within the aorta at its bifurcation. On the morning of August 12th the patient's condition did not seem the worse for the operations on his thigh and loin under gas and oxygen, and the aspiration of 6 oz. of blood from the left pleural cavity. Pericardial friction was well marked, no increase of cardiac dullness could be made out, there was resonance in the left axilla, and the breath sounds were generally harsh on the left side. He died at 6.25 p.m. this day.

Necropsy.

There was surgical emphysema of face, neck, and thorax. The left chest contained a small amount of blood. There was an entrance wound in the left posterior axillary line. The pericardium contained a small amount of blood and a small tear on the posterior inferior aspect. There was an exudate of fibrin over the anterior and left lateral walls.

There was a small hole, surrounded by haemorrhage into the myocardium, on the posterior wall of the left ventricle. The interior of the left ventricle was clear except that there was a ragged tear on the septal wall, and the chordae tendineae of the aortic valve were also torn. The heart muscle was very pale and full of gas.

The liver and spleen were very congested and full of gas. In the left lung was a small haemorrhagic infarct with fragments of indurated rib; the right lung was normal.

The foreign body was found at the bifurcation of the left common iliac artery surrounded by dark red clot; the intima was apparently undamaged. There was no tear of the intima at the aortic bifurcation.

Since the second time of screening, on August 11th, the missile must have moved down the left common iliac artery and become lodged at the bifurcation. At the time of the second screening there was no difference noted in the femoral pulses, but the missile most probably moved down the aorta, passing through the aortic valve within half an hour of the first screening, when the phenomena in the left leg were noted. The patient died of general gas gangrene after having lived five days with a piece of shell free in his arterial circulation.

THE STORY OF A TOOTH-PLATE: AN UNUSUAL WAR INJURY.

BY

GORDON TAYLOR, M.S.LOND., F.R.C.S.ENG.,
TEMPORARY MAJOR, R.A.M.C.; SENIOR ASSISTANT SURGEON,
MIDDLESEX HOSPITAL.

DURING the battle of the Somme a soldier was buried in his shelter by a large shell. He was dug out from amongst the debris in an unconscious state, and ultimately placed on a hospital barge, and thus conveyed to the base. When he recovered consciousness on the barge, one of his first requests was for the artificial tooth-plate which he had been wearing when he was rendered unconscious by the shell explosion. The denture—an upper one—was produced from his wallet by the attendant orderly, but the patient, remarking its size and the number of teeth, quickly declared his doubt as to it being his, or if it were, he assured those in attendance that it must have been broken, and that part of it was missing.

The patient had also shown some signs of a fracture of the skull, and to this was ascribed the difficulty in swallowing of which he complained. No radiogram was apparently taken, and he was speedily evacuated to England, and admitted into one of the auxiliary military hospitals at Eastbourne. The man's story led to an investigation of the denture, which showed clear evidence of having been fractured across its palatal and alveolar portions. Examination with the screen revealed the presence of a foreign body in the thorax, and an x-ray plate showed a denture with two teeth opposite the middle piece of the sternum.

I was asked by the medical staff of the hospital to try to remove it. The use of a Brüning's oesophagoscope fitted with a Hill's tube made it possible to obtain a good view of the offending denture, and it was easily extracted *per vias naturales* by means of an Irwin Moore's forceps. So far as the gullet was concerned, recovery was quite uneventful, but the original diagnosis of a fracture of the base of the skull was only too surely confirmed by the development of a pulsating exophthalmos, which was successfully treated by ligature of the internal carotid artery by an able surgeon in Eastbourne.

The case is of interest in that a fracture of an upper dental plate was produced without any injury of the superior maxilla. This injury is by no means unique, for I have heard of similar accidents in the present war, but

the story of this particular case, where one of the fragments of the broken denture was actually swallowed by a patient rendered unconscious by the same injury that fractured the dental plate, must be almost without parallel.

ABSENCE OF THE RIGHT PINNA AND RIGHT TONSIL, WITH RIGHT FACIAL PARALYSIS.

BY

JAMES J. HEALY, CAPTAIN R.A.M.C.

SOME little time ago an extraordinary case of congenital deficiency came under my care. A recruit (W. G. B., aged 18 years) was brought to me, owing to the absence of the right ear.

It was quite evident that the right pinna had never developed. Smooth skin completely covered the site where the pinna should have been. There was no sign of any scar, or of any external auditory meatus. The helix was represented in a rudimentary manner as a slightly elevated ridge of cartilage beneath the skin. Darwin's tubercle was well marked and better developed than any other portion of the cartilage. A rudimentary tragus was present in the usual position, and caused a very slight elevation of the skin. Posteriorly to the tragus, the outer end of the cartilaginous external auditory meatus could be felt subcutaneously.

The left ear was normally developed. Tests of hearing gave the following results:

Left ear normal in all respects.

Right Ear.—(1) Weber's test, positive. (2) Rinne's test: (a) Air conduction just perceptible; (b) bone conduction normal. (3) Spoken voice: (a) Normal voice heard at 18 inches; (b) whispered voice not heard. (4) Politzer inflation gave sensation of crackling in the ear.

Conclusion: Partial deafness of right ear due to obstruction of external auditory meatus. The middle ear and Eustachian tube were intact.

The face showed paralysis of the right side, complete in all regions, except the angle of the mouth, where slight muscular effort was perceptible. It was impossible to make out whether the stylo-hyoid and posterior belly of the digastric were intact or not, but the hyoid bone seemed to move evenly and normally.

Sensation of both sides of the face was intact, but the vasomotor control of the right side was lost. Eyesight was poor; vision was $\frac{1}{12}$, myopic in both eyes—with chronic conjunctival thickening in the right eye due to its constantly exposed condition.

The right tonsil and right anterior pillar of the fauces were absent. There was no evidence or history of removal. The palato-pharyngeus muscle was intact, and the tongue was quite normally developed. No difference in the sensation of taste between the two sides of the palate could be detected with acid, bitter, salt, sweet, and pungent solutions. Saliva was seen issuing from the mouths of Stenson's and Wharton's ducts, and no diminution in the amount of flow could be detected on the right side.

The family history contained nothing of importance. The man is an only son of a family of seven, the fourth child of a normal father and mother.

It is worth noting that there was no injury during parturition. No instruments were used at his birth. The paralysis was present from birth.

Summary.

1. There was overgrowth at the outer end of the external auditory meatus, shown by the closing in of its margins.
2. Diminished growth at the outer end of the hyo-mandibular cleft or facial nerve region, as evidenced by the almost complete absence of the pinna.
3. Diminished growth in the soft palate or fifth nerve region, as evidenced by the absence of the palato-glossus muscle or anterior pillar of the fauces.
4. Diminished growth in the second cleft or glosso-pharyngeal region, as shown by the absence of the tonsil.
5. Lack of development of, or a lesion causing complete atrophy of, the facial nerve.

Observations.

Points for consideration are:

1. The facial nerve is chiefly concerned with the hyo-mandibular cleft, but overflows to the other regions involved.