The accompanying skiagram and photograph show the nature of the foreign body (Figs. 1 and 2). Unfortunately the photographer had straightened out the pin before taking the photograph.

This case was not complicated by any previous attempt at removal with a probang or other dangerous weapon. One does see the results of such an attempt occasionally, and it cannot be too strongly urged, that these cases of foreign body impacted in the œsophagus, should be sent without delay for X-ray examination and removal under direct vision by a skilled endoscopist.

SOCIETIES' PROCEEDINGS

ROYAL SOCIETY OF MEDICINE—SECTION OF LARYNGOLOGY.

SUMMER MEETING.

May 31 and June 1, 1928.

Chairman—Mr J. F. O'Malley, F.R.C.S.

(Abstract.)

Achalasia and Degeneration of Auerbach's Plexus.—A. T. Rake, F.R.C.S. The plexus is really a cell-station for the vagus nerve-fibres. These nerve-fibres run to the plexus, whence new fibres pass to the muscle-fibres. The function of the vagal supply is the two-fold one of preserving the normal œsophageal tone and supplying the cardiac sphincter; it causes relaxation of the sphincter preceding the normal peristaltic wave which takes the food into the stomach. Therefore any lesion of the vagal nerve-fibres will upset this relaxation of the cardia, which must take place before food can reach the stomach. Lesions may be proximal to Auerbach's plexus, or in the plexus, or distal to it. In some achalasic cases the plexus is found to be about twice its normal size, the whole of it being infiltrated with small round cells. In addition there are multiple vessels not seen in the normal Auerbach's plexus. In the chronic stage there are, around the fibrous plexus, large blood vessels with thickened walls; the appearance is indeed so typical that it has been suggested that change is primarily vascular. The author, however, is strongly of opinion that the change is primarily inflammatory. In none of the many sections which he has examined are there any ganglion cells.

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Royal Society of Medicine

Mr J. F. O'MALLEY (Chairman) said that it had long been felt that it was very difficult to explain the peculiar symptom-complex in this condition. All were familiar with the masterly presentation of the subject by Dr Brown Kelly in the Semon Lecture * two years ago, though he did not say more than that it was a neuropathic condition. The present paper seemed to carry the subject further towards a solution. He asked that the present discussion should centre round the pathological aspect; as to whether the condition was purely pathological, whether there was a physiological factor, or whether anatomical peculiarities helped the solution. He mentioned anatomy because the structure of the upper œsophagus differed from that of the lower in the normal subject. Still, it was found, in many cases, that there were striped muscles which passed right down in the human œsophagus, as was commonly found in animals. Perhaps there might be some temporary reflex disturbance, as in other parts of the body.

Dr ARTHUR F. HURST said that a century ago morbid anatomists noticed enormous dilatation and hypertrophy of the œsophagus, without finding an explanation in the cardia. As there was no obstruction, physicians naturally sought a functional cause—a spasm at the sphincter. Fifteen years ago it occurred to him that spasm was not an adequate explanation. Though in a small number of specimens some hypertrophy had been found, *i.e.*, in the cardiac sphincter, in the great majority, including Mr Rake's nine specimens, there was no hypertrophy of the last inch of the œsophagus. The speaker once saw the cardiac sphincter during life. In one case his mercury tube was not effective enough, and he asked Mr Rowlands to operate. Mr Rowlands found, in the inch which corresponded to the sphincter, that the tissue was very thin indeed, but the whole sphincter appeared to be present. He then asked Mr Rowlands to perform an operation like that for hypertrophic pylorus. Mr Rowlands divided the longitudinal fibres, but his incision did not pass through the diaphragm. The muscle coat was so thin that the surgeon did not think he had got through it, and he actually cut through the mucous membrane, but it healed well and gave no further trouble. That was seven years ago, and the man had been well ever since; it was clear that he was cured by division of the sphincter, in which there was no trace of hypertrophy. That seemed to be good evidence against the presence of spasm. Had spasm continued for so long it would surely have left hypertrophy. In most of the cases the mercury tube passed in with no obvious resistance, and there was no gripping during its passage. It corresponded with Hirschsprung's disease in the colon. When, in 1914, he first described these cases he said the condition was probably due to absence of normal relaxation of the sphincter, a relaxation which ought to occur at each peristaltic wave, and the term "achalasia" was the suggestion of Sir Cooper Perry. He (Dr Hurst) had suggested that it would be found that this condition was due to some organic change in Auerbach's plexus, and the suggestion was correct. In every one of the nine cases Mr Rake had examined there was a gross anatomical and pathological change in Auerbach's plexus, particularly at the lower end of the œsophagus. Eighteen cases of the condition had now been examined. Dr Cameron

* *Journ. of Laryngol. and Otol.*, vol. xlii., p. 221, April 1927.

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had found the same changes, though he did not publish the fact; there were certainly changes in the normal activity of the cardiac sphincter.

Dr BROWN KELLY said that so far as he was aware, Mr Rake was the first to describe fibrotic changes causing destruction of the nerve cells in the plexus. In justice to his colleague, however, he (the speaker) stated that Dr Munro Cameron was the first to demonstrate these changes in cases of cardiospasm. The case upon which Mr Rake's first paper was based was one of hypertrophy of the wall of the œsophagus without dilatation, and the patient had had no symptoms of cardiospasm. In the three cases examined and reported upon by Dr Cameron there was pronounced dilatation and characteristic symptoms of cardiospasm. The results of this investigation were briefly mentioned and illustrated in the Semon Lecture (December 1926).

If he (Dr Brown Kelly) were to attempt an interpretation of the pathological findings, he would say that the degenerative changes in Auerbach's plexus caused an incoördination of the myenteric reflex in the region concerned. In consequence of involvement of the nerve cells and their connections, the transmission of stimuli was interrupted. Stimuli excited by the bolus of food might readily pass to the subjacent circular layer, but might not reach the distant longitudinal layer; consequently the former might contract while the latter might remain inactive.

With regard to the affection described as "cardiospasm" and "achalasia of the cardia," he did not think that sufficient was known about the normal nerve processes at the lower end of the œsophagus to offer a satisfactory explanation of the clinical appearances and tissue changes found there. Dr Hurst's theory, advanced in 1914, was propounded in 1888 by Meltzler (*Berl. klin. Wochenschr.*, 1888, p. 140), who attributed the dysphagia and œsophagectasia to a lack of relaxation at the cardia. At that time, and subsequently, it was regarded as unsatisfactory and little attention was paid to it. Many cases were now on record of hypertrophy of the cardia; he himself had had a case which was described by the late Professor Shattock; Dr Munro Cameron had had another, and Dr Irwin Moore had illustrated and referred to several collected from various sources.

[Dr HURST: All written communications on the subject refer to Sir Humphry Rolleston's pioneer paper in 1894, in Clifford Allbutt's *System of Medicine*, in which Sir Humphry said it was due to want of relaxation and of normal peristalsis.]

Dr BROWN KELLY stated that Sir Humphry Rolleston did not know of cases of cardiac hypertrophy, and that led him to adopt the non-relaxation theory.

Mr J. F. O'MALLEY (Chairman) said there was a difference of opinion as to the name suitable for this condition. "Cardio-fibrositis" might be a good compromise. Different names did not help to a solution of the nature of the disability.

Mr W. STUART-LOW said he had been mystified by the suggestions in the medical press as to the cause of this condition. More attention should be paid to the clinical side. Whatever the pathology might be, he had

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relieved sufferers greatly by using warm olive oil as a lubricant to the œsophagus ; the patients were often in a low and nerveless condition, and the posterior wall of the pharynx was dry. The leading symptoms were clearly explained by the evident desiccation of the mucous membrane, and the therapeutical test of the success of lubricants is sufficiently significant and conclusive.

Dr HURST said Mr Rake's idea was that the degenerative changes were probably secondary to a primary inflammation, and this primary inflammation might be due to various causes, the most common probably being an œsophagitis spreading from the mucous membrane. The mucous membrane recovered its normal state, but the spread of the inflammation caused a degeneration of the plexus. In the first case there was no evidence of œsophagitis, and it looked as if the infection were blood-borne ; it might be spirochætal, or that following an acute fever.

