posed and practised by Mr. Barwell, for the first time on February 4th, 1878. It consists in a double procedure with a considerable interval of time between. First, he divides the femur with a chisel little more or less, just enough for about half the length of Macewen's line of division is on the inside of the femur to the same extent. He then straightens the limb, and allows the gap thus left in the end of the femur to fill up and consolidate. When this has taken place, he completes the second step of the operation by division of the fibula (obliquely) and the tibia (transversely) about one inch below the joint, and by then bringing the limb finally straight. This operation resembles an impacted fracture than anything else. The operation is described in the British Medical Journal of May 25th, 1878.

You have now, gentlemen, had a brief sketch of the various operative procedures for the removal of the deformity of genu valgum which have been published; and you have seen the development of one or another called rather rude beginnings of the more perfect operations of to-day. You have had, besides, an opportunity of judging of the results for yourselves on cases treated in this theatre by the different methods. There now only remains to glance at the statistics as regards mortality, etc. In doing this, it may be better to group, in the first place, the results of all our last notables, whether as regards the second method or the first. If we have collected very nearly all, if not quite all, the cases of the kind recorded up to the present in this country and abroad in the various surgical periodicals. And without giving (for the sake of brevity) a list of the names of the operators which I have before me, I may say that I have collected fifteen operations by Ogston's method, seventy-two by Macewen's, and fifty-seven by Reeves's, with allusions to others not actually published. But of course many others have been performed. Here, then, we have at least one hundred and eighty-four osteotomies of the femur for genu valgum. Now, admitting it to be possible that others ending fatally may have occurred and not been recorded, I can only find one on the post natal case already alluded to. This was operated on by Ogston's method strictly. Another death is recorded by Thiersch (Langenbeck's Archiv, April 1879) as following six weeks after the same operation; but this cannot be regarded as the result of the latter. The patient was a sickly girl, and died with uremic symptoms, her kidneys being found after death to be of the small contracted kind. A drawing out of what may be called rather rude beginnings of the more perfect operations of to-day.

On repairing to Wiesbaden, on the night of June 1st, Dr. Neubauer was the author, together with Dr. Vogel, of a well known monograph, a translation of which was published some years ago by the New Sydenham Society.

REMARKS ON FORCIPRESSURE AND THE USE OF PRESSURE-FORCES IN SURGERY.

BY T. SPENCER WELLs, F.R.C.S., Surgeon to the Queen's Household; Consulting Surgeon to the Samaritan Hospital.

[Concluded from vol. i, page 938.]

The use of forcipressure in surgery may be considered under three heads: first, as one way of carrying out the principle of Esmarch's "bloodless surgery" during an operation; secondly, as a mode of dispensing with either the cautery or the éclaireur as alternatives for knife or scissors; and, thirdly, as a substitute both for torsion and the ligature for permanently closing bleeding vessels.

Separation must be performed as nearly as I do the great advantages gained by the use of Esmarch's elastic bands and bandages in amputations, excision of joints, or in any operation where they can be conveniently applied. But in the operations which of late years I have been most frequently called upon to perform—the removal of large ovarian and uterine tumours, and amputation of the breast, the cure of ruptured peritonitis, and the treatment of lesions in various regions—Esmarch's proceedings are quite inapplicable. I have occasionally had Lister's tourniquet for compressing the aorta applied as a precautionary measure; but have only twice had to exert compression. In every other case, pressure-forces have always been sufficient for the suppression of haemorrhage until the operator of the operation has divided the first incision through the skin and integuments, either of the abdominal wall or any other part of the body, may be seized almost as soon as divided, and the forces left hanging on as long as necessary. Deeper vessels may be secured in the same way. I have removed very large mammary tumours, one in Breslau, and others (incidentally due to the death of the patient) in a case of ovarian cancer, a case of congenital absence of the right kidney, and a case of undescended testicle in a man, forcipressure has proved quite as useful to me as in ovariotomy or hysterotomy. In operating for the cure of old ruptures of the perineum, troublesome bleeding often occurs as the mucous membrane is denuded. If ligatures be used, they may interfere with union between the edges; but, as a rule, pressure-forces amply suffice for stopping all bleeding until the sutures have been passed and are ready for closing. A little pressure is then all that is needed. So in operating on vaginal fistulae, very troublesome bleeding, which would interfere with accurate paring of the edges and passing of the sutures may be immediately and effectually controlled; and if the forcips be left on until it is time to fasten the sutures, it will almost always be found that bleeding has ceased.

