

uterine medication. It remains, then, to consider, in carrying out this practice, what methods and remedies are at the same time the safest and most efficient. None are absolutely safe; for, in certain states of the constitution, the mildest application, sometimes even the mere introduction of the sound, will suffice to excite local inflammation.

My own experience leads me to the conclusion (and on the present occasion, when the subject is being brought before the Association by others, I intend to refer to my own experience alone), that fluids should never be injected into the cavity of the uterus, unless the cervix be first freely dilated, and that that form of intra-uterine medication is unsafe and objectionable, that ointments are difficult of application and inefficient, and that the same remark applies to the insufflation of powders. I use the following agents only, and find them so efficient that I hesitate to change them for others: carbolic acid, tincture of iodine, iodised phenol, nitric acid, solid nitrate of silver, zinc points, crayons of iodoform. The use of carbolic acid for intra-uterine medication was first advocated by Dr. Playfair, and, after an extended trial, I fully endorse his observations; it is the safest of all the agents I have named. For the last five years, I have used it daily, both in private as well as hospital practice. The probe, by means of which the agent is carried to the fundus, must be passed up twice, for much of the acid with which the cotton is charged is neutralised as it passes through the cervical canal the first time. It is, therefore, essential that the probe be withdrawn and dipped again in the solution and reintroduced. This second application is more painful than the first, but the pain dies rapidly away, for the acid is a decided local anæsthetic. The preparation which I in general use is composed of two parts of carbolic acid and one part spirits or glycerine. It will in general be found necessary to apply carbolic acid every three or four days for some weeks. Iodine I use comparatively rarely. It is by no means as satisfactory an agent as carbolic acid, and is, moreover, a dirty application, soiling the patient's clothes, and causing a disagreeable smell. It is, however, sometimes useful, specially as an alternative. Iodised phenol (iodine one part, crystallised carbolic acid two parts; mix, and combine by gentle heat), introduced by Dr. Battley of Georgia, is an escharotic of some power, and if diluted, is a very satisfactory application in many cases of intra-uterine disease, specially in chronic endometritis, occurring in old women, in whom a foetid discharge frequently occurs; but it is by no means as energetic as nitric acid, and in recent cases is less efficient.

Nitric acid should only be employed in severe cases, and if properly applied, and if due care be used, is at once a most efficient and safe agent. Two precautions should, however, never be omitted. First, the patient should be kept quiet for a day, or even longer, after the application. The acid itself causes little pain; but, nevertheless, I make it a rule always to keep the patient in bed for at least twenty-four hours after applying it. Consequently, it is an agent which should not be made use of for the purpose of intra-uterine medication, except at the patient's house, or with inter-hospital patients. Secondly, it should never be applied to the interior of the uterus except through a cannula; those of vulcanite or platinum, made after my pattern, can be had of most instrument makers. The annexed woodcut (fig. 1) shows

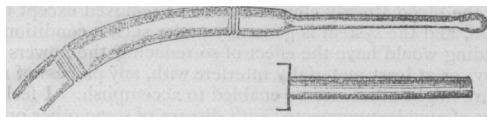


Fig. 1.

the cannula and stylette, which should be employed when dilatation of the uterus has not been practised. It should be introduced into the uterus by means of the stylette, in the same manner as the uterine sound, and the stylette being withdrawn, the acid is to be carried up to the fundus through the cannula by means of a layer of cotton carefully rolled round the rod, and saturated with the acid. Fig. 2 represents



Fig. 2.

the tube, half an inch in diameter, through which the acid is to be passed up to the fundus in cases in which the cervical canal has been dilated.

In a paper I published in the *Obstetrical Journal* for June 1873, I laid it down as a rule that, in all cases of intra-uterine disease in which nitric acid is used, "the cervical canal should be protected" by means of a tube or cannula. It seems to me that this important precaution has

been neglected by many practitioners, who then declare that unpleasant results have followed, and blame the agent, whereas they themselves are solely to blame, because they did not use the acid in the proper manner or with due care. I again repeat that, if properly used, there is no danger of unpleasant results following the use of nitric acid in cases of intra-uterine disease, but that, if the cervical canal be not protected, it is very liable to contract subsequently.

Solid nitrate of silver is very useful in some cases of intra-uterine disease, as are also zinc points; but both sometimes cause considerable pain, and cellulitis is more likely to follow on their use than on that of any of the other agents I have named. They are most useful in those cases in which menorrhagia occurs, the os and cervical canal being patulous, but the uterus not much enlarged, and in which we have reason to think that the hæmorrhage is due to a vascular condition of the intra-uterine mucous membrane, rather than to the existence of a thickened and granular condition of its surface. They should not be used if copious uterine catarrh be present.

