this region, which, under dark ground illumination, was found to contain living spirochetes. Stained preparations failed to reveal their presence and he in a manner confirms the findings of Kuhn and Steiner.

Roussy, G., and Cornil, L. COMMOTION OF SPINAL CORD. [Prog. Med., Aug. 3, 1918, 33, No. 31, p. 263.]

Five cases, of different types, confirm the necessity for reserving the prognosis at the first examination. Merely temporary suspension of function may cause some cases to appear exceedingly grave, although the patient gradually recuperates. Systematic immobilization, and care in preventing bedsores and involvements of the lungs, often result favorably in cases of quadriplegia from concussion of the spinal cord. In three of the cases the motor function began to return between the twentieth and twenty-fourth day. The concussion was by indirect contusion. In the two other cases direct contusion of the cord and dislocation of a vertebra, the interval was two and four months. These two men, ten and fourteen months after the wound, show only simple hemiparesis or traces of hemiplegia, with the Claude-Bernard Horner syndrome. In the former the sphincter and genital derangements still continue.

Desplats, R., et Buquet, A. ARTERIAL OBLITERATION AN ESTHEMIA OF NEUROLOGICAL ORIGIN. [Rev. de Med., Sept., 1916.]

The authors believe injury of the medium-sized arteries is an important factor in the nervous disturbances of the wounded. Motor, sensory, and trophic disturbances and modification of electric reactions are caused by obliteration of a trunk artery alone. Disturbances caused by the nature of terminal distribution are more pronounced at higher points in the artery, where arterial circulation is less compensated for as in the arm. The most dangerous zone being that of the axillary artery. Traumatism in this artery may cause ulnar, median or radial paralysis, reacting in degeneration in the segment of the arm involved and complete anesthesia of the tips of the fingers. The fingers may also show characteristic deformity. These symptoms are less pronounced as the obliteration or compression of the artery is farther from the trunk. In the leg a tendency to gangrene is shown. Both the artery and the nerve, however, being generally injured by the projectile, the exclusive treatment of either is neglecting an important factor.

Neuhof, Harold. WOUNDS OF SPINE. [Journal A. M. A., Jan. 4, 1919.]

The author discusses a class of gunshot spinal wounds in which the dura is intact and the paralysis is caused by commotion or concussion or both combined. In the fatal cases a diffuse or a focal necrosis of the affected portion of the cord with a varying degree of edema is found, sometimes destroying all the cord elements at the same level though

most frequently some portions remain intact. The presumption is that in cases in which recovery either total or partial occurs, edema was the cause of paralysis. In injuries by shell fragments the chances of recovery are the slightest if the wound is deep seated in addition to the functional lesion. There may be fragments of bone or clot directly compromising the dura, the removal of which is indicated chiefly, however, for reason of infection of the wound. Four cases are reported of this class. The spinal column was fractured in three of them while there was no demonstrable bone injury in the fourth case and in none of them was there any appearance of pressure on the dura and in none of them was it opened. The article is written to call attention to such cases.

Brookover, Charles. THE PERIPHERAL DISTRIBUTION OF THE NERVUS TERMINALIS IN AN INFANT. [Jour. of Comp. Neurol., 1917, XXVIII, p. 349.]

This paper is based on two series of sagittal sections of stillborn negro infants at about full term. Brookover's description is based largely on a pyridine silver preparation of the right half of the nose. The modification of Ranson's method used by Huber and Guild (1913), on the rabbit was used to permit of the section of the cribriform plate after decalcification. As in the rabbit, the peripheral rami of the nervus terminalis lie next the cartilaginous septum deep to most of the vessels and other structures of the nasal mucosa. Centrally the ganglion terminale lies median to the olfactory bulb, embedded for the most part in the dura lateral to the crista galli. Brookover sums up by saying that the peripheral nervus terminalis is so large in man that it may be said to be hypertrophied as compared to the known development in other mammals, without appreciably increasing its central root. In addition to many cells in the ganglion terminale it contains about fifteen hundred cells peripherally under the nasal mucosa. Though disposed in three or four chief rami emerging from the lamina cribrosa there is a vast network of interlacing bundles deep to the main arteries. Some of the fibers trail over the walls of the arteries, but the pyridine silver method does not reveal ultimate endings. There is considerable evidence that the interlacing rami of the nasopalatine nerve send a bundle of considerable size through the cribriform plate to establish a sympathetic chain connection posteriorly via the sphenopalatine nerve and ganglion. More work is needed to settle this point. [Leonard J. Kidd (London, England).]

Reynolds, C. E. INFLAMMATION OF CAUDA EQUINA. [Journal A. M. A., Jan. 4, 1919.]

The author reports a case of inflammation of the posterior roots in the cauda equina on the right side in a man, 48 years of age, without