body was found lodged in the throat. In one of them a fishbone was removed from the right tonsil. According to the statement made by the patient, it had been there for six years, and had given rise to recurrent attacks of tonsillitis. Since its removal, four years ago, the patient has had no more such attacks.

Dr. Rupp then reviewed the various theories of deglutition, and discussed the possible bearing of the muscular movements that accompany the act of swallowing upon the impaction of foreign bodies in the throat. His conclusions were as follows:—

1. The reasons for the impaction of foreign bodies, such as fishbones, pins, and the like, are not to be sought for primarily in the throat.

2. The tongue, fauces, and pharynx are perfect organs, looked at from a mechanico-physiological point of view.

3. The primary cause of foreign bodies becoming entangled in the throat is to be looked for in the bolus itself; the position of the fishbone or needle therein, whether deep or lying on the surface, and the angle it occupies to the long axis of the bolus, besides the various and varying forces that act on the bolus as it descends to the stomach.

4. Possibly the food descends with a twist or screw-like movement.

5. The Falk-Kronecker-Meltzer conception of deglutition, based on experimental results, may be utilized in explaining how fishbones, etc., may become impacted, and these experimental results do not exclude the element of gyration in the onward shooting bolus.

6. The epiglottis is an indifferent organ in so far as deglutition is concerned.

The CHAIRMAN said he agreed with Dr. Rupp's statement that the impaction of a foreign body in the throat is an accident of considerable rarity, and that the history given by the patient cannot be relied upon. In each case we should make a thorough examination, omitting, if necessary, palpation.

Dr PARK narrated the histories of two cases of foreign bodies in the throat which had come under his observation during the past month. In one case a pin and in the other case a fishbone became stuck in the posterior pharyngeal wall. In a case he saw some years ago, the patient attempted to swallow a turkey's heart whole "for luck," and it became impacted in the pharynx. After an unsuccessful attempt to force it down the throat it was removed with the curved forceps.

# ABSTRACTS.

## DIPHTHERIA.

**Health Department of New York.**—*Diphtheria.* "Brooklyn Med. Journ.," March, 1894.

REPORT of four hundred and five cases of true diphtheria. In two hundred and forty-five the bacilli disappeared three days after the disappearance of the membrane; in one hundred and three in seven

days ; in thirty-four in twelve days ; in sixteen in fifteen days ; in four not for three weeks ; and in three not for five weeks. Irrigation with antiseptics from the commencement causes a more rapid disappearance of bacilli. The department only accept bacteriological proof of the cure of the complaint. *R. Lake.*

**Wethered** (London).—*The Diagnosis of Diphtheria by Bacteriological Cultures.* "Brit. Med. Journ.," March 24, 1894.

THE author referred to twenty-six cases of diphtheria and sixteen of follicular tonsillitis. His practice was to obtain particles of the deposit from the throat by a strong platinum loop. The particle was drawn over glycerine agar-agar, and placed in an incubator at a temperature of 37° C. for twenty-four hours, and the cultures examined microscopically. In sixteen cases of follicular tonsillitis he found staphylococci only, but no organism resembling the bacilli of diphtheria. In the twenty-six cases of diphtheria fifteen times the bacillus was found, three times streptococci, eight times staphylococci. Baginski stated that streptococci might cause mild forms of diphtheria, but of Dr. Wethered's three cases two recovered and one died. Dr. Wethered summed up as follows: (1) that bacteriological examination of material obtained from the throat in doubtful cases of diphtheria might prove of great service in diagnosis; (2) that on microscopical examination there was no great danger of mistaking organisms found in cases of follicular tonsillitis from the pathogenic organism of diphtheria, although the naked eye appearance of the cultures was not characteristic ; (3) that as some observers had described non-malignant organisms similar to the diphtheria bacillus, in case of doubt plate cultures on gelatine should be made as control experiments. *Wm. Robertson.*

**White, Hale** (London). — *Diphtherial Paralysis suddenly fatal, owing to Entrance of Tea into Bronchial Tubes.* "Brit. Med. Journ.," Mar. 24, 1894.

THIS occurred in a man who three weeks after a severe attack of diphtheria became paralytic. Food regurgitated through the nose, and there was unilateral paralysis of the palate. Muscular and tactile sensation was slightly impaired. When drinking some tea, he suddenly began to cough. This ceased in a few seconds, and the patient became very distressed in his breathing, exactly as if he had been suffering from asthma. There was at no time any evidence that the larynx was obstructed. The patient was dead in less than ten minutes from his taking the tea. The pulse continued good till the end. At the necropsy an ounce and a half of tea was found in the bronchial tubes, and this was absolutely the only cause for death. Dr. White pointed out that although there were very rare instances on record in which the impaction of solid food in cases of diphtherial paralysis had caused death, he had not come across any case in which such a small amount had caused death by spasm of the bronchial tubes, which was in all probability what had happened in this patient, the result being no doubt favoured by the weakness of the abdominal and muscles of deglutition.

