

of the patient, the integrity of his circulatory organs, the absence of nephritis, and the rapidly favorable course of the disease. His decision in the case is: Asthenic bulbarparalysis, without organic lesion.

J. W. COURTNEY.

- 134 "ZUR CASUISTIK DER RÜCKENMARKSVERLETZUNG DURCH WIRBEL-FRACTUR NEBST BESCHREIBUNG EINES GEHVERBANDES FÜR PATIENTEN MIT LÄHMUNG BEIDER UNTERER EXTREMITÄTEN" (Spinal Cord Injuries from Fracture of the Vertebrae, with Description of an Apparatus for Paraplegic Patients). Lenznick. Münchener med. Woch., 1900, No. 12, S. 386).

A man of twenty-six years fell from a scaffolding 14 meters high, striking on his back on a beam 3 m. above the ground, and then coming down upon his knees. He did not lose consciousness, but became at once paraplegic, with loss of control of his bowels and bladder. When he came under the author's care, a month later, the paraplegia persisted, there was complete anesthesia of the lower extremities, and there were bed-sores over the sacrum, the left malleolus, left leg and right heel.

There was deformity in the lower dorsal and upper lumbar regions, the twelfth dorsal spine being very prominent. Laminectomy of the eleventh and twelfth arches was performed by Prof. v. Eiselberg, a fracture of the left lamina of the twelfth arch being found, the dura and cord being compressed at this point and adhesions having been set up. The body of the twelfth vertebra was found prominent, but could not be reached on account of thickening of the dura, severe hemorrhage following at attempt to separate it.

The dura, being split up for some distance, was found to be adherent to the arachnoid on both sides, most firmly on the left. The cord showed a transverse scar. The dura was stitched and the wound closed. Healing took place promptly. The patient recovered some control over the bladder and rectum, but the paraplegia remained the same. In order to enable him to get about the author devised an apparatus consisting of two flat iron bars, each about 5 cm. wide, and long enough to extend from the shoulder to the heel. These were bent to fit the patient's figure, diverging somewhat above and below, one passing down behind each leg and being fastened together by three cross pieces at the upper part. These cross pieces were bent so as to partially encircle the trunk, and the leg portions were provided with four similarly curved supports, passing half way around the leg. To the lower ends of the bars were attached foot-plates, and to the upper straps for fastening the apparatus over the shoulders. This apparatus, thoroughly padded, was applied to the patient's back while he lay stretched upon his belly, and bound on with flannel bandages. The patient was then raised to an upright position, and eventually learned, with the aid of a Volkmann's bench, to get about over the smooth floor with a fair degree of ease. A picture of the original apparatus is appended. The author has since improved it by making the leg portions and the cross pieces for the trunk extensible, by a telescoping arrangement, and also has provided for the application of a head swing at the upper end.

ALLEN.

#### PATHOLOGY.

- 135 ZUR FRAGE DER "RETROGRADEN DEGENERATION" (On the Question of Retrograde Degeneration). E. Raimann (Jahrbücher für Psychiatrie und Neurologie, Vol. XIX, No. 1, p. 36).

Retrograde degeneration is a term used to describe the degeneration which takes place in a divided nerve centrally as opposed to the