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# Lawn & Garden TRACTOR

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magazine

## **BEAVER** *riding tractors*



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**LAWN & GARDEN**  
TRACTOR MAGAZINE

# **BEAVER** *riding tractors*

## An In-Depth Study of the Machine & Its Rich History

By **Brandon Pfeiffer**  
Information provided by  
Al Lewis, Paul B. Warner,  
and Peter Zander

**A**lthough it is not a well-known brand across the world today, the Beaver tractor was at one time a machine that commanded high respect in the lawn and garden equipment industry. To truly appreciate the quality, simplicity, and uniqueness of this tractor, it is imperative that the history of the companies and the people who built the Beaver tractors be told as well. Consequently, this article, and future ones, will discuss—in great detail—the machine, the manufacturers involved, and the people behind this machine so that current and future vintage lawn and garden equipment enthusiasts may know the complete story of the Beaver tractor.

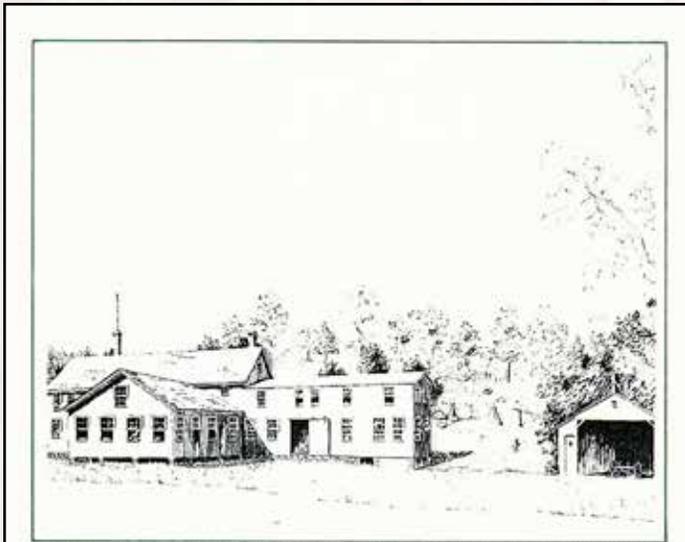




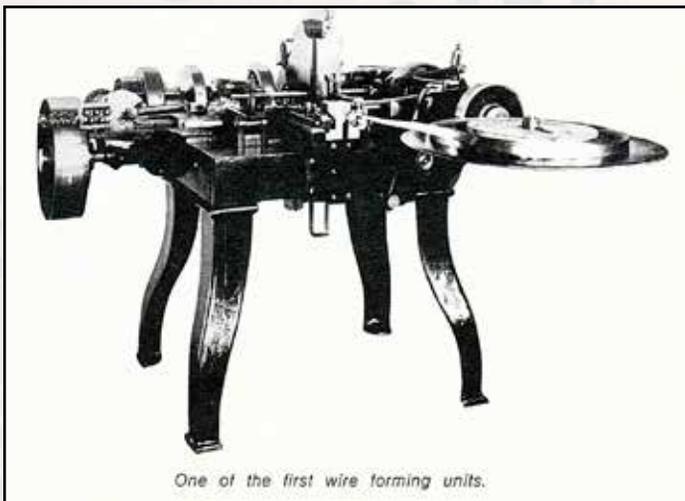
This is a replica drawing of what would have been on the inside cover of a Baird Beaver dealer binder. It was drawn by graphic artist Delaney Pfeiffer.



Joseph H. Baird



Original plant of The Baird Machine Company built at Oakville, a suburb of Waterbury, Connecticut, in 1851. Employment was 31.



One of the first wire forming units.

