PART IV.
MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

PROCEEDINGS OF THE DUBLIN OBSTETRICAL SOCIETY.

FORTY-FOURTH ANNUAL SESSION.

JOHN A. BYRNE, M.B., President.
WILLIAM ROE, M.D., Honorary Secretary.

Saturday, June 17, 1882.

J. A. BYRNE, M.B., President, in the Chair.

Discussion on Dr. Duke's Paper on Additional Traction in Forceps Cases as an Alternative to Craniotomy.

DR. DILL.—I shall take the liberty of making a few remarks on the subject of the paper, and also of exhibiting a few instruments. In the first place I am disposed to express a high opinion with regard to these appliances which Dr. Duke has exhibited to us for obtaining additional traction power with the forceps. I have paid considerable attention to operative midwifery, and I am bound to say that these tractors are very superior to Morgan's, which are clumsy in comparison with them. I tried Morgan's and found them so clumsy that I laid them aside. According to my experience of them the safety of the child's life is considerably endangered by the use of them. Dr. Duke's can be introduced with the forceps; Morgan's, on the other hand, must be introduced afterwards. I have here another instrument, which I have used a few times, and am very fond of—viz., Galibani's forceps. It saves the perinæum from pressure, and can be more easily applied along the line of the upper axis than Barnes's forceps, even accompanied with the tractors. I believe it to be the best instrument for the high operation. At first I was greatly in love with Simpson's long forceps. I then left it aside and adopted Barnes's. This one I now show is Tarnier's. The only objection to it is the difficulty of managing it on account of the number of screws that it has. Nevertheless, I believe it to be a most admirable instrument. With

respect to all these instruments, I am disposed to say that there is a great deal more than their mere power to be considered in estimating their efficacy. There is their mode of application; and there is also another important element. Some time ago my old friend, Dr. Mathews Duncan, assisted by a mathematician from Cambridge, who is now in Edinburgh, set themselves to measure the exact amount of power exerted by nature in expelling the child, but while they have come very near to an accurate result, I think our branch of medicine is still short in the matter; and it will be a lame affair until we shall have discovered the amount of force which we are justified in applying artificially in order to bring away the head. We all know that the muscular power of individual obstetricians varies considerably—consequently, one operator would be likely to apply much more force than another. Having regard to the present advanced state of mathematical and mechanical science, I do not see why an arrangement should not be produced which could be tested as regarded the amount of force, measured by pounds, which it applied. We should have exact calculators as to the amount of power to be applied. No doubt good training and long experience enable an accoucheur to know the exact amount of force that he should apply, but still we should have a table to guide students as to the amount of force they should apply, showing what amount would be proper for the middle and what for the higher operation. Dr. Duke has quoted a note by Dr. McClinton, but to my mind there is such flagrant error in the whole passage Dr. Duke has quoted, that I am disposed to take complete exception to it. It is a great error to suppose that you can apply greater force in extracting when you have hold of the feet or limbs or body than you can when you have hold of the head. I say that if we were to apply such enormous power to the feet or body as is indicated in the quotation we should do more harm than would result from the application of the same power to the head. Power applied in such a way must bear upon the neck and spinal marrow, and we know that these are much more vulnerable points than the head. You may compress the head almost to any extent; you may compress other parts, and still the child may live; but you cannot put a strong extracting power upon the neck without doing material injury, and in all probability killing the child. I have seen the skull broken, and a considerable quantity of brain substance lost, and yet the person lived, and that in the cases of both children and adults.

The PRESIDENT.—I have no doubt that a Barnes's forceps in the hands of a weak person, unaccustomed to the manipulation of such instruments, would not be as effective as in the hands of those accustomed to use it. From my experience of the forceps, I do not think we should much require such aids as have been brought under our notice. I think that Barnes's forceps gives us a great deal of power; and for my own part I never felt any necessity for additional power with that instrument. However, the

appliance brought under our notice is a very nice one, and far more effectual than Morgan's forceps. It should supersede the necessity for Tarnier's forceps, which is a very clumsy instrument. With regard to the amount of compression to be used in extracting the head, that must be left to the individual perception of the operator. I think the tendency of modern opinion is that we have hitherto failed in applying sufficient force.

THE REV. DR. HAUGHTON, S.F.T.C.D.—I do not presume to put myself forward amongst practical men such as those whom I see around me, except in the sense of trying to assist by theory what they want to carry out in practice. I believe, however, that I can add something to your knowledge of the question. Before doing so I wish to remark that it appears to me that Professor Dill's admiration for the timidity of the last generation with regard to the use of the forceps is not to be commended. I prefer the man who always has a forceps in his pocket. A lady with whose case I am familiar was paralysed for three years owing to pressure on the nerves of the sacrum, which might have been obviated by the application of the forceps. The long delay of the child in the passage leads to very serious consequences to the mother; and if I had to call in an obstetrician to attend a friend again, I would not feel at all safe unless he had a forceps in his pocket for use if necessary. But that is beside the present question. What Dr. Duke has brought before us ought to be considered as the alternative of craniotomy. It is not a question between rival instruments, any one of which would do in an ordinary case where there was only a moderate amount of danger. Dr. Duke's remarkable case at Sydney-parade shows that by venturing to use a large amount of traction he saved the child's life.

My contribution to our knowledge of the subject is contained in my book on animal mechanics. Dr. Mathews Duncan called the attention of the profession to the importance of determining the physical constants of natural labour so far as the action of the uterine muscles is concerned. I followed this up by calculations based on the weight and force of the uterine muscles and the convexity of the womb, which have in the most complete manner reconciled theory and observation. Dr. Duncan's maximum pressure for rupture amounted to 3·10 lbs. per square inch. In my calculation I assumed that the uterine muscles are the same as the other muscles of the body, and I found no reason to believe that these differ much from one another in the respect in question, even the heart included, the amount of contractile force per square inch being pretty much the same for all, although there is some advantage in favour of the finer muscles, but not much. I dissected five or six pregnant women after death in order to determine the weight of the uterine muscles, and I arrived at the conclusion by calculation that the power they exert is equal to 3·4 lbs. per square inch. The facts have an important

bearing on the question of design in the construction of the uterus. In the uterus we have a muscle that grows for a particular purpose, and it does not grow day by day, as other muscles do, measuring its strength against an increased resistance, but grows mysteriously and in an unknown manner for nine months to a considerable extent beyond its original magnitude until it is suddenly called on to do its work; and if we find that this muscle is unquestionably able to produce a pressure of 3·4 lbs. on the square inch, and if we also find that the maximum amount of pressure that it is ever called on to overcome is only 3·1 lbs. on the square inch, every thoughtful mind must see that there is evidence of design in that. I believe this result of my calculations compared with those of Duncan and Tait has been considered by metaphysicians as a strong contribution to the idea that there is something behind the matter of the universe in the shape of a designing mind. Therefore, as far as the first stage of labour is concerned we may regard the question as settled. Something like 50 lbs. pressure on the whole outlet will rupture the membranes, which is equal to 3 lbs. per square inch in ordinary labour unassisted by medical skill.

The next force brought into operation is that of the abdominal muscles, which we may call the *vis à tergo*. In nature there is no traction. I believe man has the credit of assisting nature by devising the forceps and other means of traction in front. Dr. Mathews Duncan has, I think, somewhat misunderstood my conclusion as to the abdominal muscles and the *vis à tergo*. He read a paper some years ago, which was a criticism on the results I had obtained. He assumed that I supposed that the whole of this *vis à tergo* was available for the expulsion of the child. On the contrary, it clearly is not. There is an enormous power in these muscles representing the *vis à tergo*, acting through a very small space, the greater part of which is lost in transmission. My calculations were made in reference to the curvature of the abdominal walls and the various muscles, and I confirmed these calculations by experiments of a simple kind. The late Dr. Hayden made some experiments independent of me, and his results corroborated mine. I put a man lying on his back on the table; I put a circular disc on his abdomen; and I put weights on the disc until he was unable to lift them. Thus you get the amount of compressive force that the abdomen is able to exert inwardly. That pressure unquestionably came to 33 lbs. on the square inch.

Dr. Duncan seemed to think I said that the whole of this enormous force was pressing the child into the world. I never intended that. I was invited by him and others to read a paper explanatory of the discrepancies between the several results; but from that day to this I never succeeded in getting the information that I wanted. I see now that I may be able to get the data that I require, and if so, I will read the paper to reconcile Dr. Duncan's observations and my own as to the

second part of labour. The only discrepancy is that we differ as to the amount of force available. If I be right there must be some enormous loss in the transfer of force from the abdominal wall to the fœtus. Now the information we want is this—What is the amount of traction in difficult labour? The question raised by Dr. Duke is—What is the amount of traction allowable where the alternative is between that traction and craniotomy? There can be no more important question, as Professor Dill has admirably shown. The only authority I could find was Joulin, who made experiments on the dead bodies of women who had died in childbirth, using a forceps and dynamometer attached, and he found that the requisite force was 110·23 lbs. Dr. Duncan considers that too much, and makes it 80 lbs.

After his paper was read I asked my late friend Sir Edward Sinclair to allow me to attend with him at some ordinary cases of forceps delivery. We prepared a Barnes's forceps with an improved dynamometer. He performed the operation, and the dynamometer frequently reached 100 lbs. per delivery, but never went beyond it. This seems to show that in an ordinary delivery, not approaching the limits of craniotomy, something like 110 lbs. per square inch is the force required. 500 lbs. is the force applied on the abdominal wall. That has to be passed inwards to squeeze the child through a narrow passage, in which the amount of friction is enormous. On mechanical principles the abdominal wall force must be reduced to a fifth of its original amount before it is applied to the expulsion of the child, and therefore it may turn out that there is no difference between me and Dr. Duncan on the question.

I would refer to Dr. Duke's case, in which the woman was operated on under the influence of chloroform, and three persons had to hold her in order to prevent her from being pulled off the bed, and said—The pull exerted there was much greater than 100 pounds to the square inch. By putting a hook into a wall and reproducing the exact pull and measuring it with a dynamometer, Dr. Duke could let us know the exact traction in pounds per square inch that he exerted. I do not feel satisfied with the experiments in the delivery of dead children—live and dead bodies are so different. In the case of a dead body a pull of 110 lbs. per square inch might be required for delivery, but in the case of a living individual the muscular forces exerted by the abdomen might cut that down to 80 lbs. The step wanting is the ascertainment of the amount of tractile power that should be applied to the child's head under ordinary conditions—under the condition of a narrow pelvis, and, lastly, under the extreme conditions contemplated by Dr. Duke when the only other alternative is the destruction of the child. I quite agree with Professor Dill—whom I am extremely glad to see amongst us—as to the extreme importance of putting these results into actual numbers, and if

he and Dr. Duke help us towards this we shall be under great obligations to them.

DR. MACAN.—A great many points have been raised during this discussion, but the chief point of Dr. Duke's paper was the means of using additional traction in forceps cases. He has brought forward three—1, the auxiliary hooks to be applied to the forceps; 2, spikes to prevent the feet slipping; and 3, the belt round the waist, to which the auxiliary hooks are to be fastened. Now, the auxiliary hooks differ from those in Tarnier's forceps merely in being introduced separately; nor does their great excellence consist so much in affording means for additional traction as in enabling us, with greater ease and certainty, to apply the force we do exert in the right direction—viz., in the axis of the brim of the pelvis. If a man understands what he is about it is, however, easy to make traction with Barnes's forceps in the axis of the brim of the pelvis, but then traction must be made with both hands, and the handle of the forceps drawn towards the body of the operator, while always remaining parallel to the same straight line. But I entertain no shadow of doubt that when the head is in the brim of the pelvis it is easier to apply the extracting force in the right direction with Tarnier's than with Barnes's forceps. As to the second means of increasing our powers of traction brought forward in Dr. Duke's paper—viz., the spikes to be fixed to the soles of the boots—I quite agree with him that if we want to exert great traction we must have some means of preventing the feet from slipping. This I have always managed by placing one of them against the foot of whoever is holding the woman. If there is no one to hold the woman the spikes would only enable us to pull her off the bed, and that would not help matters much. The third means—viz., the belt—enables us to use the weight of the body easily to assist the traction of the arms, and I am inclined to think that it may save the operator some trouble, though I think that in a difficult forceps extraction it is not difficult to use the weight of the body by raising oneself from the seat on which one may be sitting by pulling on the handles of the forceps. But the chief objection I have to this way of looking at the whole subject is that it presupposes that what we want most is additional aid in making traction, and not, as I think, more skill in using the means already at our disposal. In other words, it is an effort to substitute mere brute force for educated mechanical skill and common sense. There is no difficulty in getting additional traction power. If this were all, we could get pulleys and tackle screwed on to the end of the forceps, or a sort of capstan and bars, as is shown in a Japanese picture of difficult labour given in a paper by Dr. Engelmann on "Posture in Labour" in the last volume (1880) of the "*American Gynæcological Transactions*." The real question that is to be decided is what is the amount of force that we can use that will enable us to

extract a living child without doing serious injury to the mother. We have not gained much if by violent traction we extract a child which dies within a few days of its birth from rupture of one of the sinuses or fracture or depression of the bones of the head, or if we at the same time cause sloughing of the vagina or separation of the pelvic symphyses. Not only must we consider the amount of traction used, but we must also take into consideration the length of time during which we shall probably be called on to use it. Violent pressure for a short time is not so injurious to the mother as a much less pressure if long continued; and this it seems to me is one of the great advantages that turning has over the forceps in cases of contracted pelvis, for if we turn the child and fail to deliver after one or two minutes' powerful traction, we know it is useless to continue it longer as the child will be dead, and we therefore use the perforator, and thus save the soft parts of the mother. Indeed as long as the head is above the brim, the application of the forceps is a very haphazard proceeding, for we cannot tell in what diameter we will catch the head; whereas if we turn we know the bitemporal diameter will come into the conjugate diameter of the pelvis. There have, however, been various attempts made to estimate what amount of pressure may be made on the foetal head and the maternal soft parts without injury to either. Joulin has found that the amount of traction exerted in a difficult forceps case amounts to 150 lbs.; and Dr. Goodell estimates the amount of force exerted in the extraction of an after-coming head at 200 lbs., 150 lbs. of which were from traction on the body by the operator and 50 lbs. from pressure by an assistant over the pubes. The question of the amount of force exerted by the uterus in natural labour has, I conceive, nothing to say to the point under discussion. But it is quite certain that the uterus is capable up to a certain point of exerting a force in proportion to the resistance offered to the expulsion of its contents, which is often many times greater than that exerted in ordinary labour. Mathews Duncan has estimated the latter at $16\frac{3}{4}$ lbs., while Joulin places the former at 100 lbs. Dr. Haughton's argument of design I do not, therefore, think a very strong one.

