

The Line Shaft

The Official Newsletter of the

NORTH JERSEY ANTIQUE ENGINE & MACHINE CLUB

June 2019



President: Chuck Klim
973/903-3583

Vice Pres: Paul Havens
973/222-7403

Treasurer: Dave Betts
908/303-1994

Secretary: Mary Muys
973/534-6781

Founded on October 15th, 1979 by: Arthur Goble, Fred W. Westbrook, John Snook, Roy Bischoff & Lewis Quince

President Chuck Klim welcomed the 15 members present and brought the May meeting to order.

Secretary Mary Muys read last months meeting minutes.

Treasurer Dave Betts gave the treasurer's report, including the balances of both the GENERAL and the RAFFLE accounts and copies were filed with the President and Secretary. Dave then presented the bills to be paid for the food bought for the Plow Days and for the newsletter expense...which were approved for payment. Dave also gave an update of the on-going status of the IRS/501C and the membership/roster list is complete...we lost 15 members. Dave then proceed to talk about the cash register that will be used during the State Fair week. All items for sale have a color coded key on the register and there is a small list of instructions on how to use the register. Every night Dave will stop by to do the cash-out process on the register and it will be tallied up each night.

Committee updates:

Chuck mentioned that both plow days went well. At Ideal Farms we had 11 tractors and at Sam Castimore's Farm we had 4 tractors.

State Fair presentations – Andy had an end-of-meeting discussion with members doing presentations during the Fair week.

Memorial Day Parade – coming up on May 27th and everyone involved should be at the school by 9 a.m., as it starts at 11 a.m. and...there will be food afterwards.

Donation Form – has been revamped so it now states that we have assumed ownership when “anything” is donated and we can do with it as we see fit.

Doll for the Fair – Chuck asked the members if we should sell a doll again this year and everyone voted yes. The club will purchase the doll and Linda Klim will make the outfits.

By-Laws committee – has been established and the first committee meeting will be on June 6th at 6 p.m. The process will eventually include, 3 readings of the “re-worked” by-laws to the membership and after the 3rd reading, they will be approved.

Our next General Meeting will be at 7PM on Thursday June 13th at the SHED!

STATE FAIR BADGE SIGN-UP AT THIS MEETING!

Our Web Address: njaemc.org

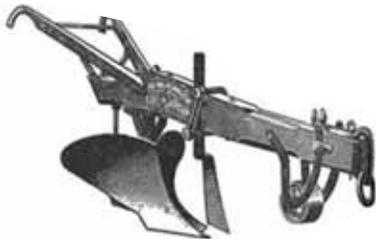
67 Branchville Lawson Rd., Newton NJ 07860

Spring Vintage Tractor Plow Day II

May 5th 2019

Castimore's Farms

Route 565 Frankford NJ



Members Attending with Tractors

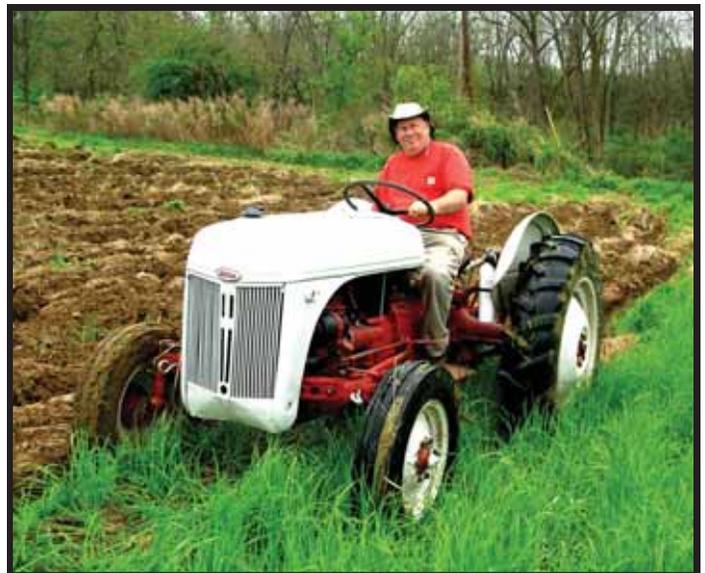
Tom Rusticus...Ford 8N

Chuck Klim....Oliver 77

Blace Flatt...Ford 8N

Paul Havens...Ford 8N

Thank You to Dr. Sam for allowing us to plow his fields!



