outliers, the steps by which the isolation and removal of these patches to a distance was accomplished remain to be traced; and here, perhaps, without undue exercise of imagination where evidence is wanting, it may be suggested that after inversion the adjacent face of the Mendips might have assumed the form of a high escarpment made up of the softer Coal-measures capped by the overthrown limestones, when land slippage, during the wasting backwards of the escarpment, might have taken place, allowing large masses of the harder rocks above to subside; or a succession of landslips might each be accompanied by an outward as well as a downward movement.

In support of this suggestion, I may mention an escarpment some 1500 to 2000 feet in height, with which I am acquainted, composed of various soft and more consistent beds below, capped by unusually hard and massive ones above. Along this scarp land-slippage has taken place to such a degree that great detached masses of the upper sections have settled down on the sloping outcrop of the softer beds, until they have, in several instances, arrived by combined processes of slipping and weathering back at distances from their main outcrop quite comparable with those of the outliers in question from the suggested escarpment of inverted beds. Some of these detached masses exceed the dimensions of the Upper Vobster outlier; and, so far as can be judged without having seen the locality, there appears to be no insuperable difficulty in accounting for the position of these outliers in this way.

It should be noticed in connexion with the subject of such great inversions, that disruption or faulting may have accompanied the distortion of the anticlinal arches, permitting the inverted strata to fall away, or else the whole set of beds, including both the limestones and those above them, must be supposed to have turned back upon themselves again, as shown in the figure at E. No instance, upon a large scale, in which this is proved to have occurred, has fallen within my experience, though some sections have suggested it, and in the absence of such recurvature, displacement amounting to faulting may, after all, have been a necessity in some part of the process by which these features were produced.

E. B. W.

ON THE NOMENCLATURE OF ROCKS.

Please correct the following in the GEOLOGICAL MAGAZINE for September:—

Page 426, *line* 22, in two places, trachy*l*yte for trachalite.

G. H. KINAHAN.

BOULDER-CLAY IN IRELAND.

SIR,—I can assure Mr. Birds that it is perfectly incorrect to suppose that an Upper Boulder-clay in Ireland *resting on "middle sands and gravels" has been proved in any place.* Normal Boulder-clay has been found in many places resting on sands and gravels, but the latter cases are of an age prior to the accumulation of the Glacial Drift

of that country. Some of these old sands and gravels have been made to do duty for the "middle sands and gravels," while in other places the so-called "Upper Boulder-clay" is a glacialoid drift, a meteoric drift, or an aqueous drift, in which a few blocks or fragments of stone can be found, still retaining some ice-scratches.

WEXFORD, *October 5*, 1875. G. HENRY KINAHAN.

FORMATION OF A MINERALOGICAL SOCIETY.

SIR,—An effort is being made for the establishment of a Mineralogical Society of Great Britain and Ireland. Will you permit me to call the attention of your readers to this fact, and to say that I shall be happy to give information on the subject to any persons who may desire to become members.

The objects of the Society are—

To simplify Mineralogical Nomenclature.
To determine and define doubtful mineral species.
To study the *Paragenesis* of minerals.
To record instances and modes of pseudomorphism with their accompanying phenomena.
To measure, determine, and illustrate forms of crystallization, especially the irregularities and peculiarities of particular planes, or of crystals from particular localities.
To discuss systems of classification, and to establish a natural system.
To collect, record, and digest facts and statistics relating to economic mineralogy.
To promote the exchange of specimens; and, generally,
To advance the Science of mineralogy.

The rules and regulations to be ultimately adopted will be decided upon by the votes of probably the first 100 members.

57, LEMON STREET, TRURO, J. H. COLLINS.
September 17th, 1875.

ORIGIN OF ESCARPMENTS AND CWMS.

SIR,—Several years ago you kindly published a number of articles by me on Denudation, and likewise the answers they elicited from several well-known geologists. The substance of these articles was afterwards incorporated with my work entitled "Scenery of England and Wales, its Character and Origin," in which, among other subjects, I entered into a detailed consideration of the origin of escarpments and cwms, especially the very typical cwms of North Wales. Since then Mr. Kinahan has written a work on the Surface-geology of Ireland, which to a great extent is a repetition in different words of the kind of arguments I adopted in reference to England and Wales; and Mr. Goodchild in several recent articles in the GEOL. MAG has (evidently without being aware of what I had written) not only used many of my arguments against Subaërialism in substance, but, in several cases, coincidentally expressed them in nearly the same words. This will be seen from a comparison of some portions of Mr. Goodchild's articles with the following quotations from my work on England and Wales:—"Carrying away the blocks and fragments, the removal of which must, in a general way, have kept pace with the recession of the cliffs..... the power of a moving crust of land-ice several thousand feet thick to excavate cwm-shaped