DR. NEVILLE.—I should like to ask in how many cases has Dr. Duke used this means of increasing traction, and what has been the result to the mothers and the children? Of course a limited number of cases gives very little information. I would also ask how often he found this increased traction necessary?

DR. DUKE, in reply.—I am very much pleased that my paper has elicited this interesting discussion, and I am very much obliged to Dr. Haughton for coming here. As to Dr. Neville's question, my paper contains all the cases in which I used the belt and tractors except one, which occurred since I commenced the practice. The woman had had three children, all of whom I heard had been craniotomised. I delivered her

of a living child. I do not say that it is necessary to use the belt in every case, but I claim for it the advantage that it gives a great deal more comfort to the operator. I think spikes in the feet are better with the belt than anything else.

New Instruments.

DR. DUKE then exhibited the following instruments:—Cervical curette, for removing tenaceous mucus from cervical canal, and which can also be used for carrying ointment into the uterus; modified duck-bill speculum, with flat blade and cross handle; speculum forceps, cross action; double tenaculum; female urethra dilator; tractors for use with any long midwifery forceps; belt and foot-holder, for use with tractors; wedge-shaped knife, with uterine director, for division of cervix; sponge holder, with screw collar.

The Society then adjourned.

Saturday, July 1st, 1882.

J. A. BYRNE, M.B., President, in the Chair.

Interstitial Fibroid Tumours.

The PRESIDENT exhibited several specimens of interstitial fibroid tumours. He said: These were some time ago removed from a young woman in St. Vincent's Hospital. Dr. Kidd assisted me in the operation. She was unmarried, with dark hair and fine skin, in every way healthy save that she had suffered for many years from severe hæmorrhages. She had been in England, and had been in hospital there, and a medical gentleman, according to her own statement, had removed twelve of these tumours. I explored her uterus, and having allowed sufficient time to elapse, I proceeded to remove the tumours. They were embedded in the posterior wall of the uterus, and belong to the class known as interstitial fibroid tumours. There were seven of them removed altogether. One of them, a very large one, was broken in the removal; the others vary in size, but are not so large. After the operation the woman got well. She recovered strength very rapidly when she was sent to the convalescent department attached to the hospital. After about a year the hæmorrhage returned. It appears that during the interval between the operation in Liverpool and the operation performed here the hæmorrhage also had ceased. This leads me to believe that the tumours either grow again or others take their places. She came in under my care again, and on examining her I thought I detected more tumours. I proposed another operation. To this, however, she would not consent. Early in the spring of this year, I believe, she put herself under the care of Dr. Kidd, and I hear that she died in the Coombe Hospital since.

DR. KIDD.—At the time I operated upon her she was almost bloodless. Her breathing was extremely low. I hesitated before I asked her should I undertake the operation. I examined the uterus, and found one of these tumours growing into the cavity. The woman was in an exceedingly dilapidated state, and, in fact, she never rallied. She died on the third day. There was no *post mortem* examination. This case is very like another I had of a woman, about twenty-seven years of age, upon whom three or four operations had been performed, but in that case the woman recovered, and she is in perfect health at this moment. That was a remarkable case in some respects; I believe it was the first in which nitric acid was applied to the interior of the uterus. A sister of that woman also had those recurring tumours. I operated twice upon her, removing six tumours at one time and four or five at another. She also is in good health, but the tumours have grown again. One of the sisters has passed the period of menstruation, and is in perfect health; the other is in a leading establishment in the city, and enjoys good health. The whole of this subject has been very lately investigated, and it is one of very considerable importance. So far as I know there is nothing characteristic in these tumours. They are of the fibroid class, and there is nothing in them to make them remarkable.

Hæmorrhagic Polypus.

DR. HENRY produced a specimen of hæmorrhagic polypus which had been passed by a woman who was about three months pregnant. In March she menstruated; she passed the menstrual period in April, and in May she felt something coming away like a gush of blood. In the month of June she passed this large clot, containing a small fœtus. The cord evidently came away with the tumour. When the tumour was divided the placenta at the upper part of it was one mass of blood. The placenta and membranes were found attached to the tumour.

On Lacerations of the Cervix Uteri; their Consequences and Treatment.

By THOS. MORE MADDEN, M.D., F.R.C.S.E., M.R.I.A.; Obstetric Physician, Mater Misericordiæ Hospital; and Physician to the Hospital for Sick Children, Dublin; formerly Vice-President, Dublin Obstetrical Society; Assistant Physician, Rotunda Lying-in Hospital; and Examiner in Obstetric Medicine, Queen's University, Ireland.

LACERATIONS of the cervix uteri resulting from parturition, their effects and treatment, are subjects which have not as yet received anything like adequate consideration in this country. Thus, in the most recent English text-books of obstetric medicine and gynecology, these questions are either insufficiently noticed or entirely ignored. And, up to the present time, although discussed at the International Medical Congress in London last autumn, as well as elsewhere, there has been no allusion whatever

to cervical lacerations and their treatment by trachelorrhaphy, or Emmet's operation, in the Transactions of this the oldest British Obstetrical Society.

This omission is the more remarkable, as these fissures are of common occurrence even in natural delivery, and promise to be still more frequent in future practice, from the increasing employment of the double-curved forceps in the earlier stages of labour.

The special liability to cervical injury under the latter circumstances cannot be questioned by anyone who considers the normal condition of the cervix and os uteri. And it would seem impossible that, before the natural dilatation of these parts, the fœtal head at full term could instrumentally be forced through them without causing some solution of continuity. Nor can the scant attention here bestowed on this accident be due to the unimportance of its results. The tapering, nipple-shaped neck of the sterile uterus, slightly projecting into the vagina, its apex intersected by a small transverse dimple, or marked by a minute circular depression indicating the os externum, is obviously a very different structure from the hypertrophied, fissured cervix, with irregularly gaping mouth, semi-concealed by a glairy, or muco-purulent discharge, through which the everted endo-cervical mucous membrane may be seen extruding in so many of our child-bearing patients. This difference is a result of the lesion we are about to consider.

The non-recognition of cervical lacerations as the cause of various chronic uterine complaints, is owing to fissures of this kind often requiring no immediate attention, and in some instances healing without leaving any obvious proof of their occurrence. And, even when extensive, the symptoms to which these lacerations give rise have been generally misinterpreted and assigned to different causes.

The following observations are therefore now submitted in the hope of eliciting the opinion of others, as well as to record my own experience of the frequency and pathological importance of cervical laceration, and the value of Dr. Emmet's method of treatment in such cases.

With reference to the frequency of this condition, as met with in hospital practice, I may observe that ever since attention was directed to the subject by Dr. Emmet's writings, I have found it almost exceptional to examine the uterus of any fruitful woman, supposed to be suffering from chronic cervicitis or chronic endo-metritis, in which some traces of traumatic widening or fissuring of the os or cervix uteri were not discoverable. In most of these instances the lesion was so slight as to be of no ætiological significance, and its evidences were only to be ascertained by careful exploration, and obviously called for no special treatment. In a certain proportion of cases, however, the laceration was of a graver form, and its recognition and cure was followed by the complete subsidence of symptoms which had been attributed to other morbid

conditions, or to displacements of the uterus. Those who, during the last few years, have attended my clinique at the Mater Misericordiæ Hospital, will call to mind how often such lacerations have been brought under notice in the Gynæcological Wards and Extern Department of that Institution.

Although our actual knowledge of the treatment of cervical lacerations, especially by trachelorrhaphy, is unquestionably of recent transatlantic origin, the common occurrence of these fissures in midwifery practice was remarked by many of the older obstetricians. As far back as the middle of the seventeenth century this was observed by Mauriceau in his "*Maladies des Femmes Grosses*," and in England, the younger Chamberlen, in his translation of Mauriceau's work, refers to the frequency of "unnatural deliveries from a strong cicatrice, which cannot be mollified by a preceding ulcer or a rupture of a former bad labour—so agglutinated it must be separated with a fit instrument lest another laceration happen in a new place, and so leave the woman in a worse condition than before."^a

In Smellies' "*Cases in Midwifery*," "lacerations of the cervix uteri are frequently alluded to as the cause of rigidity of the os, and, consequently, protracted labour in multiparous patients."^b

Amongst the proofs of former delivery, Røederer lays special stress on the cicatrices of cervical lacerations:—"Interim præterea labiorum margines fiunt inæquales tamquam incisionibus notati et cicatricibus fuerint."^c

As ordinary results of difficult labours, lacerations of the neck of the uterus were described nearly a century ago by Denman, who says, that the part which generally gives way in such cases, "whether posterior, which is most common, or anterior, or lateral, is usually near the union of the cervix with the vagina."^d

Dr. Hamilton in his "*Cases of Midwifery*," speaking on the same point, says:—"The most common seat of laceration is in the cervix, towards the promontory of the sacrum, and its most ordinary direction is transverse."^e

Dr. Blundell, sixty years ago, to some extent anticipated our present views on this subject:—"The broken circumference of the os uteri," he says, "produced by the pressure of the head during former labours, may be mistaken for ulceration. A rugous os uteri, or the parts roughened

^a *The Diseases of Women with Child and in Childbed.* By Francis Mauriceau. Translated and Enlarged, by Hugh Chamberlen, M.D. P. 197. London. 1672.

^b *Cases in Midwifery.* By William Smellie, M.D. Vol. III., p. 64. London. 1752.

^c *Elementa Artis Obstetriciæ.* J. Y. Røederer. P. 41. Gottingen. 1753.

^d *Introduction to the Practice of Midwifery.* By Thomas Denman, M.D. P. 260. London. 1787.

^e *Cases in Midwifery.* By James Hamilton, Jun., M.D. P. 150. Edinburgh. 1795.

by the Glandulæ Nabothi, may be erroneously supposed to be affected with malignant disorganisation.”^a

About the same time lacerations of the neck of the uterus were described by Dr. D. Davis, of London,^b and also by Dr. Collins, of Dublin, in the first published volume of “Statistical Reports of the Rotunda Lying-in Hospital.” Dr. Montgomery also thus alludes to cervical fissuring:—“When the os uteri of a woman who has borne children is examined its labia are in general found jagged or notched, and sometimes as if a portion had been torn and remained separated from the rest. I attach great consideration to this state of the part, because it is not likely to be produced by the expulsion of any accidental formation from the cavity of the uterus; and I have never met with it except after childbirth, nor do I believe that was the natural original condition of the uterine orifice.”^c

In my edition of “The Dublin Practice of Midwifery,” it is stated that the usual situation of laceration is “either transversely at the place where the cervix impinges on the promontory of the sacrum, or where the cervix and vagina join, in which case both vagina and uterus are involved in the rent.”^d

These rents and their results were described twenty years since by Dr. J. H. Bennet, who remarks:—“Sometimes the cervix is not so much dilated as burst open, and the lacerations radiating from the centre divided it into segments, which can be traced both with the finger and the eye at a subsequent period. . . . This I have found to occur most frequently in very rapid labours, when the pains are severe and prolonged, and the dilatation of the os uteri takes place very rapidly. Instrumental and difficult labour is very frequently accompanied by laceration of the neck of the uterus, in the absence of any morbid state. . . . In such cases the cervix generally presents deep fissures, caused by the lacerations . . . which are more especially observed when turning has been resorted to, and the hand of the accoucheur has been passed through the os before its full dilatation. . . . These lesions, whether slight or severe, may not heal, and thus a confirmed inflammatory ulceration of the os uteri becomes established.”^e

It would be easy to extend the foregoing references and citations, which are sufficient to show that the frequency and pathological import-

^a Principles of Obstetric Medicine. By James Blundell, M.D. P. 752.