Ten Agricultural Inventions that Changed the Face of Farming in America

By Sam Moore...somewhat modified!

Some advances can be attributed to an individual, but most were the product of incremental improvements to the work of their predecessors.

- 1. Cotton Gin:** In 1793, Eli Whitney built a machine consisting of a row of close-set wheels with saw-like teeth around their perimeters. The wheels protruded through narrow slits between metal bars into a hopper filled with cotton bolls. As the wheels revolved, the teeth caught the cotton fibers & pulled them through the slits, which were too narrow for the seeds to pass, separating the two. Whitney's cotton gin allowed 1,000 pounds of cotton to be cleaned in the time it took one man to do 5 pounds by hand.
- 2. Reaper/Binder:** Obed Hussey and Cyrus McCormick developed successful reapers during the 1830s. McCormick's machine became the more popular one; today he is credited with inventing the reaper. Those early machines still required the sheaves to be bound by hand, but in 1857 the Marsh brothers equipped a reaper with moving canvases that carried the grain to a platform where it was hand tied into bundles. The first twine knotter was demonstrated in 1867 by John Appleby. Sylvanus Locke developed a wire binder in about 1874. Wire dominated for a while, but bits of wire got into the grain and ended up inside livestock with disastrous results. William Deering adopted the twine-tying mechanism for his Deering harvesters, and in about 1881, McCormick did as well.
- 3. Thresher:** When grain was being cut by hand, the method for separating the kernels from the straw was equally slow and labor intensive. Grain was hauled to a barn where it was spread on a threshing floor and either beaten with hand flails or trampled by animals. The remaining mixture was winnowed by tossing it into the air where the wind was relied upon to blow the chaff and lighter debris away from the heavier grain. The first threshing machine with a revolving, toothed cylinder and concaves was invented in 1786 in Scotland by Andrew Meikle. Brothers Hiram and John Pitts are credited with invention of the first successful American separator in 1830, as well as with adapting a horse tread power to run the thing. Hiram soon added a fanning mill to the threshing drum to separate and clean the grain at the same time.
- 4. Steam Engine:** Until the end of the 18th century, American farmers relied primarily upon their own strong backs and arms and those of family members. New farm machines then being developed required more power, so oxen, horses and mules were pressed into service. Stationary steam engines were used early on to run cotton gins and mills. The additional power required by improved threshing machines led to the development of portable steam power, which made its first appearance in 1849. At first, horses were used to haul portable steam engines from job to job. During the 1870s, several inventors developed practical drive systems and the self-propelled steam traction engine became common as power for the many threshing rigs around the country. Such machines were also used to pull multiple gangplows in the large fields of the wheat belt.
- 5. Combined Harvester-Thresher:** Although a "traveling thrasher" (or combined harvester-thresher) was patented as early as 1828, the first successful machine was built by Hiram Moore in 1834. Moore's combine successfully cut and threshed grain, although it had to be winnowed later. After the Civil War, big horse-drawn, ground-driven combines were developed in the wheat-growing regions of the Northwest. In 1871, B.F. Cook put a steam engine on a combine to drive the mechanism, decreasing the number of horses needed to pull the machine. In about 1886, California farmer George Berry built a combine around a steam traction engine and voilà: the first self-propelled combine.
- 6. Auto Truck:** The first real attempt to make a vehicle to replace the animal powered farm wagon was by IH with its "Auto Wagon" introduced in 1907. Since then trucks of all sizes have proliferated and today no farmer is without his pickup.
- 7. Gasoline-Kerosene Tractor:** Steam tractors required a lot of water and fuel (coal, wood or straw), and a trained engineer at the wheel. The internal combustion engine, developed in the 1890s, offered an alternative to steam. John Froehlich is generally credited with inventing the first successful tractor in 1892. The first commercially successful tractor was built in Charles City, Iowa, by Charles Hart and Charles Parr. Early tractors were big, heavy, awkward and none too reliable, but by 1920 the better ones had survived and were becoming hugely popular for heavy tillage and belt work.
- 8. General Purpose Tractor:** During the 1920s, row-crop work such as planting and cultivating was still largely done by horses as tractors were too heavy and not versatile enough for those lighter jobs. Several lightweight row crop tractors had been tried, but most were not satisfactory. Several manufacturers offered motor cultivators during the 'teens, but few farmers were willing to buy a machine that was used only a month or two each year. In 1924, IH introduced the Farmall, the first real general purpose tractor that could pull heavy tillage and harvesting machines as well as plant and cultivate row crops. The Farmall quickly caught on. Soon, every major tractor manufacturer offered a similar row crop machine.
- 9. Rubber Tires:** Steel-lugged wheels limited speed, vibrated, shook bolts loose and quickly dug themselves into soft ground if they spun, not to mention what they did to the driver's innards. Solid rubber tires began to be fitted to industrial tractors in about 1920, and Florida citrus growers experimented with large truck tires on tractors in 1928. Harvey Firestone became interested and in 1932, fitted large, low-pressure tires to an Allis-Chalmers U. The tires were a huge success. The advantage of pneumatic tires over steel wheels in fuel economy, performance, and driver comfort, sold farmers and by 1940, 95 percent of tractors were ordered on rubber.
- 10. Hydraulic Implement Lift with Draft Control:** The first mechanical lift appeared in 1927, and a hydraulic lift in 1934. They raised and then dropped the implement without the operator having to wrestle a hand lever, but depth control still required frequent manipulation of a lever or crank. Irishman Harry Ferguson can claim credit for the first hydraulic lift with automatic draft control. By 1933, he had perfected a way of attaching an implement to a tractor by three arms. The tension load on the lower arms and the compression load on the upper arm caused the "virtual hitch" point to be near the tractor's front axle, thus keeping the front end of the tractor on the ground. In addition, the top link compression load operated a hydraulic valve that caused the implement depth to be automatically regulated according to the draft needed to pull it. Ferguson's 3-point hitch was probably the most revolutionary improvement in tractor and implement technology during the first half of the 20th century. Today, virtually every tractor sold anywhere in the world features a 3-point hitch based on Ferguson's system.

