

obscure or much confused." I also further state, "that the apices are invariably turned to the under or lower side of the stratum, while their bases are as invariably directed to the upper surface."

In my explanation of cone-in-cone structure, I point out that it was probably due to a mechanical action, set up through chemical agencies, such as gases, that were generated by the decomposition of the organic matter present in the lower portion of the stratum, the elevatory power of such gases, as they escaped upwards to the surface of the bed, through the tube forming the central axis of each cone, brought up from below the successive layers of plastic mud, of which the cone structure is seen to be built up.

HUNTERIAN MUSEUM, UNIVERSITY GLASGOW,  
February 13th, 1892.

JOHN YOUNG.

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#### READE'S THEORY OF MOUNTAIN BUILDING.

SIR,—In reply to Mr. Reade I am quite aware that he replied to Mr. Davison's argument last year, but in the opinion of good physicists that reply was no answer. Mr. Reade apparently failed to realize Mr. Davison's meaning, and the further explanation given in the postscript to my paper does not seem to have made it clearer to him.

My own ideas of the result of subsidence do not form the primary question in debate, which is—can we accept Mr. Reade's ideas? It is eminently desirable, therefore, that he should address himself to Mr. Davison's objection and postpone any consideration of my criticisms.

I am obliged to Mr. Reade for pointing out the error in my figures; an 0 has been omitted, but when supplied makes the case against him ten times worse than before. If I have misunderstood Mr. Reade's idea of expansive compression, or if my argument is unsound, I shall be glad to be corrected.

A. J. JUKES-BROWNE.

EXETER, Feb. 10.

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#### CONCERNING THE DIMENSIONS OF OLENELLUS.

SIR,—In his excellent paper "On *Olenellus Callavei*," in the *GEOL. MAG.*, Dec. 1891, p. 529, Professor C. Lapworth says: "The larger fragments collected indicate a length of about six inches and a breadth of about four inches. With the exception of *Olenellus (Holmia) Bröggeri*, Walcott, this form is the largest species of the genus yet discovered." Prof. Lapworth seems to have overlooked that *Olenellus (Holmia) Kjerulfi*, Linns., might reach fully the length of *O. (H.) Callavei*. In my paper "On *Olenellus Kjerulfi*," in *Geolog. fören. förhandl.* vol. ix. (1887) p. 512, I have stated that: "The largest specimen I have found has a breadth of 63 mm. between the eyes." The length of the body must, therefore, in this case, have been 155 mm., which is more than six inches.

GERHARD HOLM.