

closed; and the space which these four blades occupy is considerably less than even the very smallest-sized Ferguson speculum, while at the same time it admits of the blades being expanded to an extent equal to the capacity of almost any vagina.

There are two other great advantages possessed by these instruments which I ought to mention. In the first place, they admit of a digital examination being made simultaneously with the specular. And, secondly, especially with the four-bladed instrument, a variety of operations, including those for vesico- and recto-vaginal fistula, can be performed without the help of an assistant in holding the speculum, with a far better view of the parts concerned, and therefore with more ease to the operator.

It might be urged as objections to these instruments—first, that by the loss of so much reflecting surface inspection would be difficult for want of light; and, secondly, that between the blades the vaginal folds are liable to collapse, and so to obstruct the view. The first of these objections I have already anticipated. Proper management can easily obviate it, and, after all, the defect is not nearly so great as might at first sight be supposed; for in the four blades we have a total amount of reflecting surface very little short of the ordinary speculum of Bozeman or Sims. Moreover, in the small posterior coccygeal blade, which I have added for the purpose of keeping back the coccyx, as this otherwise interfered with the view, we gain still more of reflecting surface just at the part where the rays of light may be made available. As to the collapse of the vagina between the blades, I can only, in reply, oppose fact to imagination, for in practice the objection certainly does not exist.

In conclusion, I suppose that the drawings will explain themselves. Fig. 1 shows the three-bladed instrument closed. The two small side blades fall easily within the larger blade, making it very easy of introduction; while compression of the two handles together simultaneously expands the blades, as is shown in Fig. 2, thus separating the vaginal walls, and exposing them and the cervix uteri to view. Fig. 3 shows the four-, or perhaps I might rather call it the five-bladed instrument, closed for introduction; and no speculum can glide in more easily than it does. Fig. 4 represents the blades expanded, and the extent of surface thus exposed to view can be readily appreciated. The blades all open simultaneously by approximating the handles, as is shown in the drawing; they also collapse together for the purpose of withdrawal. In each instrument there is a small screw, by means of which the blades can be fixed at any point of expansion we may desire, and the instrument will then maintain its position in the vagina without being held there, thus freeing both hands of the operator for any further proceeding which may be required.

I may add that the principle of the latter instrument is equally applicable to the rectum as to the vagina, and it appears to me to be as useful either for inspection or for operation. On this point, however, I have no experience, and must leave that for others to determine.

George-street, Hanover-square, May, 1870.

ON THE HYDRATE OF CHLORAL.

By J. C. OGILVIE WILL, M.D.

J. M.—, suffering from severe facial neuralgia, brought on by exposure for six hours in an open boat after the sinking of the *S.S. Gambia*, applied for advice on the 28th of January. An eighth of a grain of morphia was injected subcutaneously at the site of the pain; immediate relief was experienced. He was also ordered to take a pill containing quinine, cannabis, and belladonna, one before an exacerbation was expected. The pain returned at the same hour as it had done for some days previous, when the hypodermic injection of morphia was again practised; after which he slept for a short time. The same treatment was employed during the four following days, when, as he was complaining much of want of rest, a draught containing twenty-five grains of hydrate of chloral was administered. In less than seven minutes he fell into a calm slumber, which lasted for eight hours; and in the morning expressed himself to be better in every way. The chloral was repeated each night

till the patient was convalescent, with a like favourable result. I may add, that the inhalation of nitrite of amyl, which I have found useful in cases similar to this, was also tried, but produced only momentary relief.

In another most distressing case of neuralgia, where hypodermic injections of morphia and atropine, bromide of potassium in drachm doses, and opium in large quantities failed to induce sleep, a draught, containing a drachm of chloral, was ordered, half to be taken. This also failed; but, on the second half being given fifteen minutes after, five minutes later the patient was sound asleep, and did not awake for seven hours. On the following night a drachm was given; sleep followed immediately, but was not of so long duration as on the former occasion. For the ten following nights, two drachms were given; sleep invariably came on within five or six minutes, its duration varying from eight to twelve hours, and the patient awoke on every occasion without experiencing any of the unpleasant after-effects some have ascribed to this drug. On one occasion, on entering his room, I was much struck with the strong odour characteristic of chloral with which the air of the apartment was loaded. On examination, I found that it proceeded from his breath. This patient, so far as I can ascertain, is not in the habit of consuming much alcohol, and yet the dose required was much larger than I have found necessary in some cases of nervous excitement following fits of drinking. This is contrary to the experience of some, who state that the dose of chloral should be in proportion to the amount of alcohol the patient is in the habit of imbibing.

In several cases of bronchitis where insomnia, from the severity of the cough, had been a constant and most distressing symptom, chloral, in quantities varying from thirty grains to a drachm, has proved invaluable; the patients sleeping for seven or eight hours, and in the morning having only an indistinct remembrance of having coughed during the night.

In whooping-cough chloral has not proved a very efficient weapon in my hands; but in some other diseases of infancy, as in some varieties of convulsions, more especially those arising from irritability during teething, in small doses (four grains for a child eight months old) it has had excellent effects.

My appreciation of chloral, from a pretty large experience of it, is, that when a hypnotic is indicated, we possess in it an efficient and safe one—more certain than bromide of potassium, and without the unpleasant after-effects of opium and its preparations.

Aberdeen, March 19th, 1870.

ON A NEW ARTERY FORCEPS.

By C. S. JEAFFRESON, Esq.

THE subject of arresting arterial hæmorrhage has given rise to some of the most animated and interesting discussions in the history of modern surgery; and so exhaustive have been the inquiries upon the subject that, in a pathological point of view, one can look for but little in the future. Not so in the mechanical, from which much may yet be expected.

The instrument which I have devised and described below is meant to supersede the ligature, torsion, or acupressure, though it is readily applicable to the two former methods of arresting hæmorrhage, and, indeed, has advantages over the ordinary forceps employed for carrying them out. The principle of the new method is to draw the bleeding artery within a small metallic ring (usually lead). This is forcibly compressed, and the artery then liberated, hæmorrhage being effectually controlled by the compressed and flattened ring. With a little practice, the instrument can be used with the greatest ease and facility, one hand alone being required.

The only pathological point involved is the question of the toleration of the tissues to these minute metallic bodies. Hitherto, in the few cases which I have tried, they have been found to produce no irritating or deleterious effects; the wound heals over them, and they either corrode and disappear or become encysted. This will, I believe, almost invariably occur where they are placed upon arteries situated