FRACTURE OF BASE OF SKULL.

By E. H. BENNETT, F.R.C.S.;
Surgeon to Sir P. Dun's Hospital;
Professor of Surgery, Trinity College, Dublin.

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I SUBMIT the record of a case of injury of the head, which presented very unusual symptoms during the short time that passed between the patient's admission to hospital and his death.

The patient died on the morning of the third day. He was admitted to Sir Patrick Dun's Hospital on the morning of December 15, 1893, about ten o'clock, and I saw him at the time of his admission. He was then deadly pale, with a pulse of 60, and very violent, and incapable of understanding any word spoken to him. He was restrained by four men, who held his arms and legs, and the skin above each wrist and ankle was noticed in the evening to be marked by many blood stains, caused by the tightness of grasp necessary to control his struggles. When he was placed in the basket chair, used for carrying delirious patients to the wards, he leaped and struggled against the broad leather strap which confined him.

His left malar and temporal regions were swollen and livid from blood effusion, and there were two small wounds in this swollen region—one above and behind the ear, and the second over the masseter muscle. A small quantity of blood had been shed over the surface about each wound, and there was coagulated blood filling the left nostril.

On being put to bed he continued to shout and struggle, and was with difficulty kept in bed. Towards evening he

seemed exhausted, and it was easier to keep him in bed, but he muttered the same words incessantly. His temperature was now 101·2 . He had a slight flow of blood from the nose, which was controlled by a plug of cotton wool placed in the nostril. He was delirious during the entire night, trying to get out of bed and muttering continuously. On the morning of the 16th his temperature was 101°, and in the evening of that day it rose to 102°. There was not any material change in his delirium during the night; in the morning the temperature rose to 105°, and shortly after this point was reached the man died. Throughout no paralysis was observed, and the urine and motions were passed under him. The accident that happened to this man was this—he was found lying in a semi-conscious condition in the mash room of a distillery, near the hospital, bleeding from the wounds of his head, and from his nose; beside him was a crowbar. Nobody saw the accident happen. He was aged thirty years, and remarkable for his skill and sobriety, so that he was entrusted with the more important duties of the store. His duty was to ungear the machinery at stopping times—for breakfast, dinner, &c. It appeared he was in the habit of doing this by using a crowbar against some part of the moving machinery. The inference is that by some accident the crowbar got fast in the machinery, and was so whirled round, and that in its circuit it struck him on the head.

The examination of the head reveals a fracture of the skull, passing, from the site of the wound above and behind the ear, obliquely forward above the level of the petrous portion of the temporal, into the middle fossa of the skull, beside the body of the sphenoid bone, into the anterior fossæ, where it terminates in comminutions of the cribriform plates of the ethmoid. Over this line the brain was much bruised and stained by blood, and this damage and staining

are most evident in the parts of the brain lying over the anterior extremity of the fracture, where, as everyone knows, the commotion of the brain in such injuries is generally greatest. Now the course of this fracture is very slightly different from the common fractures of the base, in that its direction is from behind forward, and that it avoids the petrous portion of the temporal bone, but these are the result of the direction of the blow.

There is nothing in these lesions to explain the almost immediate developement of delirium ferox, and the rapid rise of the temperature. At the *post-mortem* examination no trace of inflammation of brain or other organ could be found. The delirium and fever must then have arisen from the cerebral lesion, or from the coincidence of some essential fever. It has occurred to me that a sudden attack of influenza might explain the occurrence of the accident—causing the man to make a mistake in the execution of a work that was most familiar to him, and that so the combined injury and fever would explain the clinical symptoms better than any appeal to cerebral injury only.