and to the submaxillary gland by way of the lingual branch of the fifth.

Summary. 1. The rates of secretion of the salivary glands in man after unilateral section of the ninth nerve and chorda tympani indicate peripheral pathways for secretory fibers to these glands other than those accepted. 2. Section of the ninth nerve intracranially causes marked temporary diminution of salivation with partial recovery involving parotid, sublingual and submaxillary glands. 3. Section of the chorda tympani in the tympanic membrane causes marked permanent diminution of salivation involving the parotid, sublingual and submaxillary glands. 4. Therefore, it is concluded that the salivary glands receive their secretory fibers from both the seventh and ninth nerves.

6759

A Simplified Technique for Quantitative Collection of Salivary Secretions of Man.

EDGAR J. POTH.* (Introduced by F. L. Reichert.)

From the Department of Surgery, Stanford University School of Medicine.

Several methods have been devised for the collection of the salivary secretions of man, but most of them are either troublesome or inaccurate. The method presented here is applicable to the collection of the secretions of the parotid, sublingual, and submaxillary glands separately and simultaneously on both sides.

The method consists of applying pieces of tared absorbent material to the various duct openings, absorbing the secretions for the desired length of time, and then reweighing to nearest .05 gm. The quantity collected is given by difference. It is simpler to collect the secretions from the 3 pairs of glands separately, and the nasal tampons marketed by Johnson and Johnson are found to be the most satisfactory absorbent material.

To collect the secretions of the parotid glands, the floor of the mouth is packed off with dental rolls, and strips of tared nasal tampons about 4 cm. long are placed over the openings of Stenson's ducts. The strips will remain in place without support. They may be left in place until their thickness has doubled. This will require

* Fellow in Medicine of the National Research Council.

anywhere from one to 5 minutes depending on the rate of secretion and will represent a collection of one to 2 gm. of material. In collecting the secretions of the sublingual and submaxillary glands the parotids are packed off with dental rolls. Strips of nasal tampons are laid upon the ducts of Rivini bilaterally, and 2 other strips of the absorbent material separated by a piece of X-ray film and held by a clamp as illustrated in the accompanying cut, are placed on the

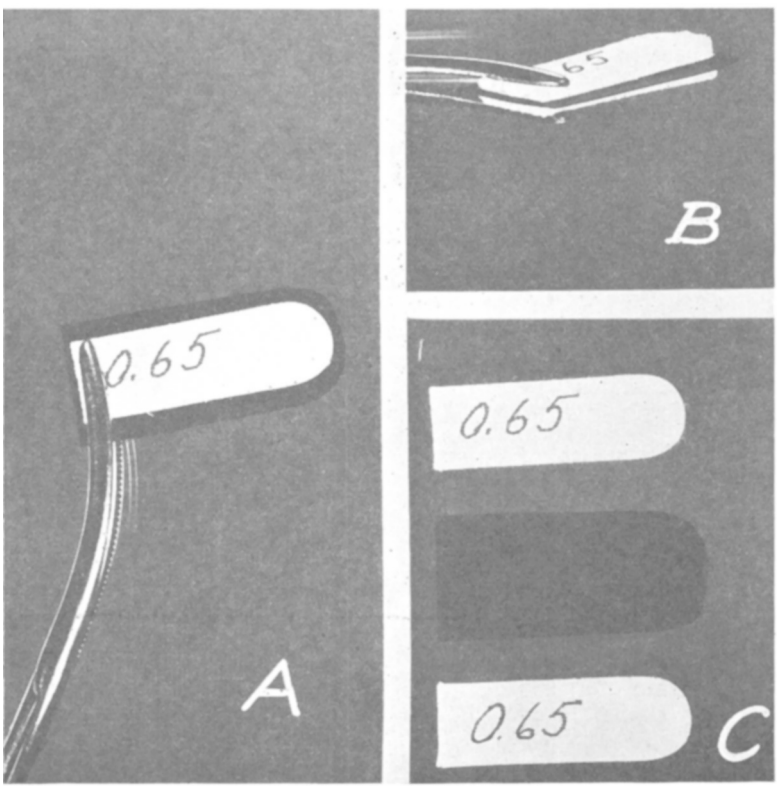

FIG. 1.
Arrangement for Collection of the Secretions of the Submaxillary Glands.
A and *B* show assembled materials; *C* shows tared nasal tampons (weight written on the absorbent material) and the septum of X-ray film.

openings of Wharton's ducts. Obviously, care must be taken to assure that the septum of X-ray film passes and remains between the 2 submaxillary ducts so that the secretion from each duct is absorbed on the proper strip.

This method of collecting the salivary secretions is simple, rapid, accurate, and of little discomfort to the patient.