ant psychologist in the Laboratory of Social Hygiene, Bedford Hills, N. Y., and has accepted an appointment as research assistant in the Bureau of Educational Experiments, New York City.

DR. OLIVER W. H. MITCHELL has resigned as head of the city laboratories at Syracuse, N. Y., and is succeeded by Dr. Augustus J. Gigger, formerly bacteriologist for the Rhode Island State Department of Health.

THE firm of Waddell and Son, which has offices in Kansas City and New York City, has recently become incorporated. The new firm of Waddell and Son, Inc., includes, besides Dr. J. A. L. Waddell and N. Everett Waddell, their former assistant engineers, F. H. Frankland, Shortridge Hardesty, and L. C. Lashmet.

AT a recent meeting of the scientific staff of the Bureau of Biological Survey, U. S. Department of Agriculture, Dr. C. Hart Merriam, founder and former chief of the bureau, now consulting biologist, U. S. Department of Agriculture, and research associate on the Harriman Foundation, Smithsonian Institution, delivered an address on the "Origin and Early History of the Biological Survey."

PROFESSOR E. V. MCCOLLUM, of the Johns Hopkins University, on April 12 addressed the Chicago section of the American Chemical Society on "The Biological Analysis of Food."

A MEETING of the Botanical Society of Washington was held at the Cosmos Club, Washington, D. C. on April 2. The program was "The Grain Sorghums: The Botanical Grouping of Cultivated Varieties" (with lantern), by C. R. Ball; "The Shaw Aquatic Gardens" (with lantern), by F. V. Rand.

THE first "Silvanus Thompson Memorial Lecture," founded by the Röntgen Society, London, in memory of its first president, was delivered by Sir Ernest Rutherford on April 9.

THE annual meeting of the American Association of Museums will be held at Springfield, Mass., on May 20, 21 and 22.

THE Council of the Southern Society for Philosophy and Psychology has decided, on account of the general situation and of the number of members of the society who are engaged in various forms of national service, to abandon the annual meeting scheduled to be held at Peabody College, Nashville, this spring.

THE committee on botany of the National Research Council urges throughout the country to aid in securing data in reference to important crop diseases. In connection with what may be called the "barberry campaign," the following information is desired from as many regions as possible: (1) prevalence of barberry, (2) amount of infected barberry, (3) the neighboring grass flora, (4) amount of back rust on these grasses, (5) proximity of infected barberry and grasses to grain fields, (6) relative susceptibility of the different varieties of barberry (including *Mahonia*). Such information should be reported to Professor E. C. Stakman, University Farm, St. Paul, Minn., who will organize and distribute the data.

UNIVERSITY AND EDUCATIONAL NEWS

SEVERAL gifts and bequests were announced at the recent meeting of the corporation of Yale University. Mrs. James Wesley Cooper, of Hartford, has given $5,000 for the establishment of a publication fund in memory of her husband, who graduated from the college in 1865, and who was a member of the corporation for over thirty years. The widow of the late William A. Read, of New York, has made a memorial gift of $5,000 to assist the work of the Yale University Press. Two bequests have been received, one of $10,000 from the late Samuel J. Elder, '73, for the college, and one of $5,000 from the widow of Amory E. Rowland, '73 S., for the benefit of the Sheffield Scientific School.

IT is stated in *Nature* that an anonymous donor has given Oxford University £500 towards the fund for the endowment of the professorship of forestry, and that the University of Liverpool has recently received a gift of £2,000 from Mrs. and Miss Holt as a

contribution towards the cost of equipment of the new department of geology.

Harold Ernest Burtt has been appointed instructor in psychology at Harvard University.

The first incumbent of the newly founded chair of phthisiology at the University of Edinburgh is Sir Robert W. Philip, professor of clinical medicine, said to be the founder of the first antituberculosis dispensary.

DISCUSSION AND CORRESPONDENCE

EVIDENCE FROM ALASKA OF THE UNITY OF THE PLEISTOCENE GLACIAL PERIOD

To the Editor of Science: In an article entitled "Frozen Muck in the Klondike District, Yukon Territory, Canada," by J. B. Tyrrell, of the Canadian Survey, published in the *Transactions of the Royal Society of Canada,* Series III., 1917, Volume XI., pages 39–46, there is a remarkable collection of facts seeming to prove the unity and continuity of the Pleistocene Glacial Period. It is true that there was no extension of moving glacial ice over the Klondike region, but there is abundant evidence of a change of climatic conditions corresponding to that of the generally glaciated region of the continent. During the warmer climate of the Tertiary period the streams had built up extensive gravel deposits over the bottoms of many of the valleys. For a long period "the climate had been temperate, or at all events, not arctic, and large numbers of animals, such as bison, mammoth, elk, moose, horse, etc., had roamed over the country.

Suddenly, a new set of climatic conditions began to prevail. The Glacial Period began, and, while the vast sheets of ice which covered so large a portion of Canada during that Period never extended over the Klondike district, the cold undoubtedly became very intense, and as a consequence the ground became permanently frozen. With the freezing of the soil and of the underlying rock the processes of oxidation and disintegration of this rock were no longer possible, and the small tributary brooks which flowed over the frozen land into the main streams were no longer able to collect and wash down sand and gravel from it. The supply of sand and gravel having been thus cut off, it could no longer be distributed by the main streams over the alluvial flats as it had been distributed before, but nevertheless the sand and gravel flats themselves were not worn away by the streams as they would have been under normal conditions, for they were cemented into very resistant masses by a matrix of ice.

The sand and gravel so deposited and preserved on the alluvial flats is now overlain by a deposit of vegetable material locally known as "muck," which may have a thickness of ten, twenty, thirty, or even as much as one hundred feet. The plane of separation between the gravel and "muck" is usually sharp and well defined, though occasionally little layers of "muck" may be found included in the upper beds of the gravel. The general impression that a person gets from a study of the deposits, however, is that of a sudden change from gravel to "muck" (pp. 40, 41).

The significant thing is that this layer of muck whose formation started in a period of great cold in early glacial times, has gone on continuously and uninterruptedly accumulating down to the present time. The bones of the extinct animals above enumerated "are found in large numbers in the underlying gravels and in the bottom of the muck; but the climate would seem to have soon become too inhospitable for them, and their remains are very scarce in the higher portions of the muck and finally disappear from it altogether" (p. 45). Dr. Tyrrell believes "that a critical study of the plant remains from the various layers of the muck might furnish much interesting information as to the character and climate of that portion of the world, in which there has been a continuous formation of vegetable beds from the beginning of the Glacial Period down to the present" (p. 46). The bearing of all this upon the unity of the Pleistocene Glacial Period is too evident to need statement.

G. Frederick Wright

Oberlin,

DRAWINGS ON LANTERN SLIDES

It often occurs that one wishes to interpose diagrams or line drawings in a classroom lecture which is being illustrated by lantern slides, and one has to either forego the point entirely, or turn on the lights and use a chart, or put the necessary diagram or