

The Tower Clocks of John Eberman, Jr.

By C.L. Woodbridge, Ph.D. and Stacy B. C. Wood, Jr.

Of the more than one-hundred and twenty-five known clock and watchmakers who worked in Lancaster County, Pennsylvania between 1750 and 1850, only one is known to have made tower clock movements.¹ The maker was John Eberman, Jr. (1749-1835), who maintained his shop in Lancaster Borough (now city) from 1772 until at least 1807.

The Clockmaker

John Eberman, Jr., was born in Lancaster Borough in 1749. He was a son of John Eberman, Sr. (1722-1805), who had emigrated as a child in 1732 with his parents and sister from Schwaigern, near Heilbronn, in what is now the state of Baden-Wurtemberg in the Federal Republic of Germany. John Eberman, Sr., had located in Lancaster Borough by 1743 and worked as a blacksmith through 1773 and then as a soap boiler/tallow chandler until his death. There is no evidence that John, Sr., used his smithy abilities to make tower clocks. He did, however, leave a legacy of eight clock and watchmakers: sons John and Gottlieb, grandsons Jacob, Joseph and William, and greatgrandsons George David, Henry Frank, and Charles Frederick, all with the surname Eberman.²

John, Jr., is believed to have been apprenticed to the county's first clockmaker, Rudy Stoner (1728-1769), and perhaps journeyman to George Hoff, Sr. (1733-1816). He was master to Martin Shreiner, Sr., during the latter's apprenticeship. Eberman's clock production consisted primarily of 30-hour and 8-day time and strike tall case movements constructed in the English tradition.³ Two examples are reported to carry the serial numbers 416 and 461 on their respective dials. The inventory taken of his estate at the time of his death lists a "chiming

8-day clock with case." The will of a grandson mentions a "high case musical clock made by my grandfather John Eberman, deceased." Since neither the appraisers of the estate nor the grandson were clock or watchmakers, and realizing that the general public does not generally know the difference between chiming and musical clocks, it is possible that the two clocks are one and the same. A rumor has circulated that some form of shelf clock exists which bears his name. Since both George Hoff and his son John are known to have made spring powered bracket clocks, this rumor may someday turn out to be fact. There are at least three examples of tower clocks extant that were made by Eberman.

Public Time for Lancaster

In 1772, Eberman received his first pay for servicing the county's courthouse clock. He was to continue this responsibility for more than half a century (until 1824). It is possible that this movement was manufactured by the previously mentioned Rudy Stoner. On the 9th of July in 1784 a disaster took place that might well have cost Eberman his reputation. While he was in the process of placing the driving weights of the clock in new wooden channels, a fire broke out that destroyed the building where it stood in Center Square, today the site of the Civil War monument. Three possible causes of the fire were put forth: combustion resulting from slaked lime stored in the building by plasterer Caleb Cope (the father of clockmaker John Cope); the work of an arsonist; or the carelessness of clockmaker John Eberman, Jr. The origin of the fire was never determined, and Eberman, at age 36, was commissioned the following year to make a new clock to be installed in the new courthouse for which he received the sum of £550 (approximately one-tenth of the total cost of the new building).

The new courthouse (figure 1) was constructed on the site of the previous one and is said to have greatly resembled the first building. This building was to serve as the home of the Pennsylvania legislature from 1799 until 1812, the period when Lancaster Borough served as the capital of the Commonwealth of Pennsylvania. When the building was pulled down in 1853, during erection of a larger courthouse on the northwest corner of Duke and East King streets, the Eberman clock was moved to the new building and installed with a new bell. The venerable clock, replaced by a Seth Thomas movement in 1898, is now located in the Heritage Center of Lancaster County on Lancaster's Center Square.⁴

The Lancaster Eberman tower clock 8-day movement (figure 2) has an iron frame, time and hour strike trains, utilizes a count wheel, and had a deadbeat escapement that was replaced with the present pinwheel, possibly by son Joseph (1785-1860), whose name appears on the dials of a number of 8-day tall case movements with pinwheel escapements. Dimensions of the clock

