THE NASAL ACCESSORY SINUSES.*

Some Recollections and Reflections.

By HERBERT TILLEY, London.

A Foreword.

THERE comes a time in the lives of all men when their experiences and recollections of the past may be more interesting and, possibly of greater profit to the younger members of their audience, than a presentation of some aspect of current knowledge or anticipations of its future trend.

It has been recorded that when Dante was making a stiff climb of the Mountain of Purgatory, he reached a high terrace, and, sitting down, turned to the East and remarked to his guide, "All men are delighted to look back."

So may I, from my terrace of "seniority," give you a brief retrospect and some recollections of a subject which it was suggested should form the basis of my address to you on this occasion, viz. "The Nasal Accessory Sinuses or Air Cells." But before doing so, I would like, as a foreword, to tell those on whose backs the sun still shines, of what I see when looking downwards into the valley and foot-hills from which they are beginning to make their ascent.

If it should give them encouragement or even some kindly meant warnings of dangers to be avoided, then the debt of honour which your Medical Committee has imposed on me will, to some small degree, be cancelled.

It was in the year 1892, when with "the pleasing and enthusiastic illusions of youth" I became a general practitioner and shortly afterwards obtained the post of non-resident House Surgeon in "The London Throat Hospital" in Great Portland Street, and about two years later was elected a member of its Staff.

Some three years afterwards I joined the Staff of the Throat Hospital in Golden Square. In both these Institutions and while still practising general medicine and surgery, it was possible to give more intensive application to our special

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department of Medicine which had previously attracted me, even in my undergraduate days.

Of the value of those early years in general practice before confining myself to Oto-Laryngology, it is impossible for me to speak too enthusiastically. Not the least advantage of this experience was the sense of personal responsibility for one's patients which took the place of that corporate conscience engendered by holding the resident post of House Surgeon in my Alma Mater—University College Hospital.

Furthermore, there is no better way than general practice for enabling a young graduate to become familiar with the early, rather than the late symptoms of disease and for learning how to dissociate them from the many foibles and frailties of our poor humanity.

Of the truth of this you have had many brilliant examples in those who from time to time have brought great honour and reputation to this Hospital, and the same may be said of those others who, in their day, did yeoman service for the Throat Hospital in Golden Square.

These men, with whose names most of you are familiar, were all "rankers" before receiving their commission, and if we regard our profession as an army whose objective it is to prevent or, failing that, to fight disease, we may apply to the general practitioner, what Kipling wrote of the soldier in arms—

"For the backbone of the Army is the non-commissioned man."

It is obvious that those of you who have already started your life's work as specialists, cannot go back on your tracks. To you, I would say that you will only secure the best treasures from your restricted furrow by keeping in touch with those around you who are labouring in the wider fields of general medicine and surgery.

By so doing you will profit by their experiences, and particularly so, if you join such institutions as the Royal Society of Medicine, the Medical Society of London, the Harveian and Hunterian Societies.

Furthermore, let me urge you to keep yourself informed of the general progress of medicine by investing in such gilt-edged securities as the *British Medical Journal*, or the *Lancet* and the *Journal of Laryngology and Otology*. With these you will be *au courant* with advances in medicine and surgery as well as with the world's best work in our particular branch of them.

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For remember that to-day, and more than ever before, each of us is a citizen of the world and much of the great stream of knowledge is derived from the rivulets flowing into it from many lands which lie outside and far beyond Great Britain.

To give just one illustration of my meaning. In the chief Medical Journals of last year, we had two instructive lectures by Professor Mellanby and Colonel McCarrison, in which they brought forward evidence to show that vitamin A plays a prominent part in promoting the resistance of tissues to pathogenic organisms.

Hear what the great physician—Sir William Osler—wrote about the "student-specialist": "All goes well when the man is larger than his specialty and controls it, but when the specialty runs away with the man there is disaster, and a topsy-turvy condition which, in every branch, has done incalculable harm."

