

from a brief enumeration of a portion of its contents, *e. g.*, new barometric reduction tables for reductions between any two planes within the elevations from sea level to 10,000 feet; the construction of temperature gradients in latitude, longitude and altitude for all stations of the United States; the computation of the vapor tension on the sea level, the 3,500-foot and the 10,000-foot planes; the construction of charts of pressure, temperature and vapor tension for each month and the year on the three planes just mentioned; the preparation of special station tables for the practical work of reducing the observations to sea level, to the 3,500-foot plane, and the 10,000-foot plane for the daily weather maps; the compilation of tables giving the normal values of the pressures, temperatures and vapor pressures at the stations and on the three planes. The volume is one of the most important publications of the United States Weather Service since its establishment.

METEOROLOGICAL OBSERVATIONS IN BOSNIA.

IN the *Meteorologische Zeitschrift* for January, Hann discusses the observations (1895-1901) made at the observatory on Bjelasnica, a mountain 2,067 meters high in Bosnia—interesting because it is situated further to the southeast than any high-level station in Europe. The pressure, as in the case of all mountains in the Temperate Zone, rises considerably from winter to summer. The winters are abnormally cold, even as compared with the mountain stations in somewhat higher latitudes, the explanation undoubtedly being that Bjelasnica lies on the south or southeast of the winter barometric maximum over the Alps, and consequently its winds are north, northeast or east. The frequent inversions of temperature, and the bright dry days, which characterize the Alps in winter, and help so much to produce the remarkable winter climate of many of the higher Alpine stations, are conspicuous by their absence on Bjelasnica. Very remarkable frost formations are observed in winter, rivaling those of Ben Nevis and the Brocken, which have often been described and photographed. On

February 20, 1902, for example, the frost needles reached a maximum length of 2.8 meters, after a growth of three days with light southerly winds; a mean temperature of 26°.6, and a mean relative humidity of 93 per cent. Several needles over three meters long broke off partly by their own weight, and partly because of the wind. To the neighborhood of the Adriatic Sea these extraordinary frost formations are due, as, in the case of the Brocken and of Ben Nevis, they are due to the proximity of the Atlantic Ocean.

HIGH WINDS ON THE PACIFIC COAST.

HIGH winds are not commonly associated with Pacific Coast meteorology. Hence an account of some high-wind records on that coast, in the Annual Report of the California *Climate and Crops*, is of interest. These records were made at the new Weather Bureau station at Point Reyes Light (lat. 38° 12' N., long. 122° 51' W.). On February 23-25, 1902, during a 'severe southeast disturbance' along the coast of California, velocities up to 100 miles an hour were observed. On March 1 the wind blew for a few minutes at the rate of 107 miles an hour. Between May 15 and 20, 1902, with a marked depression over the Mexican boundary and the valley of the Colorado, the maximum wind velocity was at the rate of 110 miles an hour.

R. DEC. WARD.

SCIENTIFIC POSITIONS UNDER THE GOVERNMENT.

THE civil service commission announces a number of examinations for positions in the scientific service of the government. On April 21 and 22, there will be an examination for the position of aid in the Coast and Geodetic Survey, the age limit being from 18 to 25 years, and the salary \$750 and traveling expenses. There are twelve vacancies to be filled by this examination.

On May 5 there is an examination for the position of computer for nutrition investigations in the Office of Experiment Stations, at a salary ranging from \$720 to \$1,000.

On May 5 and 6 there is an examination for the position of field assistant in forestry at a salary of \$1,000.

On May 16, there are examinations for positions in the Bureau of Plant Pathology Industry of plant physiologist, at a salary of \$1,500; of plant pathologist, at a salary of \$1,600; of viticulturist, at a salary of \$1,600; and of physiological chemist in cereal investigations, at a salary of \$1,500. Further details concerning these and similar examinations can be obtained from the U. S. Civil Service Commission, Washington, D. C.

SCIENTIFIC NOTES AND NEWS.

PROFESSOR HERMANN STRUVE, of Königsberg, has been given the gold medal of the Royal Astronomical Society.

THE University of Halle has conferred a gold medal on Professor J. P. Pawlow, of St. Petersburg, for his research on digestion.

THE Institute of France has awarded to Dr. Emile Roux, the subdirector of the Pasteur Institute, the prize of \$20,000, founded by M. Daniel Osiris, for the person that the institute considered the most worthy to be thus rewarded. It is said that Dr. Roux will give the money to the Pasteur Institute.

DR. F. SCHAUDINN, of Berlin, has been awarded the Tiedemann prize by the Senkenburg Society, at Frankfurt a. M., for his biologic studies and monograph on the Coccidia.

M. T. H. SCHLOESING, JR., has been elected a member of the Paris Academy of Sciences in the section of agriculture in the place of the late M. Dehérain.

WE noted last week the election of Dr. Robert Koch, as foreign associate of the Paris Academy of Sciences, in succession to Professor Rudolf Virchow. It may be added that Dr. Robert Koch received twenty-six votes, Dr. Alexander Agassiz eighteen votes, Dr. S. P. Langley six votes and Professor van der Waals, of Amsterdam, one vote.

PROFESSOR SOLMS-LAUBACH, of Strasburg, and Professor K. Goebel, of Munich, have

been elected honorary members of the Botanical and Zoological Society of Vienna.

PROFESSOR H. A. SURFACE, of the Pennsylvania State College, has been appointed economic zoologist to the state of Pennsylvania.

DR. LEONARD P. KINNICUTT, professor of chemistry at the Worcester Polytechnic Institute, has been appointed consulting chemist to the Connecticut State Sewage Commission.

MR. E. E. EWELL has resigned the position of assistant chief of the Bureau of Chemistry, U. S. Department of Agriculture, for the purpose of accepting the position of manager of the Atlanta office of the Propaganda Department of the German Kali Works. Mr. Ewell's service in the Department of Agriculture dates from August, 1889.

PROFESSOR J. A. EWING, F.R.S., professor of mechanism and applied mechanics at Cambridge University, has been appointed director of naval education, Great Britain.

MR. T. H. HOLLAND has been appointed director of the Geological Survey of India, in succession to Mr. C. L. Griesbach, who has retired.

PROFESSOR H. H. DONALDSON, of the University of Chicago, has been elected president of the Chicago Neurological Society for 1903.

MR. ALFRED NOBLE has been elected president of the American Society of Civil Engineers.

PROFESSOR JOHN M. COULTER, head of the Department of Botany, in the University of Chicago, will be absent in Europe during the spring, summer and autumn quarters.

DR. J. MARK BALDWIN, professor of psychology at Princeton University, sailed for Europe on April 4.

DR. JOHN MARSHALL, professor of chemistry in the Medical School of the University of Pennsylvania, has been granted leave of absence and will spend the time abroad.

DR. N. L. BRITTON, director-in-chief of the New York Botanical Garden, and Mrs. Britton returned from Cuba on April 4. During the brief visit made to the island a large collection of herbarium specimens was made principally from the region around Matanzas, and some