Dr BROWN KELLY said that Dr Munro Cameron recently described a case of round-celled infiltration which extended from the mucosa to Auerbach's plexus, thus showing that the process might have commenced in that way.

Dysphagia due to Pharyngeal Paralysis.—W. M. MOLLISON, M.Ch. The Paper is published in the *Journal of Laryngology and Otology*, Vol. xliii., p. 769, November 1928.

DISCUSSION.

Dr D. R. PATERSON thought it would be well to add to such a collection cases of myasthenia gravis in which dysphagia was sometimes met with. He had seen two cases, both in women, who had considerable difficulty in swallowing though nothing local to account for it could be discovered. The tube readily passed into the gullet, and the report from the physician's side pronounced them to be cases of myasthenia gravis. There was probably some paresis of the lower part of the pharynx.

Dr D. A. THOMSON said that he had observed for the past ten years a case of myasthenia gravis in which the patient was confined to bed ; the most prominent symptom was difficulty in swallowing. Several opinions were invited to exclude neurosis, the general opinion being that it was undoubtedly myasthenia gravis. Treatment by long-continued intramuscular injections of strychnine sulphate seemed to act best. She could now walk with care and enjoy the simpler pleasures of life to a limited extent, though there was always the grave fear of a sudden relapse.

Dr LOWNDES YATES said that in most of the cases of the kind there appeared to have been some anæsthesia of the larynx ; thus mucus was not coughed up, but lay where it was secreted. One of his patients was given a bismuth meal, which passed down the trachea ; there was no coughing and the skiagram showed bismuth in the trachea and bronchial tubes. The sensory nerves would probably not be affected by a lesion of the nucleus ambiguus, and the question was whether the constant presence of mucus did not accustom the mucous membrane to its presence.

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Mr W. STUART-LOW said it seemed that the toxin of influenza was responsible for some of these cases. For the somewhat extensive paresis, strychnine, given both internally and intramuscularly, together with rest in bed, was of great assistance.

Dr BROWN KELLY asked whether Mr Mollison had met with old people who complained of dysphagia, but in whom no objective fault could be found. He had seen several cases of this kind, and had been puzzled as to the explanation. He also asked whether in paralysis following diphtheria the speech alone was affected when the palate only was implicated? When there was also difficulty in swallowing, was the constrictor in addition involved? When there was bilateral recurrent paralysis of the vocal cords, due to a peripheral cause, such as a growth involving both recurrent nerves, was dysphagia present? He thought there would be, because the nerve twigs to the upper part of the œsophagus were then involved.

Sir JAMES DUNDAS-GRANT said he hoped to bring to the meeting on the following day a young man who illustrated the points brought out in Mr Mollison's paper. For some weeks he had had a speech difficulty, and had paralysis of the left half of his palate, following a severe tonsillitis. There was no paralysis of the vocal cord. When a cold mirror was placed under the nose during phonation air came only through the side of the nose on which the palate was paralysed.

Mr MOLLISON (in reply) said he had seen two cases of myasthenia gravis, though in one the diagnosis was in doubt. One, a man, had had dysphagia for four years; he recovered somewhat, then had an exacerbation and was sent to him (the speaker). The patient had paralysis of the soft palate, but no organic stricture of the œsophagus, and after the tube had been passed his state improved greatly. He had not advised strychnine, but after what Dr Thomson had said he would do so.

He had not gone into the question of anæsthesia in the cases mentioned in the paper.

Methods of Estimating the Liability to Post-operative Hæmorrhage from Unsutured Wounds. — A. LOWNDES YATES, M.D. The Paper is published in the *Journal of Laryngology and Otology*, Vol. xliii., p. 781, November 1928.

DISCUSSION.

Mr J. F. O'MALLEY (Chairman) said that without any particular object in regard to hæmorrhage, he had for many years given, especially to children, some alkali three or four days before operating, and prolonged the administration for a day or two after it. It had been pointed out to him that it was valuable from the point of view of acidosis, and probably it was useful from the standpoint of hæmorrhage. At the Evelina Hospital, years ago, he had carried out a series of operations under various anæsthetics, and his conclusion was that more post-operative hæmorrhage occurred with chloroform than with ether or nitrous oxide. Crile had found the blood-pressure normal under nitrous oxide, nearly normal under ether, but depressed under chloroform, indicating in the latter case a poisoning of

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vasomotor control, which would account for the blood-pressure taking a longer time to return to normal; there was also a relaxation of vessels, permitting hæmorrhage.

Mr HERBERT TILLEY asked whether the post-operative bleeding in removal of tonsils had occurred in those cases in which the main arterial supply had been ligatured during the operation, or merely controlled by pressure. It was his (the speaker's) custom to tie the tonsillar branch of the descending posterior palatine artery in every case—child or adult—and to this precaution he ascribed the fact that during the past four years secondary hæmorrhage had occurred only in three of his cases. Dr Yates's observations would seem to be particularly valuable in cases of recurrent epistaxis.

Mr M. VLASTO referred to the case of severe hæmorrhage mentioned by Dr Yates, who stated that the hæmorrhage ceased only when the clotting-time returned to normal. He (Mr Vlasto) felt that the assumption that the clotting-time was the only factor in the cessation of hæmorrhage was not justified. The fall in blood-pressure following a severe hæmorrhage would have to be taken into account. He asked Dr Yates to explain the technique employed to ascertain the clotting-time in such cases. Whenever possible he avoided ligaturing vessels in the tonsillar fossæ after operation; there was less risk of post-operative hæmorrhage if the vessels were allowed to retract through the muscular layer than if a ligature were applied which was liable to slip off when the patient was coming round. Nor had he found any effect on the coagulability of the blood arising from the administration of calcium salts, and he was under the impression that those who used the drug as a routine were acting on tradition more than on the result of observation.

Mr W. THACKER NEVILLE said that a good method of finding the bleeding points was to take the enucleated tonsil and plunge it into the tonsillar fossa. This arrested the general oozing and allowed one to see the bleeding points under general anæsthesia. He always ligatured, usually employing two or three ligatures, but sometimes putting six ligatures into each fossa after removing a small fibrous septic tonsil. The ligatures did not slip, as he undermined the bleeding points with a ligature on a small $\frac{5}{8}$ curved needle. Under local anæsthesia he employed Professor Portmann's method; there was usually no bleeding point to ligature.

Mr MACAVENER asked how soon the clotting-time could be lowered in a given patient; was sodium bicarbonate the best alkali for the purpose, and were the results all obtained by mouth administration, or was intravenous injection likely to give quicker results?

Sir JAMES DUNDAS-GRANT asked whether a distinction was to be drawn between acidosis, such as followed starvation, with diminished alkalinity of the blood and hyperacidity of the urine; also, what kind of cases were deficient in calcium, and therefore requiring the administration of alkali? The method given for testing the coagulation-time quickly was certainly valuable. For a number of years he had given calcium by the mouth, and he believed it resulted in quicker coagulation. How was the acidity of the urine most conveniently tested? Hæmorrhages, he noticed,

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usually occurred when the patient was surrounded by solicitous friends. He had devised a special apparatus in the form of a tube for applying a ligature, but often the Spencer Wells forceps had come off, and the procedure proved unnecessary, as the bleeding had stopped.

Dr YATES, in answer to Mr Tilley, said he dissected out first one tonsil, packed the bed if necessary and then dissected out the other. He then removed the adenoids, packed the nasopharynx with gauze, introduced a special airway and packed gauze round this into the tonsillar beds. He took the coagulation time of the blood running out of the nose. He allowed the gauze to remain for that time, and then tied the vessels, which were still bleeding. Five years ago he had had many cases of post-operative bleeding, but during the four years he had used this method he had only had one case.