My excuse for introducing this brief foreword at all is that from my vantage-point of time and experience, I remember many good fellows who promised well, but somehow got stuck in the foot-hills of their upward journey. Some failed because they chose devious paths which appeared to be short-cuts to the summit, but these led only to what the world calls success. Others became mentally myopic and mistook the life of the ant-heap for that of the great world around them. And some there were who seemed bereft of ideals—of such are the hopeless. For as Carl Schurz has said: "Ideals are like the stars. You will never touch them with your hands, but like the seafaring man on a desert of waters, you take them as your guide and following them you reach your destiny."

I have chosen as my subject to-day a few remarks about my early experiences in connection with the nasal sinuses, because, although my share in any pioneer work on the nasal air cells has been small, the problems connected with the diagnosis and treatment of their diseases have never ceased to fascinate me.

The Maxillary Antra.

In the latter half of the eighties of last century only the dental origin of antral suppuration was recognised, and consequently its treatment was almost entirely in the hands of dental surgeons who employed alveolar drainage after extraction of one or more diseased teeth.

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This will not be surprising in view of the ignorance at that time of the possibility of primary intranasal infection occurring as a complication of influenza and other acute specific fevers. Even if this had been known, such aids in diagnosis as transillumination, intranasal puncture, irrigation and X-rays were unknown.

But in 1889, Heryng (Warsaw) introduced transillumination, and a great stride forward came in 1890 when Lichtwitz introduced his trocar and cannula for intranasal exploration of the inner antral wall.

Such helps to diagnosis quickly established the fact that suppuration of the antrum was a common affection, its subjective and objective symptoms became recognised and incidentally a great impetus was given to the whole subject of inflammation of the other accessory sinuses. But for all that, alveolar drainage remained the most favoured method of treatment, and was advocated by Ziem (Danzig) as late as 1895 when he lectured on the subject in London. In the meantime, however, Desault and Kuster had introduced and practised exposure of the antrum through the canine fossa—a method which entailed prolonged treatment by local applications and tamponage with gauze dressings. In many cases a permanent and troublesome bucco-antral fistula resulted.

This method was vastly improved on by Caldwell (New York) in 1893, and by Luc (Paris) and Scanes Spicer (London) in 1894. Each of them appear to have independently conceived the advantages of providing a permanent counter-opening into the inferior nasal meatus followed by immediate suture of the bucco-antral wound. By such means the large air-cell would be effectively drained and cut off from contamination by septic elements in the mouth.

It was not until some ten years later that the so-called intranasal antral operation was introduced.

These two operations have stood the time test of nearly forty years, which implies that they are generally followed by successful results. But occasionally that is not so, and the possible causes of continued suppuration, with or without crust formation, are still of sufficient practical interest to have merited discussion when the treatment of antral inflammation was considered in the Section of Laryngology (Royal Society of Medicine) so recently as in the Spring of this year.

It may be taken as an axiom that if a diseased mucous

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membrane be entirely removed from any of the nasal air cavities, suppuration will cease only when the pathological lining has been replaced by a normal one covered by ciliated epithelium.

Fortunately this generally occurs, and a partial explanation of the way in which restitution takes place affords me a pleasant recollection, because in December 1903—nearly thirty years ago—in a paper read before the Odontological Society of Great Britain, and entitled "Some Observations upon Suppuration of the Maxillary Antrum," I asked the question, "What is the condition of the antrum in a successful case, six months after operation?" and my answer was—

"There can be no doubt that it is partially obliterated by granulations which spring up on the bony walls uniting with those which grow inwards from the soft tissues of the cheek through the large opening in the canine fossa. This granulation tissue becomes covered with (ciliated) epithelium which spreads inwards from the circumference of the naso-antral opening, because without this natural method of healing, suppuration would inevitably continue."

