epochal publication, though it must at the same time be admitted that it was Ziem who most loudly proclaimed the fundamental truth of the modern surgery of the antrum. Had Watson been less retiring, nasal surgery as we now understand it would have established itself earlier in this country. Among the first to show cases illustrating the successful application of these principles was the late Mr. Lennox Browne in 1879. Spencer Watson was an active ophthalmologist and wrote a valuable monograph on diseases of the lachrymal apparatus. His colleagues in that department held him in the highest esteem, and his memory may well be cherished by those who have profited by the advances in modern rhinology.

Our photograph of the late Mr. Spencer Watson is from a painting by Mr. George Spencer Watson, to whom we are indebted for permission to reproduce the portrait.

DEVIATION OF THE NASAL SEPTUM.

An important stage in the history of operative procedures for the correction of deformities of the nasal septum has been reached. This will be seen from a study of the reports of the discussion upon the subject which took place in the laryngological section of the British Medical Association held in Toronto this year. Just as it has more than once occurred in the past, certain operations are becoming less popular, and other methods—one in particular, that of submucous resection—have been received with unbounded enthusiasm in many quarters.

That we have had many advisers in the past, and numerous operations, which bore a curious resemblance to one another although different operators' names were attached to them, everyone knows. The questions which now arise are interesting, and the hitherto perplexed student will ask, Are our difficulties at an end? Have we at last found a method which will please the majority? for of course no one expects to please that troublesome minority which has been the bugbear from all time in every branch of human activity. In other words, is there now a fairly unanimous opinion amongst those qualified to judge that submucous resection is the best operation? The discussion at Toronto will probably be regarded as historical, and while it has done much to clear the air and to define our present position, a careful study of the different

views expressed will show, as the President, Dr. Dundas Grant, said when summing up, there is yet room for judicious eclecticism in the choice of operation for the correction of a deviated nasal septum.

The history of operations upon the nasal septum is an extremely interesting one, and may well be studied at the present time, if for no other reason than that it enables us to appreciate what had long ago been done to establish the principles. The history, moreover, dates much further back than is even assumed by some of the later writers, and while it is true the latest methods have proved very successful, it should not be forgotten that the earliest pioneers had not the advantage of Listerian principles, the advances in anæsthesia, general and local, and recent means of controlling hæmorrhage. In fact, advances in general and special surgery and methods of examination by a gradual process of development have made for success in operations now which were impossible a few years back. Granting all this, however, the work done by the earliest operators was marvellous, and, while the technique had to be improved, the principles of the operations for the correction of the nasal septum have long been well understood.

Bosworth, in the 1889 edition of his work, clearly points out this, and says Quelmalz in 1750 recognised the condition like others even before his day, and advised that attempts to correct the deformity by digital manipulation should be made. The earliest indication of operation is that of Dieffenbach in 1847, who advised that the projections should simply be sliced off. A very interesting procedure in view of the recent study of submucous resection was that suggested by Heylen as early as 1845, because he first dissected the mucous membrane from the surface, removed the deformed portion, and in this way sought to leave the mucous membrane intact. Chassaignac in 1851 not only recommends the dissection of the mucous membrane but the difficulty of resiliency is recognised, for he recommends that certain incisions should be made through the deflected part and also that plugs should be inserted afterwards until the parts solidify.

Demarquay in 1858 made the operation more serious by opening the cavity externally along the ridge of the nose, and Linhart in 1862 points out the necessity of dissecting up the mucous membrane on both sides of the deflecting cartilage before removing the offending part. During the following decade there does not seem to have been much done by way of following up what had previously been done, but in the early sixties Blandin devised a punch

by means of which he could remove small discs, but he does not seem to have looked upon the perforations that followed as morbid lesions. Ruprecht and Bolton in 1868 again produced punches, the latter being interesting inasmuch as it was an instrument which produced stellate incisions.

In the seventies we have a classical work from Adams, whose paper, in the year 1875, with the description of his well-known forceps, clamp, and ivory plugs, shows how much he was impressed with the important fact that it is not only necessary to replace a deviated septum, but it must afterwards be retained in its normal position. In 1879 Steele's stellate punch was described, but it is in the eighties that we can see the great work of the present day boldly outlined. Jurasz, in 1882, published a modification of Adams' forceps, and in the work of the same year an extremely interesting one is that of Hartmann, who returns to the question of the submucous operation. In the same year Seiler published his work upon burrs and their employment. In 1883 Petersen, whose name will always be associated with submucous operations, as well as Hartmann, makes important contributions to the subject. The year 1883 is also notable in connection with the work of Maurice J. Asch, because in this year this operator performed his first operation and set about systematic study and improvement in technique, with a regard for details which culminated in his well-known paper seven years later. The work was still further advanced by the investigations of Roux, Trendelenberg and Hubert. When Bosworth's work on the nose and throat was published in 1889 many other methods were being employed—thus, Seiler's burrs had been followed by the trephines of Curtis, and Woakes and Bosworth had operated largely with saws. Moreover Jarvis had devised a cutting forceps and suggested the projecting portion being pierced by a needle and then removed by means of a snare, and John B. Roberts suggested linear incision with a bistoury along the prominent line of the deflections, the pressing of the parts into position, and the introduction of a long steel pin to keep them in place.