Dr. Goodall remarked that there were undoubted cases of diphtherial

paralysis due to neuritis ; patients with abductor paralysis (laryngeal), strabismus, and intense dyspnœa during inspiration had, after tracheotomy and intubation, recovered. Patients with laryngeal paralysis should be fed with a nasal tube. *Wm. Robertson.*

**Bäumler** (Freiburg).—*On the Use of Sublimed Sulphur as a Local Application in Diphtheria.* "Brit. Med. Journ.," March 3, 1894.

THIS drug, first suggested as a cure for diphtheria by Laganterie in 1866, and since then disparaged as such by Jacobi and Oertel, has again been lauded by Fraser, Leibermeister and the author of the above article. Powdering the diseased mucosa thickly with the sulphur thrice daily or hourly, together with gargling and suitable dieting, produce as favourable results as any other remedy. The larynx is treated by blowing the powder into its recesses. *Wm. Robertson.*

**Frazer, R. F.** (London).—*Further Cases of Diphtheria successfully treated by the Local Application of Sublimed Sulphur.* "Brit. Med. Journ.," March 3, 1894.

FIVE out of six cases successfully treated by the local insufflation of the powder on to the diseased tracts, along with iron and a liberal supply of fluid nourishment. *Wm. Robertson.*

**Lawrence, V. E.** — *Iodide of Lime in Croup.* "Brooklyn Med. Journ.," March, 1894.

THE author describes this as a dark-brown substance affected by light, and not "iodide of calcium." Ten grains dissolved in four ounces of water is the solution advised ; one to two drachms either every quarter or half hour, or every hour. *R. Lake.*

**Seward, W. M.**—*A Case of Intubation of the Larynx of unusual interest.* "New York Med. Journ.," Mar. 3, 1894.

THE author intubated on four separate occasions, exclusive of simply changing the tubes. The case was one of diphtheria. The first time the tube was in five days, and had to be replaced five days later. It was expelled on the third day and left out, but had to be replaced on the second. It was left out one day, only to be replaced on the second after its withdrawal ; it was then left in for the remainder of the illness—in all, forty-seven days—being changed weekly. Different shaped tubes were used to prevent ulceration. Two hours before its final withdrawal two grains of Dover's powder were administered to prevent spasm. This was repeated at intervals when there was any sign of spasm, and the patient ultimately did well. *R. Lake.*

**Gillett.**—*Comparison between Tracheotomy and Intubation in Laryngeal Diphtheria.* "Gaz. des Hôpitaux," March 5, 1894.

A CRITICAL study, based upon two considerable collections of statistics from different modern and ancient authors. The results in tracheotomy are—15,995 cases, 4816 cured, or 30·18 per cent. : in intubation—8299 cases, with 2486 cures, or 29·97 per cent. The result is nearly absolutely the same in both cases. The author reviews the advantages, dangers

and complications of both operations, and concludes that both have their indications. Tracheotomy is sometimes necessary after intubation, when the asphyxia is not relieved. Of 769 cases of intubation, secondary tracheotomy has been practised 136 times as a last resource, and has given ten cures. *A. Cartaz.*

**Bramwell, Byrom** (Edinburgh).—*Two Cases of Lupus treated by Thyroid Extract.* "Brit. Med. Journ.," April 14, 1894.

THE author was led to use the extract for two reasons—one a purely experimental reason, and the other induced by the consideration that seeing that myxœdematous patients often die from tuberculosis, and that these recover through use of the extract, this may equally benefit lupus, a tuberculosis of the skin. In the two cases, although a cure has not been effected, yet satisfactory progress towards this is quite noticeable.
*Wm. Robertson.*

## MOUTH, TONGUE, PHARYNX, &c.

**Butlin** (London).—*A Clinical Lecture on a Series of Forty-six Cases of Removal of one half or the whole of the Tongue with One Fatal Result.* "Brit. Med. Journ.," April 14, 1894.

THE method of removal was that of Whitehead. The lingual artery was tied where the disease was at the base of the tongue—the artery also being ligatured where the incision for removing diseased or suspicious glands was favourable. Wounds made for the removal of glands, especially of the submaxillary, should be drained for a week or ten days to avoid gravitation abscesses. General sepsis and septic affections of the lungs were the prevalent fatal complications after these operations for removal of the tongue, so that the after-treatment should be directed to maintaining the mouth wound aseptic, and preventing discharges or food entering the air passages. The author prefers iodoform dusting to the mouth wound for a week or ten days. The patient is made to keep his head low and lie on one side (the side to which the greater part of the tongue has been removed), so as to allow free egress to discharges. Where the whole tongue has been removed, and where *Schluck pneumonie* is to be feared, feeding by the stomach tube is to be maintained as long as danger is possible. The great majority of the cases referred to were uncomplicated (*i.e.*, no glands removed or lingual ligatured).

Uncomplicated, 30; removal of one lateral half of tongue, 13; removal of anterior half or two-thirds, 12; removal of whole tongue, 5. The ages varied from thirty-three to seventy-five, and nineteen of them were performed on persons over sixty years of age.

Complicated operations, 16; removal of half of the tongue and lymphatic glands, 2; removal of the whole of the tongue and lymphatic glands, 1; removal of half of the tongue, ligature of lingual in neck, removal of glands, 10; removal of whole tongue, ligature of lingual in neck, etc., 3.