Please do not infer that I claim originality for the answer I gave to my own question in 1903, but nevertheless there was doubt at that time as to how healing of an operated antrum took place, because some two or three years later, Professor Moure of Bordeaux asked a similar question in a paper entitled "Que deviennent les sinus operés?" and his answer was similar to that which I had given. Furthermore, many of you will be acquainted with the article published last September (1931) by McGregor (Toronto) in the Archives of Otolaryngology, wherein he records his experiments on the antra of healthy dogs in which the normal mucous membrane had been removed, and also his observations on the antra of human patients after operation for a pathological condition affecting the same structures. These investigations proved that the restitution to normal conditions resulted from ingrowth of epithelium from the naso-antral opening which unites with islets of ciliated cells which spring up on the bony walls of the sinus.

If such healing does not take place, some degree of suppuration will continue from the uncovered granulation tissue as it would do in an unhealed wound normally covered by epidermis.

I do not think that this complication is due to excessive aeration of the antrum brought about by removal of the anterior

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portion of the inferior turbinal (as suggested by Mr. Mollison), nor by too large an opening in the inner wall of the sinus. This would seem to be proved by two or three cases of mine in which the septum was so much deviated to the affected side that it was almost impossible to remove the crusts through the anterior naris. Can the failure be due to the presence of some organism not usually found in chronic antral suppuration, or does the secret lie in some abnormal bio-chemical condition of the nasal secretions? I commend this problem to any of you who have the knowledge necessary to solve it. If a hint be of any value, I may say that some years ago, and in an intractable case in which my therapeutic measures were almost at an end, a single application of pure carbolic acid lightly painted over the inner wall of the antrum brought about an immediate and lasting cure.

Not infrequently one is asked, "What are the principles which guide you in selecting the intranasal route in one case of chronic antral suppuration and the canine fossa approach in another?"

Time is too short on this occasion to answer this question fully. At least three replies may be given.

1. If from the history of the case the suppuration strongly suggests a dental origin, the surgeon should enter through the canine fossa, because some pathological condition will probably be found in the floor of the antrum immediately above the focus of infection, and obviously it could not be removed satisfactorily by the intranasal route.
2. If there be polypi in the middle meatus, or any other definite signs of ethmoidal inflammation, again it would be wiser to perform the Caldwell-Luc operation, because in such circumstances polypoid degeneration of the antral mucosa is probable, and this can only be dealt with by a direct inspection and thorough removal of the tissues affected.
3. In the absence of ethmoidal and dental inflammation, the intranasal route may be the operation of choice.

As a matter of personal choice or, perhaps, surgical instinct, I prefer the canine fossa operation as a general rule, because it seems only rational that when you have to deal with a hidden pathological condition, the first desideratum is to expose it to

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view, examine its nature and extent, and then act in such a way as to "make the punishment fit the crime."

An exception would, of course, be made in favour of the intranasal route in children and young adults with good teeth, provided that the case is one without any particular complication.

Chronic Muco-Purulent Catarrh of the Antrum.

One final word on this subject, and this to the juniors amongst us to-day, concerning a very common and frequently overlooked affection of this large air-cell.

The patient usually complains of "chronic nasal (or post-nasal) catarrh" possibly associated with some degree of nasal obstruction which may be especially troublesome at night, and he will probably tell you of the many lotions, sprays, and vaccines, which have been used without avail.

Inspection of the nasal cavities may reveal only slightly congested and sodden mucosa, but no localised pathological lesion nor purulent discharge. Transillumination will frequently be almost within normal limits, *i.e.* neither a bright infra-orbital crescent of light, nor definite opacity. But if one or both antra be punctured and irrigated, it will often happen that a large coagulum of muco-pus like the yolk of an egg will be washed out. It is this secretion which, by passing into the nasal passages, explains the "nasal or post-nasal catarrh." In such cases a radiogram would show a distinct shadow in the antrum, but such an aid means delay in diagnosis and adds considerable expense to its establishment.

It goes without saying that nasal sprays, nebulised oils, or the application of the galvano-cautery to congested areas of the mucous membrane will afford only temporary relief from the symptoms. In the majority of the milder cases a cure will result after four or five consecutive daily puncture-irrigations with warm normal saline or boracic acid solutions. This should be combined with a course of alkalis taken internally. If this treatment fails — probably because of considerable polypoid œdema of the antral mucous membrane—complete relief will follow the establishment of a permanent naso-antral opening in the inferior meatus.