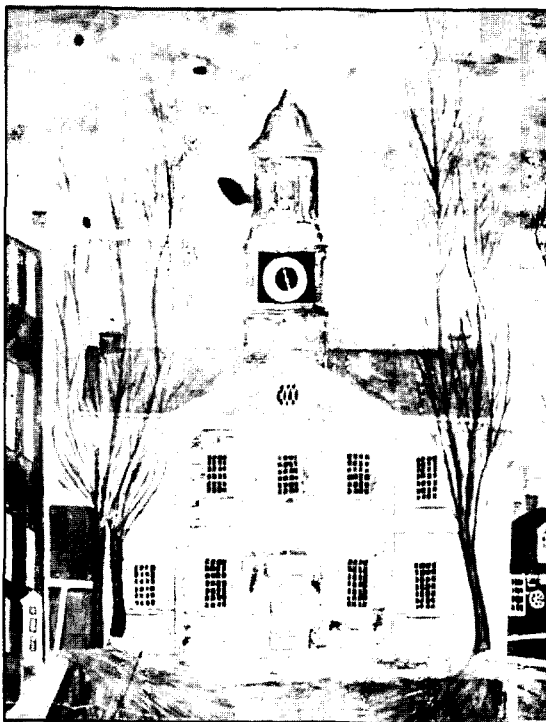


Fig. 1. Camera obscura view of Lancaster's second courthouse which housed the John Eberman, Jr., tower clock movement.

frame are: 46" wide, 53" high and 19" deep. It has been rebuilt at least twice: in 1854 by John Eberman's son Joseph, and in 1878 by Godfried M. Zahm (1817-1895). It is said that Jacob, another son of John, Jr., had his clockmaking career come to an abrupt end around 1796 when he lost a hand while helping his father replace the clock's hands. The train count is shown in Tables 1 and 2 (See Appendix).

A Clock For Nazareth

In 1791 Eberman was asked by the Moravian congregation at Nazareth, Northampton County, Pennsylvania, to provide an estimate for a tower clock movement.⁵ Whatever the estimate, when presented to the Overseer Committee in April, 1792, and considered along with the deficit engendered over a new £80 fire engine and the greater need for a new organ, the clock project was postponed indefinitely.⁶

By October, 1798, the congregation had obtained their organ and fire engine and was now able to order a clock with quarter- and hour-striking, with one

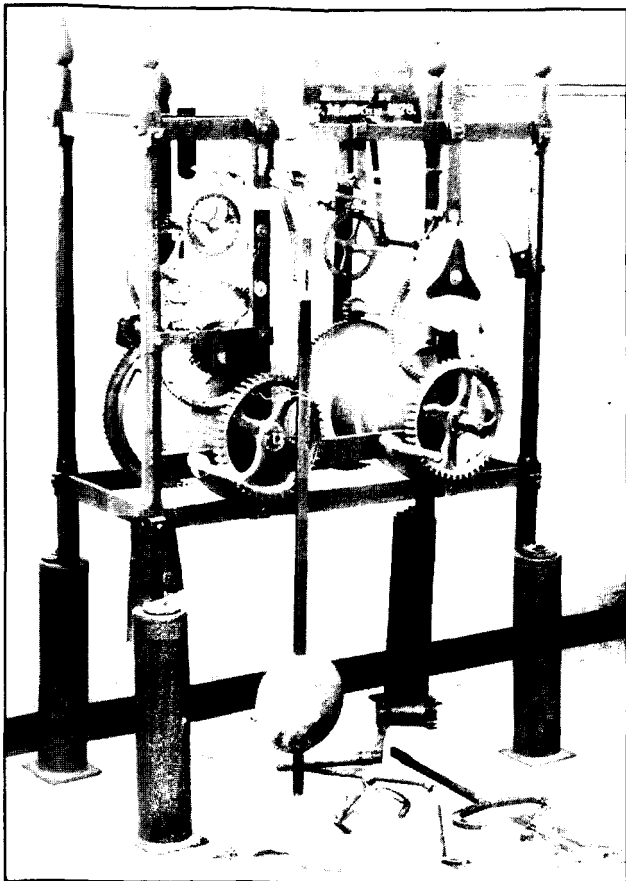


Fig. 2. John Eberman, Jr.'s Lancaster County courthouse clock movement as rebuilt in 1878. The original (1784) pallet arbor and pendulum are shown on the floor.