The Baird Machine Corp. of Stratford, Connecticut introduced the Beaver tractor in 1948. This company had humble beginnings and was the brainchild of Joseph H. Baird. In 1837, at the age of 10, Joseph began his career at Scovill & Buckingham Company, a manufacturer of household items and general hardware, located in Oakville, Connecticut. While learning a trade, he also received an education customary for that era, focused on reading, writing, and arithmetic. Mr. Baird was an extremely creative young man and loved to invent things. He stayed with his employer for nine years until he decided to start his own business. In 1846, at the age of 19, he founded the Baird Machinery Company in Huntington, Connecticut. Operating out of a defunct bicycle shop, Baird built custom machines as well as a variety of standard machines, such as finishing and metal-forming machines. His objective was to build equipment that could take the place of a person, to automatically make products at a high rate of speed with consistent quality. Known for high-quality and precision designed machines, this organization flourished. He was so focused on perfection that many times he would continue to tweak the machines until the cost was more than what he would eventually sell it for. He often made the comment, "I don't care if I lose money. I made the dern thing work."

In 1850, Mr. Baird temporarily abandoned his operation and went to work for another company. As with most entrepreneurial and inventive people, Mr. Baird undoubtedly felt a lack of freedom working for someone else. Consequently, within a year, he was again self-employed, naming his company Baird Pin Company.

Baird Pin Company continued to thrive for forty years. In 1891, the company was reorganized and Mr. Baird brought in a new partner, Fred E. Warner. The company name was changed to Baird and Warner. A short time later, the company was renamed again to Baird Machine Company. The operation prospered and, needing more space, moved to a larger building in Oakville, Connecticut.

In 1894, at the age of 67, Baird sold his complete operation to long-time associate Charles L. Warner (no relation to Fred E. Warner). Mr. Baird stayed on as president until 1901 and continued to be involved until his '90s. Charles L. Warner then assumed the helm from Mr. Baird. Under the leadership of Mr. Warner, the company was incorporated and renamed Baird Machinery Corp. The company would become a contender for government military contracts and gain a reputation of also being an entrepreneurial endeavor. In 1898, the company was one of the low bidders for the U.S. Navy to supply machinery and tools for their workshops.

In 1910, Mr. Warner hired Arthur J. Lewis II to do some contract machine design work and was impressed with the results—so impressed that he offered Lewis a job as chief engineer, heading up Baird's engineering department. Not only was Mr. Lewis extremely qualified in his field, he also had the ability to think out of the box and make improvements on existing products.

Born on July 4, 1880 in Southford, Connecticut, Arthur began his life on a small farm. At a very early age, he

experienced hardship after his 40-year-old father was killed in a mill machinery accident. To help support his mother and four siblings, Lewis went to work as a machinist. He gained experience from the work he performed at local machine shops. To further his knowledge even more, he took night classes in engineering. His interest was focused on designing special machinery. He was involved with Baird for 50-plus years. In that time, he received approvals for at least 65-plus patents, mostly for high-speed machinery. He would also become a stockholder in this private corporation. In 1912, Baird listed the directors and officers of the company as Arthur J. Lewis and brothers B. C. Warner and Charles L. Warner.

In 1912, Baird Machinery Corp. was moved from Oakville, Connecticut, to a larger facility in Stratford, Connecticut. Lewis relocated, as well, continuing his career with the company. During the next 30-plus years, Lewis was instrumental in designing many of Baird's core product lines, including four slide machines, multiple spindle chucking machines for turning pistons, and transfer presses for metal stamping, along with many specialty machines.

*Note: The first chucking machine sold by Baird Machinery Corp. went to Otis Elevator Company. This machine was so dependable that Otis Elevator Company continued to operate it until 1963.*

In the 1930s, Charles L. Warner built a close friendship with Henry Ford. Ford approached Warner about designing a machine for turning cast iron pistons to be used in the automobile engines. To answer this call, Baird Machinery Corp. developed a specialized multi-spindle chucking machine that could efficiently turn a piston in a 21-second cycle time.

In one year, Ford Motor Company ordered 50 of these machines. Every Model A Ford produced used pistons that were turned on a Baird machine. This new product line began to thrive and, eventually, Baird became the sole supplier of multi-spindle chucking machines for not only Ford, but also General Motors and Chrysler.

