SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—LARYNGOLOGICAL SECTION.

May 27, 1914.

Dr. D. R. PATERSON, *in the Chair.*

Epithelioma of the Maxillary Antrum and Hard Palate Three Years after Operation.—E. B. Waggett.—Male patient, aged sixty-five. The growth commenced in the region of the left upper molar roots, and probably originated in a paradental "rest." Six weeks' history of pain and swelling. The growth involved the left antrum, the nose, and both halves of the hard palate. Free removal of the major part of both superior maxillæ in February, 1911. No gland operation; no recurrence. A temporary roof to the mouth was obtained by stitching the cut edges of the velum to the buccal mucosa, and above the imperfect diaphragm so formed a plate of rubber was inserted. The patient was thus enabled to take nourishment in the normal manner from the day of operation, and was out of hospital in eight days. An operculum subsequently was made at the Dental Hospital, Leicester Square, and, with the exception of some lacrymal trouble on one side, the patient has been free from serious discomfort.

Sarcoma originating in the Floor of the Right Maxillary Antrum Two Years after Operation.—E. B. Waggett.—Female patient, aged seventeen. Massive growth filling the antrum but not involving the orbital plate. Invasion of the inferior nasal meatus. The right palatine and post-canine regions occupied respectively by firm elastic prominences. Absence of "egg-shell" phenomenon. Dull nasal pain of some weeks' duration. No ulceration and no epistaxis. Operation in January, 1912, a few days after detection of tumour. The malar eminence, the orbital plate and pterygoid processes retained. No gland operation; no recurrence. A rubber operculum, inserted at the operation, enabled the patient to take nourishment in the normal manner from the first. A prophylactic application of radium produced a painful burn of the tongue and temporary fixation of the jaw. Mr. Turner released the jaw by progressive wedging, and fitted an operculum, which has relieved the patient of any serious discomfort. Dr. Shaw reports the microscopic specimen as sarcoma composed of spindle cells, with fibrous tissue, giant cells and osseous tissue in places.

Endothelioma of the Nose Three Weeks after Operation.—E. B. Waggett.—Female patient, aged seventy-four. The left nose was distended by a soft, friable, opaque white tumour with a nodular surface, bleeding freely on manipulation and exhibiting expansile pulsation. The ascending process, left nasal bone, and nasal septum were displaced, with external deformity. (Specimens exhibited.) History of nine months' nasal obstruction and epistaxis. No pain. Operation, May 7: Manipulation of the tumour after exposure through a lateral nasal incision caused brisk hæmorrhage, and the ascending process was quickly removed in

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order to gain adequate access to the unseen bleeding area. The tumour was then readily removed with the finger, and the hæmorrhage at once abated spontaneously. A remnant of the growth was then seen to hang by a broad pedicle from the free edge of the posterior half of the middle turbinate. As the anterior limits of the growth could not be defined, the ethmoidal labyrinth was removed *in toto*, and muco-pus was found in the sphenoid, frontal sinus, and antrum. In all three cases cricothyrotomy was performed, the pharynx plugged, and the tube removed at the end of operation.

The PRESIDENT said this series was a very interesting one, and illustrated with what excellent results these extensive operations were carried out. The exhibitor had shown that the results were lasting. Where success was likely to be unattainable by operation, resort should be made to radium. But it was well to encourage operation in the first place, where that was possible.

Mr. HERBERT TILLEY agreed that Mr. Waggett deserved congratulation on these cases from the operative point of view. In his own student days, if patients came with so-called "malignant disease of the upper jaw," operative treatment used to be considered to be a very serious matter, with almost certain recurrence. He was led to speculate how far in the future treatment by means of radium emanations was likely to minimise the extent of the operative interference. Recently, in University College Hospital, there were two cases of malignant disease of the upper jaw, in which operation was inadmissible, owing to the extent of the disease. As a forlorn hope, two radium emanation tubes, each of 50 mg., were inserted, so that there should be a cross-fire action. In six weeks the disease had disappeared, and there was now nothing to show that the patients were anything but normal people. It made one wonder whether it might not be possible in early cases, by applying radium in this way, to obviate operation altogether. So far, the results were only of two months' duration, and he could not judge of their permanency. The type of disease in each case was columnar-celled carcinoma.

Dr. W. HILL said he had at the present moment under treatment a patient with malignant disease of the antrum and nasopharynx, who by six o'clock that evening would have had four radium tubes *in situ* for forty-seven hours. There was a slight rise of temperature the first night, but since then there had been none, nor evidence of physical disturbance, though the patient was aged seventy-five. One tube of 100 mg. was put through the floor of the palate, a 50-mg. tube was inserted into the antrum by the intra-nasal route, one of the same strength in the nasopharynx in proximity to the left pterygoid region, and a smaller tube towards the ethmoid area, which also was invaded by the disease. One would think that in such a patient the mere placing of four tubes in position would be very disturbing, but the slight rise in temperature the first night was all that happened. There was neither hæmorrhage nor pain. Judging by Mr. Tilley's case, and one under Mr. Graham, and a similar case of his own treated two years ago where the nasopharynx and antrum were involved, we possessed in radium radiation a therapeutic method of remarkable palliative possibilities in cases where a radical operation was contra-indicated either on account of the extent of the disease or the feebleness of the patient.

