



The Historical
Society of
Pennsylvania

Collection 3116

**John H. Redfield
meteorological observations, 1862-1894**

Creator: Redfield, John Howard, 1815-1895

8 volumes, 1 box, 1 flat file, 1.1 lin. feet

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Abstract

John H. Redfield's interest in the sciences was inspired by his father William C. Redfield, a well known scholar in the study of hurricanes. He pursued a career in natural history studying plant and marine organisms. In 1827 he moved to New York City from Cromwell, Connecticut to work alongside his father, who years earlier wrote pamphlets regarding the dangers of the steam engine on the ferry boats on the Hudson River. Like his father, John participated in measuring the weather in meteorological journals, and he continued doing so until the 1890s, when the practice was no longer considered to be of much value. Included in this collection are thirty-two years of Redfield's meteorological recordings and notes on historical events such as the Civil War; governmental affairs like assignments, elections, and deaths of U.S. presidents; as well as personal matters such as family illnesses and deaths.

Background note

At the time they were made, meteorological observations and predictions, such as those collected here, were particularly important to the agricultural industry and sea travel and navigation. William C. Redfield (1789 – 1857) was an early participant in this movement. Redfield's interests in the weather and climatic changes began with his "pedestrian tour to Ohio in 1810" from Connecticut (over 700 miles) to visit his mother, who had remarried and relocated before the end of his apprenticeship with a mechanic in Cromwell, Connecticut. Redfield made significant contributions to American engineering and railroad developments, but his greatest offerings were to meteorology and natural history. He became most noted for his theory of storms and his lifetime quest to understand the nature and structure of the hurricane. Denison Olmsted in his *Address on the Scientific Life and Labors of William C. Redfield* (1857) commented that "We might pursue the comparison and say, that as every building saved from the ravages of lightning by the conducting rod, is a token both of the sagacity and the benevolence of Franklin, so every vessel saved from the horrors of shipwreck by rules derived from these laws of storms, is a witness to the sagacity and benevolence of Redfield" (p. 16). Redfield's work was published in several scholarly journals between 1831 and 1857 giving him world wide acclaim. While he was not a trained engineer or scientist – having only the basics of primary schooling – Redfield was awarded an honorary Master's of Arts degree from

Yale College in 1839. This permitted him access to the many “learned societies” to share ideas with his peers in the United States and abroad. He was elected as the first president of the American Association for the Advancement of Science in 1848. Redfield’s contributions affected many areas of engineering and the sciences.

William C. Redfield was known to many as a highly “skilful [sic] observer” (Olmsted, 22). His scientific bent was inherited by his eldest son, John Howard Redfield (1815 – 1895). John Redfield married Mary Jane Whitney of Philadelphia on August 16, 1843. They had four children: William Wallace, Clara, Robert Stuart, and Eliza Whitney. Early in his career, John Redfield was among the scientists who established the New York Lyceum of Natural History, for which he served as the corresponding secretary. Showing his constant pursuit of intellectual engagement and following his father’s lead, in 1860, he revised and extended the *Genealogical History of the Redfield Family in the United States*. In 1861 he moved to Philadelphia, where he worked as the Conservator of the Herbarium of the Academy of Natural Sciences of Philadelphia for more than twenty years. During the summer months – from June to August – he sojourned to Mount Desert Island in Maine to study its plant life. This resulted in the publication of the *Preliminary Flora of Mount Desert Island* with Edward L. Rand in 1894, a year before Redfield’s death. In this same year Redfield concluded the meteorological recordings he begun in 1862.

Scope & content

This collection consists of eight chronologically arranged volumes, one box, and one flat file. The meteorological observations recorded by John H. Redfield span thirty-two years from 1862 to 1894. These observations were taken in the city of Philadelphia. Within each volume are recorded readings of temperature, barometric pressure, wind direction and “force,” weather, and “contemporaneous events.” Under contemporaneous events, Redfield documented the happenings of the day, which included information on many Civil War battles, deaths of well known persons and family members, personal traveling and vacations periods, and recordings of weather conditions in other cities and countries. There are many newspaper clippings pasted to pages in each volume, which also detail climatic readings and weather patterns; however, there are some clippings – although few in number – regarding local community and political events. Loose clippings were removed from the volumes, rehoused in Box 1, and are listed as *Items removed from volumes*.

