

out manifesting any definite symptoms. The mere existence of nuclear disease associated with peripheral atrophy would not prove with certainty a primary nuclear destruction.

According to the well-known laws of Gudden even after destruction of the peripheral nerves in earlier life, a degeneration of the corresponding nuclei follows.

W. M. L.

#### ON CERTAIN PECULIARITIES OF THE KNEE— JERK IN SLEEP IN A CASE OF TERMINAL DEMENTIA.

Noyes (*Amer. Jour. Psychol.*, Vol. iv., No. 3, April, 1891). These observations were made upon a patient suffering from terminal dementia who had been in the McLean Asylum from 1841, and who showed a greater susceptibility to sensory stimuli than persons in health:

The conclusions formulated by the author are:

1st. Sensory stimuli received during sleep produce a much greater effect and diffuse over a much longer interval than in waking individuals.

2d. In a condition of half sleep, when the peculiar tendon is struck by blows of uniform strength at five seconds intervals, the knee-jerks falls into groups, and synchronous plethysmographic tracings suggest that these groups have some connection with the Traube-Hering curve.

If the truth of the second proposition can be conclusively established, several important corollaries would seem to follow. These are here stated as facts for the sake of presenting definite propositions, the truth or falsity of which must be submitted to further experimental investigation.

J. C.

#### FRACTURE OF THE VERTEBRAL COLUMN— COMPLETE SECTION OF THE CORD—ABOLI- TION OF THE REFLEXES.

In the June, 1892, number of the "*Anales del circolo medico Argentino*," Dr. Tornu narrates a case of spinal injury in which the reflexes were abolished from the day of the accident to the day of death. A seaman while at work was struck on the back by a barrel of nails. On examination he was found to have complete paraplegia.

of the lower extremities, total abolition of the sensibility and of the reflexes, with retention of urine and fæces. In the dorsal region there was a large painful swelling, which was intensified on pressure or by moving the body. A diagnosis of fracture of the vertebral column, with compression of the spine, was declared. Shortly thereafter the retention of fæces gave way to incontinence; the urine became ammoniacal, purulent; the patient was continually losing ground, delirium set in, and the patient died in coma. On autopsy the cord was found to be completely severed by a fragment of the vertebra, and the caudal portion of the cord degenerated and converted into a soft pulpy mass. The writer calls special attention to the fact that the reflexes were abolished throughout the duration of the sickness, thus supporting Bastian's view, that when the cord is severed by traumatism there ensues total abolition of the excito-motor power, because of loss of continuity between the caudal segment and the brain.

W. C. K.

#### INJURY OF THE CAUDA EQUINA AND CONUS MEDULLARIS.

In "New York Medical Journal," August 22, 1891, C. A. Herter, M.D., reports the case of a man injured by a heavy door falling on him. He regained consciousness in a few hours, and complained of pain and tenderness over the dorsal spines, which were somewhat prominent. There was loss of power in lower limbs, absence of knee, cremaster and plantar reflexes, and incontinence of urine and fæces. After a week, slow recovery of power began in the legs. The sphincters, however, remained paralyzed, and early cystitis developed. Eighteen days later anæsthesia and analgesia were observed in legs, feet, and on either side the median furrow of the buttocks in a semi-elliptical area and on either side of the pubes. There was continuous pain referred to the sacrum. The lower extremities were atrophied with loss of faradic contractility in the muscles below the knee, and diminished galvanic contractility with reversal of the polar formula. General improvement followed, and in three months he walked with canes, but still had loss of sensation on the buttocks and paralysis of the sphincters. Atrophy of the legs became more marked, but the reflexes all returned. As no further improvement occurred, operation was decided on and the cauda exposed, but no patholog-