I. FRACTURE OF BOTH BONES OF THE LEG, TREATED WITH A NEW BOX-SPLINT.

II. A LARGE CARBUNCLE ON THE BACK OF THE HEAD AND NECK, TREATED BY MULTIPLE INCISIONS.

III. DISLOCATIONS OF THE SHOULDER-JOINT.

IV. A CASE OF TEALE'S AMPUTATION OF THE LEG IN WHICH MORE THAN ONE-HALF OF THE RECTANGULAR FLAP SLOUGED.

Fracture of both Bones of the Leg, treated with a New Box-splint.

Every surgeon who treats fractures of the leg by any of the ordinary methods must remark the frequency with which patients complain of a pain in the heel, sometimes slight, but occasionally very severe indeed; and as it is the duty of the surgeon to remove every source of discomfort and irritation in the treatment of his cases—for a slight cause often produces severe and unpleasant constitutional disturbances, especially in persons of nervous temperaments or broken-down constitutions—I venture to bring before the profession a box-splint which I have devised to obviate this distressing pain in the heel so often complained of, but more especially so when the ordinary box-splint is used. For years I have remarked patients complaining of this pain, and the only methods I have ever seen attempted to relieve it—viz., by pads, French wadding, &c.—frequently give but temporary relief. I should mention that Dr. Hughes, Surgeon to Jervis-street Hospital, has improved Dupuytren's splint by adding to it a very ingenious mechanical support for the purpose of relieving the heel from pressure.

I had the misfortune to suffer from a severe fracture of both bones of my left leg, which laid me up for a long time, and I suffered more pain and annoyance, when in splints, from my heel, than from the fracture itself. Constantly I was kept awake all night by this pain alone, despite all the efforts used to alleviate it, while on all
occasion it was a great source of annoyance to me—indeed I would not have believed that this pain, which surgeons think so lightly of, was so distressing, until I suffered from it myself.

Case I.—On July 2nd, 1876, I was requested by the late Dr. Thompson, of Bray, to see, along with him, a gentleman who had broken his leg in the following way:—As he was riding down a steep hill, in the vicinity of Bray, on a velocipede, he lost all control over the machine, and was dashed with great violence to the ground. Besides other injuries, both bones of his right leg were fractured, the tibia being broken in two places; the fracture was not compound, but there was a good deal of extravasated blood, indicating the rupture of a small artery. We temporarily kept the leg in position by two sand-bags until a local carpenter made a box-splint. I, bearing in mind the pain in the heel, suggested that the under-splint, on which the leg rested, should be hollowed out for the calf of the leg, and a round hole cut in it for the heel; this was done. I saw this gentleman several times with Dr. Thompson, and had charge of him for a month during Dr. Thompson's absence in Scotland, and never once did he suffer from a pain in the heel, and eventually made a fine recovery. I was so pleased with the result of this case that I asked Messrs. M'Adams and Corcoran to make for me a similar splint, but better finished and more perfect than the rough and ready one made in a hurry by the Bray carpenter.

It will be seen by the accompanying illustration, marked No. 2, that the under or supporting splint consists of a double inclined plane, the thigh-piece, being hollowed out to support the convexity of the thigh, meets the leg-piece at a very obtuse angle, but just sufficient to cause perfect muscular relaxation; the under leg-piece is also scooped out to correspond to the calf of the leg, then elevated for the "tendo Achillis," and hollowed out again for the heel. A pad is made to fit accurately this under-splint—thus the leg can be kept in a perfectly straight line, the concavities of the splint being adapted to the convexities of the limb.

In the ordinary box-splint used in the Dublin hospitals for fractures of the leg and ankle, as well as in Mr. Butcher's, the under-piece for the leg is perfectly flat; consequently, when a fractured leg is placed in either apparatus, more or less undue weight is thrown upon the heel, thus causing the heel pain; to remedy this, surgeons are in the habit of placing extra padding beneath the tendo Achillis so as to take the pressure off the heel. This answers well in some cases, but I have frequently seen it fail; whereas in my splint no undue weight is thrown upon the heel, while every portion of the