

LIGHTNING SLINGER



TURKEY CREEK DIVISION IS A 501(C)(3) ORGANIZATION
MONTHLY PUBLICATION OF THE TURKEY CREEK DIVISION
OF THE MID-CONTINENT REGION, NMRA



VOL. 19 NO. 4

"For all gauges and all ages."

APRIL 2006

MEETING LOCATION

6000 Lamar, Shawnee Mission, KS
(See map on page 9.) 7:00 PM
TUESDAY, APRIL 25th, 2006

SCHEDULED CLINIC :

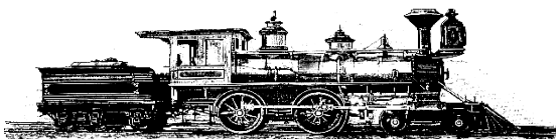
WARREN WESTON, MMR

ON

"BUILDING FENCES"

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FROM THE SUPER'S DESK...

The Turkey Creek Division met at our usual location in March. A fine clinic on making fence posts using electrical wire was hosted by **Joe Robertson, MMR**. Following the clinic we had an open forum discussion about tips and techniques that we have discovered and used.

Upcoming Clinic -

Warren Weston, MMR has volunteered to do a clinic at the April meeting – his topic will be "Building Fences". Warren stated his clinic will be about 20 minutes long so I am looking for another clinic to follow Warren's. So, please give some thought to hosting a clinic, find a topic and call me at 816-866-4043 and I will get your clinic on the calendar.

Jim Flynn had planned to host a clinic on "Hand-laid turn-outs" but he is pretty busy working to complete the Achievement Program requirements for the CARS certificate and that will qualify him as a new MMR. In addition, he has some personal issues that are also taking some of his time and I suggested we postpone his clinic until a later date so he can take care of things at hand.

Modeling Challenge -

Don't forget – the **MAY MEETING** will be the judging for the Modeling Challenge so get building, there is still time to participate. It does not have to be scratch built, just a model of something where you can show the photo of the item you modeled and entered.

I invite you to attend the April meeting and become involved in the activities of the Division. One thing I have learned during my NMRA experience is that the NMRA is a lot like life, **you get out of it what you put into it**. I invite you to get the most out of your NMRA experience by putting a lot into it. If you want to be involved but you are just unsure of how to do it, please contact me my email or phone and I will be happy to help you.

REMEMBER – April 25TH – 7:00PM. I'll see you there,

Paul Richardson, MMR

paul@purgatoryanddevilriver.com



TURKEY CREEK DIVISION
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Kansas City, MO 64113



**ADDRESS SERVICE
REQUESTED**

FIRST CLASS MAIL

The next **TURKEY CREEK MEETING** is
Tuesday, April 25th, 2006 at 7:00 P..M.
6000 Lamar, Shawnee Mission KS.
See Page 1 for details, please.
See Map on Page 9 for directions.



TURKEY CREEK DIVISION MEETING
Johnson County Courthouse, NE Branch,
DMV Bldg., 6000 Lamar, Shawnee Mission, KS
7:00 P.M. April 25th, 2006, Tuesday.

“RIVER CITY EXPRESS” MCOR REGION
CONVENTION AND TRADE SHOW
JUNE 1ST—4TH, 2006
IN MID-AMERICA CENTER,
COUNCIL BLUFFS, IOWA
FOR INFO: 2006convention@whdnmra.org
Or website at www.whdnmra/convention2006/

Our own Turkey Creek Train Show and Meet
AUGUST 12TH, 2006, Saturday at Lenexa, KS
Volunteer and Help Paul Myers, Chair

May 7th. Aug 13th, Nov 26th MID AMERICA TRAIN
AND TOY SHOW, BTE Exhibit Hall, I-435 and Front
Street, Kansas City, MO 9 A.M. to 2 P.M.

Frisco Spot Engines, Part II

By

Richard E. Napper, MMR

The little circuit is wired into the locomotive so the positive input lead is wired to the locomotive chassis and the negative lead is wired to the tender insulated connection. I have written an article about the lighting circuit before, but if you do not wish to make one of your own, I will provide you with a tested and operating circuit for \$10.00 pp, \$15.00 if you want a white LED.