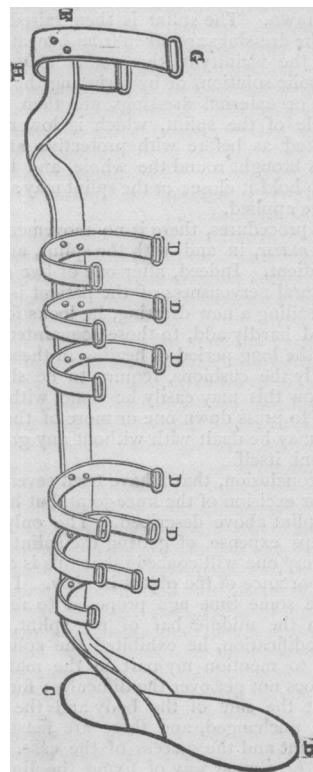
As to iodoform, I am disappointed in the results I have obtained from its use; it certainly sometimes allays pain, but is uncertain in its action, and has little, if any, effect as a caustic.

ON THE MANAGEMENT OF CASES OF EXCISION OF THE KNEE-JOINT.

By EBEN WATSON, M.A., M.D.,

Senior Surgeon to the Glasgow Royal Infirmary.

MY principal object in the following short paper is to recommend a method of fixing the limb after excision of the knee-joint, which cannot indeed be called new, for I first published an account of it in the *Glasgow Medical Journal* for October 1859, but which I venture to think deserves fuller recognition by surgeons than it has yet obtained; and I therefore wish to bring it under the notice of the members of the British Medical Association, especially of those who attended the meeting at Cork last autumn; for Mr. Hilliard of Glasgow, who has always made the splint for me, at my request, exhibited and explained a model of it on the occasion referred to.



"A B is a firm band of iron on which are fixed D D, etc., bands of flexible tin about three inches apart, and in length about two-thirds

the circumference of the limb at each place. A F is another band of white iron joined to the one formerly described at A, and twisted so as to avoid the hip and come up at the side of the body as far as the waist, round which the flexible band G H passes about halfway, and B C is a foot-piece at the other end. When the splint is applied, it is well padded with cotton sheathed in gutta-percha tissue. The foot of the patient is bandaged to the foot-piece and the flexible bands D D D, etc., and G H are made to fit firmly to the limb and to the waist of the patient by means of broad tapes secured by buckles."

Such is the original description given by me in my paper on Excision of the Knee-Joint, and may be found in the *Glasgow Medical Journal*, vol. vii, p. 279 (the diagram at p. 508).

When I perform excision of the knee-joint, I have the splint prepared as above and exactly made or altered to fit my patient; and, the operation having been finished, of course under carbolic spray, I carefully bring the cut ends of the bones into apposition and lay the naked limb in the padded splint. The spray is maintained during the entire dressing, so that there need be no hurry in this important part of the proceeding. The lateral bands D D, etc., are now pressed up to the sides of the limb, which is protected from their pressure by the interposition of cushions of cotton sheathed in gutta-percha tissue. These cushions should be made of such a length that they shall not encroach upon the wound, but leave it and the skin in the neighbourhood bare for three or four inches. This part is to be sponged clean with carbolic solution and then dressed in the usual manner with protective and gauze. The large dressing with the waterproof jaconet is then made to surround the whole limb, and the splint as well, for several inches above and below the part operated on. It is sustained by a bandage; and the foot, if not previously bandaged, is now fastened to the foot-piece. The patient may then be removed to bed, and, on his recovering from the chloroform, the waistband may be secured by its tape.

One great advantage of this splint is, that no part of it is removed when the dressings are changed; for it ought to be so arranged that the operation-wound comes between two of the lateral bands, and indeed this space is generally made wider than the others, to permit free access to the wound without displacement of the splint. The second and all future dressings are performed under the carbolic spray, as follows. First, the bandage securing the external layers of gauze is removed, and then they are themselves laid open, and the loose gauze and protective are also withdrawn. The splint is then raised at the foot by an assistant, and all the dressings are taken from beneath it. The iron band of the splint and the vicinity of the wound may now be cleaned by sponging with carbolic solution, or by syringing the same solution upon them. The large or external dressings are then placed on the bed beneath the middle of the splint, which is lowered on them. The wound is next packed as before with protective and loose gauze, the external dressing is brought round the whole, and ties of bandage are slid in beneath it to hold it close; or the splint may again be raised at the foot, and a bandage applied.

During all these procedures, there is no movement of the limb permitted, except *en masse*, in and with the splint, and therefore no pain is caused to the patient. Indeed, after one or two dressings have been performed, the natural nervousness of the patient is entirely dissipated, and, instead of dreading a new dressing, he looks forward to it as a refreshment. I need hardly add, to those acquainted with practical surgery, that, during the long period of healing in these cases, parts of the apparatus, especially the cushions, require to be shifted or exchanged for fresh ones. Now this may easily be done with my splint; for all that is required is, to press down one or more of the lateral bands, and then the cushion may be dealt with without any great or painful interference with the limb itself.