In 1935, Charles L. Warner gave up the helm and his son Leon A. Warner took over. Leon would run Baird for the next 27 years. Just like his father, Leon had an entrepreneurial spirit that enabled Baird to expand the product line into many new markets. It was during this time period that, according to retired Baird employee Franklin

Beattie, Baird began manufacturing home furnace oil burners. Some of the test units were installed in the homes of several employees—Franklin Beattie being one of them. Mr. Beattie recalls one time waking up in the middle of the night to a house filled with smoke due to the oil burner malfunctioning. No additional information has been obtained



Charles L. Warner



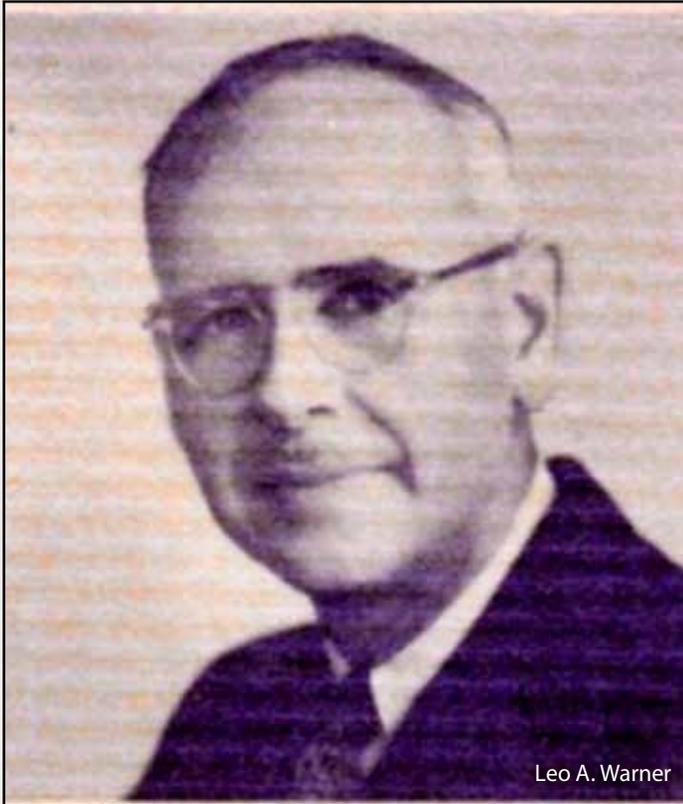
Photo from Stratford Connecticut Facebook page (employees of Baird Machinery Corp around 1912)

on the Baird oil burners, so it was likely a short-lived project.

In the late 1940s, there was a garden tractor and equipment dealership named Garden King Tractor Sales Company located near the Baird factory. The owner was Mr. Lou Hancock. Lewis would pass by this dealer on his way to and from work and would frequently stop in to see what was new. Lewis had developed numerous garden and flower beds, along with a small apple orchard on his property, and was always looking for ways of maintaining the

grounds a little easier. One day, Hancock showed Lewis a new tractor line that he was carrying. It was an ACME four-wheel riding tractor made by Smathers Manufacturing Company of Brevard, North Carolina. Paul Smathers started the company in 1937 out of a defunct grocery store called Cash & Carry, located on the corner of North Broad and East French Broad Street in downtown Brevard.

