Sensibility of the skin consists of four fundamental modalities—touch, pricking touch, warmth and cold. Pain is the affective quality resulting from a more than threshold stimulation of the pricking touch group; hot and burning are the affective qualities resulting from intense stimulation of warmth fibres. Deep sensibility consists of two fundamental modalities—pressure and pressure pain. The larger nerve-fibres, 15 or more microns down to 5, serve tactile and pressure sensations; the smaller fibres serve pain and temperature sensations. The authors consider that their results lend no support to Head's theory that epicritic and protopathic sensibilities are conveyed by different groups of fibres.

G. W. T. H. FLEMING.

The Conduction of Labyrinthine Impulses to the Cortex. (*Journ. Nerv. and Ment. Dis., vol. lxxviii, p.* 250, *Sept.*, 1933.) *Aronson, L.*

The author carried out experiments on cats and dogs on the lines suggested by the work of Spiegel. He confirmed the observation that after strychninization of the gyri rectus and supra-sylvius posterior, stimulation of the labyrinth could produce epileptiform convulsions. One labyrinth was destroyed, and these areas strychninized on the same and then on the opposite side. In these experiments rotation still produced epileptiform convulsions. These results led to the conclusion that each labyrinth is connected with the crossed as well as the homolateral cortex. After total severance of the posterior longitudinal fasciculus, rotation still caused epileptiform convulsions when the gyri supra- and ecto-sylvius were strychninized. The author concludes that labyrinthine impulses reach the cortical centre, not only by way of the posterior longitudinal bundle, but that there exist other tracts outside these pathways for conduction. G. W. T. H. FLEMING.

Ipsilateral Representation in the Motor and Premotor Cortex of Monkeys. (*Brain, vol. lvi, p.* 318, *Sept.*, 1933.) *Bucy, P. C., and Fulton, J. F.*

The authors found that ipsilateral responses in the extremities could be readily elicited in monkeys by stimulation of the cortex in a restricted region about the superior pre-central sulcus. This region lies mainly in Area 6 of Brodmann, but may extend into the anterior limit of Area 4. These responses were independent of the contralateral responses with which they are often associated, and were mediated by a pathway which was entirely ipsilateral. Either Area 4 or 6 alone in one hemisphere was capable of cortical integration of movement in all four extremities. An animal with Areas 4 and 6 removed from both hemispheres is totally incapacitated. There is evidence of ipsilateral innervation of the extremities in man, which is probably mediated by a pathway comparable to that demonstrable in monkeys. G. W. T. H. FLEMING.

Reflex Electromyograms [*Electromiogramas reflejos*]. (*Archivos de Neurobiología, vol. xiii, p.* 419, *May–June*, 1934.) *Villarta, M. C.*

True periosteal or tendinous reflexes, having their point of origin in the actual muscle or tendon, do not exist; but the blow provokes a rough distension of the muscle, and this is the real origin of the reflex. These represent the simplest type of reflex found in man, and always remain limited to a single muscle, although they may be produced simultaneously in a group of muscles. The electromyographic picture is characterized by a clear two-phased wave for each reflex. There sometimes follows a second, one-phased wave, but this is due to a slipping of the electrodes on the skin. There exists an intimate relation between these reflexes and the voluntary contraction of the muscles in which they originate. The pathological characteristics of the reflexes are Parkinsonian tremor, choreiform movements, fibrillary contractions, etc. One of the most interesting is clonus, which shows itself in the form of a series of reflexes to the number of five or six per second; hysterical clonus may produce small waves to the number of fifty per second. M. HAMBLIN SMITH.