Freer, in his recent statement at Toronto, does not hesitate to say that the merit of the first announcement of the essential principle of the method of resection of the deflected cartilage and bone belongs to Kreig, and in any case his good work about this period is fully and generally acknowledged by writers upon the subject. Towards the end of last century the different operations mentioned attracted a considerable amount of attention, and, in addition,

Gleason's well-known operation was fully established in the year 1896, and the operation of Douglass in 1898. In 1901, Roe's excellent paper, giving details of his method, was published, and Moure's operation, largely used in France and England, was described in the same year, while a year or two afterwards the classical papers of Freer and Killian showed beyond all doubt that the method of submucous resection had been performed to such an extent that some of the popularity which now attends it was almost sure to follow as a natural result. To judge fairly in questions of priority is always a difficult matter, and in so doing controversy frequently results, but the names of Freer and Killian will always be honourably associated with the operation of submucous resection. Freer admits that Killian began his work before he had done so, but at the British Medical Meeting in August, 1902, the reports of which are published in the *British Medical Journal* for that year, it was quite clear that Killian had mastered the details of the work. Freer claims that Killian's first published papers, which caused so many to follow him, were published after his. It is at least fair to say that to Freer, in America, and to Killian, on the Continent, we are mostly indebted for the present position of the operation, although many other names—such as those of Hajek, Menzel, Ballenger, Fetterolf, and Jansen—deserve to be mentioned in any critical review of the subject, because of their contributions to the technique and their modifications.

In addition to the operations above mentioned we must not forget that some others, especially in serious obstruction at the anterior part of the septum, make their incision through the mucous fold of the upper lip, as in the case of Loewe and Gaudier, but only under exceptional conditions is it likely these operations will often be performed.

In this country comparatively little has been done in this direction, and Dr. StClair Thomson, in his paper opening the discussion at the Toronto meeting, quotes the language of certain authorities at a meeting of the Laryngological Society of London in 1902, which conveys a very graphic picture to the reader's mind of patients who had suffered much at many hands even after operation, wandering round different surgeons' consulting-rooms seeking relief from their distressing symptoms. There can be no doubt, however, that in the last three years the operation has obtained great popularity, and one of the most recent comers into the field of operation is Dr. StClair Thomson himself, whose two papers have been published this year. It will not detract

in the least from their educative value if it be pointed out that the author speaks in his first paper to the *Lancet* about the methods (and instruments) which he recommends at one part, and at another he says that it is one similar to Professor Killian's. No doubt Dr. StClair Thomson has modified the technique to suit himself like many others, and improved some details when operating upon his first thirty cases; but at the Royal Medical and Chirurgical Society of London, where he read his first paper, and at the Toronto meeting, Dr. Dundas Grant pointed out clearly that the operation he performed was simply Killian's.

The main principles involved in this operation are, amongst others, aseptic procedure, anæsthesia, and the removal of all obstruction to the normal functions, but if they are grouped in this way and each carefully considered the statements, on many points, involve a great deal not yet settled. There is still the choice of the operation, the best technique, general or local anæsthesia, shock, the after-treatment, the avoidance of subsequent pathological conditions such as perforation or new deformities, and on all these points great light was thrown by the discussion at Toronto.

Much could be written upon most of the points referred to, but there are a few which stand out more prominently than others. First of all, the choice of the operation, and in this connection it may be well to remember Sir Felix Semon has remarked that no operation should exceed in magnitude the importance of the symptoms. Numerous as the different operations are, they may be classified as, firstly, the submucous of which Freer's and Killian's methods may be taken as types; secondly, incisions differing in number and direction, such as those of Asch, Moure, Douglass and Allen, and, lastly, that of Price-Brown, whose H-like incision is strongly recommended by this writer, who is a strong believer that such a large excision of the cartilage and bone of the nose is detrimental; thirdly, operations by comminution of which we might look upon those devised by Adams, Roe, Kyle, and Krieg as types; and, fourthly, methods like those of Bosworth, Curtis, Woakes, and Seiler by means of trephines or saws. Of course in certain cases combinations may be advisable.

The selection of operation in a given case is not made easier by the fact that no satisfactory classification has been made. Comparatively few, however enthusiastic they may be, suggest that the submucous resection is the operation and the only one. The discussion at Toronto showed that a number of experts thought that it might answer in 90 per cent. of the cases, and even if one were

to accept this view there are still the 10 per cent. to consider. It is difficult to believe that such operations as those of Asch, Gleason, Roe, Douglass, Price-Brown, and Harrison Allen will be lost sight of, and for the good reason that many of the originators of the different operations still claim excellent results. It must always be remembered that familiarity and experience in an operation often enable a particular operator to arrive at the desired results quite irrespective of the fact that other operations in the hands of others may do likewise.

