

COLLECTORS' CORNER

The story of colonial American surveying is told largely in the instruments that survive from the time intrepid practitioners went into the wilderness to carve out our nation's early communities. Few suitable instruments were available in the colonies, and those that could be purchased were extremely expensive. The fine brass instruments made by English craftsmen had to be imported, at great loss of time and considerable expense.

Although there was a constant market for navigational instruments in American port cities, there was less demand for other mathematical instruments. Consequently makers of other mathematical instruments, including those for surveying, generally produced them to order as part-time work while engaged in other occupations. Except for a few prominent makers in such major cities as Boston, Philadelphia and New York, who also produced navigational instruments, earnings from instrument-making were not sufficient to enable a craftsman to make a living for himself and his family.

Most of the colonial instrument makers had no formal training in the art, but utilized the borrowed skills of the engraver, silversmith, pewterer and clockmaker to produce survey-

Silvio A. Bedini

ing instruments that were sufficiently practical in the field. Their products also were expensive because of the scarcity of brass, all of which had to be imported from England at considerable cost until after the first quarter of the Nineteenth Century. In New England the problem was resolved to some extent by the production of instruments fashioned out of hardwood and equipped with an engraved paper compass card originally designed for use in marine compasses.

In most instances these part-time makers produced only a small number of instruments. And most of their names are now known only from the one or two instruments that have survived and come to notice, or perhaps from advertisements describing their skills and products.

Such an instrument maker was Lewis Michael of York County, Pennsylvania. The little that we know about his career is based primarily on church and community records and newspaper advertisements, which suggest that he had been a responsible and active

citizen in his community, a man who engaged in a variety of occupations. Some confusion results from his occasional use of the name "Ludwig Michael," which may have been his baptismal name, as well as "Lewis Michael."

In the late Eighteenth Century Michael maintained a tinware shop in a building he owned on the southeast corner of Center Square in York Borough, York County. Later the building was razed and replaced by the Golden Swan Tavern, erected on the same site.

Michael's name appears also in the *Chronicle of York, Pennsylvania*, written by a York carpenter named Lewis Miller. This is a manuscript of writings and drawings produced during a period spanning the final years of the Eighteenth Century until approximately 1850. It was recently published by the York County Historical Society. In a drawing of the center of York Borough, dated 1799, Center Square is featured with its streets and individual buildings identified. At the right hand corner of the intersection of Main and George Streets, a house is drawn with a legend identifying it as the home of:

"Ludwig Michael, this A old two Story log house. Michael is ingenious in Metal work he makes compasses for Surveyors of land. Benjamin Hersch build A new house on the corner 1807 of brick."

Michael brought his activities to public notice for the first time in an advertisement that appeared in *The Pennsylvania Chronicle or The York Weekly Advertiser* in the issue for April 2, 1788, serving as a notification

TO LAND SURVEYORS And Others. THAT the subscriber has set up his trade in Yorktown, the South-side of High-street, two doors above the Court-house, where he makes and repairs all kinds of compasses, with or without a nonius to lay off the variation on an old line to five minutes of a degree, he will (if required) put on an outbox so that the sur-

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Figure 1. Brass surveying compass signed "LEWIS MICHAEL FECIT." Circa 1830-

1840. Courtesy of Gary Kirk, Eugene, Oregon.

Photo: Wayne Eastburn

Silvio A. Bedini is an historian with the Smithsonian Institution in Washington, and a contributing editor of *Professional Surveyor*. Questions and comments related to *Collectors' Corner* should be addressed in care of the magazine, Suite 410, 918 F Street NW, Washington DC 20004.

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veyor can keep his own outs in the field, and in such a manner that if he chooses to keep it secret none can tell its use. He makes parallel rules, scales, protractors, surveyors chains, clocks, etc., etc. he will warrant all his work to stand the most critical examination that possibly any practical surveyor or mathematician can put them to, and perform to the greatest nicety, and minute accuracy. He has some compasses ready made all which he will warrant, and dispose of on the most reasonable terms.

LEWIS MICHAEL,
Instrument maker.

I have proven by several severe trials the compasses above mentioned and find each of them stand proof to the greatest exactness, both with respect to the correctness of the workmanship and being free from mineral attraction.

JOHN FORSYTH, Dep. Sur.
March 12, 1788.

Ten land deeds filed in New York County court relating to Lewis Michael provide an interesting record of his changing occupations. A deed filed April 18, 1791 lists Michael as "clockmaker," as does another of April 23, 1791, which also mentions his wife Elizabeth. A deed filed five days later on April 28, 1791 describes Michael as an "instrument maker." Another, of June 7, 1793, does not mention an occupation. Two deeds filed June 8, 1796 identify Michael as a "merchant" in York Borough as does another of July 13, 1796, but now living in Hanover Borough, York County. One deed dated July 21, 1800 lists Michael as a merchant in Hanover, and another filed the same day specifies that he is a merchant in Baltimore, Maryland.

A curiosity in this file is the earliest of the land deeds, recorded July 31, 1790, in which Elizabeth Michael is identified as "widow of Lewis Michael, clockmaker, of York County." Yet Michael continued actively in business for almost a half century more.

