

# The Line Shaft

*The Official Newsletter of the*

**NORTH JERSEY ANTIQUE ENGINE & MACHINE CLUB**

**March 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 everyone and began the February meeting with the group reciting the *Pledge of Allegiance*. Before the meeting really got under way, Kevin Mitchell, the NJ State Fair's "new" General Manager, stopped in and spoke about how he is looking to improve the fair. He would like us to promote ourselves and come up with daily seminars to attract more people. They would make announcements over the PA system and hopefully catch people's interest & induce them to stop on by. Andy Mackey volunteered to head-up the effort.

Mary Muys read the minutes from last month's meeting.

Dave Betts gave the club's treasury report and a copy was filed with the President and Secretary. Dave then continued with a discussion of the club's roster/membership list. Also, the club's 2018 taxes have been filed and he further elaborated on the status of the club's 501c, which has also been filed. Dave received a postcard from the IRS confirming it has been received, but is not sure how long the 501c process will actually take. He also mentioned that we have a new CART sponsor this year, *Campbell's Small Engine*, who took the place of the Chatterbox. All the other sponsors have also committed and are paid in full. A round of applause was given to Kevin Hendershot, who contacted all the sponsors and got them to renew early in the year.

Andy Mackey started a discussion on the possibility of purchasing an auction hit-and-miss engine for repair and resale. Dave Betts suggested that we seem to have a lot of items that we could fix up and sell in our own shed...to make more room and to make a couple of bucks in the process. Blace Flatt agreed, but no action step was put in place and we need to continue this discussion at future meetings. With this same thought in mind: Chuck stated that going forward, anyone who donates anything to the club will have to sign a form, turning over ownership to the club...and allowing us to display it, sell it or dispose of it as we see fit.

Chuck mentioned the St. Patty's Day parade in Newton on March 16<sup>th</sup>. There are about 6 tractors going and we are using one of the hay wagon for the Township Queens...Paul Havens will head-up the event, see page 4.

Paulette Hendershot indicated she is looking into the possibility of getting club events into local newspapers.

Chuck presented Andy Mackey with a GIFT CARD and a LEATHERMAN...for serving 30 years as a club officer!

## **REMINDER: 2019 DUES ARE DUE!**

*Annual dues are \$25.00 and payable at the upcoming meeting or send to: NJAE&MC Attn: Dave Betts*

*67 Branchville Lawson Rd., Newton NJ 07860*

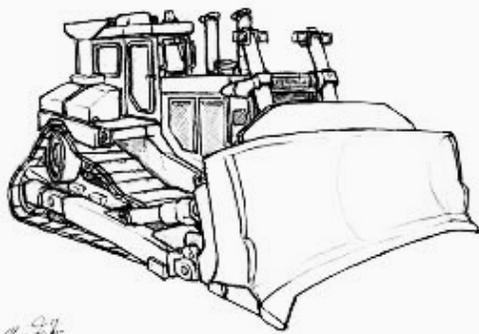
*Do not forget to send a fully filled out Membership Renewal Slip with the dues \$...*

**Our next General Meeting will be at 7PM on FRIDAY March 22th at the Administration Building!**

Our Web Address: [njaemc.org](http://njaemc.org)

**67 Branchville Lawson Rd., Newton NJ 07860**

## The BULLDOZER...a farm machine?



The word BULLDOZER is today associated with a major piece of construction equipment, ranging in weight from approximately 8,000 lbs. (40 HP) to 131,000 lb. (1,150 HP) and generally crawler driven.