The daily weather recordings were taken consistently at 6 a.m., 2 p.m., 6 p.m., and 10 p.m. and sometimes also 9 a.m. and 4 p.m. Beyond the general readings of temperature, Redfield noted other surprising or extraordinary meteorological phenomena. For instance, he noted several meteors on November 14, 1866, and a sudden cyclonic movement on February 12, 1877 between the hours of 1 p.m. and 6 p.m. Then in 1878, during a heavy rain fall, seeming shocked, he stated “I think, the heaviest fall of water I ever saw.” On March 8, 1889, he noted, “At 6:41PM – felt a distinct tremor of the earth, while sitting in my library and made a note of same. Next morning learned that a decided earthquake shock had been felt in central parts of state.”

Redfield wrote very little of his personal life throughout his journals, although he occasionally mentioned the deaths of relatives, such as his brother Charles Bailey

Redfield who died on September 20, 1876. In 1887 his cousin B. Savage died in Cromwell, Connecticut. Of his children, the only one he wrote of was his daughter Clara, who died on January 4, 1891 shortly after becoming ill on December 30, 1890. Of her death, he commented, "My dear daughter Clara departed this life a few minutes after 7PM." The funeral was held on January 6, 1891, and she was buried in Greenwood Cemetery in Brooklyn, New York. Redfield lamented and quoted lines from a hymn by Isaac Watts: "Rest here blest saint, till from his throne the morning break and pierce the shade."

In the first two volumes, Redfield recorded naval and land battles and, to some extent, the weather conditions that may have impacted their outcome. Successes of the Union Army such as at the Battles of Fort Jackson and St. Philip of New Orleans in 1862 are mentioned. The news clippings that accompany these notations also provide general information and descriptions. Other than Philadelphia, the clippings report weather in places such as Boston, Buffalo, New York City, and the United Kingdom, among others.

Removed from the volumes were loose items, mostly news clippings that discussed the weather in many different cities such as Augusta; Cleveland; Leyden, New York; Prince Anne, Maryland; Kansas City; and in New England. In Box 1 Folder 1 is an undated document entitled "Directions for a Meteorological Journal" by William C. Redfield. There are two letters in Box 1 Folder 3 from Thomas Busdel, who was also interested in meteorological phenomena, addressed to John H. Redfield at a New York state address. Enclosed with the first of these are notes on a hurricane that took place in the Bahamas in October of 1867. In Box 1 Folder 8 there is a pamphlet entitled *Draper's Self-Recording Thermometer*. The last folder has a photograph of a group of unidentified men and one woman seated in a horse driven wagon. There is also one flat file in the collection, which contains *The Colonial Standard Jamaica Despatch* from August 24, 1880.

Separation report

None.

Related materials

At other repositories:

Meteorological Manuscripts Collection. Manuscripts and Archives, Yale University Library.

Bibliography

Ludlum, D. M. *Early American Hurricanes 1492-1870*. Boston: American Meteorological Society, 1963.

Olmsted, D. *Address on the Scientific Life and Labors of William C. Redfield, A.M.* [book on-line] (New Haven: E. Hayes, 1857, accessed May 2009); available from <http://quod.lib.umich.edu/>; Internet.

Redfield, J. H. *Genealogical History of the Redfield Family in the United States*. Albany: Munsell & Rowland / New York: C. B. Richardson, No. 14 Bible House, 1860.

M., T. 1895. Untitled Obituary. *The American Journal of Science* XLIX: 485.

Subjects

Meteorology – Pennsylvania – Philadelphia

Natural history – America – History – 19th century

Redfield, John Howard, 1815-1895

Redfield, W. C. (William C.), 1789-1857

Academy of Natural Sciences of Philadelphia

United States. Weather Bureau

Administrative Information

Restrictions

The collection is open for research.

Acquisition information

Purchased, 2008

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Cite as: [Indicate cited item or series here], John H. Redfield meteorological observations (Collection 3116), The Historical Society of Pennsylvania.

Box and folder listing

Box or volume number	Brief description	Approximate date range
Vol. 1	Meteorological Journal I	1862 – 1865
Vol. 2	Meteorological Journal II	1866 – 1869
Vol. 3	Meteorological Journal III	1870 – 1873
Vol. 4	Meteorological Journal IV	1874 – 1877
Vol. 5	Meteorological Journal V	1878 – 1881
Vol. 6	Meteorological Journal VI	1882 – 1885
Vol. 7	Meteorological Journal VII	1886 – 1889
Vol. 8	Meteorological Journal VIII	1890 – 1894
Box 1	<i>Directions for a meteorological journal</i>	n.d.
Box 1	Items removed from volumes	1863 – 1894
FF1	<i>The Colonial Standard and Jamaica Despatch</i>	1880