

do not believe it proved, that the thalamus contains cells giving direct origin to part of said fibres. They find, however, that contrary to Flechsig's and Hoesel's views, the fillet does not present a direct and uninterrupted connection between the cortex on one side and Goll's and Burdach's columns on the other, but that this sensory bulbo-cortical tract involves two neurons, a bulbo-thalamic, represented by Reil's median fascicle (fillet), and a second one connecting the thalamus with the cortex.

ONUF.

PHYSIOLOGICAL.

The Physiological Action of Massage.—In the February 1st number of *Lo Sperimentale* (Florence) Dr. Carlo Colombo describes the action of massage upon the various secretory organs of the body and arrives at the following conclusions:

a. Influence of massage upon the secretion of gastric juice.

1. Without massage he was only able to collect in two hours time about 15 ccm. of gastric juice, which was collected in a small bladder. After massage he was able to collect in two hours' time forty cubic centimetres of juice, of which one part was mucus; the remainder was pure gastric juice.

2. A massage of five minutes made but little difference in the secretion of the juice, but if continued for fifteen minutes the maximum secretory intensity is reached, and the proportion of hydrochloric acid and pepsin is not increased.

b. Influence of massage upon the secretion of bile.

1. The quantity and quality of the bile is not changed perceptibly after ten minutes of friction over the hepatic region, and of rubbing over the inferior border of the liver.

2. After ten minutes of concussion the quantity of bile is increased considerably in four hours. The biliary salts of soda and cholesterine are more abundant.

3. Twenty-five minutes of friction produces the same results as ten minutes of concussion.

4. The best effect of the massage would be to combine ten minutes of concussion, with ten of friction.

c. Action of massage upon the secretion of saliva.

1. The submaxillary glands are most sensitive to massage; after five minutes of manipulation the secretion is increased.

2. After ten minutes of massage the greatest intensity of flow is reached, in the submaxillaries as well as the parotids.

3. The saliva secreted, the result of the massage is similar to that which is obtained when the chorda tympani is excited.

d. Influence of massage upon the secretion of urine.

1. The quantity of urine was considerably increased after a local application of massage over the kidneys.

2. The specific gravity was not diminished, but there was an abundant supply of renal epithelium in the sediment and a trace of albumin was observed.

e. Action of massage upon the secretion of spermatazoa.

1. The action of massage upon one of the testicles produced double the quantity of testicular secretion than from the one not massaged.

KRAUSS.

On the Time of Appearance of Secondary Degeneration in the Single Tracts of the Cord.—Dr. K. Schaffer (*Neurolog. Centralbl.*), 1895, No. 9.

Schaffer performed total transverse section of the cord on cats. The animals were killed on the 3d, 4th, 5th, etc., day after the operation respectively. The cord was examined after Marchi's and Algeri's method.

1. The first degenerative changes were observed on four days after the experiment. In ascending direction there was beginning degen-