## CENTRAL NERVOUS SYSTEM.

## BRAIN-No. 19.

## DISSECTION OF THE LEFT HALF OF THE BRAIN FROM THE OUTER SIDE, TO SHOW THE CONTINUITY OF THE CORONA RADIATA, INTERNAL CAPSULE, CRUSTA OF THE MID-BRAIN, PYRAMIDAL FIBRES OF THE PONS, AND PYRAMID OF THE MEDULLA.

The gyri of the outer surface of the cerebrum, the island of Reil, the claustrum, the external capsule and the lenticular nucleus have been removed. Part of the cerebellar hemisphere has been sliced off. The transverse fibres of the pons and the nucleus pontis, i.e. the grey matter in the ventral part of the pons-have been dissected away.

The corona radiata and the internal capsule contain, inter alia-(see Brain No. 28)-the motor pyramidal tract, fronto-pontine, and temporo-pontine fibres.

Pyramidal fibres arise in the Rolandic area of the cortex, descend through the corona radiata, internal capsule, crusta, and ventral part of the pons to the medulla, where they form the pyramid. 70-90 per cent. decussate in the medulla and pass down the opposite half of the cord as the crossed pyramidal tract. The rest pass down the same side, forming the direct pyramidal tract, and cross at different levels in the cord (a few pass down with the crossed tract). All the fibres end round cells of the posterior horn of the cord, whence new fibres proceed to the cells of origin of the motor roots of spinal nerves in the anterior horn. In the mid-brain, pons and medulla fibres are given off to the nuclei of motor cranial nerves of the opposite side.

Fronto-pontine fibres arise in the frontal cortex, descend through the corona radiata, internal capsule, and crusta, to end in the nucleus pontis.

Temporo-pontine fibres arise in the upper two temporal gyri, pass inwards below the lenticular nucleus to the internal capsule, and thence through the crusta to end in nucleus pontis.

## The figures indicate-

1. ('orona radiata.
2. ()ptic radiation. Temporo-pontine fibres lie in front of the figure.
3. Internal capsule. (Note the grey matter between the bundles of white matter.)
4. ('rusta of the mid-brain.
5. Pyramidal fibres of the pons.
6. Pyramid of the medulla.
7. Mesial fillet.
8. Cut surface of middle cerebellar peduncle.
9. Optic tract.
10. Anterior white commissure.
11. Internal orbital gyrus.
12. Corpus geniculatum externum.
13. A band of short association fibres.