dial and an hour hand. Eberman had offered to provide the clock with a single dial and with hour and minute hands for £170, but the Overseer Committee of the congregation opted for the £20 savings.⁷ Remembering that thirteen years earlier the two-train, eight-day Lancaster movement had cost £550, it would appear that Eberman (who was a practicing Moravian) had given the church a substantial discount. The materials for the movement had cost Eberman £58, £8 more than he had estimated, so he asked the brethren for the additional money, and promised to pay half the freight cost as well as his transportation back to Lancaster after installing it, as long as he was given free lodging and board.⁸ The three-train, 30-hour movement (figure 3) has an iron frame similar to the Lancaster courthouse clock, utilizes countwheels, and has an anchor

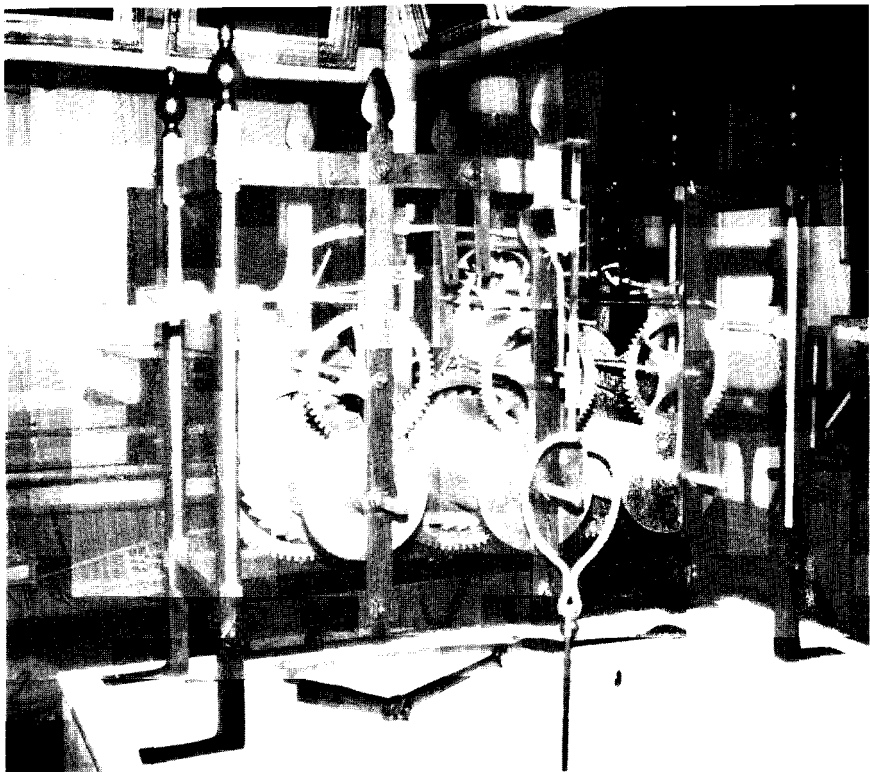


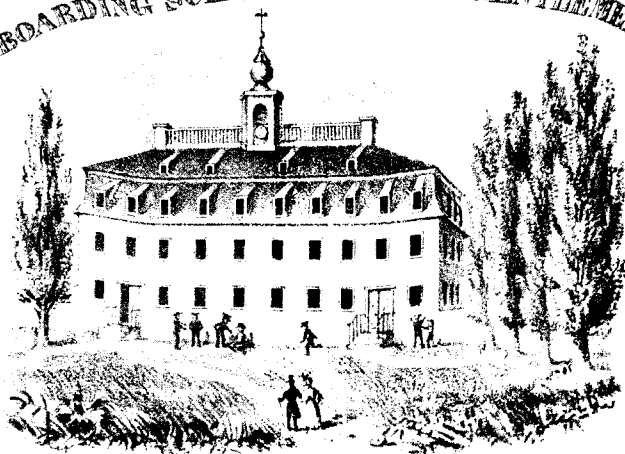
Fig. 3. Eberman's 1799 Nazareth, PA, 30-hour, three train movement.

escapement. Frame dimensions are 39" wide, 42" high and 14" deep. Train counts are shown in Tables 1, 2, and 3 (See Appendix).

