capable of extension or compression, would give play to the earth's distance from the sun, and render intelligible former variations of temperature of our planet. We have before, in this volume, thrown out speculations on possible cosmical occurrences and conditions, and we wish the idea now offered for discussion to be regarded as no more, at present, than a speculation.

ON THE OCCURRENCE OF *WALDHEIMIA (TEREBRATULA) TAMARINDUS*, AND THE DISTRIBUTION OF BRACHIOPODA, IN THE CRETACEOUS ROCKS OF IRELAND.

BY RALPH TATE, F.G.S.

E. R. Lankester, Esq., in his paper "On some Cretaceous Brachiopoda,"—see November number of 'Geologist,'—states *T. tamarindus* to be a rare shell; so also in Davidson's 'British Brachiopoda,' Pal. Soc. Publications, the localities for this species given in that monograph are:—Isle of Wight, in Lower Greensand; near Sandgate, in Kentish Rag; and Upper (?) Greensands of Faringdon. I have to add another locality—Colin Glen, near Belfast. This species occurs with us in true Upper Greensand, associated with *Ammonites per-amplus*, *Pecten aquicostatus*, *Exogyra columba*, *Vermicularia concava*, etc.

I have generally found it, in masses of 2 or 3 inches in thickness, among the soft chloritic sandstones, and never in a continuous band. I have not met it in any other locality; but individuals may be obtained in abundance in the locality given.

The distribution of this species is thus extended, ranging from the Neocomian to the Upper Greensand.

I take this opportunity of furnishing a list of the Brachiopodous shells of the Cretaceous rocks of the county Antrim.

The species have nearly all been collected in the immediate neighbourhood of Belfast.

Brachiopoda of the Hard Chalk, White Limestone: Upper Chalk.—*Crania Ignabergensis*, Retz, *Rhynchonella plicatilis*, Sow., *Terebratula carnea*, Sow., *T. semiglobosa*, Sow., *T. obesa*, Sow., *T. biplicata*, var. *Dutempleana*, D'Orb., *Terebratulina striata*, Wahl.

Upper Greensand.—*Rhynchonella limbata*, Schlott, *R. latissima*, Sow., *R. compressa*, Lam., *Terebratula biplicata*, Sow., *T. semiglobosa* var. *bullæ*, Sow., *Terebratulina striata*, Wahl., *Waldheimia tamarindus*, Sow.

Gault.—*Rhynchonella nuciformis*, Sow., *Terebratula squamosa*, Mant.