In answer to Mr Vlasto's question concerning the case of rheumatism, as already stated the man weighed 14 stone; he did not know the blood-pressure, but he had a very full pulse, both before and after the operation. If a patient lost much blood, it was not failure of the circulation which stopped the hæmorrhage, but the change in the clotting-time. If one sliced a tiny vessel longitudinally or button-holed it, the person would bleed to death unless there were a means of stopping it; he considered that the means was the alteration in the clotting-time.

As to knowing in what case one should give sodium bicarbonate he knew of no certain method of recognising this. From clinical observation it was evident that most people with a greasy skin were "bleeders." Patients who had much sepsis in the nose, pus running down the naso-pharynx, could easily be tested, and many had quite a long clotting-time. The blood in the record case he had encountered took sixty-five minutes to clot, and if he had operated upon that case he would have had a very serious time of it.

The period required to get the urine under the influence of the alkali varied a good deal with the condition of the patient. If one knew that the patient had a compensated acidosis one could take time, and the results were better; a fortnight could be taken. If a quicker result were desired the sodium bicarbonate could be given per rectum. Too much alkali could be given, with resulting alkalinosis, a condition to be avoided, although it probably did not matter so much in the adult, except in a few rather rare conditions, but it was certainly dangerous in children. He had found sodium bicarbonate the best alkali to use. Magnesium hydroxide had the disadvantage of being a purge. He had not experienced any alteration in the clotting-time following the administration of hæmo-plastin. Calcium given intramuscularly generally stopped hæmorrhage, but the local abscess resulting contra-indicated its use.

The Pharyngeal Pouch of the Pig.—DOUGLAS GUTHRIE, M.D. Edin.

(ABSTRACT.)

Specimens were shown illustrating the pharyngeal pouch normally present in the pig, but which is not found in any other domestic animal. Nothing is known of its function. The position of the pouch,

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in the posterior wall of the laryngeal pharynx, is precisely the same as that of the pharyngeal diverticulum which occasionally appears in man. The pouch is briefly described in works on veterinary anatomy.

The pharyngeal pouch of man is usually regarded as a hernia which develops gradually, but the pouch in the pig is in no sense a hernia. It is a congenital structure, and contains muscle fibres in its wall. A further study of this pouch in the pig might add to our knowledge of the causation of the pharyngeal pouch encountered in laryngological practice.

Silent Tracheotomy: Its Significance. — A. J. M. WRIGHT, F.R.C.S. — The Paper is published in the *Journal of Laryngology and Otology*, Vol. xliii., p. 779, November 1928.

DISCUSSION.

Mr MUSGRAVE WOODMAN related an accident which recently happened. He was removing tonsils by dissection, and at the conclusion of removing the first tonsil he was using a crushing tool when the tonsil slipped into the back of the pharynx and disappeared. He thought it had passed to the lung. He watched for a change in the patient, but there was none. He therefore removed the other tonsil, and meanwhile sent for his endoscopy instruments. He found the tonsil at the bottom of the right bronchus, and brought it up. The tonsil had passed beyond the danger-point, and the patient knew nothing about it.

Mr M. VLASTO thought that the liability of accidental aspiration of blood and lymphoid tissue during operation was greatly increased by the patient being seated upright in a chair.

Mr A. J. M. WRIGHT (in reply) said he no longer used an untethered finger-stall. Mr Woodman's remark was of great interest, and it demonstrated the difference between a bronchial foreign body and one at the bifurcation. The former was not a matter of life urgency, seeing that time could be taken to send for instruments.

Familial Infection of Chronic Sinusitis: its Clinical Import.—PATRICK WATSON-WILLIAMS, M.D. Lond.

(ABSTRACT.)

Although it seemed inevitable that chronic as well as acute rhinitis should be contagious if only in a less degree, yet this might not be easy to prove. When confronted with fibrinous rhinitis, due to a distinct organism—the Klebs-Loeffler bacillus—contagion is readily proved; but, so ubiquitous is the common cold, that we take refuge in the belief that while certain families tend to escape, others are predisposed to catarrhal infections. In a measure this is doubtless true; nevertheless there is a difference between proclivity to common colds which come and go completely, and a chronic catarrh when it becomes an "established" or "focal infection."

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Now if, as there is good reason to believe, chronic nasal focal sepsis is a causal factor in appendicitis, gastro-intestinal catarrh, etc., we ought to be able to find that such abdominal sub-infections prevail in families with a proclivity to chronic naso-oral sepsis. Of course, similar evidences of a tendency to sub-infections in other territories should appear, but we shall restrict our investigations to the abdominal region, except for one example in which mastoiditis and insanity seem to have resulted from familial infection.

It is suggested that a child, subject to a nasal sinus focal infection, rarely escapes septic infection of its tonsils and adenoids, and that when these alone have been removed, the persistent re-infection of the remaining lymphoid tissue causes recurrence of adenoids. But this child will tend to infect brothers and sisters, though auto-immunisation may in time confer a relative immunity on the offender. But if that child grows up and marries, this parent is prone to infect members of his family. In some cases investigation for such unsuspected sources of infection in children has shown that a parent has been the subject of a long-standing nasal sinus infection. What has been accepted as inborn familial constitutional weakness might be more correctly explained as "carrier infectivity." Many examples of such family histories may be given.

There is good reason to believe that early and effective treatment of parental nasal infection would have saved many serious abdominal operations alone, without taking into consideration conveyed infection in other territories.

Mr W. STUART-LOW said that he was called in consultation to the son of a farmer in Oxfordshire, who was suffering from an acute frontal sinusitis. He found the farmyard full of mud and slime; the surroundings were very insanitary and the atmosphere misty and damp. On his advice the family moved to a sunny slope in the south, and thereafter enjoyed good health. "Surroundings" had much to do with the origin of such conditions as those described by Dr Watson-Williams.

Mr MUSGRAVE WOODMAN said that many cases of chronic nasal catarrh in young children seemed to resist cure. They were cases in which tonsils and adenoids had been removed. There was not yet much evidence of gross sinusitis, yet nasal catarrh was present. His attention was directed to this group by a striking example which occurred three years ago. He was asked to treat quinsy in an infant of nine months, and he wondered how it had become infected with that condition within the first year. The father had had suppurating sinusitis, pus streaming from the sphenoid, and the mother had had five attacks of quinsy. It was clearly an instance of direct infection from the mother. In cases of that kind he went into the family history as well as that of the patient, also he asked to see the nurse. Often the nurse was the centre of infection, and in many cases she was more in contact with the child than anyone else.

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Dr LOWNDES YATES said that he once had a group of cases in which children had had a definite discharge from the nose which did not yield to treatment. It was observed that the mothers of many of these children were suffering from pyorrhœa, and that when the sepsis in the mothers' mouths had been removed the discharge from the noses of their children disappeared. This raised the question as to whether the infection could be air-borne. Much work had been done on this question in France, but no proof was forthcoming that the infection was air-borne. It might be conveyed by fingers inserted in the nostrils. Still, in the case of children, there was good evidence that the infection might be conveyed by the mother or a nurse if they had infected teeth or well-marked sinusitis.

Dr J. S. FRASER agreed that environment was important; but there was also the family diathesis, as it was formerly termed. The late Sir Thomas Grainger Stewart laid great stress on diathesis, and it might be there was a catarrhal diathesis. It was recognised that there were families in which the chronic nasal discharge was very common. Everybody at some time or another suffered from acute nasal catarrh, but fortunately not in all cases did it become chronic. Might it not be that there was some inherent weakness in these families which tended to be manifested in the development of chronic nasal catarrh? This condition might be due to susceptibility rather than to direct infection from a relation.

Mr JAMES ADAM said he thought that deficiency of vitamins and excess of carbohydrate would cause such conditions. In the hospital to which he (the speaker) was attached there were 400 beds for children, and when he first went there he was continually troubled by running noses and sinusitis in these children. He began open-air treatment, dosage with a little cod-liver oil and the eating of an apple daily; also handkerchief drill; since then there had been practically none of these chronic cases.

Mr H. S. BARWELL (President) said it seemed that there were various possibilities to be considered in familial catarrhs, or infective conditions: direct infection, environment, the possibility of vitamin deficiency in the diet and endocrine disturbance; and lastly, diathesis (which might be regarded rather as a diagnosis to be arrived at after exclusion of the other three).

