

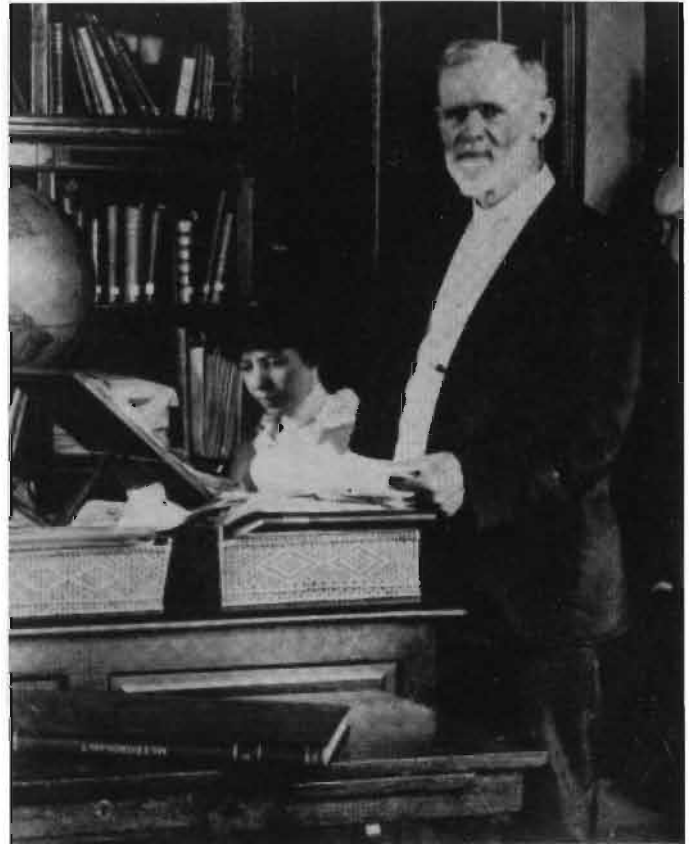
Cleveland Abbe: America's First Weather Forecaster

Ruby Rogers

The efforts of one dedicated and determined individual enabled Cincinnati to lead the nation in the creation of a regional weather observation and recording service which made reliable weather forecasting a possibility. In June 1868, Cleveland Abbe, a native New Yorker, arrived in Cincinnati to become director of the Cincinnati Observatory. During his tenure as Cincinnati Observatory director, Abbe originated a weather observation system that has given him a place in the history of Cincinnati and the United States.¹

Not yet thirty when he arrived in Cincinnati, Abbe had already amassed a resume of diverse work experiences. After receiving both bachelor and masters degrees from the New York Free Academy he taught at Trinity Latin School in New York, the Michigan Agricultural College, and the University of Michigan. In 1861 Abbe volunteered for military service but poor eyesight prevented him from finishing training. He then worked for the United States Coast Survey for three years, spent two years in Russia as a guest astronomer at the Observatory of Pulkowa and, in 1867, returned to the United States to work at the Naval Observatory as an aide.

His interest in astronomy led him to ponder if weather could be predicted and although hired to direct the Cincinnati Observatory, Abbe spent most of his two and a half years in Cincinnati initiating a weather observation and forecasting system. Just three weeks into his new job, Abbe approached the Cincinnati Chamber of Commerce with his plans for a regional weather service. The Chamber first requested more information and a more fully developed proposal. Then on July 17, 1869, the Chamber authorized Abbe to proceed with his



plan for a three-month trial period to begin in September.

Abbe's first task was to persuade telegraph operators to report daily. Once the operators had agreed to participate in the project, Abbe acquainted them with procedures he had established and forms he had designed. His guidelines required that each weather observer report wind direction and force, type of clouds, sky color, rain amounts, temperature, and barometer readings. The first weather bulletin printed in the *Cincinnati Commercial* newspaper on September 2, 1869, only included conditions for Cincinnati, Chicago, St. Louis, and Leavenworth, Kansas. By September 22, the bulletin listed nine