Finally, a baptismal record of St. Matthew's Evangelical Lutheran Church in Hanover, York County, records the birth of John Ludwig Michael, a son of Ludwig and Elizabeth Michael, on December 23, 1796 and his

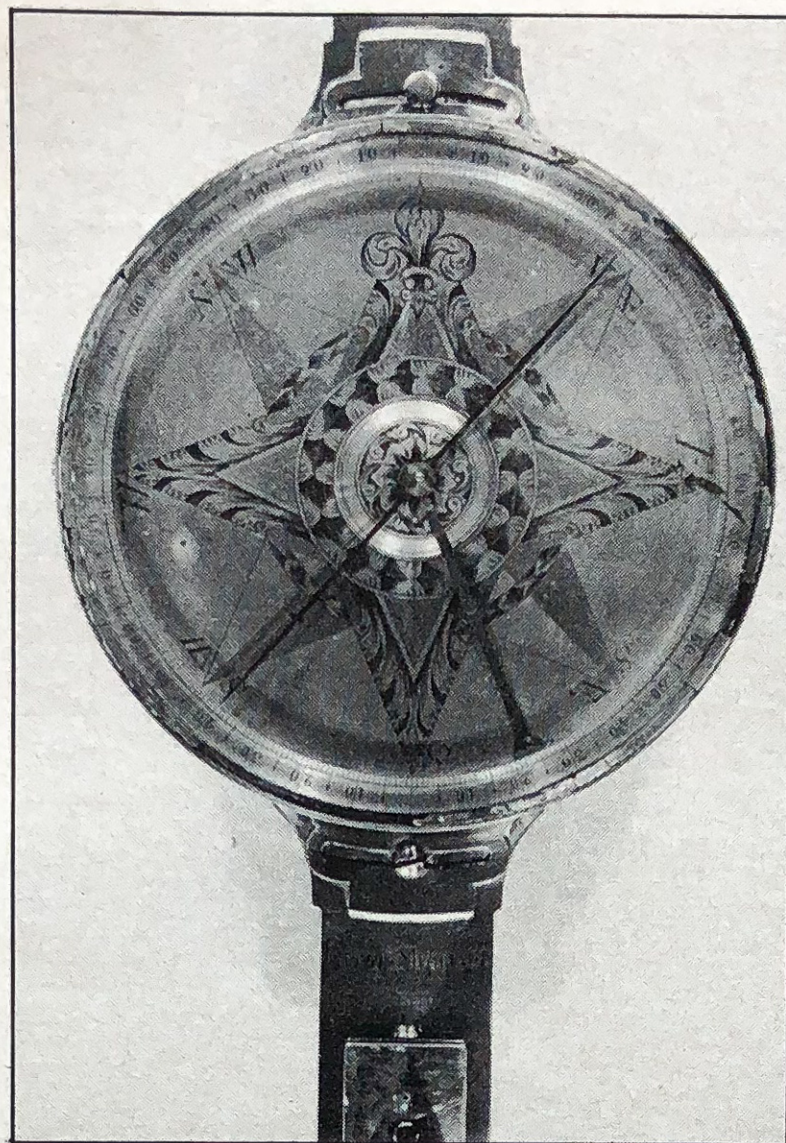


Photo: Wayne Eastburn

Figure 2. Detail of compass dial of surveying compass made by Lewis Michael of York County, Pa. Courtesy of Gary Kirk, Eugene, Oregon.

baptism on January 15, 1797. Sponsors at the baptism were Ludwig Oberthur and his wife.

Presumably Michael continued to work in either Hanover or Baltimore for the next three decades. Then, in about 1832, he moved to Ohio, according to the following announcement in one of the Ohio newspapers:

LEWIS MICHAEL has lately arrived from Pennsylvania with a few first-rate surveyor's Compasses of Rittenhouse's improved Models. Amongst them is one common Circumferenter, & a few that lay off the variations to five minutes of a degree without boxes to keep the outs in the field. They are of the first rate workmanship and will be warranted to prove correct. The said Lewis Michael having obtained the knowledge of the late Benjamin Rittenhouse of Philadelphia, and has practised the business for forty years. The above compasses are offered for sale at the shop of E.P. Pratt, Watch and Clockmaker, where they can be had at modest prices.

Lewis Michael
Chillicothe, Nov. 7, 1832.

Although Michael's name is included in several published lists of clockmakers, only a signed, thirty-hour, tall case clock is reported.

Similarly, only one of his surveying instruments has come to notice thus far. This is in the collection of Gary Kirk of Eugene, Oregon. It is a surveying compass, made of brass, and retaining its original dial cover. The maker's name "LEWIS MICHAEL/ FECIT," is engraved on the arm at the south point of the compass rose. It is equipped with a lifting needle.

The reference to Michael's former association with Benjamin Rittenhouse is intriguing, and implies that Michael received training from Rittenhouse in Philadelphia. That such may have been the case is suggested by the decoration of the compass rose which incorporates some of the motifs to be found engraved on the surveying compasses produced by Rittenhouse and several other early American makers. This style of decoration appears to have been derived from English design books for engravers, for similar designs are to be found also on surveying compasses by English Eighteenth Century makers.

The name of E.P. Platt mentioned in Michael's announcement is not included in lists of American watch and clockmakers, but may have been a member of the Platt family of clockmakers and instrument makers that moved from Connecticut to Columbus, Ohio in the first half of the Nineteenth Century.

On the basis of the fine quality of workmanship demonstrated in this instrument, it is obvious that Michael was no amateur, but a skilled artisan. Although presently among the legion of the "lost" early American instrument makers, he is deserving of further study, which may be made possible, if and when other records and examples of his work come to light. PS

NOTE TO READERS

It is often desirable to illustrate instruments about which you inquire, because they are of interest to other readers as well. For this purpose we request that you send clear black and white photographs depicting the instrument in detail. We cannot reproduce color, or snapshots in which the instrument is not clearly delineated. We appreciate your support and your interest in Collectors' Corner. Thank you.