Laryngo-fissure for Epithelioma of Vocal Cord Nine Years after Operation.—Herbert Tilley.—Patient, a solicitor, on whom

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laryngo-fissure was performed nine years ago for epithelioma of the cord, was first seen by me in January, 1905, for hoarseness of five weeks' duration. A small, flat, reddish swelling occupied the middle third of the slightly congested right vocal cord. The latter moved ess freely than the left cord. Sir Henry Butlin and Sir Felix Semon agreed that the condition suggested epithelioma, but thought a course of iodide might first be tried. This was done, with no good result. I performed laryngo-fissure on April 26, 1905. Microscopic examination of the growth proved its epitheliomatous nature. The patient is shown to illustrate the satisfactory result of the operation and the excellent voice which enables the patient to address public meetings.

The PRESIDENT considered the result perfect. It showed how completely the disease could be removed by a limited operation.

Sir FELIX SEMON said he had seen the patient previously and agai to-day, and thought the splendid result obtained justified the fact that operators in England did not rush to do total extirpation when milder measures sufficed.

Mr. HERBERT TILLEY replied that he had brought the case so that members might hear what a good voice the patient had His practice as a solicitor brought him a good deal into "company" meetings, where those around him had no difficulty in hearing what he said.

Specimen of Vascular Fibromata removed from Larynx by the Indirect Method since the last Meeting of the Section.—Herbert Tilley.—The larger specimen was situated in the anterior commissure and was as difficult to see as it was to remove, owing to an overhanging epiglottis. The smaller specimen was growing from the junction of the anterior and middle thirds of the right vocal cord. The patient had been twice anæthetised and an attempt made to remove the growth by the direct method.

The PRESIDENT took it that the case was brought by Mr. Tilley to remove any idea which might have been formed from previous comments that he had abandoned the indirect method.[1]

Mr. HERBERT TILLEY said he had brought these specimens to show that he had not given up the indirect method. These two cases came before him within ten days of each other, and were interesting. The larger specimen was in the interior commissure, and only by pulling forward the epiglottis could a vascular, bluish-looking fibroma be seen in the commissure. The patient was brought to him with the idea of discussing the question of general anæsthesia and the direct method. He applied 20 per cent. of cocaine to the epiglottis and larynx to see if it was possible to pass the forceps into the larynx. The forceps were Whistler's, and they immediately closed on to the growth, and he therefore removed it at once. The cases were shown to demonstrate that he was not opposed to the indirect method, and that his attitude in the matter was that of eclecticism.

Prof. KILLIAN said that when he was in New York a case was shown to him which was very difficult to examine, and he was unable to see anything; but along the instrument from Reichert he could see a polyp, very deep in the anterior commissure, and removed it. In some cases it was a very good plan to remove a polyp from the vocal cord direct. There were cases which were particularly suitable for suspension laryngoscopy.

Sir FELIX SEMON said he was glad that Prof. Killian had declared

[1] See JOURN. OF LARYNGOL., RHINOL., AND OTOL., January, 1915, p. 43.

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there, publicly, that he still removed the greater number of the laryngeal neoplasms he had to deal with by the indirect method, and he hoped that declaration would be an inducement to junior members not to resort to the newer method to the exclusion of the older. His own early operations dated back to a time long before the employment of cocaine; patients had then to be very laboriously prepared by the introduction of probes, sometimes for weeks, before they became sufficiently tolerant to allow of the necessary operation to be performed. Reference to the *Medico-Chirurgical Transactions* would show that in some cases he had removed growths which were generally believed to be inoperable intra-laryngeally. After some practice he had not found the indirect method very difficult, and he would particularly remark that in not a few cases he had found the growths in the anterior commissure the very easiest of all to remove. He had done this by leaning, with some force, on the lower branch of the forceps against the anterior wall of the larynx. This gave a good deal of help. He devoutly hoped that the indirect method would not become a lost art.

Sir StClair Thomson, in welcoming Prof. Killian there to-day, said that his too enthusiastic pupils were more *Killianische* than Killian himself. He would repeat what he said at the former meeting of the Section —viz. that neither Prof. Killian nor Prof. von Eicken took up the direct method to operate on the larynx if they could use the indirect successfully. Like Sir Felix Semon, he had found it not impossible to operate in the anterior commissure. During twenty years he had not come across a laryngeal growth in an adult which he had not removed to his complete satisfaction by the old, indirect method. He had more than once recommended Horsford's suture for holding up the epiglottis. Like Sir Felix Semon, he agreed that there was a certain knack in using these things, and many would agree that it would be a deplorable day when Mackenzie's forceps were given up. They had been objected to on the Continent and in America by those who had not used them because they looked clumsy and were at an old-fashioned angle. There was a certain degree of tactile appreciation which could be acquired with these forceps. He had sometimes got hold of a growth, and when the patient made a little movement the sensation told him he had grasped too much, and he had let go and waited, and secured a fresh hold. It was a great thing to have Prof. Killian present to give help concerning the indications, because both methods had their indications.