The clock arrived in Nazareth in November of the following year and was in operation by December 7th.⁹ Eberman was 50 years old. It was installed in the belfry of the Manor House (figure 4) which had been erected in 1755-1756 as the prospective home for Count Ludwig von Zinzendorf of Saxony, the patron of the Moravian Church, who, however, never occupied it as a residence. The belfry was erected in 1785. The Saal, or meeting hall, in the Manor House, was the second place of worship in Nazareth for the small congregation. The House subsequently became a boarding school for boys, and is now an apartment house.

In 1840, a new church (figure 5) was built by the growing congregation on another corner of the same square on which the Manor House is located, and the clock was moved to its tower by Bethlehem clockmaker Jediah Weiss (1795-1873), who added a minute hand and appropriate motion work "to furnish a running mate to the lonely old hour hand."¹⁰

BOARDING SCHOOL for YOUNG GENTLEMEN



AT NAZARETH HALL, PENN^A

Fig. 4. The Manor House in Nazareth, PA, first site of the Eberman tower clock, subsequently the Nazareth Academy.



Fig. 5. One side of a stereopticon view of the 1840

In 1860, the present Moravian Church was erected on the circle, and the clock was again moved. This time, four dials, each having two hands, were installed by Joseph Beitel (1811-1898).¹¹ Three sets of hands are alike. Perhaps the other set includes the original hour hand. All hands are brass.

The clock continued to indicate the time to the four quarters of the compass until the 1920s, when it was replaced by a Seth Thomas quarter- and hour-striking movement, which is still wound weekly by hand. The Eberman movement has been conserved by co-author Woodbridge and is now on display at the Moravian Historical Society Museum, in the Whitfield House in Nazareth.

Joseph Beitel was already acquainted with the Eberman clock because he was a resident of Nazareth. In April, 1825, at age 14, he had become an apprentice of Jedediah Weiss, and three months later the entry in his day book for July 20, 1825, states "Mr. Weiss and I went to Nazareth to clean the tower clock. Mr. Weiss rode up with Mr. Haus. I walked [authors' note: about ten miles]. The next day Mr. Weiss, my father and myself went early in the morning on the job we alluded [*sic*]; it being cleaned around dinner time, the rest we finished in the afternoon. Mr. Weiss going home the same day permitted me to stay."¹²

A Clock for Lititz

It is said that an Eberman tower clock was installed in the 1787 Lititz, PA, Moravian Church in 1801 when Eberman was 52, and was destroyed by fire when the church burned in 1957; that this clock originally had one dial with hour and minute hands, and ran for 30 hours with one winding. Only the pendulum rod, which is engraved that it was rebuilt by G. M. Zahm in 1867, and a few other pieces survive. Further research needs to be done on this clock.

A Clock for Harmony

Harmony, PA, was founded in 1804 by a group of German Pietists led by George Rapp. A church was one of the first buildings erected, about 1808. In 1815 the group sold Harmony to Abraham Zeigler, a Mennonite from Lehigh County, for \$100,000, and established New Harmony on the Wabash River in Indiana. In 1825 they returned to Pennsylvania and settled at Economy, on the Ohio River. The Society dissolved in 1905.

The brick church (figure 6) was 75 x 45 feet "and strongly built. . . . The upper story . . . is supported by eight strong pillars, and is a granary large enough to contain several thousand bushels of grain."¹³ The belfry and two dials, each with one hand, are also shown in the figure.

