patient, either by a course of therapeutic remedies, or from what, in my opinion, is still better, namely, an early residence in a favorable climate.

THE NUTRITIOUS VALUE OF PEPTONES.

BY A. B. MACALLUM, B.A.,
Lecturer on Physiology, Toronto University.

In 1882 Von Ott showed that frog's hearts which become fatigued and cease beating, when washed out and fed with physiological salt solution, again commence to beat energetically when fed with solutions of gastric peptones, which have been for a short time in contact with the living gastric or intestinal mucosa. Such solutions resemble in this respect serum, and they were further found to contain principally serum-albumen, the resulting conclusion being that the living gastric or intestinal mucosa has the power of changing peptones into serum-albumen. Von Ott also found that peptones which had not been subjected to contact with the living mucous membrane were incapable of nourishing the isolated heart of the frog. Kronecker and Popoff have recently (*Verhandlungen der Berliner Physiologischen Gesellschaft*) established the correctness of Von Ott's observations, and have extended their researches to peptones obtained by digestion of proteids with artificially prepared pancreatic juice. They find that while peptones obtained from the action of gastric juice are built up again to serum-albumen by contact, for a few minutes even, with the living gastric or intestinal mucosa, pancreatic peptones are not so reconstructed by the mucosa of any part of the digestive tract, and that they are wholly incapable of nourishing the frog's heart.

Kronecker and Brinck have further experimented in the same line, testing also the nutritious value for the frog's heart of solutions of peptones in which cultures of bacteria were made. Some of their observations confirm those outlined in the above paragraph, but they also show that pancreatic peptones have no nutritious value whatever when fed alone to animals. Many species of living cells have the power of building up gastric peptones anew into serum-albumen, and the observers call attention to one form particularly which possesses this property in a remarkable degree, and which has therefore been termed *Bacillus restituens*. The solutions of artificially prepared gastric peptones which contain cultures of this organism have a full nutrient effect on the frog's heart, and they resemble, in chemical properties, solutions of serum-albumen. Pure solutions of the latter are apparently not favorable to the growth of the bacillus. In contrast with the reconstructive powers of *B. restituens*, pathogenic bacteria degenerate and disintegrate peptones with the production of bodies having excessively toxic qualities.

If these researches are confirmed by other observers, a change in opinion must occur as to the nutrient value of many of our commercial peptones. Many of the latter are made with artificially prepared pancreatic juice, as the peptones so obtained are more palatable, and therefore preferred in prescriptions, while the gastric peptones are said to be somewhat bitter and disagreeable. If the pancreatic peptones have no nutrient value, it is obvious that their administration to invalids is useless unless for other purposes than nutrition. These researches point out, also, the value of experiments and studies on non-pathogenic bacteria, which are to a great extent neglected in bacteriological laboratories.

NOTHNAGEL AND NAUNYN ON CEREBRAL LOCALIZATION.

BY PROF. R. RAMSAY WRIGHT, M.A.,
Professor of Biology, Toronto University.

At the opening meeting of the Students' Medical Society of Toronto University, which took place Nov. 11, Prof. R. Ramsay Wright addressed the members on a recent report by Professors Nothnagel and Naunyn, discussing the results of lesions of particular areas of the cerebral cortex. He introduced the subject with an account of the topography of the brain, illustrated by projected photographs, on which he afterwards marked out the sites of lesions referred to in the report. A model was also employed, indicating the course of the optic nerve fibres to the occipital lobe.

One of the most important results arrived at by Nothnagel is the localization of hemianopsia in the cuneus and first occipital convolution.