had been removed was trimmed to a size somewhat larger than the perforation, and then inserted between the flaps so that it closed the opening. The nose was then packed with Hill's absorbent splints previously smeared with vaseline, and these were carefully removed twenty-four hours later. The edges of the tear granulated over the cartilage, and in a short time there was no sign of any perforation having taken place.

At the time I did not know that this proceeding had been done before, but I have lately read an article by Dr. Perry G. Goldsmith,[1] of Toronto, in which he mentions doing the same thing with satisfactory results. As he says that so far as he knows the method is original, others may not have tried it, therefore I record the above case.

SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE.—OTOLOGICAL SECTION.

November 21, 1913.

MR. RICHARD LAKE, *President, in the Chair.*

A New Eustachian Bougie.—W. H. Kelson.—The instrument consists of a sliding scale to which the bougies are attached, and it is so arranged that the distance which the bougie projects beyond the end of the Eustachian catheter is automatically marked on the scale. The instrument, including the bougies, is made entirely of metal and so is easily sterilised by boiling; but bougies of gum-elastic or other material can be used if desired.

The PRESIDENT said the instrument was an ingenious one, and it was easily sterilisable, whereas a gum-elastic one was not.

Dr. FITZGERALD POWELL said he was interested to see the instrument, as he thought the bougie for this purpose was a thing of the past. He had not encountered cases which required the use of a bougie, though Dr. Kelson seemed to have had such to treat. There must be only a small proportion of cases in which it was impossible to secure the patency of the tube through the catheter. There was probably not much danger in the use of the instrument in experienced hands if employed very carefully. It certainly was not an instrument for promiscuous use.

Mr. SYDNEY SCOTT had found the bougie very useful in a few selected cases—*i.e.* to clear a temporary obstruction such as thick mucus, and so thus removing an obstacle to inflation. He would be a little afraid to use such fine bougies as Dr. Kelson had shown because of the risk of making false passages.

Dr. H. F. MOLE also expressed the fear that such a fine bougie might cause injury. Some cases admittedly were improved by the passage of a bougie, specially perhaps those which were improved by politzerisation but in which this improvement was very temporary.

[1] Perry G. Goldsmith, M.D., "The After-treatment of Nose, Throat, and Ear Operations," JOURN. OF LARYNOL., RHINOL., AND OTOL., December, 1912.

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Dr. KELSON replied that he would like to know what members would do when, being satisfied that they had got the catheter in the right position, they found they were unable to get a satisfactory result, owing to the interposition of something, such as a plug of mucus. His instrument provided a means of removing such obstruction. When emphysema was caused it was because the instrument was not in the right place, but had perforated, not the tube, but the adjacent soft tissue. Metal catheters without any bougie were liable to do this occasionally.

Lateral Sinus Thrombosis, with Pyæmia.—F. F. Muecke.—The patient, a male, aged forty-six, was sent to the London Hospital from the Eastern Fever Hospital, into which place he was admitted two days previously as a case of typhoid fever. The history commenced nine weeks previously with severe earache on the left side, which was quickly followed by a discharge. The discharge was maintained for seven and a half weeks, when it suddenly stopped and the patient was seized with what he took to be a bilious attack—headache, malaise, nausea, etc. The attack gradually increased in severity, and at the end of eight days he was sent to the Fever Hospital, where he developed stiffness and pain on the left side of the neck.

On admission his temperature was 102·5° F., pulse 100. He was obviously extremely ill, but complained of nothing except the pain in the neck. There was no headache, no nausea or vomiting, no mastoid redness or tenderness, and no auricular displacement. A bead of pus was seen coming through a small perforation in the upper half of the drum, and there was redness and œdema at the upper posterior angle of the bony meatus. The neck presented a diffuse red, tender swelling along the course of the internal jugular vein. No definite history of a rigor could be obtained, only obscure shivering attacks. An examination of his blood showed an increase in the polynuclear neutrophiles and large hyaline cells, and a pure culture of streptococci was obtained from a finger puncture. The cerebro-spinal fluid was normal.

At the operation the lateral sinus at its bend was found to be gangrenous, and the vein was thrombosed from almost the torcula to the innominate vein. The internal jugular was ligatured below the clot and the upper part dissected out and stitched to the upper angle of the incision. The facial vein, being partly thrombosed, was also ligatured. The sinus was syringed through from above, much clot being thus removed. The clot in the upper part of the sinus was also removed. The clot was found to be teeming with streptococci. The patient made a good recovery, but on the second day slight facial paralysis was seen, which became absolute on the fourth day.