Frederick Rapp was the adopted son of, and financial assistant to, George Rapp. In a letter to Frederick, dated July 16, 1810, John Eberman, then 61 years of age, states, "I received your letter and see from it that you would

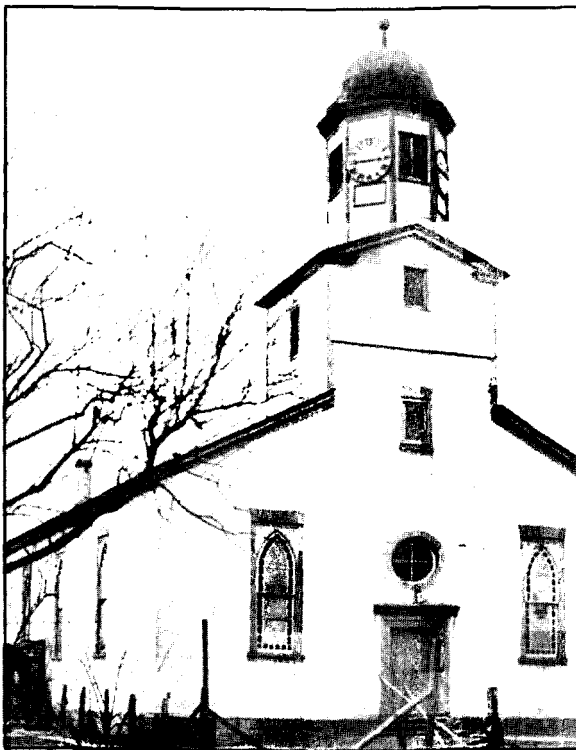


Fig. 6. Tower of church in Harmony, PA, showing two dials of the tower clock.

like to have a clock and a bell made by me. . . . Materials are very expensive at this time. . . . Concerning the dials of the clock, it is not enough that they are just at the spot where the bell will be hung, because the rods which drive the clock hands must be right in the middle, for the bell would be in the way because of the ringing. . . . In general, I will make you a good clock, and as far as the price is concerned, I cannot well give you a statement, but I will deal with you in a brotherly manner, but one thing is to be considered that if at your expense, my son and I, are to put up the clock at your place, purely from the point of view of time, the clock could not be made earlier than Spring, for it takes my son and me from five to six months until everything is finished."¹⁴ The letter is signed John Eberman, Sr., but John Jr.'s father John Sr., died in 1805, so our John Jr., who also had a non-clockmaking son John (1776-1846), must have written the letter.

The bell arrived May 17, 1811.¹⁵

On August 30, 1811, in another letter to Frederick Rapp, Eberman asks if they would "pay his son's expenses to install the clock at Harmony because everything cannot be sketched, and he is worried about proper mounting of the hands."¹⁶

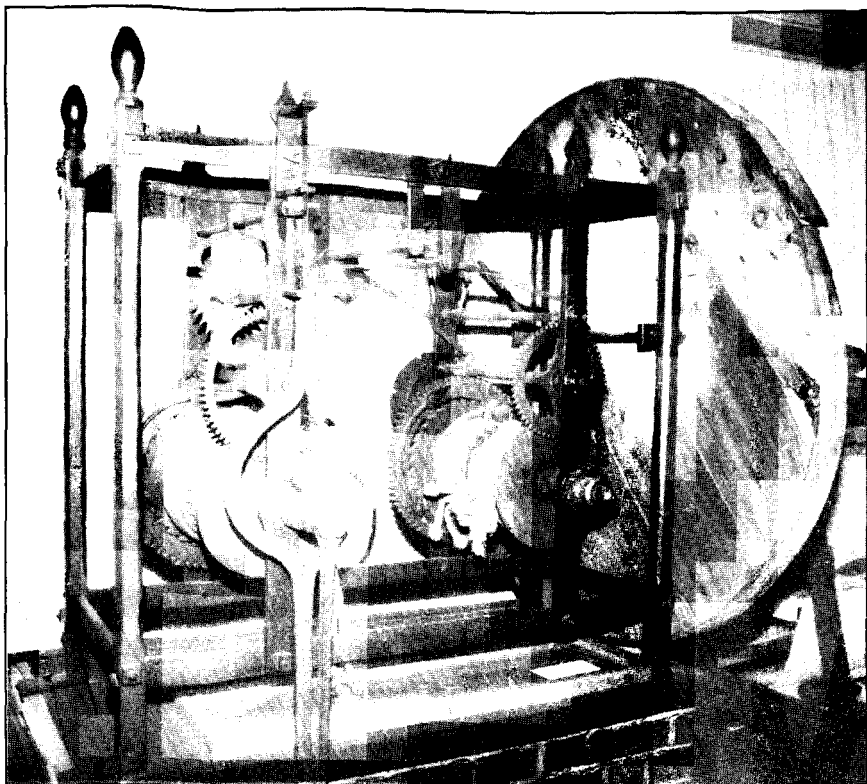


Fig. 7. Eberman's 1811 Harmony clock movement.

