

on both sides simultaneously except the very feeble and exhausted condition of the boy, coupled with the impeded action of the heart, consequent upon its displacement by the fluid in the left pleura. The relief which is given to the pressure upon the lung by the release of the contents of a large empyema is often followed by reaction, as the component parts of the area in which pressure has been exercised expand to resume their normal position and function. Had the operations been done simultaneously the reaction might have been too great for the exhausted condition of the patient to withstand. But for this it would have been better to relieve the thorax of the large amount of fluid which it contained as early as possible, and as soon as the reaction consequent on the operation on the left side had subsided an opening was made by which the collection in the right chest could find exit, and as satisfactory evidence that the delay was not too prolonged the lung on both sides has expanded to resume its normal position and functions. It is too often overlooked that an empyema is a collection of fluid limited in area and bounded by firm margins, and in which the contained fluid exercises an extreme amount of constant pressure upon the surface of lung with which it is in contact. The conditions, therefore, when an exit is given to the contents must be in the direction of relieving pressure upon the lung, and there is no analogy between opening such a cavity as to permitting air to enter a healthy pleura, since the pressure of air which is admitted to the cavity of an empyema is limited by the margins of the abscess cavity and has less weight and power of pressure than the fluid which it replaces.

LARGE EMPYEMA, PASSING DOWN THROUGH THE
DIAPHRAGM AND AMONG THE MUSCLES
OF THE ABDOMEN.

H. C—, a delicate boy aged six, was admitted into Charing-cross Hospital after having been ill for three weeks. It was found that the whole of the right side of the chest was absolutely dull on percussion, the left being hyper-resonant. The intercostal spaces on the right side were bulged, and there was no movement of that side of the thorax. Below the line of the ribs and extending down nearly to the ilium was a large fluctuating swelling, having three prominent elevations, one of which was red on the surface. Fluctuation could be made between any of these prominences by pressure upon one of them, but whether they communicated with the fluid in the thorax there was no means of ascertaining. An incision through the skin over the outer and posterior prominence showed that the fluid lay beneath the external and internal oblique muscles, and on incising them a large quantity of purulent fluid, estimated at about sixty ounces, was evacuated. A finger was inserted into the cavity, and was passed upwards into the right thorax, through the track of the abscess. The upper surface of the diaphragm and the inner surface of the lower ribs and intercostals could be felt, so that the fluid in the pleura must have passed between the attachment of the diaphragm to the lower ribs and separated the oblique muscles from the transversalis, and in the cellular tissue between these muscles lay the cavity of the abscess, which formed the prominences on the surface of the abdomen. A large drainage-tube was passed through the track described into the cavity of the pleura. The temperature before operation was 101.8°; respiration 50; pulse 155; the apex of the heart was displaced upwards and to the left. In the course of five days the position of the heart appeared to be normal. The temperature fell to between 99° and 100°, but the respiration continued to be rapid; but the right chest was resonant as far down as the level of the nipple. The wound was dressed daily, but the discharge gradually diminished. On the fifteenth day after operation the temperature rose to 102.8°, and on the following day, it being still high, Mr. Morgan examined the track of the abscess with the finger, and found that the diaphragm had been pushed upwards and backwards, thereby obstructing the discharge. The opening having been cleared by the finger some warm water, with a very weak solution of carbolic acid, was injected, and the tube again inserted. Next day there was but little discharge, but the temperature was high, and two days later rose to 104°, but the respiration was only 40. Sickness and diarrhoea lasting five days may have accounted for the fever, as Dr. Green, who examined the chest, could find nothing in the condition of the lungs to explain it. As the discharge was very slight the drainage-tube was

gradually shortened, and as the state of the bowels improved the temperature gradually sank, until at the end of sixteen days from the second examination it was little above 99°. Meanwhile the lung had expanded, until on April 1st respiration could be heard over the normal areas, and on the following day the tube was left out. The wound had completely healed in another twelve days, and the boy had gained two pounds and a half in weight. Before his discharge it was reported that the breath sounds, although weaker than on the left side, could be distinctly heard almost as low as in the opposite side. The chest wall has not very good expansion, but movements are perfectly visible. Resonance is impaired, especially at the base, but nowhere quite dull. The boy was sent to the country, and has since attended to show himself, and appears to be in perfect health, and has gained considerably in flesh.

WOLVERHAMPTON GENERAL HOSPITAL.

SOME CASES OF TRACHEOTOMY FOR SCALD OF THE LARYNX;
REMARKS.

(Under the care of Mr. J. HARLEY GOUGH, late house surgeon, now resident medical officer to the Royal Albert Hospital, Devonport.)

CASES of scald of the mouth, on account of their urgency for treatment, come more especially under the care of the residents in our hospitals, and when the larynx has been directly involved, the treatment must often be prompt and decided, if the life of the child is to be saved. We publish a series of cases in which urgent dyspnoea was present, and in which tracheotomy was performed by Mr. Gough with varying success. We do not know of any statistics or published results of the use of intubation in scald of the larynx. A comparison of tracheotomy with intubation, when employed for urgent dyspnoea due to membranous laryngitis, gives much the same average percentage of recoveries after each.

