

## SERMONS IN STOMACH STONES.

MOLIÈRE presents to us in one of his comedies the father of a dumb girl who wants to know why his daughter is dumb. 'Nothing is more easy to explain,' says the pretended physician Sganarelle; 'it comes from her having lost the power of speech.' 'Yes, yes,' objects the father, 'but the cause, if you please, why she has lost the power of speech?' Sganarelle is at no loss for an answer: 'All our best authors will tell you that it is the impeding action of the tongue.'

Somewhat similarly, if one asks the definition of a 'stomach stone,' one is told that it is a 'gastrolith';<sup>1</sup> and our best authors declare sapiently that gastroliths are pebbles that have been swallowed by fossil reptiles of '*lithophagous proclivities*.'<sup>2</sup> Predilection for this hard fare is accounted for by ascribing to the reptiles in question a bird-like gizzard; and the upshot of the matter is that we find evidence 'of additional important structural analogies with the birds,' *quod erat invenendum*. Much the same method of reasoning led the jovial Tom Hood, in his 'Geological Excursion to Tilgate Forest, A.D. 2000,' to affirm that *Mylodon* subsisted upon a diet of 'raw potatoes and undressed salads.'

We have no wish to impugn the worth of stomach stones, nor of related bodies known as uroliths and coprolites, as a fit subject for scientific inquiry, and as a means of satisfying hunger and thirst after knowledge. All are capable of large returns, as witness, for example, the fecund results of M. Bertrand, whose memoir<sup>3</sup> of 150 odd pages, illustrated by fifteen plates, is at once edifying, delectable and *digne*; that is, fully commensurate with the materials. The argumentation employed is informed with severest logic, in which undisciplined imagination has no place; and the author seeks to test, verify, or at least fortify, his conclusions as far as possible by the experimental method. An evident longing to get at the bottom of things is shown in

<sup>1</sup> SCIENCE, Vol. XXIII., p. 820.

<sup>2</sup> *Ibid.*, Vol. XX., p. 565.

<sup>3</sup> 'Les coprolithes de Bernissart.' Mém. Musée Roy. d'Hist. Nat. Belg., T. I., 1903.

the sections entitled by him 'Etude de la pâte fécale,' and 'Résumé de quelques expériences sur la destruction de divers types de crottins,' the latter including a notable category. Our foreign colleague is conspicuous for his firm grasp of the subject-matter, and his ornate handling of it sets an example which might well be emulated by his brethren on this side of the water. But then, as Seneca observes, speaking with all due respect: '*Gallum in suo sterquilinio plurimum posse*.'

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## SPECIAL ARTICLES.

## THE FUTURE OF THE CRAYFISH INDUSTRY.

CRAYFISH in the United States form so small a part of the food supply that we are apt to rank them with mussels and snails as eaten in Europe only. But while France so highly appreciates them as to carry on the business of rearing them to increase the natural supply coming from her own waters and those of neighboring countries; there is actually a growing consumption of crayfish as food in the United States. In New York, New Orleans, San Francisco, Chicago and other cities crayfish are sold both as food and as garnish, as bait and as material for school and college courses in zoology.

While the actual status of the crayfish industry is difficult to determine, the following facts show that if a complete census were taken it would show the existence of a much larger use of crayfish than is at all suspected. One small region, the Potomac from Washington to Fort Washington, was recently estimated by one of the most intelligent fishermen on the Maryland side to send annually to New York a half million of crayfish, while the U. S. Fish Commission publications in 1884 asserted that Montreal and Milwaukee also shipped crayfish to New York. More recent reports of the commission state that in 1902 the crayfish catch in New Orleans County, Louisiana, was 16,000 pounds, of a value of \$615, and of Monroe County, Florida, 55,664 pounds, of a value of \$3,282.

All the above crayfish and many more caught for the markets of Chicago and other