The 30-hour, two-train movement (figure 7) has an iron frame similar to the other two surviving clocks, utilizes a count wheel for the hour strike, and has an anchor escapement and a number of features similar to those of the documented movements described in this paper. Its dimensions are 43" wide, 44" high and 18" deep. Train counts are shown in Tables 1 and 2. The short article in the *National Association of Watch and Clock Collectors (NAWCC) Bulletin*, Vol. III, p. 497, includes a picture of the church steeple which shows two dials, but the text is no longer considered correct. The "church steeple" is actually the steeple on the school, to which the clock was moved later.

The Lancaster movement is the largest and heaviest; its corner posts, for example, are $1\frac{5}{8}$ inches square. The Nazareth movement is the lightest; its corner posts are $1\frac{1}{4}$ inches square, and it weighs 310 pounds, including the pendulum bob, which weighs $22\frac{1}{2}$ pounds.

Did John Eberman make the iron frames for the movements—over a 27 year period—or did he provide the design for each to a local blacksmith?

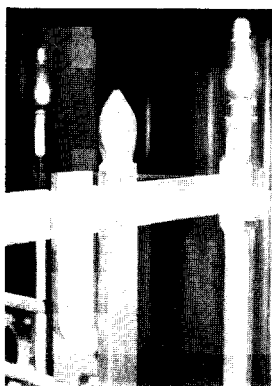


Fig. 8. Lancaster

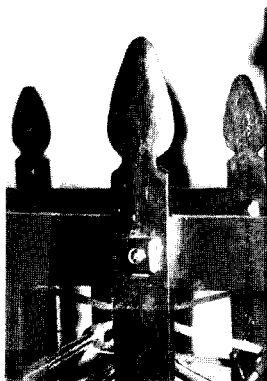


Fig. 9. Nazareth



Fig. 10. Harmony

SPEARHEAD-SHAPED VERTICAL STRAP FINIALS

Seven similar features of the three movements are listed in Table 4 in the Appendix. These similarities are indicated by a "Y," for "Yes" in Table 4. It seems clear that all three movements were made by the same person.

1. On all three, spearhead-shaped, but not identical, finials top the wrought-iron vertical straps. See Figures 8, 9, and 10.
2. For all three movements, all four corners of each post are chamfered, except where the horizontal frame members join the posts. See Figures 2, 3, and 7.
3. For all three movements, the nuts which attach front and back horizontal frame members to the corner posts are above the nuts which attach the side members to the posts. See Figures 2, 3, and 7.
4. On the Nazareth and Harmony movements, the feet are wedge-shaped. See Figures 11 and 12.

