

Tractor Test Times

Summer 2008 - Newsletter #34

State Fair Registration Begins

The Tractor Test Museum will once again be coordinating the antique tractor exhibit and tractor parade at the 2008 Nebraska State Fair Friday August 22nd through Monday September 1st.

Registration of tractors is required prior to August 15th. The registration form is included inside this newsletter. This year we are expecting the total number of tractors to exceed 100.

Registered exhibitors will receive one free ticket to the fair for each of the days they participate in the tractor parade. One additional ticket can be purchased at a discounted price. These are available for spouses or immediate family members accompanying the exhibitor.



2007 State Fair Andrew Helmink on his Allis C

Parade Schedule

6:00pm

Saturday Aug-23 – Thursday Aug-28

Saturday Aug-30 & Sunday Aug-31

12:00pm

Friday Aug-29 and Monday Sept-1



Tractors, Volunteers Needed for the Nebraska State Fair!

State Fair Registration and Friends Membership

Each year the Nebraska State Fair is a positive experience for everyone involved. The event increases the general awareness of state and national interests in antique tractors. Nearly 300,000 visitors pass by the museum exhibit and enjoy the tractor parade during the 10 day event.

The Tractor Test Museum encourages participation at the fair by providing free registration for 2009 Friends. Because of this, many renew their membership or join for the first time around the time of the state fair each year.

It is time to get your tractors ready for the Nebraska State Fair!

Tractor Test Museum Celebrates 10 Years with Open House

2008 Open House Welcomes 500 to Museum

Even though it looked like it was going to rain at any minute throughout the day, the Open House event was well attended. Special thanks to the Cortland Tractor Cats who grilled hotdogs and helped run the event sales booth. Proceeds raised are going towards funding a new traveling exhibit for the Friends organization.

A number of additional volunteers donated time greeting visitors, transporting tractors and serving our guests. Several new board members were also present to meet and greet individuals who attended the event.

Several tractors were brought in from the area and participated in two tractor parades around the new tractor test track. A number of 2008 John Deere models slated for testing at the Nebraska Tractor Test Laboratory were also on display throughout the day.

A special thanks goes out to all who volunteered and attended the event. We are already looking forward to next year.



Jeff Helmink, Ron Moormeier, Roger Olson, Norv Papke and Craig Heidecker at the 2008 Tractor Test Museum Open House.

Board Meeting for Friends of the Museum 7:00 July 15th, 2008

The second quarterly board meeting for the Friends of the Tractor Test Museum is scheduled for July 15th at 7:00pm in the Nebraska Tractor Test Laboratory. Topics include: shop improvements, traveling exhibit, museum affiliations, and budget for the upcoming fiscal year.

The Friends organization directs resources towards enhancing the Tractor Test Museum. Please contact one of the board members if you have suggestions or ideas for the Friends organization.

Friends Board of Directors

Contact information available through the museum

President – Russ Tooker

Vice President – Jerry Kohl

Secretary – Larry Ehlers

Treasure – Bob Kleis

Past President – Don Edwards

Advertising – Amy Struthers

Archives – Dana W. R. Boden

Events – Donelle Moormeier

Exhibits – Luis G. Vasquez

Facilities – Mike Hootman

Fleet – Brian Mariska

Membership – Bob Hollander

Outreach – Howard Raymond

Parts and Service – Doug Koozer

Restoration – Curt McConnell

Sales – Leslie Roper

Stewardship – Dave Morgan

Strategic Planning – Chris Ford

Senior Advisors

Charles Borcharding

Earl Ellington

Charles Fenster

Larry Herman

Bill Overturff

Keith Sheets

John Smith

FRANK & ERNEST®



Museum Staff

Director – Bill Splinter

Curator – Lou Leviticus

Docent – Mark Nickolaus

Mouser – Allis Chalmers

Associate – Jeremy Steele

Museum Hours

Mon – Fri

8:30 to 4:00

Saturday

10:00 to 2:00

35th and Fair Streets

UNL East Campus

Lincoln, NE 68583

402-472-8389

Museum Featured on RFD-TV Machinery Show

The premiere season of the Successful Farming Machinery Show began on RFD-TV this past November. Viewers tuned in for shop tips, "hot iron," farmer inventions, Machinery Pete, Roger Welsch, and more.

This next season, four of the 16 episodes will feature familiar tractors from the Tractor Test Museum. The tractors and drivers involved will be: Bob Kleis and his Avery, Larry Bitney on a Moline, Jerry Kohl on his Cletrac and Larry Herman on the Minneapolis-Moline. The season will begin on September 4th.