With regard to the pathology of this condition, it has been outlined on page 201 of my text-book *Diseases of the Nose and Throat*, 4th edition, published in 1919. I should hesitate

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to make this somewhat personal reference were it not that some five years ago, Hirsch of Vienna published a monograph on the subject which received considerable notice and was spoken of—in this country at least—as an original observation of considerable practical importance. How true it is that a prophet hath no honour in his own country, and particularly so if that country be England.

The Ethmoidal Sinuses.

It is nearly fifty years ago since attention was focussed on this region by Edward Woakes who, in 1885, read two papers before the Medical Society of London, entitled "Necrosing Ethmoiditis; its relationship to the Development of Nasal Polypus, Ozæna, etc." They were published in the *Lancet*, 1885 (pp. 110 and 150).

These communications led to a heated discussion followed by a somewhat acrid correspondence which would probably have been avoided or mollified if the unfortunate and qualifying word "necrosing" had been omitted in favour of rarefying osteitis, molecular caries, or some similar terminology corresponding, not only with the pathology of ethmoiditis as we regard it to-day, but also with the excellent histo-pathological drawings with which Woakes illustrated his articles.

But leaving terminology aside, it must always be to his credit that he was the first to associate nasal polypus with inflammatory lesions of the structures composing the ethmoid bone.

It is so easy to be critical of early efforts when lapse of time has brought more exact knowledge to any problem, and we should always remember that road-makers cannot be as clean as those who walk on the roads which have been made for them.

For some two decades following Woakes' observations, much light was thrown upon the normal but intricate anatomy of the ethmoid bone, and on the clinical manifestations and pathology of the different types of inflammation affecting it. In this connection it is only necessary to mention (1) the hyperplastic form exemplified by increase of the bony elements and their frequent association with polypi and other mucous membrane hypertrophies; (2) the hypoplastic type in which the normal structures tend to atrophy. In each of them access of pyogenic

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organisms may bring about the element of localised or of more extensive suppuration and lead to involvement of the neighbouring frontal, sphenoidal and antral sinuses. To Hajek (Vienna), more than to any other man, rhinologists will ever be indebted for his pioneer work on this subject.

If we bear in mind the close anatomical relationship between the ethmoid labyrinth and the adjacent large air-cells, its proximity to, and vascular connections with, the orbit and its contents, to the optic nerve, the dural sheaths of the olfactory nerve and to the meninges—we may well regard that bone with its honeycomb of cells (varying not only in their size but with an almost infinite capacity for wandering into unexpected regions) as a structure worthy of and indeed demanding the closest and most conscientious study.

If there are any of my former students present to-day, they will remember my dictum, viz. that the ethmoid is the "key situation" or "cross-roads" of the nasal sinuses, and command of this position is the most important factor in a successful attack upon inflammation in any or all of them.

"Cross-roads" and "dirty work" are proverbially associated, and those of us who for many years have enjoyed the confidence of our colleagues at home and abroad will not dispute the statement, that more deaths or serious complications have followed operation on the ethmoid cells than those on all the other sinuses put together.

It is for these reasons that when operative treatment is contemplated, I long since laid down the following rules for my own observation as well as for that of my assistants:—

1. To procure effective ischæmia by the preliminary application of cocaine and adrenalin.
2. As far as is possible, endeavour to see the diseased areas during operative manipulations. If bleeding be so profuse as to prevent this, further interference should be postponed for a week or ten days, when reactionary swelling and œdema will have subsided. Such reaction will be more obvious if suppuration be present.
3. In all ethmoidal operations the following is a golden rule. Strive to preserve and keep in view the attachment of the middle turbinal to the "lateral mass" and to work on its external aspect. By so doing

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you will minimise the chances of damage to the cribriform plate and the dural sheaths of the olfactory nerve expansions, both of which are in intimate relationship with the meninges.

