— The value of American scholarship is now very generally and generously recognized abroad. The latest instance of this recognition, and a very important one, is the association of Professors Briggs and Brown of the Union theological seminary, New York City, with Canon Driver of Oxford in the editorship of a new critical Hebrew lexicon which is being prepared by the delegates of the Clarendon press.

— The article 'United States' in the new edition of the 'Encyclopaedia Britannica' will be written by Prof. J. D. Whitney.

— The fourth annual convention of the modern language association of America will be held at the Johns Hopkins university, Baltimore, on Dec. 28, 29, and 30. On the evening of the 28th an address of welcome will be given by Pres. D. C. Gilman of the Johns Hopkins university, after which will follow an address by the president of the association, Franklin Carter, president of Williams college. On the 29th the usual two sessions will take place, and in the evening a social entertainment will be tendered the convention; on the 30th, session and excursion to Washington. Papers have been reported by several of the leading modern language professors both north and south. Reduced fares on several railways have been obtained, and orders for tickets are already in the hands of the secretary, Prof. A. M. Elliott, Johns Hopkins university, Baltimore, for distribution to all those who may wish to avail themselves of these lowered rates.

LETTERS TO THE EDITOR.

***Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Electrical phenomena on a mountain.

I SEND you a brief account of some electric phenomena experienced by me last summer on Lone Mountain, a peak of the Gallatin range about thirty miles south-west of Bozeman, Montana.

In company with Mr. James Walsh, my assistant, I climbed this mountain on Aug. 7, 1886, for the purpose of making it a topographic station of my work in that vicinity. It is about eleven thousand feet above sea-level, and higher than any other peak within a radius of at least twenty miles. It stands alone, being separated from the other high points of the range by low saddles The mornings for two weeks previous had been bright and clear, but afternoon thunderstorms were of daily occurrence. The morning of Aug. 7 was clear as usual; but about noon clouds had appeared in the west, and by 2 P.M. distant rumbles of thunder were heard, and dense black cloud-masses were sweeping towards us. About this time, as I was working at my plane-table, I heard a peculiar buzzing sound coming from the instrument, very much as if a large fly or wasp was imprisoned beneath one of the plane table sheets. Placing my hand on the table, I received quite a severe shock, and, starting back in surprise, felt another in my partly uplifted right arm. Immediately after the rocks about us began to hum and buzz in a peculiar manner, giving a sort of musical sound, and the hair of our heads, beards, and eyelashes to snap and crackle viciously. This phenomenon was felt with greater intensity in a small spot on the very tops of our heads, was accompanied by a tingling sensation, and at short intervals by slight shocks, which made us cringe involuntarily. On removing our hats, a tuft of hair stood upright over these spots. A shock was received whenever the hand came in contact with the head.

Placing the instruments in a horizontal position under cover, we descended the mountain about one hundred yards to a point perhaps fifty feet below the summit, and lay down flat. While in this situation, no unpleasant feelings were experienced, although the rocks still continued their musical hum; but the shocks and tingling sensations were immediately felt on raising any portion of our bodies to an upright position. The thunder-storm, accompanied by hail and rain, soon burst upon us, and continued for half an hour, after which the peculiar electric condition of the atmosphere passed away.

We noticed during the storm that at least eighty per cent of the lightning flashes passed between masses of clouds, and not between the clouds and earth, and that none of these flashes, as determined by the interval between sight and sound, were within a mile and a half of the peak we were on.

The summit of Lone Mountain is a loose mass of broken volcanic rock. There are no large bowlders or projecting points of any kind. M. F.

Washington, Nov. 24.

Archeological enigmas.

Professor Mason's article under the above heading in the last number of *Science* (viii p. 528) contains a report of remarks by myself which is in some respects inaccurate, and it appears to me that the subject is of sufficient importance to command the space necessary for a correction. The formation in which the hearth was found is a shore-deposit of a lake held in the Ontario basin during the final retreat of the ice-sheet. The ice-front then extended as far south as the Adirondack Mountains, and this prevented the water from escaping by the St. Lawrence valley. The local relations indicate that the hearth was made during the accumulation of the shore-deposits, so that its antiquity is somewhat less than that of the culmination of the last general glaciation of north-eastern America. Its antiquity is also sensibly identical with that of the Niagara River; so that, whenever a satisfactory estimate has been made of the time consumed in the cutting of the Niagara gorge, the age of the hearth will have been determined in years. The estimate of seven thousand years is based upon the hypothesis that the rate of recession of the falls has been uniform throughout the period of the excavation of the gorge, — an hypothesis not yet sufficiently examined.

The phrases 'Mr. Gilbert's find' and 'the Gilbert hearth' are misleading. The hearth was discovered by Mr. Daniel Tomlinson of Gaines, N.Y., and our knowledge of it is based entirely upon his oral evidence. It was first communicated to the scientific

world by Mr. George H. Harris, in the 'Semi-centennial history of the city of Rochester.' My own contribution to the subject was purely from the geologic side.