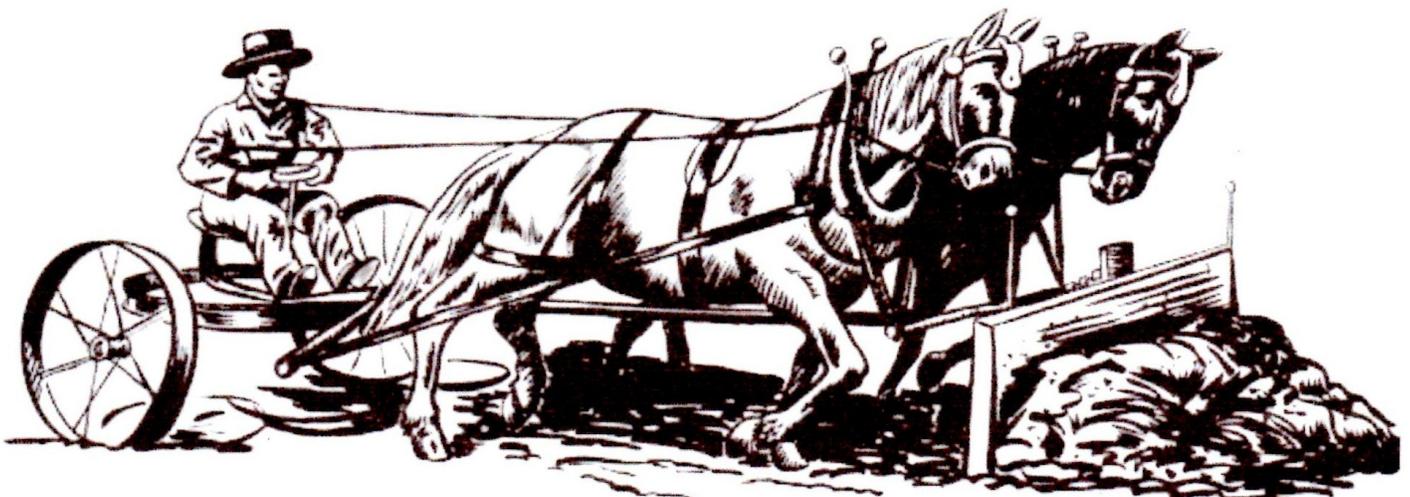
### The birth of the BULLDOZER:

The first Bulldozers appeared in the mid-late 1800s and used the original form of horse power (actually 2-horsepower or mulepower). It consisted of a long beam with a blade at one end and a wheeled sulky at the other, with a teamsters seat for the operator. The blade could not be raised and lowered, but could be manually “flipped” to the horizontal position when not needed to push earth. Most were one-off designs and “hand fabricated” by farmers, or mechanical shops who specialized in the farming industry, and were used for leveling and/or to fill wet spots in the fields and there-by extending the usable farm land. The first manufactured commercially available horse/mule drawn integrated (built from the bottom up for one purpose) Bulldozers appeared in the early 1900’s...see picture below.

*The name BULLDOZER first emerged in the late 1800’s also...but meant a far different thing. At the time, the word Bulldozer was used to describe a violent “bulling” type personality or individual. To bull doze someone meant to beat someone in an extremely cruel and brutal way or to intimate someone with a gun...and the people who did such things (today called THUGS) were called Bulldozers. Slowly the term became synonymous with using “great force—to get the job done” and the term was applied to this rather simple piece of machinery.*

### The word BULLDOZER is down graded to bulldozer, an attachment:

As we moved into the 1920’s the term BULLDOZER shifted from being an independent machine to an attachment that could be used on a variety of powered equipment...and again, thanks to a farmer. The drawing and picture page 3 comes from and depicts the first patented bulldozer blade. Built in 1923 on a Kansas farm, using parts from a Model-T, a John Deere plow and a windmill...it was “cobbled together” to backfill a pipeline that crossed the farmers field. The blade could be raised and lowered manually by the operator and was mounted on a Fordson Tractor. The bulldozer blade equipped Fordson replaced teams of horses and operators and did the job in record time with (1) man operating (1) piece of machinery...a farm tractor. The Farmer was James Cummins, who enlisted a local country boy draftsman John McLeod, and the pair patented the “attachment” in 1923...receiving Patent # 1,522,278 an ATTACHMENT FOR TRACTORS, in 1925. The attachment would become known alternately as a bullscraper or bulldozer blade..but the



name bulldozer blade would prevail.