4. No packing should be placed in the operated areas of the ethmoid because free and spontaneous drainage is the paramount object aimed at. Post-operative hæmorrhage is rarely a serious complication.

In any operation which entails opening up the ethmoidal labyrinth, the surgeon must bear in mind that its mazes are intricate, and when infected by pyogenic organisms the accurate localisation of the extent of disease will often tax the diagnostic acumen of the most experienced rhinologist, and its treatment should steady the hand of the boldest operator.

He who attacks inflammatory lesions of the ethmoid labyrinth without detailed knowledge of its anatomy and pathology, must surely hold very lightly the safety and sanctity of human life.

Sphenoidal Sinuses.

These need not detain us because they are generally involved when extensive ethmoidal inflammation is present and would be dealt with simultaneously with this.

But it sometimes happens that the sphenoidal sinus is the only one involved, and in this case I would suggest to younger rhinologists that, in addition to intranasal signs, they should suspect it if and when the patient complains of "post-nasal catarrh," and examination shows a unilateral discharge of adherent muco-pus on the posterior wall of the pharynx. Furthermore, in 1905, at the meeting of the British Medical Association in Leicester, I drew attention to pain over the mastoid as a not infrequent symptom of chronic sphenoidal sinus suppuration — an observation which has since been frequently confirmed. In one of my patients the pain was so severe that a general surgeon had arranged to explore the mastoid: the operation table was in her home in readiness for the following morning, but fortunately overnight she felt and heard so well that intervention was postponed. A few days later I drained the sphenoidal sinus, and for twenty-one years there has been no recurrence of her nasal, nor of the "mastoid symptoms."

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Herbert Tilley

The Frontal Sinus.

The credit for stimulating the interest of British Rhinologists in the disease of this nasal air-cell is due to Mayo Collier (London) who in 1893 read a paper before the British Oto-Rhino-Laryngological Society entitled "Surgery of the Frontal Sinuses." In that paper he gave a rather brief account of their anatomy and, for their operative exploration, advocated a median incision in the lower frontal region followed by the application of a trephine in such a way that both sinuses would be exposed when the disc of bone was removed. The diseased mucosa was removed by curettes and a drainage-tube inserted downwards into the nasal cavity. He advised the median incision not only for treatment but also as a means of diagnosing which sinus was infected. It is interesting to read his statement that the records of the Ear and Throat Hospitals at that time made no mention of cases treated for frontal sinus inflammation, although the ophthalmic surgeons were well acquainted with the subject. He cites the names of Hulke, Lawson, and others who had frequently operated on cases of orbital cellulitis, proptosis, etc., due to extension of disease from the frontal sinuses. It is probable that to-day we should regard such symptoms as of ethmoidal origin.

It was about this time that the whole subject of inflammation of the sinuses engaged my attention and particularly the question of differential diagnosis which was obviously the first necessity for successful treatment. With regard to the frontal air-cells, it was essential to get a more complete knowledge of their anatomy, and my former teacher, the late Sir George Dancer Thane, kindly placed a number of skulls at my disposal. The results of this study were published in the *Lancet*, 20th September 1896, under the title "An Investigation of the Frontal Sinuses in 120 Skulls from a surgical aspect, with cases illustrating the methods of treatment of disease in this situation."

I have recently read that early contribution, and was relieved to feel that had I to write the anatomical portion again to-day, there would be little or nothing to add to it; but with regard to the surgical contents of the paper—perhaps the less said the better. Nevertheless, it was some consolation to remember that I was then a youngster travelling without a guide and into territory where little help was to be found from the few who had preceded me.

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It was not long before others were bent on the same quest, and soon we began to compare experiences, many of which were encouraging and inspired us with hope. But fatalities were becoming sufficiently frequent to warn us of dangers which had not been anticipated. The worst of these was spreading septic osteomyelitis of the frontal bone, which nearly always proved fatal when it supervened after an operation, whereas it seemed not to be so dangerous when it was of spontaneous origin.

