

For the Northern Territories: Col. H. P. Northcott's "Report on the Northern Territories of the Gold Coast", published by the Intelligence Division of the War Office (London, 1899),

The last-named work contains brief series of observations, for parts of 1898, at Gambaga, Yabum, Bona, Wa, and Kintampo; also, for part of January, 1899, at Wa.

WEATHER BUREAU MEN AS EDUCATORS.

Mr. W. M. Wilson, Section Director, Ithaca, N. Y., informs us that he gave the usual course of instruction in meteorology and climatology during the latter half of the college year to a class of 23 students. Waldo's Elementary Meteorology and Hann's Climatology were used as text-books. As one of the regular courses of the college of agriculture of Cornell University, it consisted of three lectures each week (one hour each), with laboratory work in drawing weather maps, climatic charts, etc., and taking and recording weather observations. Practise forecasts were made during the latter part of the course from weather maps and from local observations.

The course was considered quite successful altho by no means satisfactory. The facilities for teaching meteorology are at present decidedly poor, but when the new agricultural building is completed, about July, 1907, a suitable laboratory and lecture room with lantern will be provided. There is considerable interest manifested in the subject, and it is stated by Professor Tarr, who has heretofore given a short course in meteorology in connection with the subject of physical geography, that he will withdraw this course for the coming year and advise students desiring instruction in meteorology to take the course offered by the college of agriculture. This action on his part should increase the class and stimulate the interest.

The collection of slides, charts, etc., for illustrative purposes is well under way and it is hoped to make the course in meteorology at Cornell for the coming year worthy of the institution with which it is connected.

Mr. Joseph L. Cline, Observer, Corpus Christi, Tex., reports that the Corpus Christi Board of School Directors and School Superintendent have requested him to deliver one lecture a week on meteorological and kindred subjects to the seniors and subseniors of the local high school during the scholastic year 1906-7; Mr. Cline has given such lectures during the past two years.

Mr. M. L. Fuller, Observer, Canton, N. Y., writes in regard to the elective course in meteorology conducted by him, now given for the first time in the first semester of the college year now opening at St. Lawrence University. As the electives for the first semester are chosen in the preceding spring, which in this case was before the students could know that meteorology would be offered, the difficulty of changing plans has doubtless operated to reduce the size of the class this year.

The announcement in the university catalog relative to the course is as follows:

Geology 7.—Meteorology.—I. Monday, Wednesday, and Friday, at 3 p. m.

This course emphasizes the practical aspects of the subject rather than the technical. The atmosphere is of prime importance in the economics of earth. It has performed a large share in the preparation of the soil; it has directly or indirectly determined to a great extent the growth, development, and distribution of vegetation, animal life, and man; it exerts an important influence upon the occupations, the energy, the prosperity, and enlightenment of peoples.

The movements of the atmosphere thru which it contributes to these results, and the laws governing the movements, were long unknown, but are now in a measure understood, and are being observed and studied thruout the world. The civilized nations are annually expending several million dollars in applying present weather knowledge for the benefit of commerce and the productive industries.

This modern science of meteorology is now offered as an elective in

the junior and senior years. The course will cover the ground treated in Davis's elementary text and will include such general topics as—

The atmosphere: temperature, pressure, general circulation.

The moisture of the atmosphere: dew, frost, fog, clouds, rainfall.

General storms: hurricanes, cyclonic storms of temperate latitudes.

Local storms: thunderstorms, hailstorms, tornadoes.

The work of the United States Weather Bureau.

Weather forecasting: principles and practise.

The care and management of meteorological apparatus.

Frost: its formation, prediction, protection from.

Clouds: classification, movements, value in forecasting locally.

The practical application of meteorological knowledge.

The text will be supplemented by lectures, collateral reading, and laboratory work.

The laboratory work will include: the use of meteorological instruments; a series of individual weather observations; the construction of charts, diagrams, weather maps, etc.; weather forecasting.

The following lectures and addresses by Weather Bureau men are reported:

Mr. W. S. Belden of the Vicksburg, Miss., office, while on leave, August 22, 1906, before the Brown County Teachers' Institute, at Hiawatha, Kans., on "The Work of the Weather Bureau".

Mr. M. L. Fuller, of the Canton, N. Y., office, July 18 and 19, 1906, at the Iowa State Normal Summer School, Cedar Falls, Iowa, a special address to the physical geography classes; also two evening lectures, upon "The Weather of the United States and of Iowa" and "The Work of the Weather Bureau; Local Storms"; also July 23 and 24, at the Webster County Teachers' Institute, Fort Dodge, Iowa, the same two lectures.

Mr. H. W. Richardson, September 22, 1906, before the public school teachers and principals of Duluth, Minn., on "The Weather Bureau".

Mr. M. R. Sanford, August 1, 1906, before the professors and students of the Syracuse University Summer School, on "Weather Observations, Charts, and Forecasts".

Mr. J. Warren Smith of the Columbus, Ohio, office, August 22 and 23, 1906, before the Lake County Teachers' Institute at Painesville, Ohio, two lectures on "The Science of the Weather" and "The Daily Atmospheric Survey"; also August 28 and 29, at Cleveland, before the Cuyahoga County Teachers' Institute, the same lectures; also August 24, at Chardon, Ohio, before the Geauga County Teachers' Institute, the second of the lectures.

Mr. P. H. Smyth, September 3, 1906, before the Alexander County Teachers' Institute, at the Cairo, Ill., High School Building, on "U. S. Weather Bureau Forecasts and Warnings".

Mr. Edward L. Wells, August 9, 1906, before the Summer School and Teachers' Institute, at Boise, Idaho, on "Weather Forecasting".

We are glad to say that in some of these cases a slight compensation or honorarium has been granted to our men for their services, and we hope that in many other cases this action will be followed. Weather Bureau employees are paid only for their exacting official services; the extra labor involved in lecturing and teaching, and the special preparation incident thereto, is not imposed upon them as an official duty. Every employee may be relied upon to do what he can to promote the teaching and study of meteorology.—EDITOR.

EDUCATIONAL NOTES.

Prof. Willis I. Milham, of Williams College, Williamstown, Mass., has just published in pamphlet form a syllabus of his course in meteorology. He informs us that after using the syllabus a few years he "may begin to write it up as a textbook".

In the preface to the syllabus it is explained:

This syllabus is intended primarily for the students of Williams College where meteorology is given as a 3-hour elective course for juniors and