Dr. Dundas Grant endorsed the remarks of Sir Felix Semon, for it was astonishing how easily these growths in the anterior commissure sometimes came into the forceps even when one scarcely expected it; one caught the growth in a sort of antero-posterior grip. He had found Whistler's forceps most useful; there was something extremely convenient about the little double spoons with which the tips were provided. For lifting the epiglottis he pinned his faith to the Mount Blyer lever, which acted on the same principle as the one shown by Prof. Killian. In the case, however, of small children under a general anæsthetic, one had in suspension laryngoscopy an ideal method of dealing with difficulties which had hitherto proved practically insuperable.

Mr. Cyril Horsford said he first recommended the use of the epiglottic suture in a little article in 1908, in which he said it was a plea for the survival of the fast-dying indirect method. So he was interested to hear, even six years later, such an interesting discussion on the subject. In a second paper, in which he set forth his later experiences, he illustrated the point by reference to one case, which was a difficult one. It was a

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small growth on the anterior half of one vocal cord. Numerous attempts were made, with various instruments, and there were two attempts by the direct method, once under a general anæsthetic. After those he succeeded, by means of the epiglottic suture, in removing the growth in the ordinary way. That showed that these growths were more easily removed by the indirect method, particularly if aided by the suture.

Dr. FITZGERALD POWELL was pleased to note the support that was given to the old methods by such eminent authorities, especially after the onslaught that had been made on the indirect method of laryngeal examination and operation. At the last meeting of the Section much had been justly said in favour of the epiglottic suture in operating on growths in the anterior commissure. He would also like to mention laryngeal forceps introduced by Lambert Lack, and a modification of Mackenzie's forceps by himself, in which the cutting blades of the forceps were turned back towards the operator and enabled him to seize the growth very readily in the anterior commissure.

The PRESIDENT said he also could speak from an experience with Horsford's suture, and he much preferred it to the ordinary epiglottis elevator, because it could, so to say, regulate itself. One had only to attach an artery forceps to the suture and allow it to hang out of the patient's mouth, and that produced enough drag on the epiglottis to lift it up. But instruments differed in individual hands.

Dr. DAN MCKENZIE remarked that what the seniors had said was true, and their remarks had been very interesting, but he feared many of the younger men would go away from the meeting and still do what they had been doing for a considerable time past—namely, remove most, if not all, small tumours in the larynx by the direct method. He, of course, said that with trepidation in the presence of masters in laryngology, but he felt that, in honesty, it was for one of the younger men to give utterance to what he was now saying, for they could look back on a good many tumours, difficult or impossible to remove by the indirect method, which, to their great surprise, they could easily get away by the direct. He would like to repeat one remark which he heard made by a pathologist whose *clientele* lay largely among laryngologists, that previous to the introduction of the direct method a large number of the specimens submitted for his opinion consisted of healthy laryngeal mucous membrane, but since the direct method was used practically all the laryngeal specimens submitted consisted of pathological tissue.

Case which illustrates the Successful Endonasal Treatment of Unilateral Pansinusitis.—Herbert Tilley.—Female, seen February 7, 1913. Pus found in right frontal, ethmoidal, and sphenoidal sinuses. Duration of discharge probably about eighteen years. Antrum freely opened in Vienna in 1907. Last May I drained the frontal sinus by the intranasal method as outlined at the last meeting of the Section, and also removed diseased ethmoidal cells and drained sphenoidal sinus. The large opening in the latter is very obvious, and the nasal cavities are free from purulent discharge.

The PRESIDENT said the case illustrated very well the points which Mr. Tilley put forward at a recent discussion. Dr. Perry Goldsmith, of Toronto, would show a specimen bearing on frontal sinus conditions.

(*a*) **Two Curettes for the Removal of the Anterior Ethmoidal and "Agger" Cells.** (*b*) **A Collection of Foreign Bodies removed from the Lower Air Passages and Œsophagus.** (*c*) **Skiagrams**

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illustrating Foreign Bodies in the Bronchi and Malignant Strictures of the Œsophagus.—Herbert Tilley.—Mr. TILLEY said he showed these specimens of foreign bodies to-day as a compliment to Professor Killian, so that he might see how much British laryngologists were indebted to him for methods of dealing with these conditions, and that they were not slow to profit by his teachings in this country.

Intranasal Frontal Sinus Operations.—P. Watson-Williams.—Patient shown on whom intranasal frontal sinus operation had been performed by the exhibitor's method of anterior entry, the frontal sinus septum being deliberately broken down to afford free communication between the sinuses. Skiagrams were also shown of patients operated on intranasally for frontal sinus operation.

