

Lane & Bodley's Sawmill of 1860

By Robert T. Rhode

Mary Hammill, originally from the Greater Cincinnati area, was looking for a home for a cut (or engraving) of a Lane & Bodley sawmill and discovered company information archived on the Cincinnati Triple Steam website. Subsequently, Mary and her husband, James "Jim" Hammill, found me because of my association with Leland Hite, with whom I have written articles and with whom I have worked on various historical projects. Lee is the author of the Cincinnati Triple Steam website (<http://cincinnati-triplesteam.org/>), which features the Cincinnati Water Works' River Station, home to four of the world's largest triple-expansion, water-pumping steam engines. As tour guide, Lee is the voice of River Station. From their home in Hopkins, Minnesota—a place familiar to those interested in the Minneapolis Threshing Machine Company—the Hammills mailed me the cut, which appeared on page 346 of *Frank Leslie's Illustrated Newspaper* for October 20, 1860.

As Sandra Seidman has published the definitive history of the Lane & Bodley firm and made it readily available to readers through Lee's website, I will forgo the temptation to tell about the company. (See http://cincinnati-triplesteam.org/steam_publications.htm and scroll to Sandra's article.) I will focus on what the cut and the accompanying story on page 345 have to offer.

The article in *Frank Leslie's Illustrated Newspaper* describes a steam-powered sawmill that Lane & Bodley exhibited at the United States Agricultural Fair held at the Trotting Park (also known as the Buckeye Trotting Park or the Buckeye Course) north of Carthage, Ohio, from the 12th to the 26th of September in 1860. The cut cannot have been made from photographs taken at the fair. In the distance is a skiff with a sail. As indicated by the presence of the skiff, the body of water is too wide to be Mill Creek, which



This lavish cut, or engraving, of a steam-powered sawmill manufactured by Lane & Bodley of Cincinnati, Ohio, appeared in *Leslie's Illustrated Newspaper* for October 20, 1860.

bordered the fairground on the north. I might guess that the skiff is on the Ohio River and that photos from which the artist drew the cut were taken somewhere along the river, but the exposures could have been made near any river or lake where such a Lane & Bodley sawmill was transported.

The artist was the renowned Albert Berghaus, a significant illustrator from the 1860s through the 1890s. In the 1870s, Berghaus would travel west, collaborating with Frederick Remington on sketches to illustrate an account written by Mrs. George Custer. Behind his name on the Lane & Bodley cut, Berghaus included the abbreviation "Del.," from the Latin *delineavit*, meaning "he drew it," or, in other words, "I drew it." Berghaus was ensuring that readers would not think he was merely a copying engraver, who

might have used the abbreviation "Sc.," from the Latin *sculpsit*, meaning "he cut it."

