platinum is characteristic of ultrabasic rocks. In the basic intrusions there is little or no vein-formation, the ore-bodies being basal or marginal, sometimes disseminated more or less uniformly, and pneumatolysis plays little or no part in ore-formation.

GEOLOGISTS' ASSOCIATION.

Friday, April 8, 1921.

"The Influence of Geology and Topography on the Growth of London." By C. E. N. Bromehead, B.A., F.G.S.

A new geological map of London, showing the "buried streams", with short accounts of the streams. The site of London, with reasons for its selection. Roman London. The site of Westminster, at the first ford. The Roman Roads round London. The growth of London and Westminster and the connecting link along the "Strand". To the end of mediaeval times the necessity for a defensible position limited the growth. The great expansion in the seventeenth century brought to an end by the question of water supply. The supply from the terrace-gravels and the means taken to supplement it. Growth ceases until beginning of nineteenth century. A few of the ways in which Geology affects London to-day.

CORRESPONDENCE.

GEOLOGY OF THE NINGI HILLS.

SIR,—As Major Williams in his letter in the February number handsomely disclaims all intention of being controversial, I am content to leave the matter where it now stands. My attitude towards the larger questions which Major Williams has raised will be made clear in a forthcoming publication of the Geological Survey of Nigeria, and I need not, therefore, transgress upon your space. May I say, however, that I have no recollection of ever stating—and certainly not in my last letter—that tinstone is or can be found only in the younger granites. That is quite a different matter from the question of its origin.

J. D. FALCONER.

JOS, NIGERIA, N.P.
5th March, 1921.

"LISSONS."

SIR,—Mr. Upton's explanation of the continuous rise of air from "lissons", quoted in the article under the above head by Mr. L. Richardson in the March number of the GEOLOGICAL MAGAZINE, does not appear quite satisfactory. Surely the barometric pressure into the ground would be able to act more readily in a downward direction through the fissures than through the interstices of the country rock.

The following alternative explanation is suggested. The normal temperature lapse rate in the lower layers of the atmosphere is − 1° F. per 300 feet, whilst the adiabatic lapse rate is − 1° F. per 172 feet. When the lapse rate in the atmosphere exceeds the latter quantity, a condition of unstable equilibrium ensues, and convection immediately sets in to restore equilibrium. Now, assuming the temperature gradient in the Oolites at Stroud to be − 1° F. per 60 feet measured in the same direction as that of the atmosphere, i.e. in an upward direction ; and further assuming that the air in a fissure remains sufficiently long in contact with the country rock to take up its temperature (a period of a few minutes would suffice), it would appear that the column of air in the fissure would be in an exceedingly unstable condition and would at once tend to rise to the surface. This effect should be most noticeable during the winter, when no inversion in the lapse rate is likely to occur in the subsoil, as is the case in the summer.

No doubt the barometric tendency materially affects the velocity of the current—a negative tendency (i.e. when pressure is decreasing) should cause an increase ; by analogy with the effect produced on fire-damp evolution in coal mines on such occasions.

The velocity of the current might temporarily be increased during the winter season by the rise in the level of the water-table subsequent to heavy rains, causing the upward displacement of air.

NORMAN L. SILVESTER.

BEDFORD COLLEGE, REGENT'S PARK, N.W.

April, 1921.

CORRELATION OF THE MEADFOOT AND SIEGENIAN BEDS.

SIR,—I read with interest in the April number of the GEOLOGICAL MAGAZINE Dr. E. Asselberghs' remarks on the above subject. On p. 167 he says :—

"Later, other fossiliferous localities were discovered. Several lists of fossils have been published, but a great number of the identifications, based only on the already old descriptions of Phillips and Davidson, are doubtful."

He then quotes from a list of mine (GEOL. MAG., 1909, pp. 133–4) as an instance. I should like to say I did not venture to identify any of the fossils given in my list. I submitted them first to Upfield Green (who was working with me at the time) and afterwards to W. A. E. Ussher. They were carefully examined by both, as was my list before publication. I gather from subsequent remarks that Dr. Asselberghs has confidence in the opinion of these authorities. Referring to the Devonian rocks of North Devon, Dr. Asselberghs says : "The stratigraphical succession is less known than in the South." I was not aware of this.

J. G. HAMLING.

THE CLOSE, BARNSTAPLE.