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Amylase and protease action of some pancreas preparations.By **H. C. SHERMAN** and **DORA E. NEUN.***[From the Laboratory of Food Chemistry, Columbia University.]*

It was shown that the purified preparations of pancreatic amylase always exhibit a marked proteolytic activity whether tested by determination of total nitrogen of digestion products, by determination of amino nitrogen, by the Van Slyke method, by determination of acidity of digestion, or by the increase of electrical conduction.

While fractional precipitation by alcohol yields a first precipitate of increased proteolytic activity, the other (more soluble) fraction shows no increase in amylolytic power over the usual purified amylase preparation, and only a slight decrease of proteolytic power. The problem of the relationship of the amylolytic and proteolytic activities of these preparations was discussed.

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The rôle of afferent impulses in the control of respiratory movements.By **HELEN C. COOMBS** and **F. H. PIKE.***[From the Department of Physiology of Columbia University.]*

As the result of further experimentation, we wish to add to a previous statement (*American Journal of Physiology*, 1917, XLII, p. 395) the following facts:

1. The movements of the ribs, which cease after division of the dorsal roots of the spinal nerves in the thoracic and cervical regions, are resumed when the phrenics are divided.

2. The respiratory movements become labored when the vagi are divided in the neck after these procedures, and soon cease. The effects of vagotomy are more severe if the dorsal roots of the