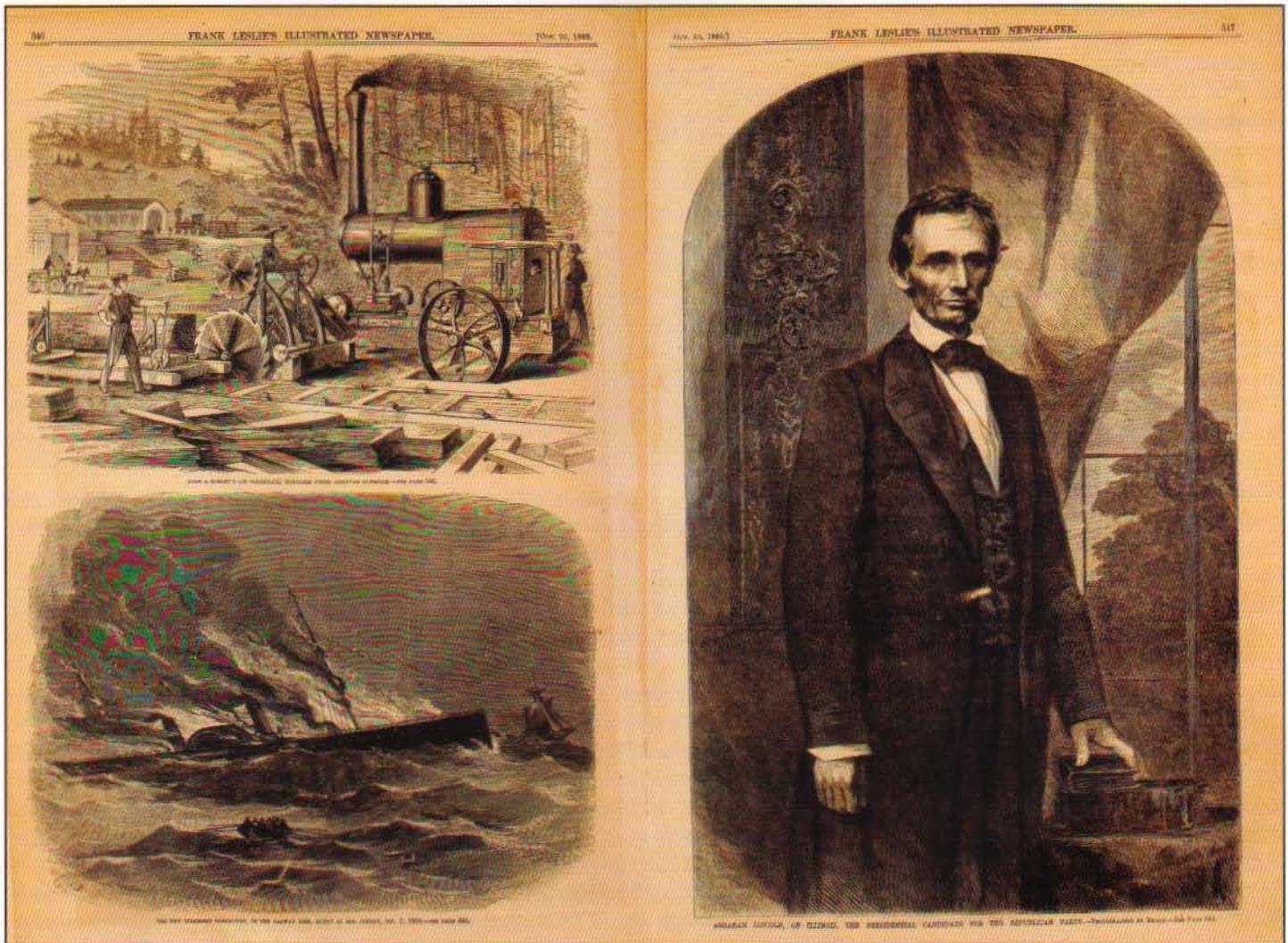
Having learned the engraving trade in his home country of England, Frank Leslie built a publishing empire that would outlive him in New York. After he passed away, his second wife, Miriam (Squier) Leslie, would brilliantly overcome the debts he had recently incurred and would restore tremendous vitality to his publications. Frank Leslie invented many improvements in the technology of engraving. One of his most important innovations grew from his simple yet earth-changing realization that he could drastically speed up the engraving process by first assigning each member of a team of many engravers (up to thirty) a small area of a large drawing, then collecting the small cuts from them, and finally assembling

their cuts into a large engraving. A big cut that would have taken up to thirty days for one engraver could be completed in a single day. In this way, Leslie could go to press with full-page illustrations of current events.