You can watch Successful Farming's Machinery Show on RFD-TV each Thursdays at 7:30 p.m. CST (8:30 EST). You can catch rebroadcasts Fridays at 3:30 a.m. and 11:30 a.m. CST (4:30 and 12:30 p.m. EST), and Sundays at 8:30 p.m. CST (9:30 EST). You'll find RFD-TV on DirecTV channel 379 and DISH Network channel 231.



Jerry Kohl provides a demonstration of his Oliver HG Crawler.

Nebraska Life and Classic Tractor Set to Print Articles on Museum, Test Lab

Curt Arens has put together an article on the Tractor Test Laboratory and Museum for Nebraska Life Magazine. This spring, both Curt and the publisher of Nebraska Life, Christopher Amundson, spent time interviewing staff and taking photos. The article will be in the July/August 2008 issue.

In addition, Classic Tractor Magazine, a monthly magazine printed in the UK, will also be printing an article on the museum and test lab. The magazine covers issues of particular interest to owners and users of tractors and farm machinery built in the last forty years.

Flanagin's Fighting Tractor: A Lost Chapter in the History of Steam Tractors in War

By Don Arp, Jr.

Given the lethality of the industrialized battlefield of the nineteenth century, inventors placed great emphasis on the development of devices and vehicles that could protect troops and give them an advantage in the midst of combat. A new class of combat machine, known as armored fighting vehicles or AFVs, was born. Powered by either animals or steam, these contraptions were designed to enter combat and shield troops, while providing firing platforms for various artillery pieces and small arms. Many of the designs put forth during the late-nineteenth century were too imaginative to be useful and few were ever built, even as prototypes. Some designs, although sound in concept and strategy, were hampered by a lack of suitable technology. Instead of inventing completely new vehicles, the most practical plans sought to use existing machines that could be modified for a military purpose.

Agriculture in the nineteenth century was a field experiencing increased mechanization. With improved technology and its own breed of inventor, the farm provided the machines that would serve as the basis for a new class of war-fighting vehicle—the steam road locomotive or traction engine. The history of road locomotives as a platform for war is incomplete. In certain circles, names like Cowan and Redstone are well known. However, along side these names should be John Flanagin, a Nebraskan who, in a letter to President Abraham Lincoln, envisioned using the steam tractor as a fighting vehicle during the Civil War.

A New Breed of Inventor

The wars of the late 1800s and early 1900s inspired a new breed of inventor, mainly civilian, who sought solutions to the age-old issues of protection and violence of action with the technological advancements brought about with the advent of industrialism. These inventors, most being private citizens with no military affiliation, embraced the concept of the AFV and based their designs on machines familiar to them.

Variations of the standard road locomotive or 'tractor' were advanced, making it the foundation for a plausible and technologically sound armored fighting vehicle designed to serve in the niche later filled by the tank. Inventors on both sides of the Atlantic advanced different designs for armored fighting vehicles utilizing the steam tractor as a power source. Many of these ideas were impractical; others were ridiculous.

One idea, albeit ignored and forgotten, came from a Nebraska farmer who had no military or engineering training. John Flanagin of Pawnee City, Neb., advanced an idea for a fighting tractor and accompanying gun car or battery that was ahead of its time. Even though he sent letters to President Abraham Lincoln detailing his concept, the battlefield would not see an idea like Flanagin's come to fruition until almost 30 years later in the South African or Boer War. Unfortunately, Flanagin has been all but forgotten by those who record the evolution of the AFV.

The Tractor Goes To War?

As exhibited in the American Civil War, it was possible to design vehicles that could lay down serious amounts of firepower on an enemy, while often maintaining a high degree of mobility and safety. Using trains and railroad locomotives, along with various methods of armoring and arming, accomplished this. These vehicles were the direct descendants of the ironclad warships that were popular in the conflict.¹ Fighting trains, however, had detriments. The chief problem with a train, namely its reliance on a track, often prevented it from entering battle alongside troops. A vehicle that could roam the open battlefield and provide troops with cover and firepower would be a great advantage to any army who possessed it. Using horses or other draft animals to power an AFV on the industrialized battlefield was not practical, for obvious reasons. The only other option available was steam road power.

John Flanagin formulated, like many others of his time, an idea for a weapon that would aid the Union in its battles with the Confederate States of America. Flanagin based his concept, sketched out in two letters written to President Abraham Lincoln in 1862, on the aspirations for and observations of a steam road locomotive in Nebraska City, Neb.