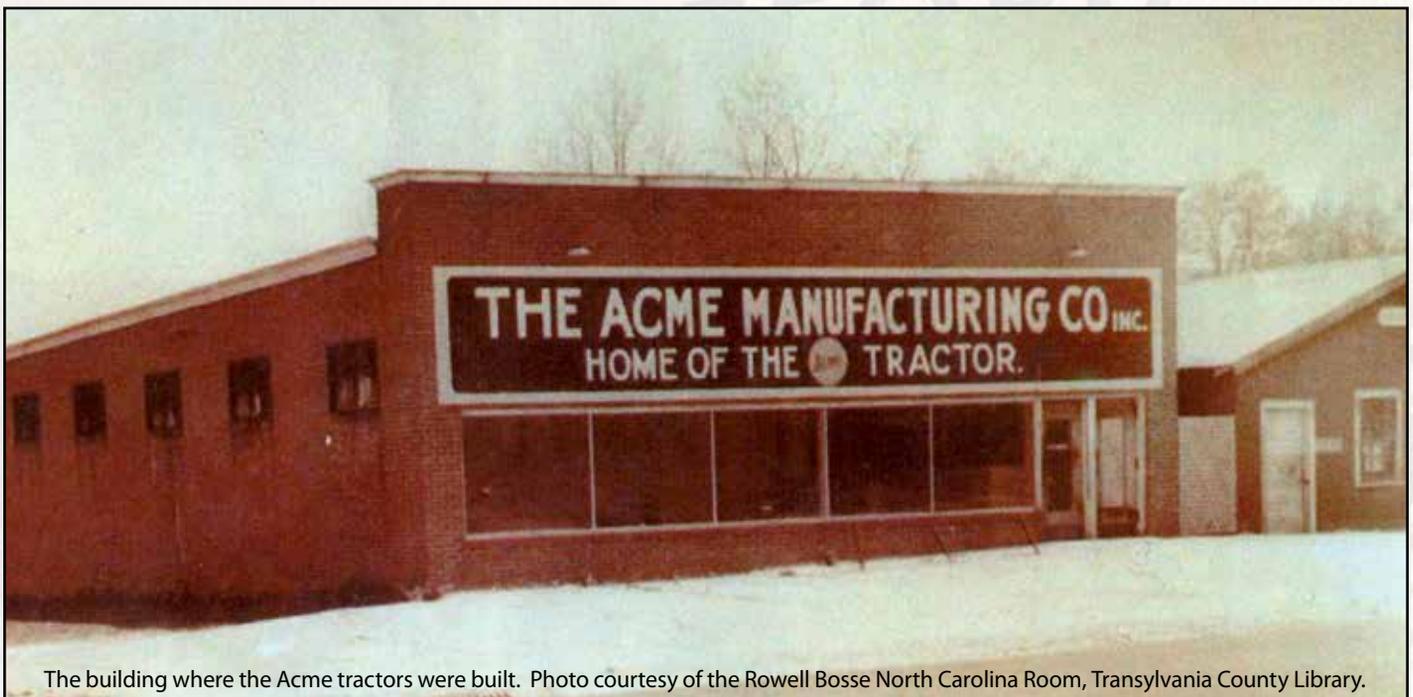
Lewis showed interest in the tractor for use on his property to maintain his flower and vegetable gardens, as well as the orchard. Hancock told Lewis that the ACME riding tractor was not the most user-friendly machine. It didn't have a reverse gear and was difficult to operate. He suggested that, with his engineering experience, Lewis might be able to make some improvements to the tractor. Lewis had a machine shop attached to his garage located at 29 Cutspring Road, in Stratford, Connecticut, and, during his semi-retirement, would periodically take on



Leo A. Warner



Employees of the Baird Machine Company, circa 1906.

