left out in the consideration of the first stage. It is a matter of common experience to find, in the class of cases where we feel something is required to promote a labor with tardy dilatation of the os, that the upper part of the vagina is well expanded and drawn up, greatly increasing the perceptible diaphragm of the cervix, which alone obstructs the continuity of the developed canal. Now, we know that the longitudinal muscular fibres of the vagina run upward, and are continuous with those of the body of the uterus, and that the attachments of the uterus in their upper portion correspond with the internal os. This portion, then, cannot undergo expansion without carrying with it the tissues which are in connection therewith. Consequently, we find that, as the first stage of labor advances, the upper part of the vagina is dilated until it seems to coincide pretty closely with the upper part of the bony canal. When, therefore, a considerable portion of the lower segment of the uterus can be felt in the vagina, and not merely through its walls, expansion is certain to be com-