Relying upon photographic images for his depiction of the Lane & Bodley sawmill, Berghaus made the drawing from which one of Leslie's teams of engravers worked. Because Berghaus made his drawing from photographs (no longer extant), he could not be

sure of details that were out of focus or hiding in shadows; for this reason, he unwittingly introduced several distortions. Also, each engraver handled only a small portion of such a large drawing; therefore, anomalies appeared in the work of the engraving team. In the Lane & Bodley cut, the doubletree for the oxen that pulled the heavy boiler into position appears to be floating in the air, even though, logically, it would have been lying on the ground in the photos. The feet of

the fireman should be on the same ground level as the doubletree. The necessary provisions for handling the ashes are not clearly discernible (perhaps lost in shadows in the photos), nor can I see the back wheels that would have been necessary to roll the boiler into place. (From the size of the front wheels, I gather that all wheels were small in diameter.) In vogue at the time was the practice of reducing the size of human beings by about a third so as to form the illusion that the



The Lane & Bodley sawmill cut appeared as one of three engravings filling a two-page spread with illustrations depicting the news of the day, including the loss of a brand-new ocean-going vessel. The *Galway Advertiser* for October 20, 2016, reports that Captain John Wilson of the three-masted brig *Minnie Schiffer* "rescued all the passengers and crew of the *Connaught*" that became the victim of a slowly gaining fire in the Atlantic Ocean a hundred miles south of Boston on October 7, 1860. Wilson's feat of saving every man, woman, and child of "almost 600 terrified people in a heaving sea, from a blazing ship in growing darkness" drew the praise of England's Queen Victoria. Tiffany's of New York presented Wilson with a service of silver plate. Wilson's privateering during the subsequent war, however, damaged his reputation in the North. The third engraving featured Abraham Lincoln, presidential candidate of the relatively new Republican Party. Also running were John C. Breckinridge of the Southern Democratic Party, Stephen A. Douglas of the Democratic Party, and John Bell of the Constitutional Union Party. With a divided southern vote and a divided Democratic vote, the winner would be Lincoln.

machines were larger—hence, more powerful—that they actually were. The ludicrous result is a fireman who is too small for the boiler and who must be standing in a hole because his knees are level with the bottom edge of the firebox, which is resting on the ground! Other discrepancies will become obvious to viewers willing to study the cut carefully. (Hints: examine the spokes of the beltwheel; also, look for the belt powering the saw.)

Page 253 of the *Prairie Farmer* for October 18, 1860, carried the promotional story (serving as an advertisement) that H. & F. Blandy's portable steam engine and sawmill took "first premium" at the United States Agricultural Fair "as the best, simplest, easiest to handle, and fastest cutting mill." The article continued, "Competing mills had larger engines, requiring four hands to operate them, used 95 pounds of steam and over, and some completely breaking down and having a second trial!" The author of the story added that Blandy sawmills "obtained all the First Premiums at the Ohio State Fairs for 1857, 1858 and 1859, and are everywhere the VICTORIOUS CHAMPIONS!" As if the capital letters were insufficient to convey the unquestionable superiority of Blandy equipment, the advertisement quoted David Peters and John Ross, two eyewitnesses from the Carthage area. They had furnished the logs for the contest and had received the lumber in turn: "We must say that the Blandy Mill made the best lumber, and the Committee justly gave it the First Premium." The ad reported that two men ran the mill, cutting 32 boards 12 feet 8 inches in length and 20 inches wide from 2 logs in 8 minutes and 15 seconds with steam at 80 PSI in a 9 x 16 cylinder, thereby cutting 4 lines through the log each minute, "a feat never before accomplished by any mill with single saw." (See my history of the Blandy firm here: <http://roberttrhode.org/documents/Blandy.pdf>.)

Given the glowing report about Blandy's success at the fair, we can wonder why *Leslie's Illustrated Newspaper* chose to depict and describe the Lane & Bodley sawmill instead.

I will end with the story that accompanied the Berghaus drawing in *Frank Leslie's Illustrated Newspaper* for October 20, 1860 (page 345):

LANE & BODLEY'S PORTABLE SAWMILL.

A SAWMILL was formerly looked upon as a ponderous local fixed fact, but necessity and the progressive spirit of the age demanded not only a more speedy means of making lumber, but some kind of a sawmill that might be quickly erected when it was needed, and readily removed to some other point when the pressing need for it had subsided, or when it had cleared so large a space of timber as to make the hauling of logs inconvenient.

