

morainic wall; the small inwash of alluvium probably explaining the purity of these deposits. The great basin enclosed by the moraine is almost filled by the alluvium of the Dora Baltea, but at the extreme front of the amphitheater directly next to the inner slope of the moraine, and some distance on either side of the medial course of the river, two shallow lakes, Viverone and Candia, with marginal peat deposits, still remain. Other small basins, either lakes or peat bogs, occur on the alluvial plain and in shallow rock basins near the head of the amphitheater.

THE DEFORESTING OF MOUNTAINS.

A NATIONAL congress of French geographical societies was held last year at Lyons, and a report of its proceedings has been published by the geographical society of that city. To this volume Guénot, of Toulouse, contributed an essay on the effects of the deforesting of mountains, a subject to which he had previously given much attention. The Causses, plateau-like uplands in southern France, have for various reasons, historical and political, been gradually stripped of their forests, and as a result they are largely depopulated; twenty years has sufficed to transform a wooded district into a stony desert. In the Pyrenees the reports of the forestry officials show a constant relation between deforesting and various injurious effects, such as the stripping of soil from the slopes, the increased violence of floods in the mountain torrents and the decrease of population. In some valleys forest area and population have fallen to half their former numbers; in others the complete destruction of the forests has been followed by the complete abandonment of the district. Guénot urges a revision of the existing forestry laws in France, the extension of an organization known as the '*amis des arbres*,' and the introduction of tree-planting, as with us

on Arbor Day. Confidence in the author is somewhat shaken by his exaggerated ideas about American matters; deforesting in this country is held responsible for severe droughts, for extreme heat and cold, and for heavy rains and floods; while our Arbor Day is described as a popular, national and religious fête, 'celebrated with the most astonishing solemnity.' W. M. DAVIS.

HARVARD UNIVERSITY.

SCIENTIFIC NOTES AND NEWS.

WINTER MEETINGS OF THE SCIENTIFIC SOCIETIES.

The American Society of Naturalists and the affiliated and related societies will meet at the University of Pennsylvania, Philadelphia, on the days immediately following Christmas, December 26th, 27th and 28th. The Society of Naturalists will meet on the afternoon of the 26th to organize and to hear the address of the President. The meetings promise to be of unusual scientific interest, and all possible arrangements have been made to contribute to the social entertainment of the members. The officers of several societies are as follows: *The American Society of Naturalists*—President, Prof. E. D. Cope, University of Pennsylvania; Secretary, Prof. H. C. Bumpus, Brown University. *The American Morphological Society*—President, Prof. E. B. Wilson, Columbia College; Secretary, Dr. G. H. Parker, Harvard University. *The American Physiological Society*—President, Prof. H. P. Bowditch, Harvard University; Secretary, Prof. S. F. Lee, Columbia College. *The Geological Society of America*, President—Prof. N. S. Shaler, Harvard University; Secretary, Prof. H. L. Fairchild, University of Rochester. *The Association of American Anatomists*—President, Dr. Thomas Dwight, Harvard University; Secretary, Dr. D. S. Lamb, Washington. *The American Psychological Association*—President, Prof. J. McKeen Cattell, Columbia College; Secretary,

Prof. E. C. Sanford, Clark University. Programs of the meetings and other information can be obtained from the Secretaries.

FIELD WORK IN GEOLOGY AT THE UNIVERSITY
OF KANSAS.