Specimens obtained from a Case of Laryngo-fissure for Epithelioma of the Right Vocal Cord.—E. D. Davis.—Patient, a healthy old soldier, aged seventy-six, complained of hoarseness and a sense of obstruction during breathing of nine months' duration. The laryngoscope showed a circumscribed ulcerating growth involving the anterior one third of the right vocal cord and ventricular band, extending on to the anterior commissure, with limitation of movement of the cord. A piece of the growth removed by the indirect method for section completed the diagnosis of epithelioma. There was no glandular enlargement; the urine and sputum were normal. On April 17, with chloroform anæsthesia, the larynx was opened and the growth widely removed with the anterior one-third of the left cord (*see* bottle specimen). With the exception of difficulty of swallowing the patient did well, but on the seventh day after operation he collapsed and died from heart failure. The *post-mortem* specimen of the larynx, with diagram of operation, is shown, also a histological section of the growth. The lungs and kidney were normal, but there was no sign of repair or healing of the larynx.

Sir STCLAIR THOMSON said it was unfortunate for Mr. Davis and for members of the Section that this patient's recovery was interrupted, because the operation was beautifully performed, as was evident from the *post-mortem* demonstration of the larynx. By the diagram Mr. Davis showed exactly how malignant disease of a vocal cord should be removed. He understood that Mr. Davis, after he exposed the larynx, made his incisions round the growth, and he would like to know whether Mr. Davis was satisfied with that, whether there was not much hæmorrhage, and hæmorrhage which was difficult to check, and also whether he did not lose his bearings a little. For the last six years he (the speaker), after splitting the larynx and getting the vocal cords into view, had done a sort of submucous resection, making a periosteal detachment, commencing close up to the laryngo-fissure in front, and undermining the whole part upwards and downwards and right back, until one could not get any further, viz., to the vocal process of the arytænoid. He then clipped the growth below with curved scissors, clipped it above, and round at the back. Mr. Davis had done well to go far beyond the growth posteriorly; he had not only taken off the vocal process of the arytænoid, but also a large part of the arytænoid itself. He asked whether that interfered afterwards with the patient getting rid of his mucus in swallowing, and whether he had to be fed artificially.

Dr. H. J. DAVIS said he did not understand why these patients were not fed by the rectum; there was no necessity to give them water to drink or to feed by the mouth at all. A patient could be kept alive well for

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ten days by means of nutrient enemata. After operation of thyro-fissure recently, he gave the patient nothing by the mouth for ten days, and his only complaint was that he felt rather thirsty; he did not complain of hunger. But there must be enough nourishment given in that way to keep up the strength of the patient. When the patient was on his back and was fed by the mouth, some food was very apt to get down into the lung and set up septic troubles, and this is what these patients usually died from.

Sir Felix Semon said he had operated on many of these cases, and was the first to advise how the after-treatment should be carried out, after the late Sir Henry Butlin had given his first excellent directions. He had fed his patients from the second day, if not even from the first, by the mouth, but he took care to place the patient in horizontal position on the operated side, with the head hanging slightly over the edge of the bed, when the food was taken, and the nozzle of the feeder was introduced into the dependent angle of the mouth. He had not lost a single patient from septic pneumonia which could be traced to that method, and he recommended those who were beginning these operations to follow it. He also raised the question whether it was necessary to give patients adrenalin at all. He doubted the wisdom of it. An early experience of his was that he had lost a patient from secondary hæmorrhage after the use of adrenalin. No doubt it was nice to be able to do a bloodless operation by not merely cocainising the larynx, but also giving adrenalin; but in the case he referred to some blood must have got into the lung, for the patient got pneumonia and died from it. He emphasised the advice he gave twenty years ago, viz., to make the first incision round the growth *below* it, so that if there were much bleeding it would not obscure the second semi-circular cut. Otherwise bleeding might so obscure matters that the operator would not be able to tell whether, in his subsequent cut, he had been keeping a sufficient margin of healthy tissue round the growth.

Dr. Fitzgerald Powell said he was glad Sir Felix Semon mentioned the point about adrenalin, as his own experience confirmed that of Sir Felix. In one or two of his cases there was considerable hæmorrhage before the wound was closed, and in one very bad secondary hæmorrhage, and that was after adrenalin had been used. After reading Sir Felix Semon's opinion, he gave up the use of adrenalin, and had not had a repetition of that trouble. He took care not to close the wound until all the bleeding had stopped. One could get a good view after swabbing with cocaine.

Mr. E. D. Davis replied that when he opened the larynx he used a good deal of cocaine and adrenalin. His object was to get the growth from the back, *i. e.* by a deep incision behind the growth, and approach the two incisions forward, above and below. But that he found difficult. He then started to dissect the growth from the thyroid cartilage from before backwards. He then pulled on the growth, and believed he pulled a little too hard, because there was a strip of mucous membrane detached from the arytæno-epiglottidean fold. He afterwards divided the mucosa, arytænoid, and vocal process with scissors. His object was to take the growth from the depths, so that the blood should not obscure his incision at the back. He plugged the larynx above and below before commencing his incision. There was considerable difficulty in swallowing. Twenty-four hours after the operation he gave the patient some sterile water to drink in order to see how he could swallow, but the water came through his tracheotomy wound. He therefore gave up the idea of feeding by the mouth, and passed a nasal tube for the purpose. He was practically fed

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by a nasal or œsophageal tube until his death. With regard to removal by indirect method of a piece of growth for section, the pathologist was not satisfied with the amount of growth he received for examination: there was not enough to be sure of its nature.

