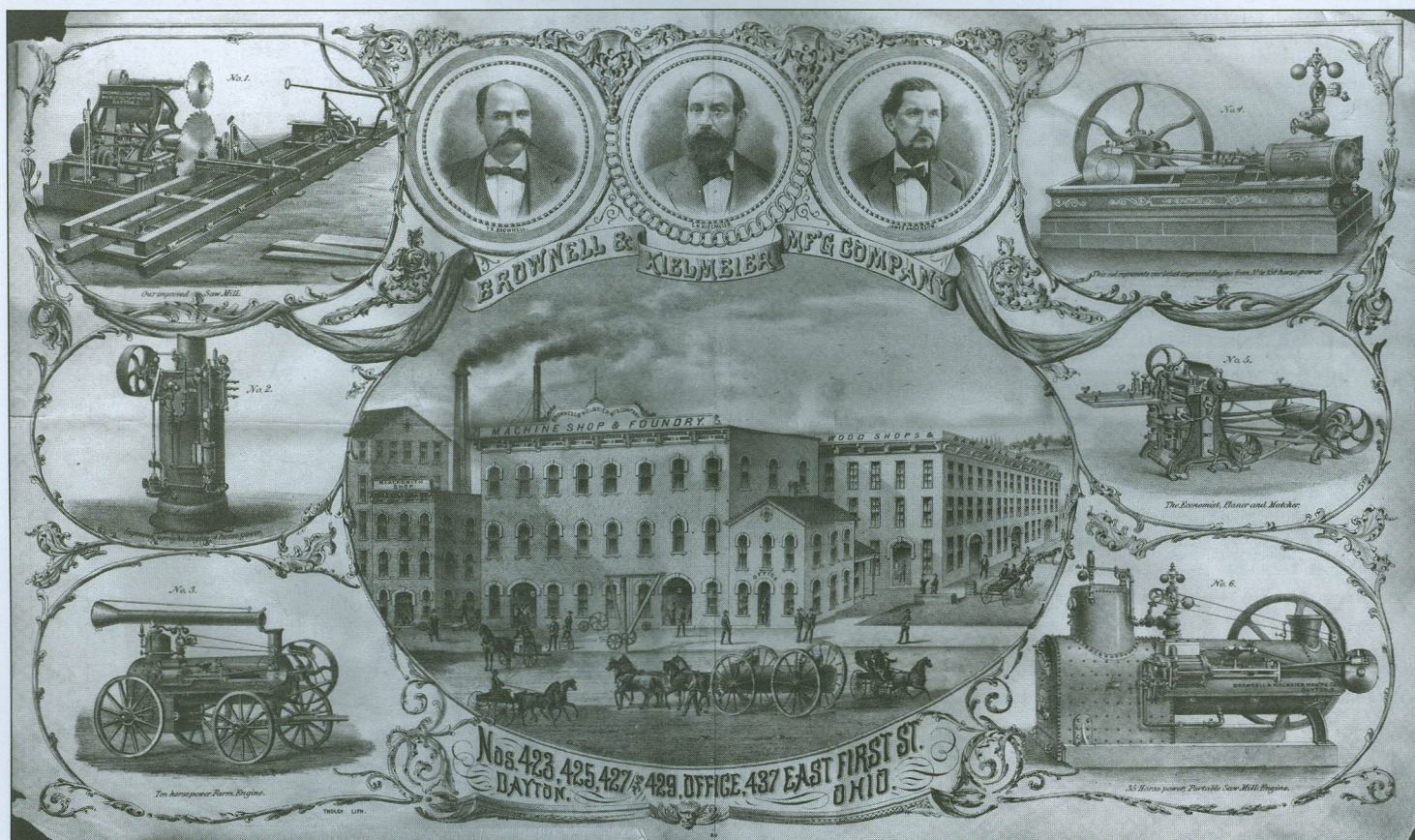


# THE AGRICULTURAL STEAM ENGINE MANUFACTURERS OF DAYTON, OHIO

By: Robert T. Rhode

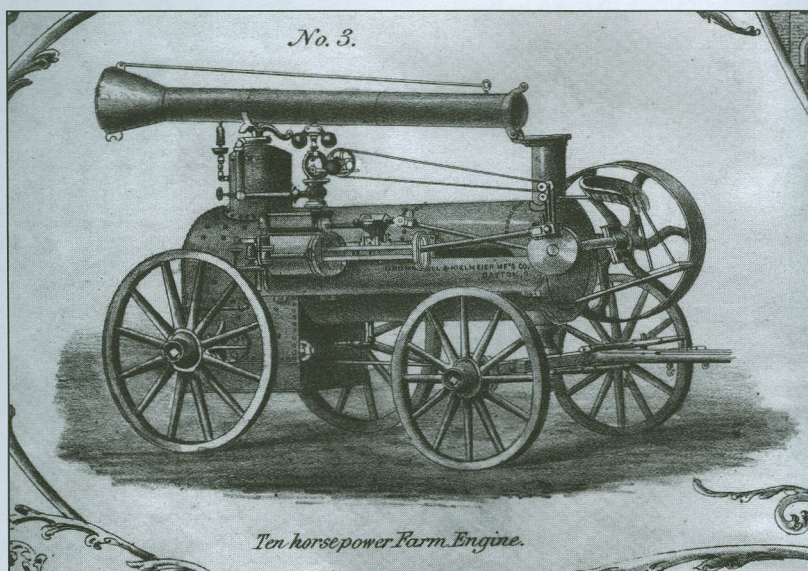


Here is a lavish illustration depicting the Brownell & Keilmeier Manufacturing Company of Dayton, Ohio, and the firm's products as they appeared in the 1870s.

When people think of Dayton, Ohio, they remember the extraordinary Orville and Wilbur Wright and 1903, the year of the first sustained and controlled heavier-than-air flight in the airplane that the brothers designed and built. People seldom recall Dayton's contributions to America's agricultural legacy, even though the city boasted no fewer than three manufacturers of portable steam engines for farming purposes. While the Wright brothers deserve a prominent chapter in the history books, names such as Brownell, Marshall, Graves, Woodsum, and Tenney merit our consideration as well.

## BROWNELL

In 1855, mechanic and inventor Elijah H. Brownell began the Dayton Steam Boiler Works in a small shop at the corner of Cooper and Foundry Streets. In 1857, Elijah's brother James H. Brownell acquired a share in the business. James also had an interest in a firm that existed for several years in Dayton and that went by many names, one of them the Miami Valley Boiler and



This detail from the Brownell & Keilmeier illustration provides a clear view of the firm's 10 HP farm engine.