IN the spring of 1895 the Board of Regents of the University of Kansas formally opened the University Geological Survey of Kansas, a bureau which they were authorized to establish at their discretion, by the law making appropriation for the University in 1889, and repeated in every appropriation bill passed by the Kansas Legislature since that time. Active field work was begun in the summer of 1893 and has been prosecuted with increasing vigor each succeeding summer. In 1893 Prof. Haworth, of the department of physical geology and mineralogy in the University, had three men in the field. They succeeded in running geologic sections in various places in the southeastern part of the State, and published a brief account of the results in the *Kansas University Quarterly*, January, 1894. During the summer of 1894 he had five men in the field who continued investigations in stratigraphy in eastern Kansas. Some of the results of this season's work were given in the *University Quarterly* of April, 1895. During the summer of 1895 the work was greatly extended. The Legislature passed a bill creating a State Board of Irrigation, of which, it is provided, 'the professor of geology in the University' should be a member. This added greatly to the opportunities of the University, as additional funds were available for expenses. A total of twelve men, besides Prof. Haworth, were engaged for longer or shorter periods during the summer, five of whom were working with special reference to the water problems in the western part of the State, two others in the Cretaceous doing stratigraphic and areal work, one devoting his time exclusively to the salt deposits of

the State, one to a detailed study of the coal mines and mining, one to a study of glacial phenomena in northeastern Kansas, and others to general stratigraphic work in the Carboniferous.

As a result of these various operations a volume on the stratigraphy of the Carboniferous is now ready for publication. A preliminary report on the water supply of the western part of the State will be completed by the last of December, and large quantities of material have been gathered for succeeding volumes on the stratigraphy of the Cretaceous and Tertiary of the State, on the economic geology of the State, etc. The question of publication is not yet definitely settled, as the Legislative enactment made no special provision for it; but it is hoped that in one way or another the work of the organized survey will not be seriously hindered by a lack of means for publication.

THE BIOLOGICAL EXPERIMENT STATION OF
THE UNIVERSITY OF ILLINOIS.

THOUGH established with the primary aim of affording opportunity for research for its own staff, the Station will in future be open during the months of June, July and August to biological investigators and to students of some experience in zoölogical or botanical work.

The Station is established on the Illinois River, with principal headquarters at the county town of Havana, forty miles below Peoria and a hundred miles west of the University of Illinois. It has for its field of operations the banks and waters of the Illinois River itself and a selected series of lakes, streams and bayous of the vicinity, presenting an extraordinary variety of situations, rich beyond any ordinary experience in number and variety of plant and animal forms. The collecting stations are all within convenient access from the town, at outside distances of a mile to the south and three miles to the north.

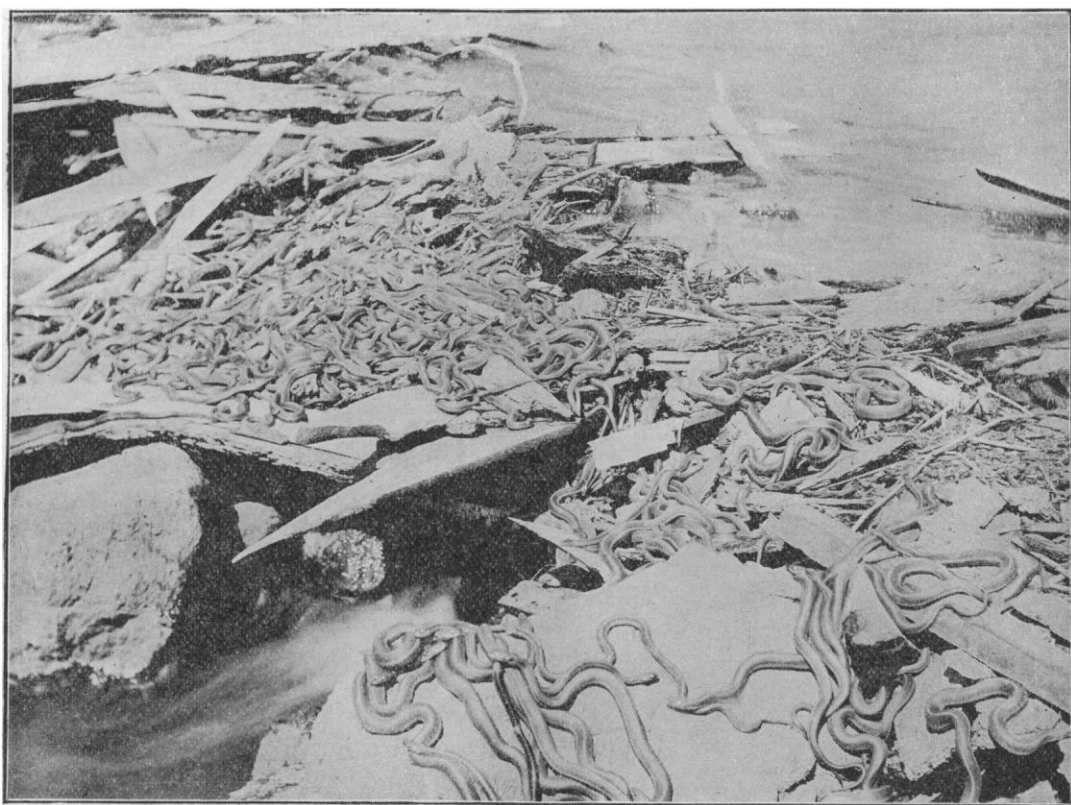
Those whose experience has been confined to the seashore or to our inland lakes, large or small, can have but little conception of the abundance of biological material accessible, with the minimum of effort and expense, to the student at the Illinois Station.

