

of the hanging lateral valleys are results of glacial erosion. He concludes that the lateral valleys are the remains of an ancient topography in which the trunk and the branch valleys were accordant; that the lateral valleys, long occupied by névé and ice, have been preserved from erosion, while the trunk valley has been deepened chiefly by stream action during interglacial and postglacial epochs. Overdeepened valleys when thus interpreted are witnesses rather to the conservative action of glaciers than to their destructive action (Note sur le surcreusement ('Uebertiefung') des vallées alpines. C. R. Soc. géol. France. Dec. 17, 1900, 160-162). W. M. DAVIS.

BOTANICAL NOTES.

ELLIOTT'S GRASSES.

THOSE who are fortunate enough to possess a copy of Stephen Elliott's rare two-volume work entitled 'A Sketch of the Botany of South Carolina and Georgia' will be glad to know that Professor Scribner, of the Division of Agrostology of the United States Department of Agriculture, has published a circular (No. 29) giving the results, so far as the grasses are concerned, of a critical examination of Elliott's Herbarium, now in the possession of the College of Charleston, South Carolina. He has been able in this way to verify Elliott's determinations, and to make necessary corrections, the latter due to the fact that in many cases the species had been named previously by foreign botanists, and, also, that many changes in nomenclature have occurred in the eighty or more years which have elapsed since the publication of Elliott's 'sketch.' This herbarium is said to consist of twenty-eight volumes of folios, twelve by twenty-three inches in size, and that part containing the grasses is described as in a 'very good state of preservation.' It is curious that in working over the species, the author (who was assisted by Mr. E. D. Merrill) found it necessary to describe two or more species, viz., *Panicum amaroides* (to be separated from Elliott's *P. amarum*, and hitherto known as *P. amarum minor* Vasey), and *Panicum subbarbulatum* (the *P. barbulatum* of Elliott, but not the *P. barbulatum* of Michaux).

WOOD'S HOLL BOTANY.

THE announcement of the botanical work of the fourteenth season (1901) of the Marine Biological Laboratory, of Wood's Holl, Mass., has just been received. Dr. Bradley Moore Davis, of the University of Chicago, will be in charge again, as he has been for several years past. The session opens July 3d, and extends to August 14th. Work is offered along four lines, viz.: Cryptogamic Botany (algae or fungi, or both); Phanerogamic Botany (the outdoor study of flowering plants; Plant Physiology (experiments and lectures); and Plant Cytology (a laboratory course in methods). Lectures by specialists will be provided as in previous years. A special welcome will be accorded to investigators who desire to carry out special lines of research. Announcements giving further details may be obtained of Dr. Davis.

NEW SPECIES OF NORTH AMERICAN TREES.

IT will surprise many readers to learn that critical botanists have recently discovered many hitherto undescribed species of North American trees. In the January number of the *Botanical Gazette*, Professor C. S. Sargent discusses 'New and Little Known North American Trees,' in which he describes seven new species, viz.: *Gleditsia texana* (a tree one hundred to one hundred and twenty-five feet high, and two and a half feet in diameter, from the valley of the Brazos river, Texas); *Crataegus engelmanni* (fifteen to twenty feet high, and closely related to *C. crus-galli*, from Missouri to Alabama); *Crataegus canbyi* (twenty to twenty-five feet high, also related to *C. crus-galli*, from Delaware); *Crataegus peoriensis* (twenty to twenty-five feet high, from central Illinois); *Crataegus pratensis* (a small tree from central Illinois); *Crataegus submollis* (a large tree hitherto confounded with *C. mollis*, from Maine to Montreal and Massachusetts); *Crataegus dilatata* (a small tree related to *C. coccinea*, from Vermont, Massachusetts and Rhode Island); *Crataegus coccinea rotundifolia* (the *C. rotundifolia* of Moench, one of the commonest of New England forms); and *Crataegus jonesae* (a small tree closely related to *C. coccinea*, from southeastern Maine). Ashe's species, *C. holmesiana*, from Quebec and Ontario to Maine, Massachusetts, New York

and Pennsylvania, is redescribed, as also the original Linnæan *C. coccinea*.