^b Principles of Obstetric Medicine. By D. Davis, M.D. Vol. II., p. 1061. London. 1836.

^c An Exposition of the Signs of Pregnancy. By W. F. Montgomery, M.D. P. 279. London, 1837.

^d Dublin Practice of Medicine. Edited by Thomas More Madden, M.D., Senior Assistant-Physician, Dublin Lying-in Hospital. P. 208. London. 1871.

^e Practical Treatise on Inflammation of the Uterus. By J. H. Bennet, M.D. Fourth Edition. P. 196. London, 1861.

ance of cervical lacerations, although latterly lost sight of, were long since known. None of those, however, by whom this accident was formerly described, have left any suggestions as to its reparative treatment, the credit of which has been reserved for Dr. Emmet.

The frequency of ruptures of the cervix uteri in American practice is shown by Dr. Emmet, who says:—"Previous to collecting the statistical material for this work, I had recognised and treated 219 cases of laceration of the cervix in my private hospital. This shows that a little over 16 per cent. of all women who had passed under my observation, and had been impregnated, were found to have had laceration of the cervix. This proportion will seem to many a large one; and yet, as the record extends over thirteen years, doubtless many cases during that period were not recognised. It was fully six years after my first operation that I had gained experience enough to detect this lesion under its varied forms, while the treatment itself was not perfected until several years later. To arrive at more definite results as to the frequency of this injury I have taken from my case-books the records of the last five hundred fruitful women coming under my care in private practice. The result is reached that 32·80 per cent. of all women under observation, who had been impregnated, and suffered from some form of uterine disease, were found to have laceration of the cervix."^a

The apparent difference in the comparative prevalence of cervical lacerations requiring treatment—indicated by the attention given to this subject in British and American practice—may, perhaps to some extent, be ascribed to the larger proportion of assisted labours in the latter. And, although some authorities hold that the duration of labour rather than the method of delivery is the chief factor in the causation of fissuring of the os and cervix, it seems quite evident that no process of natural dilatation, however rapid, can be so liable to occasion rupture of the circular fibres of the os and cervix as its forcible manual extension, in efforts to complete delivery by version or the forceps. Some years ago I brought cases before the Dublin Obstetrical Society, in which I had been called in consultation, where the cervix had been thus torn through, by the abuse of the double curved midwifery forceps. The same accident have I seen from version, where the hand was forced rather than insinuated into the uterine cavity before the full dilatation of the os, and have been consulted when similar consequences had followed undue manual violence in the removal of a retained placenta.

More than thirty per cent of Dr. Emmet's cases were ascribed to tedious labours. "This proportion," he observed, "will be greatly increased by the addition of the forceps' cases, which properly should be placed under the head of tedious labour, since we may assume that

^a *The Principles and Practice of Gynæcology.* By Thomas Addis Emmet, M.D. P. 451. Second Edition. New York, 1880.

forceps were only employed for delivery after the labour had been prolonged. When laceration does occur from delivery with the forceps amongst the poorer classes it is almost always double; and I have seen at the Women's Hospital an extent of injury never met with in private practice. On consulting the records of the physicians attending these cases, it is evident that there are some who, with a view to saving time, are in the habit on their arrival of delivering by forceps without, apparently, the slightest reference to the stage of labour." ^a

Laceration of the cervix uteri, whether from the premature use of the forceps in the first stage of labour, or from precipitate natural delivery, is a subject of considerable obstetric interest as one of the causes of flooding. I have elsewhere drawn attention to cases of *post partum* hæmorrhage thus occasioned, of which I have now met with many instances. And I may here repeat that—"There is reason to anticipate that, when the practice recently advocated of applying the forceps before the natural dilatation of the os uteri becomes generally adopted, as seems likely, the next generation of midwifery practitioners will thenceforth have an ampler opportunity of witnessing this accident than was the case in the practice or their possibly slower, but certainly safer, predecessors in the obstetric art." ^b

The following are the notes of some cases of *post partum* hæmorrhage from ruptures of the cervix uteri which have come under my observation:—

CASE I.—M. T., aged thirty, first pregnancy, was delivered naturally of a girl after a somewhat slow labour, being fifteen hours in the first stage, five and a half hours in the second, and fifteen minutes in the third stage. A slight but persistent drain commenced immediately afterwards, and this continued, notwithstanding the remedies employed, for several hours. An examination was then made and the bleeding traced to a small artery in the lacerated anterior wall of the cervix. This was arrested in the usual way by ligatures, and the still oozing contused surfaces brushed over with the perchloride of iron. The patient made a satisfactory recovery.

CASE II.—E. H., thirty-two, second labour, delivered at 4 a.m., November 4th, of a boy, the circumference of whose head was fully fifteen inches. The labour was unusually rapid under the circumstances, she being only two hours in the first stage, two hours in the second, and twenty minutes in the third. The uterus contracted firmly, but nevertheless smart hæmorrhage continued for some hours, and did not subside until it was ascertained that this proceeded from an extensive antero-posterior laceration throughout the cervix. This was controlled by

^a Op. cit.

^b On the Prevention and Treatment of Hæmorrhage after delivery. By T. More Madden, M.D., British Medical Journal, April 17th, 1880.

the application of the solid perchloride of iron and plugging, the uterus being well contracted.

CASE III.—A. H., aged eighteen, first pregnancy, was delivered June 24th after a labour perfectly natural, but unusually precipitate, considering that the child, a girl, was of the average size. She was only one hour and a half in the first stage of labour, three-quarters of an hour in the second stage, and there was hardly any interval between the expulsion of the child and placenta. The uterine action was inordinate and incessant from the commencement of labour, and it was found impossible to save the perinæum. The uterus now contracted vigorously, and it was then noticed that there was a good deal of hæmorrhage. As this resisted the injection of perchloride of iron, &c., the cervix was examined and found extensively bilaterally torn, and, as soon as a duck-bill speculum could be procured, was brought together by silver wire sutures. This patient had a subsequent severe attack of pelvic cellulitis, in her recovery from which the cervical wound was found much contracted, but not completely united.

CASE IV. was that of a lady, aged thirty-nine, whom I delivered with the short forceps, as she had been for seven hours in the second stage. The child was a girl, and the pelvis was somewhat small. There was nothing beyond the ordinary amount of discharge noticeable when I left her at 4 a.m., an hour after delivery; but I had hardly reached home when I was recalled and informed that active hæmorrhage was going on. This I found to be the case, and, having failed to arrest it by ordinary measures, examined and found the cervix torn through its anterior wall. The uterus was drawn down by a vulsellum, and four sutures being introduced, the hæmorrhage stopped. On her recovery, which was uninterrupted, the laceration was perfectly healed.

CASE V. was an instance of laceration from turning in the patient's fourth confinement. The shoulder presented, and the funis became prolapsed, and as the funic pulsations were becoming dangerously weak, I was obliged to dilate the os, although somewhat thin and rigid, from the size of half a crown, so as to perform version. This was effected under ether, and with as much caution as was compatible with speedy deliverance. Nevertheless, I was conscious that some extent of bilateral cervical laceration was occasioned. Immediately after delivery severe flooding took place, which, having no other means at hand, I arrested by the local application of the solid perchloride of iron. After some time she had a severe attack of pelvic cellulitis, from which she recovered. When I next saw her she was suffering from pelvic pain, bearing down, and mucopurulent discharges, the result of cicatricial ectropium of the cervix. She refused to allow the operation which was suggested, and so had to be treated by palliative measures, application of carbolised iodine, astringent tampons of Lawton's cotton saturated with tanno-glycerine, &c., until all

evidences of local inflammation had subsided. The weight of the enlarged uterus was then taken off by a pessary, and ultimately all the effects of the accident subsided without any operative interference.

The effect on subsequent delivery of cicatrices resulting from cervical lacerations is a matter of practical interest, these being a more frequent cause of tedious labour than is generally supposed. In Dr. Churchill's "*Diseases of Women*" a number of cases are referred to in which the cervix was thus rendered hard and undilatable. In some of these the os had become so contracted and undilatable from the cicatrices of former lacerations, that an artificial opening had to be made in order to effect delivery. In seven cases cited by Dr. Churchill this operation was followed by death, and in only three did the patient recover.*

I have myself seen two cases of rigidity so caused, in which it was found necessary to incise the os. Cervical laceration is an occasional starting-point of ruptures extending through the upper portion of the vesico-vaginal septum. I have now under treatment a case of vesico-vaginal fistula of this kind. The patient, a lady in labour of her sixth child, whom I previously delivered by the forceps, was on this occasion precipitately confined of a very large child before I could reach her residence. I was assured that she had only two good pains, and had emptied her bladder before the second pain occurred. This was of unusual severity, and she at once exclaimed, "Something has broken," and immediately the fœtus was expelled. On the following morning she complained of incontinence of urine, which I ascribed to the pressure on the neck of the bladder; but, as it continued after some days, an examination was made, and a rent was discovered traversing the anterior wall of the cervix and down through the upper part of the vesico-vaginal septum, so as to cause a large triangular-shaped fistulous opening, involving the greater part of the base of the bladder. During recovery from childbed she had an attack of pelvic cellulitis, and was seen in consultation by the late Dr. Hayden and also by Dr. Kidd. Fourteen months subsequently she was operated on, with the effective aid of my colleagues, Mr. Hayes, Senior Surgeon to the Mater Misericordiæ Hospital, Dr. Kennedy, also of the surgical staff of the hospital, and our respected President, Dr. Byrne, from whom, as well as my other colleagues, I have received much valuable co-operation in many cases where no other recognition of their services than my thanks was possible. The operation, which was necessarily tedious, was performed under ether, and the cicatricial edges of the laceration being completely vivified the wound was closed by five sutures. On the third day she became feverish, and the temperature ran up to 101°, but this soon subsided, and on the removal of the sutures the wound was found almost closed.

* *Diseases of Women.* By Fleetwood Churchill, M.D. P. 126.

The connexion between cervical laceration and many of the supposed symptoms of chronic inflammatory uterine and ovarian disorders is one of the most important questions we could here discuss. For many years most of the chronic disorders of women were ascribed by the followers of Dr. Bennett to subacute inflammation of the uterus, and more especially of the cervix uteri. Then came a period when the same symptoms were almost as generally attributed to ovarian disease. This opinion in time has been succeeded by the mechanical view of those who hold, with Dr. Graily Hewitt, that the keystone of uterine pathology is to be found in the various flexions and displacements of the uterus. And, lastly, we are now at the commencement of what promises to be a new departure in gynaecology—namely, the doctrine that the majority of those chronic uterine complaints which have heretofore been ascribed to cervicitis, or cervical hyperplasia, or ulceration, or to displacements and flexions of the uterus, are in reality the result of lacerations leading to pathological structural changes in the cervix uteri and adjoining parts.

It appears to be now conclusively established by the observations of Drs. Thomas, Paul Mundé, Dudley, Goodell, Pallen, Playfair, and those other American and English gynaecologists who have adopted Emmet's views, that ectropium of the endo-cervical mucous membrane is a frequent result of the lacerations described. In such cases the uterine mucous membrane is forced down through the gaping lips of the wound as soon as the patient rises from the lying-in bed. This extruded membrane is a focus of irritation, spreading upwards and causing endo-cervicitis, the edges of the rent becoming the seat of erosion, or chronic follicular ulceration, the hardened cicatricial tissue around the rent, after some time, assuming a distinctive character and becoming a veritable neoplasm. A more immediate result of bilateral cervical ulceration is subinvolution of the uterus, from the extension of cervical inflammation to the body and fundus of the then tumefied and enlarged organ. In like manner we find pelvic cellulitis following traumatic injury of the cervix, and, as the effect of this, flexions and displacements of the uterus are frequently met with in the victims of extensive cervical ruptures. For if the cellulitis affects either of the suspensory ligaments so as to cause its thickening and shortening, the uterus must thereby be thrown out of its normal position, and a constant strain and sense of wearing pelvic pain must be occasioned. These symptoms can be relieved only by relaxing this tension, either by restoring the inflamed ligament to its normal condition, which is next to impossible, or, more easily, by taking off the dragging uterine weight by a properly adjusted pessary. Hence the benefit experienced from mechanical support in many cases of chronic pelvic pain, which is more often consequent on cervical laceration than on any primary displacement of the uterus.

The general symptoms of chronic cicatricial ectropium being hardly distinguishable from those of the conditions with which they have been so long confounded—namely, cervicitis, hyperplasia, and ulceration of the neck and orifice of the uterus, need not be here enlarged on; but in all doubtful cases the diagnosis may be readily made by Dr. Emmet's test. This simply consists in exposing the affected parts by a duck-bill speculum, securing the gaping anterior and posterior lips of the cervix with a tenaculum in each hand, and then bringing them together, when, if due to laceration, the inverted portions will roll in towards the canal, "the apparent hypertrophy will disappear, and the aspect of the cervix will resume its normal appearance."

