

XXXI.—ANALYSIS OF TWO INTESTINAL CALCULOUS CONCRETIONS OF HORSES.

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The material which served for the examination, was kindly furnished by Dr. N. Cressy, of Amherst, Mass.; both analyses have been carried out, under my direction, by Messrs. D. H. Benson, of the Class of 1877, and H. L. Lovell, M. A.

I.

This calculus was discharged from the bowels of a horse without any previous symptoms of disease; it measured two and one-half inches in diameter, and was round and smooth on the surface; it consisted of a hard and compact mass of numerous concentric layers, varying in color from white to bluish-white; in its fresh and dry state it weighed six ounces.

One hundred parts of air-dry calculus contained:

Ammonium-magnesium phosphate	88.01	per cent.
Calcium carbonate	0.45	“
Magnesium carbonate	5.27	“
Insoluble mineral matter (clay, sand, etc.) . . .	0.86	“
Organic matter and moisture	5.41	“

II.

This calculus was taken from the bowels of a horse which had died in consequence of a rupture in the intestines, caused by the obstruction it produced; it measured four inches in diameter, and weighed, in its fresh, dry state, thirteen ounces; it was composed of several layers, varying in color from white to dark brown.

One hundred parts of the air-dry calculus contained:

Ammonium-magnesium phosphate	75.56	per cent.
Calcium carbonate	2.07	“
Magnesium carbonate	0.84	“
Ferric oxide	0.67	“
Insoluble mineral matter (clay, sand, etc.) . . .	6.18	“
Organic matter (containing 1.818 per cent. of nitrogen) and moisture	14.68	“

Both concretions belong, apparently, to the same class of calculi and differ mainly in regard to the character and the relative amount of the organic material present.