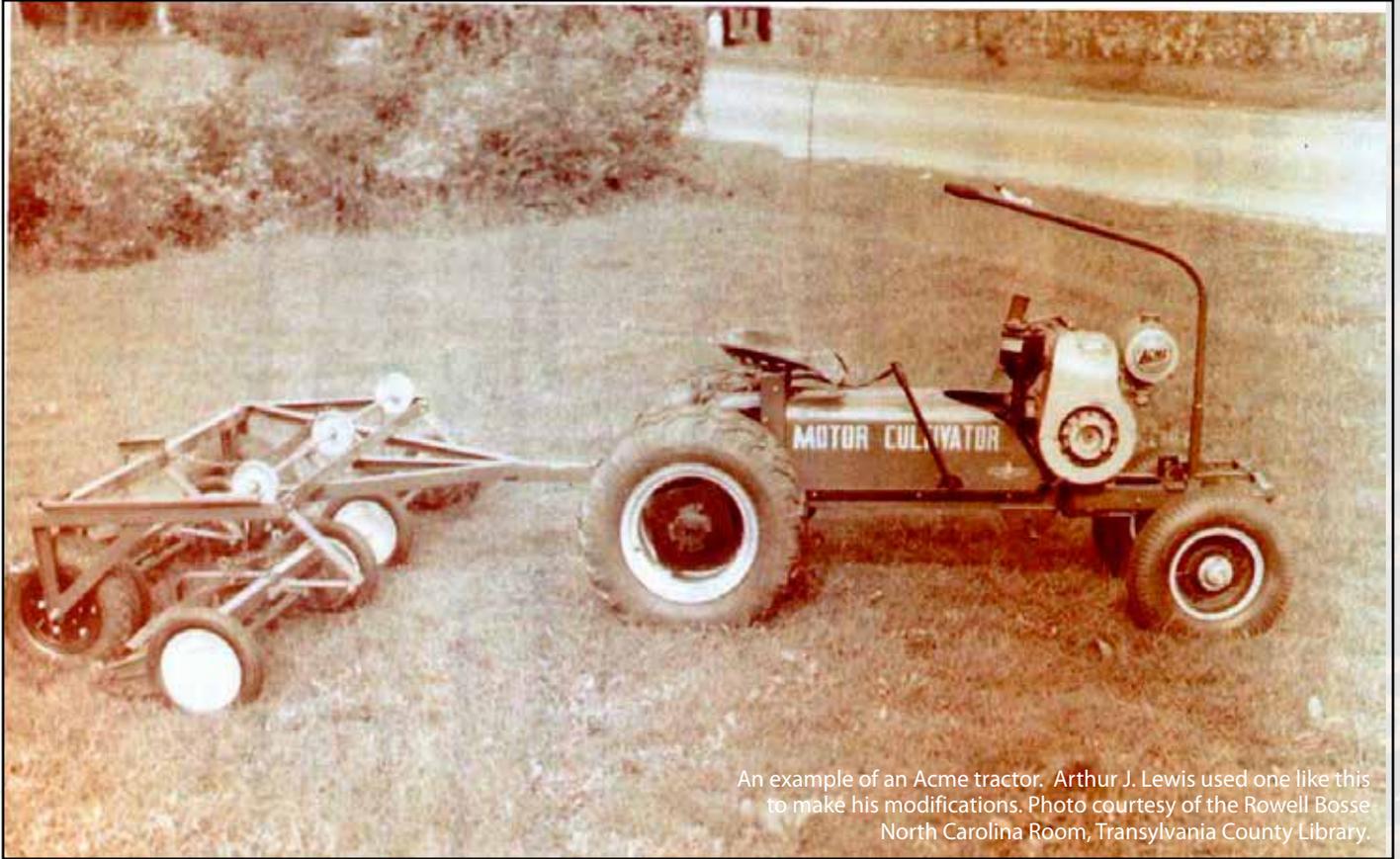


The building where the Acme tractors were built. Photo courtesy of the Rowell Bosse North Carolina Room, Transylvania County Library.

development projects such as designing and building machine prototypes for Baird. He took one of Hancock's ACME riding tractors to his shop and began the modification process. The two most notable changes that Lewis made were to replace the lever steer with a tiller steering mechanism and to add a reverse friction drive. These modifications made the ACME much easier to operate, so Lewis decided to contact the Smathers

Manufacturing Company and share his ideas. He even visited the factory and met with Mr. Smathers. Smathers, however, was not very interested in the suggested changes, but he did implement the tiller steering system and incorporated a reverse drive in his later ACME models.

To be continued in the March issue of *Lawn and Garden Tractor Magazine*. 🍀



An example of an Acme tractor. Arthur J. Lewis used one like this to make his modifications. Photo courtesy of the Rowell Bosse North Carolina Room, Transylvania County Library.



Arthur J. Lewis III (Jim), age 6 is seated on the modified ACME tractor in his grandfather's (Arthur J Lewis II) backyard. Thanksgiving 1947.



Three-year-old Al Lewis is seated on the modified ACME tractor in his grandfather's (Arthur J. Lewis II) backyard. Thanksgiving 1947.