

a small region of the fault-surface and would occur at a slight depth, the intensity of the shock would rapidly fade away from the epicentre; the disturbed area would therefore be small and circular in form; and the shock and sound would be of brief duration, and in many ways resembling those produced by the fall of a heavy mass of rock.

If this is a correct explanation of some of the earth-shakes which occur in mining districts, it follows that such cannot be classed either with true or with spurious earthquakes. They are of natural origin in so far as they are produced by fault-slips, but artificial in that the slips are brought about by human labour and not by the slow and gradual cooling of the earth.

NOTICES OF MEMOIRS.

NOTE ON *BELINURUS GRANDÆVUS*.¹

IN a review of a paper by Professor T. R. Jones & Dr. Henry Woodward on *Belinurus grandævus*, a new species of Palæozoic² Limuloid Crustacean from the 'Eo-Carboniferous' of Riversdale, N.S., it is stated on p. 208 of this journal that *Belinurus* has not been found in rocks of earlier age than the Coal-measures. In Geikie's Text Book of Geology, however, this genus is mentioned as occurring with *Pterygotus*, *Bothriolepis*, *Cocosteus*, *Pterichthys*, *Glyptolepis*, and other typical Lower Devonian and Silurian forms in the Kiltoran Beds of Ireland. Thus the inference drawn in the conclusion of this article that these rocks are Carboniferous does not seem to be sustained. May it not, on the other hand, be assumed that "The faunæ of the seas of the Lower Carboniferous, Coal formation, and Permian periods, both in Europe and America, present so great similarities that they may, in a broad view of the subject, be regarded as identical;"³ while for 'Lower Carboniferous,' according to correlations of the fossils from these strata in New Brunswick and Nova Scotia made recently by Professor Kidston and Dr. David White, as recorded by Mr. J. F. Whiteaves in his "Address on the Devonian System in Canada,"⁴ must we now say 'Lower Devonian'?

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R E V I E W S.

I.—GEOLOGICAL SURVEY OF CANADA. G. M. DAWSON, C.M.G., LL.D., F.R.S., Director. Annual Report (New Series), Vol. X. Reports A, F, I, J, M, S, 1897. 8vo; with plates and maps. (Ottawa: Dawson, 1899.)

THE present volume, like its predecessors, contains within its pages many proofs of the excellent organization as well as the enterprising spirit which controls and animates the operations of all branches of the Survey, and testifies once again to the

¹ From *The Ottawa Naturalist*, January, 1900, vol. viii, No. 10, p. 256.

² *GEOL. MAG.*, September, 1899, p. 388.

³ *Acadian Geology*, p. 283.

⁴ Section E, American Association, Columbus, Ohio, August, 1899.