The **Insula** (*island of Reil; central lobe*) (Fig. 731) lies deeply in the lateral or Sylvian fissure, and can only be seen when the lips of that fissure are widely separated, since it is overlapped and hidden by the gyri which bound the fissure. These gyri are termed the **opercula of the insula**; they are separated from each other by the three rami of the lateral fissure, and are named the orbital, frontal, fronto-parietal, and temporal opercula. The **orbital operculum** lies below the anterior horizontal ramus of the fissure, the **frontal** between this and the anterior ascending ramus, the **parietal** between the anterior ascending ramus and the upturned end of the posterior ramus, and the **temporal** below the posterior ramus. The frontal operculum is of small size in those cases where the anterior horizontal and ascending rami of the lateral fissure arise from a common stem. The insula is surrounded by a deep **circular sulcus** which separates it from the frontal, parietal, and temporal lobes. When the opercula have been removed, the insula is seen as a triangular eminence, the apex of which is directed toward the anterior perforated substance. It is divided into a larger anterior and a smaller posterior part by a deep sulcus, which runs backward and upward from the apex of the insula. The anterior part is subdivided by shallow sulci into three or four **short gyri**, while the posterior part is formed by one **long gyrus**, which is often bifurcated at its upper end. The cortical gray substance of the insula is continuous with that of the different opercula, while its deep surface corresponds with the lentiform nucleus of the corpus striatum.

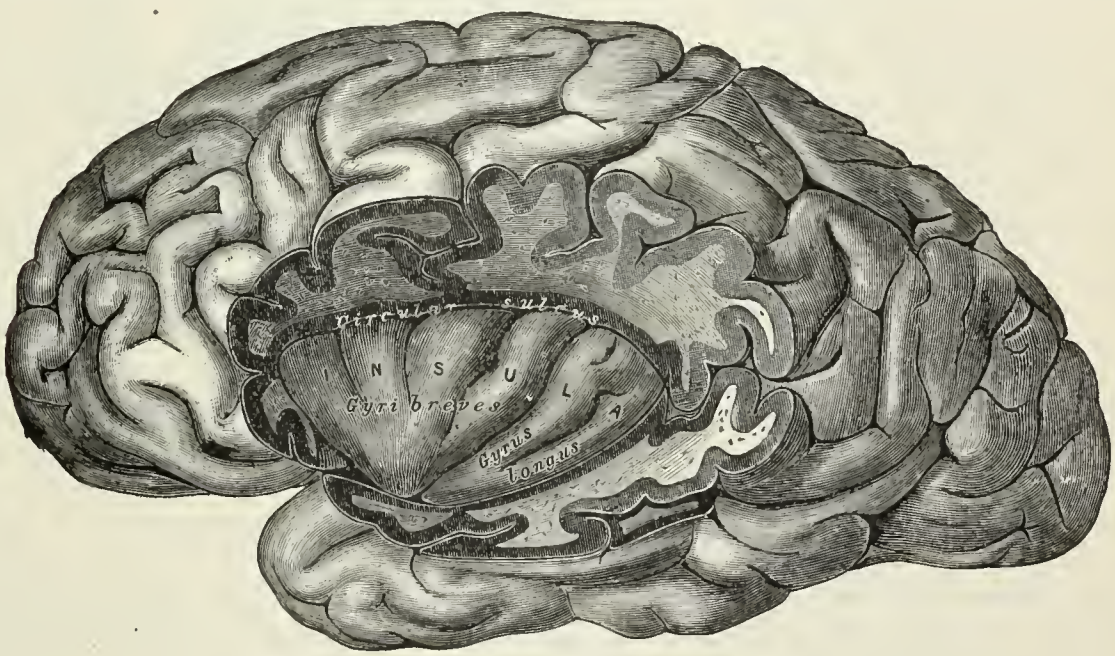

FIG. 731.—The insula of the left side, exposed by removing the opercula.

Limbic Lobe (Fig. 727).—The term limbic lobe was introduced by Broca, and under it he included the cingulate and hippocampal gyri, which together arch around the corpus callosum and the hippocampal fissure. These he separated on the morphological ground that they are well-developed in animals possessing a keen sense of smell (osmatic animals), such as the dog and fox. They were thus regarded as a part of the rhinencephalon, but it is now recognized that they belong to the neopallium; the cingulate gyrus is therefore sometimes described as a part of the frontal lobe, and the hippocampal as a part of the temporal lobe.

The **cingulate gyrus** (*gyrus cinguli; callosal convolution*) is an arch-shaped convolution, lying in close relation to the superficial surface of the corpus callosum, from which it is separated by a slit-like fissure, the **callosal fissure**. It commences below the rostrum of the corpus callosum, curves around in front of the genu, extends along the upper surface of the body, and finally turns downward behind the splenium, where it is connected by a narrow **isthmus** with the hippocampal