Dr WATSON-WILLIAMS (in reply) said he only wanted to elicit interest in this question on very broad principles. With regard to the remark of Dr Fraser on familial diathesis, the fact remained that, in spite of any predisposing diathesis, many affected members of families were cured of trouble when the sinuses and the upper respiratory tract had been rendered healthy; diathesis did not then seem to operate. The report of these cases, again, emphasised the desirability of removing all sources of established sepsis. As to bad environment, it did probably act as an influence at times, but the cases reported were those of patients from families in good circumstances residing in various districts and all considered particularly healthy, so that environment could not have been a contributory cause in all.

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Societies' Proceedings

Intrinsic Cancer of the Larynx operated through a Laryngofissure. (Lantern Demonstration of Immediate and Lasting Results in Seventy Cases.)—Sir St Clair Thomson.

(Abstract.)

He had recently completed a series of seventy cases of laryngofissure for intrinsic cancer of the larynx, apart from those in which he had followed this route in order to treat enchondroma or for exploration. He had obtained the after-history of each of the seventy cases. This series extended over twenty-eight years, as the disease, compared with malignant disease elsewhere, such as of the breast, was very rare. His object, now, was to go as far down into the subglottic space as possible and up on to the ventricular band, and to remove everything between these points, including the internal perichondrium, leaving only the external perichondrium. The dangerous area was the subglottic space, and he liked to take away not only the anterior commissure, but a little tissue on the other side of it.

Laryngofissure gave an excellent result. Sixty cases were private and ten were hospital patients. In females the disease occurred earlier in life than in men, but in males its onset continued later. Of the seventy patients, thirty-four were still alive, from three to nineteen years after operation. There had been eighteen deaths from causes other than recurrence and three deaths from operation—namely, one from rupture of the œsophagus due to vomiting, and two from bleeding; the two latter would probably not have died if they had not been given heroin or morphia. He never used "dope" drugs either before or after operation. Eleven of the patients had developed malignant disease elsewhere, including glands in the neck. Most of the recurrences were within the first year, thus showing the importance of Semon's instructions to patients to present themselves once monthly for the first year. In borderline cases, should there be recurrence, laryngectomy should be performed. In subglottic cases—those in which the cord was fixed—the prognosis was unfavourable. The author considered that there should be no operative death in these cases unless something exceptional occurred. The operation left the patient with an adequate voice and no social disability, and in selected cases the cure should be lasting. He had in the past operated upon cases such as, with a larger experience, he would not attempt now. Of nine cases in which the cord was fixed, only four patients lived more than three years after operation. He alluded to the importance of a careful preparation of the patient. He was not insistent upon any particular form of anæsthesia; the operation could be done under local anæsthesia, and if a general anæsthetic was preferred the patient should not be under it very deeply. No atropine, morphia, or similar drugs should on any account be used, but bromide

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was permissible or aspirin. He did not see any advantage in using cocain beforehand, nor in plugging the larynx, nor in doing endo-resections. There was still need to urge that these cases should be sent to the laryngologist at an earlier stage, for that was, naturally, the stage at which operation gave the best results.

Mr H. S. BARWELL (President) said that the more the record of such experiences could be heard the better, because these cases varied so much that the more instances one could hear carefully described and see illustrated, the better would be the chance of laryngologists dealing successfully with such cases which came their way.

He also had been impressed with the rarity of such cases in hospital practice (*i.e.*, cases at a stage suitable for laryngofissure) in comparison with those seen in private practice. Sir St Clair had eight in private to one in hospital. Sir Felix Semon told him (the speaker) years ago that he had never seen in hospital a case suitable for laryngofissure, but at the present day patients with the disease presented themselves at a somewhat earlier stage. The family doctor needed to be more educated as to the sending to an expert patients with hoarseness of more than a few weeks' duration, which did not quickly improve under treatment. The public also needed to be told that the throat should be thoroughly examined in all cases of persistent hoarseness.

Professor GEORGE PORTMANN (Bordeaux) said that since he had seen Sir St Clair Thomson perform laryngofissure he had become a warm supporter of the operation. In the tables shown were cases of patients who had lived eleven years and twelve years after removal of glands, and he would like to know what Sir St Clair's practice was in that respect; did he take the glands away at a second sitting or remove them months or years after the primary operation?

Dr F. R. PACKARD (Philadelphia, U.S.A.) said that he had had very little personal experience in this class of case. He and his colleagues frequently wondered that the term laryngofissure was not replaced by the name partial laryngectomy, or hemi-laryngectomy. In America it was felt that "laryngofissure" simply implied an incision in the larynx, and not a dissection of the growth.

Mr W. STEWART asked whether, in a case in which Sir St Clair Thomson found the cord fixed, he did laryngofissure, or did he at once perform laryngectomy?

Mr THACKER NEVILLE said he was a beginner in this operation, as he never saw cancer of the larynx in China. In the last year he had carried out three laryngofissures. The first patient died from hæmorrhage, which began when, in operating, he reached the arytenoid. He tried ligaturing and then applied a cautery, and the hæmorrhage stopped. The patient did well, and was to be discharged from hospital on the eleventh day after operation, when on the tenth day he had a severe hæmorrhage and died. His mistake had been employing the cautery instead of the ligature. In the second case the anterior two-thirds of the left vocal cord were involved. At operation he found the growth had crossed the middle line and so he cut through it in making the fissure. He removed the left vocal cord and

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anterior one-third of the right. He did not remove cartilage and there was a recurrence for which the patient refused further operation. His third case was one of papilloma of the vocal cord, which was easy to remove. He ligatured the vessel at the arytenoid by under-running it with a ligature on a needle, and, as recommended by Sir St Clair, he removed the cartilage and the patient did well. The report of the pathologist was that it was tubercle.

Dr J. B. CAVENAGH said the public could not be expected to have knowledge of such subjects; improvement in regard to seeing cases earlier must depend on the doctor. At the present day the subject was doubtless taught in the medical schools. But it also devolved upon doctors to bring the matter before their own local medical societies; this was rarely done, hence the opportunities of obtaining cases early for treatment were largely lost.

Dr J. S. FRASER said he had operated upon twenty cases of intrinsic cancer of the larynx, ten of them hospital patients. One was sent with a history of hoarseness of only one month.

He had been surprised to see how much of the false cord Sir St Clair removed. He took it that the malignant disease spread downwards to the subglottic region, rather than upwards to the false cord. In one case in which he (the speaker) had removed a good deal of false cord there was some difficulty in swallowing afterwards, and for some days the patient had to swallow with his head over the edge of the bed, and to take food by sucking through a tube. He recently saw a case in a patient from New Zealand in which there had been hoarseness for three and a half years, and yet the affected cord was very mobile. It had a "mouse-eaten" appearance, but towards the vocal process there was a papillomatous growth, which he removed. The report was "squamous epithelioma." He saw the section, and the patient was subjected to operation.

With regard to cancer recurring elsewhere, the only case he had had of this kind was in a woman whose larynx was excised, and she died seven years later of cancer of the cervix uteri.

He emphasised the importance of a thorough preliminary general medical examination of these patients. In the case of at least two of the patients he had operated upon, in whom death took place within a week of operation, the medical condition was such that the operation ought not to have been done. These cases had been medically examined but not with sufficient care.

Sir ST CLAIR THOMSON (in reply) said he was pleased to have elicited the questions he had been asked, as they were all of interest. Sir Felix Semon once told him he had not seen a case in hospital suitable for operation by laryngofissure, and that showed what good work could be done in private practice.

In one of the cases in which recurrence took place in the glands there was no recurrence locally. He handed the patient over to Mr Trotter, as a very deep operation was necessary. That was about eight years ago, and recently he had seen the patient, quite free from disease in larynx and in neck.

