rotates obliquely outwards, and when fully extended, instead of being perfectly rigid, it rotates laterally; a chink may also be detected between the inner condyle and the head of the tibia. From these phenomena it follows, that in such cases the internal lateral and posterior crucial ligaments must be too much relaxed, so as to admit of the tibia being inclined inwards, and of its rocking. This may arise either from a very imperfect elasticity, or a deficient development of the ligaments, rendering them incapable of performing their proper functions. It also follows that the external condyle must be more pressed against than the internal,—that is, at the anterior part where the limb is extended, which (as these cases usually occur in childhood) most probably interferences with the progress of its growth; and hence the inner condyle becomes disproportionately large, and altered in figure, and causes the oblique outward rotation of the tibia which is observed to take place. In bow-legged persons (fig. 11) the opposite phenomena are found, for which a corresponding reason may be given. The peculiar gait accompanying each of these deformities is very remarkable and characteristic; but as we are all familiar with it, it needs no description. Early attention should be paid to these complaints, because they soon become aggravated, from the circumstance that every use of the limb tends to increase the distortion; and if permitted to remain uncounteracted till manhood, the cure is either uncertain, or at least exceedingly difficult. It does not appear that the muscles are primarily concerned in originating these disorders, although they tend to augment them when begun.

INSTANCE OF PERFORATION OF THE DUODENUM OCCASIONING DEATH AFTER TWENTY HOURS' ILLNESS.

By GEORGE STILWELL, Esq., Surgeon, Epsom.

A GENTLEMAN, who had previously enjoyed excellent and uninterrupted health, had, for three days, slight uneasiness in the stomach and bowels, which induced him to take a dose of castor-oil, but did not prevent his entering fully into his occupations and amusements. On his return from the Downs, where he had passed several hours on horseback, on Friday, the 29th of May, he was seized, at a short distance from Epsom, at six o'clock p.m., with violent pains in the stomach and bowels, which obliged him to alight, and seek a place to lie down. He entered a farm-house, and threw himself on his abdomen, apparently in great agony, and seeking relief from pressure. A considerable quantity of brandy and hot water was administered, which appeared to afford some slight abatement of pain. When I first visited the patient, about half an hour after his entering the farm-house, he was lying on his back on a sofa, in a state of collapse, complaining of severe pain in the region of the stomach; his countenance livid; extremities cold, and pulse not more than thirty beats per minute. Having had him removed, and placed in bed, warmth was applied in various modes externally, and warm diluents were plentifully administered; the natural heat was by these means restored, and the pulse rose to sixty. Medicines were now given to procure evacuation from the bowels, and were continued with injections, both simple and medicated, but very slight fecal discharge was produced by the use of these remedies, and no real relief afforded. During the night, and up to ten o'clock on Saturday morning, although the symptoms were extremely urgent, and the paroxysms of pain of frequent recurrence, still they were not such as to preclude all hope of permanent relief. The pulse had continued at 60; the countenance and general bearing of the patient evinced strength and fortitude, and his conversation was not exclusively devoted to his illness. At twelve o'clock, an interval of two hours having elapsed since my last attendance, I found my patient again in a state of collapse, in which he quickly sank, remaining perfectly collected until within a few minutes of breathing his last. There was only one attempt at vomiting during the progress of the disease.

The rapidly fatal course of the disease suggested its nature, and the cause of death; which was confirmed by the post-mortem examination of the body twenty hours afterwards, conducted with the assistance of another medical gentleman, who had concurred in the treatment of the case.

The external appearances were discoloration and tumefaction. An unusual quantity of offensive gas escaped on opening the cavity of the abdomen, which contained a large quantity of fluid mixed with the various liquids &c. which had been taken into the stomach. These had passed through an ulcer larger than a fourpenny-piece, which had perforated the

duodenum on its anterior surface, near its junction to the pylorus. The peritoneal surfaces evinced marks of inflammatory action, with some effusion of coagulable lymph; the stomach was in a healthy state, with the exception of slight emphysema of the internal coat, the result of incipient putrefaction. From the thickening of the edges of the ulcer, and the want of morbid vascularity, the disease most probably had been gradual in its progress, and of lengthened duration.

Epsom, June, 1846.

DISLOCATION OF THE ASTRAGALUS AND REDUCTION.

By P. M. HOSKING, M.D., M.R.C.S., Sydney, New South Wales.

ACCIDENTS to the ankle-joint are not of unfrequent occurrence, where no dislocation or fracture takes place; but having met with a case of dislocation of the astragalus very recently, which I reduced with perfect ease, and complete recovery to the patient; and being also aware of the difficulties presenting themselves generally in the different modes recommended and adopted by "authorities," I am induced to record this case in your far-read publication, especially as I perceive in *THE LANCET*, for October, 1844, pp. 35, 70, a paper on dislocations of the astragalus, read before the Royal Medical and Chirurgical Society of London, and that in the cases there cited in illustration much difficulty seems to have occurred, and fracture of the fibula took place at the time of the accident, with displacement of the tibia. This case is as follows:—

C. B., a young man, aged twenty-six, jumped from a door down three or four steps, and fell to the ground. I was sent for immediately, and found him supported by some men. Upon examination, I found the left foot dislocated, and turned inwards and upwards, with a lump in the back of the foot, or instep, shining and glossy under the skin; the fibula and tibia were in situ, and no fracture existed. I had him removed up-stairs on a bed, and then saw that the astragalus had been thrown forwards out of its place upon the dorsum of the foot. I desired one of the men to hold him by the knee; and the patient being faint, I made extension at the same time that I pressed with my two thumbs upon the displaced bone, having the palms of both hands under the os calcis, which immediately slipped into its place, and perfectly restored the shape of the foot and ankle. I then put a roller tightly around it, ordered a cold lotion, desired him to keep quiet, and left him. Upon examination the next day, I found a slight wound of the skin, just over where the bone lay; I put splints slightly on it, and continued the lotion. On the fifth day, he was out, without my permission, on a crutch; on the seventh day, he complained of cold in the limb, which was still swollen. I removed the splints and calico roller, and applied a roller of flannel. There was no difficulty in the reduction, and the patient recovered without the occurrence of any bad symptoms.

Sydney, New South Wales, September, 1845.

THE STOMACH AND INTESTINES A RESPIRATORY SURFACE, BEING THE CAUSE OF THE BLOOD'S CIRCULATION THROUGH THE LIVER.

By CHARLES SEARLE, M.D., Bath.

THE powers for circulating the blood through the system are now, I believe, pretty generally acknowledged to reside in the heart, in its twofold capacity of a forcing and a sucking pump, and in the action of the capillary vessels. The left ventricle propelling the blood through the arteries by its contraction, and the auricle by its dilatation, (and the partial vacuum formed by the expansion of the chest, and atmospheric pressure *ab externo*,) aids it in its return by the veins, into which it is first conveyed by the excitement imparted by the arterial blood to the capillary vessels. I say, by the stimulus of the arterial blood on the capillary vessels; for these are found to accord in action with the respiratory function, capillary excitement being the result of chemical action, developed by the agency of oxygen in its combination with the elements of the blood.

Such being the circulating powers, it has ever been a matter of astonishment with me, how the blood could be circulated through the liver, seeing that these powers were wholly inoperative with respect to the liver, or nearly so. Light is at length, I am of opinion, thrown upon this matter. I believe I can now see clearly what heretofore has been a matter of so much doubt and difficulty to me; and this I now beg leave to submit to the notice of the profession. The action of the heart, I