

beyond which mastication and deglutition ceased to be elicitable by stimulation. In such a decerebrate preparation deglutition was found, after a short period of recovery, to be readily evokable by introducing water into the pharynx by means of a rubber tube. Efforts to induce mastication were, however, unsuccessful. Faradic and mechanical stimulation of the tongue, pharynx and various parts of the buccal mucosa failed to yield it. It appears probable that, could the decerebrate rabbit be kept alive for a sufficient length of time, mastication would eventually become elicitable. But in the few hours during which it retains its vitality I have not met with success in this direction. Since, however, swallowing is obtainable in the decerebrate rabbit it is evident that R  thi's hypothesis of a deglutition centre in the thalamic region must be definitely abandoned. And, in spite of the absence of experimental proof, the existence there of a centre for mastication would appear, from general considerations, extremely improbable.

The situation of the tract concerned in the masticatory rhythm was determined at various levels by the unipolar method of stimulation. A small bristle was inserted at the proper point and served as a record in the sections which were subsequently prepared. In Fig. 3 the bristle is situated in the lower part of the internal capsule.

In Fig. 1 the bristle is in the medial portion of the pes pedunculi. Deglutition accompanied mastication in these experiments but the specific tract involved has not yet been differentiated from that for mastication.



Fig. 3. Cross-section of brain of rabbit. *C. Am.*, cornu Ammonis; *C. I.*, internal capsule; *N. c.*, caudate nucleus; *M. s.*, situation of bristle indicating point from which mastication and swallowing were yielded.

#### SUMMARY.

1. The movements of mastication induced by stimulation of the cerebral cortex of the rabbit are bilateral.
2. Masticatory rhythm and deglutition can be elicited from the infracortical tracts as far posteriorly as the corpora mamillaria.
3. Beyond this level both reactions cease to be evokable, the reason