Flanagin wrote his first letter to President Lincoln around March 1862, but this note is lost and may have never reached its destination. In September 1862, Flanagin composed another letter elaborating on his idea for an armored battery driven by a tractor. The following is the complete text of the letter. Grammatical and other errors were too numerous to correct while maintaining its informational integrity.



A steam tractor of a much later vintage than those seen by Flanagin, but nonetheless illustrative of what he and other inventors were working with (photograph from the Library of Congress).

Sept 17th 1862
Pawnee city Pawnee co Nebraska

Sir

I wrote to you some six weeks since suggesting the practicability of an iron clad Battery on wheel to be drawn or pushed by an iron clad (Locomotive or steam wagon). I think you must have either not received the letter or have considered it impracticable or I would have heard from you. There is a steam wagon in this territory built for the purpose of hauling provisions to Denver City it is calculated to draw 60 tons in cars or wagons made for the purpose; now if this will work on the plains here why cant a Battery be drawn by stem wagon

If a Battery cannon ball proof would be too heavy to be drawn it might be rifle ball proof except in front and cannon ball proof in the front and be pushed instead of drawn in going towards the enemy and drawn when retiring from the enemy Thus it would never have to be turned round It could be managed to steer both The Battery on advancing on the enemy and steer the Locomotive on retiring from the enemy This could be easily done by having the running gear of both Locomotive and battery after the fashion of two pair of fore wheels of a wagon and coupled together by a coupling pole on advancing towards the enemy have a bolt put through the coupling pole and back slide of both the Battery and the steam wagon and on retiring shift the bolt to the other slide The power could be transferred from one set of wheels of the steam wagon to the other in the same way.

Supposing you received my other letter I have written enough I beg you to give it your practicle consideration (for the sake of the nation) If I have written any thing you may consider dictatorial or inpertinent I ask a thousand pardons I will not be likely to ever write again without I hear from you.

Your Most [illegible] John Flanagin
Pawnee city Pawnee co Nebraska

To President Lincoln Pat [illegible]¹

Examining Flanagin's Tractor

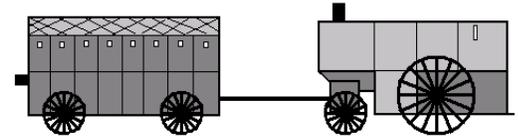
Although innovative, Flanagin's plan of using a steam road locomotive to push or pull an armored cargo car into battle has a flaw: misinformation. Flanagin noted in his letter that the road locomotives of the day could pull 60 tons of cars and freight and that such a vehicle was used to haul goods to Denver. This is only partially correct. In July 1862, noted entrepreneur "General" Joseph R. Brown of Minnesota arrived in Nebraska City with what he felt was the solution to the transportation woes of the day: a steam tractor.² Despite its early trial successes, the tractor only made it twelve miles outside the city with a load of five tons before it suffered a damaged drive crank.³; some sources say the tractor only made it about four miles out of town.⁴ Brown attempted to obtain replacement parts for his machine in the East, but a Native American uprising threatened his homestead in Minnesota, forcing him to return to his home state to combat the insurrectionists. His actual intention of returning to Nebraska was always debatable and was finally dashed by the construction of the Union Pacific Railway.⁵

Despite this technological misstep, Flanagin exhibited some modicum of engineering knowledge when he determined a way to cut down on the weight of the battery car. He suggested that the sides of the armored car or battery should be rifle-ball resistant only, to save on total weight. Since the steam road locomotive pushed the car into battle, the front side of the battery was the only portion that needed armor capable of withstanding the impact of a cannon ball or similar projectile. This armoring strategy was theoretically functional, as it would have reduced the weight the tractor had to move, but it would not have made the battery as invulnerable as the inventor envisioned it would. In battle, it is impossible to say, even with the battery being pushed into combat, that artillery and cannon projectiles would only contact the forward face of the battery. In all likelihood, shells would have impacted the sides and the roof. It may have been better to do away with the heavy armor on the front side all together. The lower weight may have given the vehicle a little more speed that it could have used to maneuver, although it would never have been fast enough to dodge an incoming projectile from an artillery piece.