In the February number of *Rhodora* the same author describes thirteen new species of *Crataegus* from the Champlain Valley, principally in the neighborhood of Middlebury, Vermont. The species described are the following: *C. champlainensis* and *C. pringlei*, both of the section 'Molles'; *C. lobulata* (of the section 'Flabellatae'); *C. acutiloba*, *C. matura*, *C. pastorum*, *C. pentandra* (all of the section 'Tenuifoliae'); *C. praecox*, *C. brainerdi* (of the section 'Coccineae'); *C. modesta* (of the section 'Intricatae'); *C. scabrifolia*, *C. egglestoni*, *C. asperifolia* (all of the section 'Anomalaе').

SELBY'S HANDBOOK OF PLANT DISEASES.

PROFESSOR A. D. SELBY, of the Ohio Agricultural Experiment Station, has just issued as a bulletin (No. 121) a very valuable pamphlet of seventy pages entitled 'A Condensed Handbook of the Diseases of Cultivated Plants in Ohio.' It discusses in non-technical language the nature of disease, the structure and habits of parasitic fungi, and then takes up alphabetically the cultivated plants of the farm and garden, describing under each the diseases and their effects. Woodcuts are freely used to help the descriptions. A couple of pages are given to formulæ and directions for making different fungicides, and the pamphlet closes with a very suggestive 'spray calendar.' This bulletin must prove to be very useful to the farmers and gardeners of Ohio, and it will be found most helpful, also, to all who are studying the diseases of plants.

CHARLES E. BESSEY.

UNIVERSITY OF NEBRASKA.

SCIENTIFIC NOTES AND NEWS.

GOVERNOR STONE, of Pennsylvania, has appointed Dr. J. T. Rothrock forestry commissioner under the new act, which places the forestry interests of Pennsylvania under the charge of a separate department of the State Government.

GOVERNOR ODELL, of New York, has appointed Dr. Daniel Lewis, of New York City, State Health Commissioner. Dr. Lewis was

president of the State Board of Health which has been abolished.

DR. W. W. KEEN, professor of surgery in the Jefferson Medical College, Philadelphia, expects to spend next year in a trip around the world.

PROFESSOR JOHN GRIER HIBBEN, of Princeton University, has returned from his trip abroad and has resumed his work in the University.

THE Institution of Naval Architects has awarded a gold medal to Professor G. H. Bryan, F.R.S., for his paper on 'Bilge Keels.'

It is stated in *Nature* that the Brussels Academy of Sciences has awarded a gold medal, of the value of six hundred francs, to M. F. Swarts, for a memoir on the subject of carbonates of an element the compounds of which are little known. A similar award has been made to Professor J. Massart, for a memoir on the nucleus of Scizophytes, and the Edouard Mailey prize of one thousand francs, for assistance in the extension of the knowledge of astronomy in Belgium, has been awarded to M. F. Jacobs, the founder of the Société Belge d'Astronomie.

WE also learn from *Nature* that Mr. Vaughan Cornish, whose name is closely associated with the wave-like forms assumed by drifted materials, is now engaged on the Canadian prairies photographing and studying the forms assumed by drifting snow. Thanks to the liberality of the Canadian Pacific Railway Company and the interest evinced in the investigation by Sir William van Horne, Mr. Cornish writes that his work proceeds satisfactorily, and enough has already been done to justify the expedition.

PROFESSOR ERNST HAECKEL is expected to return from Java to the University of Jena at the beginning of the summer semester, when he will resume his regular lectures.

MR. SAMUEL HENSHAW, who has been head gardener of the New York Botanical Garden since its establishment, has resigned on account of advancing years, but is to act as adviser when his services are needed.

DR. F. BIDSCHOF, of the Observatory in Vienna, has been appointed assistant in the Observatory at Trieste.