Sheet Iron Works. By 1864, the members of the Dayton Boiler Works included another brother, John R. Brownell, and George J. Roberts and Josiah Lee. Elijah supervised the plant and was proprietor of both the Dayton Steam Boiler Works and E. H. Brownell and Company. In 1867, the firm was reorganized as Brownell, Roberts and Company, and, in 1871, it was incorporated as the Brownell and Kielmeier Manufacturing Company.

In 1875, the factory enjoyed a major expansion, but the Panic of 1878 forced the firm to transfer the assets for the benefit of creditors. John R. Brownell bought two thirds of the property, and Martin Schnebel bought the remaining third. In 1884, John R. became the sole owner. Four years later, the business was reincorporated as Brownell and Company and was moved to thirteen acres on Findlay Street north of First Street where part of

the boiler plant had been located since 1883. In 1903, the firm was reorganized with stock valued at \$950,000. Albert H. Kemper served as president and general manager; A. E. Hartnett, secretary and treasurer. The company employed 300 workers with an annual production of 2,500 boilers and 500 engines. Boilers were shipped as far as Canada, Mexico, and Alaska.

On the night of October 20th in 1909, a fire began in the paint department on the top floor of the Dayton Computing Scale Company and quickly became a massive conflagration that destroyed the Marshall and Graves Foundry, the Big Four freight depot and office, and numerous other businesses. The Dayton Steam Boiler Works sustained damage.

