5. Mean sea-level pressures, by 2-degree squares, to the nearest tenth of a millimeter. Isobars for every 2.5 millimeters.

6. Air temperatures, by 2-degree squares to the nearest tenth of a degree centigrade. Isotherms for every 5 degrees centigrade.

7. Ocean surface temperatures, same as for air temperatures.

8. Routes, trajectories of cyclones, limits of fog, ice, the trades and the monsoons (with a page of discussion in Dutch). In connection with discussions in Dutch there are additional charts in the text showing the frequency of fog in the northwestern North Atlantic, a storm weather map of the North Atlantic, and the frequency of gales in the Atlantic.—*C. F. B.*

NOTES, ABSTRACTS, AND REVIEWS.

RETIREMENT OF MR. HENRY E. WILLIAMS.

Mr. Henry E. Williams, some time Chief of the Forecast Division, was among the first employees of the United States Weather Bureau on duty in Washington, D. C., to be placed on the retired list, August 20, 1920.

Mr. Williams is a veteran of the Civil War, having had three years service as first sergeant in the 17th Connecticut Volunteers. Shortly after the close of the war he enlisted in the Regular Army. He received his discharge in 1876, and immediately enlisted in the United States Army Signal Corps. His combined military and civil service aggregates 52 years and 4 months, 44 of which were spent in the Weather Service.

The greater portion of Mr. Williams's tour of duty in the meteorological service was spent in the Forecast Division of the central office in Washington. While not himself a forecaster, being chiefly concerned with administrative matters in connection with the division, he had the unique experience of a close-up view of the forecasting activities of the Army Signal Corps and the civilian organization—the United States Weather Bureau—that succeeded it in 1891.

He was assistant chief of the Weather Bureau from July 1, 1903 to June 30, 1912. The position in which he was best known to the men of the service was however that of assistant instructor at Fort Myer, Va., during the eighties. It was his custom in making the daily trip between Georgetown and Fort Myer to ride a fine old gray mule. In the minds of those who attended the school, the recollection of Instructor Williams astride the gray mule continues to be one of the most highly cherished landmarks of the time.

Mr. Williams is one of the best known and highly esteemed men of the Weather Service. His associates unite in congratulating him upon rounding out more than a half century of useful service to his country.—*A. J. Henry.*

Dr. Jesse C. Green, 1817–1920.

Dr. Jesse C. Green, cooperative observer at West Chester, Pa., died on July 26, 1920, at the age of 103 years. His death was caused by an accident, a fall from a step ladder.

Dr. Green began keeping weather records at West Chester in January, 1855, and continued without interruption until the time of the accident that caused his death. It is believed that this individual record for more than 66 years is unparalleled in this country, if not in the world.

It was a cherished desire of Dr. Green's that the Weather Bureau should publish his records as a separate pamphlet, and they were compiled for that purpose, but unfortunately the available funds would not permit of the expense, and his hopes were never realized.—*George S. Bliss.*

DR. G. C. SIMPSON BECOMES DIRECTOR OF THE BRITISH METEOROLOGICAL OFFICE.

[Reprinted from Science, London, August 5, 1920, p. 721.]

Dr. G. C. Simpson, F. R. S., Meteorologist to the Government of India, has been appointed Director of the Meteorological Office as successor to Sir Napier Shaw, who retires on reaching the age limit after brilliant pioneer service. Dr. Simpson was meteorologist and physicist to the British Antarctic Expedition, 1900–1913, and served on the Indian Munitions Board from 1917 to 1919. In 1905 he was appointed a Scientific Assistant in the Meteorological Office, and in 1906 joined the staff of the Indian Meteorological Department. He is the author of a number of papers of scientific importance, including one on the electricity of rain and its origin in thunderstorms, published in the Philosophical Transactions in 1909. Only last year Dr. Simpson completed an elaborate discussion of the meteorological work of the British Antarctic Expedition, 1910–1913. As successor to Sir Napier Shaw his appointment promises a continuation of progress along lines which will advance meteorological science and maintain the high position which the British Meteorological Office now occupies through its work in recent years.

COOPERATION IN THE INVESTIGATION OF GEOPHYSICAL PROBLEMS IN HIGH LATITUDES.

[Reprinted from The Meteorological Magazine, London, July, 1920, vol. 55, pp. 121–122.]

The recent visit of Captain Roald Amundsen to Berings Strait has again directed general attention to his projected voyage across the Polar Sea. In spite of the difficulties of organizing international cooperation at the present time, it is hoped that a large number of stations will be provided at various points in high latitudes so that observations of meteorological and magnetic phenomena, and especially of the aurora borealis, may be available for comparison with those of Amundsen's party. The Meteorological Office is organizing an observing station in the Shetland Islands for the purpose.

A publication entitled "Various Papers on the Projected Cooperation with Roald Amundsen's North Polar Expedition" has been circulated from Christiania by the Norwegian Geophysical Commission. It contains memoirs on the importance of various parts of the work, and also practical suggestions with regard to apparatus and methods. The authors are Th. Hesselberg, O. Krogness, and Carl Størmer.

Of special interest in connection with the projected observations is the memoir by L. Vegard and O. Krogness on "The Position in Space of the Aurora Polaris," issued by the same Commission. The memoir is illustrated by no less than 434 pairs of photographs from which the height of the aurora has been determined on as many occasions. Even on the small scale of the reproductions