in second-hand science. As it is, I content myself with remarking that the maxim "Verbum sat sapienti" has only a very limited application in scientific matters, for there a diet of words is both innutritious and flatulent. But as he evidently loves "wise saws" I will add another to his store, "Words are the counters of wise men and the money of fools." T. G. BONNEY.

INTRUSIVE IGNEOUS ROCKS IN IRELAND.

SIR,—With reference to the interesting paper on "Intrusive, Tuff-like, Igneous Rocks and Breccias in Ireland," by Messrs. Kilroe and M'Henry, published in the August number of the Q.J.G.S., it is noteworthy that there are in the neighbourhood of Snowdon several instances of intrusive rocks of so fragmentary and brecciated a character as to resemble volcanic agglomerates. Such is the case in part with the diabase occurring in Cwm Llan, S.S.E. from the summit of Snowdon. Other instances of this character that I have observed are a small boss of brecciated diabase at the base of the felstone of Cribiau, near Bwlch Ehediad, and another, also of a fragmentary character, amidst the felsitic rocks on the south-east side of Llyn Gwynant. Somewhat similar too is the greenstone on Glyder Fawr, which Ramsay in his memoir on North Wales describes as a "great vesicular, rubbly-looking patch."

J. R. DAKYNS.

SNOWDON VIEW, NANT GWYNANT, BEDDGELERT.
October 10, 1901.

EBBING AND FLOWING WELLS AND SPRINGS.

SIR,—Some time back you were good enough to print a communication from me on the ebbing and flowing well between Buxton and Castleton in Derbyshire. In the *Illustrazione Popolare* of August 18th of this year is a paper on a phenomenon of the Lago di Garda of kindred character, of which I submit a substantial translation.

"The Lago di Garda is one of the largest lakes in Italy, admired for the fertility of the country that surrounds and for the beauty of the gardens that adorn its shores. There happens in these days a phenomenon that impresses the surrounding population; a flux of thirty centimetres of height every forty minutes is observed, according to the boatmen. Many newspaper readers wish to explain it as a result of volcanic action.

"The phenomenon may have a volcanic origin, since from the beginning of 1800 Count Bettoni, a studious naturalist, had to verify in the lake a species of flux and reflux, not perilous but irregular and inconstant; and not only is it in the Lago di Garda observed, but in the lake of Geneva the water rises and falls in a notable manner.

"The phenomenon cannot be attributed to the action of the sun and moon, since the action of these two stars should produce a rise and fall regularly as in the level of the sea.

"Some scientists were of opinion that the rise and fall were the result of wind action, but how can the rise and fall be explained when there is sometimes not a breath of wind? Others were of opinion that the rise and fall might be due to unexpected melting of the snow, and to the action of electric clouds, but if so, why not a like action on all other Italian lakes?

"The most probable cause of such uprising, according to the hypothesis of the Engineer Pedrini, is found in the gases which, arising from the bed of the lake and seeking a vent pass across the water, produce undulations, and sudden upward movements of like nature to those observed in the lake of Geneva by Lembari. In the Lago di Garda emanate continuously an infinity of gas bubbles, and thermal springs are observed.

"The action of the sun upon the Mediterranean raises the water only eighteen inches, and if this attraction on so large a surface is thus weak, the surface of the Lago di Garda is too small comparatively to be at all affected.

"In the bay of Peschiera, about a hundred steps from Sermione, there are at three different points springs with an unpleasant odour, manifesting the existence of sulphuretted hydrogen gas. Incrustations from thermal waters are to be seen on the eastern side of the lake, about one mile distant from the grotto of Catullus.

"The fishermen take particular care to extend their nets a distance from these springs; if they happen to draw the nets over them, they rot in a short time."

T. E. Knightley.

106, Cannon Street, E.C.
September 9, 1901.

OBITUARY.

EDWARD WALLER CLAYPOLE.

Born June 1, 1835. Died August 17, 1901.

Professor E. W. Claypole, one of the many noted geologists of the United States, was of English extraction, having been born at Ross, Hereford, on 1st June, 1835. He was educated privately and graduated at the London University, taking his B.A. in 1862 and becoming D.Sc. in 1888. In 1871 he emigrated to the United States, and in 1873 became Professor of Natural Science at Antioch College, Ohio, a post which he held until 1881. He was Palæontologist to the "Second Geological Survey of Pennsylvania" and Professor of Natural Science at Buchtel College, Akron, Ohio, from 1883 to 1898, when he succeeded Professor A. J. McClatchie as Instructor of Biology (to which Geology was afterwards added) at the Throop Institute, Pasadena, California. This office he retained until his sudden death from apoplexy at Long Beach, California, 17th August, 1901. He was a genial and successful teacher, much beloved of his pupils, while his varied attainments find reflection in the scope of his numerous scientific papers, although geology holds the principal place.