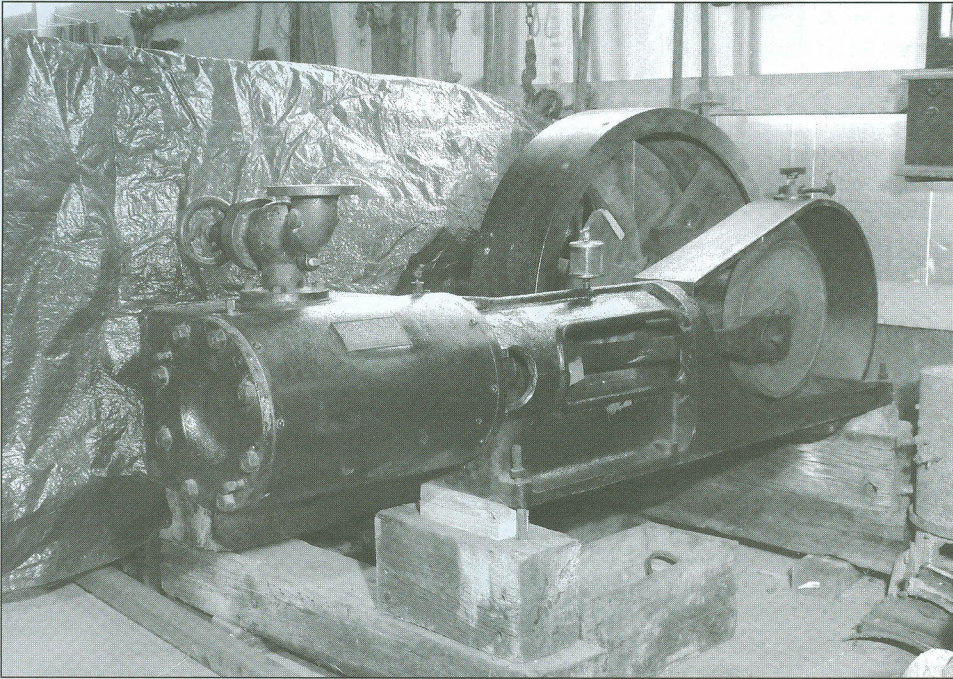
Brownell supplied Ohio Standard boilers to the A. D. Baker Company of Swanton, Ohio. Baker's boilers first came from John Brennan and Company Steam Boiler Works of Detroit (and Battle Creek), Michigan, but later from Brownell and from the Broderick Boiler Works of Muncie, Indiana.

Elijah H. Brownell's house from 1884 through 1886 still stands in the Huffman Historic District.

### MARSHALL AND GRAVES

Between 1866 and 1869, Herman Herchelrode established an agricultural implement company in Dayton. The Panic of 1878 forced Herchelrode to make an assignment. F. M. Reigel purchased the works from E. Bimm, the assignee, and continued the business until 1879. In that year, Albert C. Marshall bought the factory and renamed it the Dayton Machine Company. In 1880, Henry C. Graves was brought into the business as a partner, and the name changed to Marshall, Graves & Company. Graves was born near Elmira, New York, in 1836. His father died when Henry was eleven, and his mother moved the family to Dayton. When he was twenty, Graves clerked for J. B. Gilbert & Company, wholesale grocers and liquor dealers. In 1868, Henry and his brother, George M., purchased the grocery, which remained profitable. When Henry Graves and Albert Marshall collaborated, Henry left the produce business.

The factory of Marshall, Graves & Company featured a three-story, L-shaped, brick building measuring 40 x 200 and 60 x 150 feet, as well as a one-story foundry measuring 80 x 100 feet. Power was provided by an 80 HP stationary steam engine manufactured by the W.



