

be made to Messina, where the steamer will be taken to Naples again. This excursion will not cost more than 358 lire. The third excursion is a variant of the preceding, but gives more time to Naples and its vicinity. It allows three days for Naples, and joins up with the other excursion at Catania. The cost will be about 366 lire. All excursionists are invited to visit the exhibition at Turin on November 1, and on the evening of that day the excursion will be regarded as closed.

UNIVERSITY AND EDUCATIONAL NEWS

THE Japanese Minister of Education has announced that two new imperial universities will be opened. One will be at Sendai, on the eastern coast, and the other at Fukuoka, on the island of Kiushu.

DR. JACK P. MONTGOMERY, of the Mississippi Agriculture and Mining College, has been appointed adjunct professor of chemistry at the State University of Alabama.

HOMER C. WASHBURN, B.S., Ph.C., has been appointed professor of pharmacy in the University of Colorado. He is a graduate of the scientific and pharmaceutical departments of the University of Michigan. For seven years he has been a member of the faculty of the University of Oklahoma and for the last six years dean of the School of Pharmacy.

MR. W. A. WHITAKER, JR., of the department of chemistry, College of the City of New York, has accepted the associate professorship of metallurgy in the University of Kansas.

S. D. MAGERS, assistant professor of physiology in the Michigan State Normal College, Ypsilanti, succeeds Dr. E. R. Downing as professor of biology at the State Normal at Marquette, Mich.

THOMAS L. PATTERSON, M.A., with the Gypsy Moth Parasite Laboratory during the past summer, has been elected professor of biological sciences at Highland Park College, Des Moines, Iowa.

RECENT appointments at the State University of North Dakota are the naming of H. E. French, A.B. (Washington State, 1902), M.D. (Northwestern, 1907), and recently of the medical school of the University of South Dakota, as dean of the School of Medicine; Carl F. Raver, A.B. (Michigan), recently city bacteriologist for Oklahoma City, Oklahoma, as chemist in the State Public Health Laboratory; Roy E. Christie, A.B. (North Dakota, 1911), as assistant bacteriologist at the same place; Leon V. Parker, as bacteriologist in charge at the branch Public Health Laboratory at Minot, and Alfred Larson to fill a similar position in the branch laboratory at Bismarck.

DISCUSSION AND CORRESPONDENCE

THE GRAND CANYON OF THE COLORADO

ON page 89 of SCIENCE, No. 864 (July 21, 1911), I observe a special article by H. H. Robinson entitled "The Single Cycle Development of the Grand Canyon of the Colorado."

During the summer and autumn of 1908 I spent several months in the Grand Canyon in the region about Shinumo Creek, making a study of the geology of the Shinumo quadrangle. The results of this study were presented at Yale University in the form of a Doctor's thesis, a part of which, dealing with the rocks of the Vishnu and Grand Canyon series, has been published in the *American Journal of Science* (May and June, 1910) under the title "Contributions to the Geology of the Grand Canyon." I have since returned twice to the region to extend the same study in the interest of the United States Geological Survey; the entire report on the geology of the Shinumo quadrangle is to be published at a future date as a Bulletin of the Geological Survey.

My observations in that region (recorded in the thesis, but not yet published) are entirely in accord with the conclusions of Davis and Robinson in regard to the dependence of the benches in the canyon upon the character of the strata.