

Benjamin Rittenhouse (1740-1825)

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Although David Rittenhouse is widely recognized as one of the foremost men of science and the leading astronomer in the British Colonies in North America, relatively little is known about his younger brother Benjamin, although he was a prolific maker of clocks and surveying instruments.

Benjamin was born in Norriton Township of Montgomery County, Pennsylvania, a son of Matthias and Elizabeth (Williams) Rittenhouse, on the farm that his father had purchased a decade earlier. He worked on the farm until he had reached maturity. It is not known where or from whom he and his brother David learned the craft of clockmaking, but it is believed they may have been taught by an uncle, the metalworker and clockmaker Jacob Gorgas of Ephrata, Pennsylvania.

In 1764 or 1765 Benjamin moved with his parents to Gorgas' farm in Worcester Township and on December 26, 1770, at the age of 30, he married Elizabeth Bull, daughter of General John Bull of Providence Township. He brought his bride to his father's farm, where they made their home for the next six years, and became the parents of several sons. Working from his home on the farm in Worcester Township, Benjamin established himself as a clockmaker and maker of mathematical instruments, chiefly for surveying. During this period he also was employed as superintendent of most of the land surveys undertaken in the vicinity of Norriton.

Gun Lock Manufactory Superintendent

Early in 1776 Benjamin was chosen captain of a militia company of Norriton Township under the regulations of the Association of Inhabitants. In February of that year the Committee of Safety appointed him superintendent of the state's gun lock manufactory established in Philadelphia. Accordingly, Benjamin was required to move to Philadelphia, where his brother David had already established himself a few years earlier, and remained in charge of the manufactory until it was

abandoned in late 1778.

In 1779 Benjamin petitioned the State Council of Safety for the return of his own tools, which he had originally turned over to the manufactory for the price of £25, and which he now asked to purchase back for the same price. Benjamin subsequently served with General Washington's forces at the Battle of Brandywine, where he was wounded and taken prisoner.



Plain surveying compass made by Benjamin Rittenhouse. Courtesy of the National Museum of American History, Smithsonian Institution.

It was during the next decade that Benjamin appears to have become associated with his brother David in surveying and in the production of clocks and mathematical instruments. Some evidence of this is derived from an advertisement that appeared in the *Pennsylvania Packet* for May 14, 1785 after he had returned to Worcester Township:

"WANTED. An ingenious Lad not exceeding 14 years of age, of a reputable family, as an Apprentice to learn the Art and Mystery of making Clocks and Surveying Instruments. Any lad inclined to go an apprentice to the above Trade, the terms on which he will be taken may [be] known by enquiring of Mr. David Rittenhouse, of Philadelphia, or at the subscriber's house in Worcester township, Montgomery county. Benjamin Rittenhouse."

Further evidence occurs in the first biography of David Rittenhouse, written by his cousin William Barton, in which it is stated:

"Besides his [David's] astronomical pursuits, his early employment in ascertaining the limits and fixing the territorial boundaries of Pennsylvania and of some of the neighboring States obliged him to supply himself with chronometers of the greatest accuracy and these were either made by his own hands, or under his immediate inspection by his brother [Benjamin], who, with the aid of his instruction, became an excellent mechanic. One of these fine instruments, bearing on its face the name of *Benjamin Rittenhouse* as the maker, and the date of the year 1786, is now [in 1813] in the possession of Mr. Norton Prior, of Philadelphia."

Surveying the Schuylkill

In 1789 Benjamin was commissioned to make a survey of the Schuylkill River, and in 1791 Governor Thomas Mifflin appointed him an associate judge of the Court of Common Pleas in and for Montgomery County. The period of his appointment was not limited but was specified to run for "... so long as you shall behave yourself well." His first wife having died some years earlier, in 1793 Benjamin married for the second time, to Frances Wade, daughter of

Colonel Francis Wade of Providence, Montgomery County, and subsequently they were parents of two sons and two daughters.

In 1796, Benjamin was commissioned by a Congressional "Act providing for the Sale of the Lands of the United States, in the Territory north-west of the River Ohio, and above the Mouth of the Kentucky River" to make a surveyor's chain to serve as the standard for the U. S. Land Office. It specified that "All lines shall be plainly marked upon trees, and measured with chains, containing two perches of sixteen feet and one half each, subdivided into twenty-five equal links, and the chain shall be adjusted to a standard to be kept [at the Land Office in Washington, D. C.] for that purpose." It was made of brass, probably with 100 links in 66 feet, although some sources stated it was of 80 links in 66 feet. Benjamin produced the chain within a short time, for it

had been sent to the Surveyor General, Rufus Putnam, by the following May.

In 1797, Benjamin was appointed to a commission charged with the construction of an arched stone bridge over Perkioming Creek in Montgomery County, a project that was completed in 1799. At the time of the British occupation of Philadelphia, he had moved with his family to his father's farm in Worcester, where they remained until 1800. In 1801, he declared bankruptcy and he terminated his shop in Worcester. Five or six years later he returned to Philadelphia.

Benjamin Rittenhouse lived to the age of 84, and even shortly before his death a grandson commented "... he could walk six miles before breakfast and enjoyed the use of his faculties to a remarkable degree."

Rittenhouse died on August 31, 1825 and his funeral was held September 1 in his home at No 24 North Ninth Street, Philadelphia.

In addition to numerous clocks, many highly prized surveying instruments signed by Benjamin Rittenhouse have survived, the dials of which generally are distinguished by



Brass plotting scale made by Benjamin Rittenhouse. Courtesy of the National Museum of American History, Smithsonian Institution.

exquisite decorative engraving achieved with superb skill. Several are marked with the dates 1787 and 1790. His signature engraved on his instruments varied considerably. Some were signed "B. Rittenhouse," others "Benj. Rittenhouse" as well as "B. Rittenhouse Penn-

sylvania." Other versions are "Benjamin Rittenhouse Fecit Anno 1790" and "Made by Benjamin Rittenhouse Phil." and date. ■

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