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The influence of water on gastric secretion and the chemical affinity of mucus for HCl in the stomach.By **N. B. FOSTER** and **A. V. S. LAMBERT.**

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Pawlow called attention to water as a stimulant of gastric secretion but the degrees and limitations of stimulation produced by water in food Pawlow has not recorded. Using dogs with Pawlow fistulas, it was observed that with definite amounts of cracker meal as food, the amount and rate of gastric secretion depend to some extent on the amount of water given the dog with his meal, *i. e.*, when small amounts of water are given, the secretion is slow and scanty. If larger quantities of water are mixed in the food the secretion is more abundant.

The degree of acidity of gastric juice depends upon the *amount* of secretion. When this is considerable it is much more acid than when the secretion is scanty. Pawlow is of the opinion that the degree of acidity of the gastric juice is constant; this can hardly be correct, however, for the total acidity changes from hour to hour. The proportion of *free* acid depends upon the amount of mucus secreted, since mucus protein like other proteins combines with HCl. Mucus in the presence of pepsin combines with HCl to a considerable extent and undergoes digestion, with formation of proteoses.

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The action of the electric current on toxin and antitoxin.By **CYRUS W. FIELD** and **OSCAR TEAGUE.**

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In the early days of antitoxin it was thought that it might be possible to obtain antitoxin by passing an electric current through toxin. It was soon realized, however, that the fluid around the anode neutralized toxin by virtue of the acid formed about this