

half of which is supposed to have struck young Denton, who was about forty feet distant, above the ear crushing in a portion of the skull almost circular in shape, and about three and a half inches in diameter, involving the squamous portion of the temporal and inferior portion of the parietal bone. Saurin is about eight miles from Hillsdale, where I was then located, hence I did not arrive at the scene of the accident until about two hours after its occurrence. The boy was lying on a lounge in a semi-comatose condition. I found a fearful looking wound, in which blood, brain-matter and comminuted portions of the skull were freely mixed together, there being in particular one solid mass of brain-matter, weighing at least an ounce, upon the external surface of the wound. I could find but one small fragment of bone detached. There were four distinct openings in the scalp, and upon removing all the clots, both external and internal to the scalp, thus relieving the brain compression, the patient became conscious but could not speak; in fact, it was about six weeks after the accident before he could articulate at all, and even at present writing his powers of speech are not perfect. As might have been expected, there was more or less paralysis of the arm and leg on the opposite side, although he recovered the power of the lower limb sufficiently for purposes of locomotion in about a year, but the arm still remains almost totally useless.

There were in all eighteen fragments of bone, which were removed or came away from the wound during a period of about six months after the accident.

Brain-matter was discharged freely from four openings for two weeks, but the severed portions of scalp finally cicatrized and the patient recovered so far that in about two years after the accident he could earn his own living by soliciting orders for magazines, books, etc. His mental faculties, when I last saw him, were perfectly normal.

The next case I shall lay before this Association was that of a young man named Deans, aged 18 years whose family resided near Gibson P. O., in the Township of Tiny. I was called to see him on the 8th October, 1881.

The patient had gone out shooting the previous afternoon. The event proved it was doubtful which end of the weapon was most dangerous when discharged. His friends found him next

morning in the woods, he having lain there all the previous evening and night, during a heavy rain storm, and conveyed him home.

I arrived there (about 15 miles from Hillsdale) about 2 p.m. on that day. I found the patient stretched upon a sofa with a vertical wound in the upper part of the forehead, nearly in the median line, about three inches in length. Upon passing my finger into the wound I detected the small end of a screw nail, which I tried to remove by gentle traction. Failing in this I seized it with a strong pair of incisor tooth-forceps, directing two strong men to hold his head and shoulders firmly while I exerted all the muscular force I was master of in a vain endeavor to dislodge it. I then with a bone forceps removed a portion of the bone around the opening, after which, by a prolonged and supreme effort, I succeeded in removing not only the nail but the entire gun-breach to which it was attached, weighing in all exactly two ounces. As may be understood the screw nail passed through the projecting end or clip of the breach, and I suspected at first that it had in some way got bent upon itself at right angles, and the portion of it I could not see was caught behind the frontal bone. Therefore during my manipulations for its removal with the forceps I rotated the screw nail, and consequently the entire body of the gun-breach through the whole of the anterior portion of the cerebrum. The flow of brain-matter was so copious during each of such sweeping revolutions of the foreign body that I was forced to place a towel over the poor sufferer's eyes, nostrils and mouth, to prevent his being blinded or suffocated.

Strange to relate the patient was perfectly conscious and sensible during the whole of the operation which must have lasted at least half an hour and at times during the sweeping revolutions of the breach complained most bitterly that I was dragging his eye-balls into his brain. The patient recovered perfectly without a single bad symptom, and without the impairment of any of his faculties mental or physical. My assistant Dr. McGill or myself made several visits to him after the accident for a period of about three weeks. The wound cicatrized in due course and the young man attended school the following winter, and was I believe, preparing himself for a school-teacher, and enjoyed so far as I could learn the very best health. However about one year from the date of