CASE 1.—James C—, aged three, was admitted into the Wolverhampton General Hospital early in the morning of Nov. 17th, 1886, having sucked the spout of a kettle containing boiling water about six o'clock the evening before. His parents said that soon after the accident his breathing began to get croupy, and during the night became very much worse, and on that account they brought him to the hospital. On admission, the child was much exhausted; respiration was performed with difficulty, the chest walls being drawn in during each attempt at inspiration; the tongue was coated with a thick white fur, and the uvula and fauces were swollen. The patient was at once put to bed, and the cot was surrounded by a tracheotomy tent. Hot moist sponges were applied to the throat, and steam from a bronchitis kettle was conveyed into the tent. The child's condition, instead of improving, became worse, and tracheotomy was performed about an hour after coming into the hospital. The relief from the operation was almost instantaneous, the breathing became quiet and natural, and the pulse soon regained its normal volume and number of beats. Enemata of brandy (half a drachm), beef-tea (four drachms), and milk (four drachms) were given every four hours for the first thirty-six hours, after which the child took plenty of liquid nourishment by the mouth. The tracheotomy tube was removed on the fourth day, and the patient left the hospital cured on Dec. 12th, 1886.

CASE 2.—Charlotte U—, aged three, was admitted into the Wolverhampton Hospital on Nov. 24th, 1886, having drunk some boiling water about four hours before. On admission there was much inspiratory dyspnoea and exhaustion, which rapidly became worse, in spite of treatment—viz., tracheotomy tent, inhalation of steam, hot sponges to the throat,—and tracheotomy was performed about two hours later. When the child was put back to bed after the operation she at once fell into a natural and sound sleep. Nutrient enemata were given as in the preceding case. On the fifth day the tracheotomy tube was removed, but had to be reintroduced thirty-six hours later on account of dyspnoea after a fit of coughing. It was removed again three days later, and had to be replaced in ten hours' time, but a soft indiarubber tube was substituted for the silver one, which was finally removed on the eighteenth day, and the patient left the hospital cured on Dec. 21st, 1886.

CASE 3.—Joseph C—, aged three, was admitted into

the Wolverhampton Hospital on Dec. 20th, 1887, having drunk out of a tea-kettle. Difficulty of breathing soon set in, and when the patient was brought to the hospital he was in a moribund condition, necessitating tracheotomy immediately on admission. The relief from the operation was great, but the child died the next night from congestion of the lungs and convulsions.

CASE 4.—William T—, aged two, was admitted into the Wolverhampton Hospital on Feb. 9th, 1888, having drunk some scalding water from the spout of a kettle about an hour before. On admission, there were some dyspnoea and a croupy cough. Ice packs were applied to the throat, and iced water in teaspoonfuls were given by the mouth every few minutes. The symptoms increased and became alarming in spite of treatment, so tracheotomy was performed about three hours after admission. The same treatment was adopted after the operation as in the preceding cases. For the next two days the patient's condition was most satisfactory, the breathing, pulse, and temperature being normal, the child taking nourishment by the mouth on the second day. On the third day the temperature rose to 100°, and some bronchitis developed, which rapidly became worse towards evening, and from which the patient died on the fourth day.

The following case has been operated on by Mr. Gough in the Royal Albert Hospital, Devonport.

CASE 5.—W. R. D—, aged two, was admitted on Feb. 8th, 1890, the patient having sucked the spout of a kettle full of boiling water. When brought to the hospital there was much dyspnoea and exhaustion. The tongue was white and the uvula and fauces were swollen, congested, and excoriated. The patient was put to bed in an atmosphere of steam, with hot sponges applied to the throat. As the symptoms, which were very bad on admission, became urgent, tracheotomy was performed by Mr. Gough about half an hour after the patient's arrival at the hospital. The child slept well all night after the operation, and next day took liquid nourishment by the mouth. On the fourth day the tracheotomy tube was removed, but was replaced about eight hours later on account of an attack of dyspnoea after coughing. It was finally removed altogether on the fifth day, and the patient left the hospital cured on Feb. 27th, 1890.