This could not be done with the old-fashioned reciprocating or "up and down" sawmill, because a heavy and strong framed building was necessary to accommodate it, and attention was turned towards the circular saw as the only means of satisfying the demand. Unexpected difficulties were, however, developed in the attempts of subjugat-

ing this new servant, and for years the history of circular sawmills was only a series of expensive and disastrous failures until they were a by-word with lumbermen, and the marks of a circular saw a self-condemnation of any lumber offered in market.

But "through defeat we conquer," and after years of discomfiture, the manufacturer became an adept in the perfect grinding and balancing of his saws. Experience taught the proper shape and number of teeth to be employed; the machinist produced simple and compact machinery for using the saws, and now it is found that the ominous clouds that so long hung over the circular saw as a lumbering tool have vanished into thin air, and are now almost as common as threshing machines, and their use attended with as little difficulty. As there are different grades of excellence in all things, so the circular sawmills of different manufacturers are not uniformly successful.

Messrs. Lane & Bodley, iron founders and machinists of Cincinnati, have proved, probably, more uniformly successful



Well-known artist Albert Berghaus relied upon photographs to make the drawing on which the cut of the Lane & Bodley sawmill was based.



The eagles standing atop the Lane & Bodley sawmills were heavy bronze castings, perhaps made at Miles Greenwood's aptly but coincidentally named Eagle Iron Works in Cincinnati. This eagle is from one of the earliest Lane & Bodley sawmills.

with their circular sawmills than any other manufacturers, as they are found in almost every part of the West and South, enjoying an excellent reputation everywhere, and their establishment has a capacity for producing several hundreds per annum, and the demand taxes their facilities to the utmost.

They had in operation, at the United States Agricultural Fair, at Cincinnati, one of their powerful portable steam circular sawmills, which was in operation, sawing lumber, within two days from the time of its arrival on the ground, and attracted much attention from the visitors by the speedy manner in which it converted logs into good smooth boards—being at the rate of five twelve feet boards per minute; in fact, when we state that the saw is fifty-four inches in diameter, and revolves four hundred and fifty times per minute, and cuts one inch and three quarters per revolution, there will be no difficulty in believing that the mill will cut one thousand feet of inch boards per hour, and not unfrequently twenty thousand feet have been cut per day—one thousand feet have been cut in twelve minutes on test trials. The whole thing is eminently portable, as the boiler, the only heavy part, is on wheels, and two yoke of oxen can haul

it anywhere. The whole is set upon a few timbers, embedded in the earth, and a shed is built of some of the first boards sawed, and the thing is completed. Messrs. Lane & Bodley have made these machines and the appropriate steam power their special study, and have made many improvements, among which is their double flued portable boiler, in place of the multitubular boiler, which latter, although a *sine qua non* in a locomotive, is not the thing for rough usage by inexperienced men in the woods, as has been proved by the many accidents that attend their use.

These boilers are coming into common use, and are extending the reputation of their builders.

The whole equipment, as exhibited on the Fair ground, worked smoothly and rapidly, and really looked as though making lumber was very easy work. The price of the machine exhibited was about \$2,000, their prices ranging from \$1,600 to \$2,200, for sawmill, steam power, belting, and all the appurtenances to a complete sawmill.

Contact steam historian Robert T. Rhode at 990 W. Lower Springboro Rd., Springboro, OH 45066; e-mail: robert.t.rhode@gmail.com

THE LANE & BODLEY
PORTABLE CIRCULAR SAW MILL.

PORTABLE AND STATIONARY STEAM ENGINES.

WOOD WORKING MACHINERY.
LANE & BODLEY, CINCINNATI, O.

Produced only a few years after the 1860 cut and featuring the products of the Lane & Bodley Company, this chromolithograph has fewer mistakes than can be detected in the older engraving.