As a change of pace, I now turned to work on the tender. The only modification I made was to cut out the metal coal load. I then super glued a piece of styrene to the bottom of the coal load from the inside of the tender. This action leaves the tender shell open for later installation of the speaker and sound decoder for DCC operation. Put the tender together as per the Bowser instructions; however, I use a #7 offset Kadee coupler on the tender. Grind off the coupler box on the tender floor, and drill a #50 hole taped 2/56 to attach the Kadee coupler, the #7 gives you the correct coupler height. This is a good place to take a break from model work. Work on the boiler on another day.

You will need to drill various holes in the boiler shell to mount the steam distribution header in front of the boiler cab, the bell, steam safety valves, and the steam dome and one of the sand domes. The Frisco engine does not have two sand domes, and I replaced the steam dome with the brass casting I had in my box of stuff because it is closer to the correct type for the Frisco engine. If anyone can tell me where I can get another one, I would sure like to know as I only had the one, but I am doing three engines. Putty the unused dome hole in the boiler. I mounted the forward sand dome in the hole in the boiler, but after studying the photos again, I should have moved it closer to the smoke stack.

Glue the spring for the front pilot truck into place with a drop of super glue; use one of the left over spacers that came with kit to mount the truck using a 2/56 screw. The USRA locomotives comes with a Cole built up trailing truck, but they were not used on the Frisco locomotives. Buy a Bowser Delta trail-

ing truck and mount it on the frame using a brass tubing spacer so that the trailing truck is horizontal under the frame. You will need to grind off a little of the frame extension so the delta truck will swivel.

I used the pewter casting for the pilot but I am considering the brass one as a replacement. Mount the two brass ladders to the pilot, add a cut level to the front of the pilot using the boiler handrail mounts, and grind out the front of the pilot so you can mount a Kadee #36 coupler in a #5's mounting box and centering spring. Cut the ledge off of the #5 box because it will mount back from the face of the pilot which is why you need the longer #36 coupler. Mount coupler box, using a 2/56 screw and nut through the hole used to mount the pilot to the front of the chassis.

Now things start to get dicey! Bend and mount the two brass running boards of the boiler. Under the running boards mount three air tanks. I used one on the fireman's side but super glued it to the boiler as far back as I could get it under the running board. The second one that mounts on that side is too long, so cut it off from the right end, and glue it to the boiler support so it is closer to the first one you mounted on the fireman's side. Using flat brass stock, bend two pieces at 90 degrees, and solder them under the running board. Now using two air pumps I purchased separately from Bowser, super glue them to the two brackets you just made. Bend the air-line brackets provided, and solder them at the front edge of the running boards.

Moving to the engineer's side, take the last short air tank, and using a piece of brass tubing, cut the pewter tank into half and make it longer. Now glue it into place under the running board. The big cast bracket on the bottom of the boiler will not be used so you can cut it off. Mount the valve gear power reverser as per the kit instructions. Again bend and mount the air lines brackets on the front edge of the running boards plus one under the engineer's cab.

I had to remove the cab floor and grind down the cab back head casting to get it to clear the locomotive wiring so it would not short out. You may be able to do better than I did in this regard.

To protect the detail you are about to add, I

(Continued on page 3)

Frisco Spot Engines, Part II by Richard E. Napper, MMR (Continued from Page 2)

suggest that you mount the boiler on the chassis and leave it mounted as you add the final details. I added as much piping detail as possible to give the locomotive that Frisco look, but every last pipe can not be added, there just is not enough room on the model as compared to the prototype. I did not attempt to add the steam lines to the Delta trailing truck booster. I did add both water lifters to each side of the boiler, soldering the pipes to the running boards. The steam feed pipe to the electrical generator/turbine, and the dual feeds to the two air pumps. The sand lines were added using 0.020" brass wire.

Add the boiler steps, and drill new holes and mount the boiler handrails. Drill a hole perpendicular where you want to mount the boiler marker lamps. Now using that hole as a guide, drill a horizontal hole using a #61 drill, mount the marker lamps using super glue.