The laboratory is fully equipped with all necessary appliances. The present accommodations are sufficient for sixteen persons.

SNAKES IN OREGON.

In the vicinity of Klamath River, Klamath county, Oregon, a certain species of *Eutania* swarms by scores, by the hundreds and by the thousands. They are found mostly along the water courses in the grass or sunning themselves on the bare rocks or driftwood in the streams or on their banks.

The accompanying illustration is from a



Applications for admission must be made in advance and at as early a day as practicable, with precise specification of the period for which the applicant wishes to occupy a table in the Station laboratory. All further particulars may be obtained from the director, Prof. S. A. Forbes, Urbana, Ill.

photograph made on a branch of the Klamath River, three miles south of Klamath Falls, Oregon. It was obtained in the latter part of July last and kindly furnished us by Mr. James A. Diggles, a student of geology at Stanford University. The negative was made about ten o'clock in the morning. Such a display is by no means

an exceptional one along this stream; indeed this photograph was made only a few paces above the public road which crosses the stream a little to the left of the view. The snakes are harmless. Mr. Diggles says that there is a species of water frog quite as abundant in that region as the snakes, and that the snakes are said to feed on the frogs.

GENERAL.

AT the recent meeting of the French Association for the Advancement of Science at Bordeaux a committee composed of M. Boudouin, director of the International Institute of Scientific Bibliography; M. R. Blanchard, general secretary of the Zoölogical Society of France; M. Cartaz, assistant secretary of the Council of the French Association; M. Gabriel, secretary of the Council of the Association, and M. Ch. Richët, editor of the *Revue Scientifique* and professor of physiology in the Medical School of Paris, presented a report on the titles that should be given to scientific articles in order to make their bibliographic classification easier. The report was discussed at a special session of the Association and two recommendations were adopted: That titles should be made as brief and exact as possible and that the word characterizing the subject treated should be italicized. In case subdivisions of a subject are treated, these should be indicated by words in the title, the first half of which words should be italicized. The recent International Biographical Conference approved this plan, and it will be adopted by several journals, including the *Revue Scientifique*.

A BRIGHT comet was discovered during last week at Lick Observatory, in right ascension 13 deg. 44 min., north declination 1 deg. 40 min., in the constellation of Virgo. The comet has a short tail and a stellar nucleus of about the seventh magnitude.

DR. F. P. PORCHER, a well-known physician and botanist, died at Charleston, S. C.,

on November 19th, at the age of seventy. He was professor of materia medica and therapeutics in the Medical College of the State of South Carolina and was the author of numerous works on pharmaceutical botany.

CARL STECKELMAN, known for his explorations in South Africa, was drowned on August 28th.

