

THE annual meeting of the American Anthropological Association will be held in Philadelphia from December 28 to 31, in affiliation with Section H of the American Association for the Advancement of Science and the American Folk-Lore Society. Titles for the joint program should be sent immediately to Professor George Grant MacCurdy, secretary, Yale University Museum, New Haven, Conn.

UNIVERSITY AND EDUCATIONAL NEWS

THE board of regents of the University of Michigan has revised the faculty salary schedule of the literary department and the academic divisions of the engineering department. The revised and the original scales follow: Instructors, \$1,000-\$1,600, formerly \$900-\$1,400; assistant professors, \$1,700-\$2,000, formerly \$1,600-\$1,800; junior professors, \$2,100-\$2,400, formerly \$2,000-\$2,200; professors, \$2,500-\$4,000, formerly \$2,500-\$3,500. The revised scale affects 200 teachers, and increases the year's budget by approximately \$40,000.

CONTRACTS have been let for the construction of Ida Noyes Hall, the building which is to serve the women students of the University of Chicago as Bartlett Gymnasium and the Reynolds Club, provide for the physical culture and social needs of the men. This building, a gift of Mr. La Verne Noyes as a memorial to his wife, will be completed in January, 1916, at a cost of over \$450,000.

DR. ROGER I. LEE, of Boston, has been elected to the chair of hygiene recently established at Harvard University.

DR. HOWARD THOMAS KARSNER, assistant professor of pathology in the Harvard Medical School, has been appointed professor of pathology in the school of medicine of Western Reserve University.

DR. JOHN PENTLAND MAHAFFY, known for his work on Greek history, literature and social life, has been appointed provost of Trinity College, Dublin.

DR. ALDO CASTELLANI, director of the clinic for tropical diseases, Colombo, Ceylon, has

been appointed by the Italian government professor of tropical medicine in the University of Naples, and the director of the royal clinic for tropical diseases in the same city.

DISCUSSION AND CORRESPONDENCE

A PECULIAR BEHAVIOR OF CUMULUS CLOUDS OVER THE ILLINOIS RIVER VALLEY

AT noon on a bright day in mid-August, 1914, the writer noticed over the valley of the Illinois River in Schuyler County, Illinois, a phenomenon which he deems worthy of record. The day was hot, with a brisk breeze from the west, and clear except for light cumulus clouds, uniformly and fairly closely spaced,

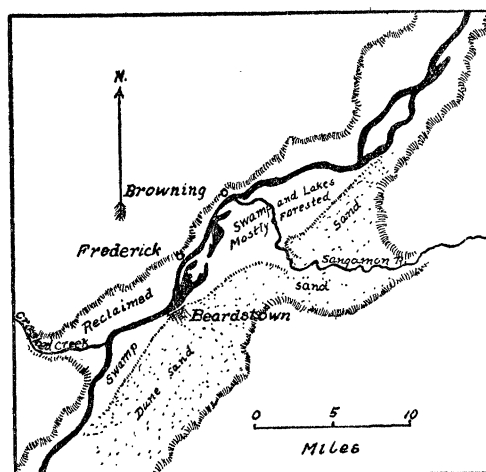


FIG. 1. Sketch of the portion of the Illinois River Valley along which the phenomenon here described was observed. Clear sky lay over the swampy and forested portion of the valley northeast of Beardstown while over the uplands and the reclaimed bottomlands cumulus clouds were observed. From the point of observation it could not be determined whether the clouds began again at the edge of the dune sand or at the eastern bluff.

moving rather rapidly with the wind. During a stop for lunch on the crest of the western bluff-border of the valley between Frederick and Browning (Fig. 1) attention was drawn to the movement of the cumulus clouds overhead. As a matter of curiosity a particular

cloud was selected with the idea of noting its changes of shape and something of its rate of movement. The cloud selected advanced to a point almost exactly overhead, then began to melt away. In a space of less than five minutes it had entirely disappeared. Another and yet another did the same. Finally, an unusually large cloud was selected; but this, too, disappeared on reaching approximately the same point. All advanced in orderly procession from the west till, overhead, they reached a lane of clear sky, then melted away.

This lane of clear sky, several miles wide, stretched away northeastward to the horizon, following very closely the course of the valley of the Illinois River, and southwestward over the river valley for 4 or 5 miles, after which it gave place to the usual cumulus clouds. To the east of the valley the cumulus clouds appeared once more and continued to the horizon. These relations were observed to persist throughout the greater part of the afternoon.

A possible explanation of the phenomenon which suggested itself at the time is here recorded as a working hypothesis to be considered in connection with similar occurrences which may from time to time be described. To make this explanation clear, a brief description of the geography of the region is necessary.

The valley of the Illinois River here is a flat-bottomed trough from 4 to 10 miles wide, bordered by relatively sharp bluffs, and is sunk some 200 feet below the general upland level of this part of the state. The upland is mainly cultivated farmland, much of it at this time of year bare after the wheat, hay and oats harvest. The river bottom, on the other hand, east of the point of observation and to the northeast as far as could be seen, is largely either swampy, with several lakes, or forest-covered. Four or five miles to the southwest, however, in the neighborhood of Beardstown, a considerable portion of the river bottom has been reclaimed and is given over to agriculture.

The explanation suggested is that over the upland farms numerous convection currents gave rise to cumulus clouds, while over the

swamp and forest lands of the river bottom convection currents were subordinate or, perhaps, absent; that consequently, this cooler belt over the bottomlands not only failed to produce new cumulus clouds but also tended to become the channel of descent for some of the air which had been rising by convection from the surrounding hotter lands. On reaching such a belt of descending air, the clouds should be expected to melt away as they were drawn downward and to leave a zone of clear sky over the area of descending air. The width of the valley—4 to 10 miles—as compared with the height of the clouds—probably about one mile—should give ample opportunity for differences in heating to become effective in modifying the air currents and therefore the behavior of the clouds.

The presence of the cumulus clouds over the reclaimed parts of the bottomlands near Beardstown is thought to be significant in connection with the above explanation, since these would doubtless be heated nearly as effectively as the upland.

Other possible explanations of the phenomenon might be suggested, but it seems idle to speculate further until more observations of a similar nature have been made.

JOHN L. RICH

UNIVERSITY OF ILLINOIS

CYANIDE OF POTASSIUM IN TREES

TO THE EDITOR OF SCIENCE: I note an interesting contribution to SCIENCE in the issue of October 9, on the subject of cyanide of potassium taken up by trees when put into holes in the same. I wish to report that this chemical is the chief basis of treatment by a firm in Allentown, Pa., doing an extensive business in some of the Eastern States, claiming to render trees immune from attacks by all insects and diseases, and also to fertilize them. The process was originated by a man named Kleckner, and is now continued by a company called the Fertilizing Scale Company, of Allentown, Pa. Their theory is that a tree can be given medicine, as well as food, by placing the same in capsules and fastening these in incisions under the bark. While the chief insect