ects for plastic operations on that organ. His experience in these cases was limited to two cases in which he had operated. Perforation had existed for twenty-four hours, and collapse was so great that, after prolonged douching of the peritoneum, Mr. O'Callaghan simply stitched the ulcer to the parietes. Both patients died within six hours without any sign of improvement. He exhibited the stomach removed from one of the cases. It showed extensive erosion, and a large ulcer, which from the symptoms during life could never have been diagnosed. In conclusion, he advised that unless in the earliest stage of perforation opium should be avoided.

Mr. Gould's Reply.

Mr. Pearce Gould, in reply, said he need refer to three points only. He was afraid he had been misunderstood in what he had said as to the appropriate time for the operation in cases of perforating ulcer of the stomach. If there was shock from the direct immediate effect of the perforation, the operation must be postponed until that shock had passed off. As soon as reaction took place the operation should be undertaken, and if no shock occurred then operate at once. He was in no sense an advocate of delay, but there was never such hurry as to prevent proper preparations for the most thorough operation to be made. He did not think we could argue from the intestine to the stomach as Mr. Franks had done; the conditions were totally different. The sacrifice of inches, or even perhaps feet, of the bowel was known to be unattended with grave risk, but clinical evidence showed that much deformity of the stomach was liable to be attended by grave interference with its function. Then, the mere length of bowel excised made but little difference to the difficulty and danger of the bowel; but the area of stomach excised added enormously to both. It must also be remembered that the coats of the stomach were much thicker than the intestine, and sutures could be passed, and would hold better. While, therefore, he fully agreed with Mr. Franks as to the great importance in intestinal surgery generally of the free excision of gangrenous or diseased parts, so as to get well clear of the lesion, he thought that this was no argument to employ in favour of excising perforated gastric ulcers. As to the doubt suggested as to recovery ever taking place spontaneously after perforation in typhoid fever, he could only say that his statements were taken from the highest authority on the point—Dr. Cayley—who was most decided in his opinion and clear on the facts.

LOWER MOLAR ABSCESS.[1]

By RODERICK MACLAREN, M.D.,
Senior Surgeon to the Cumberland Infirmary.

I purpose in the following remarks to call attention to a condition little recognised and ill understood, namely, a special form of abscess which results from dead molar teeth. I have seen it perhaps a score of times. It has always been a serious condition, often a dangerous one, and in three instances it has been fatal. In one of these cases death was from blood poisoning, in another there was impending suffocation and death occurred during anæsthesia, and in the third the pus burrowed down the neck, and a rapidly fatal pneumonia occurred. I have only seen it in connection with second lower molars and wisdom teeth. The usual story is a tooth or teeth badly decayed, often only the putrid stump left. Then an inflammatory attack, perhaps rigors, much constitutional disturbance, and temperatures taking high ranges. Locally there is closure of the jaw, considerable swelling of the sides of the neck and face, often dysphagia, and sometimes dyspnœa; the swelling is diffuse, involving the cheek, the parotid, and submaxillary regions; it often extends considerably down the neck, and is sometimes most prominent under the chin, at other times at the angle of the jaw. It feels hard and brawny, and no fluctuation can be detected in it. It may be impossible to say which side is most swollen.

Some years ago I saw, in consultation with my friend Dr. Hair, the first of the above-mentioned fatal cases. A young solicitor's clerk, aged 23, had one fang of a lower second molar extracted about a fortnight before he came under Dr. Hair's care. The removal of the other was attempted, unsuccessfully, as we found out at the *post-mortem* examination. The swelling of the tissues prevented us from seeing it during life. Shortly after this inflammation started in the socket. Then the patient shivered, his temperature rose, and his face and neck became swollen, red, and brawny. Pus was let out by incisions in the mouth. The shivering recurred, putrid infarcts gave rise to numerous abscesses of the face and head. These were incised, and fresh endeavours were made to drain the original abscess, but in spite of this he got worse. The eyelids swelled, symptoms of sinus thrombosis supervened, and he died. No doubt infection of a fatal kind had occurred before he came under medical treatment. Leave was obtained to make a *post-mortem* examination, and the following condition was found. The fang of the second molar was loose in its socket; it was surrounded by pus. The neck of the fang was tightly embraced by the gum, which prevented the escape of matter. As a consequence, pus had welled over the inner alveolar edge; it then separated the periosteum, and burrowed along the internal pterygoid, and among the muscles and cellular tissue on the inside of the lower jaw. The reason why it took this course was the simple mechanical one that the inner alveolus was lower than the outer, and the discharge flowed over the first edge which it encountered. The position of the collection of pus among the muscular planes round the hyoid bone accounted for the swelling being so diffuse and so prominent under the jaw. The pus was horribly putrid, just as might be expected from the exciting cause being a decayed fang.

I have constantly had the opportunity of observing in other cases that the above is the usual mechanism of the condition. The pus fills the socket; it is stopped by the gum embracing the neck of the tooth or fang; it drops over the lowest edge of the bone, separates the periosteum and then burrows. When the abscess is opened, a surface on the inside of the lower jaw, just at the angle, is found bare to the extent of about a square inch, and this sometimes dies and separates, as in the case of a child of 4, who was in the Cumberland Infirmary last July. The second lower temporary molars, in a state of decay, had been extracted a few days previously on account of swelling and pain on both sides of the lower jaw; pus was escaping freely from both sockets; the child was very ill. A probe was passed down inside the jaw to each angle, and two incisions were made from the outside. The child improved rapidly, and was presently sent out with two discharging sinuses. She was readmitted at the end of October. A considerable portion of the left angle of the jaw had separated and was removed.

Dr. Finley (House-Surgeon, Cumberland Infirmary) has kindly, at my request, gone over a number of lower jaws in the museum of the Royal College of Surgeons, with the object of ascertaining the relative heights of the inner and outer alveolus of the second lower molar; 227 jaws were examined: of these 86 had the inner alveolus lower than the outer, 78 the outer lower than the inner, and in 63 they seemed equal in height. This is apparently the reason why abscess is sometimes on the inner side of the jaw, sometimes on the outer. The latter is a comparatively trivial ailment.

Under the somewhat fantastic name of angina Ludovici (Dr. Ludwig, of Stuttgart) a condition is described which closely corresponds in clinical characters to the subject of this paper. But it has not been distinctly associated, so far as I can ascertain, with an origin from decayed lower molars. Now, though I cannot of course assert that it is always due to this cause, it certainly has been my individual experience to have encountered it only in this connection. Sometimes the source was not stated by the patient; complaint was not always made of tooth trouble, but always when the condition was investigated, the decayed tooth with suppurating socket was found.

The treatment should be prompt and as thorough as it can be made. The tooth fang or fangs should be extracted at once; then a free incision should be made from without on the angle of the jaw. If wished, a probe can be used as a guide; it can generally be passed down beside the socket, made to enter the abscess cavity, and then be felt just below the angle. As a rule, however, I cut without such a guide, just feeling for the angle of the bone, and cutting directly on it. Finally, the cavity should be well washed out and drained. If this be done before constitutional infection to any great degree has occurred, improvement is rapid and satisfactory.

[1] Read before the Border Counties Branch at St. Boswell's.

Presentation.—Dr. Waters, the late resident medical officer to the Fir Vale Workhouse, has been presented by the officers and nurses of that institution with a travelling clock and a reading lamp as a token of their esteem and regard on the occasion of his leaving Fir Vale to take up his residence in London to prepare for the Indian Medical Service.