INTELLIGENCE FROM AMERICAN SCIENTIFIC STATIONS.

GOVERNMENT ORGANIZATIONS.

Department of agriculture.

Facts of interest in economic entomology. — Bulletin 2 of the entomological division contains the following facts of interest: —

The Chrysomelid Graptodera carinata injured fuchsias by eating the leaves in September at Germantown, Penn. — During 1882 the army-worm was reported from Saratoga County, N.Y., at the north, to the Red-river valley in Louisiana, at the south. — The larva of Agrotis inermis is mentioned as cutting down smilax in an extensive flower-garden at Germantown, Penn. — The clover-leaf weevil (Phytonomus punctatus) was as destructive in Yates County, N.Y., in 1882 as in 1881; and its spread into adjoining counties was noticed. — Ephestia zeae was received from New-York City, with accounts of damage done by the larva to lozenges. — The description of the curious work of a mite allied to Tetranychus tellarius, found at Melrose Highlands, Mass., is given. A large ash-tree was almost entirely covered by a filmy web spun by this mite. — The little homopterous Entilia sinuata Fabr. was sent from Franklin Falls, N.H., as destroying the Canada thistle. — Isosoma tritici was received from Columbia County, Wash. Ter. — The fungus, Scorias spongiosa, upon the honeydew of Schizoneura imbricator, was sent from Johnson County, Tenn. — Twigs of Wistaria were received from Hudson, O., which were bored by the larva of Elaphidion villosum. — A letter from Mr. H. G. Hubbard, on the aid of spiders in the spread of scale-insects, is given in full. — The seventeen-year cicada appeared in 1882 in parts of Yates, Ontario, Livingston, and Wyoming Counties, N.Y. — A mill at Lansing, Mich., was overrun (November, 1882) by the two beetles Palorus depressus and Laemophlaeus alternans. — The natives of Upper Birmah use, as a remedy for cotton insects, conjee-water; i.e., fermented rice-water, with a little salt and the rind of a fresh squeezed lemon thrown in. — Mr. William Plumer of Lexington, Mass., advises the addition of a small quantity of gum-arabic or glue and bichromate of potash to insecticide solutions, in order to render them 'water-proof,' or less readily washed off by rains from plants or trees to which they have been applied. — The effect of frost upon scale-insects is considered in a letter from Mr. Joseph Voyle, of Gainesville, Fla., who concludes, that, by unusually cold weather, larvae killed, but not enough to be of service to the hatching and development are retarded, and a few tree.

PUBLIC AND PRIVATE INSTITUTIONS.

Astronomical observatory of Harvard college, Cambridge, Mass.

The work at the observatory. — There has been great progress in the reduction and publication of past observations. The catalogue giving the results of photometric measurements on four thousand stars is now in the hands of the printer.

Photometric observations of a hundred and eighty-five eclipses of Jupiter's satellites have been made. The search for objects with singular spectra has been continued and carried on with more system than formerly. At the last opposition of Mars, the satellites were seen, and photometric measurements were obtained which agreed with those made in 1877. The results of the photometric measurements of various points on the moon have been published in the *Selenographical journal*, v. 57. Mr. Chandler has made a careful study of Sawyer's variable star, and has found the period to be about twenty hours. The variation of the light is about three-fourths of a magnitude.

Professor Rogers has found it necessary to take a prolonged rest from night-work, but will resume soon. The results of his work in the last twelve years will occupy three volumes of the Annals, and are being prepared for publication.

The measurement of the light of the stars visible to the unaided eye was completed last summer. Over ninety thousand measures were made on about four thousand stars. The effect of atmospheric absorption has been found, for any altitude exceeding 15°, to equal in stellar magnitudes one-fourth of the secant of the zenith distance. This agrees with the result of Seidel, the average deviation of the two determinations not exceeding one-thirtieth of a magnitude. An extended comparison of the scale of magnitudes employed by previous observers has been made. A reduction of the observations of Sir William Herschel has been effected, and has led to important results. Their neglect hitherto has been partly owing to the want of a suitable system of magnitudes by which they might be reduced. This want has been supplied by the photometric measures at this observatory. We have thus an accurate measure of the brightness of a large part of the lucid stars of a hundred years ago.

NOTES AND NEWS.

The fifth session of the congress of Americanists will be held in Copenhagen, Aug. 21–24, under the patronage of Christian IX., king of Denmark. Dr. J. J. A. Worsaae, director of the museum of ethnography, will be the president, and W. A. Carstensen, general secretary. A prospectus of the meeting has been published, and may be had from the president or the secretary. Any one remitting twelve francs to M. Tietgen, *directeur de la Banque privée de Copenhague*, will be entitled to a ticket of membership and a copy of the report. The subjects to be discussed are as follows: —

History and geology. — Discovery of America; The Northmen in Greenland; Mexican *calpullis;* Central American nationalities; Mexican and Peruvian military systems; The Popol Vuh; Comparison of the kingdoms of Cuzco, Trujillo, and Peru; Peruvian divinities, Viracocha, etc.; Migrations of the Caribs; Traditions of the deluge in America.

Archeology. — Kjökkenmöddings of Greenland and elsewhere; Sacred signs; Religious and emblematic significance of idols, etc.; Architecture of Peru.