In the majority of instances the direction of the fissure is antero-posteriorly, and it may extend through both walls, or be limited, as is more commonly the case, to the anterior aspect of the cervix. When thus situated these fissures, if superficial, often occasion comparatively little inconvenience, and in many instances are healed during the period of convalescence after delivery without giving rise to any symptoms which would disclose their existence. But when from the mal-use of instruments or manual dilatation of the os, to expedite delivery by version or the forceps, or for the removal of a retained placenta, or from the unusual size of the child or any other cause, the cervix is extensively bilaterally ruptured, then the results of the accident will be obviously far more serious, and will produce the pathological effects already described. Under these circumstances, as also in those cases of antero-posterior laceration in which the reparative process has been arrested by either local inflammatory, or constitutional conditions, then, as a rule, surgical or operative interposition will be required.

If it were generally possible to bring the torn surfaces together by sutures immediately after the occurrence of the accident, this would probably be the most desirable course; but in the majority of cases this procedure is not feasible, nor according to my experience is it always successful. Hence the space now remaining may be best occupied by a brief review of the secondary treatment more generally available. This includes the palliative measures by which, if no better result be obtained, we may at least lessen the uterine irritation and areolar hyperplasia of the cervix resulting from chronic cicatricial ectropium, and also embraces those measures by the use of which the necessity for trachelorrhaphy may possibly be obviated. The latter being familiar to every gynaecologist, it is only necessary to observe that in several cases of extensive laceration I have succeeded in restoring the cervix to a healthy condition, and removing all the attendant symptoms by the free destruction of the cicatricial tissues by the actual cautery, generally employing for this purpose Paquelin's thermo-cautery, although I have also used the old-fashioned cautery iron and the galvanic cautery with similar results.

In some instances almost equally good effects have followed from melting down the affected structure with potassa cum calce, or removing them with fuming nitric acid or the acid nitrate of mercury; and in cases of slight fissuring of the cervix giving rise to chronic inflammations, hypertrophy, and ectropium, the use of some of the milder caustics has been sufficient to effect an apparent cure.

Of the local applications which may be employed for this purpose the most effectual is iodide of phenol, with which the cicatricial tissues may be repeatedly brushed over at short intervals. At the same time tampons of absorbent cotton soaked in tanno-glycerine may be introduced daily, and when the subacute inflammatory action has been thus modified these applications may be discontinued, and warm irrigation with any astringent antiseptic, such as the sulpho-carbolate of zinc, employed three or four times daily. Under this treatment all the before-described symptoms sometimes subside, but too often the way is only thus paved for the radical cure of the morbid state by the operation which must be always associated with Dr. Emmet's name.

The results of this procedure, in the cases in which I have performed trachelorrhaphy both in my hospital and in private practice, and which I hope on another occasion to bring the details of before the Society—as this paper is already too long to permit my now doing so—have been sufficiently successful to warrant its repetition in any similar cases. For the benefit of those who have not yet employed this valuable operation it may, perhaps, be here briefly described. In the first place, care should be taken to prepare the patient for its performance for some time beforehand by syringing or irrigating the vagina repeatedly each day with warm antiseptic injections, so as to wash away thoroughly all the viscid and unhealthy secretions of the inflamed or ulcerated surfaces, and to minimise the cervical congestion. Then, after free purgation on the preceding day, the patient may be considered ready for the operation, which is thus performed:—The cervix is to be firmly drawn down, as far as possible, by a vulsellum fixed in its most hypertrophied flap. The hardened edges of the rent are now to be completely vivified with curved scissors, special care being taken to remove thoroughly all the thickened cicatricial tissue in the angles of the wound, avoiding, in so doing, the division of the circular artery. In order to make a wound the edges of which will come fairly together when closed, the opposing irregularly fissured, cicatricial surfaces must be boldly and deeply dissected out, so as to remove completely the inflammatory outgrowth, which in many cases may, in accordance with Virchow's views, be considered as a neoplasm rather than a mere cicatrix. With regard to the direction and extent of the incisions by which this is to be effected, whether by scissors or scalpel, and the number of sutures by which the wound is to be closed, it

is needless to occupy time, as these must depend entirely on the extent and form of the laceration in each case.

It matters little whether silk or silver wire be employed to close the wound. As a rule, however, I prefer silver wire for the sutures, which should be firmly twisted, cut off short, and left in for a week or ten days. Immediately after the operation a glycerine tampon should be applied to the cervix, and changed next day. After the second dressing the vagina should be syringed out with tepid chamomile tea twice a day until it is time to remove the stitches, when we may fairly hope to find the wound thoroughly cicatrised.

It must be added, however, that with regard to no operation should the surgeon's zeal be more tempered by his discretion than in this. It has been already pointed out that in some cases even of extensive cervical laceration trachelorrhaphy may possibly be dispensed with, and in its performance two conditions are especially needful—on the one hand, all the cicatricial tissues must be freely excised; and, on the other, the normal condition of the cervix and the subsequent integrity of the cervical canal must be carefully maintained.

Finally, it may be observed that the operation now described is occasionally unsuccessful, and in such cases, if the symptoms resulting from cervical laceration are sufficiently urgent, we have it still in our power to remove their cause by the amputation of the mutilated and hypertrophied cervix.

The PRESIDENT.—I am sure the Society must be indebted to Dr. More Madden, as he has been the first to bring forward a paper on this very important subject. The points upon which Dr. Madden has touched must be familiar to most of us. We have been all struck, I am sure, with the fact that in many cases where labour has terminated naturally there has been hæmorrhage for which we could not account. The hæmorrhage in some cases will go on although the uterus is sufficiently contracted, showing it does not arise from this cause. There is no doubt that hæmorrhage proceeds from laceration of the cervix uteri, but I must say that I have not seen a case of that kind that was not controllable by cold applications. At the Congress in London, Dr. Pallen, of New York, stated that cases of hæmorrhage occurring after labour, involving the necessity of mechanical appliances by means of wire sutures, were very frequent indeed. I ventured to express my opinion, founded on observation, that cases of lacerated cervix uteri were not of such frequent occurrence in Dublin. I cannot recollect more than three or four cases of injury to the cervix by laceration; and the only regret I have is that I did not try an operation on some of those cases. If I should meet another case I shall certainly try the plan recommended by Dr. Emmet, and practised by the American schools. No doubt many of the bad effects which occur after severe labour may be traceable to laceration of the cervix.

DR. KIDD.—I am quite sure there are many cases of chronic uterine disease which formerly resisted all treatment, or at all events were months if not years before any decided improvement was made in them, but which possibly might now be comparatively easily cured by Emmet's plan, which has conferred great benefits on suffering humanity. The idea of paring the edges and bringing them together, and in that way restoring the parts to their normal condition, is, so far as I know, entirely due to Dr. Emmet. Dr. Madden and you, Mr. President, have spoken of lacerations as the sources of hæmorrhage. You have described without naming it the hæmorrhage that used to be known as Gooch's hæmorrhage. I believe that really this hæmorrhage was laceration of the cervix uteri, although Gooch was not aware of it. His explanation of it, I think, was erroneous, the real explanation, in my opinion, being that it arose from laceration. There are two conditions in which lacerated cervix uteri is found—in one the mucous membrane is soft and covered with a thick discharge, and bleeds upon being touched; the whole cervix is in a state of engorgement. In the other case the parts become hard. This condition has been very well described by Dr. Goodell as like a head of celery that had been split. In this latter condition I have frequently pared the parts and brought them together, and they were thus restored to their normal condition. I have not attempted to operate on the more recent conditions, and I have not been able to make out whether Dr. Emmet has operated himself upon that condition, or whether he recommends it. For one thing, I think the hæmorrhage in such cases would be considerable. Dr. Emmet has described a peculiar instrument for controlling hæmorrhage before proceeding to the operation; but a pupil of Dr. Emmet's, who was here some time ago, assures me that he never saw him use this instrument himself, although he describes it very carefully in his book. The great difficulty that I have had is this: The tissue is tough and dense, and it is not easy in such cases to draw the uterus well down; it will seldom come down very far. You will have some inflammation of the tissues round the uterus, and it is not so safe to drag the uterus forcibly down in order to get at it. Dr. Madden has spoken of the artificial support, and in many of these cases I believe support will still be necessary to help to relieve the pain. The patient will bear the support better after the parts have been brought together. Months after delivery the cervix will still be in a very vascular condition. That is the condition that seemed to me the doubtful one to operate upon. In London, on the paper read there, this question was also discussed, but without any definite opinion being formed. I really do not think men have made up their minds about it. I think the majority of observers are of opinion that it is wiser to treat the case for some time with hot injections, and reduce the inflammatory condition before operating.

DR. HENRY.—Most of the mischief arising from ruptured cervixes is

due, I think, to the fact that they are not seen early enough. If the cases were brought under our notice earlier, and a preparatory course of treatment adopted and followed up, it might not be necessary to operate. Where there is only one large fissure on one side, and where there is no bilateral fissure on the opposite side, a preparatory course of treatment, if taken early, would, perhaps, be sufficient. Ruptures of the cervix are not always produced by the use of forceps.

DR. DUKE submitted an instrument which he had invented to be used in cases of this kind.

DR. MADDEN, in reply.—I am greatly pleased to find that the majority of those who have given their experience here are rather in favour of the importance of this subject as a matter worthy of consideration. I may state that cases of laceration are not so very frequent in Dublin. I have, however, seen it necessary to plug the uterus to stop bleeding long before Dr. Emmet's book was published. The cases of ruptures that I have seen were five in number. In three of these I put in sutures, and the womb fairly healed; and in the remaining two I adopted the other course with about the same result. It would be difficult to explain the method by which the cure was effected in some cases of this kind. I do not agree with Dr. Henry that the sooner we see these cases the earlier will we effect a cure. I think you want to get a little hardness about the parts first, and they will afterwards unite better. The instrument Dr. Duke has designed reflects credit on him.

CASE OF OBSTRUCTION OF THE INFERIOR CANALICULUS OF THE EYE BY
DACRYOLITHS.

CONCRETIONS formed by the deposit of the saline elements of the tears are but rarely observed. In the *American Journal of the Medical Sciences* for July, 1882, the case of a man, aged forty-six, is reported which came under the observation of Dr. Henry G. Cornwall, complaining of an interference with the escape of the tears from the left eye, which had annoyed him for ten years. An examination revealed lachrymal conjunctivitis, the lachrymal punctum slightly everted, its orifice of normal size, and the walls of the canal somewhat thickened. No accumulation of tears in, or any evidence of inflammation of the lachrymal sac. Suspecting a stricture of the canaliculus this passage was slit up by means of a delicate pair of scissors, one blade of the instrument passing readily through the canal without obstruction. On the following day on attempting to separate the edges of the incision, in order to prevent their union, by means of Bowman's probe held vertically, the instrument struck a gritty substance, which proved to be one of four dacryoliths which were arranged bead-like along the floor of the canal. The canal itself after their removal was found to be much enlarged as a result of this calcareous deposit.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF DUBLIN.

President—WILLIAM STOKES, M.D., F.R.C.S.I.

Secretary—E. H. BENNETT, M.D.

Fibro-lipoma of the Umbilicus simulating Hernia.—DR. BENNETT said: I have to show this specimen for Dr. Barton, who is not able to be present. It has been sent up to be presented to the Society by Dr. Travers Barton, Surgeon to the Lifford Infirmary, and is of very considerable interest. I will read his communication first:—Hugh G., aged thirty, married, has three children, was admitted into the County Hospital, February 2nd. Seven years ago he noticed a small lump at the side of his navel about the size of a walnut. This increased gradually for two years, when he paid £100 (\$500) to a surgeon in Pennsylvania who had promised to remove it. He put it back (?), but it soon returned, and the surgeon then *left* that State—with his £100. The tumour then gradually increased until six months ago, when it was half its present size; it then grew rapidly, and has now become so large that it prevents him from working. The patient is a strong, middle-sized man; he has always been healthy; bowels always regular; has never had any pain in the tumour. The tumour is of an oval shape, extending across the abdomen from the umbilicus to the left anterior superior spine of the ilium; it is slightly constricted at its base, measuring round the base 23 inches; it is freely movable under the skin and over the abdominal parietes, except over a small surface next to the umbilicus, where it is firmly adherent. The tumour is elastic and rather soft, but on the patient coughing or standing up it becomes hard and tense. At each extremity there is a hard, scirrhus-like mass in the tumour.

14th.—Assisted by Dr. Boyd I removed the tumour by an incision six inches in length, and then, dissecting it out from the surrounding parts, a portion about the size of a florin of the oblique tendon was removed with it, close to the umbilicus. This constituted its sole attachment to the abdominal walls. The wound, which was dressed antiseptically (the operation having been performed under the spray), was brought together by gut ligatures, hardened in chromic acid.

On examination I found the tumour to be composed chiefly of fat and fibrous tissue, portion of which was degenerating into a round-celled sarcoma as seen by microscopic examination.

After the operation the patient suffered acute pain in the wound, which was relieved by one-third of a grain of morphia hypodermically.

15th.—Temperature, morning, 100·8°; pulse, 96.

