The Trumbull County clock industry plays games with the title of this session: Time and Money. The intention of the clockmakers, of course, was to turn their skill at making time, or timepieces, into a profitable business—money. Yet, for all their efforts, wooden-works clocks neither kept very accurate time in the damp households of Ohio nor did this industry accrue much wealth to either investors or mechanics as they attempted to overcome the difficulties of industrialization on the American frontier.

An inexpensive, easily assembled luxury item, wooden-works clocks are best known as early nineteenth century products of Western Connecticut towns. Local historians and antique dealers have always presumed that the few clocks known to be available in the Trumbull County area were Connecticut parts assembled and distributed in Ohio. However, in the 1820s and '30s, Ansel Merrell and Lambert W. Lewis of Vienna, Trumbull County, Ohio, and Lewis's three brothers who lived in Warren, Wheeler, Garry, and Charles, were making clocks movements with wooden works in four factories. These men, their employees and subcontractors produced wheels, plates, faces, hands, bells, weights and, occasionally, cases for a very busy trade in the Warren area. They sold their products through peddlers and local stores. This potentially thriving business found investors among the most prosperous men of the Western Reserve in addition to a few Connecticut investors. Challenged by a lack of ready cash on the frontier, the 1819 depression, the change in taste from tall clocks to shelf clocks, an influx of Connecticut-produced clocks, and the beginning of the Jacksonian Bank Crisis, the business eventually petered out after the death of three of the manufacturers.

First, let's examine the clock industry in America in the first two decades of the nineteenth century. Up to this time, "a clock" meant a tall-case clock, usually with brass works, produced by a craftsman who needed a lengthy apprenticeship to have the skill to make the works. The case was made by a local cabinet maker and was considered a valuable piece of furniture. Innovations that transformed clock making from a craft to an industry occurred in Western Connecticut, which also was one of the principal areas that supplied early settlers to the Western Reserve. One early innovator in the field, Eli Terry of Plymouth, Connecticut, recounted that he made both brass and wooden-works clocks four at a time and sold his products on horseback in the 1790s. Noting the increasing demand for the cheaper wooden-works clocks, the success of selling clocks by itinerants other than the clockmaker, and the improvement in roads that encouraged use of wagons as well as horseback to transport the cumbersome tall clocks, Terry agreed to a contract to produce 4000 clocks without cases in three years. Terry often recounted that the first year was spent in "fitting up the machinery," the second year in making 1000 clocks and the third in producing the other 3000. Terry's machines were driven principally by water power. Through the use of belts and pulleys, the power drove wood-turning tools, drills and saws that produced standardized, interchangeable wooden parts. As many as twelve wheels could be produced at once. Other Connecticut manufacturers improved on Terry's designs, notably Asa Hopkins who patented and licensed use of his machine to clock manufacturers. In this way, several communities in Western Connecticut developed tall clock industries
between 1805 and 1815. In the next decade, wall clocks were replaced in popularity by Eli Terry's newest invention, the shelf clock, which he patented in 1816.

Paralleling the rise of small industrial towns in Western Connecticut was the growth of the early Western Reserve communities in Trumbull County, Ohio. Warren, with a newspaper, a bank, eight stores and the county court house and jail, was the political and commercial hub of this area. Three main roads that brought new settlers and peddlars passed through Warren: a north-south turnpike to Ashtabula, an east-west road that went to Pennsylvania, and a diagonal road that ran from Painsville, south through Youngstown and on to Pittsburgh. The newspaper recorded civic leaders seeking craftsmen and new industries that would make Trumbull County more prosperous.

The Trumbull County clock industry began before 1812 on the property owned by Lambert W. Lewis on the southside of the east-west road from Warren to Sharon, Pennsylvania, five miles east of Warren village, in Vienna Township. Lewis was the second son of Beach and Diana Wheeler Lewis of Southington, Connecticut, when he was born in 1786. The proximity of Southington to Waterbury, the fact that Lewis made clocks with the mechanical details of the "Waterbury type" clock movement, and the deed record that documents that he was already in the Western Reserve in 1807 and paying taxes on his future factory lot in 1810 suggest that Lewis learned his trade in the earliest days of industrialization from one of Waterbury's early wooden-works manufacturers. He was a clockworks' maker for his entire adult life.

