

of the many things I admired about Tom Keith was the religious way he stuck to the cautery in treating the ovarian pedicle. Nothing could shake him. I was equally obstinate in my adhesion to the silk ligature. The result was that when we came to compare notes after many hundreds of ovariectomies, we found that, so long as the bleeding from the pedicle is effectually stopped, and the pedicle carefully dropped back into the peritoneal cavity, it does not matter a pin how it has been treated; and that, I venture to say, is a surgical conclusion, not only of the utmost importance, but one which never can be controverted. The so-called discussion on special subjects which are now fashionable at our annual gatherings illustrate well how utterly futile our present method of research is. Take the case of the kidney. We have half a dozen men discussing such a question as that of removing a suppurating kidney as a primary operation or subjecting it to a primary drainage, and when you have heard all that they have to say, you are no wiser on the subject. But if four men would subject all their cases to one method, and four others would confine all their work to the second method, within five or six years the question would be definitely and finally settled. The latest instance of this kind is the question of lumbar *versus* inguinal colotomy, concerning which I am certain that the shield has a silver as well as a golden side, and that our present method will never enable us to differentiate the two metals.

It may be urged against my proposal that such a plan of research would hamper liberty of action, but I answer that our present liberty of action is not wise; indeed, it is not liberty at all, but licence. Let me take a personal case. It is well known that I adopt a special method of treating uterine myoma, and that there is a rival in the field in the shape of the electrolytic method. It is a charge also against me that I will not try the electrolytic method—a charge to which I readily plead guilty—and for this conduct my defence is simple. I say that no logical and complete conclusion can be arrived at by everybody treating everything in every kind of way. Having opened out a continent, I want to know all about it. I pursue, therefore, all the windings of its rivers, and I measure the heights of all its mountains, and I give you the results of my ten years' wanderings. Let the electrolyticians do the same, and then you shall be the judges, not upon men, but upon principles. Meanwhile I am sure, in the interests of our art, that it is better that I should continue my research in a logical fashion, unhampered by qualifications which would make a just conclusion on your part an absolute impossibility, and which would lead to nothing in my own mind but confusion.

On the other side of this most important question lies another grave source of error, which is too true of our research into surgical results, though it is far more extensive in its results in general therapeutics in the practice of medicine. No sooner is a new drug placed on the market than everybody rushes to try it. At first all is well, and "rubbishin" is good for everything. Then come a few isolated hints about the "toxic effects of 'rubbishin,'" and finally "rubbishin" gets dropped altogether and we hear no more about it. It is positively awful to think of what some of these new drugs—say chloral, for instance—may have done before they got settled. For the mischief that is done in this way the public is largely to blame—if, indeed, it is not wholly to blame; they like the idea of a new discovery, especially the upper classes, and I am told by men practising near the dwellings of the princes of the land and at fashionable watering places that the great burden of their lives is to keep up with the new drugs and the new dodges. For my part, I instinctively distrust men who are always going in for new drugs, and, for myself, I will have none of them. In our surgical results there is too much of the same thing. Take the case of Dieffenbach's operation for squint, a most useful proceeding judiciously applied over a limited area. But I remember the time when every urchin with a squint was collared in the street and walked into the operating room to have one rectus divided in order that its opponent should have full power to swivel the eye out in the opposite direction. Everybody was "doing squints." Similarly, when removal of the uterine appendages was proposed, but long before the just and true principles on which it is now based could be formulated, everybody rushed into the trial of it, and the result was a disastrous epidemic, the chief burden and discredit of which fell upon me. I was more horrified than I can tell, and much of my time was taken up in disclaiming the doubtful honour of what was called

"Tait's operation," in the performance of which every principle advocated by Tait was neglected, or deliberately outraged. If the men who engaged in this work had waited for a reasonable trial, a fair discussion, and a just verdict, much discredit for our art would have been spared us. The just verdict has now been arrived at, and the misrepresentation of which this operation was the centre has now ended. But the example is a very telling one in illustrating the want of logical application in our present method of research upon surgical results.

This vast and powerful Association could accomplish almost anything it wished after determining that it was for the good of the world, and after a reasonable method was pointed out for its accomplishment. We tried an expensive experiment in the way of a collective investigation, but from intrinsic reasons it was a failure. The fact is that its plan was lost in diffuseness and defeated by the machinery involving a vast number of contributors—in fact, to increase the means of success involved the very essence of increase of risk of failure.

If you want a thing done well, you must either do it yourself or trust it to a very small number of workers. I do not think it would be too much to ask our Association to place every new drug and every proposal for a new surgical proceeding under the observation of a small responsible committee, whose judgment should precede anything like a wholesale experiment by the professional public at large. This step would certainly clear away a vast amount of rubbish, and would direct more extended research into definite lines, instead of the indefinite and haphazard roads it now runs upon in almost every instance. And I cannot help feeling it would prevent us doing the great deal of harm which is now done in the early stages of even our best proposals.