In the late 1920's Robert LeTourneau (considered the Thomas Edison of heavy construction equipment) developed the PCU (Power Control Unit), using a winch, wire rope and (2) sheave blocks to raise the bulldozer blade and, almost simultaneously, LePlante-Choate Manufacturing developed the original rudimentary hydraulically controlled blade. With these inventions, the bulldozer blade became a major addition to the construction equipment industry and thru the 1930's and 40's the bulldozer blade would remain an attachment installed on many brands of "tractors", both crawler and wheeled. Also, it became more sophisticated and evolved into the angle dozer (capable of side-casting material and critical for pioneering roads), push-cat (for push loading scrapers), landfill & bulk material pusher (for moving large volumes of light materials) and the 6-way blade (an all-hydraulic straight or angle dozer). Importantly, these blades were "not" built by the original equipment tractor manufacturers themselves, but were built by independent "attachment" manufacturers. These independents would include both Letourneau and LePlante-Choate, plus Drott, Bucyrus-Erie, Baker, GarWood, Heil, Rome, Balderson, Rockland, and a host of smaller operations to include: Anderson, Ateco, BE-GE, Carco, Isaacson, and Maine Steel.

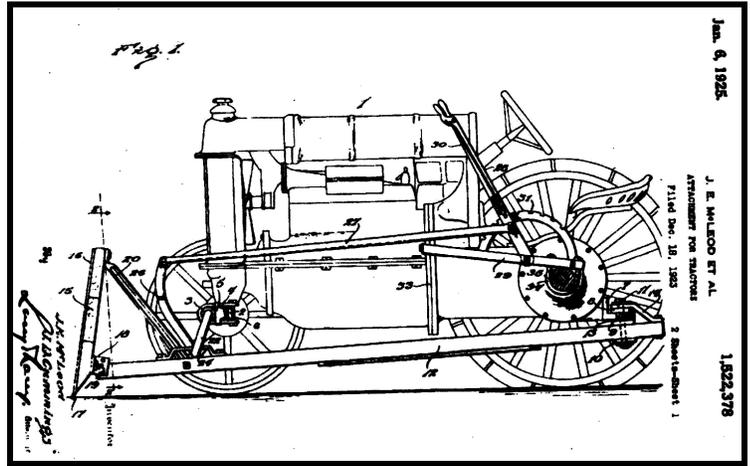
American companies dominated the use of the bulldozer blade, which would rule the MAJOR construction projects between the World Wars. During WWII it became a world wide sensation, being mounted on both wheeled and crawler tractors, as well as various military equipment...including tanks. Bulldozer outfitted equipment helped to construct fortifications, highways, aircraft runways, shipping ports..and...cleared hedgerows and minefields, repaired artillery and bomb damaged roads and beaches, and often as not, assisted with the actual beach breakout.

**Quoting Admiral William Halsey:**  
***"the technological advances that played a crucial roll in the war include: RADAR, AIR-CRAFT, the SUBMARINE, and the BULLDOZER!"***

## **The BULLDOZER returns as an independent machine:**

By the 1950's, the major American heavy equipment manufacturers had bought outright, bought into or stolen the bulldozer blade technology from the independents. They began building Bulldozers (the machine) from the bottom up...with the blade an integral part of a fully integrated piece of equipment, called appropriately...the BULLDOZER.

**The word BULLDOZER has gone full circle: a word used to describe an integrated built from the bottom up horse/mule drawn machine, a blade attachment for wheeled or crawler tractors and finally back to the integrated machine we know today!**



## NJAE&MC—Upcoming Events

### Sussex County St. Patrick's Day Parade

Event coordinator: Paul Havens 973/222-7403  
March 16th 2019 in Newton NJ

### MTA Swap Meet & Vehicle Show

Event coordinator: to be announced  
April 27th & 28th 2019 at the Fairgrounds

### Spring Plow Day

Event coordinator: to be announced  
Date & location to be announced

### Branchville Memorial Day Parade

Event coordinator: to be announced  
Date & location to be announced

## For Sale

1953 Ford 641 Workhorse  
A show piece  
Call: Bill Castimore  
973/271-4956

Wish the club a  
**HAPPY BIRTHDAY**

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Founded in 1979,  
we were  
Incorporated in 1980

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