Anthropology and ethnology. — Tribal synonymy and cartography; Kingdoms of Cibola, Quivira, and Tegnayo; Ethnology of New Granada and the Isthmus; North America and Central Asia compared.

Linguistics and paleography. — Grammar of the Eskimo compared with that of other American languages; Mexican languages and others compared; Decipherment of Maya inscriptions, and of quippos; Peruvian languages, and others compared.

— At the annual meeting of the Boston society of natural history, May 2, the following officers were chosen: president, Samuel H. Scudder; vice-presidents, John Cummings, F. W. Putnam; curator, Alpheus Hyatt; honorary secretary, S. L. Abbot, M.D.; secretary and librarian, Edward Burgess; treasurer, Charles W. Scudder. The report of the curator, Prof. A. Hyatt, gave a full account of the mineralogical collection, the re-arrangement of which has just been completed, and to which we shall soon refer more particularly. It was shown that it would be impossible to complete the arrangement of the other collections in similar manner, without additional income at the society's disposal. Considerable work was done in the geological collection, but its final arrangement will need at least a year's more work.

The trustee of the Lowell lecture fund has generously continued to support the Teachers' school of science, in which ten lessons had been given by Prof. W. H. Niles, on physical geography, and five by Dr. H. P. Bowditch, on physiology. Both courses were attended by large numbers of teachers. Laboratory instruction was also given to one class from the Massachusetts institute of technology, and one from the Boston university, besides two private classes; and during the summer, instruction was given to fourteen students in the curator's laboratory at Annisquam, Mass. In one dredging-trip specimens of Octopus and other interesting forms were brought up from about forty fathoms.

The secretary reported the additions to the library to amount to 2,065 volumes and pamphlets. Three parts of the proceedings and three of the memoirs had been printed, together with a new list of members.

Seven essays were offered in competition for the Walker prize of the year, — 'The life-history of any animal.' The committee awarded the first prize to Howard Ayers of Cambridge, for his essay on the development of the tree-cricket (Oecanthus niveus) and one of its parasites (Teleas). The committee requested further time for the consideration of the award of the second prize. The successful essay fills a hundred and twenty-seven manuscript pages, and is beautifully illustrated with thirty plates carefully drawn and colored. The author has attempted to establish or discuss the following points: for Oecanthus; the origin of the ovum in a germarium, the process of yolk-formation by cell-degeneration instead of secretion, a primitive segmentation of the embryo before the appearance of the permanent segments, the existence of a pair of appendages on each of the seventeen segments, the formation of the dorsal vessel as originally a paired organ (as in some worms), the existence of embryonic gills, the lack of any sharp distinction between a cell and its nucleus and between the latter and the nucleolus, the origin and significance of the embryonic membranes, and the dorsal organ among insects; in Teleas; the absence of embryonic membranes, and the occurrence of an intermediate larval form between the blastophere and the cyclops-larva of Ganin.

— At the close of its last session, Congress made provision for the co-operation of the United States in the researches proposed by the electrical congress at Paris in 1882. The secretary of state has designated as commissioners, on the part of this government, Professors Barker of the university of Pennsylvania, Trowbridge of Harvard university, and Rowland of Johns Hopkins university. The sum of $12,500 was appropriated for experiments.

— The newly organized Royal society of Canada will hold a session in the parliament buildings at Ottawa, commencing May 22. Delegates from several scientific bodies in the United States are expected to be present.

— At a meeting of the Washington anthropological society, April 17, Dr. W. J. Hoffman made a comparison of Eskimo and Californian pictographs by means of charts, by which he showed the relation between these figures and the sign-language of the North-American tribes. A wonderful familiarity with the gesture-speech enables Dr. Hoffman to read many of the pictographs with perfect readiness. Mr. J. Curtin, who has spent much time in diplomatic service in Russia and Hungary, and has brought home a rich treasure of the folk-lore of the regions in which he has travelled, read a paper on Scandinavian and Magyar folk-lore. Dr. Fletcher explained Zoja's scheme for the nomenclature of stature, given elsewhere in this issue.

— By the system of railway time recently recommended by the railway time convention in St. Louis, the time of the different long railways of the country would only differ by whole hours. It is proposed that each road shall reckon its time from one or more of a set of meridians fifteen degrees, or one hour, apart, so that the time of each meridian may reach seven and one-half degrees, or thirty minutes, on each side. The meridians suggested for the United States are the 75th, 90th, 105th, and 120th, west of Greenwich. The confusion of time now so common in many of our large cities would in this way be avoided, the minutes and seconds, at least, agreeing on the different roads.

— The treasurer of the Balfour fund acknowledges the following additional subscriptions: Prof. J. Playfair McMurrich, Ontario, $5; T. Mackenzie, University college, Toronto, $1; George Acheson, Collegiate institute, Toronto, $2; H. Pillsbury, High school, Springfield, Mass., $1; Prof. J. H. Comstock, Cornell university, $5; Prof. J. A. Holmes, University of North Carolina, $5; Prof. H. C. Coon, Alford university, $1. Previously acknowledged, $466.25.

— In SCIENCE, p. 338, in the article on Formation of the tails of comets, read, 'Mr. Ranyard suggests.'