He was glad to hear Dr Packard insist that this operation was really a partial laryngectomy. This was an instance of how we were sometimes

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the victims of words. By saying it was enough to "split the larynx and take out a cord," people were misled as to the extent of the procedure necessary. In all cases of malignant disease, in any part of the body, one should try to get a face view of it. That was why he was opposed to window resection. He removed the diseased area to as wide an extent as possible, short of crippling the patient. That was why the ventricular band was removed in the case to which Dr Fraser alluded. The pathologist often reported that the growth had spread along the cord towards the floor of the sinus of Morgagni; sometimes he felt doubtful whether he had removed all the cancer from the muscle layer. If the operator entered deeply, he had to take away the ventricular band. The subglottic region was certainly dangerous, and he had been surprised that even with a mobile cord the disease might yet be deep in the muscles.

He had been asked whether he operated when the cord was fixed. He hoped to publish later, not from a mere impression, but from a careful study of his case-papers, a definition as to what cases were suitable for the operation. But he could try to outline them now.

If a growth was limited to a mobile cord and it had not extended to the anterior commissure, or the arytenoid, it was a most suitable case for treatment by laryngofissure. If the growth had extended to the anterior commissure it was operable, but not so hopeful as to the result as in the previous kind. If the growth had extended to the vocal process, close to the arytenoid, he would not operate. If the growth had invaded the subglottic space and the mobility of the cord was impaired, it was a doubtful case. If the cord was absolutely fixed, it was very doubtful, though he had had successes even in that class of case. In these borderline cases the decision must rest with doctor and patient. If it were the case of a young patient who had to earn his living, one would give him the benefit of laryngofissure, watching him once a month and preparing to do laryngectomy if there were a recurrence. If the patient had retired from his occupation and was in good circumstances and desired to be freed from all anxiety, he (the speaker) would do complete laryngectomy. But sometimes, as others had observed too, one cord would be affected and the other appear to be free, but yet the growth had penetrated into the subglottic area and had crossed to the subglottic area on the other side by way of the anterior commissure. The patient should be thoroughly cocainised, and inspected several times.

It was praiseworthy of Mr Thacker Neville to have related his misfortunes in early cases. The death from hæmorrhage in that gentleman's patient was a surgical misfortune; both Sir Henry Butlin and Sir Felix Semon used the cautery in early days, but because it conduced to secondary hæmorrhage they gave it up.

Dr Fraser's criticism as to a third of his cases being in hospital patients was interesting. A thorough medical examination was admittedly important, but there again came in the "glorious uncertainty of life." One of his (Sir St Clair's) patients was aged 59; he had him medically examined. The physician warned the speaker that the blood-pressure was 200, and the arteries hard. Rather than let him die miserably, however, operation was decided on: there was no hæmorrhage, nor cause for anxiety, and he died, aged 72, of cerebral hæmorrhage without any recurrence.

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Societies' Proceedings

CLINICAL MEETING.

June 1.

President—Mr HAROLD BARWELL, F.R.C.S.

Laryngeal Case for Diagnosis—M. VLASTO, F.R.C.S.—Members of the Section who saw this man,* aged 31, who had suffered from hoarseness for about a year before being shown, considered that it was a case of laryngeal tuberculosis. A piece of the growth on the right cord has been removed for examination, and on Dr Elworthy's report a laryngofissure was performed in June.

Professor G. PORTMANN said he had seen this patient, and saw no proof in the section that the condition was malignant, though the state of some parts of it seemed doubtful. It was very important from the points of view of diagnosis and prognosis, to see other sections.

Dr JOBSON HORNE suggested that the case be referred to the Morbid Growths and Research Committee for report. The report, with a specimen of the growth for the Society's Cabinet would give the completeness to the case required for scientific and statistical purposes.

Mr VLASTO replied that he did not feel competent to express an opinion on the nature of the lesion. Dr Elworthy reported from the small piece taken away that the growth was definitely malignant. In spite of several opinions that it was tuberculosis, he (the speaker) had carried out a laryngofissure. He was anxious there should be no mistake, and he would send the section to the Morbid Growths and Research Committee for report.

Hyperostosis of the Maxilla—E. D. D. DAVIS, F.R.C.S.—Female, aged 57, has had a tumour of the left upper alveolus for more than twenty years. She was first seen in July, 1917, and the swelling has slightly increased. X-ray photographs of the skull and other signs indicate osteitis deformans.

Hyperostosis Cranii—E. D. D. DAVIS, F.R.C.S.—Male, aged 38, was shown to the Section in January, 1912. He then had symmetrical osseous swellings of the nasal processes of the maxillæ extending on to the facial surfaces of the bodies of the maxillæ. Both sides of the nose are obstructed by the hard osseous swellings which can both be felt and seen projecting into the nasal cavities. The infraorbital margins are involved and there is lacrymal obstruction, but in other respects the orbits are apparently normal.

In addition there is a diffuse, smooth swelling of the body of the mandible to the right of the mental eminence and surrounding the mental foramen. The bony growths have slightly increased during the last sixteen years.

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X-ray photographs show both maxillæ occupied by dense masses of bone.

Osteoma of the Orbit and Maxilla—E. D. D. DAVIS, F.R.C.S. —Female, aged 65, was first seen in October, 1924. She has a large osteoma of the maxilla which displaces the left eyeball forwards and outwards. The left eye is almost blind. The left nasal cavity is obstructed by the growth. Wassermann reaction is strongly positive. The lower portion of the osteoma in the canine fossa is necrosed, and a piece of it, about the size of an egg, was removed twelve months ago. At the same time the growth was explored from this site and it was then decided, owing to sepsis, that a complete removal of the osteoma was impracticable.

Dr SALISBURY SHARPE said the appearance in the second case of hyperostosis was absolutely identical with the tropical disease "goundou," a condition of hyperostosis in the nasal processes and nasal bones. The etiology of it had only recently been fully worked out. It was now regarded as a sequel of yaws, a spirochætal disease allied to syphilis. The members of the Royal Society of Tropical Medicine and Hygiene and the Tropical Diseases Section would probably be glad to see the case.

Mr E. D. D. DAVIS (in reply) said the first of the cases was typical; there was a localised hyperostosis of the palate and alveolus. Years ago, Sir Victor Horsley operated upon five similar cases; he found a very thick and vascular periosteum, and beneath it spongy new bone. Sir Watson Cheyne operated upon a similar case, which he (the speaker) watched for some years.

In the second case of hyperostosis the Wassermann reaction was positive, and the man had been treated for syphilis, but it made no difference; hence it was concluded that the positive Wassermann was accidental. No further investigations had thrown additional light on the case.

The Wassermann reaction was positive also in the case of osteoma of the orbit and maxilla, and the patient had necrosis of a portion of the osteoma in the cheek sulcus. The odour before a large sequestrum was removed was overpowering.

Lymphangeioma of Larynx—A. R. TWEEDIE, F.R.C.S.—Male, aged 57, complained of nasal "obstruction" due to fall on nose during infancy. On 15th June 1927, examination showed gross anterior obstructive irregularity of nasal septum, chronic nasopharyngitis; pharynx and post-nasal space otherwise normal. A rounded, red neoplasm over the posterior half of the left ventricular band was discovered in course of routine examination, at which nothing else abnormal was found.

On 25th June 1927, under local anæsthetic and using Haslinger's directoscope, the tumour, semi-sessile, was easily grasped with forceps and removed with knife. Site of origin—junction of posterior end of

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left aryteno-epiglottic fold and ventricular band. Apart from some slight consequent laryngitis, convalescence was normal.

On 10th August 1927, site of tumour now represented by small subsiding infiltrated area. Patient not seen since.

Dr J. Kilian Clarke (Pathologist to General Hospital, Nottingham) reports as follows:—

"The tumour is composed of round cells set in a fibrous tissue stroma, the whole being covered with stratified squamous epithelium. In places there is a tendency to alveolar arrangement, while, in others, lumen formation can be seen. The growth is, in my opinion, endotheliomatous in nature, and is probably an angeioma."

As such a tumour is very rare in the larynx, I sent a section to Dr W. D. Newcomb, Pathologist to St Mary's Hospital, Paddington.