17th.—Temperature, 99°; pulse, 72; wound dressed; no pus; all healed except for about one inch, which had been left open for drainage; gut sutures came away (*i.e.*, had become soft, and absorbed in three days).

20th.—Patient (up in chair) convalescent; wound almost healed; dressed with ung. zinci.—*March 4, 1882.*

Diffuse Pulmonary Gangrene.—DR. FINNY said: This specimen belongs to a class of affections of the lung which are rather rare at all times, while the form presented here is still more rare—namely, diffused gangrene of the right lung. The patient was a labourer, aged forty-seven, who was admitted into the City of Dublin Hospital under my care on the 25th of February. As far as could be gathered from his history, he had been ailing for three months, but was not unable to work until a short time before his admission. He then saw the dispensary doctor, who said his lung was inflamed, and advised him to go to hospital at once. He demurred for two or three days, and then came to hospital on the 25th. His state on admission was almost one of collapse. His pulse was beating 120 in the minute, but could hardly be felt; his temperature was 97·2°; and he suffered from constant diarrhoea. His face was haggard, and he sank down in bed; in fact, he looked more like a dying man than anything else. We kept him alive by ether, turpentine, stimulants, and eggs and beeftea. The following day he made a little rally, and his temperature rose to 102·2° in the morning, and his pulse to 118. That was the highest figure his temperature reached during the rest of his stay in hospital. Two days afterwards it fell to 98°, and his pulse fell to 80. A physical examination on the day after admission showed that the lower lobe of the right lung was in a state of complete hepatisation; no crepitus was heard in any portion of it. The sputum that day was very slight and but little viscid, and evidently did not come from the consolidated lung. Three days afterwards—namely, on the 1st of March—it was viscid, tolerably copious, and of a prune juice colour. It was not as viscid as in sthenic pneumonia, but more so than in cases of ordinary bronchitis, and it was of a deep red or purple colour. From that symptom and his typhoid state I formed the opinion that he would not recover. An examination of the lung on that day showed that instead of absolute dulness, the anterior part of the lower lobe was tympanitic as far forwards as the nipple—a physical sign noted by Drs. Stokes and Hudson in cases of typhoid pneumonia. A couple of days afterwards diarrhoea, which was kept in check for a time, became the most prominent symptom, but there was no change in the sputum or the other general conditions. On the 4th the sputum began to present a decidedly unpleasant smell, and on the 6th it had a gangrenous odour. It also changed in appearance to a yellowish-green colour, with flocculent

masses, which lay separate, one over the other. The stench was not at first perceptible at a distance, but, on approaching the nasal organ to it, it was almost enough to cause vomiting. I have had experience of a great many bad smells, but I do not think I ever smelled anything like it. His breath on this occasion, and on several subsequent occasions, was not fœtid at all times; it was fœtid sometimes, in accordance with the observation of Dr. Stokes, who says:—"The stench is not constant, but may disappear more than once; while in some cases the expectoration is fœtid, and yet the breath free from odour, and it is often necessary that the patient should be made to cough in order to produce the stench." Messrs. Rilliet and Barthez have noted that out of 16 cases of gangrene of the lung in children, 5 had a gangrenous odour on the breath. On the 6th a cavity had plainly formed in the lung, extending for a considerable distance, and passing from the anterior portion of the lower lobe upwards and backwards under the angle of the scapula. His pulse ran up to 144, and on the following day it was the same. His temperature fell on the 7th to 97°, and he sank into a state of great exhaustion and semicoma. It was necessary on account of the smell to keep the windows constantly open, and for the last two days of his existence we had carbolic acid spray passing across his bed. You see before you the right lung. Its upper lobe is tolerably free from disease. The lower lobe was adherent to the ribs, and has the markings of the ribs on it. It seemed to be tolerably firm, but on cutting into it the whole of the interior was found to consist of this fœtid gangrenous matter, and affords a beautiful example of the disease. It is broken down, trabeculated, yellow in colour, and in one or two places contains a quantity of fœtid brown stuff. The lower portion of it tore while being taken out. You see that these conditions coincide with the result of the physical examination during life. The upper portion of the lobe is not gangrenous, but seems to be only in a state of congestion, although there is no sharp limitation between the gangrenous and the more healthy portions of the lung. On making an examination of the other organs we discovered nothing which could throw light on the cause of the disease. There appears to be what looks like a cancerous mass (one and a half inches by one-half inch) in the right lobe of the liver, but I cannot positively state that it is so. Since the time of Laënnec gangrene has been divided into local and diffused. Circumscribed gangrene of the lung is not very uncommon, though rare enough; but diffused gangrene is extremely rare. It is due, in my opinion, more to a morbid state of the patient than to either the amount or the suddenness of inflammation. Although Stokes considered that both of those causes might be factors in producing the state in question, he, perhaps, placed more stress on the extent of the inflammation than on the condition of the patient. However, I think that the low typhoid state of this patient was probably the cause of the pneumonia passing into general gangrene,

and the cachexia which he presented, and which may have been due to incipient cancer of the liver, would tend to confirm this view. Drs. Wilks and Moxon state that the general or diffused form of gangrene is commonly preceded by idiopathic pneumonia. They have written as follows on the subject:—"It does sometimes, but very rarely, occur, and generally arises from some constitutional cause or epidemic influence; thus we do not think we have met with a case for a considerable period, although a few years ago we had several such cases, but could not account for the occurrence except on the supposition of some epidemic, as influenza; in these the pneumonia rapidly passed into gangrene. In these cases the dead part passes by invisible stages into the healthy, there being no distinct boundaries between them; the most affected parts being soft, shreddy, and having a horrible odour, while the tissue around is soft and exudes a dirty coloured fluid." Since Dr. Stokes wrote no additional light has been thrown on the diagnosis of the disease. In truth there will not be found any peculiar physical signs to accompany gangrenous abscess of the lung; the only pathognomonic symptoms in addition to the physical signs of consolidation or softening or cavity in the lung will be the extraordinary and disgusting odour of the breath and expectoration, which makes the patient loathsome to himself and all around him.

DR. NIXON remarked that the difficulty was to trace any connexion between the nodule in the liver and the gangrenous conditions of the lung. Even if the nodule should turn out to be cancerous, he did not know that it would account for the gangrenous inflammation of the lung. In many of those cases the gangrene was the result of intense inflammation of the lung structure, leading to what was called by some large lung pneumonia; and in those cases the enlarged portion of the lung was often seen to be indented by the ribs in consequence of the great pressure occasioned by the enlargement. Where such conditions existed it was easy to understand that the compression would obstruct the passage of the blood through the bronchial arteries, and so lead to the death of the lung. Was there any history of intemperance in this case? because Dr. Anstie stated that gangrene was likely to follow inflammation of the lung occurring in drunkards. He explained that the repeated stimulation of the pneumogastric nerves, and the general stimulus of the nervous system in inebriates, being followed by subsequent depression, led to a lower enervation of the lung, and when inflammation followed it was of a low type.

MR. CROLY observed that while he was house surgeon of the City of Dublin Hospital between the years 1858 and 1860 there was an epidemic of typhoid pneumonia. The late Professor Benson lectured on the cases, amongst which were several of gangrene of the lung. The epidemic of pneumonia of the year 1858 was of a typhoid type, and Dr. Todd's

Lectures appeared about that time. He heard it remarked at the time—whether there was anything in it or not he could not say—that in every case of typhoid pneumonia the lung went rapidly into a state of solidification. During the stage in which blisters were applied some of the cases got iodide of potassium, and the question was asked could that treatment have anything to say to the gangrenous condition. In one case a man was dying at the very end of the range of wards, and the smell from him could be perceived at the door of the wards.

DR. DUFFEY asked was there any history of syphilis in Dr. Finny's case, because he thought the conditions of the liver more closely resembled syphiloma than malignant disease?

MR. CROLY asked was carbolic acid administered internally?

The CHAIRMAN observed that according to his experience in a vast number of instances gangrene of the lung occurred in persons who had battered about the world, and had not only drank, but had been badly clothed and fed, and otherwise had bad surroundings. They were, further, persons of such habits that they almost invariably let their chest affections run on until they became this terrible disease. As a general rule the existence of the sputum peculiar to it was a very dangerous sign. The size of the heart of the patient in the present case was remarkable. Dr. Finny had not mentioned the stature of the individual, but the heart seemed to be undersized. It was remarkable that the temperature had under no circumstances exceeded 100°. He had seen this disease become chronic and last for five or six weeks—the unfortunate patient being run down by perspirations, whilst his condition was most trying both to himself and all those surrounding him. He thought the constitution of the individual had more to say to this disease than any other circumstance.

DR. FINNY, in reply, said he believed a great deal more depended on the patient being in a low typhoid state than on either the extent or the amount of the pneumonia. He did not think enlargement of the lung a predisposing cause of this particular disease; if it were, gangrene of the lung would be more common than it was. He did not agree with Dr. Duffey that the nodule in the liver indicated anything syphilitic. He did not lay stress upon the connexion between the nodule and the gangrene, except in so far as the former was an index of that lowering of the constitution which was usually a concomitant of cancer, and which in this case might also have been a factor in predisposing the affection of lung. It was not the cancer that produced the disease of the lung—the low typhoid state of the patient was the principal factor in it. The man was not communicative, and no history was got from him, but there was a letter “D” branded on him, which told the tale that he had been once in the army, and had been discharged.—*March 4, 1882.*

Irideremia.—MR. ARTHUR BENSON said: This is the eye of a boy, aged ten, which I enucleated this morning in St. Mark's Ophthalmic Hospital. The only history I could get from his mother was that when he was nine days old he "got the pox (smallpox) which fell into his eyes and blinded him." He was in Cork for some time, and his mother consulted Dr. Macnaughton Jones, who advised enucleation, but she would not consent to it. When he was brought to me the sight was completely gone from the eye. The tension was excessive. The cornea was clear; the lens, which was partly luxated into the anterior chamber, was white and opaque, with calcareous masses in its substance. The iris was completely absent except one small sector above, the apex of which was adherent to the lens capsule. It is probable that the smallpox had very little to do with the eye in question, but the other eye had a leucoma of the cornea with synechia anterior, and partial cataract. The iris in that eye was perfectly formed, $V = \frac{8}{60}$. It is probable that the absence of iris was not congenital, but was the result of atrophy due to the pressure of the dislocated lens pushed forward by the high tension in the vitreous; the glaucomatous condition being the result of intra-uterine or infantile irido-chorioiditis. It is not very uncommon to see a considerable degree of atrophy of the iris in such cases; but such complete irideremia as there was in this case I have not often seen. The boy had suffered from some pain at times in the globe, which was very much enlarged, but there was no staphyloma present.—*March 11, 1882.*

Ovarian Tumour.—DR. ATHILL said: The only point of pathological interest in this tumour is that I have been able to trace pretty accurately its rate of growth. It is an ordinary multilocular ovarian tumour. I saw the patient on the 17th of December last. At that time she had an ovarian tumour, which was about the size of a foetal head. It was quite movable, and was distinctly fluctuating. The abdominal walls were thin, and I was able to satisfy myself that it was a multilocular cyst. She had given birth to a premature child in June—that is, six months previously—and I satisfied myself that at that time there was no tumour. We may therefore assume that the growth of the tumour dates from about that time; and in eight and a half months it had grown so much that the woman was of the size of a female at the full period of utero-gestation. I urged her to submit to an operation last December, but she declined to do so. By the 1st of March the tumour had increased to at least fourfold the size it then was. On examination it presented the ordinary symptoms of an ovarian multilocular tumour, there being, in addition to a large cyst in which fluctuation was very distinct, a secondary one, nearly solid, deep down on the left inguinal region. I was not, however, prepared for a congeries of cysts, of which the tumour proved to be made up. On plunging the trocar into the tumour about six quarts of clear fluid were

evacuated. After that I had to tap two or three other cysts, the contents of which were of a very different character, being glairy, and which were emptied with great difficulty. Several other cysts which were not opened then seemed to have been developed subsequently to the original one, which alone existed in December last, the date of my first examination; therefore, the greater portion of the tumour which I now present must have grown within the ten weeks. The exterior of the tumour is very vascular, and the abdominal walls were also wonderfully so. Although there were no symptoms prior to the operation which justified me in believing that there was any amount of serum in the peritoneum, I found that at the end of the operation, when I proceeded to clear the abdomen of fluid, I could not succeed in doing so; the fluid seemed to be secreted almost as fast I sponged it out. I consequently left in a drainage tube. The patient is perfectly well to-day. The tumour is more vascular than usual, and the rapidity of its growth is remarkable.—*March 11, 1882.*