This calvarium which I have brought with me is of historic interest, because it is the first recorded instance in which osteomyelitis followed operation for chronic suppuration in the frontal sinuses. It was shown by me at the Portsmouth meeting of the British Medical Association in 1899 and you will find details of the case-history in the *Journal* of that year.

Although this dreaded complication was by no means infrequent, and while a few fatalities were recorded in journals devoted to our specialty, more were buried in the oblivion of hospital records and private case-books. No wonder it was frequently stated that the dangers of the operation were greater than those of the untreated disease. My experiences of those early days and since then, leave me in no shadow of doubt that spreading infection entering between the inner and outer tables of the frontal bone was due to two causes: 1. The exposure of the diploë by a too energetic use of the curette in the removal of an inflamed and septic mucous membrane. 2. Deficient post-operative drainage.

The possibility of such a fatal issue led surgeons to adopt many procedures which aimed at minimising the risk from the operation. It was soon recognised that complete removal of the anterior wall of the sinus, with enlargement of the fronto-nasal passage, and leaving the wound open till the bony wound was filled with healthy granulation tissue, would bring about a complete cure of suppuration. In a sinus which was shallow from before backwards it proved an excellent method and the resulting deformity was slight, but daily dressings were required for some five to six weeks. Unfortunately the operation did not cure all the purulent nasal discharge when extensive ethmoidal disease was present.

The next problem was to devise a method which would enable the surgeon to deal with a large and deep sinus with concomitant ethmoidal infection and yet avoid marked external

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deformity. Many types of operation were introduced from time to time but Killian's "bridge" operation seemed to be the best, and in his hands, and in those of us who followed his technique, it seemed that, at last, we had secured a method which met all needs.

But it was not long before disillusions awaited us. The "bridge" formed by the inner orbital margin of the sinus occasionally underwent necrosis, broke down, and deformity resulted. Furthermore, when Killian had operated on 86 patients without a fatality, he lost three from osteomyelitis before he reached his hundredth operation.

Hence, it is not surprising that in the early years of this century, the endo-nasal operation was introduced, because it had been proved by Hajek and others that the ethmoidal and sphenoidal cells could be approached through the nasal cavity, the fronto-nasal passage enlarged to promote freer drainage of inflammatory secretions, and there was no external scar or deformity. In my experience it is an excellent operation because in most cases it will materially relieve symptoms, and in a fewer number it will bring about a permanent cure of them.

But here again, one must not omit to state that fatal osteomyelitis has been recorded in a few instances following the endo-nasal operation.

After giving a fair trial to almost every method which has been introduced for the cure of chronic suppuration in the frontal sinus during the past thirty-five to forty years, it is my honest but sad conviction that none of them can be depended on to cure the discharge in all cases. This is particularly true in sinuses of great depth from before backwards, because some factor (or factors) seems to prevent granulation tissue from entirely obliterating all the bony cavity so that some degree of "dead space" remains and, unless this becomes lined with ciliated epithelium, suppuration must take place even if free intranasal drainage has been secured and the ethmoidal disease removed.

I can conceive that some may challenge this opinion, but surgeons do not need to be reminded that when a patient is nearly, but not *quite* cured, he is apt to seek further advice, and for this reason we not infrequently see each other's "cured" patients!

This brings me to a question for which only long experience has provided the answer. The question is this: "Are we justified in always advising radical surgical procedures, and

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more particularly external operations for a patient with chronic fronto-ethmoidal suppuration when the local symptoms are little more than an inconvenience and are unaccompanied by more or less distal manifestations"?

My answer is "No," and I would warn the junior members of our specialty not to place too much reliance on the reports or exhibitions of successful cases resulting from radical external operations. You will often get more reliable, even if less encouraging, information after dining with your colleagues when relaxed inhibition has a tendency to unveil the less fortunate aspects of the question.