He replies: "I believe it is a lymphangeioma of rather cellular type. It is rather like one we had some years ago under the skin of the back. Provided it was all removed, it should not recur. I have never seen anything like it before in the larynx."

Mr A. R. TWEEDIE said that the case was shown in relation to a similar case recently brought forward by Mr Horsford. He would be very pleased to present the specimen to the Museum.

Mr CYRIL HORSFORD said he had since removed the growth in the case referred to, and it looked like angeioma. The microscopical report was that the growth contained epitheliomatous tissue.

Tumour Growing from the Lower Part of the Left Tonsil and Base of the Tongue—Sir JAMES DUNDAS-GRANT, K.B.E., M.D.—Male, aged 63, showed the oropharynx almost completely filled by a rounded tumour, smooth on its anterior surface, but rugged on the posterior. It appeared to grow from the lower part of the left tonsil and base of the tongue. At first sight it looked inoperable, but on careful palpation under an anæsthetic its continuation into the outer wall of the pharynx seemed rather of the nature of a burrowing than of an infiltration. This was confirmed by Mr Percival Cole. After incision of the mucous membrane we were able to shell out the growth from its surroundings, and to remove it by morcellement with apparent completeness. Mr Cole stitched a tube of radium into the opening left in the lateral wall. The patient now swallows and breathes quite easily, though before the operation swallowing was almost impossible and breathing difficult.

Dr Fry reports as follows:—

"Sections show an alveolar arrangement of closely apposed polyhedral or spheroidal cells closely applied to the outer surface of capillaries. The latter contained well-formed red cells in many instances, and the endothelial cells lining them are often prominent

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and hyperplastic. The nuclei of the cells are large, and stain well. There is very little intercellular connective tissue, the supporting tissue being largely composed of small vessels or capillaries. There are areas of hæmorrhage amongst the cells. In general, the sections suggest a perithelioma derived from the blood-vessels. Alternatively it bears considerable resemblance to a carotid body tumour, of which it might conceivably be an extension. These are often regarded as peritheliomas. Finally, it is conceivable that it might be a secondary nodule from a spheroidal-celled growth, possibly arising in the thyroid."

Mr E. D. D. DAVIS asked whether the tumour was encapsuled. The appearance suggested a mixed tumour; such growths did occur in that situation.

Sir JAMES DUNDAS-GRANT replied that the tumour was fixed and not encapsuled at its site of origin. There was some resemblance to a carotid body tumour, but further comparison showed that it was not identical with the latter.

Anti-Mouth-breathing Mask—T. B. JOBSON, M.D.—This is a device for keeping the mouth closed after operations for producing an adequate airway (Fig. 1, p. 812).

A wax impression is taken of the lower half of the patient's face. From this a cast is made. From the cast a thin metal mask is modelled. This fits accurately the lower half of patient's face from the lower margin of the anterior nares to below the chin. Suitable holes are drilled in the metal. These enable a lint lining to be tacked on and two thin elastic bands attached. The mask is held in position by these elastic bands, which are fixed to a head-band of stout webbing by means of "hooks and eyes." The mask has been used by exhibitor for the past six years and found very efficient. The exhibitor desires to thank Mr C. H. Housden, L.D.S., for his help in making the mask.

The mask is easily made by any dentist, but it is better to have one prepared for each individual patient, in order to ensure a better fit. It exerts pressure on the upper lip, which has a good effect in regulating the pressure on the teeth in the upper jaw. It is efficient, keeps its position, and is comfortable.

Two Laryngeal Cases for Diagnosis—T. B. JOBSON, M.D.—(1) Female, aged 58, had a husky voice for a year or more; a "tight" feeling in throat for twelve months. Lately she has had alarming attacks of spasmodic dyspnœa. States that she has not had scarlet fever or diphtheria, but had an "ulcerated throat" seven years ago. Wassermann reaction negative. Soft palate shows scarring. The laryngeal image is extraordinary—the larynx being covered over with a pinkish growth, in the centre of which is a small elliptical opening

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through which the cords are visible (Fig. 2). There is no complaint of dysphagia.

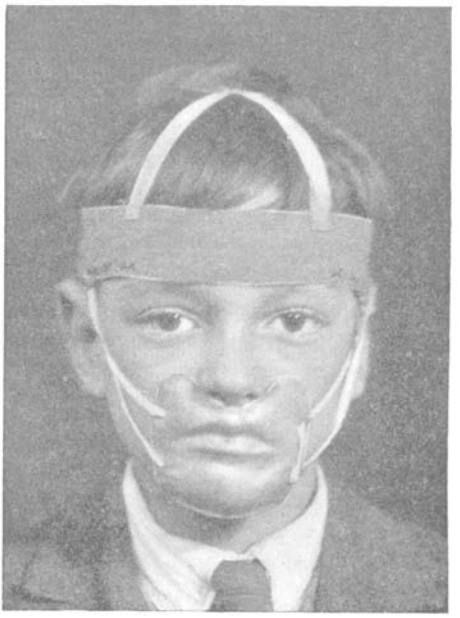


FIG. 1.

Dr JOBSON HORNE considered that the condition on the soft palate and in the larynx was scarring and cicatricial tissue resulting from lupus or syphilis, or both.

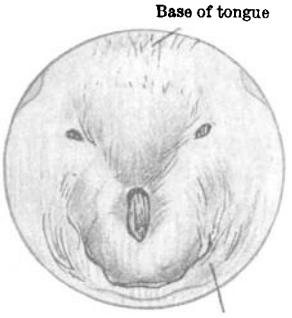


FIG. 2.



FIG. 3.

Sir JAMES DUNDAS-GRANT said he regarded the condition as lupus; he had several times seen a similar appearance presented by that disease.

Mr HAROLD BARWELL (President) said this seemed to be entirely cicatricial with narrowing at the upper aperture of the larynx, and with

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destruction of soft palate, uvula, and epiglottis. The lesions must have been present much longer than the patient realised.

(2). Female, aged 55, gave a history of hæmoptysis three months ago, and a second attack a month later.

Cough present but no sputum. Voice is a little husky.

On the posterior surface of the epiglottis there is a bright red tumour about the size of a small cherry. The posterior half of the tumour presents a dirty yellow membranous appearance. A swab from this surface yielded a culture of staphylococci (Fig. 3).

Mr BELL TAWSE suggested it was of angeiomatous nature, and should be destroyed by diathermy.

Dr JOBSON replied that a month ago the tumour was four times the present size, and completely blocked a view of the cords. The case was sent up as one of phthisis, and the doctor who sent it said there was a patch of disease in the lung, and asked for a report on the larynx, because the voice was husky. The cause of the hæmoptysis was found to be in the larynx, which was unusual; an unexplained hæmoptysis was usually due to a lung condition. He regarded it as angeioma, and it was his intention to treat it by diathermy. He had postponed treatment so that members might see it. Meantime the patient had been curing herself, each hæmorrhage apparently reducing the tumour still further.

Mr NEVILLE said that the diathermy snare could be used.

Very Small Frontal Sinus associated with Severe Headaches. No Suppuration Present—HERBERT TILLEY, F.R.C.S.—Female, aged 29, had severe headaches over left eye, every four to five weeks, for ten years, which began in the morning and reached their climax about 6 to 7 P.M. The most acute pain was felt in the region of the outer angle of the palpebral fissure, but a more generalised pain extended from the supraorbital region to the vertex. Patient had to keep to her bed during an attack.

There was no external abnormality. Pressure over and beneath the left frontal sinus caused a dull pain. No discharge from left nasal cavity, which appeared to be quite normal.

Radiogram suggested complete absence of sinus.

Mr Trotter, in whose care the patient was, agreed that it would be wise to explore the condition of the bone in the region of the sinus. I did this on 6th March. The antero-inferior wall of the frontal bone corresponding to that of a normal sinus was between $\frac{1}{3}$ and $\frac{1}{2}$ in. thick and very vascular. Only a very small cavity was found at the upper end of the fronto-nasal canal. The wound was sutured and healed by primary union. The headaches have been greatly relieved.