Gummatous Ulceration of the Larynx.—E. D. Davis.—A publican, aged thirty-eight, was first seen in June, 1913, for hoarseness, stridor, and slight laryngeal obstruction. He had received eight intra-muscular injections of salvarsan and was taking mercury, but could not tolerate potassium iodide. Wassermann reaction positive. Sputum: No tubercle bacilli. A sketch of the larynx at this stage is shown. In spite of two more intramuscular injections of salvarsan the laryngeal obstruction increased, and on August 29 tracheotomy was performed. An intravenous injection of 0·9 grm. neo-salvarsan was given, and subsequently, by suspension laryngoscopy, the excess of granulation tissue was removed by curette and forceps. Rubber tracheotomy tubes were used, and after the curetting, the tubes were button-holed to allow air to pass through the larynx. The patient repeatedly coughed up small sequestra of ossified cartilage, even before any laryngeal treatment was commenced, and on one occasion a sequestrum (the complete left arytænoid cartilage) was discovered in the button-hole of the tracheotomy tube. (Sequestrum shown.) A second intravenous injection of 0·9 grm. neo-salvarsan was given, and a negative Wassermann reaction obtained ten days later. The tracheotomy tube was removed at the end of ten weeks, when the larynx had healed. The patient is now taking "tabloids" of iodide and mercury.

The PRESIDENT said the case illustrated the undesirability of assuming that because a patient had a certain number of salvarsan injections he was necessarily cured of his syphilis. Recently he had a case brought to his notice which had had salvarsan injections, but the Wassermann reaction was negative. An insurance policy was granted by an office for a large amount, on a certificate being produced that his Wassermann reaction was negative. Two years afterwards tertiary manifestations of syphilis had occurred in the form of ulceration of the pharynx, and the Wassermann reaction was positive. The patient also, like Mr. Davis's, was very intolerant of iodide, but he bore the "tabloids" of iodide and mercury very well, and the ulceration rapidly healed under treatment.

Gummatous Perichondritis.—E. D. Davis.—A woman, aged twenty-eight, complained of hoarseness and difficulty in breathing for one week. An examination showed considerable swelling of both ventricular bands. The glottis was filled by the swelling, with the exception of a small triangular interval between the arytænoids. Some thickening of the alæ of the thyroid was palpable. Wassermann reaction positive. An intravenous injection of 0·9 grm. neo-salvarsan was given on April 28, with marked reduction of the intra-laryngeal swelling, so that it was possible to give potassium iodide and mercury.

Advanced Laryngeal Tuberculosis treated by Tracheotomy and Curetting.—E. D. Davis.—A cabinet-maker, aged thirty-nine, who had been treated at Mount Vernon Hospital for pulmonary and laryngeal tuberculosis, developed laryngeal obstruction requiring tracheotomy. The glottis was filled by granulation tissue arising from both ventricular bands and from the inter-arytænoid region. Tracheotomy was performed three months ago with morphia and scopolamine, and a local anæsthetic

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of eucaine and adrenalin solution, 4 per cent. At a later date the granulation tissue was removed with forceps and a straight Heryng's curette with suspension laryngoscopy. The patient has received small doses of tuberculin.

Mr. E. D. Davis, in reply to the President, said the patient had very advanced pulmonary tuberculosis, and the tracheotomy became imperative owing to the patient's dyspnœa, restlessness, and the inability to sleep at night. Though the larynx was now fairly free it would be inadvisable to leave out the tracheotomy tube.

Specimen showing Absence of both Frontal Sinuses and Fronto-nasal Ducts.—Perry Goldsmith.—Dr. Goldsmith said the specimen he had to show might not be so unusual to members of the Section, with their large experience, as it was to him. He had every reason to think that the skull shown was that of a Canadian Indian, and there was a complete absence of both frontal sinuses and fronto-nasal ducts. The absence of one frontal sinus was not unusual. In the usual position for the fronto-nasal duct there was no communication whatever.

Dr. Donelan asked whether Dr. Goldsmith could communicate any points about the history of the case, as the specimen reminded him of a case he (Dr. Donelan) had shown here, in which a previously operated frontal sinus was found filled up with bone when an attempt was made to reopen it a year later. This specimen looked as if pre-existing sinuses had become filled up as the result of disease or trauma.

Dr. Perry Goldsmith replied that he was sorry not to be able to give any points in the history, as the possessor of the skull had been dead probably four or five hundred years. He was not prepared to dispute the suggestion that in this case also there had been osteo-myelitis. But he had gouged away the diploë, and there was no suggestion of any communication, nor anything which anyone, even in his most enthusiastic moments, could call a high ethmoidal cell. He expressed his pleasure at having been privileged to be present at the meeting and to participate in it.

