Note on a Gastrolith found in a Moose.—By Professor D. Fraser Harris, M. D., C. M., D. Sc., F. R. S. E., Dalhousie University, Halifax.

Read, 20th January, 1913.

On first October, 1905, a large bull moose (*Alces Americanus*), eight or nine years old, and weighing 850 pounds was shot by Lieut. L. G. Matterson, R. A., at Ship Harbour, Long Lake, about ten miles south-east of Middle Musquodoboit, Halifax county, N. S. The guide, William H. Day, on opening the animal, found a hard oval concretion in its stomach. This was given to Mr. John W. Willis of Halifax, who possesses the mounted head of the animal. In May, 1912, Mr. Willis presented the calculus to the Provincial Museum (accession No. 3785). Mr. Piers asked me to examine the concretion and report on its chemical constitution. On cutting the calculus open carefully with a fret saw, I found it was a laminated concretion of oval section which now measured 1.90 inches in length (the end having broken off). The original length had doubtless been about 2.40 inches. The diameter of the section is 1.50 inches; and the thickness 1.15 inches. There are about seven concentric layers, every alternate one being somewhat more pronounced and more easily separated. In its centre was embedded a flat, smooth piece of slate not fully exposed in the section, but measuring 0.85 of an inch where it was exposed.

On submitting a fragment of the outer shell to chemical investigation, the substance proved to be calcium orthophosphate, with no obvious admixture of organic matter. According to the statement made by Mr. Day, communicated by Mr. Willis, the calculus was found in the stomach

and not in intestine or bladder; it is, therefore, a gastrolith. Mr. Day states that he has known of a tooth being the centre of a similar concretion in the moose's stomach. Captain (now General) Campbell Hardy, R. A., in an unpublished paper entitled "Notes on the History of the Moose," read before this Institute on 7th May, 1867, exhibited and spoke of calculi formed in the stomach of that animal. The interest of this case is that the nucleus of crystallisation is a stone and not organic matter such as has so frequently been found in the "hair-balls" in horses and cows.