*This Brownell stationary engine is considerably newer than the one shown in the upper right corner of the Brownell & Keilmeier illustration. Photo courtesy of Bruce Babcock*



*In a large room surrounded by this building can be seen the brick walls and windows of a portion of the once-great Brownell factory.*



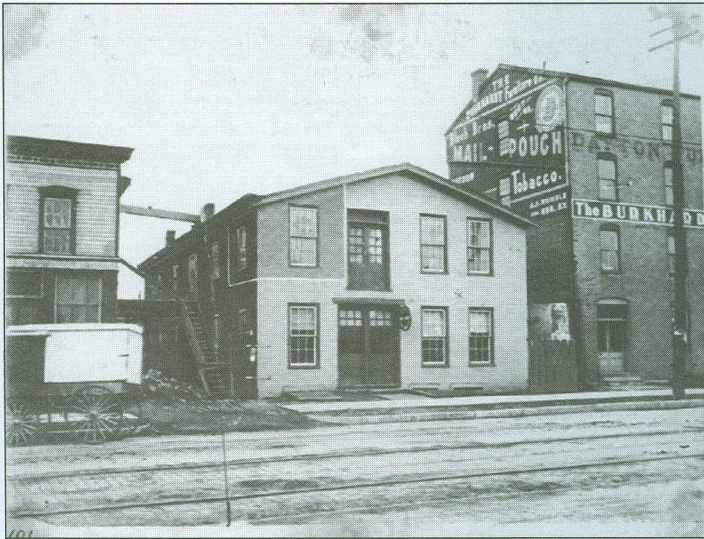
P. Callahan Company of Dayton. Marshall, Graves & Company employed approximately a hundred workers. Among the products of the firm were hay rakes with the trade names of Victor and Star. Graves served as a director and vice president of the Dayton Gas Light and Coke Company and a vice president of the Ohio Insurance Company.

### WOODSUM

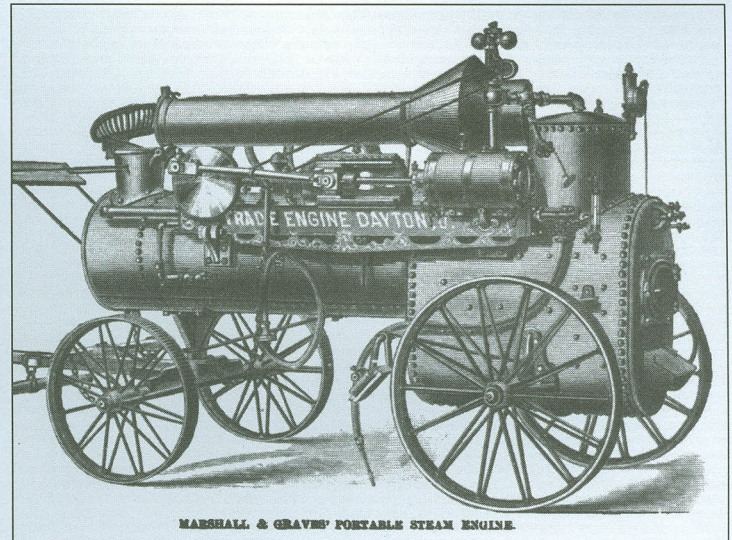
In 1854, Rufus Dutton erected the Dutton Agricultural Works on the canal. In 1856, the property was sold at sheriff's sale to C. Wight, William Bomberger, and

John Dodds. In 1863, J. B. Pitts & Company bought the firm. John B. Pitts was the son of John Avery Pitts, who was a brother to Hiram Abial Pitts. By 1847, the legendary Pitts brothers were selling threshers in Illinois. John A. left Illinois to market threshers in Ohio. In 1851, John A. traveled to Buffalo, New York, where he built the well-known Buffalo Pitts threshers. Meanwhile, his brother, Hiram A., built the Chicago Pitts threshers. John A. died in 1859; Hiram, in 1860. When John B. Pitts acquired the plant in Dayton, he first assembled threshers that were shipped to him from Buffalo, but

John B. soon was manufacturing his own machines. In 1866 (a mere three years after buying the Dayton property), John B. Pitts sold the firm to Stephen F. Woodsum and William Tenney. Meanwhile, John B. formed the Brayley and Pitts Works in Buffalo. (The firm of Pitts & Brayley existed beforehand.) Woodsum was licensed to produce the Pitts thresher, and the Pitts name remained painted in large letters on the main building of the factory. In 1875, the Woodsum Machine Company became incorporated with a capital stock of \$120,000. George W. Shaw served as



Above left: The original Marshall and Graves factory in Dayton is the building at the extreme left in this photograph from the Dayton Metro Library.