Business, or prospects of business, in Ohio was apparently good for Lambert W. Lewis, since his brother Wheeler, a saddler, came to Trumbull County in the year he turned twenty-one, 1812. Both Wheeler and Lambert advertised their commitment to Trumbull County by each investing $500 in twenty shares of the Western Reserve Bank, founded during the winter prior to Wheeler's arrival at Warren. In early September, Wheeler Lewis established a saddler's shop at the house of John Leavitt, Junior, in Warren. There he made and sold a variety of leather goods and valises as well as saddles and harnesses. As a saddler, he was well suited to outfitting peddlars with either cases and harnesses for wagons or with saddles and portmanteau for horseback. Leather goods also proved a desirable form of barter to pay clock factory employees and peddlars.

The third Lewis involved in the clock industry, Garry, was only twelve years old in 1812. Family history mentions Garry coming to Warren with his brother Wheeler. He may have come at this early age to work in Lambert's clock factory or to be an apprentice to the saddler. Surprisingly, Garry Lewis's documentary ties in the Trumbull County clock industry only existed through the many clock faces and at least one clock case that bears his name. The only business records of him show that he owned a general merchandise store in Warren in the 1830s. He moved to Iowa in 1836.

From its founding until 1817, the clock business located on Lambert W. Lewis land appears to have prospered as only two claims against it occur in either the newspaper or in the scanty Civil Court records. The Warren area witnessed a continuing influx of new residents after the War of 1812 many of whom must have been able to afford the modest luxury of a wooden tall case clock. By the summer of 1816, the Lewis brothers, Lambert W. and Wheeler, were partners in the clock business, borrowing money from prominent local men.
In 1817, Wheeler Lewis began to make some dramatic financial moves. After his first wife's death, he married the daughter of John Leavitt, his landlord and one of Warren's wealthiest men. In May he bought a store for the saddle business facing Court House Square and, while continuing his saddler business, went into partnership with his new brother-in-law, Henry Leavitt, in the "cheap grocery" business. These two stores gave the Lewises barter to pay employees, supplies for pedlars, and Warren outlets for sale of clocks in addition to sales from the factory lot or unrecorded contracts with local merchants.

Wheeler's increasing prosperity encouraged clock maker, Lambert W. Lewis to benefit from his brother's wealth by mortgaging his clock factory to his brother for a $2000 five-year note in January, 1818. Needing yet more cash to dramatically expand the clock business, two months later, in March, he also raised $1300 on a nine-month note from Connecticut clock manufacturer Riley Whiting.

Unfortunately, 1818 was not an auspicious time for business expansion in the Western Reserve. The national banking crisis caused as a reaction to easy credit and ensuing inflation dried up what access there was to cash in frontier communities. By mid-May, the Warren newspaper published letters that recounted Pittsburgh and Chillicothe bank refusals to accept bank notes from certain other Western Banks. In late May, a Warren tailor noted the scarcity of money when he advertised for "cash only" business or a surcharge added for credit and barter. Other Warren merchants followed this example. In July, the United State Bank suspended all credit. While the clock partnership experienced only one recorded suit for settlement of a due note, the credit strain on Lambert's clock business caused by the depression and his 1818 loans continued for the rest of his career. This depression dramatically damaged other early luxury industries in Cincinnati and other Western cities.

Hard times continued until 1822 in Trumbull County, causing Lambert W. Lewis to be delinquent on his 1822 taxes for his factory lot and the farm lot across the road. Wheeler, who had to repay a loan in "Philadelphia Bank notes," eventually lost three lots in a sheriff sale.