## FRACTURE OF THE NECK OF THE THIGH-BONE.

BY PROFESSOR HUMPHRY, F.R.S.

I HAVE been requested to publish some remarks I made at a recent meeting of the Cambridge Medical Society, when showing specimens, one of which had been sent by Mr. Balding of Royston. The specimens are all in the pathological museum of the University, and they show the following.

First, with regard to *fracture within the joint*—i.e., *intra-capsular fracture*.—1. It commonly occurs at the narrow part of the neck, near the head, a more or less jagged splinter of the under part of the neck being broken off with the head. 2. The investing fibrous and synovial tissue is usually torn through in front, thus exposing the fracture to the joint, but remains untorn behind. This is due in great measure to the neck of the bone being slightly convex and rough in front, and to the tissue being closely connected with it here, whereas the bone is slightly concave and smoother behind and less closely connected with the investing tissue, which is somewhat thicker here, and less easily torn. This untorn tissue, together with the capsule, prevents much displacement at the fracture and much shortening of the limb from taking place. 3. The portion of the neck projecting into the joint, between the fracture and the trochanters, usually undergoes absorption, which process begins soon and takes place rather quickly, and proceeds often quite to the level of the base of the trochanter. The trochanteric surface thus exposed becomes smoothed by interstitial bony deposit in its cancellous texture, and, being approximated to the fractured surface of the head, may become united to it, in some cases firmly, by fibrous tissue. That the absorption of the neck does not invariably occur was shown by a specimen in which there were evidences of fibrous union having taken place near the middle of the neck. It does not affect the part of the bone lying on the proximal side of the fracture, for the head of the bone with the splinter from the neck on its lower edge remains little altered. The cause of this absorption of the outer fragment of the neck is not quite easy to give. Possibly it depends upon the part being subject to pressure and friction from movement; whereas the inner part, quietly ensconced within the acetabular cavity, is free from these exposures. 4. The cause of failure of bony union when the fracture is within the joint or intra-capsular, is due, I believe, primarily, to the

fact that the plastic and cell elements which should form the medium of union are not retained *in situ*, but escape into the joint and are lost; and, secondly, to the circumstance of the inner fragment being retained in the acetabular cavity, while the outer fragment is displaced from it, and, as we have seen, becomes absorbed. If, however, it be not displaced, and if the fractured surfaces remain in close apposition, especially if they be in any way impacted, bony union will occur. This was demonstrated by a specimen from a gentleman, aged eighty, treated by Mr. Wherry with every precaution to prevent movement. There was three-quarters of an inch of shortening, the trochanter was approximated to the spine of the ilium, and there was utter helplessness of the limb. In six weeks the patient could raise the limb from the bed, and he was subsequently able to bear his weight upon the limb. A year after the accident he died. There is only a little shortening of the neck. The head is somewhat below its proper level. Solid bony union has taken place in the anterior half, so that the line of fracture can scarcely be traced; whereas in the posterior half the union is fibrous only. The latter shows the line of the fracture to have been near the head. The cause of the union being bony in the fore part and fibrous only in the hinder part is not quite clear, and it cannot be determined whether the fibrous and synovial investment of the neck had been torn in any part or had escaped lesion.

Secondly, *with regard to fracture on the outside of the joint at the base of the neck, or extra-capsular.*—In this case the trochanteric part of the bone is often broken into several fragments, being riven to pieces by the base of the neck forced wedge-like into it; and the neck may be fixed or impacted here. It is not, however, of much consequence whether it be so or not, for firm, commonly bony, union almost always takes place. There is, indeed, nothing to prevent union. It resembles an ordinary fracture in cancellous bone; and, as we know, fractures in the cancellous parts of the skeleton unite readily. There are many specimens in this and other museums in which bony union has taken place, and in some of these there is a large amount of surrounding callus. One specimen was shown in which union has failed, in consequence, it may be inferred, of want of rest, for there is a considerable quantity of callus forming a large cup in which the base of the neck is loosely enclosed. The time of life at which the accident occurs does not make much difference, for, as I have shown elsewhere, fractures unite and wounds and ulcers heal as well in the old as in the middle-aged, and sometimes more quickly. Indeed, I am daily more and more surprised at the recoveries of the aged from illnesses as well as from accidents.

The *practical inference* is that, forasmuch as the extra-capsular fractures commonly unite well at all ages, and the intra-capsular occasionally do so by bone or by fibrous tissue, and forasmuch as it is not in all cases—indeed, in many—easy to tell precisely the position of the fracture, it is wise in all cases, unless there be some special reason to the contrary, to adopt such treatment as is most likely to promote union. The case should not be given up as hopeless, as is too often done because it is an old person and a fracture of the neck of the thigh bone, and the limb be allowed to fall about or be merely tied on a pillow. A long splint, if it can be borne, should be applied, well padded and with soft bandage, so as to ensure quiet at the part, whereby comfort will be afforded, but not so tightly as to gall or annoy; or a shield of gutta-percha, which, if well managed, is a very good material for such purposes, or of some similar substance, may be adjusted, all proper precautions as to bed-sores &c. being taken. In this way much relief will often be given, good bony union may probably take place, and the patient in a few weeks be able to move about again.