MARSHALL & GRAVES' PORTABLE STEAM ENGINE.

Above right: This cut depicts Marshall and Graves' trade engine. Of note is the elegant bedplate.

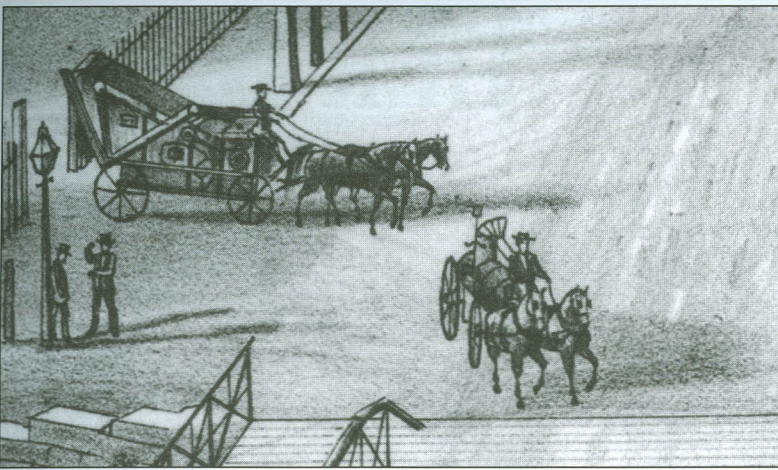


WOODSUM TENNEY & CO.

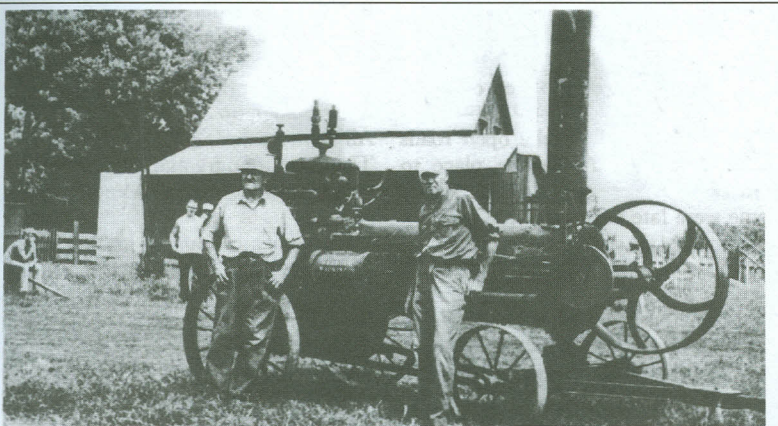
MANUFACTURERS OF THE DAYTON PITTS' THRESHING MACHINE, PORTABLE ENGINES & C.  
DAYTON, OHIO.

Shown here is the Woodsum, Tenney & Company plant in Dayton. Today, a parking lot occupies the space.



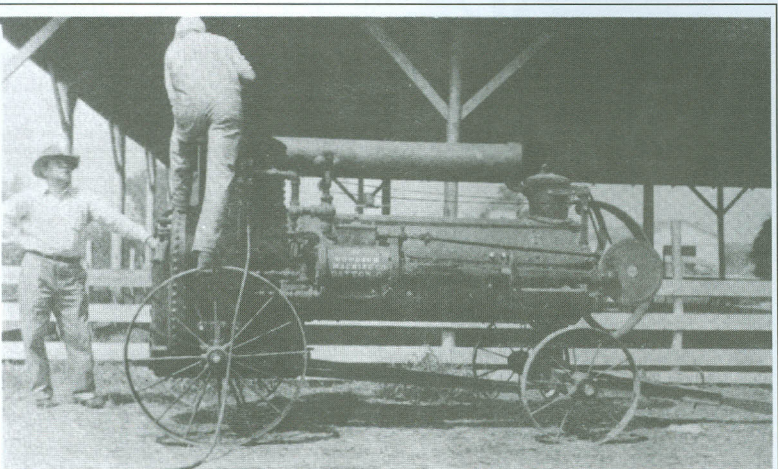


*This detail from the Woodsum, Tenney & Company illustration shows the firm's portable steam engine and a Pitts thresher.*