I may add, that the formation described by Mr. Murdoch is unquestionably littoral, and not greatly elevated above the present coast. What we know of recent oscillations of coasts in arctic regions, and of the rate of formation of littoral deposits, tends to the opinion that the Point Barrow goggles have an antiquity far less than that of the other finds.

G. K. GILBERT.

Washington, D.C., Dec. 11.

Polarization of resistance coils.

On p. 208 of *Science* (viii. No. 187) Professor Mendenhall's observation is noted. With my rheostat I fail to obtain any 'reverse' current properly so called. The secondary current obtained by us is in the same sense, whichever sense is given to the primary, charging current; and the secondary current is not in the same sense in all the coils.

This rheostat is constructed with brass mountings and German-silver coils: hence I infer that the main cause, at least of secondary current, is unequal heating of the junctions of coils with mountings.

Since we obtained galvanometer deflections of equal amount, as well as in the same sense, for both senses of primary current through the rheostat, we failed to observe any polarization effect by difference. It may be that thermo-electric effects at junctions of copper conductors with brass terminals happened to mask the polarization in this case, though we could not believe it probable.

If my explanation of secondary current be correct as far it goes, would it not be well to make rheostat coils and mountings of the same material?

F. C. VAN DYCK.

New Brunswick, N.J., Dec. 8.

Height of a meteor.

I have a very accurate map of the track of the large fireball which was seen near Philadelphia about 9.48 o'clock on the evening of Nov. 4. If any one can supply another, even if only approximate, so that the height may be computed, it would greatly oblige

ISAAC SHARPLESS.

Haverford coll., Penn.

Elliott's Alaska and the Seal Islands.

I beg permission to draw attention through the columns of *Science* to a glaring instance of plagiarism in Mr. Henry W. Elliott's lately published work entitled 'Our arctic province.' In this work the greater part of the third chapter (more particularly pp. 45 to 57) is quoted, or adopted with slight verbal alteration, and without the least acknowledgment, from my report on the Queen Charlotte Islands of British Columbia, published in the 'Annual report of the geological survey of Canada for 1878–79.' This in itself is perhaps a matter of small importance, though not calculated to lead the public to place unquestioning faith in the character of other parts of Mr. Elliott's volume, to which I do not here allude. The specially reprehensible feature to which I must direct attention is that Mr. Elliott has availed himself of the fact that a division of the Haida Indians inhabit the southern part of Prince of Wales Island (Alaska) to apply my specific observations on the Queen Charlotte Island Haidas and neighboring Ishmisians to the Indian population of the Sitkan archipelago generally, including ten tribes, which he enumerates. In some cases the transfer is made simply by substituting 'Prince of Wales Island' for 'Queen Charlotte Islands' of my notes; in other instances a more elaborate procedure is adopted: but in no case that I can find in chapter iii. is any part of my description credited to the Queen Charlotte Islands, nor is the name of that well-known group so much as mentioned in the chapter. Had Mr. Elliott confined himself to generalities, it would not have been so inexcusable; but he descends to details, and, as an instance, actually adopts the measurements given in my report for a house at Virago Sound, Queen Charlotte Islands, leaving it to be understood by the context that it was met with somewhere in the Sitkan archipelago, and measured by himself. I should add, that the measurements were made to the nearest inch, and that Mr. Elliott has followed six of the dimensions correctly, but misquotes two of them (p. 49).

As an example of the jaunty style which Mr. Elliott manages to impart to the original, I quote only the following, in which some evidence of originality certainly appears. Many pages occur in which the style of the original is considered satisfactory, and the incorporation made verbatim, or very nearly so.

Our arctic province (pp. 56–57).

"But the 'loudest' feed of these savages consists of a box, just opened, of semi-rotten salmon-roe. Many of the Siwashes have a custom of collecting the ova, putting it into wooden boxes, and then burying it below high-water mark on the earthen flats above. When decomposition has taken place to a great extent, and the mass has a most penetrating and far-reaching 'funk,' then it is ready to be eaten and made merry over. The box is usually uncovered without removing it from its buried position; the eager savages all squat around it, and eat the contents with every indication on their hard faces of keen gastronomic delight — faugh!"

Report on Queen Charlotte Islands (p. 111 B).

"Both the Haidas and Ishmisians have the custom of collecting salmon roe, putting it in boxes, and burying these below high-water mark on the beach. When decomposition has taken place to some extent, and the mass has a most noisome odor, it is ready to eat, and is considered a very great luxury. Sometimes a box is uncovered without removing it from the beach, and all sitting round eat the contents."

Mr. Elliott, in his introduction, refers to the great amount of literature which has appeared on Alaska, and adds, "In contemplation of this, viewed from the author's stand-point of extended personal experience, he announces his intention to divest himself of all individuality in the following chapters, to portray in word, or by brush and pencil, the life and country of Alaska as it is, so clearly and so truthfully that the reader may draw his or her own inference, just as though he or she stood upon the ground itself." Possibly wholesale unacknowledged appropriation is Mr. Elliott's idea of 'divesting himself of all individuality.' He has certainly succeeded in divesting most of the facts contained in his third chapter of all individuality, by applying them to a region and to tribes not intended by the writer. Why should Mr. Elliott leave the extensive tours on