I need now say very little as to the use of the éclaireur or the cautery. There are cases where one or the other may be preferred to the knife or scissors. But, with a sufficient number of pressure-forces at hand, the use of heat or caustics is of little or no importance. The permanent closure of vessels divided during an operation, or by an accident, is a question of greater importance than the mere temporary stopping of bleeding. Acupuncture, filoacupuncture, and unipuncture have all failed to gain general acceptance by practical surgeons. Torsion, although very effective in many cases, is attended with much difficulty. Forcipressure is simpler, more rapid, and requires less work and skill. The operation is simple and accurate. It is simple and accurate. It is simple and accurate.
I prefer giving a short résumé of the experience of Koelberlé, Pén, and Verneuil. M. Verneuil, in 1875, published several very interesting papers on forceps in the "Bulletin de Médecins de la Société de Chirurgie de Paris." He explained how he had been led, in several cases where ordinary methods were inapplicable, simply to leave in the wound the forceps which he had used to seize the wounded vessel. His first case, about 1865, was an uterine polypus with a long pedicle. He cut the pedicle, and the forceps were not removed by free bleeding from a considerable artery. Cold injections proving useless, he seized the end of the pedicle by his polypus-forceps, tied the handles together, and left them in for two days without inconvenience to the patient. In 1869, he treated an artery deep in the palm of the hand in a similar manner, leaving the forceps for five days. In 1870, a wound of the internal meatus, which was also successfully treated, the forceps being removed after forty-eight hours. In 1873, in removing the coccyx, the lateral sacral artery was wounded and secured by forceps, which were left in for four days. In 1874, a very vascular nasa-phyngal polypus was removed by a wire forceps; and, very free bleeding not being stopped by plugging, the bleeding surface was seized by forceps, which were left in till the next morning and then removed without any recurrence of bleeding. Equally successful cases of wounds of the radial artery, of bleeding from the tonsils after removal, and from the interosseous artery after trephining, are also related. A large navel was surrounded by ten forceps (which were left on for several days), and several days later growth was thus removed without the loss of one drop of blood. The remarks of M. Verneuil on these cases, on the varieties of forceps successively constructed, on the use of compressors of arteries by Assalini and others for the cure of aneurism, on the movable forceps of Nunney, and on the "canna arterio-forceps" of Wolfe of Aberdeen (described in the British Medical Journal, 1869), the "forceps" of Taylor (described in the same Journal in 1868), and Richardson's tubular compress (in the Medical Times in 1869) are all worthy of attentive perusal. He then analyses the results of forceps in 27 cases of forceps of large vessels - 1 aorta, 1 subclavian, 1 femoral, 2 brachial, 1 radial, 3 of the forearm, and radius in the hand. In 22 of these cases, the success was complete. The forceps were left on for various periods from twenty-four hours to the fifth or sixth day, and four times until they came away spontaneously. In only one of the 27 cases was there secondary hemorrhage. The inconvenience to the patient and the interference with the healing of the wound has been greatly exaggerated.

As a means of preventing or anticipating hemorrhage, M. Verneuil also shows how forceps become useful before paring the edges of lacer-hir, or removing epithelial growths of the lip or cheek, or portions of the tongue, in compressing the sphenoid cord before castration, and in removing growths from the neck of the uterus.

