stitute, and his assistants only after a satisfactory program had been worked out. At the present time over 300 experimental brick walls or panels have been erected in order to find the most suitable combinations of materials and workmanship. The following problems are being investigated: the rate of absorption and total absorption of moisture by brick; the surface characters of brick: the merits of different cementing materials, ranging from pure lime to pure cement, and of various sands and mortar pigments; the effect of varying the type of backing, both as to material and size of unit; the results of variation in workmanship, including pointing, tapping and the filling of head-joints: the effect of variation in design, involving a study of coping and parapet construction. of capillary contact, of condensation and of elasticity, and the behavior of mortar with reference to the other variables in all types of climatic conditions. All results of these studies will be published for the benefit of every one interested in building construction.

The report of the Bureau of Science of the Philippine Islands for 1927 has just been issued. We learn from it that the *Philippine Journal of Science*, embodying the results of the research work of the bureau, was issued during that year in three volumes with an aggregate of 1,511 pages, 157 plates and 111 text figures. According to the report the *Journal* is

sent to 919 paid subscribers and exchanges, while 109 copies are distributed free for review to associate editors and to others. The total mailing list is 1,028. This is distributed as follows: Philippines, 94; remainder of Asia, 185; Europe, 293; North America, 359; South America, 25; Africa, 29; Australia and neighboring islands, 43. These figures show that the journal is widely distributed to scientific institutions in all parts of the world. Two monographs were issued during the year, three were in proof and one was being prepared for the printer. The biennial publication on the mineral resources was issued for the years 1924-1925. This publication took the form of a twenty-fifth anniversary number and contains a summary of Philippine geology and mineral resources. Two popular bulletins, one press bulletin and an annual report were also issued during the year. The library continued to grow in size and usefulness and has maintained its high standard of excellence. During the year 14,521 volumes were added to the library. making a total of 108,808 volumes at the close of the year. The library receives 2,234 scientific periodicals of which 442 are paid subscriptions, 907 exchanges and 884 free. The number of publications used and charged out was 55.896, or a daily average of 154 publications. The number of visitors recorded was 12.593.

UNIVERSITY AND EDUCATIONAL NOTES

An additional \$400,000 has been given to the University of Pittsburgh in addition to the gift of half a million dollars already contributed by Maurice Falk and the late Leon Falk for the construction of the Falk Medical Clinic in the university hospital group. This gift makes possible the immediate construction of the building.

An anonymous gift of \$200,000 has been made toward the projected pension fund of \$1,000,000 for professors of Cornell University. The gift is contingent upon the raising of the remainder of the fund.

The new engineering building has just been completed at the Pennsylvania State College. It contains quarters especially designed for the use of the department of architecture, a large hydraulic laboratory, offices and recitation rooms.

A. L. O'Banion, for the past five years instructor in electrical engineering at Cornell University, has been appointed professor of electrical engineering at Clemson College, South Carolina, to succeed Professor S. R. Rhodes, who has been made head of the division of electrical engineering.

Dr. Temple Fay, for many years associated with the neurological staff of the school of medicine of the University of Pennsylvania, has been appointed head of a newly established department of neurosurgery at Temple University.

JULIAN J. PETTY has been elected associate professor in the department of geology at the University of South Carolina.

Dr. OYSTEIN ORE has been appointed to a full professorship of mathematics at Yale University.

DISCUSSION

LUNAR ECLIPSES IN GENERAL AND IN THE PHILIPPINE ISLANDS

In the early days of scientific astronomy, lunar eclipses, aside from an imaginary importance as

omens and portents, were the only means whereby differences in longitude could be ascertained with any approach to accuracy. The longitudes of Ptolemy's map of the world were mostly dependent on this kind