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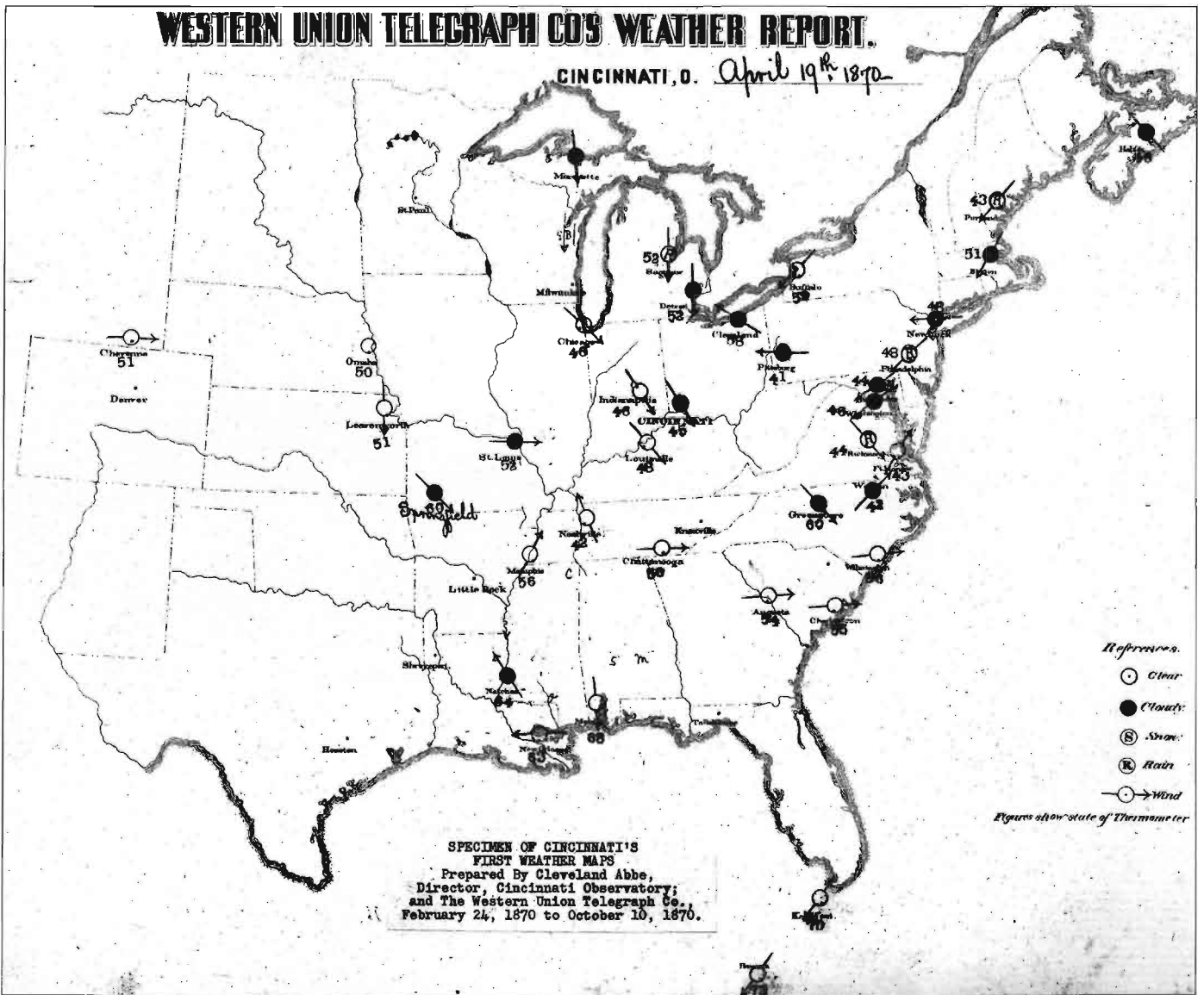
Cleveland Abbe spent most of his two and a half years in Cincinnati initiating a weather observation and forecasting system. (CHS Photograph Collection)

cities. In less than a year, June 1870, the weather bulletin carried conditions on a total of sixty-nine cities.

After receiving endorsement from the Cincinnati Chamber, Abbe presented his plan to the Chicago Board of Trade and asked that organization also to sponsor the experiment. The Chicago Board of Trade voted not to participate: "The Committee expressed some doubt of the practical value of such reports to our trade generally, except perhaps at certain limited seasons. And in view of the expense necessarily attending a regular report from a large number of points, it is recommended that no action be

taken." It is ironic that Cincinnati took the lead in weather forecasting and Chicago declined at the same time that Chicago was surpassing Cincinnati in population and manufactures.