In recommending this conservative attitude, let me assure you that I am not forgetful that a focus of sepsis in the higher sinuses has close anatomical relationships with the brain and its meninges and with the contents of the orbit; that the purulent discharge may find its way into the larynx, trachea and lower air passages with evil results with which we are familiar—or that it may be swallowed into the stomach with a sequence of gastro-intestinal disorders.

Carried by the blood-stream or lymphatics, the micro-organisms or their toxins may produce lesions in the large or small joints, in the cerebro-spinal nervous system or, failing such lodgment, symptoms of a mild general toxæmia may be revealed. A dark enough picture indeed, if in its contemplation we forget the existence in the body of Nature's immunising agencies and her wonderful powers of defence.

In my earlier days I saw many patients with chronic frontal sinus suppuration and, impressed with its evil possibilities, I frequently advised some external radical operation. Not seldom such treatment was refused in favour of simpler intranasal measures. To-day, many of those people have lived to be old men and women who have enjoyed healthy, happy and useful lives. Some of them visit me occasionally for inspection, for the solace of an optimistic report, or for some simple intranasal treatment which can be carried out in the consulting-room.

It has interested me to note that in not a few instances the discharge has entirely ceased, in others it is so slight as to form a thin, non-fœtid crust in the anterior ethmoidal region which the patient can easily expel by a simple alkaline nasal wash. But, had I performed a radical external operation on these cases, they would all have had some degree of scarring; possibly the ethmoidal discharge would not have been cured in some of

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them, and a few might have suffered from some serious or even a fatal complication. All of which means that "knowledge comes but wisdom lingers," or put in another way, the actions of youth are largely guided by possibilities while those of maturer years are prompted by probabilities.

And now, Gentlemen, the finger of time points, and having pointed, moves on, so it is incumbent that I should not trespass further on your patience, with the recollections and reflections of the days

> "When youth was lord of my unchallenged fate
> And time seemed but the vassal of my will."

They were hard and strenuous days, spent in a not altogether friendly atmosphere, because the representatives of British Medicine were then very conservative; they disliked specialism, and consequently, the arrival of two new Cinderellas into its ranks (Laryngology and Rhinology) meant that the presence of their sponsors was tolerated rather than welcomed. But thanks to some men of broader vision, such as Semon, Butlin, George Johnson, de Havilland Hall, Charters Symonds, W. G. Spencer, Clifford Beale, T. J. Walker, David Newman and McBride, who were backed by well qualified juniors, those special departments of medicine eventually won through to well-deserved recognition.

Yet it took several years before mistrust, suspicion and, perhaps, jealousy died down. How different are things to-day when a genuine seeker after knowledge is welcomed into any branch of medicine. It is into this free heritage that some of you here have recently entered but, maybe, you have not had time to discern the paths which lead to those higher terraces on which will be found the "Temple of Honour." You will soon discover that the ways to it are jealously guarded and cannot be entered without the necessary password—but I can tell you at once that that word is "work."

Faithful to its meaning, all paths will be open to you, yet none will be free from occasional disillusions and temporary obstructions; but your greater happiness will come from the striving rather than from ultimate attainment. Above all, work will bring you that most gracious of human possessions, an increased sense of comradeship which is granted only to those who share with their fellows the joys, stresses, and triumphs of a sustained and intimate effort.

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The Nasal Accessory Sinuses

In this gathering I see many whose past work in Oto-Laryngology represents the gold of endeavour without the alloy of conflict, and like "The Good Companions" that they have been, I thank them for the support and honour of their presence.

They, like myself, have long since left behind them the foot-hills of their journey, and in making for their higher terraces have bridged difficulties and removed obstructions which should make easier the path of those of you who follow them.

In their name, as well as my own, we wish you God-speed and that accident of "luck" which, by the way, rarely happens except to the competent.

And to you all—I would quote, as an embodiment of the experiences and reflections which I have tried to express during the past hour, those charming lines written by my friend, Dr. Harris Mosher of Boston (Mass.)—

"We find our reward in the work that we love,
In the ideals to which we've been true,
In the comradeship of kindred souls
And our own soul born anew."

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