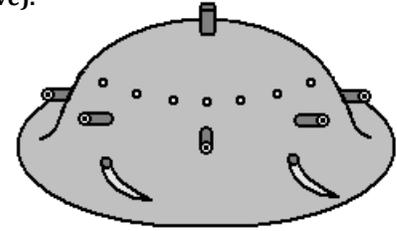
Another issue is the locomotive. Flanagin did recognize the necessity of shielding the locomotive with more than just plate armor, suggesting that the armored battery be placed in front of the engine, allowing it to shield the boiler. With the battery in front, the tractor could maneuver and not expose itself to direct fire unless enemy forces flanked it. A direct hit on the tractor with an artillery projectile would have caused severe damage. As with railroad locomotives, the boiler is the most vital piece of equipment. If it is damaged, the tractor is stuck. If it explodes, those nearby would be treated to a scalding bath of steam and boiling water, in addition to shrapnel. In theory, the vehicle was based on sound principles and in an infantry battle, it may well have served successfully as a firing platform for artillery and/or riflemen. It is doubtful, however, that the vehicle would have performed at the level Flanagin intended with the technology of the era.

Flanagin's AFV in Perspective

The concept of using steam tractors in war was not new in 1862. In 1854, a Boydell steam engine was used to transport supplies during the Crimean War.¹ A year later, the British government issued a patent for an AFV designed by James Cowan of Great Britain, an inventor with many patents for agricultural machinery under his belt.¹ Cowan's vehicle, built only as a model, was turtle-shaped and utilized a steam tractor as its propulsion system.¹ The vehicle was armed, in addition to cannons, with large blades that could spin around the circumference of the hull.¹ These blades would devastate any infantry soldiers who might attempt to storm the vehicle and would have caused panic if the vehicle progressed towards infantry formations. The design was interesting and well illustrates that attention was paid to protecting soldiers, increasing firepower, and using a road locomotive as an armored fighting vehicle. This design was not practical, both in its armaments and in its integration of the tractor into the battery. Further, it was termed "uncivilized" by none other than Lord Palmerston, the Prime Minister of England.¹



Flanagin's Armored Road Locomotive and Battery (conceptualized and illustrated by the author and Lt. Col. Alan R. Koenig, US Army Reserve).



Cowan's Fighting Vehicle (based on an illustration in Ffoulkes' Arms & Armament).

Flanagin was not alone in designing a steam-powered armored fighting vehicle during the American Civil War. An inventor from Indianapolis, Ind., named Redstone, proposed building what he termed "Land Monitors" for the Federal government that would be capable of leveling firepower on a target and traveling across the battlefield at 20 miles-per-hour. Redstone stated that his vehicles, economically priced at \$900 per unit, could handle any grade less than 45 degrees, would be maneuverable, and could do the fighting and labor of hundreds of soldiers. This was no small feat considering only two men operated the vehicle.⁶ Little is known about the specifics of Redstone's monitors as the design was never constructed, but they may have had limitations and vulnerabilities similar to Flanagin's vehicle. A man named Joseph Harvey also proposed an idea for what was termed a "land battery" in 1862. Harvey suggested constructing a large iron barrel about 15 feet in diameter housing a gun platform and powered by a steam engine. An article announcing the idea says that the "thing could be transported only along roads;" this is only the first of several shortcomings.⁷

The use of road locomotives in combat was hindered by several factors. Inventors often designed vehicles of ridiculous complexity and function, often ignoring the limits of available technology. Steam technology was not that advanced or efficient in the 1850s and 1860s. It was cumbersome and afforded engineers many challenges when they sought to use it as a power source. Despite the lack of a convenient, reasonably sized power source, the designs themselves actually postponed the development of steam tractors as tools of war. It would take applying the tractor to a non-combat role in warfare to begin the next stage of development for the armored road locomotive.

Logistics

Advancements in steam technology and mechanics made it possible to develop a stronger, more compact steam engine that would serve as the power source for the next generation of tractors that were more powerful, more reliable, and better constructed than the machines of the previous decade. By the end of the 1870s, the military applications of the tractor were explored in ways not conceived of before. Instead of shielding soldiers and raining down firepower, tractors were beginning to serve a more important function: they were keeping the supply lines moving at a rate capable of supporting the increasingly industrialized armies of Europe.