Problems with cash also resulted in two lawsuits with former employees in 1818 and 1821. Lambert W. Lewis sued Martin Booth who had boarded his family in Vienna, worked for Lewis at the clock factory and received $200 in goods, perhaps clocks, and cash for which Lewis had not been fully repaid. The depositions suggest that Booth not only ran machinery and assembled clocks, but also peddled them on consignment for Lewis in the years before the depression deepened. The second suit involved Cyrus Gridley who had a contract to assemble 1000 30-hour wooden clocks in March, 1820. Gridley, who lived in the Cuyahoga Valley village of Boston, made the contract before working at the factory in Vienna. Throughout both cases, there is the demand on prompt payment by all parties and the sense of an inconsistency in the evaluation of goods during this unstable economic period.

The 1820 census, taken during the depression, records Lambert W. Lewis having four employees and himself involved in "manufacturing." Wheeler Lewis was living just outside Warren on his farm where he had an apprentice-aged young man, perhaps his brother Garry, in addition to his family. Lambert W. Lewis still had the only clock factory in Trumbull County, although it is not
mentioned in the rather meager listing of industries for Trumbull County. In
general, industries listed in Trumbull County reported demand for goods to be
"dull."

In 1823, Lambert and Wheeler dissolved their partnership. This action
could have been a mutual agreement to not become further entangled in each
others debts or it may have been an opportunity to expand clock production
with the opening of a second factory. Wheeler owed $900 to the Western Reserve
Bank and was delinquent in his taxes. Lambert's $2000 loan from Wheeler was
falling due.

Four months after the dissolution, in September, Lambert Lewis adver-
tised in the Western Reserve Chronicle that he owned exclusive right in Ohio
and Pennsylvania to Asa Hopkins' patented wheel cutting machine. He threat-
ened that anyone using the patent should pay the privilege or would be prose-
cuted. Could this mean that Wheeler had begun production at his clock factory,
perhaps under the leadership of his twenty-three-year-old brother Garry?

The notice of the Hopkins three arbor wheel cutting machine is the only
known reference to someone owning and using this machine and acknowledging
the patent. The machine was patented in 1814 and was a major innovation in
the manufacturing of wooden clock wheels. Lambert Lewis may have purchased
the machine at the time of his large capital investments in 1818. He had the
machine in 1820 when he made the contract for 1000 parts for Cyrus Gridley
to assemble.

In May, 1825, Wheeler Lewis went into partnership for production of clocks
with four of Warren's most prominent men. The notice of the contract mentions
the factory east of Warren and Wheeler as exclusive agent for selling the
clocks.

About the same time, Lambert W. Lewis threw his business toward Warren's
largest commercial establishment, the store of David and Leicester King for
an unspecified financial commitment. In the fall, he mortgaged his farm and
factory lots to the Western Reserve Bank for $1700 and raised another $1000
in a contract with a store in Brookfield, the next town east of Vienna on the
main road to Pennsylvania. By the following fall, all these deals had soured
and Lewis was in court owing money for each of them.

These lawsuits and 1829 personal property taxes reveal that Lambert W.
Lewis raised mules, horses and cattle as his principal method of paying wages
and creditors. The presence of pack animals, wagons and a pedlar wagon sug-
gests that Lewis may have outfitted his own pedlar wagons to distribute his
clocks to other frontiersmen.

About 1825, Ansel Merrell entered the clock business. His birthplace
and parentage are yet unknown. He bought his undeveloped factory lot in
Vienna Township in the fall of 1824 and acquired a larger lot with buildings
already on it in early 1826. His financial backing came largely from David
and Leicester King, who had previously lent money to Lambert W. Lewis. They
began lending money to Merrell and his business partner Ruel Miller in 1827
and continued through 1831. Merrell and Miller also briefly owned a store
in Vienna, in 1828 and 1829, where they probably sold their clocks.
There appears to be no social or business ties between the Lewises and Merrell, although Merrell made clock works identical to the Lewis works and his faces are similar. All Trumbull County clock movements are made and assembled with the small, defining distinctions of clocks made in Waterbury, Connecticut. The wheels are mostly cherry, the plates are oak or, occasionally, poplar. The faces are poplar, painted white with Arabic numbers. In two contracts, Merrell remarked on the fine gold leaf detail in the face decoration on his clocks.

