

## 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.*

## American geological railway-guide.

I HAVE commenced revising my geological railway-guide for a second and much improved edition. I should be glad if persons who have used the book, and made notes of corrections and additions, would send such corrections or additions to me; or, if it will be a saving of labor, it will be a great favor to me if they will send me their copies of the book by mail; and I will return them, and refund all postage.

JAMES MACFARLANE.

Towanda, Penn.

## A wider use of scientific libraries.

In *Science* for Oct. 3, your editorial calls attention to the need of making scientific libraries more widely useful. Perhaps some of your readers will be glad to know the liberal policy of the Boston society of natural history. The society is willing to send such books as can be replaced, to students in any part of the country, at their expense of course; asking from strangers a deposit of twice the market-value of the books so sent, as a guaranty against loss. This is an example which may well be followed by all special libraries.

EDWARD BURGESS, *librarian*.

Boston, Oct. 17.

## Eye-pieces of the meridian circle at Washburn observatory.

In vol. ii. of the Publications of the Washburn observatory, p. 28, I have incorrectly said that the eye-pieces furnished by the Messrs. Repsold of Hamburg with our meridian circle were not Steinheil achromatics. I made this statement after receiving a letter from the firm of Steinheil & Co., which I erroneously supposed to convey this meaning.

EDWARD S. HOLDEN.

Madison, Wis., Oct. 14.

## THE OCTOBER MEETING OF THE NATIONAL ACADEMY OF SCIENCES.

THE autumn session of the National academy was held last week at Newport, R.I. The time and place did not combine to a very successful gathering, the hotels having just closed their doors upon the exodus of summer visitors, while many a college-professor was still too much entangled in the work of an opening year to be able to leave his duties. At the beginning of the meeting on Tuesday, indeed, it looked as though a two-days' session was all that could be counted on; but so many of the papers provoked discussion, that the session lasted, as usual, into Friday, with only half an hour devoted to business; and the number of papers finally offered surpassed that of the year before. Twenty-three of the ninety-three members were present, and twenty-three papers were presented.

The meeting was not marked by any paper of exceptional importance; but most of them were of general interest, and provoked extended discussion. Perhaps that which awakened the liveliest interest was the one in which Dr. E. B. Tylor of Oxford, who addressed the academy by request, gave his observations upon our native tribes, and called attention to the parallelism of their customs and those of widely distant races. He dwelt at length upon the distinction which should be drawn between the origin of identical customs in separate groups of men, some of which are due to the descent of such groups from one primordial stock, and some have arisen spontaneously from similar psychic conditions. To the former, Ray Lankester had applied the term 'homogeny,' and, to the latter, 'homoplasia.' He asked the academy to tell him to which class so complicated a symbol as the pentagram belonged, which is used both by the Indians and the Asiatic astrologers. Professor Hilgard thought that such a symbol would arise spontaneously, as only in that form could a stellar figure be produced by the use of one continuous line. Major Powell believed that a third class should be added, to include arts and customs borrowed from neighbors, — a class which he was accustomed to call 'origin by acculturation.'

Among the physical papers, astronomy, as usual, held a leading place. Professor Langley offered the academy a continuation of his observations on the temperature of the moon's surface, as studied by the bolometer, showing that it must be even lower than two hundred degrees below zero, Centigrade. Professor Valentiner of Karlsruhe, by invitation of the academy, gave in his own language an account of the meridian-work he intended to undertake at the observatory, recently removed from Mannheim, and the installation of which would be completed by the middle of next year. His principal work was to be the observation of all stars, up to the eighth magnitude, between the equator and 22° south latitude, and he hoped to accomplish the task in twelve years. Dr. Peters of Clinton stated what progress he had made in determining the stars in the star-catalogue of Ptolemy's *Almagest*, and gave a very interesting account of his studies of the manuscripts extant, and the errors which had crept into them, exhibiting photographs of some codices.

Mr. C. S. Peirce explained some of the errors still needing correction in pendulum observations, particularly such as were due to the flexure of the pendulum. He presented the outline of a scheme for a gravitation sur-