The question of performing operations with safety largely depends upon aseptic methods, so far at least as these are possible in the nasal cavities, and in this connection it may be noted that Dr. StClair Thomson makes the statement that the vestibules—the only really septic parts of the nasal chambers—are cleansed with spirit, and if a moustache is present it should be thoroughly washed, and he apparently bases his statements upon papers published by him and Dr. R. T. Hewlett some years ago. Other writers, such as Park, Wright, and Hasslauer, have not accepted their views. Lately Drs. C. J. Lewis and A. Logan Turner have still further considered the difference of opinion which exists regarding the presence or absence of micro-organisms in the healthy nasal chambers, and they explain difference in the results they obtained by saying that had they trusted to the procedures relied upon by Drs. Thomson and Hewlett their sterile specimens taken from healthy nostrils would have numbered a dozen instead of three. These writers, like Dr. StClair Thomson, say a distinction should be drawn between the vestibules and the interior of the nostrils. It should be noted in connection with the function of the mucous membrane that Drs. Hewlett and Turner inferred, as a result of their experiments, that the nose contained numerically few organisms, that inoculation was a very slow one, and that they were of diminished vigour, but revived after a period in a suitable medium. There is another thing, however, which should not be forgotten in this connection, and that is, that sometimes patients who require an operation for the correction of deviation of the septum may have other pathological conditions present at the same time in one or both nostrils. The interior of the nostrils should therefore be rendered as free of pathogenic organisms as possible before operation.

The question of anæsthesia is also an important one. Doubtless local anæsthesia, especially when combined with active agents, such as those contained in adrenalin, for commanding hæmorrhage, has done much to make things easier. Naturally, the extent of

the deformity, the condition of the patient, the experience of the operator, and many other things, must be considered in making a choice. Upon these points the discussion at Toronto will prove exceptionally valuable.

The question of the technique has received a great deal of attention, and deservedly so, and doubtless much remains to be done, notwithstanding all that has been accomplished. Some writers have minimised the difficulties, and beginners will do well to remember that if they undertake this operation in a light spirit they may be disappointed; on the other hand, although the procedure is tedious and requires careful dissection, too much should not be made of the matter, because the operation is one which can be easily enough mastered, as can be seen from the number of surgeons in different countries who have successfully performed it. The objection to a thin, membranous septum, sometimes flapping within the nostril, instead of the hard, natural structure, has deterred some operators, and the possibility of injuries, such as blows, afterwards to the face not being well sustained, has been pointed out. Advocates of the submucous resection operation say that flapping is caused by too little tissue being removed, and Freer quotes cases in which injury has taken place subsequent to operation without harm. Of course, time will be required to clear up these points, and ten years hence one will be in a better position to judge of the importance of these and many other objections.

The question of the operation being performed in children is not an easy one to answer. Freer and others think that it can quite easily be performed in early life, but Killian does not take the same view. Casselberry thinks that in young children the Watson-Gleason method is quite adequate, can be done in a few minutes under general anæsthetics, and has the merit of leaving the natural developing framework intact.

The question of prophylaxis should never be overlooked at any time, and in this connection the remarks of Dr. M. C. Smith are important. Speaking as a dentist, he indicated certain procedures in the case of young persons which might prevent the necessity of operation later in life.

Notwithstanding all objections and difficulties, there can be no doubt that the operation of submucous resection of the deformed parts is daily becoming more popular, and deserves the greatest consideration. While sufficient space can be obtained in slight cases by removing small portions of the turbinated tissues, the policy of taking away normal structures is not always to be recommended.

All the same, many will agree that there is yet room for judicious eclecticism. In an excellent paper by Dr. Winslow on the present state of the operation, read before the American Laryngological Association this year, he states: "While some degrees of septal deviation is so common that it may almost be regarded as a normal condition, a deviation becomes pathological only when it interferes with normal nasal function, producing consequences that can rationally be attributed to the deformity; according to Beaman Douglass, this occurs in from 11 to 12 per cent. of cases only. Some of the most marked deformities that I have ever seen caused no detectable disturbance. We should operate therefore only for the relief of definite symptoms, and not simply because of anatomic abnormality." The same writer also remarks in another part of his paper that "the best treatment of deviated septum may consist in avoiding the operation."

A STATISTICAL REPORT OF THE RESULTS OF OPERATION IN SARCOMA OF THE NOSE BY METHODS GENERALLY ADOPTED, WITH A PLEA FOR THE MORE EXTENDED USE OF THE ELECTRO-CAUTERY IN SUITABLE CASES.

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Writers differ widely from each other in their general views in regard to this disease, and in introducing the subject a brief *résumé* of prevailing opinions may not be out of place.

Lennox Browne, in his voluminous work upon "Diseases of the Nose and Throat," does not even mention the existence of sarcoma of the nose.

Shurly says that myxosarcoma is the variety that occurs most frequently within the nose, and that the usual seat of growth is either the middle turbinal region or the external wall, thus granting the primary origin of the disease within the nasal cavity. He also says that while the original growth may be pedunculated, the pedicle is soon lost, the base rapidly becoming broader, until it finally loses itself in the mass of involved tissue.

Kyle, on the other hand, says that "primary sarcoma of the nose is not of frequent occurrence, but as a rule has its origin in adjacent structures, and spreads thence into the nasal cavity."