I used 0.020" brass wire for the air lines on both side of the boiler below the running boards. Bend in place for the offsets, but bend the returns around a #76 drill bit because you can not bend them in place. Solder them in place at one of the brackets when you have them bent to shape. Finally I added the valve gear ladders to both running boards; they are distinctive to the spot engines.

I then returned to the tender, to drill holes and add the grab irons and marker lamps. You may add more piping to the boiler if you wish to do so, but this is where I stopped construction. I think I have turned the USRA 2-10-2 into a pretty good Frisco Spot engine.

After all of this work, I will not disassemble the locomotive for painting. I will remove the boiler, and I hand paint the chassis assembled using Floquil black engine paint. The boiler firebox sides should be painted graphite, but I paint them black because of all the detail piping on it. The cab roof is red, and the smoke box including the door is painted silver because I like the look. It should be graphite. The coonskin number board below the headlight is painted red. The tender is painted black. When you are finished spray crystal coat on the boiler and tender shell, and add the Frisco Freight decals by Champ. After

that, dull coat the boiler and tender to seal the decals. The word FRISCO is under the cab the engine number is on the tender's sides and end, the boiler coonskin number board and the sides of the sand domes.

Being very careful not to get alcohol on the sides of the tender, add a coal load to the tender, wet it with alcohol, then add white glue to glue it in place. If you get alcohol on the tender side, it will turn the dull coat white, not good!

The Frisco Spot engine is now ready for service; let's see I only have two more to construct. Have fun, and remember the FRISCO!

Frisco Spot Engine Model Photo List Description

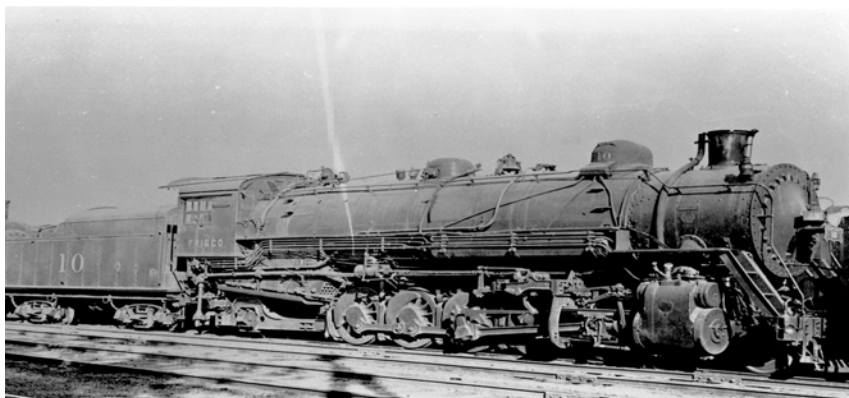
PTC0001 Bowser Manual Front Cover
PTC0002 Bowser Manual Model Photo
PTC0003 Bowser Manual Model Photo
PTC0010 Drivers installed in Frame
PTC0011 Side Rods Applied to Drivers
PTC0012 Valve Gear Hangers
PTC0013 Replaced Piston Guide and Main Side Rod
PTC0014 New and old Valve Gear Combination Levers
PTC0015 Modified Valve Gear Installed
PTC0016 Pilot and Motor Installed
PTC0017 Boiler on Running Gear with Pilot and Delta Trailing Trucks applied
PTC0018 Drilling out (Coring) of Brass Pyle-National Headlight casting
PTC0019 Drilling vice Used with Smoke box Door
PTC0020 Headlight and Coonskin Headlight Bracket mounted on Smoke Box
PTC0021 White LED Tested in Headlight
PTC0022 LED connectors used
PTC0023 LED driver circuit mounted on back of motor
PTC0024 White LED Headlight running inside boiler
PTC0025 Cut out Metal Coal Load on Tender
PTC0026 Styrene sheet added below Coal Load
PTC0027 Tender has been assembled
PTC0028 Kadec Coupler Mounted on Engine Pilot
PTC0029 Top Detail added to Boiler
PTC0030 Fireman's side Detail below Running Boards
PTC0031 Engineer's side Detail below Running Boards
PTC0032 Engineer's side Water Lifter added
PTC0033 Detail Top of Boiler
PTC0034 Fireman's side Lifter and Air Pump piping
PTC0035 Fireman's side Sand Lines and Boiler Steps added
PTC0036 Engine Pilot Cut Level Added
PTC0037 Boiler Handrails and Marker Lights added
PTC0038 Air Cooling Lines Fireman's side added
PTC0039 Valve Gear Ladders added
PTC0040 Tender Grad Irons and Marker Lights added
PTC0041 Fireman's side Finished Model
PTC0042 Engineer's side Finished Model