An examination of the blood a week after operation still showed streptococci, but the patient was doing well, except for an evening rise of temperature to 102° F. A vaccine was injected three days after the operation, and on five other occasions, a high rise of temperature being taken as an indication. Ten days after the operation the blood was reported to be sterile. Twelve days later the left leg became swollen and painful, and it was found that the popliteal vein was thrombosed. Four days later a similar condition was seen in the right leg. Ten days later the patient complained of great pain over the right kidney, and blood and pus were seen in the urine on the next day. Cystitis quickly developed, followed by left epididymo-orchitis. Four days later symptoms of acute peritonitis appeared, and a laparotomy was performed by Mr. Warren. On recovering from the operation the patient slowly began

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to mend, and was sent to the seaside fourteen weeks after the first operation.

The temperature charts show an average evening rise to 102° F. during the first seven weeks, to 100·5° F. during the following five weeks, and a practically normal temperature the last two weeks.

The PRESIDENT remarked that an unusual feature was the large swelling in the neck, owing to the abscess involving the internal jugular vein.

Mr. SYDNEY SCOTT had never seen such a severe case of true pyæmia recover. The fact that there was peritonitis, too, must be almost unique.

Mr. G. J. JENKINS asked whether Mr. Muecke looked upon the condition as septicæmic, not pyæmic. There seemed, from the description, to have been a general infection of the blood-stream. There was undoubtedly a great variation in the resistance of individuals to streptococcus infection. He remembered a case in which a child had injured his tongue with a piece of wood; streptococci could be grown from the blood of the child for five weeks after the accident. Death ultimately resulted from uræmia.

Dr. KELSON asked whether the vaccine given was autogenous, and whether Mr. Muecke attributed any large part of the recovery to it.

Dr. FITZGERALD POWELL said it was very interesting to note the point mentioned by Mr. Jenkins, viz. how long these cases would sometimes go on without showing alarming symptoms. Some time ago he was asked to see a case in which the patient was thought to be suffering from rheumatism, and had been treated for such for some weeks. She did not look alarmingly ill. There was a history of suppuration in the ear, and at the time he saw her she showed head symptoms and had a pyæmic abscess in the right knee. Operation exposed the lateral sinus thrombosed by septic clot, which extended to the opposite sinus. The patient died, and the lateral sinus, straight sinus, petrosal and cavernous sinuses were found thrombosed—and the petrous bone necrosed.

Mr. MUECKE, in reply, said that of eighty cases at the London Hospital, the abscess which had been referred to occurred in only four, and they were all, like this one, late cases. It was agreed that the case was one of septicæmia as well as pyæmia, as shown by the sections of blood-clot and sinus wall; blood was taken from the top of the vein, and from the basilic vein, and streptococci were found. The later blood examinations were taken from finger punctures, so as to avoid further distress to the patient, already so ill. The vaccine employed was an autogenous one, and was given very soon afterwards. It had a very definite result. It was given six times in all, and each time the temperature promptly came down. The indication for giving the vaccine was an exceptional rise of temperature. He went through the *post-mortem* books for Mr. Hunter Tod, who was working on these cases, and he found that most of the cases found *post-mortem* to have died of sinus disease in the medical wards had been registered as typhoid fever cases. The next mistake in order of frequency was a diagnosis of lung trouble. Facial nerve trouble after the operation, even though that nerve was not touched, was perhaps due to the after-plugging.

Lateral Sinus Thrombosis and Paralysis of External Rectus.—F. F. Muecke.—F——, aged fifteen. Five days' history of severe headache, malaise, and nausea; two rigors; paralysis of external rectus of

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same side noticed the day before admittance. No mastoid redness or tenderness. Case very similar to that above. At the operation the vein was found thrombosed from near the torcula to the common facial junction. The operation was conducted as in the previous case. The sinus was gangrenous at the bend. The patient made an excellent recovery, except for an acute synovitis of the elbow. On leaving for the convalescent home there was a slight recovery noticed in the external rectus. It was on account of the peculiar association of sinus thrombosis and external rectus paralysis that the exhibitor showed the case.

The PRESIDENT said a point worth considering in this case was the paralysis of the external rectus. Sometimes it occurred in children without there being involvement of any structure beyond the mastoid region. It was also sometimes found in association with labyrinth trouble and cerebral abscess.

Mr. G. J. JENKINS said he had not seen many cases of external rectus paralysis, and the cases of it he had seen were mostly associated with acute mastoiditis. The first time he encountered this condition he consulted Dr. Urban Pritchard, who said it would do well if a mastoid operation were done. He asked Dr. Pritchard how long the condition would remain after operation, and he said a fortnight. This prognosis proved to be correct. He had been in the habit of explaining it by the focus of irritation in the mastoid giving rise to an increased blood-flow to the external layer of the dura, on the posterior surface of the petrous, thereby causing a thickening, which might be only slight, but sufficient to nip the sixth nerve on its passage through its small aperture. It was one possible explanation. In all his cases of acute mastoiditis associated with external rectus paralysis the external rectus had recovered.