DURING the summer vacation Prof. G. C. Comstock, director of the Washburn Observatory and professor of astronomy in the University of Wisconsin, coöperated with the authorities of the University of Minnesota in determining the longitude of their new observatory by an exchange of telegraphic time signals between Madison and Minneapolis. Mr. A. S. Flint, assistant astronomer in the University, recently presented to the American Association for the Advancement of Science the partial results of an extensive series of observations made at the Washburn Observatory for determining the distances of the nearer fixed stars. This work is now approaching its completion and will be the most comprehensive series of determinations of stellar distance ever made.

PROF. GEORGE M. DAWSON, director of the Geological Survey of Canada, who died recently at Halifax, Nova Scotia, was the son of Sir J. William Dawson, and was born at Pictou, Nova Scotia, on August 1, 1849. The *London Standard* states that he was appointed Geologist and Naturalist to her Majesty's North American Boundary Commission in 1873, and in 1875 he published a detailed report on the country traversed from the Lake of the Woods to the Rocky Mountains, entitled 'Geology and Resources of the 49th Parallel.' He was appointed to the Geological Survey of Canada in 1875, and had since been principally engaged in the survey and exploration of the Northwest Territory and Brit-

ish Columbia, and was placed in charge of the Yukon expedition, undertaken by the Canadian government in 1887. As one of her Majesty's Behring Sea Commissioners he spent the summer of 1891 in investigating the facts connected with the fur-seal fishery on the northern coasts of America and Asia. Two years later he was elected president of the Royal Society of Canada. In January, 1895, he was appointed director of the Geological Survey of Canada. He was the author of numerous original scientific papers, principally geological, but including geographical, ethnological and other observations made in the course of his explorations.

MR. EDWARD PHILIP LOFTUS BROCK, honorary secretary of the British Archæological Association, died in London on November 2d.

MR. BERNARD GRENFELL, fellow of Queens College, Oxford, intends shortly to visit Egypt to continue his studies on Greek papyri.

THE *Boston Transcript* states that Prof. David P. Todd will undertake the direction of an expedition to be sent out from Amherst College for the purpose of observing the solar eclipse of 1896. The expedition will sail from San Francisco next spring, on the schooner yacht *Coronet*, which will be in command of Captain Arthur C. James, New York Yacht Club, a member of the class of '89. The island of Yezo, one of the largest northern islands of the Japanese Empire, has been chosen as the point of observation.

THE Pharmaceutical Society of Great Britain has presented the Hanbury Medal to Dr. August Vogl. This is the eighth award of this medal, which was presented in 1881 to Flückiger, in 1883 to John Elliot Howard, in 1885 to Dragendorff, in 1887 to Dymok, in 1889 to Plaichon, in 1891 to Hesse and in 1893 to Maish.

At a meeting of the Royal Institution on November 4th it was reported that the late Mr. John Bell Sedgwick, M.R.I., had bequeathed £300 to the Royal Institution in aid of the fund for the promotion of experimental research at low temperatures. The special thanks of the members were returned to Sir Frederick Abel for his donation of £50 to the same fund.

DR. FRASER HARRIS proposed exhibiting before the Glasgow Philosophical Society a new optical instrument known as the stereophoto-chromoscope, the aim of which is to photograph an object in such a way that the 'positive' of the picture, viewed as a transparency, will present the object with its natural colors and also with stereoscopic effects.

THE *Revue Scientifique* states that M. G. Delage will issue at the beginning of next year an *Année biologique*, which will give analytical and critical reviews of publications in general biology.

A COURSE of Monday evening lectures has been instituted by the faculty of the University of the City of New York, who will lecture on their respective subjects to the people living in the vicinity of University Heights. The first lecture was delivered by Dr. J. J. Stevenson, in the lecture room of the Havemeyer Laboratory, on 'Coal.'

UNIVERSITY AND EDUCATIONAL NEWS.

PROF. WILLIAM M. THORNTON, chairman of the faculty of the University of Virginia, has published a letter stating the needs and plans of the University. Reconstruction of the Rotunda, the central building of the group recently destroyed, has already been begun. It will be restored in its original form, a reproduction on the half scale of the Roman Pantheon, but with fire-proof materials. The necessary money for this purpose, about \$80,000, has been practically subscribed.