? Malignant Disease of Larynx.—Dan McKenzie.—The patient is a man, aged forty-two. He came to hospital complaining of a pain in the right side of his throat "as if a tooth-brush bristle was sticking into it." In the larynx some irregular papillomatous outgrowths were seen in the interarytænoid region rather towards the right side. Both cords were red, and the movement of the right cord distinctly unimpaired. There was also visible a small ulcer involving the posterior end of the right cord; and the interarytænoid region, especially on the right side, showed considerable infiltration and swelling. There is no history of lues, and the Wassermann reaction is negative. Portions of tissue have been removed by the direct method for microscopic examination, the result of which will be reported at the meeting. The patient has a large soft goitre.

? Tertiary Infiltration of the Larynx simulating Malignant Disease.—Dan McKenzie.—The patient is a male, aged fifty-six. The larynx shows general nodular outgrowths and bosses in the region of the left ary-epiglottic fold, the left ventricular band, and the posterior part of the left cord. Here also some ulceration is visible, and the movements of this cord are distinctly limited. The condition is most easily seen on direct examination in Mouret's position. The Wassermann reaction is doubtfully positive.

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Dr. DAN MCKENZIE said the first case had been proved definitely to be tuberculosis. With regard to the second case, the microscopical examination showed giant cells, but the pathologist hesitated to diagnose tubercle, and equally hesitated to say it was syphilis. There were no signs of endarteritis.

Dr. DUNDAS GRANT said this kind of horn-shaped outgrowth was more common in tertiary syphilis than in connection with any other disease. He presumed it was not an artefact condition produced by energetic use of the forceps, and was most probably syphilitic.

Piece of Rabbit Bone removed from Larynx by Suspension Laryngoscopy.—Dan McKenzie.—The patient is a girl, aged two, who came to hospital with severe laryngeal stridor. About three months ago the child suddenly seized a piece of rabbit flesh from its mother's plate and bolted it. Asphyxia at once set in, but a neighbour woman contrived to hook the meat out of the child's throat with her finger. Immediately afterwards the breathing became perfectly natural and the child seemed to be quite well, but the next morning laryngeal stridor had developed, and the mother took the patient to a hospital. Since then the child had successfully weathered an attack of bronchitis, although the laryngeal obstruction remained unchanged during the whole of that time. During this illness ordinary swallowing was found to be impossible, and the child was fed by a nasal tube.

The conclusion arrived at by the exhibitor was that while the rabbit flesh had been removed probably a bone had been left behind, and on that assumption tracheotomy was performed without an anæsthetic, as the breathing was very much obstructed, and then the interior of the larynx was searched under suspension laryngoscopy. It was impossible to see any foreign body, and a difficulty was experienced with the epiglottis, which kept falling back and for this the epiglottic retractor furnished with the suspension laryngoscopic apparatus seemed to be of no value whatever. However, by means of a long probe the epiglottis was held up with the one hand while the forceps were passed with the other. After one or two vain attempts, in the course of which the rough grating of a foreign body could be felt about the neighbourhood of the glottis, the foreign body was seized with the forceps, rotated gently to free it from its connections, and removed.

The tracheotomy tube was removed a few days later, and the patient discharged from hospital well.

Osteomyelitis of the Superior Maxillary Bone and Maxillary Antral Suppuration in a Child, aged eleven months at the time of Operation.—W. Stuart-Low.—The child was sent to the hospital as an urgent case from the Royal Ophthalmic Hospital, where it had been taken as an eye case. The eyelids were greatly swollen, and presented the appearance seen in cavernous thrombosis. A free incision was at once made on the face underneath the eyelid, and a quantity of pus evacuated. Another incision forty-eight hours after was made in the gingival fold and some pus found. On reflecting the cheek carious bone was discovered and scraped away; this was twice repeated with good results.

Dr. BROWN KELLY said this condition was at one time called empyema of the antrum in infants. Some years ago he wrote a paper[1] on the subject, pointing out that the antrum in infants was very small, while the

[1] *Edin. Med. Journ.*, 1904, n.s., xvi, pp. 302–15.

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dental sac of the first molar was comparatively large. Judging from the published cases, and the three or four he had met himself, it would appear that the disease was due to a primary inflammation of the dental sac of the first molar, caused by traumatism or infection, which subsequently extended to the superior maxilla.

Large Spindle-celled Sarcoma of Naso-pharynx in a Child.—W. Stuart-Low.—A girl, aged five. Removal by operation six weeks ago. Specimen and microscopic slide also shown.

The PRESIDENT said the removal had been very successful. Mr. Stuart-Low had stated that the pathologist had reported it as a large spindle-celled sarcoma.

Dr. DUNDAS GRANT said this was one of the conditions which simulated adenoids. A number of years ago Mr. Waggett reported that he had found that sarcoma in the naso-pharynx was of more frequent occurrence than was generally supposed. He would like to know whether that experience had been continued to the present time, or was founded on such a series of coincidences as was met with from time to time in medicine.

Mr. WAGGETT, replying to Dr. Grant, said that when he made that remark he had had three similar cases in a fortnight, but that his experience of late years had not confirmed his early impression.