Mr BELL TAWSE asked whether the increased vascularity of the bone was the cause of the headaches, or was the cure of the headache a psychological effect of the operation?

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Mr HAROLD BARWELL (President) said he was sceptical about the cure of the headache as a direct result of operative interference. Every member probably had had cases of pains about the head, in which the patients had been cured by all kinds of operation, sometimes for a few weeks, sometimes for longer. He had seen the same in mastoidodynia; an exploratory operation was done, and the pain was completely cured, although nothing abnormal was discovered.

Mr TILLEY replied that he shared the President's view, but the headache was so severe that the patient became incapable of continuing her work and was sent to Mr Trotter for an opinion as to whether there was any intracerebral lesion. It was thought worth while to explore the frontal sinus as there might be some condition present which was not revealed by the skiagram, *e.g.*, an exostosis. The bone was $\frac{1}{2}$ in. thick, strikingly congested, and bleeding from it was very free. Both the frontal and sphenoidal sinuses on that side were very small. The patient had recently written: "I have lost my headaches, and never felt so well in my life."

If anything fresh should occur in regard to the local conditions he would report again.

Removal of Orange Pip from the Bronchus—V. E. NEGUS, F.R.C.S.—Child, aged 4, from whose bronchus an orange pip was removed four weeks after inhalation; $\frac{1}{10}$ gr. morphia given but no other anæsthetic used.

Mr W. M. MOLLISON said he did not give an anæsthetic for these cases, not even morphia, though children were given chloral. He had had a case of a child aged 14 months who had a piece of cork in a bronchus and the child went to sleep in the middle of the operation for removal.

Mr R. P. MATHERS said it was remarkable that the foreign body was in the bronchus for four weeks; the presence of such a foreign body usually caused severe pneumonia in a few days and death followed.

Mr NEGUS (in reply) said he brought the patient because the foreign body had been there a month, and when he saw the child there was acute bronchitis, with the lungs full of pus, a temperature of 105° F. and respiration 50. As the child was nearly dead it was naturally quiet. He would not have given an anæsthetic in any case, as it would probably have led to a fatality, and when anæsthetic vapour was present it was more difficult to see with the bronchoscope. He used Jackson's bronchoscope, 4 mm.; the 5 mm. would not pass through without using force, as it was a small larynx. He showed the tube and the forceps used; if the latter were small enough it was fairly easy to see the body. The patient did not struggle, but seemed happier after the bronchoscope was in position. There seemed no reason why a bronchoscope should hurt a child, although passing the tube through the larynx might be painful.

Reconstruction of the Upper End of the Œsophagus—V. E. NEGUS, F.R.C.S.—Woman showed the results of reconstruction

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of the upper end of the œsophagus by skin flaps, after removal of a carcinoma of the pharynx. (Case previously shown in April, 1927).*

Dr W. S. SYME said he had carried out several reconstructions; the most successful was one in which he removed both larynx and pharynx and made up the pharynx afterwards. Such work must not be undertaken unless the operator was prepared to spend a good deal of time on it, as a flap might be destroyed and one had to begin again, being content with a little closure at a time. In this case the end-result was good.

Mr NEGUS (in reply) said that the case was brought again in order to show that the patient could still swallow comfortably. The reconstruction took a long time; he had to use two flaps because of the position of the growth; in trying to close the skin-tube the flaps once or twice failed to unite, though they did so eventually. He wished to ensure proper union so as to prevent stenosis afterwards.

Carcinoma of Right Ethmoid—NORMAN PATTERSON, F.R.C.S.—Female, aged 44, had five months' right-sided nasal obstruction with slight discharge. The right inferior turbinate presented a suspicious appearance, not characteristic, however, of malignant disease. A portion was removed on two occasions and each time the pathologist reported the presence of squamous-celled carcinoma.

On 2nd November 1927, a lateral rhinotomy was performed. The disease was found to have invaded the inferior turbinate and ethmoid region. The diseased area was removed as completely as possible and diathermy applied to the cavity. At a later date, a 50 mgm. radium-container was inserted.

Spindle-celled Sarcoma of Septum Nasi—J. A. GIBB, M.D.—Male, aged 61, first seen on 2nd August 1926, complained of stuffiness in nose.

A growth occupied left side of septum nasi—a position easy for removal.

On 12th September 1926 perichondrium elevated from right side of septum. Cartilage and its covering perichondrium completely removed together with growth. Report: Spindle-celled sarcoma.

6th April 1927.—Recurrence noticed on remaining portion of cartilage forming bridge, and adjoining part of ala on left side.

Second Operation—26th June 1927.—Incision was made from left inner canthus into anterior naris. Flap turned over and bridge of nose exposed. Portion of nasal bones and ascending process of maxilla removed. Growth completely removed. As there was some doubt as to the ethmoid being affected it was partly removed.

The cosmetic effect is marred by pre-existing acne vulgaris.

Sir St Clair Thomson saw the case and suggested that the incision should be begun high up, so as to get a good exposure.

* See *Proceedings*, 1927, xx., Sect. Laryng. *Journ. of Laryng. and Otol.*, Vol. xlii., 1927, p. 637.

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December 1927.—Recurrence about size of hazel-nut seen on membranous septum.

On 21st January 1928 incision made round base of columella into naris; columella freed from anterior nasal spine, turned up and growth removed.

Although it is too early to forecast the result, there does not seem to be any sign of recurrence. The case is shown as an example of the difficulty of eradicating these growths by surgical measures alone.

Mr W. M. MOLLISON asked whether Mr Gibb proposed to use radium in this case.

Mr GIBB (in reply) asked whether Mr Mollison recommended him to use radium now, or to wait for a recurrence. [Mr MOLLISON: Now.] The trouble was to tell these people that another "operation was needed," and after that perhaps a third. Three years ago he showed two cases of the kind, a sarcoma growing from the same position as in this man's case. In these cases there was no recurrence for three or four years, but this patient had a recurrence in four months; there had been no contiguity between the growth and the area of recurrence. In one case he did two subsequent operations, and then said a third was necessary, but this was declined. Some months later the whole face had become a huge sarcoma. He would adopt Mr Mollison's suggestion.

Extrinsic Carcinoma of Larynx treated with Diathermy and X-rays—G. BROUGHTON BARNES, F.R.C.S.—Male, aged 56, a farm labourer, was first seen 10th September 1927. The whole of the lower pharynx was occupied by a rounded mass covered with sloughs. It was impossible to determine its exact attachments further than that it came from the right side of the pharynx. He was breathing with stridor through a very narrow chink against the left lateral wall. He had taken nothing but fluid, and not sufficient of that, for three weeks, and was extremely emaciated. No glands were palpable. His teeth were filthy. A piece of the growth was removed for section (exhibited) which shows masses of degenerating epithelial cells with well-formed blood-vessels. He was admitted for removal of teeth and palliative operation.

Operation on 30th September 1927 intended only as a palliative, to avoid permanent tracheotomy and gastrostomy. The mass of growth was removed with a diathermy snare. The base was found to involve the right pyriform fossa, the lateral wall of the pharynx, the ary-epiglottic fold, the right free edge of the epiglottis; it extended over the arytenoid, and down on to the back of the cricoid. Diathermy was applied to the base by means of an ordinary flat terminal and the sloughs curetted away.

He immediately began to breathe quietly and eat well, and to put on weight at the rate of about 2 lb. a week.

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On 2nd January 1928, the whole area was treated by diathermy; the pyriform fossa and epiglottis were covered with a smooth scar, except that the ary-epiglottic fold showed an oval mass of growth. He was then treated at St Bartholomew's Hospital by deep applications of X-ray. Six weeks later there was no growth visible.

The epiglottis has been gradually pulled down over the larynx by the scar. On 18th April, his weight was 28½ lb. more than when first seen. He looked in good health. On 12th May he had lost 2 lb., and did not appear so well. I cannot, however, detect any growth in the larynx.