I only add, in conclusion, that I have tried several other methods of fixing the limb after excision of the knee-joint, but have always returned to the use of the splint above described. The only fault of it is, the trouble, and perhaps expense, of getting the splint to fit each case. I think, however, every one will concede that this is a small matter compared with the importance of the object in view. I have been told that a *confère* of mine some time ago proposed to remedy this defect by making a slide on the middle bar of my splint, and that, on the strength of that modification, he exhibited the splint *as his own*, forgetting altogether to mention my part in the matter; but it is quite obvious that this does not get over the difficulty; for there still remain the curved part at the side of the body and the foot-piece with the space for the ankle unchanged, and these are most important for the comfort of the patient and the success of the case. I myself thought that paraffin would be a good way of fixing the limb and of avoiding this difficulty; but on trying it in two cases, I found that it allowed too much play to the limb, and therefore threatened very serious displacement; so that, in both cases, I had to discontinue it and apply the iron splint,

in which displacement of the bones is next to impossible, and, if it did occur, can be at once detected and remedied.

I have not the opportunity at present of giving the statistics of my cases of excision, but they have been numerous, and so very successful that I readily undertake the operation, and believe that, if it were permitted early enough and performed with antiseptic precautions, surgeons would seldom have occasion to amputate for disease through the thigh.

ON BLOODLETTING.*

By E. COPEMAN, M.D., F.R.C.P.,
Consulting Physician to the Norfolk and Norwich Hospital.

My attention has recently been called to the subject of bloodletting by letters published in the *BRITISH MEDICAL JOURNAL*; and, having lived in the days when bleeding was the fashion, as well as in those when this mode of treatment has been well-nigh exploded, I have undertaken to express some views of my own respecting it, derived from the experience of half a century of active professional life.

It will be remembered by some present, perhaps, that in 1845 I published a book on *Apoplexy*, in which I endeavoured to prove that indiscriminate bloodletting was much to be deprecated in the treatment of that disease. The observations I then ventured to make, and the line of argument I took, were well received by the profession; and, as has often since been said, were the starting-point in reversing the general practice employed in those days, in leading to the more discriminate and limited employment of venesection in recent times. Perhaps in the present day we have gone too far in this latter direction, and there are cases of apoplexy where bleeding ought to be resorted to. Under some conditions of constitutional disturbance, there may be, and undoubtedly is, a disposition to determination of blood to the head, tending to overfill the vessels of the brain; but when this is the case I believe it will always show itself by visible distension of the external vessels of the head and neck; there is so much difficulty, owing to the incompressible nature of the brain, to the entrance of an additional quantity of blood into it, and there is such free communication between the internal and external blood-vessels of the head that, when there is a disposition to greater fulness within, the external vessels will act as safety-valves, and there will be evident distension without. In my own opinion, the only cases of apoplexy in which bleeding is proper are those which occur in plethoric habits, and where, in addition to the symptoms of what is generally understood by a full habit, there is evident distension of the superficial vessels of the head and neck. Neither do I consider it necessary to carry the bleeding beyond the point of relieving the external visible fulness of vessels, or congestion of the lungs from impeded circulation; beyond this, we weaken the body by abstraction of blood without lessening the quantity circulating in the brain; the vessels of the brain must always be full, and when we have removed the tendency to force an undue quantity of blood into them we have done all we can as a relief from pressure. In cases where the *rupture of a vessel* in the brain has occurred, bleeding is worse than useless; the blood already effused cannot be removed except by gradual absorption, and the system is generally under such a condition of shock that bleeding would have the effect of so reducing the powers of life as to destroy, or at least materially interfere with, any process of reparation that nature might otherwise be enabled to accomplish. I feel sure also that cases of apoplexy connected with disease of some other organ of the body, as of the stomach, intestines, kidneys, etc., which are often marked by a degree of prostration, depression, or insensibility of the nervous system, are seldom attended with much force of circulation, are not benefited, but rendered much less hopeful, by bloodletting. Upon the whole, I am of opinion that, although admissible in a few, it is of no value as a remedy in a large majority of cases of apoplexy and paralytic seizures.

But there is one form of disease which is peculiarly under the influence of bleeding as a remedy, and, if treated in its early stage or onset, is cured by it very speedily and satisfactorily. Nevertheless, it has fallen into disuse in these latter times in this as in almost every other disease. I allude to idiopathic *pleurisy*. I well remember, when I was living in the country many years ago, an epidemic, if so it may be called, of pleurisy; and I was called to many of the cases, and summoned early on account of the severe pain attending the commencement of the attack. I resorted to venesection in almost every case, with the result of immediately relieving the pain and very quickly curing the patient—indeed, it was almost the only treatment required; the blood was allowed to flow until the pain was gone and the breathing free, and then an opiate draught was given to produce sleep, and the patient was well in a few

* Read before the Norwich Medico-Chirurgical Society.