

motion within the shell." Mr. Mallet's mode of estimating the amount of heat derivable from crushing a cubic foot of rock was explained, and it was accepted as a postulate, that the heat developed by crushing one cubic foot of rock would be sufficient to fuse 0.108 of a cubic foot of rock; or, in other words, that it would require nearly the heat developable by crushing ten volumes to fuse one. Mr. Mallet considers that the heat so developed may be localized. But Mr. Fisher inquires why, since the work is distributed equally with the crushing, the heat should not be so also; and since no cause can be assigned why one portion of the crushed portion of rock should be heated more than the rest, assumes that all which is crushed must be heated equally. In short, he is of opinion that if Mr. Mallet's theory were true, the cubes experimented upon ought to have been themselves fused.

After paying a just tribute of admiration to Mr. Mallet's elaborate and highly important experiments upon the fusion and subsequent contraction of slags, the author remarked upon Mr. Mallet's estimate of the probable contraction from cooling of the earth's dimensions, showing that it had been based on untenable assumptions. (The author of the paper, however, holds that the contraction of the dimensions of the globe has been greater than mere cooling will account for.) Upon the concluding portions of Mr. Mallet's paper, in which he estimates that the amount of energy afforded by the crushing of the solid crust would be sufficient to account for terrestrial vulcanicity, some strictures were made; but it was held that, if the main proposition had not been proved, these calculations were not of essential importance.

The Meeting was made special for the election of a Member of Council and of a Vice-President in the room of the late Sir Charles Lyell, Bart. W. Carruthers, Esq., F.R.S., F.G.S., was elected a Member of Council, and Sir P. de M. Grey-Egerton, Bart., M.P., F.R.S., F.G.S., a Vice-President of the Society.

CORRESPONDENCE.

DENUDATION OF THE WEALD.

SIR,—I regret much that the gallant author of "Rain and Rivers" should think I had robbed him of one of his numerous honours; but at the same time I cannot feel that I am guilty. Messrs. Foster and Topley are not referred to as the authors of the Subaerial Theory of the Denudation of the Weald Valley, but as the authors of a memoir containing the information I required. Moreover, it would appear superfluous to mention Col. Greenwood's name, as the few readers I may have, must be fully acquainted with "Rain and Rivers." I appear to have been unfortunate in my selection, as the Denudation of the Weald seems to be an apple of discord, the gallant Colonel being the third claimant who has called me to task for having mentioned Messrs. Foster's and Topley's names.

THE AUTHOR OF "VALLEYS AND THEIR RELATIONS TO FAULTS," ETC.¹

WEXFORD, June 4th, 1875.

¹ London, 1875, Trübner and Co., 8vo. pp. 240.