

of the sternum—the left recurrent laryngeal nerve, which was seen on its surface, being drawn over to the left side with a retractor. On exploring the œsophagus with a sound introduced through the wound, the tooth-plate was found to be impacted at a distance of about three inches below the upper border of the sternum; it could just be touched with the tip of the forefinger, when introduced through the wound and passed down the gullet behind the sternum as far as it would reach. Though it could now be easily seized with forceps, it was so firmly impacted that it was at first quite impossible to withdraw it. Attempts were then made to break it up *in situ* by means of bone nippers, bone forceps, and a lithotrite introduced through the wound, but they proved unsuccessful owing to the toughness of the vulcanite composition and the limited space in which the manipulations had to be carried on. It was finally extracted, though not without considerable laceration of the mucous lining of the gullet, by forcibly pulling upon it with a pair of strong forceps and (at the suggestion of Mr. Milner, who was assisting me) by simultaneously working round and round it with a female sound, so as to free it from the œsophageal walls in which the hook and sharp angles of the plate continually caught. The operation lasted an hour and a half, the situation of the foreign body behind the body of the sternum and at a distance below the opening in the œsophagus, which lay at the bottom of a deep wound, readily accounting for the difficulty which was met with. The plate, which was composed of vulcanite, measured one inch and a half by one inch and a quarter; one tooth and a short sharp metallic hook were attached to it. The treatment adopted was the same as in the preceding case—viz., closure of the upper part of the external wound and insertion of a drainage tube at its lower end. The opening in the œsophagus was not sutured, as its margins were much bruised and lacerated. For the first fortnight the patient was fed entirely by nutrient enemata, nothing being given by the mouth except boracic mixture and a little ice. From the fourteenth to the

twenty-first day he was fed by a tube passed through the mouth into the stomach. After the twenty-first day the tube was discontinued, as its passage had on several occasions been followed by hæmorrhage, and he was allowed to swallow milk, nutrient enemata being also given. After the thirtieth day he was fed entirely by the mouth. On the thirty-fifth day the deep part of the wound was entirely closed, no fluid escaping through it. On the forty-sixth day he left the hospital, being able to swallow both fluids and solids without any pain or difficulty, the external wound being almost healed. It is worthy of note that, a few days after the operation, the patient's voice was observed to be somewhat hoarse, and my colleague, Dr. Harris, who examined the larynx shortly before he left the hospital, reported that the left vocal cord was completely paralysed. This would indicate that the left recurrent laryngeal nerve was either injured during the operation or it afterwards became involved in the inflammatory exudation which would be poured out, probably in considerable quantity, in the neighborhood of the wound in the gullet. When the patient was last seen, some weeks subsequently, the wound was firmly cicatrised, deglutition was perfect, and his voice was gradually improving.

The following remarks have been suggested by a consideration of the foregoing cases:—

1. *Question of operative interference.*—When the foreign body is of considerable size and irregular in shape, as in the case of a tooth plate, and when it is so firmly fixed in the gullet that it resists all attempts at extraction through the mouth, œsophagotomy should at once be performed. If left in the hope that it may make its way onwards and be subsequently passed by the bowel, very serious results are liable to ensue, as Church has shown in a valuable paper published in the St. Bartholomew's Hospital Reports, vol. xix. The foreign body frequently causes ulceration of the œsophagus, and this complication is often followed by suppuration in the surrounding tissues or by fatal hæmorrhage, owing to the ulceration opening one of the adjacent large blood-