With the opening of the third decade of clock production in Trumbull County, Wheeler Lewis's business seemed relatively secure. His family was so large that it is difficult to determine who are relatives, apprentices or employees, but he certainly had five adult men working for him, probably in the clock factory. At this time, the families of both Garry and the younger brother Charles were living separately from Wheeler. Lambert W. Lewis, who was in deep financial trouble, had twenty-four in his household beyond his immediate family. This included 9 adult men who must have worked at the factory and 10 women from 15 to 30 years old, some of whom probably decorated clock faces. Ansel Merrell also had a large household that included seven adult men besides himself and four apprentice-aged youths. Merrell had his credit well extended but had not yet had properties seized for debt as had Lambert W. Lewis.

Eighteen-ninety-one and 1832 witnessed the rapid slide of Lambert W. Lewis and Ansel Merrell into the historic equivalency of bankruptcy. For them, it was made more dramatic because there would be no bankruptcy laws until the 1840s. Insolvency and debtors' prison were the alternatives. Ansel Merrell sold his manufacturing machines and some of his debts in October, 1830; but he still found his way to prison, fled, and was recaptured in April, 1832, with the help of Lambert Lewis. Lambert W. Lewis lost his livestock, factory tools, machines, and land before he tried to flee in 1834. He was seen traveling through Sharon, Pennsylvania, by one of his former employees and returned to Warren. He died a pauper a month later.

Wheeler Lewis died in 1835. The probate records of his sizeable estate valued at $1818.11, noted that the factory, including his wheel cutting machine and both patent clock movements and a few cases were burned and were of almost no value. The following year, the factory site and building are recorded for taxes in the name of Garry Lewis, the one shadowy link that ties Garry Lewis in the Wheeler Lewis clock factory.

The death of the industry in Trumbull County occurred from a number of factors. Chief among them was an over-extension of credit. Demand for clocks in the mid-1820s must have been very good as Lambert Lewis always chose to expand rather than to pay back his loans. The change in tastes from tall clocks to Terry-patent shelf clocks may have hastened Lambert's financial failure since he appears to have never made shelf clocks. Both Wheeler Lewis and Merrell began making them about 1828. Over-production of all clocks glutted the market in the early 1830s as the two Lewis factories and the Merrell factory continued manufacturing at the level needed to meet the high demand requested by the pedlar-supplying Warren stores in the late 1820s. The marketplace became further over-stocked when at least one Connecticut manufacturer sent an agent with clocks to distribute in the Western Reserve. Finally, shaky financial times again returned to Warren by the summer of 1830. The business climate worsened severely through the 1830s.
But clock making, or at least clock assembly, did not disappear quickly from Warren. A week after Ansel Merrell sold his clock factory in Vienna in 1831, Alva Hart and Robinson Truesdale of Hartford begin advertising both tall and shelf clock movements at their shop in Hartford under the name Hart & Truesdale. They continued advertising clocks into 1836. In March 1832, Lambert W. Lewis's youngest brother, Charles, advertised for two journeymen clockmakers and an apprentice. Frequent advertisement by this younger Lewis show him on the second story of a Warren brick commercial block providing shelf clock movements "of his manufacture," dry goods, grocery and hardware from 1832 until his death in 1836.

This research depends almost completely upon Trumbull County public records—deeds, probate, civil court and tax records—for references to the clock industry in Trumbull County. The Warren newspaper, The Trump of Fame, which became The Western Reserve Chronicle in 1816, provided material on lawsuits now lost from the Civil Court records. Information about the Connecticut clock industry came from Two Hundred Years of American Clocks and Watches, Chris Bailey, 1985, and from conversations with Ward Francillon of The National Association of Clock and Watch Collectors.