Steam road locomotives served in logistics roles during the Prussian War (1870-71) and the Russo-Turkish War of 1878. In both conflicts, the machines, none of which were armored, hauled large quantities of supplies and transported artillery pieces.⁸ During the South African War (or Boer War) of 1899-1902, armored road locomotives similar in design to Flanagin's were developed. The British War Department sought a steam tractor and wagon design that could be used in battle. John Fowler and Company of Leeds, Great Britain, built most of the engines,⁹ while other firms like Charles Burrell, J & H McLaren, and Aveling & Porter provided the remainder.¹⁰ Fowler produced a model of armored tractor, the Class B5 "Lion", which consisted of an armored tractor, three armored wagons, and two howitzers.¹¹ The armor on the tractors and wagons could withstand rifle fire and artillery shrapnel.¹² Further, each wagon could mount cannon.¹³ A direct artillery hit would, as was noted with Flanagin's design, be highly damaging, even lethal. Unlike Flanagin's concept, the cars were pulled and not pushed into battle. Despite the design intentions, these tractors proved their worth not in pitched battle, but in logistical operations where they could move more cargo and were faster, cheaper, and less vulnerable than oxen or other draft animals.¹⁴ Tractors provided a constant source of supplies that fueled the British war machine and caused the Boer fighters endless nightmares. In addition to haulage, some tractors turned the soil, building trenches and other earthworks.¹⁵

Due to their success, road locomotives served in the armies of Great Britain, Germany, Austria, Russia, Switzerland, Italy, and the Ottoman Empire until World War I. A series of trials in England and abroad further developed the road locomotive.¹⁶ Advancements in technology and application could only do so much. Steam road locomotives became obsolete on the battlefield and on the farm with the perfection of the internal combustion engine. Although combustion engine tractors are a still facet of agriculture today, they never became AFVs. With the introduction of the tank in World War I, the chapter was closed the use of tractors as AFVs.

An Idea Ignored

There is an error in the available literature about the developments made in armored tractor warfare. Many sources note the advancements made in Europe and even note the strange lack of any concepts for road locomotive vehicles in the American Civil War.¹⁷ Flanagin's idea was unnoticed, although it was very close to the concepts put forward and built for service in the South African War, over 30 years later. One source does note that a person from Pawnee City, Neb., advanced an idea for an armored locomotive, but they misidentify it as a railroad locomotive and not the clearly described road locomotive or steam tractor.¹⁸ Flanagin's concept was ahead of its time. The idea was sound, as vehicles similar to his design eventually served with great success, albeit not in the exact military niche he intended. Interestingly, Flanagin heard of the tractor's ability to move cargo and felt it had a battlefield application. If he had thought of it from a logistical standpoint, he might have advanced an idea on which the Union army would have been willing to act.

Little is known about John Flanagin. He was, like many of his contemporaries, a resourceful, intelligent, and driven man who lived in a time when success or failure rested on one's own shoulders. Through his diligence and effort, Flanagin weathered hard times and created for himself a family and reputation that was known and respected throughout the territory.

Flanagin, born in New Jersey on February 12, 1835, came to the Nebraska Territory in 1858. He settled in Pawnee County, eventually marrying Sarah Rogers, with whom he had six children. Flanagin, devoted to farming his 520 acres, was not politically active except for two terms as Clay County assessor. It was his proclivity for being "well informed" that no doubt fueled his idea for the steam tractor AFV.¹⁹



John Flanagin from *Portrait and Biographical Album of Johnson and Pawnee Counties, 1889.*

His Rightful Place in History

The harnessing of steam power during the Industrial Revolution provided inventors with a reliable method of propelling their armored fighting vehicles into battle. Many designs were put forth, but most proved impractical. The most practical ideas sought not to reinvent the wheel, but rather modify existing machines to fulfill a military purpose. This was the case with the use of steam road locomotives or traction engines in the development of AFVs. Variations of the standard road locomotive or 'tractor' were advanced, making it the foundation for armored fighting vehicles designed to serve in the niche that would later be filled by the tank.

Different designs for armored fighting vehicles using the steam tractor as its power source were advanced from persons on both sides of the Atlantic, but it was in a non-combat role that the steam road locomotive would serve for decades. A man with no military or engineering experience observed the use of tractors in Nebraska and formulated an idea he felt worthy of presidential attention during the American Civil War. Although it was ignored, the concept proved viable and reappeared some 30 years later in the South African War. John Flanagin has been all but forgotten by those who record the evolution of armored fighting vehicles. Even though his idea was not directly acted upon, Flanagin deserves credit for having the vision to see how an everyday machine could be used in a different setting and to take his place with men like Cowan and Redstone. Inventors like Flanagin took the first steps, theoretically and actually, in mechanizing the battlefield.

Acknowledgments

The author would like to thank LTC Alan R. Koenig, Ph.D., US Army Reserve, for his assistance, guidance, and mentoring. His pioneering research into the armored warfare of the American Civil War laid the groundwork for this article. Without his years of research, this work would not have been even remotely possible.

About the author

Don Arp, Jr., is a freelance historian and author of more than a dozen articles. He graduated from the University of Nebraska-Lincoln with a degree in history and was elected to Phi Beta Kappa. In 2007, Don received the Commander's Award for Public Service (U.S. Army), recognizing his work as a volunteer historian supporting several Army efforts. Contact Don at: donarpjr@hotmail.com.

¹ NARA, Record Group 156 (Office of Army Ordnance), Entry 994(Inventions), Box 32, Item: Misc.-355.

² William E. Lass, *From the Missouri to the Great Salt Lake: An Account of Overland Freighting* (Lincoln: Nebraska State Historical Society, 1972), 116.

³ *Nebraska City News*, August 2, 1862; _____, August 30, 1862.

⁴ William E. Lass, "Nebraska City's Steam Wagon," *Nebraska History* Vol. 79, No. 1, Spring 1998, 28.

⁵ Lass, *From the Missouri*, 116.

⁶ *Scientific American* 7, 20 (November 15, 1862), 312.

⁷ *Scientific American*, 7, 3 (July 19, 1862), 39.

⁸ *Notes* 137.

⁹ Richard M. Ogorkiewicz, *Design and Development of Fighting Vehicle* (Garden City: Doubleday & Company, Inc., 1968), 25.

¹⁰ Michael R. Lane, *The Story of the Steam Plough Works: Fowler of Leeds* (London: Northgate Publishing Company Limited, 1980), 204.

¹¹ Lane, 207.

¹² *Notes* 141.

¹³ *Ibid* 141.

¹⁴ Lane, 207.

¹⁵ *Notes*, 145; Howard Bailes, "Military Aspects of the War" in *The South African War: The Anglo-Boer War 1899-1902*, Peter Warwick and S.B. Spies, eds. (London: Longman, 1980), 68-69.

¹⁶ Lane, 219-221.

¹⁷ Macksey, *Tank*, 7.

¹⁸ Robert V. Bruce, *Lincoln and the Tools of War: Ordnance Edition* (New York: Civil War Book Club, 1956), 137.

¹⁹ Numerous, Unnamed Authors. *Portrait and Biographical Album of Johnson and Pawnee Counties, Nebraska* (Chicago: Chapman Brothers, 1889), 550.

Tractor Repair and Restoration

The University of Nebraska Tractor Restoration Club has made an impact on the Tractor Test Museum. The club is developing UNL student interest in antique tractor restoration and their projects are enhancing the museum's tractor collection and restoration program.



The club is learning how to keeping their projects structured and organized. Members first evaluate the status of the tractors, then they develop a plan, and throughout the project, a log is now being kept of what is being accomplished and why. In addition, they are keeping the shop clean and are utilizing proper storage for tools and parts.

Club members are obtaining knowledge and experience. They are learning from research, each other and those more familiar with antique tractors and how to repair and restore them.

Several museum volunteers and new board members have been instrumental in helping the club by meeting with them, providing advice, donating parts, decals and encouraging their efforts along the way.



A couple of club members have been working on projects throughout the summer, in two months, the rest of the UNL students will be back on campus. This fall will be another beginning of a new wave of UNL student interest and activity.

These students are valuable to the Tractor Test Museum and are making an impact on our program. Please contact the museum to find out more information about the club and how you can contribute towards their efforts.



Shop Improvement Plans

The Tractor Restoration Shop was the main focus of discussion at the April board meeting. Curt McConnell put together a list of suggested items for improving the museum tractor shop. He also shopped around to find the best prices and presented his findings.

We hope to have final decisions made on Curt's suggested items so we can move forward with developing the tractor restoration program and have items in place by the time students are back for the fall semester.

2008 Nebraska State Fair Registration

Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

Email: _____

Tractor Make(s)/Model(s) Year(s): _____

Implement(s): _____

Supplemental Information for State Fair Exhibit Sign:

Mail to: Tractor Test Museum - P.O. Box 830833 - Lincoln, NE 68583 - Deadline: August 15th, 2008



___ Please register my tractor(s) for the 2008 Nebraska State Fair.

___ \$15.00 payment enclosed is for my 2009 Friends membership.

The Challenger MT965B recently broke a maximum drawbar pull record at the Nebraska Tractor Test Lab The 59,048 lb pull passed the previous 58,031 lb record set by the Challenger MT865 Crawler.



**Friends of the UNL Tractor Test and Power Museum
P.O. Box 830833
Lincoln, NE 68583-0833**