(?) **Rhinoscleroma.—J. Dundas Grant.**—The patient, a man, aged thirty-two, complains of discomfort in the throat and obstruction in the nose of eight months' duration. The fibro-cartilaginous portion of the nose has gradually swollen, and it now feels as if infiltrated with hard paraffin. There is a deflection of the septum to the right, an irregular softish thickening on the left, and a soft fibrous outgrowth half-way back. The roof of the soft part of the nose is covered with a shiny varnish of sticky mucus. The soft palate is thickened and the upper part of the posterior pillar attached to the posterior wall of the pharynx by a fine cicatricial adhesion. The edge of the right half of the palate is the site of pale papillated ulceration; the finger, introduced behind the palate, feels a dense resistance as if the tissue were infiltrated with a substance of the density of hard rubber. The larynx is irregularly thickened and presents some of the appearances of tuberculosis. The obstruction to laryngeal respiration is only slight. There is a considerable amount of inspissated sticky secretion. There are no signs of tuberculosis, and bacilli are absent. Wassermann's reaction has already been taken and found negative. The patient is a Russian from the province of Minsk, and has been eleven years in this country. His wife and children are in good health. The outgrowth from the left side of the septum is at present being cut for microscopical report, and a culture is being made from a scraping from a fresh cut surface.

The PRESIDENT said the case reminded him of one or two he had seen in Stoerk's clinic in Vienna years ago.

Dr. BROWN KELLY thought that the case was rhinoscleroma.

Carcinoma of Maxillary Antrum; Operation and Removal of Glands.—W. M. Mollison.—E. C——, aged forty-four, attended Guy's Hospital in December, 1913, complaining of bleeding from the left side of the nose for four months. She had been in an infirmary for three weeks on account of the bleeding, but left there one month previous to her attendance at Guy's. She had considerable pain in the left side of the face and about the left eye and in the temporal region; there was

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some tenderness over the superior maxilla. She had wasted "very much." On examining the nose there was much obstruction on the left side, and this was seen to be due to a pinkish mass resembling granulation tissue which appeared to come from the region of the middle turbinal. There was some pus about the granulations, and some septic teeth in the upper jaw. A provisional diagnosis of carcinoma was made and confirmed by the microscopical examination of a piece removed from the nose. Operation was performed in January of this year. Moure's incision was made, and the cheek turned down, thoroughly exposing the maxilla. The growth was found to have broken through the anterior wall of the antrum, and to have invaded the tissues of the cheek. The anterior wall of the antrum was entirely removed, and the cavity found full of growth, but, as far as could be seen with the naked eye, the bone itself was not invaded on the floor or roof. The lining membrane stripped off well. The whole of the outer wall of the nose was removed, and the ethmoid as high up as the cribriform plate. Recovery was uneventful. The operation was greatly facilitated by the administration of ether by intratracheal insufflation, there being no anxiety in regard to blood passing into the larynx. About six weeks later a second operation was performed to remove the lymphatic glands from the left side of the neck. Unfortunately the wound became infected through saliva running over the chin, and extensive suppuration followed; however, owing to the most painstaking attention of her dresser, it eventually healed well. Microscopically the glands proved carcinomatous. As a result of the operation the patient is much improved; she has lost her pain, and at present has no recurrence, though, of course, it is only a short time since operation.

The PRESIDENT said Mr. Mollison was to be congratulated on the excellent result in this case, and asked whether he was satisfied that the administration of the ether by the intra-tracheal method was suitable for such cases. Did that method block up the larynx entirely, and prevent blood entering?

Dr. PETERS asked whether the intra-tracheal administration of ether was effective in this case to check entry of blood in the trachea.

Dr. H. J. DAVIS said that at his hospital Dr. Phillips had given these patients rectal injections of oil and ether, and did so now for practically every case of bronchoscopy. Children particularly went under it very quickly. The injection was given *per rectum*. On one or two occasions the injections had been made into the buttock, but they were painful, whereas the rectal injections were painless and acted excellently. The child was partly anæsthetised first, and then the rectal injection was given, and the oil massaged up into the colon.

Mr. MOLLISON replied that the intra-tracheal use of ether was the feature of the operation, and made it much easier than it would otherwise have been, though he quite agreed with Mr. Waggett that these operations sometimes looked more formidable than they turned out to be. The intra-tracheal insufflation of ether prevented the possibility of any blood passing into the trachea, as the air and vapour were driven in and escaped from the larynx under slight pressure.

Localised Hyperostosis of the Right Superior Maxilla.—W. M. Mollison.—P. J——, aged nine, attended Guy's Hospital on May 5, 1914, complaining of swelling of the right cheek and right-sided nasal obstruction, noticed for the last four months. There is swelling of the nasal process of the right superior maxilla; this feels bony. There is complete right-sided nasal obstruction, and the inferior turbinal is

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seen to be the cause of that obstruction. X-ray examination shows "enlargement and abnormal density of the right superior maxilla" (plate shown). The dental surgeon saw the boy, and found three carious teeth, but did not consider these had any connection with the swelling. The Wassermann reaction is "strongly positive." (See Hutter, "Ueber Hyperostosen der Gesichts-und Schädelnochen und die 'Hyperostosis Maxillarum,'" *Monats. f. Ohrenheilk. u. Laryngo-Rhinie*, 1914, Heft 2.)

