

J. R. Sage, in the Monthly Review of the Iowa Weather and Crop Service for October, says :

The board of control is composed of William Bullock Clark, director, representing the Johns Hopkins University; Milton Whitney, secretary and treasurer, representing the State Agricultural College, and Ferdinand J. Walz, meteorologist, representing the United States Weather Bureau. By means of a liberal State appropriation to cover necessary expenses, and a wisely devised system of cooperation, these three great scientific and educational forces are doing a great work for the people of that commonwealth. * * * * *

In the production of this great work the Maryland Weather Service has taken the lead of all similar auxiliary services in the Union, demonstrating the value of cooperation of the State with the National Bureau in the dissemination of scientific and practical knowledge among the people. Every State in the Union may wisely follow that lead by establishing some system of cooperation whereby every section may enjoy the full measure of benefits to be derived from the generous helpfulness of the Government.

Mr. Alexander McAdie, in the October report of the California section, says :

Maryland now enjoys the result of a well-considered plan, worked out with care by competent laborers. * * * * *

It is clearly shown in a volume of this character that a knowledge of the climatology of a country is of great practical value to the merchant, engineer, the doctor, and, above all, the farmer. What such information is worth on the Pacific coast let agriculturist, miner, stockman, and engineer tell. Particularly at this time, when the Pacific seems destined to become the great connecting link between the civilizations of the new and old worlds, is it important that we should have climatic information complete as knowledge, skill, and means can afford. Meteorology may be, as sometimes stated, "the border land where physics, chemistry, and geology meet;" but climatology in the broadest sense embraces all the applied sciences. It weaves together many separate strands into a knowledge of the controlling factors of life; not only the life of an individual, a community, or a nation, but even of continents and worlds. A study of the climatic data of the Pacific coast as comprehensive as this work which issues from Maryland would be the starting point in the solution of the problems of climatic evolution which are discernible on the Pacific coast perhaps in a more marked degree than elsewhere.

Mr. R. DeC. Ward, in Science for December 1, says :

A new era has opened for climatology in this country. * * * The present volume is decidedly "*bahn-brechend.*"

THE DIRECTOR OF THE IOWA WEATHER AND CROP SERVICE.

We quote the following from the October report of the Iowa Weather and Crop Service. As is well known this service, like that of Maryland and some other States, has an independent appropriation of its own, and its monthly review has been a most valuable contribution not only to scientific literature, but especially to the popular literature of this subject. Its trenchant attacks on errors and instructive articles and practical suggestions on matters of daily importance have made the journal and its editor well known throughout the country. We welcome him as a valuable addition to the corps of the Weather Bureau, with which he has so long been in hearty cooperation.

By a special order of the President the director of the Iowa Weather and Crop Service was recently brought into the classified service, and was appointed by Secretary Wilson a section director of the Climate and Crop Service of the United States Weather Bureau, said appointment taking effect October 1, 1899. This honor is most highly appreciated because of the fact that it came without personal solicitation or political influence, accompanied by very pleasant messages from the Secretary of Agriculture and the Chief of the Weather Bureau, commendatory of the work that has been done in Iowa during the past ten years. This appointment does not imply any change in the existing system of cooperation of the United States Weather Bureau and the Iowa Weather and Crop Service, except that it may enlarge its scope and make the bond of union closer and more effective for good results. It is certain that the results achieved during the past decade have been more valuable than could have been secured without such cooperation,

though justice requires the statement that the National Weather Bureau has been the major factor in this joint enterprise. The State, through its moderate appropriation, has undertaken to supplement the Government along practical lines, thereby securing a larger measure of the benefits of scientific investigation, and promoting a general knowledge of the climatology of this great agricultural section. How well this beneficent end has been attained the people of Iowa may be allowed to judge.

RAINFALL AND RIVERS IN IDAHO.

In his October report of the Idaho Section, Mr. S. M. Blandford, Section Director, gives some account of the discharges of the rivers during 1898. He says:

All of the rivers of Idaho that have received the attention of the Division of Hydrography have their source in the mountains of Idaho, except the Snake River. The drainage area of the Malade, Little Wood, Boise, and Weiser rivers is 7,580 miles, and with the exception of the Payette, embraces all of the important rivers that flow into the Snake from the north. * * * * *

The normal precipitation in Idaho ranges from 40.30 to 8.41 inches. In Shoshone County the annual precipitation, 40.30 inches, is equivalent to that of southern Maryland, and the precipitation of Kootenai and Latah counties, which ranges from 22 to 25 inches, is sufficient for the needs of vegetation. In Fremont and Bear Lake counties, and the eastern sections of each of the southeastern counties, grains and grasses mature on unirrigated lands during years of normal precipitation with an equitable distribution of rainfall during the crop growing season. However, more than seven-tenths of the area of Idaho is semiarid. It is in the semiarid sections where the annual precipitation ranges from 9 to 15 inches over the valleys and plains, to 20 and 27 inches near the summit of the mountains, that the Division of Hydrography has made river discharge measurements. During 1898 the annual precipitation over the drainage area of the rivers in the above table [omitted] was considerably less than the normal, the deficiency ranging from 1 to 5 inches.

THE CENTRAL OFFICE OF THE ILLINOIS SECTION.

It is announced that the central office of the Illinois Section of the Climate and Crop Service was removed on November 25 from Chicago to the office of the United States Weather Bureau at Springfield, Ill. The Section still continues in charge of Mr. Charles E. Linney, Section Director. In general, it is found best that section centers should be at the capitals of the respective States, and we doubt not that in his new location, which well represents the climate and the agricultural interests of Illinois, Mr. Linney will come into those intimate relations with the farmers and the legislators that were not easily attained when he was located within the influence of the rush of commercial business in Chicago. By thus establishing two meteorological centers within the State, the light of knowledge will, doubtless, be more uniformly diffused.

IRRIGATION BY WIRE.

In the continuation of the correspondence published on page 301 of the MONTHLY WEATHER REVIEW for July, Mr. Arthur Betts writes, under date of October 17, as follows:

In reference to the statement that "the 0.13 inch of dewfall was more than twelve times that amount by wire (1.58 inch)" bear in mind that I did not catch the one forty-ninth part of the drip from the wire. The largest part of the drip was wasted on the ground beneath. To have caught it all would have required a basin 7 feet square and 1.58 inch deep. A closer network of wire would have increased the amount of drip. Perpendicular wire would not answer. A horizontal wire 1 rod long would irrigate every inch of the rod, but when hanging vertically, only a little spot.

The following extracts are taken from a letter addressed to Mr. Arthur Betts by Mr. A. D. Elmer of Northfield, Mass., and communicated by the former to the Editor for publication in the MONTHLY WEATHER REVIEW: