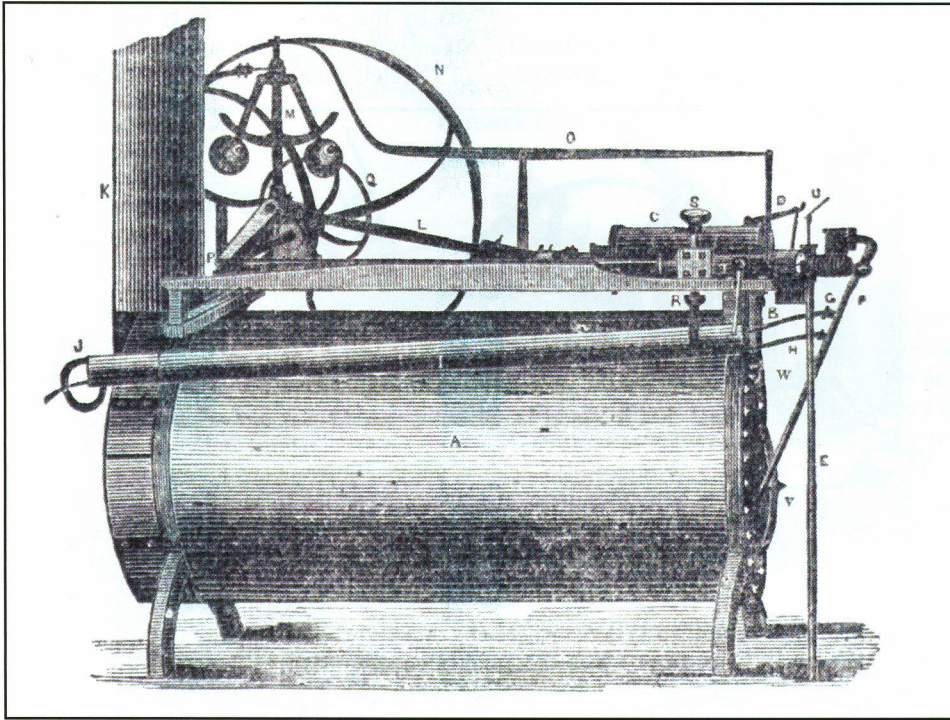


WHY WATERTOWN, WHEELER & MELICK, AND BUTTERWORTH ENGINES LOOK ALIKE

By Robert T. Rhode



Documents of the Assembly of the State of New York for 1851 acknowledged this Hoard & Bradford engine as the recipient of a silver medal at the state agricultural fair.

Several readers expressed appreciation for my articles on mimicry among farm steam engine manufacturers, which appeared in *Engineers and Engines Magazine* in 2012. Now, for what may be a surprising development of the theme of imitation, see my friend and fellow author John F. Spalding's column beginning on page 17 in this issue. In my stories about duplication, I indicated that the Watertown portable and the Wheeler & Melick portable were exactly alike. I reported that Hoard & Bradford held the patents on a portable engine that developed into the Watertown, named for Watertown, New York. I said that one of Gilbert Bradford's most important patents was Number 115,928, awarded on June 13, 1871. It was assigned to the Portable Steam Engine & Manufacturing Company of Watertown. I called attention to the fact that page 50 of Jack Norbeck's encyclopedia depicts an 1877 cut, or an engraving, of a Wheeler & Melick portable engine and that I had found the very same cut on page 204 of the *American Agriculturist* for May 1879 but with the magazine illustration labeled a

Watertown, not a Wheeler & Melick. I theorized that Wheeler & Melick might have had a license to sell Watertown portables under the name of Wheeler & Melick.

First, I want to mention that an ad from 1880 shows that Wheeler & Melick sold vertical engines mounted on vertical boil-

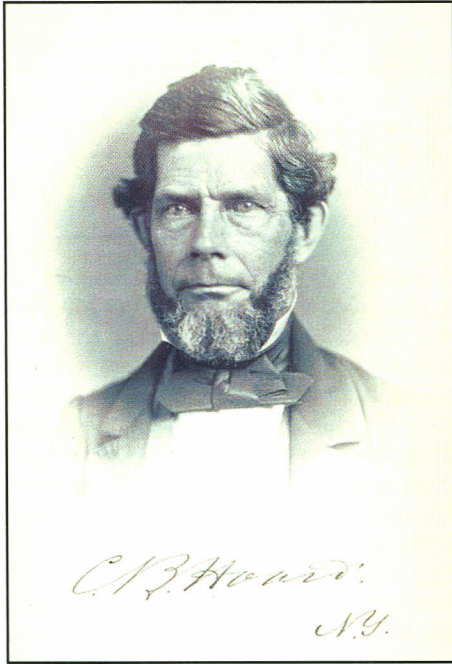
ers, and the book entitled *Documents of the Assembly of the State of New York* for 1886 lists Wheeler & Melick as providers of vertical engines. I suspect that these engines were built by another manufacturer that I have yet to identify. More germane to this article is my conclusion that Wheeler & Melick sold Watertown portable engines. Through this arrangement, Watertown gained a market in the state capital of Albany. Further, Watertown gained an ardent supporter of agriculture in James H. Melick (1829–1908), who was active in the New York Agricultural Society. Even though page 380 of *The American Agriculturist* for October 1877 depicts what is said to be "a portable boiler and engine made by the Wheeler & Melick Company," the engraving is identical to the standard engraving of the Watertown portable engine, which was based on Bradford's 1871 patent. It would be interesting to know what the reporter meant by the word "made."

Brothers John Butterworth, Jr. (1833–1916), and William H. Butterworth (1846–1930) of Trenton, New Jersey, announced their portable engine in the *Altamont* (N.Y.) *Enterprise* of September 25, 1896, although a Butterworth pamphlet said that the engine was developed in 1895. Much had happened between 1879 and 1896! For one thing, patents in that time period were protected for seventeen years, and Gilbert Bradford's patent of 1871, which had led to one kind of Watertown portable engine,

The Ohio Cultivator for 1852 carried this cut, or engraving, of a Wheeler, Melick & Company thresher.



New York State Agricultural Works, Albany, N. Y.,
BY WHEELER, MELICK & CO.



Congressman Charles B. Hoard was photographed in 1859. He and Gilbert Bradford were early builders of portable engines in Watertown, New York.

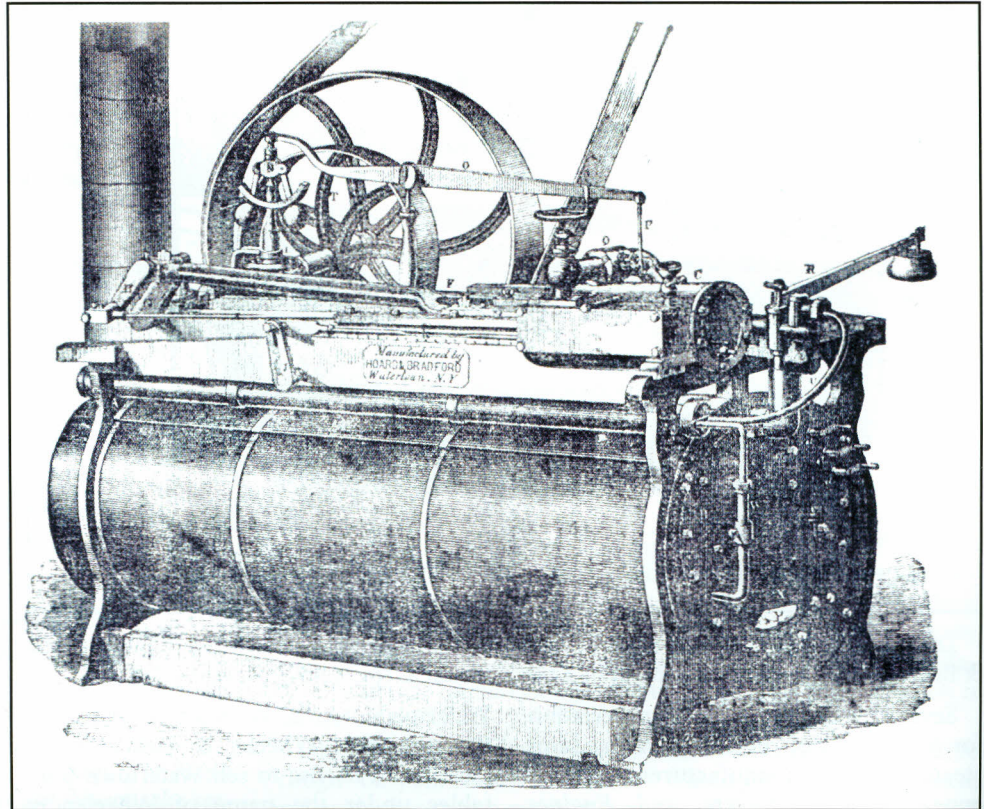
had expired in 1888. Before we discover additional events of historical importance, let us return to the infancy of agricultural steam power in the United States.

Bradford had built a working engine by 1849. During a visit to Watertown in 1850, the great newspaper editor and author Horace Greeley (who is perhaps best known for his advice on Manifest Destiny: "Go West, young man, go West and grow up with the country.") observed Bradford's engine at work powering the press of John A. Haddock's printing office. Greeley's *New York Tribune* for July 13, 1850, described his trip to Watertown, where Greeley delivered a lecture on temperance, the longstanding movement against the evils of alcoholic beverages: "The best thing I saw in Watertown was the turnout of two thousand people on a wild, stormy night to hear a dry talk on temperance. The next best was a new portable steam engine, invented and manufactured there by Messrs. Hoard & Bradford. The two-horse engine I examined was running a Napier power-press briskly, while burning as much fuel as a common kitchen range. Certainly, a ton of pea coal would suffice to run it a fortnight, day and night. The time must be at hand when every thrifty farmer and nearly every mechanic will have such an engine of his own, and chopping straw, turning grindstone, cutting wood, churning, threshing, etc., will have ceased to be

a manual and become a mechanical operation. Printing (press work) by hand must rapidly disappear before the approach of this engine, which will be running on wheels and driving a scythe before it, or drawing a plow behind it, within five years." Greeley's joy in Bradford's engine was quoted, with variations, in several publications, including page 346 in *The Ohio Cultivator* for 1850.

Bradford (1814–1894), a descendant of Plymouth Bay Colony's first governor

(William Bradford), and Charles Brooks Hoard (1805–1886), a descendant of Massachusetts Bay colonists, opened an engine-building shop in 1851 and won a silver medal for a portable engine at the New York state agricultural fair in the same year. Page 48 in *The Growth of a Century: As Illustrated in the History of Jefferson County, New York, from 1793 to 1894*, written by the same John A. Haddock whose steam-powered press had drawn the praise of Greeley, includes these sentences, taken



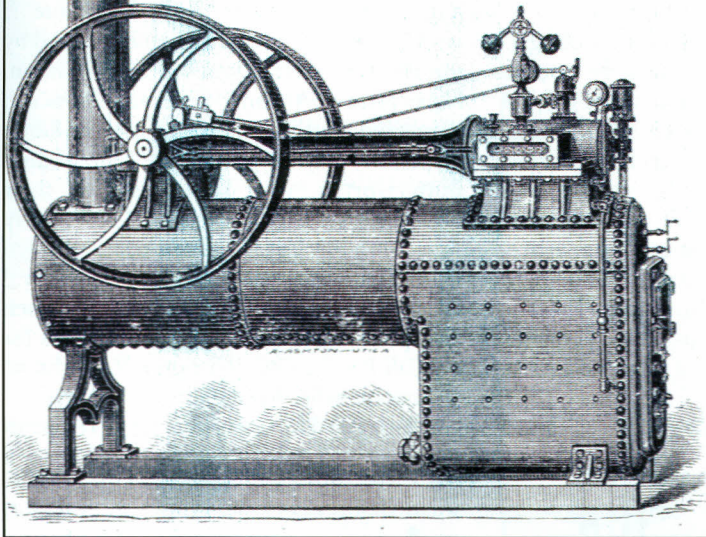
The American Farmer for 1854 provided this cut of a Hoard & Bradford skid engine.



Gilbert Bradford designed and constructed the Black River Suspension Bridge on Mill Street in Watertown in 1857.

practically verbatim from *Fifty Years in Journalism*, written by Beman Brockway and published in Watertown in 1891: "... orders began to pile in upon the firm as unexpected as they were gratefully received. So great was the demand for the Hoard & Bradford engine that they were six months behind in their orders within a year after starting, and were never able to catch up until 1860-61. After four years of harmonious partnership with Mr. Bradford, Mr.

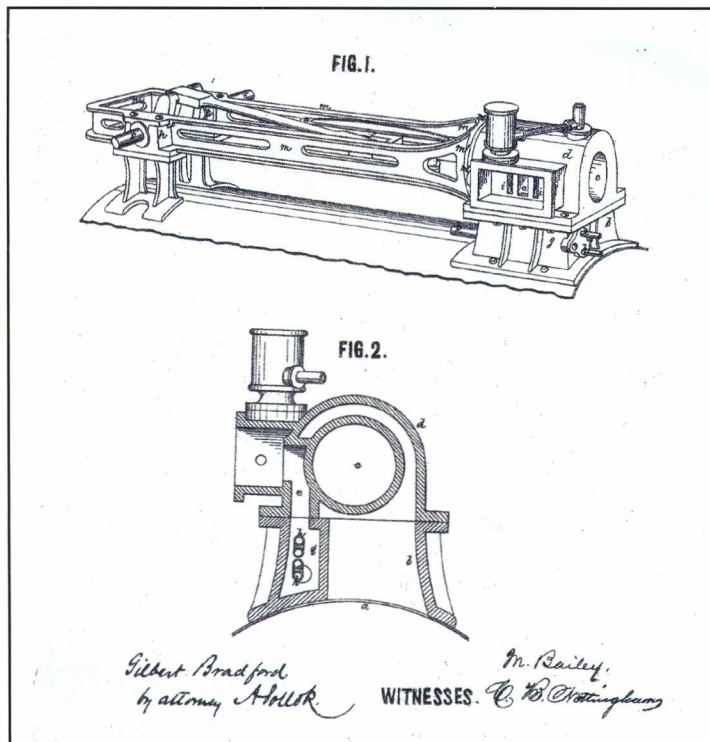
An advertisement for the Portable Steam Engine & Manufacturing Company of Watertown, New York, included this illustration of the Excelsior Patent Portable Engine of 1870.



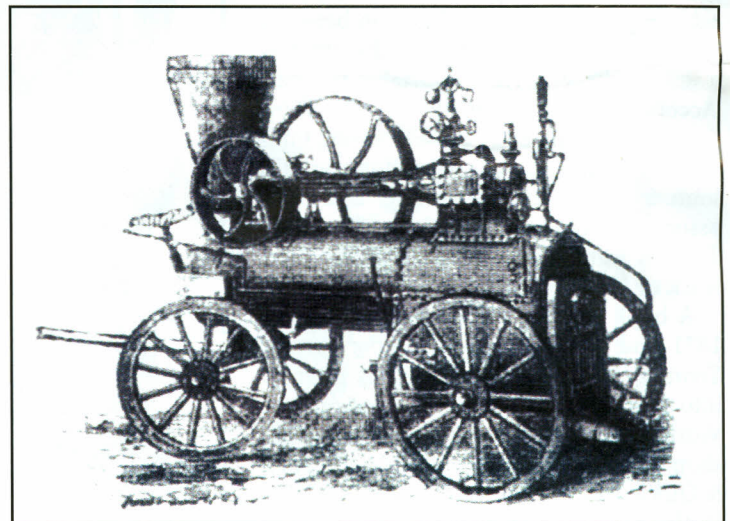
Hoard purchased his interest for \$26,000 [\$25,000 according to Brockway]—a sum which made Mr. B. an independent man, and he congratulated himself often and in public that he had withdrawn from the business, as he really believed it had reached its 'high noon.' He doubtless thought otherwise when Mr. Hoard took his two sons, who were then of age, into the business, and the new firm of Hoard & Sons began to make larger and better engines than ever before, selling them in every State of the Union, particularly in the south and south-west. It was while this business was at its height that Mr. Hoard was nominated and was elected as the Representative of the 23d (Jefferson and Lewis) District in the 35th Congress [1857-1859]. Hoard was reelected, serving in the 36th Congress (1859-1861). The tone of the foregoing narrative implies that the partnership of Hoard and Bradford might not have been "harmonious" after all. As we shall see, Bradford soon regained the business from Hoard, who "was a little too positive in his make-up for his own benefit, for he never yielded a point when he deemed himself right," according to Brockway, who otherwise praised Hoard's positive qualities.

The second volume of *Genealogical and Family History of the County of Jefferson, New York*, explains that, in 1865, the Portable Steam Engine and Manufacturing Company of Watertown grew from the Hoard business after Hoard had made financially disastrous blunders in an attempt to manufacture guns for the North during the Civil War. (Now that so many years have elapsed, it is difficult to discern if Hoard was at fault for the contract that cost him almost all of his personal fortune or if he was the victim of bad timing and unfair inspectors.) Bradford was appointed superintendent and general manager of the reorganized engine company, which was essentially a new firm. In 1873, the business was renamed the Watertown Engine Company, often called the Watertown Steam Engine Company, with Bradford serving as president.

Now we return to the central theme of this article. For reasons unknown, Wheeler & Melick went out of business in 1890. John Wolff, who had begun as a shipping clerk and salesman, assumed control and gave the company continued existence until January of 1896. Meanwhile, the Panic of 1893, which rapidly spread its financial woes throughout the nation, had threatened to wipe out the Watertown Steam Engine Company. After a few years of a



The drawings that accompanied Gilbert Bradford's patent (Number 115,928) of June 13, 1871, suggest that the Excelsior Patent Portable Engine of the previous year was equipped with the kind of engine that Bradford patented.



Page 204 of the *American Agriculturist* for May 1879 offered this cut of a Watertown engine. The engraving is identical to an 1877 cut of a Wheeler & Melick portable engine because Wheeler & Melick sold Watertown engines.

grindingly slow recovery, General Manager Samuel F. Bagg had begun to restructure the firm.

The Watertown stockholders thought Bagg was making unprofitable decisions. As the Watertown and Utica newspapers reveal, Bagg made a startling proposal. He essentially said, "I will accept full responsibility. Lease the company to me, and I will make it profitable!" The shocked stockholders muttered their agreement, and, in a relatively short time, Bagg made the company financially sound. He could not have achieved such sudden results without preparation during several preceding years. In the early stages of the panic, Bagg must have decided to focus on production of automatic cutoff stationary steam engines for factory installations, as may be seen in Watertown advertising. In 1895, he must have been talking with the Melick family with whom the Watertown firm had enjoyed a longstanding relationship. By then, the Watertown portable agricultural engines represented old designs with patents that had been defunct for almost a decade. Hoard had passed away in 1886; Bradford had died in 1894, the same year that John S. Davis & Sons of Davenport, Iowa, were distributing Watertown traction engines.

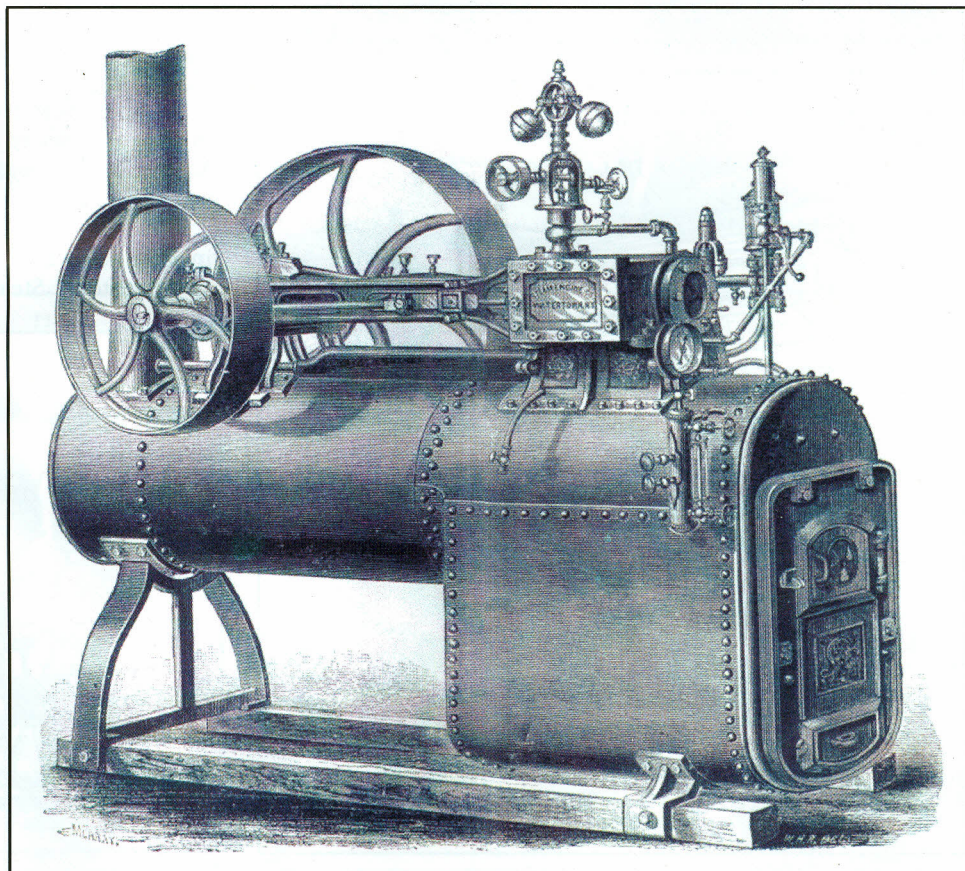
John and William Butterworth of the New Jersey Agricultural Works were looking for a portable engine to power their thresher (one or two of which survive). A fellow incorporator of the Trenton Agricultural Works along with John Butterworth was James H. Melick's brother John (1819-1884). Even though John Melick had passed away a decade before the Butterworths began to produce a portable engine, the long association between the Melicks and the Butterworths suggests a link to the Watertown portable engines. According to *Acts of the Ninety-Third Legislature of the State of New Jersey*, John Melick, Bennington Gill, John Butterworth, John S. Cook, Amos Lanning, and their associates were permitted to form the Trenton Agricultural Works with a capital stock of \$55,000 in 1869.

A book by John O. Raum published in 1871 and entitled *History of the City of Trenton, New Jersey* presents this glimpse into the past: "The Trenton Agricultural Works were commenced in 1853, in a small shop on Stockton street, by Messrs. Melick & Quick. In 1856, they moved their factory to the present location, on Carroll street, near State. The business, which rapidly increased under the above firm, passed successively into the hands of Melick, Withington & Co. and J. Melick & Co., and

in the spring of 1869, was transferred to the present owners, the directors being Messrs. Bennington Gill, of Monmouth county, (president); John S. Cook of Burlington county; Philip P. Dunn and Hiram L. Rice, (secretary and treasurer), of this city." *Documents of the Ninety-Eighth Legislature of the State of New Jersey* for 1874 noted that Bennington Gill had won a silver medal at the state agricultural fair for his rye thresher. In 1882, Part I of *Industries of New Jersey* profiled the firm of B. Gill & Son of the Trenton Agricultural Works: "The business was established in 1856, and has grown to be one of the leading industries of the city. Every description of agricultural machinery may here be found. They are also the manufacturers of the celebrated Peerless Thresher and Cleaner, straw preserving rye threshers, feed mills, potato diggers and planters, railway and lever horse powers, etc., all of them standard machines and substantially constructed. ... The individual members of the firm are Mr. Bennington Gill and Mr. Albert L. Gill, his son." (The product name "Peerless" is not to be confused with Geiser Peerless machines.)

Writing in *The Iron-Men Album*

Magazine for May-June 1961, Bruce Bunting of Burlington, New Jersey, said, "On page 23 of the March-April 1961 issue of the *Album* you picture an old A. L. Gill straight straw thresher. It was originally built by Mr. Gill. He was an Englishman and built the first straight straw thresher in this country. He also built tread powers, small threshers and feed grinders at South Harren St., Trenton, New Jersey. He was a very nice man." In the same issue for May and June, R. G. Runkles, president of W. G. Runkles' Machinery Company, explained, "The thresher in the picture ... shown on page 23 of your March-April 1961 issue ... is a Gill Peerless Thresher manufactured by the Trenton Agricultural Works of Trenton, New Jersey. At one time this concern employed approximately 125 men building threshers, feed mills, etc., including Butterworth's, who later designed their own thresher and started the New Jersey Agricultural Works. Quite a few years ago we bought out the Trenton Agricultural Works and continued to build the thresher. Complete repair parts are still available for the Gill Peerless Rye Thresher. If you know of anyone who would like to purchase a new Gill Peerless Thresher, we have one in



By 1882, the Watertown skid engine had changed little from the engines of a decade earlier, as may be seen in this cut from *The Practical Steam Engineer's Guide* by Emory Edwards.

stock for immediate delivery." (I have made a few corrections in the typing of the quotations from Bunting and Runkles.) At the very time that the Panic of 1893 dealt a terrible blow to the economy, the Gill threshers and the Butterworth threshers were competing with one another, as may be detected in the patent history. John Butterworth, Jr., wrote glowingly that the Butterworth rye threshers would make farmers rich despite the gloomy financial picture that continued to plague the country for several years.

Just when the Wheeler & Melick firm was closing its doors in Albany, the Watertown portable engine, like the proverbial phoenix, arose in Trenton. Inspired by various portables formerly built in Watertown, the Butterworth engines did not rely upon the Bradford patented cylinder-in-dome design. The Butterworth brothers offered both a single expansion engine and a tandem compound. Butterworth engines were manufactured for only a few years, as the Butterworth brothers were issued Patent Number 624,750 for a gas engine in 1899, a mere three years after announcing the Butterworth portable steam engine. Thereafter, the Butterworths published ads with side-by-side illustrations of their threshers and their gas engines and made no further mention of their steam engines.

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Page 1, Column 3, in the *Watkins Express*, Watkins, N.Y., for August 9, 1894

How to Make Farming Pay.

An Interesting Theory Advanced by [John Butterworth, Jr.,] a Resident of Trenton, N.J.

[To the] Editor [of the] *Watkins Express*, Dear Sir: The great question of what shall the farmers do in these depressed times to make their calling more profitable is a matter which ought to and does agitate the minds of all honest-thinking men; and while there are numerous good political theories as to the best plan to place the farmers and grain raisers on an equal footing with the merchants and manufacturers, it seems the matter should not stop there.

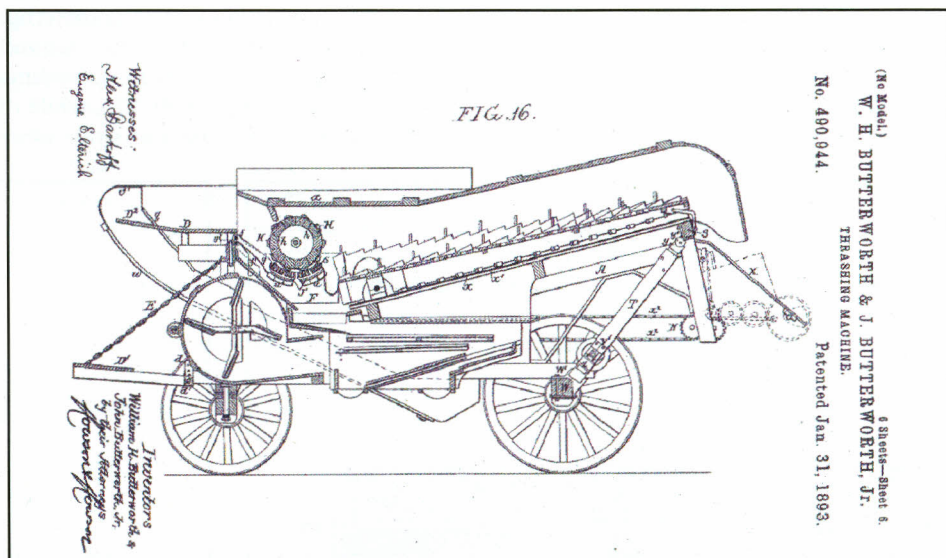
An extensive acquaintance with the farming community has made me conver-

sant with all the different plans suggested to enhance their incomes, and I desire to call attention to one striking feature, which, if honestly considered, will be adopted as a means of obtaining a large revenue from what has heretofore been of comparatively little value.

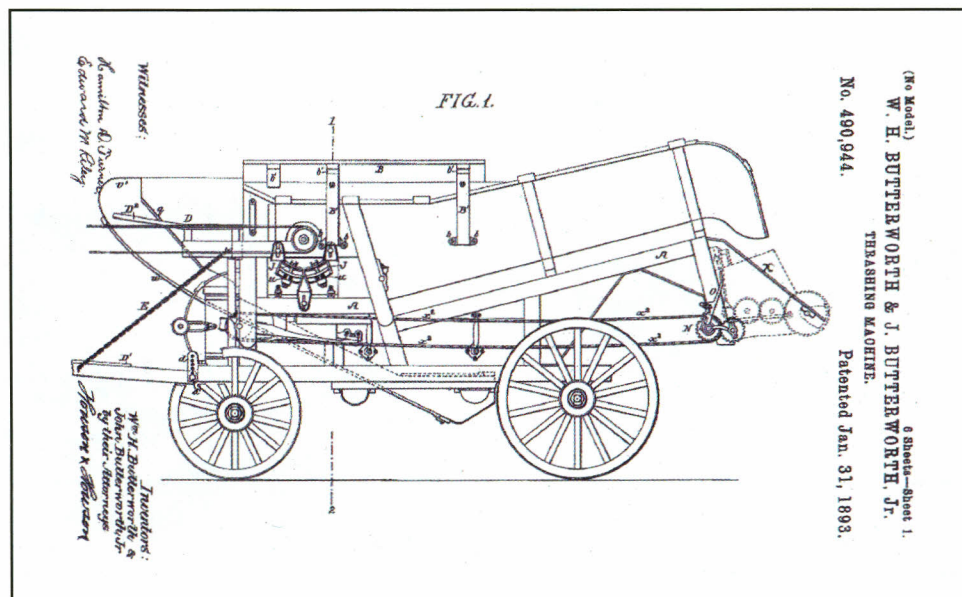
I refer to the matter of grain threshing with improved machines, which thresh the straw straight and bind it, thus making it of high marketable value. Farmers, as a rule, have always entertained the idea that every pound of straw grown on the farm must be quickly utilized in the manure-pile. While

this may seem correct, it can easily be proved by facts and figures that the system is wasteful, and money thus wasted, if saved, will buy enough manure or fertilizer to keep the farm in a high condition, besides leaving a good round sum as profit for the farmer.

We all know that the prices of grain at the present time are extremely low, and I propose to take the present low prices and show how the farmer can realize a greatly increased income on every acre of rye, without robbing the farm, and, on the other hand, keep it in a high state of culti-



On the 12th of June in 1888, brothers William H. Butterworth and John Butterworth, Jr., of the New Jersey Agricultural Works in Trenton filed a patent for their "Thrashing-Machine." The patent was issued on the 31st of January in 1893, only two years before the Butterworths produced a portable engine. The threshing machine came to be called the Butterworth Patent Self-Binding Thresher or the Butterworth Patent Universal Thresher.



The Butterworth Patent Number 490,944 revealed a cylinder that would leave the straw intact and a binder that could be started and stopped independently of the thresher.

vation by placing on it as much manure or fertilizer as if he had thrown his entire crop in the manure pile. The following facts and figures will prove the statements correct:

One acre of good land will yield 20 bushels of rye and about two tons of straw. The present price of rye is 50 cents per bushel, and the price of rye straw straight threshed and bound is fifteen dollars per ton. Twenty acres of rye yielding twenty bushels to an acre, if sold at 50 cents per bushel, will amount to \$200, forty tons of straw straight threshed and bound, if sold at fifteen dollars per ton will amount to \$600, making a total of \$800 realized from twenty acres of rye and straw.

Enough of this straw, however, must be economically used for bedding for the cattle and horses on the farm. By actual test one-half ton of straight threshed straw per head per

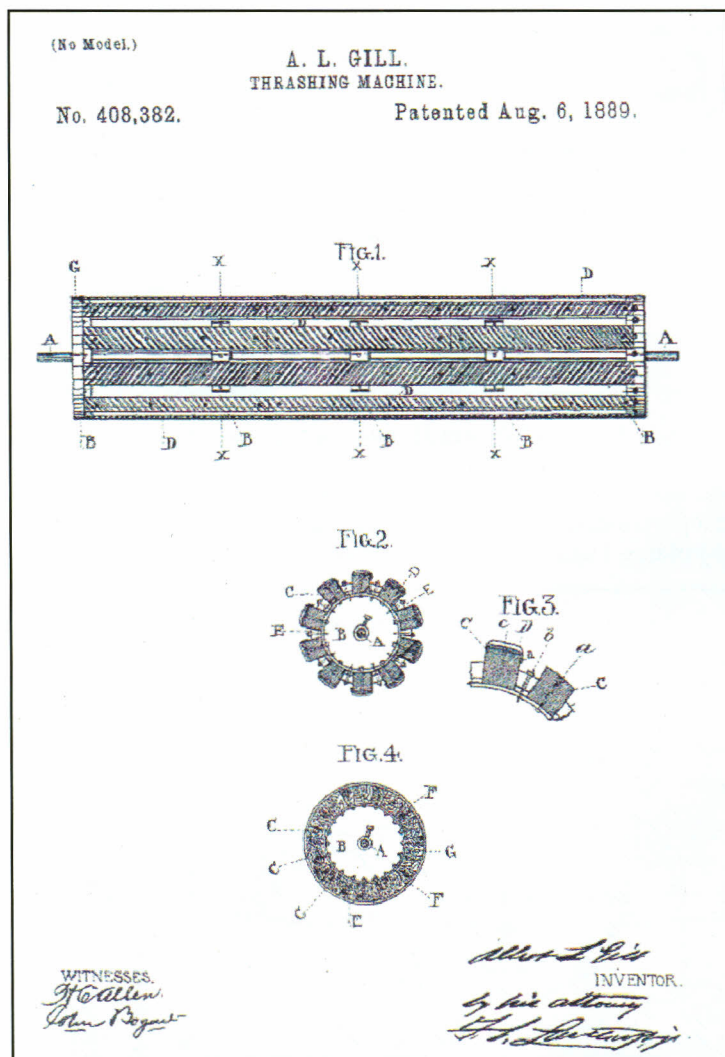
year is found to be a great abundance; consequently, if there are say sixteen head of stock on the farm they would require eight tons of straw to bed them for one year. This would leave for the farmer 32 tons of straw to sell at fifteen dollars a ton, making \$480 for the straw sold. Just here the query may arise, will not selling the straw rob the farm? According to Prof. E. B. Vorhees, the New Jersey State Chemist, the real manurial value of straw in the manure pile is only one dollar and eighty cents per ton, while the same straw, if threshed straight and bound, would bring in the market at least fifteen dollars per ton, and sometimes eighteen dollars per ton.

If the old plan is followed the entire crop of forty tons is deposited in the manure pile; the actual value of it there, according to Prof. E. B. Vorhees, is only \$72, while if the entire crop of forty tons of straw were

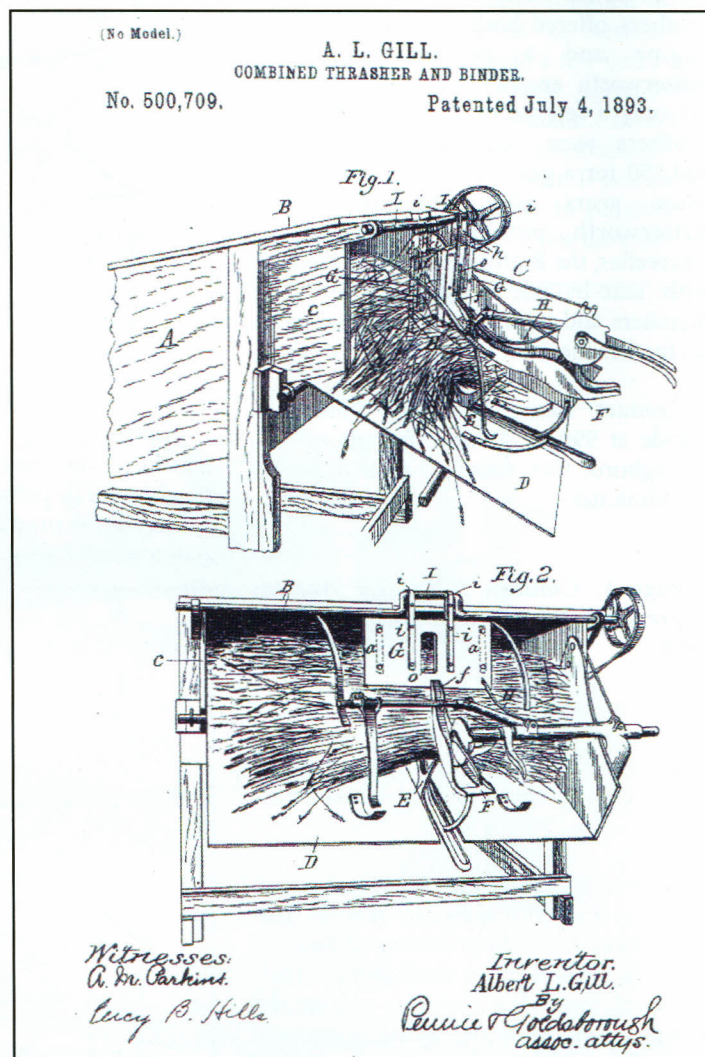
sold it would bring \$600, making a profit to the farmer of \$520 on twenty acres by adopting the new plan.

If we take the real manurial value of forty tons of straw, which is \$72, and with it buy stable manure or commercial fertilizer, it will enrich the farm to the same extent as if the whole forty tons of straw had been deposited in the manure, and still leave in the farmer's pocket a net profit of \$528.

This while enriching the farmer surely does not rob the farm; you may say if this theory be true, why has not this plan been adopted before? The simple reason is this: The march of improvement is ever onward, and the time has just arrived that farmers could avail themselves of a machine that will thresh and clean rye without breaking the straw, and at the same time bind the straw straight in bundles ready for the mar-



On the 15th of September in 1888, Albert L. Gill of the Trenton Agricultural Works filed a patent for a "Thrashing-Machine." The patent was issued on the 6th of August in 1889. For reasons unknown, Gill received his patent several years before the Butterworths received theirs, even though the two patents were filed only three months apart (and the Butterworths had filed first).



On Independence Day in 1893, a patent was issued for Albert L. Gill's "Combined Thrasher and Binder." Gill received his patent only six months after the Butterworths received theirs. Ominously, the Panic of 1893, the worst economic downturn to hit the country before the Great Depression, had begun in earnest a mere two months before the Fourth of July.

ket. And although the fact is not yet generally known, nevertheless I have no doubt that such machines will be adopted in preference to the old style tooth cylinder thresher, which necessarily breaks up and ruins the straw for marketable purposes.

It has only been a few years since the introduction of self-binding rye threshers, and look today at the increased acreage of rye. Why? Simply because the rye can now be threshed straight and bound in bundles, making it marketable at a high price all over the country.

Farmers should look such facts as these straight in the face, and thoroughly consider them, and when there is an opportunity to increase the profits of the farm by adopting improved methods, they cannot too soon discard old methods and waste-ful plans.

[From] John Butterworth, Jr., Trenton, N.J.

The prices and figures quoted in the above communication have reference particularly to the section in which Mr. Butterworth resides. E. B. Russell, of Watkins, states that in this county rye straw averages from three-fourths to one ton per acre, and that the present price is about five dollars per ton. Rye straw in bundles is now selling for from twelve to thirteen dollars per ton in New York, but owing to the expense of threshing and shipping, Schuyler county farmers could not realize as large profits as the statements of Mr. Butterworth would indicate. Mr. Russell says that several years ago he sold bound rye straw in New York for as high as twenty-five dollars per ton, but a combination of circumstances has tended to bring the price down. Formerly horse-men in New York could sell their manure for enough to pay for the bedding, but now it costs about forty dollars a year per horse to dispose of the manure. Farmers and gardeners in that vicinity are using commercial fertilizers instead of barn manure to a greater extent, and shavings and other things are largely taking the place of straw for bedding.

Page 1, Column 3, in the *Altamont Enterprise*, Altamont, N.Y., for September 25, 1896

Wonderful Results from a Recent Improvement in Steam Engines.

A very wonderful fact has been brought to light by a series of experimental tests that have just been made at New Jersey Agricultural Works, Trenton, N.J., in the economical use of steam as a motive power. The tests were made to ascertain how

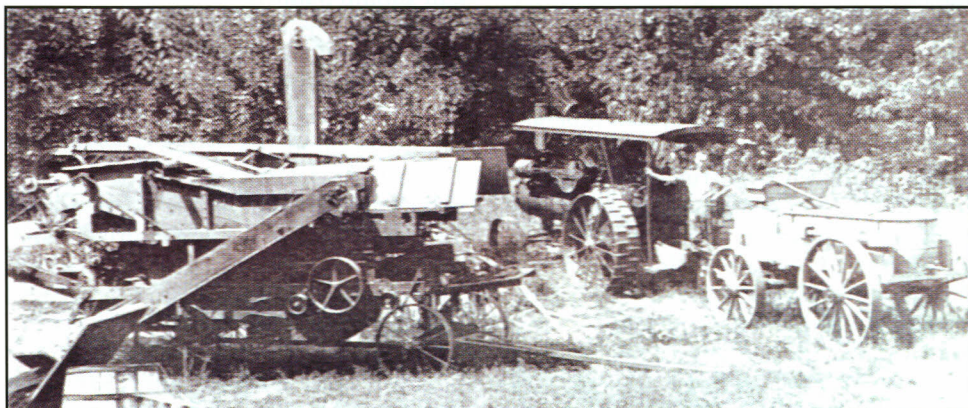
much economy in saving of fuel, and how much gain in power was really obtained by the use of the "New Butterworth Patent Compound Steam Engine," over the best constructed single expansion engines now in use. The tests showed that by the use of the "New Butterworth Patent Compound Steam Engine" a saving of over one-third was made in coal and water, to obtain a given amount of power, and a gain in power of over one-half was obtained, when the same amount of coal and water was used, that was required by the single expansion. Besides this a great advantage was gained in lightness of weight. The weight of a New Butterworth ten-horse power Compound Engine and Boiler complete on wheels, equipped for threshing purposes, was found to be nearly one-half less than any standard make of single expansion engine of the same power on the market, and while it required three good horses to haul a ten horse power single expansion engine over a common road, two ordinary horses hauled the New Butterworth ten-horse Compound Engine over the same road with ease; this being a big saving in horse flesh. Farmers—the men who buy coal for threshing purposes, will see that they can save 88 pounds in every 100 pounds of coal in doing the same amount of work, whether it be threshing, sawing wood, or grinding feed. Persons who are complaining of little money being now made can by the employment of these new improved Steam Engines, save over one-third in cost of fuel—one-third saved is one-third earned. Here is a big opportunity for some wideawake man or company, to beat competition, right on the ground of economy alone. A full line of these new improved engines will be in constant operation at the great Inter-state Fair next week at Trenton, N.J. For farther particulars address, The Butterworth Compound Engine Co., Trenton, N.J.

Page 1, Column 2, in the *Utica Morning Herald*, Utica, N.Y., for January 3, 1897

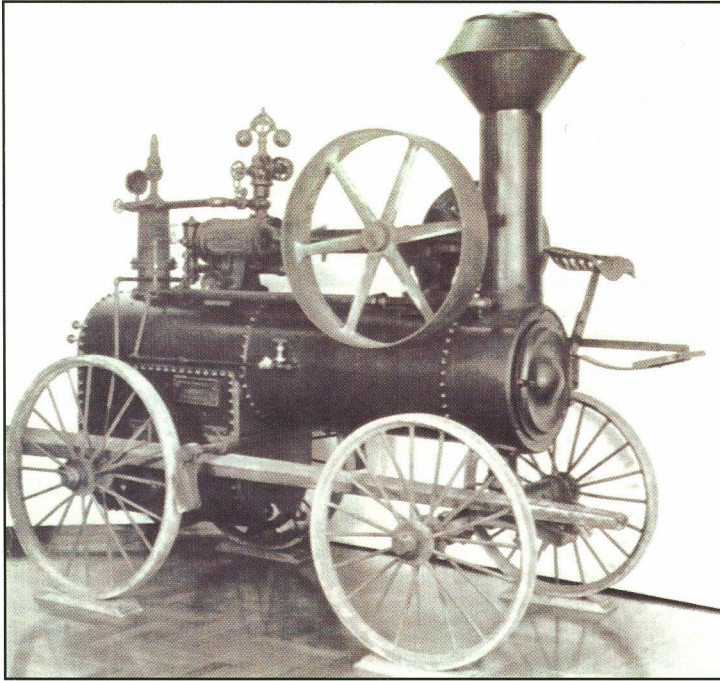
The announcement was made to-day that S. F. Bagg had leased the plant of the Watertown steam engine company. Mr. Bagg, who has been secretary and treasurer of the company, will hereafter conduct the plant in his own name. Some years ago, when the company's works were situated on the corner of Mill and Moulton streets, Mr. Bagg and C. D. Palmiter, the superintendent, leased the plant and Mr. Bagg has now made a similar contract. The steam engine company is the outgrowth of a business established by Hoard & Bradford. The company found quarters on Mill and Moulton streets somewhat cramped, and in 1899 moved to the present location. Mr. Bagg will take charge of all new work. Mr. Hathway, who has been assistant treasurer, now becomes treasurer and will take charge of the marketing of all the accumulated stock. Several good orders have been received, and the prospect for a boom in business looks bright. As business demands, Mr. Bagg will increase his force.

Page 1, Column 6, in the *Watertown Herald*, Watertown, N.Y., for January 9, 1897

S. F. Bagg has a prompt way of meeting dissatisfied stockholders. Although he was general manager of the Watertown Steam Engine works, the stockholders stepped in to dictate, practically shutting down the works. After trying to talk them into reason, and failing, Mr. Bagg showed his confidence in his own way to make an offer to lease the works. And this state of affairs has been brought about. A dozen men with the brains and energy of Mr. Bagg would build up any town. Watertown

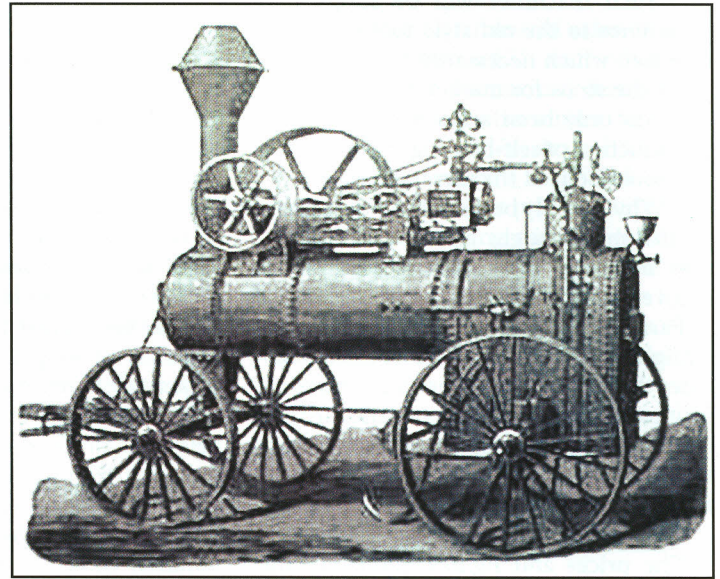


This photograph of a Gill Peerless threshing machine, manufactured at the Trenton Agricultural Works, appeared on page 23 in *The Iron-Men Album Magazine* for March-April 1961.



In 1985, the Henry Ford Museum sold this 6 HP Watertown portable, built circa 1888, for \$6,600.

has them. That's why it blossoms, albeit its blossoms are a little frostbitten just now.



Here is the Butterworth Single Expansion Engine. Butterworth portables were inspired by Watertown portables. They were built for only a few years.

EARLY DAY GAS ENGINE AND TRACTOR ASSOCIATION, INC.

Submitted by Larry Voris, Director at Large, 2340 S Luster, Springfield, MO 65840

At the National Board meeting at Morrow, Arkansas, May 19, 2013 we met with our insurance agent for a very informative meeting, discussing our insurance policy.

First, it is getting very hard to obtain an insurance policy like the one that EDGETA has and it is even harder to keep a policy like this enforced. We can tell by the tractor pulling clubs that are applying to EDGETA for membership in our organization. They can not obtain a policy at a reasonable price and they only want to be a member of our organization for our insurance benefit program only. They want our insurance program but want to use their pulling rules. Our requirements state 3.5 mph in all classes, no exceptions. If you read the exhibition class, it is 3.5 mph too. If you are pulling classes over 3.5 mph then EDGETA is not your choice. There are companies that will insure tractor pulls with the higher speeds, but they are getting harder to find and are clamping down on their benefit programs too. If you want to put it into perspective, "with the EDGETA program, you are buying a Cadillac for the price of a bicycle".

The EDGETA tractor pull is a "traction contest" not a speed race.

Second, we have had several little fender benders and it was the decision of the Board of Directors that the member involved in an incident be responsible for the \$1,000.00 deductible on the insurance policy. **The reason being, the members must have some responsibility if an incident should happen.**

Third, in the youth driver program, the youth must test and be certified on every tractor they drive.

Fourth, for all the rest of us, we probably need to go through a driver program too. We must be a defensive driver. It is not tunnel vision when we get on a tractor; we must be watching the other drivers and looking at the whole picture. Try not to get yourself in a position that you feel uncomfortable.

Fifth, loading and unloading a tractor or any kind of equipment is probably one of the most dangerous things we do. If you see something that is not right, stop and keep your distance. If help is needed, offer only if you see what the

problem is and that you can make it safer. Try to keep all spectators at a safe distance away from all loading and unloading areas. We all like to watch people come in to a show and unload their equipment. It is also scary to look at some of the trailers that tractors and equipment are being hauled on.

Sixth, some of the ramps being used are not safe. I have watched people load & unload row crop tractors using only 2 ramps and some want to use a wooden 2 x 8 for the front wheels. If one falls off a ramp, it is instant; you don't have time to prepare yourself for the fall. Loading and unloading in wet weather is especially dangerous. A rubber tire on a dry metal ramp is slick, but on a wet metal ramp is bad. And all ramps should be the same length.

I hope this information is helpful to all of our members.

The year is half gone and it is going to get busy the next 3-4 months. Let's all keep our exhibits safe and informative, me included.