The conclusions of M. Verneuil, on multiple and prolonged forceps as a mode of permanently stopping bleeding, is perhaps the most important of all. He shows that M. Péan has carried out this practice far beyond other surgeons. In comparing the relative advantages and disadvantages of leaving several forceps or several ligatures in a wound, he has suggested that both of the forceps described in books as "chronic Inflammation of the Drum," and "Dry Catarrh of the Drum," are cases of simple rigidity of some of the parts induced by the advance of age or constitutional causes. These terms are often only a cloak for defective knowledge, and serve the same purpose as the term "Nervous Disease of the Ear" used to do. Besides, in cases in which there has been undoubtedly a chronic inflammation, this generally brings about a lasting deafness by the induction of rigidity. In any event it will be wiser, instead of trying to explain away Toynbee's results, to accept them as a fair index of the pathological condition in many cases of chronic deafness in old people, and as a guide to treatment. We have, I submit, clear grounds for dealing with stiff joints in the ear as we would with a stiff knee or ankle joint, viz., by appropriate motion.

The Structure of the Ear joints to Vibratory Motion as Curative.—The structure of the ear, constituted as it is of vibrating membranes, of ossicles with joints, of fluid, and of vibrating parts in connection with the nervous elements of the sensory-motor mechanism, is one likely to require treatment on mechanical principles. For a stiff joint we prescribe exercise, for a rusty hinge we employ motion. If the muscles and joints of a pianist become impaired in their delicacy of movement, we prescribe much practice. By the practice, the stiffness in the muscles and joints often reacquire their lost powers; so it is reasonable to infer that the stiff membranes, joints, and other structures of the ear, being brought into exercise by vibratory motions sufficient to set them in play, may advance more and more to a condition of health.

ON A NEW ACOUSTIC APPARATUS; AND ON INTENSIFIED SOUND AS A CURATIVE AGENT.

By William A. McKeown, M.D.,
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I have pleasure in bringing to the notice of the profession an acoustic apparatus, constructed with a view to aid the deaf in the most convenient and useful manner. Whilst this is the immediate object of the invention, I shall endeavour to show that its long continued use will exercise a curative influence over certain rebellious diseases of the ear, hitherto practically beyond the pale of medicine and surgery.

As the latter consideration is of even greater importance than the former, I will first deal with the grounds for my belief in the curative influence mentioned.

Toynbee's Pathological Researches show that Vibratory Motion ought to be a rational remedy for many cases of Deafness. To Toynbee the world is probably more indebted than to any other man, living or dead, for having put aural diseases on a scientific basis. From his tables, giving the results of his dissection of upwards of 1,000 diseased ears, it appears that a large proportion showed lesions in the conducting apparatus of the middle ear. I extract the following figures:

126 cases — membran tympani thicker than natural.
59 cases — adhesions of membrana tympani to different parts.
202 cases — membranous bands between ossicles.
90 cases — ankylosis of stapes to fenestra ovalis.
66 cases — too rigid attachment of stapes to fenestra.

I am aware that doubts have been suggested by subsequent writers as to the pathological character of some of the bands described, and, also, that Hinton shows that Toynbee's results are not so remarkably excessive, because the most of the subjects were old and more exposed than people in general to influences likely to disorganize the auditory apparatus. Still, that the condition of rigidity is one of most frequent occurrence in practice does not admit a doubt; indeed, it is highly probable that a large proportion of these cases described in books as "chronic Inflammation of the Drum," and "Dry Catarrh of the Drum," are cases of simple rigidity of some of the parts induced by the advance of age or constitutional causes. These terms are often only a cloak for defective knowledge, and serve the same purpose as the term "Nervous Disease of the Ear" used to do. Besides, in cases in which there has been undoubtedly a chronic inflammation, this generally brings about a lasting deafness by the induction of rigidity. In any event it will be wiser, instead of trying to explain away Toynbee's results, to accept them as a fair index of the pathological condition in many cases of chronic deafness in old people, and as a guide to treatment.

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