Exophthalmic Goître.—DR. WINDLE said: These are the thyroid body, uterus and ovaries from a case of exophthalmic goître, which I am enabled to show through the kindness of Dr. Head, under whose care the patient was. For the notes of the clinical history of the case I am indebted to my friend Mr. B. Morgan Dockrell, who was resident in the Adelaide Hospital during the patient's stay in it. Four years before her admission to the Adelaide Hospital the patient suffered from rheumatism; but she was not aware that her heart suffered at the time. Two months before her admission in November she had a severe fit of coughing, which was followed by dyspnœa; and after this she noticed that she had a tumour in her neck which pulsated. Her catamenia had been regular, but scanty. On admission to hospital the following facts were noted:—Her eyes protruded considerably, and she was not able to close her eyelids. She could not lie down at all on account of the dyspnœa, and could only rest by sitting up, propped with pillows. In her neck was a large pulsating tumour. Her cough was very troublesome. The action of her heart was extremely rapid and irregular, occasionally intermitting. It is impossible to explain in any way what the rhythm of the heart was like. There was certainly an apical systolic murmur. She was treated with iron and digitalis, and her condition improved considerably. She then caught cold, and exhibited some symptoms of catarrhal pneumonia; but the prominence of her eyes having decreased, and the action of the heart being more regular, she went out. After an absence from hospital of two months she came back; and on the evening of the day on which she came in she went to sleep, and then suddenly woke up with a scream, and died in ten minutes in a state of collapse. When in hospital for the first time an examination of her eyes was made by Dr. Beatty; he considered that the discs and arteries were perfectly normal, but that the

veins were, perhaps, a little tortuous. There was no pulsation visible in the retinal vessels. I made a *post mortem* examination twenty hours after death. The eyes were half open, and it was found impossible to close the eyelids. There was a quantity of grumous black substance exuding from the mouth. On external examination the thyroid body showed very much enlargement on both sides. The right side was somewhat rhomboidal in shape, and measured from the anterior superior to the posterior inferior angle 5·5 centimetres, and from the posterior superior to the anterior inferior angle 6·5 centimetres. The left side was more triangular in appearance. The anterior line measured 5·5 centimetres, and the posterior line 4·5 centimetres, and the base 4·0 centimetres. There was slight venous radiation on both sides of the neck. The mammæ were extremely small. The body was well nourished. On dissecting the neck the glands on the left side were found to be enlarged. On both sides the sternohyoid and sternothyroid muscles were very much stretched, and were very thin, so much so as to be semi-transparent. I made a careful dissection of the cervical sympathetic and its connexions on both sides but found no lesion discoverable by the naked eye in connexion with them. We were not allowed to open the skull; but I enucleated the eyes and subsequently replaced them, and, as far as possible, examined the interior of the orbits with my finger, and it appeared to me that there was more fat in them than was natural. I do not, however, wish to lay too much emphasis on this point, as it is difficult to judge of the exact amount of fat present when a dissection has not been made from within the cranium. On opening the cavity of the thorax nothing abnormal was seen; but on slitting into the pericardium I found it extensively adherent to the heart, and the heart itself was somewhat hypertrophied and dilated; the aortic and pulmonary valves were competent. The interior of the right auricle showed a number of yellow patches, and in the left auricle also were found some similar patches. The mitral orifice was larger than was normal, and there were a number of nodules on its anterior flap. The lungs presented only some patches of consolidation. The ovaries were very much harder than is normal. I took them to Mr. Abraham, who made a microscopical section of one, which he says is extensively degenerated, but he has not as yet determined the nature of the degeneration. The thyroid body he examined, and he says it is simply hypertrophied, without any particular degeneration. I found it very hard to determine the cause of death. She said she had not slept properly for the two months previous to her second admission; and I thought death might have been due to nervous exhaustion. There were no lesions in the parts of the body that we opened which would account for death, and as we were not permitted to open the skull it is impossible to be absolutely certain of the cause of death. She had fits of dyspnœa, but her death was not preceded by any particular dyspnœa.

DR. WALTER SMITH.—In cases of enlarged thyroid death sometimes results from the yielding of the trachea.

DR. WINDLE.—I did not notice any lesion of that sort in the dissection which I made.—*March 18, 1882.*

Medullary Sarcoma of the Eye.—MR. ORMSBY said: This is an interesting specimen of medullary sarcoma, which was removed by me on Wednesday morning from the right orbit of a child, aged three years. The history of the case is as follows:—

P. C., aged three years, from Ardfert, County Kerry, was admitted to the Meath Hospital on the 10th of March, 1882, under my care, suffering from a large tumour, about three inches long, projecting outwards from the right orbit. The tumour, apparently, had its origin in an attack of catarrhal ophthalmia about a week before last Christmas. From that time the eye swelled and the tumour grew rapidly, destroying the sight of the eye in a very short time. So quickly did the tumour grow, that the increase in size was noticed from day to day. He never seemed to suffer much pain, but wasted rapidly, having previously been very healthy and robust.

On his admission to hospital the child was weak, pale, and debilitated. The tumour was red and had a most malignant aspect; when touched or rubbed roughly it bled profusely from its summit; the bleeding had to be restrained by the application of styptics.

I performed the operation on the 15th instant, having determined to extirpate the growth together with the whole contents of the affected orbit. I began by cutting the superficial structures with a curved blunt-pointed scissors, so as to separate the tumour from the upper and lower lids, to which it was found to be intimately attached. Having done this, I divided the deeper structures, and completely cleared out the whole contents of the orbit. Portions of the tumour broke down by the pressure of the finger, and some smart hæmorrhage occurred. The optic nerve appeared to be attached to the posterior part of the tumour, which I ligatured and divided in front of the ligature. I then gently plugged the orbit with strips of lint steeped in cold water. After the growth was removed it was remarkable how little hæmorrhage followed; and up to the present the child has been doing very well. I consider the tumour is a malignant one, belonging to that form of disease usually called *Medullary Sarcoma*, or *Fungus Hæmatodes*. I am afraid the tumour may return; but still I thought it my duty to give the child a chance by removing this very remarkable and, in my opinion, malignant growth. Mr. Benson, Surgeon to St. Mark's Ophthalmic Hospital, also saw the case. I also present for inspection two photographs, which were taken before the tumour was removed, and they depict very well the size and appearance this very unsightly growth gave to the little patient.

MR. BENSON remarked that a curious feature in the case seemed to be the complete adhesion that existed between the lids and the globe of the eye. It was continuous with the surface of the cornea, which was quite carneous. The tumour began as an intraocular one.—*March 18, 1882.*

Clonic Torticollis.—MR. ORMSBY exhibited a young man, aged twenty-three years, who suffered from a spasmodic contraction of the muscles of the right side of the neck. His head was continually in motion owing to the action of these muscles, and the only rest he got was when asleep. The affection was described differently in the various works on nervous diseases. *Clonic Torticollis*, perhaps, would correctly designate the disease the young man suffered from.

As the patient stood, his head appeared to be drawn forcibly to the right side in rapid, spasmodic jerks; and if the head was controlled in any way, by holding it with the hands, it seemed to increase the force of the spasm, and gave the patient very great pain. The patient is anxious and dejected, and seems greatly disappointed that nothing can be done to keep his head quiet. He gave the following history:—

F. F., aged twenty-three years, a farm labourer, from Blessington, County Wicklow, was admitted to the Meath Hospital on March 2nd, 1882, under Mr. Ormsby's care, suffering from choreiform movement of the muscles of the right side of the neck. The movement was almost continuous, and became greatly aggravated when he stood up, or turned suddenly round, or was excited by the presence of strangers.

Those aggravated attacks caused some pain in the neck, and the patient feared them greatly, holding his head with both hands to try to restrain the movement.

He slept quietly, but the spasms recommenced immediately when he wakened. He was an only son; his father and mother were both alive and healthy. He was always nervous. About five or six years ago he noticed that the nervousness greatly increased, especially when among strangers. Six years ago he was knocked down by a blow with a sweeping-brush on his head, but did not suffer any inconvenience. He had frequently suffered from lightness of the head, with flashes of light before the eyes, or sometimes dimness of vision.

He suffered from epistaxis from the right nostril, "on and off," for about two years, but that had entirely ceased for the last twelve months. When coming home from a fair, about a year and a half ago, "hearty," but not "drunk," he got a blow of a stone on his head near the posterior superior angle of the left parietal bone. His head was slightly cut; he suffered very little inconvenience from this, getting it dressed only once. He had suffered from nocturnal emissions for the past two years; they had become somewhat more frequent of late. He acknowledged to his having masturbated "once" or "twice." He dated

his present illness from March, 1881. The symptoms developed very slowly. For some time he had only occasional "slight tremblings" of the neck, with dimness of vision. He was never really bad until January, 1882, when, coming home from a fair, having partaken freely of stimulants while in the market, he then got this spasmodic action of the muscles, which has continued more or less ever since.

He was seen by Dr. Bleakley, of Blessington, who tried various remedies with him, which did not seem to improve his condition in any way—such as blistering on the back of the neck, galvanism, sedatives. He after some time was sent to Mr. Ormsby, who examined him carefully. He had, on admission, a very pasty, pale appearance in his face; his voice was weak; his pupils were widely dilated; and he had the appearance of being a masturbator; but, as mentioned before, he confessed to have only been guilty of this sin on only one or two occasions.

March 4th, 1882.—He was ordered to take, three times a day, the following draught:—

℞ Potassii bromidi, gr. 22.
Spt. chloroform, ℥. xv.
Tinct. sumbul, ℥. xxx.
Aquæ ad ʒ i.

Fiat haustus.

M.

March 5th.—He expressed himself much better. This morning the movement of head was not nearly so violent, and he said that it had not commenced for two or three minutes after wakening. In the evening, on being awakened and made to sit up, the movement did not come on for five or six minutes.

March 6th.—Much the same. He feels easier to-day sitting up than lying down. Each day appeared to be very much the same as regards his condition.

March 13th.—He was still the same; muscular contraction in the neck very violent. He was then ordered to take the following draught three times a day:—

℞ Bromidi ammoniæ, gr. 22.
Iodidi potassii, gr. 15.
Tinct. sumbul, ℥. lx.
Aquæ chloroformi ad ʒ i.

Fiat haustus.

M.

March 14th.—The movement did not commence this morning for nearly half an hour, and the sterno-mastoid muscle was not so rigid.

March 16th.—Was then ordered a pill containing 2 grains of valerianate of zinc; one to be taken three times a day.

DR. FINNY.—Was electricity tried?

MR. ORMSBY.—It was tried once in the country by Dr. Bleakley, and it made him considerably worse.

The PRESIDENT.—Had the medical treatment any effect?

MR. ORMSBY said it did not seem to do the patient the slightest good. They were giving him 15 grains of bromide of potassium and 5 grains valerianate of zinc three times a day.

The PRESIDENT said he remembered reading a paper in the *London Medical Record*, which stated that most satisfactory results were obtained by stretching the spinal accessory nerve.—*March 18, 1882.*

Gangrene of the Lung.—DR. FINNY said: This day week I laid before the Society an example of diffuse gangrene of the lung in a patient, aged forty-seven; to-day I have to show another example of that disease occurring in a man, aged twenty-two, who was admitted into my hospital on the 8th of this month. The history of his case was taken by Mr. Mulliver. He had been drinking rather freely for a fortnight before he became ill, but never showed any symptoms of *delirium tremens*, nor was he obliged to discontinue his work. He had had a cough during the winter. His father died of inflammation of the lungs, and all the members of his family were liable to lung affections. Six days before his admission he had a cough and some slight expectoration, which, he states, became darker on two or three occasions at intervals. When admitted his appearance was not that of a man who was soon likely to end his days. He was a stout, well-built young man, well covered with flesh and muscle; but his face had a haggard anxious look, and his forehead was frequently covered with perspiration, and especially so after an attack of coughing. His tongue trembled on protrusion, and was very clean and healthy looking. The decubitus was dorsal, and he disliked very much being stirred. He complained of pain of a stitching character under the left breast; and he said that if he sat up in bed, or turned on his right side, or was moved much, he would feel something bubbling in his left side, and that he would have to cough. The cough came in fits, during which the patient was nervous, excited, and breathless. His expectoration on the day of his admission, and for two days afterwards, was only the ordinary slight white phlegm that we are accustomed to see in pleurisy. It had no bad smell on the day of his admission, nor for some days afterwards; but when I examined him a bad smell caught my attention. At first, however, I thought it might have proceeded from a neighbouring patient, as it was more like the smell from a night chair than anything else. It came and went; I tried his breath, but it was not on it. It induced me, however, to make the remark, that I trusted we had not another case of gangrene of the lungs. His pulse on admission was 108 in the evening, and his temperature 101.° He had got no sleep for some days; but with the exception of that, and

the general symptoms of nervousness I have mentioned, and which were due, in some measure, to his drinking habits, there was nothing remarkable about him. His pulse was not feeble, and there were no signs of great prostration. On examining his chest I found a very well-marked friction sound below the left nipple, with both expiration and inspiration, while over the same place the percussion note was tympanitically clear. It seemed as if this high note was due to the stomach, which was full of air, and seemed to pass well under the left hypochondrium. No opinion, consequently, was given as to the cause of the tympany until the bowels had been cleared out by an aperient. On this day the left side of the thorax was strapped, from which he derived considerable comfort; the pain in the side was relieved, and he was able to move himself about without distress. On the 11th—three days after his admission—his temperature in the morning was 102°, and in the evening, 103°; and his pulse varied morning and evening between 100 and 108. The sputum became more copious and extremely foetid, so that it was most unpleasant to stand in front of him as he coughed, or to hold the spitting cup near one. From that time until the 15th the smell continued to be extremely bad, so much so that you could perceive it a long way off when you came into the ward—further off than in the case of the other patient whose case I detailed lately—and it was necessary to resort to various means in order to keep it down. He himself said that the stuff he coughed up had a horrible taste; and he disliked coughing partly on that account. His expectoration was generally between five and seven ounces in the twenty-four hours—ten ounces being the greatest quantity. It was frothy, and on removing the froth the part underneath was like porter. Upon a physical examination, made two days before his death, we found that dulness extended from three fingers breadth below the angle of the scapula behind, and the whole way down along the spine obliquely to the eighth rib, and to the posterior fold of the left axilla. There it changed its character and became tympanitic, exactly as it was on admission, only more extensive, for the tympanitic area extended between the two folds of the axilla, and stopped two inches outside the nipple. The respiration over the dull part was somewhat tubular; there was but little bronchophony, and vocal fremitus was not increased; there was not, at any time, in this region characteristic pneumonic crepitus. At the edge of the dull portion there was a distinct soft crepitus, while over the tympanitic and clear portion a friction sound could be developed at will by deep inspiration. A cavernous sound was heard over this clear region, but it did not approach amphoric respiration. It was on making the patient cough and take full breaths that we heard the cavernous ring. The breathing was feeble all over. His urine was examined at this period, and was found to contain a very small quantity of albumen, which increased somewhat during the last few days of his life. The specific

gravity of the urine was 1027, and on the addition of nitric acid it threw down a copious deposit of nitrate of urea, but it was free from bile or sugar. The day before his death his temperature was not as high as it had been, but the smell was most abominable; I do not know any word to express it; it was not cadaveric or fæcal, it was most like that which proceeds from the opened intestines of a subject sometime dead.