Mr. SYDNEY SCOTT was interested in the paralysis of the sixth nerve. The early cases of this complication which he had particularly noticed had been associated with infections of the internal ear, and he had presumed without pathological evidence that the paralysis was due to the infection spreading from the labyrinth to the meninges direct to the sixth nerve. This supposition was upset by a case of pneumococcal serous meningitis which recovered without involvement of the internal ear, and he had seen other cases of serous meningitis which had succumbed with sixth nerve paralysis without inflammatory involvement of this nerve. The experience gathered at the National Hospital, Queen Square, led him to say that the most important factor appeared to be increased intra-cranial pressure, to which the sixth nerve was the most vulnerable. Sometimes one, sometimes the other sixth nerve was paralysed, although neither nerve was directly involved in the lesion which caused the increase of intra-cranial pressure. He had come to agree with the explanation advanced by the neurologist, that transient paralysis of the sixth nerve was generally due to increased intra-cranial pressure and nipping of the nerve as it passed through the dura mater, without there being any inflammatory change of the dura mater or of the nerve itself. It was noteworthy that in Mr. Muecke's case headache was severe.

Dr. URBAN PRITCHARD said that in the light of his old pathology, which in so many respects was being altered, he attributed these cases to localised meningitis, including congestion at the site. He had not noted that these cases specially had severe headache, indicating the presence of increased pressure. Practically they invariably recovered after the mastoid operation, the congestion or localised meningitis being relieved by the depletion and counter-irritation.

Mr. MUECKE, in reply, said he had not previously noticed the associa-

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tion mentioned in the notes, and he thought if he brought it forward it might deter others from opening the dura. In neither of the cases was there any outward sign of antrum disease; the hardest pressure did not reveal mastoid tenderness.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE—LARYNGOLOGICAL SECTION.

November 7, 1913.

DR. D. R. PATERSON, *President of the Section, in the Chair.*

Cases of Foreign Body in the Bronchus, illustrating Points of Interest.—D. R. Paterson.—(*a*) *Piece of Button removed from Left Bronchus.*—A girl, aged ten; admitted to hospital, May, 1913. She was said to have inhaled a small piece of button which she had in her mouth. Beyond a slight occasional cough there were no symptoms, and the child looked well. X-ray examination was negative. Though symptoms were absent, the child gave such an intelligent account of what happened that it was decided to explore the air-passages. In the left bronchus, wedged in the branch to the upper lobe, was seen a small, dark body. As the bronchus was small, only a narrow tube was practicable; the fine, telescopic forceps drew it out, but in passing through the glottis it slipped from their grasp. Fortunately it remained impacted in the subglottic space and was easily removed with the crocodile forceps. The body was a wedge-shaped piece of a black coat-button, $\frac{3}{8}$ in. in size.

(*b*) *Piece of Mutton-Bone impacted in Right Bronchus.*—The patient, aged thirty-two, admitted July, 1913, was a hospital nurse, who gave a history that, three weeks before, whilst eating mutton broth, she felt a piece of bone "go down the wrong way." There was choking at the time, which soon passed off, and, beyond an indefinite uneasiness about the chest and an occasional cough, there was a total absence of symptoms. She looked well, had no rise of temperature, and had done her work regularly. Though there were no auscultatory signs, she was "certain it was still there." Accordingly she was placed under a general anæsthetic, and at the bottom of the right bronchus was found a piece of flat bone $\frac{3}{8}$ in. square. Its sharp edges followed the long axis of the wall of the bronchus, allowing the air to pass freely to and fro. Beyond a slight injection of the mucosa in the immediate neighbourhood there was no sign of irritation, though the bone on extraction had a very foul odour.

(*c*) *Feather, 6 in. long, in Trachea and Right Bronchus.*—A woman, aged forty-seven, admitted July, 1913, had worn a tracheotomy tube for two years on account of syphilitic laryngeal stenosis. She was in the habit of cleaning the tube by pushing down a long feather, and whilst doing this a portion broke off and could not be recovered. She came to hospital fifteen hours later, looking very ill, with dyspnœa and wheezing. An attempt to lie down brought on much distress. A bronchoscopic tube was passed through the tracheal opening, and after clearing the profuse secretions which filled the trachea, the feather was seized and drawn out of the right bronchus. It was 6 in. long and was very

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