Branchville Memorial Day Parade

May 27th 2019



Members Attending with Tractors

Tom Rusticus...Farmall 460

Chuck Klim....Oliver 550

Blace Flatt...Ford 8N

Milt Jager...Allis Chalmers WD-45

Mary Muys...Farmall H

Bill Castimore...Ford 641 Workmaster

Bruce Mitchell...Ford 641 Workmaster

Brian Hendershot...Ford 601

Linda Klim...Oliver 660

Paulette Hendershot...Farmall H

Kevin Hendershot...John Deere 110

Bill Howell...Ford Golden Jubilee

Paul Havens...Ford 8N

Dan Hendershot...John Deere 620

Erik Jensen...IH Cub Cadet

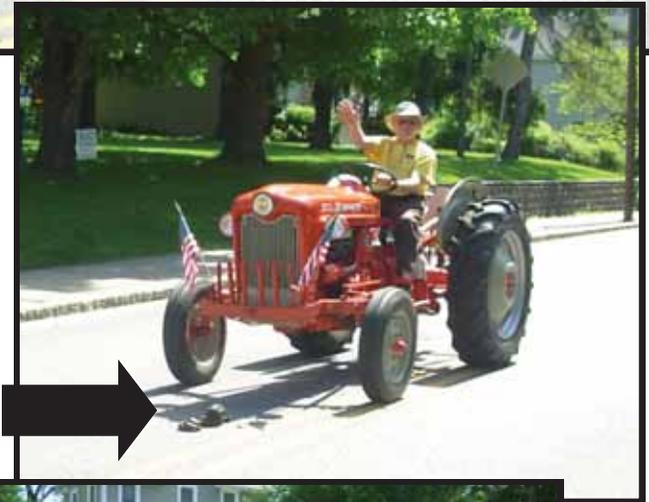


Remembering
those who
gave their
"ALL"
for America!





Bill
H
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P



We were invited to the Branchville Fire House for a burger and dog Lunch!



NJAE&MC—Upcoming Events

Lafayette Day/Car Truck & Equipment Show

Event coordinator: Paul Havens

June 8th—Location, Route 15 at the pond ...parking at the Fire House

Skylands Stadium

Event coordinator: Paul Havens

Date to be announced

Sparta 4th of July Parade

Event coordinator: Paul Havens

July 4th

Lusscroft Day

Event coordinator: Paul Havens

July 13th 10:00 AM-4:00 PM

For Sale

1953 Ford 641 Workmaster

A show piece

Call: Bill Castimore

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