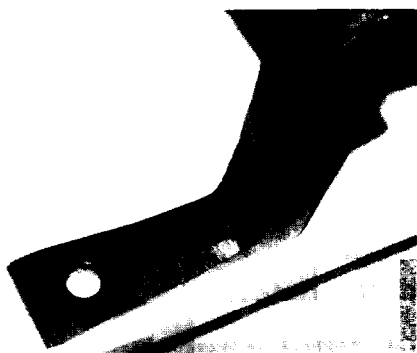


Fig. 11. Nazareth

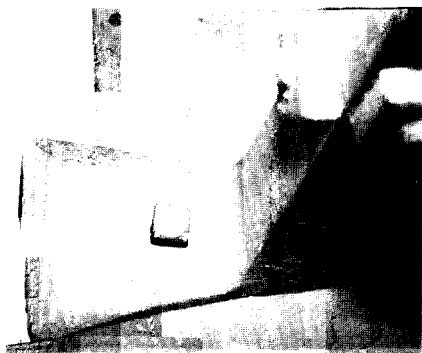


Fig. 12. Harmony

WEDGE-SHAPED MOVEMENT FEET



Fig. 13. Lancaster

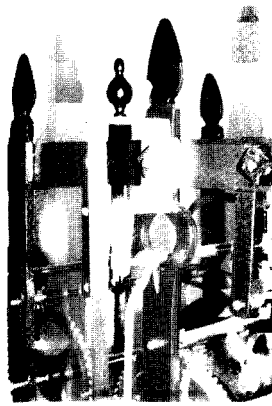


Fig. 14. Nazareth



Fig. 15. Harmony

PALLET ARBOR HOLES AND PENDULUM SUSPENSION BRACKETS

5. For all three movements, the anchor arbor passes through a hole in one of the vertical straps (no longer used on the rebuilt Lancaster movement). See Figures 13, 14, and 15.
6. Similar pendulum suspension brackets are used for the Nazareth and Harmony movements. See Figures 14 and 15.
7. For all three movements, the shape and arrangement of the short straps holding the ends of the strike lever arbors are similar. See Figures 16, 17, and 18.

The Unknown and Acknowledgments

With the thought that Eberman may have made additional tower clock movements for other Moravian churches, pastors in North Carolina, New York, Ohio, and Maryland were contacted, but no examples were uncovered. If readers have knowledge of yet other examples known to have been made by John Eberman, Jr., or examples that resemble those described in this article, the authors would appreciate information about them and they may be contacted care of the editor.

The authors wish to thank Dr. Frank P. Albright of Winston-Salem, NC; Mr. Alton A. DuBois, Jr., president of the NAWCC tower clock chapter; Mrs. Susan Dreydopple, Executive Director of the Moravian Historical Society, Nazareth, PA; Helen Eckstein and Ruth Werner, Harmony, PA; Dr. Byron Horne, Lititz, PA; and Ms. Susan Messimer, Associate Curator/Registrar of the Heritage Center of Lancaster County, Inc., Lancaster, PA for their assistance; Bruce G. Shoemaker, who initially suggested that the Harmony movement might be by Eberman; and NAWCC Museum Conservator John D. Metcalfe, CMBHI, who brought the authors together on this article once he had discovered that they both were pursuing the same subject independently.

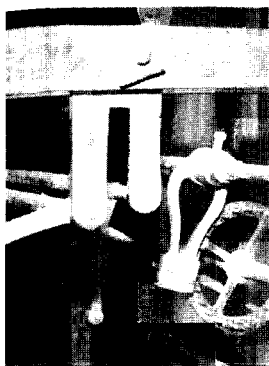


Fig. 16. Lancaster



Fig. 17. Nazareth

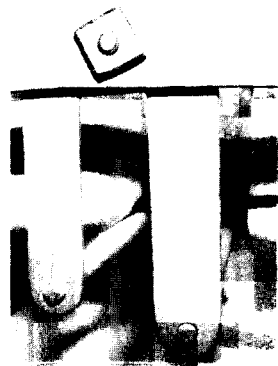


Fig. 18. Harmony

PAIRS OF ARMS WHICH SUPPORT THE STRIKE LEVER ARBORS

Endnotes

1. Frederick Heisely (1759-1839), a son-in-law of Lancaster's George Hoff, Sr., worked in Lancaster Borough from 1796 through 1798. Although he made at least one tower clock movement when he was located in Frederick, Maryland, no examples are attributed to him during his Lancaster residence. The Maryland example is in the collection of the National Museum of American History in Washington, DC.

2. The story of the Eberman family and their clocks by Stacy B. C. Wood, Jr., titled "A John Eberman Legacy: Eight Lancaster, Pennsylvania Clockmakers," was published in the *Journal of the Lancaster County Historical Society* (Vol. 91, No. 3, Trinity 1987/88). It is the third in a series about clockmaking families of that borough/city.

