

by which from the clear protoplasm the formation of the actual digestive ferment as a regular series of constructive and destructive processes, takes place. Recently, J. R. Green has shown that in the germinating seeds of plants, there is a ferment similar to the *proteolytic* ferment of the pancreas; it exists in resting seeds in the form of a zymogen or mother-ferment, but in the germination of seed, it becomes an active ferment.

The reserve proteid of the seed is converted probably into pepsone, but the nitrogen is carried to the growing points of the young embryo as a crystalline amide, e. g. leucin, asparagin, etc.

Now, it is well known that the pancreatic ferment differs from the gastric in its power to carry the digestion of proteids on to the stage of formation of crystalline nitrogenous bodies. (Proc. of Roy. Soc.)

CATALOGUE OF CANADIAN PLANTS.—This important addition to Canadian Botany is issued by the Geological Society, and has been completed so far as to embrace I. Polypetalæ; II. Gamopetalæ; III. Apetalæ. This is the most important of the publications relating wholly to Canadian Botany since the appearance of Hooker's *Flora Boreali Americana* in 1840, and it supplies to the student a wealth of information which has long been a serious want.

From his extensive travels through a large part of the Dominion, and his intimate acquaintance with the flora from personal observation, Prof. Macoun has been able to "speak with accuracy and decision in many points which a more limited knowledge of distribution would preclude." But, as he says, "the present work is by no means final," and the co-operation of botanists in making known those species, which for any reason may have been overlooked, or in more exactly defining doubtful limits of distribution, would be a real service to Canadian Botany. The appearance of this catalogue gives promise that a complete *Flora of Canada* may be forthcoming before many years, the obstacles to the preparation of which have hitherto been many, but are now chiefly removed.

ISAAC LEA, LL.D., the well-known publisher and naturalist, died, at Philadelphia, Dec. 8th, 1886, at the age of ninety-five years. He was born at Wilmington, Delaware, in 1792. From 1858 to 1863, he was president of the Academy of Natural Sciences, and in 1860, president of the American Association for the Advancement of Science. Dr. Lea's scientific work chiefly related to fresh water and land shells. He began a complete work on the *Unionida* of the United States, and prepared to expend much time and money in its elaboration, but a fire destroyed all his valuable plates and caused a termination of the work.

THE AMOUNT OF CAFFEINE IN VARIOUS KINDS OF COFFEE.—From the following quotations it will be seen that great discrepancies