On the morning of the 16th, which was the day of his death, there was a remarkable change as regarded the sputum. No smell could be perceived near him; you could go quite up to him, and get him to cough without perceiving any smell. The sputum itself was examined, and was found to have no smell. Whether this was due to the treatment which had been resorted to, of chlorinated soda and the inhalation of carbolic acid and iodine, or was from some other cause, I do not know. There was also an equally marked change in the physical signs. On the back of the lung dulness had ceased between the tenth and twelfth ribs, and there was a clear note on percussion. The tympanitic region had become less tympanitic. The patient had not coughed up so much as usual that morning, and I presume the cause of the diminution of the tympany in the axilla was due to the amount of fluid which had accumulated in the cavity. The patient complained a good deal of pain when percussed over the region of the clear note boundary at the tenth rib. He said that percussing him sharply there caused the nasty stuff to come up. In the afternoon of that day, without any exciting cause, he began to spit blood, and at half-past three o'clock an ounce and a half of blood was coughed up. He became greatly exhausted, and was almost pulseless at the wrist; and then he rallied, and his pulse was 150 at the wrist, his temperature falling to 99°. His chest in front became more dull than before. He rallied sufficiently to see his clergyman, observe his own case, and take his chart, and remarked "that his temperature was going down." In three hours afterwards he was dead. Bleeding, I presume, which had been temporarily arrested, had gone on into the cavity, for his coughing and expectoration had almost ceased four hours before death. I made a *post mortem* twelve hours after his death. The body was well nourished, and the *rigor mortis* and *post mortem* staining well pronounced, and the body was not very blanched. Percussion over the whole of the left side of the chest was highly tympanitic, and showed that air had made its way into the cavity of the pleura. On cutting through the chest wall, at the division of the ribs, air which had no bad smell whistled out. We found the right lung normal and healthy. The anterior portion of the lower lobe of the left lung was adherent to the ribs at the sixth rib, corresponding to the place where the friction sound was heard. It seemed to form a wall of pulmonary tissue, which lay between two seas of blood. One side of the pleural cavity was full of dark, bloody matter, and between the pericardium and the heart there

was another collection of blood. Both communicated with each other. The fibrinous exudation was extremely thick, though soft, showing that the pleurisy was of recent date. The lung was taken out without much difficulty, except for the smell, which nearly made all present sick. There is a large cavity in the back of the lower part of the lobe, which is stained with the blood from the loss of which the patient died. The whole lower lobe of the lung is in a state of consolidation, and the cavity extends through it quite to the pleura in the region where the tympanitic note was last heard. The cavity is the centre of a pneumonic process all round it, which was rapidly going into gangrene. The case affords a good example of rotten condition of the middle of the lung. As the case is an example of that rare disease of general gangrene of the lung which had been cut short by hæmorrhage I thought it well worth exhibiting to the Society. There was nothing remarkable in the kidneys, except some cysts. They are rather larger than is natural, but I do not think they had anything more than a slight connexion with the disease which is before you. The heart was small, but perfectly healthy, and firmly contracted. The liver was slightly enlarged, but not the subject of degeneration to any extent.—*March 18, 1882.*

Mediastinal Sarcoma.—DR. J. W. MOORE said: These parts were removed from the body of a female servant, aged fifty-five years, who was admitted into the Meath Hospital on the evening of the 15th of March. I had not an opportunity of seeing her alive, but my clinical clerk, Mr. Reardon, saw her shortly after her admission, and the following are the results of his physical examination :—

She had been complaining for the past four months of pains in her arms, chest, and limbs, which were getting worse every day. On inspection, the right side of the chest was almost motionless. The percussion note was exceedingly dull, and, on auscultation, one or two loud bubbling râles were the only evidence of respiratory movement. The left lung appeared to have taken on compensatory action, and was doing its work well. The right arm had become œdematous two or three days previously, and was cold, but had a distinct radial pulse. The lower extremities and the left arm were normal in size and warmth. The head was healthy, and her mental faculties were unimpaired. Her state did not seem urgent; but at ten o'clock at night a change for the worse set in, and she died at seven o'clock next morning.

At the autopsy, on cutting through the right costal cartilages, a new growth of a brownish-yellow colour, having the appearance of hyaline cartilage, was noticed between and around them, extending from the second rib to the level of the diaphragm. This mass is thicker below, where it forms an ill-defined tumour one inch in thickness. The new growth passes backwards to the spine along the diaphragm, principally

on the right side, which is thickened in consequence. Along the spine it extends upwards to the third dorsal vertebra, and downwards to the fourth lumbar. The tumour is intimately adherent to the spine. The right lung is completely collapsed and absolutely airless; it is covered by a greatly-thickened pleura, in which there are adhesions of very old standing. The left lung is congested, and in a condition, I presume, of collateral hyperæmia, and the pleura on that side is considerably thickened. The heart is apparently healthy. The thoracic aorta and the abdominal aorta are surrounded by the growth, in which they have formed a tunnel or canal. The upper part of the growth is close to the trachea, and it surrounds the innominate artery, although it does not seem to have occluded it. The lymphatic glands behind the liver are much enlarged. The liver itself presents appearances of perihepatitis of old standing, and the left lobe is considerably atrophied, and in a state of cirrhosis. A constriction across the liver is probably the result of tight lacing.—*March 18, 1882.*

THE GEOGRAPHICAL AND CLIMATIC RELATIONS OF PNEUMONIA.

FROM a valuable paper on this subject, by Dr. E. Sanders, published in the *American Journal of the Medical Sciences* for July, 1882, we extract the following conclusions:—1. The relations of pneumonia to altitude are definite and marked; with increase in elevation above the level of the sea, there is a steady diminution in the death-rate of pneumonia. 2. The mean annual rainfall of a place bears no positive relation to pneumonia. 3. The higher the death-rate of a place from all causes, the greater the mortality from pneumonia. 4. The larger the actual population of a locality, the greater its relative death-rate from pneumonia. 5. There is a direct, positive, and unequivocal relation between the mean annual temperature of a place and its death-rate from pneumonia, the rule being that a high mortality from the disease coincides with a high mean annual temperature. 6. Proximity to large bodies of water, such as lakes, inland seas, or the ocean, exerts no appreciable influence on the pneumonia-rate. 7. For North America, pneumonia increases in frequency as we pass from east to west; for Europe as we advance from west to east, the rate of increase being very nearly twice as great in the case of the latter as in that of the former. 8. Pneumonia, all other things being equal, increases in frequency the further we advance from the polar regions towards the tropics; this, however, only up to a certain parallel, beyond which it seems to become less and less commonly met with, until at or near the equator, where it apparently disappears.

TRANSACTIONS OF THE ULSTER MEDICAL SOCIETY.

SESSION 1881-82.

President—PROFESSOR CUMING, M.D.
Hon. Secretary—WILLIAM WHITLA, M.D.

Tuesday, May 2, 1882.

The PRESIDENT in the Chair.

Recruiting. By DR. M'FARLAND, Brigade-Surgeon, A.M.D.

THE subject of Recruiting is not one of much importance to the medical profession in Belfast, as there is a military dépôt here where recruits are at once seen and examined by a military medical officer. I selected the subject for the last meeting of the Ulster Medical Society, as I thought some of our brethren from other towns would be present, who frequently have to examine recruits, and to whom the following hints might be of use, or, at any rate, would be calculated to put them on a good understanding with their military brethren.

Very frequently recruits are passed in country towns by civilian practitioners, sent up to the dépôt for approval, and there rejected as unfit for the service. Now, when this happens repeatedly, the civil doctor feels his dignity hurt, and sometimes imagines there is an animus on the part of the military surgeon. It is no unusual thing to see him come up to the dépôt to ask the meaning of all these rejections. The truth is that the military surgeon is not actuated by any animus, nor has he any feeling of dignity on the subject, but simply has to protect himself from an official scrape.

The rule of the service is that the approving medical officer must be a military surgeon on full pay. This does not mean that he is more competent than a civil doctor, or than a military surgeon like myself on retired pay; but it is that the authorities can call him to account if he passes bad recruits in a way that cannot be done to us. He may be removed from his appointment, declared to be inefficient, or punished in various ways.

Once a recruit comes before a military medical officer for approval, that officer is solely responsible for him. Whatever correspondence takes place afterwards is with this military surgeon. If a man is found to be under height or under chest measurement on joining his regiment,

the officer commanding is bound to report the fact to the Commander-in-Chief, who then calls upon the officer commanding the dépôt where the recruit was approved for an explanation why the recruit was passed into the service under the regulation size? The officer commanding the dépôt then calls on the approving surgeon, who has then to defend his position as best he can. If a recruit is declared unfit from other causes—say defective sight, not being able to see the target at the required distance—a medical board is ordered to assemble, and if the board declares the recruit to be unfit for the service, the military surgeon is called upon to explain why he approved of a recruit who was afterwards declared to be unfit for the service by a board of medical officers—a very difficult and unpleasant question to answer.

You will see from these remarks that it is of vital importance to a military surgeon that his recruits are not objected to. Written rules are laid down by Government on the subject; but like an operation in surgery, it is one thing to know how it is done, but another thing to do it practically. By following the rules I will now give there is little chance of recruits being objected to on joining their regiments.

There are two *sine quâ non* rules which must be observed. One is, the recruit must be examined perfectly naked, and the other that the surgeon make the examination himself. I will illustrate the first rule by one case that occurred to me out of many of the sort. I found a young soldier in the ranks of a regiment I had charge of lame and unable to march. He had bunions and deformed toes. On questioning him as to how he passed the doctor, he told me the doctor was in a hurry, and that he was stripped all to his stockings! No doubt the recruiting sergeant made him keep them on!! It is most essential that a line soldier should have good feet. There is just one pattern boot worn by the infantry; it is called the ammunition; it is the best worn by soldiers of any European army, but a man must have good feet to wear it. They are, of course, made of different sizes, and are used in all climates. A soldier may be served out with them when on active service, and, of course, must be able to wear them at once. The man I speak of could not wear the ammunition boot at all. Secondly. The approving surgeon must examine the recruit himself, as otherwise he may be imposed upon. In any case he must be in a position to say, if the recruit should be objected to, that he examined the man, and found so and so. It will not do to say he saw the man examined, or was present.

In examining a recruit, there are two men the doctor must beware of. One is the recruiting sergeant, and the other the recruit himself. The recruit will make the most of himself when he wants to enlist—stretch himself up when measured for height, try to swell himself out when measured for chest; but, by-and-by, when he joins his regiment, and begins to repent of the step he has taken, he will make the least of

himself. Commanding officers like to have big men in their regiments, and are only too glad to report if recruits are under the standard measurements. Directly the approving military surgeon signs a recruit's attestation paper passing him, the recruiting sergeant gets one pound in cash. These fellows are as wily as foxes; they know that a recruit is taller in the morning than evening, so if he is a little under size they will keep a lad in bed a couple of days, and bring him straight over to be examined, so as to gain perhaps the required half inch. A recruit with varicose veins to any extent is ineligible. A recruiting sergeant will bandage him up to the last minute. Recruits must be eighteen to twenty-five years of age; they will smarten up a man of thirty, make him shave off his whiskers, get his hair cut short, assume a juvenile air, and swear he is only twenty-five. The surgeon is responsible for a recruit's apparent age.