3. A full description of both English and German tradition movements appears in *Clockmakers of Lancaster County and Their Clocks 1750-1850* by Stacy B. C. Wood, Jr. and Stephen E. Kramer, III (New York: Van Nostrand Reinhold Co., 1977).

4. The movement was displayed, running, in the first NAWCC Museum exhibition, "225 Years of Timepieces: A Lancaster County Legacy," May 1 - Oct. 31, 1979, and is included in the exhibition catalog.

5. *Two Centuries of Nazareth 1740-1940* by various contributors (Nazareth, Penna.: Nazareth, Penna. Bicentennial, Inc., 1940) p. 89.

6. *Two Centuries*, p. 89.

7. *Minutes of the Over-Seer Committee of the Congregation of Nazareth* (translated from the German), May 30, 1798.

8. *Minutes of the Over-Seer Committee*, Dec. 11, 1799.

9. *Diary of Nazareth* (translated from the German) Dec. 6, 1799.

10. *Some Notes of Interest about Nazareth Hall Building*, by William H. Vogler, Feb. 10, 1925.

11. *Some Notes*

12. *Pennsylvania Clocks and Watches*, James W. Gibbs University Park and London: The Pennsylvania University Press, pp. 184-185 and also in the *Bulletin of the National Association of Watch and Clock Collectors, Inc.*, Vol. XVI, pp. 315-316.

13. *Harmony on Connoquenessing, 1803-1815*, Karl J. R. Arndt, Worcester, Harmony Society Press, p. 357.
14. *Ibid.* pp. 399-400.
15. *Ibid.* p. 437.
16. *Ibid.* p. 469.
17. Letter from Helen Eckstein to Woodbridge, March, 1991.

Appendix

Tooth Counts of the Eberman Tower Clocks

Arbor No.	LANCASTER		NAZARETH		HARMONY	
	Wheel	Pinion	Wheel	Pinion	Wheel	Pinion

Table 1. Time Train Teeth

1	84		72		72	
2	96	14	70	6	70	6 **
3	80	8	25 *	7	26 *	7 **
4	Unknown	8				

Table 2. Hour-Strike Train Teeth

1	84		72		72	
2	96	13	56	6	56	6
3	50	8		7		7
4		7				

Table 3. Quarter-Strike Train Teeth

1			72			
2			56	6		
3				7		

* Escape wheel

** Lantern pinion, roller pins

Table 4. Common Features of Eberman Tower Clock Movements

Features	LAN.	NAZ.	HAR.
1. Spearhead-shaped vertical strap finials	Y	Y	Y
2. Chamfers on square corner posts	Y	Y	Y
3. Attachment of horizontal frame members at posts	Y	Y	Y
4. Wedge-shaped movement feet		Y	Y
5. Pallet arbors through vertical straps	Y*	Y	Y
6. Pendulum suspension brackets		Y	Y
7. Arms which hold pivots of strike lever arbors	Y	Y	Y

"Y" indicates similarity exists

* Hole for original pallet arbor is not used now. (See Figure 2)

Photo Credits

Figures 1 & 2: Photographs by Stephen E. Kramer, III, courtesy of the Lancaster County Historical Society.

Figures 3-7, 9-12, 14, 15, 17, & 18: with thanks to the Moravian Historical Society, Nazareth; and the Harmony Museum, Harmony, for permission to photograph their Eberman tower clock movements. Figures 8, 13, & 16: "On loan to the Heritage Center of Lancaster County, courtesy of the Lancaster County Commissioners. Photographs courtesy of the Heritage Center of Lancaster County." All preceding photographs by C. L. Woodbridge.

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Stacy Wood is both a genealogist and a horologist. He was the first director and curator of the Museum of the National Association of Watch and Clock Collectors, Inc. in Columbia. He is primary author of Clockmakers of Lancaster County and Their Clocks 1750-1850, published by Van Nostrand Reinhold in 1977, co-author with James B. Whisker of Arms Makers of Lancaster County, published by Old Bedford Village Press in 1991, three articles about early Lancaster Borough/City clockmakers published in the Lancaster County Historical Society Journal in 1976, 1977, and 1989, respectively, and numerous articles in the NAWCC Bulletin.