

Sensory Sequelæ.

Such nervous excitation (say a visual one) arrives at its proper cortical "sensory centre," and, as we have seen, spreads out in the molecular and sub-molecular layers. Here it affects, therefore, intrinsic cortical elements, and in the following way. In the molecular layer (see fig. 23), the incoming sensory terminals come into relationship with the whole apical expansions of the ambiguous cells, as well as the peripheral tufts of the long pyramidal cells. In the sub-molecular layer the whole of the basal expansions of the ambiguous cells, and a portion of the apical expansion of the long pyramidal cells, are affected. These cortical elements, therefore, viz., the ambiguous and the long pyramidal cells, are thereby excited to discharge. The *excitation, rise of nerve-tension, and discharge* of the conjoint ambiguous-pyramidal elements thus affected is the nervous process, the psychical counterpart of which is a *sensation* (in this case a visual sensation) aroused in the mind.

Specific Sensations.

Such a sensation may be *faint* or *vivid*, according to the intensity of the cortical *excitation and discharge*. Similarly, according to its cortical *locality* the sensation may be a *visual*, a *muscular or cutaneous*, an *olfactory*, &c., or other sensation. That such an *excitation followed by a discharge* (nervous) of a primary sensory area will be accompanied by its appropriate *sensation* (psychical) is now a well-established fact based on experimental and pathological grounds. The experimental data are available in text-books of physiology. We shall here briefly refer to the work of neuro-pathologists in this connection, beginning with the immortal work of Hughlings Jackson on "Local Cortical Discharges (Jacksonian epilepsies)."

Jacksonian Epilepsies.

It was thirty years ago that *Hughlings Jackson* taught (1864) that certain forms of epilepsy with local motor disturbances were almost uniformly due to organic disease of