Continued on Page 4 with selected photos)

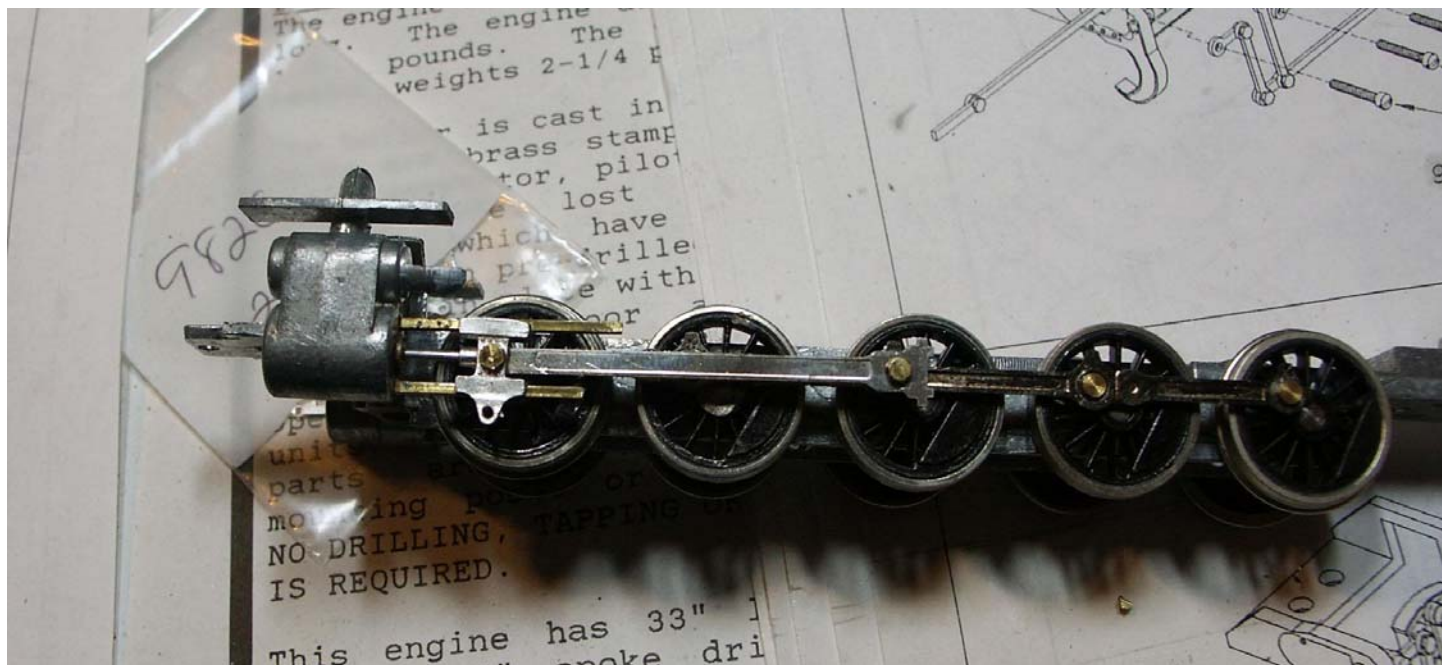
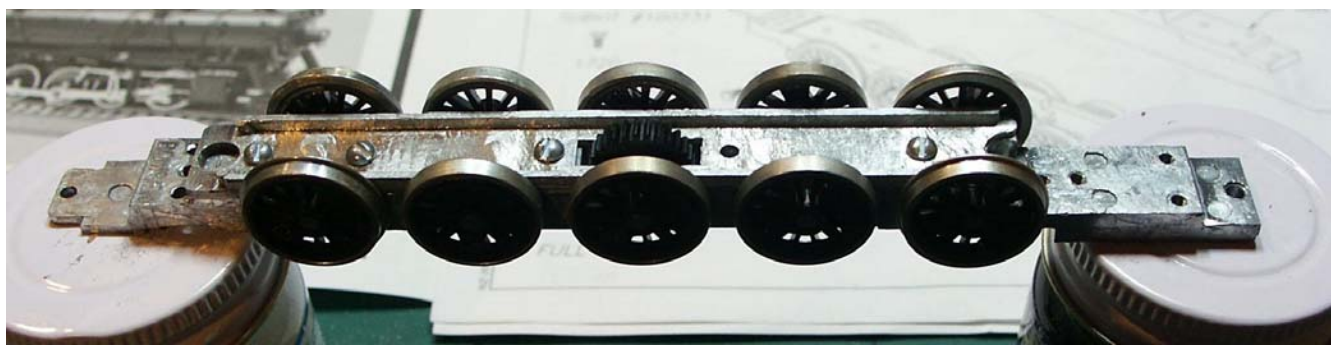
Frisko Spot Engines, Part II by Richard E. Napper, MMR (Continued from Page 3)