The initial three-month trial convinced several scientists that the entire country would benefit from weather observation and forecasting. In November 1869, the National Board of Trade appointed a committee to approach the United States Congress to establish a national "Bureau of storm signals." The national weather service bill became law on February 9, 1870. The wheels of bureaucracy often



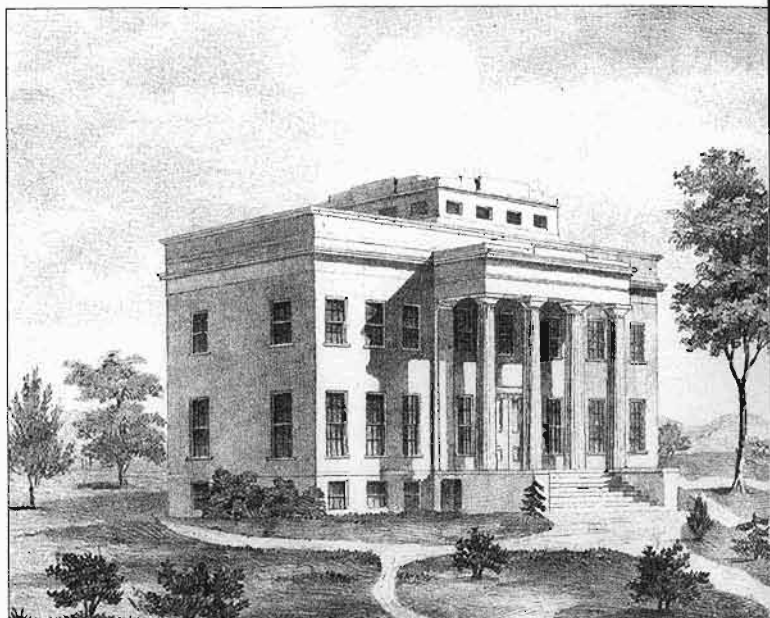
By 1870 the weather bulletin carried conditions about cities throughout the nation. (CHS Printed Works Collections)

turn slowly, and it took several months before the bureau was begun under the aegis of the Chief Signal Office. In December 1870, Abbe requested a leave of absence from the Cincinnati Observatory to become a special assistant in Washington with what would become the National Weather Service. His appointment became official on January 3, 1871. He remained with the service until his retirement on August 3, 1916, two months before his death in October.

Although he left Cincinnati in late 1870 to begin the National Weather Service, Abbe maintained many ties to the city. In an 1894 letter to C. L. Harrison, Abbe expressed his disgust with politicians interfering with the National Weather Bureau: "I have given many years to the meteorological work that you and others helped me to start in Cincinnati but now the influence of politicians is too strong to allow it to develop along the higher lines I had in mind." Because he felt constrained by politics, Abbe wrote his friend about his plans to leave the National Weather Service and establish a school and laboratory of meteorology. Those plans, however, failed to materialize. In a letter dated March 12, 1912, from the Weather Bureau, he reminisced about his good times in Cincinnati, noting that "I always longed to go back to East Walnut Hills - but duty was my higher call."

In 1915 the National Weather Bureau opened a weather station on Lafayette Circle in the Cincinnati neighborhood of Clifton, a few miles from the University of Cincinnati. In recognition of the essential roles that Abbe and the city had played in the creation of the National Weather Bureau, the station was officially named the Abbe Meteorological Observatory. It was the only station in the country to be named for an individual. The Service closed the station in 1960.

1. Information for this article was drawn from the collections of the Cincinnati Historical Society Library: letters, manuscripts, booklets written by Cleveland Abbe, a biography written by his son, Truman, and the *Bulletin of the Historical and Philosophical Society of Ohio*, volume 6-7, 1948-1949, pages 139-185.



In 1868 Cleveland Abbe was hired as the director of the Cincinnati Observatory, then located in Mt. Adams. (CHS Photograph Collection)

In 1915 The National Weather Bureau opened a weather station on Lafayette Circle in Clifton and named it after Abbe. (CHS Photograph Collection)