There are, in this country, two very opposite courses followed in the treatment of fractures of the lower extremities; one, which consists in laying the broken limb, during the first few days after the accident, in a flexed position, and, subsequently, either preserving the same posture all through the cure, or, after a given period, changing the bent condition of the limb for the straight posture: the other, that of placing the limb at once in the extended position, and applying, from the onset, an apparatus destined to keep it, all through the period of healing, immovable in that state.

The respective advantages of these two plans have been frequently discussed, but, as it appears, without the establishment of any general bias in favour of either the one or the other. In the midst of this diversity of opinion, and absence of any specific rule of practice, I have attempted to put the several methods to the test of experiment, and shall endeavour, in the following pages, to make known the result. I propose, in the prosecution of this object, to state in the first instance, as briefly as possible, several cases in which these different plans of treatment were tried; and, secondly, I shall attempt to draw from them such inferences as the facts, aided by physiological considerations, appear to justify.

I shall, in addition, describe, for the information of those who may be seeking after a convenient and efficacious apparatus for the treatment of fractures of the lower extremities, one which I have found to accomplish every desirable indication.

Case I.—Joseph Woods, an old soldier, of sober and regular habits, admitted May 3rd, 1833, received a fracture of the bones of the left leg, by a kick on the shin from a horse drawing the car on which he was seated as driver; he fell to
the ground, and in the fall the leg was much twisted and bent. He was brought to hospital immediately, with the limb in the following condition: there was an oval-shaped wound on the shin, between three and four inches long; the bones were both broken, and the tibia was extensively denuded of periosteum; the fracture was oblique, and the limb shortened for nearly two inches, but the over-lapping was not of the ordinary description: it was not the result of the slipping of one oblique surface over the other, for, by some application of violence, which cannot be explained, the lower fragment had got to the reverse side of the upper, from that at which the obliquity existed, and had passed a long way up its side, so that the two slanting surfaces of the fracture looked widely away from each other. The effect of this peculiar displacement was such as to render reduction impossible by the usual force of manipulation. The man suffered great agony from pain and spasms of the limb, and the hemorrhage was alarming. Amputation of the limb, or sawing off the projecting extremity of the bone, to allow of reduction, appeared at first sight the only alternatives; but before proceeding to either of these extremes, I determined to attempt by force the replacement of the fragments, and, accordingly, by means of a lac applied to the thigh of the injured side, and another to the leg, I exerted extension and counter-extension, as in a case of dislocation of the knee, regulating the force so as gradually to fatigue and overcome the spasmodic action of the muscles. A force equal to that employed in the reduction of the most obstinate dislocations, was for several minutes exerted, before the points of the fragments were got to pass each other, but finally the object was gained; the two flat surfaces of the fracture were brought once more into apposition, and on the instant of the reduction, the patient exclaimed that he was at ease. The nature of the resistance offered by the muscles in the reduction of this fracture, will be readily understood when it is considered, that in bringing the spiculated points of the bones across each other, so as to give them an op-