The examination of a recruit and filling up of his attestation paper takes seven or eight minutes, and should be done in the following way:—First, take a good look at him, stripped; if he has inveterate skin disease, marks of scrofula, syphilis, bad varicose veins, rupture, adherent cicatrix, or deformity, reject him. If not measure him for height. This is done by making him stand on the measuring standard; put one end of a tape measure under his heels, keep a steady pull on the other end. If he rises on to his toes the tape will come from under his heels, and you will know it. If he has a great thatch of hair on the top of his head take off a quarter of an inch for it; bring the horizontal beam right down on the top of his head, and read off the measure from the index.

Next take the chest measurements. Make the recruit put his hands over his head, put the measuring tape on the inferior angles of the two scapulæ behind, then make him slowly let down his arms and count ten, and at the same time the surgeon draws the tape together across the chest when the recruit counts ten. This is the Government rule, but I have found from experiments that a man can count ten without any diminution of the chest; but make him count twenty, and, at fifteen or sixteen, he will catch his breath—that is the time to draw the tape together, and you will get his true measurements. The lower edge of the tape should rest on his nipples in front.

Next for the limbs. Make him kick out with both legs alternately, hop up and down the room on either feet, springing lightly on the toes; bend the ankle-joints and toes of each foot alternately, kneel down on one knee, up again, then on the other, then on both, springing up upright; then turn round, separate the legs, stoop and touch the ground with both hands, the knees being straight. In this position it will be seen if the recruit has piles, or fistula, &c.; rise up, turn round, stretch the arms up with hands over the head, cough forcibly. Examine in this

position for hernia or weak inguinal rings, also for varicocele—varicocele to any extent with dependent testicle is a cause for rejection. This completes the examination of lower extremities. Examination of upper extremities is done by making the recruit swing round one arm and then the other, to test shoulder-joints; then strike out both fists, to test elbow-joints; then press elbows to sides, with forearms flexed, and rotate forearms; then bend wrists, twist them round and round, open and shut fingers, to see if any are stiff or deformed; flex thumbs on palms of hands, and extend alternately; there must be perfect use of fingers and thumbs. This completes examination of upper extremities.

The heart and lungs are now to be carefully examined with the stethoscope to ascertain their soundness; any abnormality is cause for rejection. The recruit is to be asked if he has ever had fits of any kind. Mouth is to be carefully examined to ascertain if he has a fair set of teeth, throat free from ulceration, palate sound, &c. The ears are to be carefully examined, also the cranium and the eyes.

The test dots, War Office Form 1,233, are to be used for examining the sight. The recruit must be able to tell the number of dots at the required distance (15 feet) with each eye, one being covered while the other is being examined. This part of the recruit's examination must be performed with the greatest care and circumspection; it is of the utmost importance. Of no less importance is the next part of the examination—which is conversation with the recruit. The surgeon having placed the recruit at a distance holds conversation in a low tone of voice, to test his hearing powers by the recruit's answering; the surgeon will observe if there is any hesitation in his speech, and if his intellect is good. The recruit is also to call out in a loud voice "Who comes there?" It is of the utmost importance to ascertain the mental state of the recruit; the only guide, most likely, the surgeon will have will be the appearance of the recruit, and his answers to questions.

This, gentlemen, is the ordeal to which any approving military surgeon will subject a recruit; and civil practitioners may rest assured that unless the recruit can satisfactorily pass through this ordeal he will be declared unfit for the service.

. *Pseudo-hypertrophic Muscular Paralysis.*

DR. M'FARLAND at the same time showed two interesting cases of pseudo-hypertrophic muscular paralysis occurring in a brother and sister. Both were very typical cases. The father of the children had been confined in an asylum, but was now employed as a porter. He seemed of very inferior intelligence, and very reticent, or else very stupid. This relationship with a father of unsound mind was considered to be a point of great importance in the case.

SANITARY AND METEOROLOGICAL NOTES.

Compiled by J. W. MOORE, M.D., F.K.Q.C.P.

VITAL STATISTICS

Of the Eight Largest Towns in Ireland, for Four Weeks ending Saturday, August 12, 1882.

Towns	Population in 1881 (Unre- vised)	Births Registered	DEATHS REGISTERED			DEATHS FROM ZYMOTIC DISEASES							Deaths from Phtisies	Annual Rate of Mortality per 1,000 Inhabitants
			Total Number	Under 1 year	At 60 years and upwards	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea		
Dublin, -	348,293	767	595	124	141	-	5	1	1	1	16	27	89	22.2
Belfast, -	207,671	517	308	64	36	2	11	9	-	7	7	32	43	19.3
Cork, -	78,361	170	109	15	19	-	3	-	-	1	2	5	21	18.1
Limerick, -	38,600	99	59	10	18	-	-	2	-	-	-	2	9	19.9
Derry, -	28,947	45	47	8	11	-	6	-	-	-	-	3	3	21.1
Waterford,	22,401	57	30	4	5	-	-	-	-	-	-	1	1	17.4
Newry, -	14,782	26	19	4	6	-	-	-	1	-	1	1	2	16.7
Galway, -	14,621	31	25	4	10	-	-	-	-	-	-	1	3	22.2

Remarks.

The mortality was generally moderate or low—a continuance of cool, showery weather to the end of July having had its usual favourable effect on the Public Health. It will be noted from the foregoing Table that, although the general death-rate was nearly 3 per 1,000 lower in Belfast than it was in Dublin, yet zymotic diseases were relatively much more fatal in the capital of Ulster than in the metropolis. In fact, the rate of mortality represented by the deaths from the seven principal zymotics was only 1.9 per 1,000 of the population annually in Dublin, while it was 4.1 per 1,000 in Belfast. The death-rate of the four weeks was 20.0 per 1,000 in twenty-eight large English towns (including London, in which it was only 18.5), 20.3 in the sixteen principal town-districts of Ireland, 18.3 in Edinburgh, and 23.1 in Glasgow. As regards Dublin, if we except the deaths (16 in number) of persons admitted into public institutions from localities outside the Registration District, the death-rate in that district becomes 21.6 per 1,000, while that within the municipal boundary is as high as 24.8.

In the Dublin Registration District 595 deaths were registered, compared with 542 and 631 in the two preceding periods respectively. The increased mortality occurred specially at the extremes of life—the deaths of children under one year having risen from 84 to 124; those of persons aged 60 years and upwards having likewise risen, although not in the same degree, from 122 to 141. To zymotic affections 72 deaths were attributed against only 59 in the previous four weeks. The average number of zymotic deaths in the corresponding period of the preceding ten years was, however, 127·3. The deaths from measles fell from 9 to 5; those from fever rose from 13 to 16; those from diarrhœa (including dysentery) rose from 19 to 27. Of the 16 deaths ascribed to fever only 1 was caused by typhus, no less than 11 were referred to typhoid, and 4 were returned as due to “fever,” the type being ill-defined.

In Belfast, smallpox again caused 2 deaths, and there was a decided increase in the number of deaths from measles, scarlet fever, whooping-cough, and diarrhœa. Fever decreased considerably, the fatal cases being only 7 against 18 in the previous four weeks. The prevalence and fatality of summer diarrhœa in Belfast calls for remark. The deaths were 32, or more than double those registered (15) in the preceding period. Measles was still fatal, though in a less degree, in Londonderry. Diarrhœal diseases caused 72 deaths in the eight principal towns, compared with 50 and 29 respectively in the two most recent four-week periods.

Pulmonary consumption (phthisis) showed a lessened fatality in Belfast, but continued to contribute largely to the death-rate in several of the other towns. The deaths from this disease were 89 in Dublin, 43 in Belfast, and 21 in Cork. Respiratory affections proved fatal in 70 cases in Dublin, against a ten years’ average of 78·0 deaths. Bronchitis caused 47 of the 70 deaths (average=47·1), and pneumonia 13 (average=14·1). The decreasing fatality of this last-named disease is noteworthy. Hitherto, in the present year, pneumonia has been much more destructive to life than usual.

On Saturday, August 12, the number of patients suffering from the chief epidemic diseases under treatment in the leading Dublin hospitals were—smallpox, 0; measles, 2; scarlet fever, 5; typhus, 31; typhoid, 11; pneumonia, 6.

The mean temperature of the four weeks was 59·2° in Dublin, 61·4° at Greenwich, and 57·9° in Edinburgh.

METEOROLOGY.

*Abstract of Observations made at Dublin, Lat. 53° 20' N., Long. 6° 15' W.,
for the Month of July, 1882.*

Mean Height of Barometer,	-	-	-	29·755 inches.
Maximal Height of Barometer (at 9 p.m. of 26th),	-	-	-	30·388 „
Minimal Height of Barometer (at 4 30 p.m. of 6th),	-	-	-	29·108 „
Mean Dry-bulb Temperature,	-	-	-	59·0°.
Mean Wet-bulb Temperature,	-	-	-	55·4°.
Mean Dew-point Temperature,	-	-	-	52·2°.
Mean Elastic Force (Tension) of Aqueous Vapour,	-	-	-	·392 inch.
Mean Humidity,	-	-	-	78·6 per cent.
Highest Temperature in Shade (on 3rd),	-	-	-	70·0°.
Lowest Temperature in Shade (on 26th),	-	-	-	47·9°.
Lowest Temperature on Grass (Radiation) (on 26th),	-	-	-	43·4°.
Mean Amount of Cloud,	-	-	-	68·6 per cent.
Rainfall (on 25 days),	-	-	-	3·722 inches.
Greatest Daily Rainfall (on 1st),	-	-	-	·439 inch.
General Directions of Wind,	-	-	-	S.W., W.

Remarks.

A changeable, cool, breezy, showery month—the wind almost constantly from points between S.S.W. and W.N.W., and thunder being of frequent occurrence. The rainfall was considerably in excess of the average (3·722 inches, compared with 2·543 inches), and the rainy days were 25, against an average for July of 16·4. Most of the rain fell by day in the form of heavy showers, and in this respect the weather of the month was semi-tropical in character—fine, often bright mornings were followed by the formation of massive cumulus clouds in the forenoon, which precipitated themselves as drenching thunder-showers later in the day, the evenings again becoming fine and frequently clear and cool. During the greater part of the month atmospherical depressions travelled north-eastwards along the western coasts of Ireland, Scotland, and Norway, while the barometer was relatively high over Spain, France, and Italy. Hence the strong S.W. winds and changeable weather already described. On Tuesday, the 11th, a well-marked depression, which at 8 a.m. lay between Waterford and Cornwall, travelled eastwards across the South of England, where very heavy rains occurred. Near Dublin, which was of course north of the storm-centre, the sky was on this day almost overcast with a canopy of cirro-stratus cloud, and the wind backed from S.E., through E., N.E., and N. to N.W., with only a few drops of rain at times. In the third week some very warm weather was experienced in Sweden, even as far north as latitude 66°; the thermometer rose to 86° F. at Stockholm and to 81° F.

at Hernösand, at a time when the highest reading in Dublin was only 67° F. Towards the close of the month a change in the distribution of pressure in the W. and N.W. of Europe was noticed, which promised drier and finer weather. The barometer gave way over Sweden and the Baltic, and rose off the S. of Ireland. Hence the wind tended to draw into N.W. For several days the higher clouds were seen to be travelling constantly from this point, even when the surface current was strong from W. or W.S.W. In Dublin the mean temperature of the month was 1.3° below the average of the previous seventeen years. Thunderstorms occurred on the 1st and 6th, the latter being particularly severe about six to eight miles N.W. of the city of Dublin. Thunder was also heard on the 7th, 8th, 17th, 19th, 23rd, and 24th. On the last-named day hail fell heavily in Dublin at 12 15 and 2 p.m. Solar halos were observed on the 2nd, 3rd, and 26th.

PERISCOPE.

Edited by G. F. DUFFEY, M.D., F.K.Q.C.P.

THE TREATMENT OF HÆMORRHOIDS BY INJECTIONS OF CARBOLIC ACID.

DR. CHARLES B. KELSEY, Surgeon to St. Paul's Infirmary for Diseases of the Rectum, New York, recently opened a discussion on the treatment of hæmorrhoids, at a meeting of the New York Clinical Society, by reading a paper on the treatment by injections of carbolic acid. The paper, which appears in the August number of the *New York Medical Journal and Obstetrical Review*, opens with condensed histories of a number of cases, after which he remarks that, beginning this plan of treatment without very much confidence in it, and with the fear of causing great pain, and, perhaps, dangerous sloughing, constantly before him, the method is constantly growing in favour with him, and the more he practices it the more confidence he gains in it. With solutions of proper strength the danger of causing sloughing of the tumours is very slight. There are no objections to this method which do not apply equally to others. He has once seen considerable ulceration result from it in the hands of another; but he has seen an equal amount follow the application of the ligature; and he does not consider this as a danger greatly to be feared when injections of proper strength are introduced in the proper way. It is applicable to all cases, is especially adapted to bad cases, and may be used where a cutting operation is inadmissible. It acts by setting up an amount of irritation within the tumour which results in an increase of connective tissue, a closure of the vascular loops, and a consequent hardening and decrease in the size of the hæmorrhoid. Except