Cambridge.

## THE MINERAL WATERS AND BATHS OF TATZMANSDORF.

By J. EDWARD SQUIRE, M.D. LOND., M.R.C.P.

DURING a recent visit to Vienna I had an opportunity of inspecting some important chalybeate springs at Tatzmanskorf—a health resort well known in Austria and Hungary, and deserving a more widespread reputation.

Tatzmanskorf (Hungarian, *Tarcsa*) is situated in the province of Eisenburg in Western Hungary, close to the borders of Styria and Lower Austria, almost due south of

Vienna, and about the same latitude as Lucern. It can be reached from Vienna by the Southern Railway (*süd-bahn*) to Steinamanger, from which town a branch line to Pinkafeld has a station (Oberwarth—Hungarian, *Felső-ér*) within a mile or two of the baths. At present this line is new and the trains slow, so that the journey from Vienna takes nearly eight hours; but this could be shortened by a couple of hours when a quicker service of trains is instituted. When the Steinamanger-Pinkafeld line is extended to Aspang the baths will be brought into closer connexion with the direct line from Vienna to Trieste, and will then be easily reached from Venice and the north of Italy. Tatzmanskorf lies in a pretty valley, 1100 feet above the level of the Adriatic Sea, sheltered on three sides by beautiful wood-covered hills, and open towards the south. It is thus protected from the cold winds, whilst its elevated position prevents it getting oppressively hot even in midsummer. The season lasts from the middle of May till the middle of September, and the latter part of September is often very warm and bright. The temperature during these months is remarkably equable, though the evenings are cool in the hottest weather. The hills sheltering the valley are the eastern spurs of the Noric Alps, and are largely composed of primary rock, represented by crystalline schist covered with tertiary deposit, with gravel and alluvium in the valleys. The valley itself is about half a mile to a mile across, with low hills on either side, mostly cultivated and topped with fir woods. Similar valleys run almost parallel with this one, the hills diminishing in size towards the south and east, whilst to the north-east they increase till the mountains of Styria bound the view. The northern end of the valley appears to be completely blocked by a succession of wood-covered hills rising one behind the other. Not only at Tatzmanskorf, but also in the neighbouring valleys, numerous mineral springs are found. Those at Tatzmanskorf have long possessed more than a local reputation for their medicinal qualities, being mentioned in a guide-book to Hungary printed at Nürnberg in 1686. At present two springs are chiefly used, both for drinking purposes and for baths. These are named the Karlsquelle and the Maxquelle. The waters of these springs are similar in their character, and only differ somewhat in the proportion of their constituents. They are saline carbonated waters, and contain iron with small quantities of bromine and of lithia. The chief saline constituents are Glauber's salts (sulphate of soda), chloride of sodium, and bicarbonates of soda, magnesia, and lime. The proportion of iron in the Maxquelle is more than twice as great as in the Karlsquelle, but both have a distinctly chalybeate taste. The large amount of free carbonic acid in both waters—apparent in the bubbling of the water as it rises in the well basins—makes them sparkling and fresh. The absence of organic impurities is a marked peculiarity of both waters. To the taste they are slightly saline, and by no means unpleasant, and mixed with red wine they make a pleasant drink. The water is bottled for export at the springs. The quantity of iron contained in the waters has gained for Tatzmanskorf a reputation for the treatment of anæmia and chlorosis; the saline constituents are sufficient to prevent any constipating effect from the iron.

The arrangements for baths, which form an important part of the course for visitors, are very complete. Every patient who comes to the baths to undergo a course must on arrival see the physician (*Bade-arzt*), and there receives a card stating the number and kind of baths, the time at which they are to be taken, the temperature of the water, and the length of time to remain in the bath; also the quantity of water to be drunk daily, and from which spring. Outside each bath-room is a card showing for which patients the bath is reserved and the hours at which each bathes, so that the attendants may know exactly how to carry out the physician's orders. There are two classes of bath-rooms—first and second-class—differing in their price and accommodation. The first-class bath-rooms are large, clean, and convenient. The tiled bath is sunk into the floor and is entered by steps. There is also in each room a horizontal and a vertical douche and a shower-bath. Every room has also an electric bell, by which the attendant can be communicated with.

In addition to the mineral waters, "Moor-erde" is found in large quantities, and is used for mud-baths (*Moor-büde*), such as those employed at Franzenbad and Saltzburg. This "Moor-erde" is a blackish or brownish peat earth impregnated with salts, which is found in many places about a metre below the surface, and in layers of one or one and a