*Courtesy of R. G. Bohman, Alpha, Illinois 61413*

An 8 hp. Woodsum Steam engine No. 97 built by the Woodsum Machine Company, Dayton, Ohio, sometime in the 1870's. It is owned by C. B. Killing and R. G. Bohman. They believe it to be the only one in existence.



*Courtesy of Gerald Hoffman,*

*Princeton, Illinois*

An old Woodsum portable steam engine made at Dayton, Ohio. I took this picture a few years ago at DeWitt, Iowa, when the steam power show was there.

*In 1969, the same magazine carried this photo of the rare Woodsum portable.*

president and treasurer; B. F. Hargrave, vice-president; J. F. Perrine, secretary. Stephen F. Woodsum died in 1879. In 1886, the property was sold to the Barney & Smith Manufacturing Company, builders of rolling stock for railroads.

In 2004, I received an e-mail message from an Iowa State University student who was restoring his great great grandfather's Woodsum portable steam engine. The student's address is no longer current, and directory assistance is unable to find his telephone number. I think that he may have resided in the vicinity of Coal Valley, Illinois, and that he may have been associated with John Deere. The engine to which he referred was twice depicted in *The Iron-Men Album Magazine*: once on page 20 of the May-June 1966 issue and again on page 54 of the May-June 1969 issue. Is there anyone who can let us know how the Woodsum restoration project is coming along?

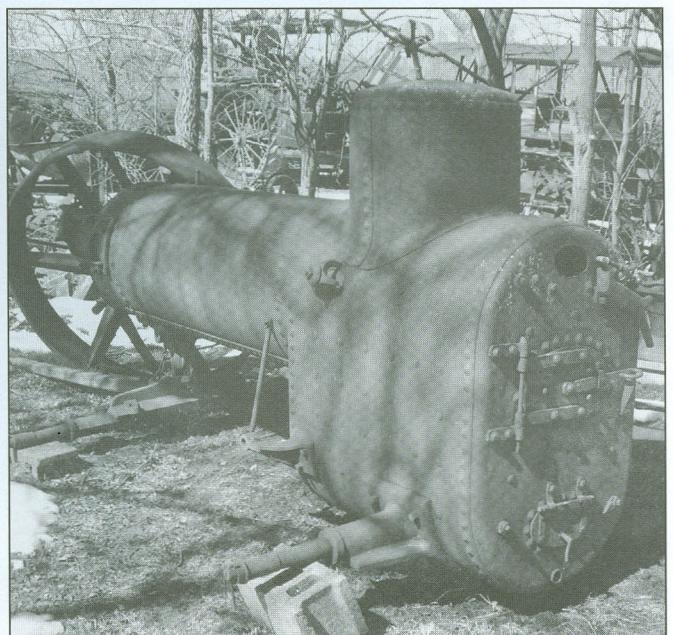
### Acknowledgments

This article would not have been possible without the efforts of Bruce Babcock, who graciously provided a photograph of his Brownell engine and many helpful suggestions; Curt Dalton, who kindly shared his extensive knowledge of Dayton history; Keith Mauzy, who enthusiastically aided in the search for the remaining operational Woodsum portable; and Eleanor Y. Stewart, who tirelessly assisted with my research.

Contact steam historian Robert T. Rhode at 990 W. Lower Springboro Rd., Springboro, OH 45066; e-mail: case65@earthlink.net

All photos submitted by Robert T. Rhode.

*Left: In 1966, this photograph was published in The Iron-Men Album Magazine. It depicts what well could be the only remaining operational Woodsum portable engine.*



*Here is a Woodsum boiler. Note the generous size of the dome. Photo courtesy of Keith Mauzy*