

## THE WORCESTER WORKSHOP OF BENJAMIN RITTENHOUSE

Bruce R. Forman

When discussing early American scientific instruments the name most likely to surface is that of David Rittenhouse (1732-1796). Yet, although this Rittenhouse made numerous clocks and two wonderful orreries, only a few surveying instruments by him are known. David's younger brother Benjamin (1740-1825) was far more prolific. In addition to clocks and the several dozen surveyor's compasses made by him which have survived there are several compasses with complex signatures, the meaning of which has puzzled such historians as Charles Smart and Silvio Bedini.<sup>1</sup> Recent research in archival records proves that these compasses were made in Benjamin Rittenhouse's workshop in Worcester Township in Montgomery County, Pennsylvania, and they date from the period 1796-1801.<sup>2</sup>

David and Benjamin Rittenhouse grew up on a farm in Norriton Township, Pennsylvania, a few miles north-west of Philadelphia. David moved to Philadelphia around 1770.<sup>3</sup> Benjamin, who had moved to a 40 acre farm in nearby Worcester Township a few years earlier,<sup>4</sup> fought in the revolutionary war and supervised the government gunlock factory in Philadelphia. The establishment of the Federal Land Ordinance in 1785 created a new demand for surveyor's compasses, particularly those with a vernier mechanism, and Benjamin Rittenhouse responded to this challenge. Returning to Worcester Township, he advertised in 1785 for "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."<sup>5</sup>

The first of Benjamin Rittenhouse's partners about whom we have any information was William Lukens Potts (1771-1854).<sup>6</sup> In 1796, when he first appears in Worcester tax records, Potts was a skilled journeyman clockmaker aged 25. He remained with Rittenhouse for two years, during which time they produced several compasses signed "Rittenhouse & Potts."<sup>7</sup> Potts later worked in New Jersey and in Bucks County, Pa. In 1800 he advertised "surveying instruments of all kinds, and Rittenhouse's Circumferentors, with each a nunes and spirit level compleat - made and sold by Wm. L. POTTS, Pitts Towñ, New-Jersey, and by Robert Barnhill... Philadelphia."<sup>8</sup> (Barnhill, a Philadelphia storekeeper, was Potts' brother-in-law.) In 1817 Potts became an iron merchant in Philadelphia.

Potts' vacancy at the Rittenhouse shop was quickly filled by Benjamin Evans (1776-1836), and compasses signed "Rittenhouse & Evans" were soon forthcoming. Benjamin Evans was a nephew of Benjamin Rittenhouse--the son of his sister Eleanor and Daniel Evans, a Philadelphia blacksmith.<sup>9</sup> The Evans family relocated to David Rittenhouse's farm at Norriton in late 1791 or early 1792.<sup>10</sup>

~~probably to enable their 14 year old son to apprentice under his uncle in nearby Worcester Township.~~

David Rittenhouse appears in the Worcester Township records in 1800, four years after the death of the famous man of this name. The younger David Rittenhouse seems to have been a son of Benjamin's, and he was probably brought up into the business. It is possible that father and son traded as "Rittenhouse & Comp<sup>y</sup>" and produced the vernier compass which is now in the museum at New Salem, Ill., and reputed to have been used by Abraham Lincoln.<sup>11</sup>

Benjamin Rittenhouse went bankrupt in 1801 and disbanded his Worcester workshop.<sup>12</sup> According to city directories, he moved to Philadelphia around 1807. While in Worcester he trained many artisans who supplied the tools of America's westward expansion.

1. Charles E. Smart, *The Makers of Surveying Instruments in America, Since 1700* (Troy, N.Y., 1962). Silvio A. Bedini, *Early American Scientific Instruments and Their Makers* (Washington, D.C., 1964).

2. These records were called to my attention by Judith Meier, Assistant Librarian at The Historical Society of Montgomery County, Pennsylvania.

3. Original tax records are incomplete for most years, but often they contain useful information. According to the *Norriton Township Tax Records* David Rittenhouse had 100 acres of land and one slave in 1769, and according to the *North Ward Tax Records* he was a clockmaker in Philadelphia in 1773.

4. William Barton, *Memoirs of David Rittenhouse LLD. FRS* (Philadelphia, 1813), pp. 116-7, suggests that Benjamin moved ca. 1764. It is more likely that he moved just prior to David's marriage in 1766.

5. *The Pennsylvania Packet*, May 14, 1785, quoted in Bedini, *op. cit.*, p. 15.

6. Thomas Maxwell Potts, *The Potts Family in Great Britain and America* (Canonsburg, Pa., 1901), p. 474.

7. Charles E. Smart, *op. cit.*, pp. 129, 143 & 236.

8. *Claypoole's American Daily Advertiser* (Jan. 17, 1800, and later).

9. Daniel K. Cassel, *Origin and History of the Rittenhouse Family* (Philadelphia, 1893), p. 213, and *The Family of Matthias Rittenhouse* (Norristown, 1897), pp. 14-5.

10. *Norriton Township Tax Records*.

11. Smart, *op. cit.*, vol. 2, p. 237.

12. *Montgomery County Deed Books*, Shff B, pp. 124, 126, and Judith Meier, ed., "Index to Montgomery County Newspapers" at Historical Society of Montgomery County, Pennsylvania.