

—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 boulders 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