Remarks by Mr. J. GOUGH.—During the past four years I have been called upon to perform tracheotomy in five cases of scald of the larynx, of which three recovered and two died. On referring to the hospital records I find that during my period of office as house surgeon to the Wolverhampton and Devonport Hospitals, thirteen cases of scald of the mouth and throat have come under my notice (twelve occurring at Wolverhampton and one at Devonport), out of which the laryngeal symptoms became so urgent that tracheotomy was required in five of them. All the cases occurred in young children, and resulted from attempts to drink boiling water or tea from the spout of a kettle. In two or three of the cases the physical signs and symptoms were almost *nil*, and the children were only taken into the hospital to be watched, otherwise the severity of the symptoms varied from a slight soreness of the mouth and fauces, and a hoarse croupy cough, to impending death from suffocation. The treatment adopted was either—(1) the inhalation of steam in a tracheotomy tent and hot moist sponges to the throat; or (2) iced packs applied to the throat, and iced water or iced milk and water administered in teaspoonfuls by the mouth every few minutes. All the cases were watched carefully, and in those where the symptoms of laryngeal obstruction and general exhaustion became rapidly worse and urgent, tracheotomy was resorted to. As regards the operation itself, chloroform was always administered, sufficient to annul pain during the skin incision. When the trachea was clearly exposed to view, it was fixed with a sharp hook and the upper rings divided, and a Fuller's bivalve and cannula inserted and tied in. For the first twenty-four or thirty-six hours after the operation nutrient enemata of brandy, beef-tea, and milk were given, after which liquid nourishment could generally be taken well by the mouth.

THE SANITARY INSTITUTE.—In order to make the Parkes Museum, which is supported by the Institute, available to all classes for the purpose of obtaining information on matters relating to hygiene and sanitary appliances, the council have resolved to throw this museum open free at all times, except when meetings or lectures are being held.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Concussion of the Eyeball, giving rise to Acute Local Symptoms of Congenital Syphilis.—Cephalic Tetanus following a Penetrating Wound of the Orbit.—Pyæmic Panophthalmitis.—Note on the Operative Treatment of Scleral Wounds.—Acute Cellulitis of the Orbit with a Fatal Result.—Cases of Symblepharon treated by a Skin Flap.

The annual general meeting of this Society was held on the 4th inst., the President, Dr. Hughlings Jackson, in the chair.

Dr. ADOLF BRONNER (Bradford) recorded three cases in which Concussion of the Eyeball in patients with a history of congenital syphilis had given rise to Interstitial Keratitis and peripheral choroiditis. 1. A girl aged fourteen was hit on the left eye with a shuttle at the mill. Interstitial keratitis set in, and seven months afterwards the cornea of the right eye became similarly affected. 2. A man aged twenty-two was struck on the left eye with a piece of coal. The cornea was steamy the next day, and typical syphilitic interstitial keratitis set in, and in ten days the right cornea was also affected. In this case there were brown-black patches of choroidal pigment in the periphery of the fundus. 3. A boy aged nine was struck on the left eye with a dart. Three weeks afterwards he noticed that he could not see so well with that eye. The cornea and media were clear, but there was a patch of choroidal absorption near the macula and peripheral choroiditis. Dr. Bronner thought that, from a legal and also therapeutic point of view, it was of great importance to know if concussion of the eyeball could cause a local outbreak of latent congenital syphilis. He thought that this did occur very frequently, but was overlooked.

Dr. ROCKLIFFE (Hull) communicated a case of Cephalic Tetanus following a Penetrating Wound of the Orbit. The patient, a boy aged seven, received a slight penetrating wound of the left orbit from a fall. Two small pieces of thorn suppurated out on the seventh day. On the tenth day he complained of stiffness of the left face and neck, which was followed by spasmodic contractions of the left side of the face, complete right, partial left ptosis, with flattening of the left side of the face, and inability to open his mouth. The wound and orbit were explored and thoroughly washed out with perchloride of mercury solution; the spasms, which disappeared under chloroform, continued to increase, and became more general, even to opisthotonus, until the twelfth day, when they began to decrease, and entirely ceased in three weeks. The facial paralysis, ptosis, and inability to open the mouth remained for some weeks afterwards. Three months after the accident the only symptoms were slight drooping of the left lid and diplopia on convergence for near objects, both of which were decreasing.—The PRESIDENT inquired if paralysis of the portio dura was at all usual in cases of tetanus. He did not remember to have seen an instance.

Dr. ROCKLIFFE also read notes of a case of Pyæmic Panophthalmitis occurring in both eyes in a patient aged thirty, who miscarried in the sixth month of her fifth pregnancy, and subsequently suffered from septic poisoning. The ocular symptoms commenced on the thirteenth day, and the vision was completely lost in forty-eight hours; suppuration of the vitreous and of the orbital cellular tissue followed, with considerable proptosis of both eyes. She also had ischio-rectal abscess and abscess of the left forearm. In a month the suppuration of the orbit ceased and both eyeballs shrank. The patient regained her general health in three months. The ocular inflammation was considered to be probably embolic in its origin.

Dr. GEORGE A. BERRY (Edinburgh) communicated a note on the Operative Treatment of Scleral Wounds, in which he drew a contrast between the course of perforating wounds of the sclera as compared with similar injuries to the cornea. The more unfavourable termination of the former he attributed to greater liability to infection, owing either to the imperfect apposition of the lips of the wound, or to the absence of that copious outpouring of lymph or gush of aqueous which carried away micro-organisms when the cornea was wounded. He considered the most effectual