Mr W. M. MOLLISON asked how often it was intended to apply deep X-ray therapy. Dr Watt, who carried out this treatment at Guy's Hospital, kept patients under observation for a long time, and gave a second dose three months after the first, whether there was a recurrence or not. The application of deep X-rays would rapidly get rid of such a growth as this. He (the speaker) had recently seen a case in which a large growth in the pyriform fossa disappeared in three weeks. The difficulty was to know just what cases would yield to deep X-rays, as the degree of malignancy could not be assessed. Two cases of growth in the post-cricoid region looked the same, but one responded to deep X-rays, while the other did not. He had one such case in which the patient was still well four and a half years after a similar application; there was no treatment either by diathermy or by surgery.

Mr HAROLD BARWELL (President) said a remarkable point about these malignant tumours was that one apparently limited growth would be most resistant both to rays and surgery, while another, quite formidable apparently, would be most amenable to treatment. It was for future workers to find a means of distinguishing these varieties before treatment. In the epitheliomatous type the microscope was a help; cases showing much tendency to keratinisation were usually amenable to operative treatment, whereas those which did not show this tendency reacted well to rays, but tended to recur rapidly after operation.

Mr E. BROUGHTON BARNES replied that to-day he was disappointed, as the patient showed some œdema, and there was none when he saw him last. It was hoped to arrange for further deep-ray treatment this month. His experience of the result of X-ray treatment alone was very limited. He thought that when there was a large mass of growth it was better to remove it by surgery, leaving a comparatively small mass to irradiate. In the present case the operation had been a palliative measure.

Hemiplegia of the Palate—Sir JAMES DUNDAS-GRANT, K.B.E., M.D.—A young man was first seen a month ago with "open" nasal speech and difficulty in swallowing, of three weeks' duration. The palate is drawn and dimpled to the right during phonation. There is no paralysis of the vocal cord, but a curtain movement of the pharynx (noted by Mr Mollison). The only apparent cause was a severe attack of so-called "influenza" three months previously. His gums and throat were congested, but examination of a swab showed only cocci

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and no Klebs-Loeffler bacilli. The knee-jerks and ocular accommodation are normal. The exciting cause is probably sepsis and not diphtheria.

VIENNA LARYNGO-RHINOLOGICAL SOCIETY

MEETING OF 10TH JANUARY 1928.

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Abstracted by ALEX. R. TWEEDIE, F.R.C.S.

Congenital Stenosis of the Œsophagus—G. HOFER.—Male, aged 12, was sent to the exhibitor with the diagnosis of functional dysphagia. Œsophagoscopy showed above the bifurcation of the trachea and 18 cm. from the teeth a slight hemispherical swelling of the anterior wall of the gullet. Beyond this at 26.5 cm. from the teeth, an apparently complete occlusion of the œsophagus was found, but after prolonged search, the lumen, the size of a pin's head, was located through which a very fine bougie could be passed. No sign of scarring was to be seen, and the general appearance of the mucous membrane was normal. On further investigation of the history, it was learnt that even in infancy the child's swallowing was abnormal, that he spent a long time in eating, but that no real difficulty occurred until he was about ten years old, when he began to grow very quickly. There was no history of an accident or illness which might have been a contributory cause.

Gastrostomy was performed, and on subsequent examination by X-rays, after filling the gullet from below, a thread-like stenosis was demonstrable 5 cm. in length. The condition was obviously a congenital lesion. Only 45 similar cases had been reported.

Choleasteatoma of the Frontal Sinus—O. HIRSCH.—Patient, a male, had suffered, since 1917, from headache, when an intranasal operation was performed; at the same time, he was told that probably an external operation would become necessary.

In 1927, he was complaining of severe headache and the left eyeball was displaced downwards.

16.3.27. The frontal sinus was opened under local anæsthesia, and found to contain a yellow, cheesy mass the size of a small hen's egg surrounded with pus. On removal of this, the dura mater was found exposed and pulsating. The radical operation was completed. Only three such cases can be found in the literature on the subject.

Cancer of the Larynx appearing first as a Perichondritis—M. HAJEK.—Male, aged 44, was first seen in September 1926, already under treatment during one year for chronic laryngitis.

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The Wassermann reaction and the examination for tubercle bacilli were negative.

The patient complained that he had had difficulty in swallowing for fourteen days, and for the last three days had dyspnœa. On examination a marked swelling was found in the neighbourhood of the left arytenoid area and the larynx was immobile on this side. Inspection of the hypo-pharynx (v. Eicken's method) showed marked œdema in the depth of the sinus pyriformis, which progressed so much in the next two days that tracheotomy was necessary. After this the condition recovered considerably, and he was discharged, but with the tube still in position.

In June 1927, he reported that, accompanied by a rise of temperature during the last three weeks, he had a severe cough, purulent expectoration and great difficulty in swallowing. On examination, pus was seen flowing over the left vocal cord—indicative of an internal perichondritis.

An operation on the left side of the larynx was performed when a sequestrum was removed. Convalescence was delayed, but the patient was eventually discharged improved on the 14th September; there was an unhealed fistula at the site of the wound, a swelling in the interior of the larynx, and the cannula was still in position. During the whole of this time, no question as to malignant disease had been raised. As the condition did not subside, a further exposure was made, when a mass of granulations was found in the neighbourhood of the fistula, which on further examination revealed an undoubted carcinoma, necessitating laryngectomy.

The exhibitor commented on the unusual course of events, but on revision of the facts could not commit himself to an opinion as to whether carcinoma was the original basis of the trouble, or whether this was developed secondary to the perichondritis.

Sphenoidal Sinus Suppuration; Cavernous Sinus Thrombosis; Meningitis; as complications of a Peritonsillar Abscess. Death after three weeks—F. J. Mayer.—A strong young man, aged 21, formerly quite healthy, complained of fever and sore throat. Eight days later, the local doctor opened a left peritonsillar abscess, but as his general condition in spite of this became worse, he was referred to Marschik's clinic, when a further incision was made, and a slight amount of pus evacuated. In spite of this and with good drainage, a generally septic temperature prevailed. The left tonsil was therefore enucleated and at the same time lumbar puncture revealed cloudy fluid under raised pressure, the culture of which however was sterile.

On the following day there was slight œdema of the right upper eyelid with paresis of the ocular muscles; the condition gradually

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became worse with signs of intracranial involvement, and three weeks later the patient died.

The autopsy showed purulent meningitis with pus in the right sphenoidal sinus, in both cavernous sinuses, and in the intercavernous sinus. In addition, there was an enlargement of the spleen, acute hæmorrhagic nephritis and hypostatic pneumonia.

Erosion of the Internal Carotid Artery as a result of a Retropharyngeal Abscess. Death from Hæmorrhage—L. HOFMANN.—Boy, aged 2, became ill on the 18th December 1927, with a temperature of 40° C. After some days swelling occurred in the cervical lymphatic glands.

On 27th December he was admitted to hospital with blood-stained purulent secretion from the nose.

On 29th December, otitis media with spontaneous perforation of the right tympanic membrane took place; a fluctuant swelling in connection with the cervical glands on the right side was incised, and thin pus evacuated; examination of this showed streptococci.

3rd January 1928, a fluctuant submental swelling was incised.

7th January a retropharyngeal abscess was found.

9th January, sudden profuse hæmorrhage took place from the mouth and nose with death in a few minutes.

Autopsy showed purulent infection of the cervical glands on both sides with necrosis of the surrounding parts, and an erosion of the left internal carotid artery.

ABSTRACTS

THE EAR

Suture of the Facial Nerve within the Temporal Bone. STERLING BRUNNELL, San Francisco. (*Surgery, Gynæcology and Obstetrics*, July 1927, Vol. xlv., No. 1.)

The author reviews the established operative methods for restoration of facial function after lesions of the 7th nerve. He finds the results dissatisfying, in that full function is never regained, and urges that direct end-to-end suture of the divided nerve should be the first resort in traumatic lesions. The descending part of the facial nerve is most suitable for this attempt, and he records a successful case.

His patient was a man, 29 years of age, who seven months previously developed complete facial paralysis immediately after an operation for subacute mastoiditis. The paralysis persisted. After suture of the divided nerve, function began to return in six months, and seventeen

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