CENTRAL NERVOUS SYSTEM.

BRAIN-No. 20.

THE BASAL GANGLIA AND THE OPTIC THALAMUS OF THE RIGHT SIDE.

The neighbouring brain matter, including the claustrum and the anterior part of the amygdaloid nucleus, has been removed. The anterior commissure, the anterior perforated spot, and part of the mid-brain have been retained. The upper specimen is viewed from above, the lower from the outer side.

The basal ganglia are the caudate and the lenticular nuclei, which together form the corpus striatum; the claustrum and the amygdaloid nucleus. To the former two the optic thalamus is closely related.

Lenticular nucleus:—Note the grooves on its outer surface for the lenticulo-striate and -optic arteries (see Brain-No. 27). The caudate nucleus is pyriform and highly arched. Its deep surface is separated from the lenticular nucleus by the internal capsule which is intersected by laminæ of grey matter connecting the two nuclei. The lower part of the head is directly continuous with the lenticular nucleus and the anterior perforated spot. The tail ends in the amygdaloid nucleus.

The amygdaloid nucleus lies below the lenticular nucleus and the anterior commissure. It is continuous with the anterior perforated spot and the lenticular nucleus. The tail of the caudate nucleus and the tænia semicircularis end in it.

The claustrum is a thin sheet of grey matter between the white matter of the island of Reil and the external capsule. It is continuous with the anterior perforated spot below.

The optic thalamus is separated from the caudate and lenticular nuclei by the tænia semicircularis and internal capsule respectively. It is continuous below with the tegmentum of the mid-brain through the 'subthalamic region.' Its anterior end bounds the foramen of Monro. Its posterior projecting end is the pulvinar. On the outer part of the inferior aspect of the posterior end is the external geniculate body, internal to which at the upper end of the lateral sulcus of the mid-brain, is the internal geniculate body.

The figures indicate:—

View from above:-

- 1. Optic thalamus.
- 2. Caudate nucleus.
- 3. Lenticular nucleus.
- 4. Laminæ connecting caudate and lenticular nuclei.
- 5. Tænia semicircularis.
- 6. Anterior pillar of fornix.
- loid nucleus.
- 8. Tail of caudate nucleus.
- 9. Deep surface of external 4. Laminæ connecting caudate 10. Anterior commissure. geniculate body.
- 10. Pineal body.

View from outer side:--

- 1. Lenticular nucleus.
- 7. Posterior part of amygda- 2. Outer surface of optic thala-
 - 3. Caudate nucleus.
 - and lenticular nuclei.
 - 5. Posterior part of amygdaloid nucleus.
 - 6. Tail of caudate nucleus.
 - 7. External geniculate body.
- 8. Internal geniculate body.
- 9. Outer part of anterior per forated spot.
- 11. Anterior fibres of crusta passing up to internal capsule.
- 12. Crusta of mid-brain.
- 13. Anterior pillar of fornix.