Paralysis of both Superior Laryngeal Nerves occurring in the course of Disseminated Sclerosis from Lead Poisoning.[1] —**James Donelan.**—In view of the great rarity of reports of this lesion the exhibitor has been requested to bring forward the case again on this occasion. The patient shows all the distinctive symptoms, including loss of sensibility of the mucous membrane, the cicro-thyroid space is unchanged on phonation, the voice is rough, low in pitch, monotonous—the slight change in pitch that can be produced cannot be maintained. The laryngoscope shows that the cords remain slack on phonation; the wavy line can be elicited on gentle phonation, but increased effort blows the cords loosely apart. At first the anterior commissure used to be turned towards the right, the right muscle having been first affected, now it lies in the middle line. On inspiration, the slack cords completely disappear beneath the ventricular bands.

Dr. Dan McKenzie asked whether it was an accepted fact that disseminated sclerosis was sometimes due to lead poisoning.

Dr. Donelan replied that disseminated sclerosis was pre-eminently an intoxication neurosis affecting chiefly young adults. The infectious fevers were a common cause, and he believed that Oppenheimer had reported twenty-eight cases in which a large proportion had been traced to the influence of lead, zinc, or copper. Part of this man's work was to clean the type cases at a printer's, when he probably inhaled the lead-bearing dust. The fact that "dropped wrist" was not present was made a good deal of in the Court when the case was tried. The necessity of dropped wrist was an old-fashioned view which had its origin at a time when the potteries and house-painters furnished most of the cases in this country. The special tendency to wrist-drop in these callings was now looked on as favoured by the excessive stimulation and blood supply of the overworked centres concerned. The more accurate study of lead poisoning in the last twenty years had shown that the paralyses took the most varied forms, and that neither the blue-line on the gums nor the wrist-drop were any longer to be regarded as essential or characteristic symptoms.

Instruments for Submucous Resection of the Nasal Septum. —**James Donelan.**—(1) Operating specula for septal or pituitary work. Self-retaining and capable of being fixed in the desired degree of dilatation. (2) Combined knives and blunt dissectors, to avoid as much as possible changing instruments during operations. (3) Modified Ballenger swivel knife. The sides of the fork are prolonged as guards so as to diminish the risk of catching in the mucosa when the area of operation travels outside the limits of the speculum. As blades are so often blunted by the osseous portions of the septum they have been made removable. It will be observed that the pivots pass through an oval

[1] See Journ. of Laryngol., Rhinol., and Otol., vol. xxix, pp. 33, 340.

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opening, and that they are hooked in the opposite direction to the line of cut, so that they grasp the margin of the hole in whatever direction the edge may be travelling.

Carcinoma of the Arytæno-epiglottic Fold and Pyriform Fossa removed by Transthyroid Pharyngotomy.—Walter Howarth.—The patient complained of increasing difficulty in swallowing and a lump in the right side of the neck for five months. Large mass projecting from the ary-epiglottic fold and infiltrating pyriform fossa seen with mirror, and its limits more exactly defined by the suspension method. The growth was removed with a surrounding area of healthy tissue five weeks ago. Preliminary tracheotomy. Large mass of glands removed at a previous operation. Considerable importance was attached to the following points: (1) The mouth was completely cleared of teeth before the operation. (2) After the growth had been removed an attempt was made to cover in the raw surface by undercutting the mucosa in the post-cricoid region and on the region of the epiglottis and sewing over the flaps obtained. (3) The linear incision in the pharyngeal wall was closed with a double layer of mattress sutures and strengthened by layers of muscle and fascia. (4) The patient was fed by a nasal tube for four weeks, although the pharyngeal wounds were quite healed at the end of a fortnight. (5) The tracheotomy tube was left in for three days.

The PRESIDENT said Mr. Howarth was to be congratulated on the result; it was an extensive operation, and was thoroughly carried out. He hoped the exhibitor would be able to show the case again in a year or two.

Mr. WAGGETT desired to join in the congratulation to Mr. Howarth, and particularly on his boldness in leaving the vocal cord on the affected side. He was not aware that a similar case had been shown before the Section.

Mr. HOWARTH, having thanked the previous speakers for their remarks, said that in these cases he approached the growth by the transthyroid route, which was first described by Mr. Wilfred Trotter in his Hunterian lectures at the College of Surgeons. This approach had the surgical merit of giving an admirable exposure of the diseased parts and enabling the surgeon to plan the extent of his operation accordingly. He thought that the main difficulty lay in the after-treatment, and he laid stress on the five points that he had previously enumerated. In the first case the growth was situated on the outer aspect of the ary-epiglottic fold and then spread outwards into the pyriform fossa. It seemed a pity to remove the vocal cord if it could safely be left behind, and in this case the growth was removed with a good margin of healthy tissue. Careful suture of the pharyngeal wall and feeding of the patient for several weeks with an œsophageal tube were very important. The latter point was well brought out in a case of Mr. Waggett's which was shown a short time ago.

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