We are pleased to bring to you several “teaser” pictures from the list on Page 3. They are made by a master modeler and a

master photographer for your use with his article. I only wish we had room for all of them, but these are a sampling. *(Ye Editor)*



Frisko #10

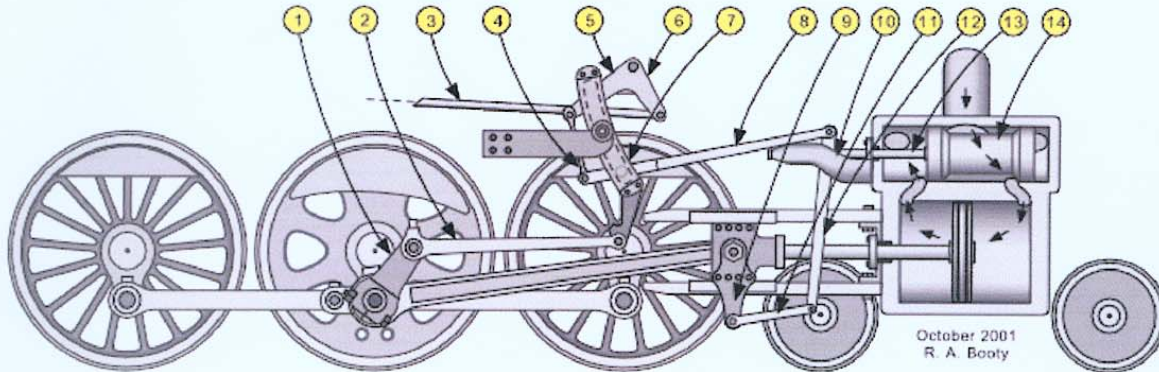


All of these 36 pictures may be accessed by opening <http://www.mcor-nmra.org/>

Steam Locomotive Walschaert Valve Gear Diagram

Walschaert Valve Gear --

Invented in 1844 by [Egide Walschaerts](#), foreman of the Belgian State Railway
(Diagram based on [4-6-2 Pacific, Soo #2714](#))



- | | | | |
|--------------------|--------------------------|----------------------|-----------------------|
| 1. Eccentric Crank | 4. Lifting Link | 8. Radius Bar | 11. Union Link |
| 2. Eccentric Rod | 5. Lifting Arm | 9. Crosshead Arm | 12. Combination Lever |
| 3. Reach Rod | 6. Reverse Arm & Shaft | 10. Valve Stem Guide | 13. Valve Stem |
| | 7. Link (Expansion Link) | | 14. Valve Spindle |

For steam source and locomotive internal workings illustration, see [Locomotive Insides](#)
(77K GIF)

The copy below is taken from [page 89, Walschaert Valve Gear](#), of [Locomotive Boilers and Engines, A Practical Treatise on Locomotive Boiler and Engine Design, Construction, and Operation](#), by Llewellyn V. Ludy, M.E., Professor of Experimental Engineering, Purdue University, American Society Of Mechanical Engineers, American Technical Society, Chicago, 1920; put on the web by the [San Diego Railroad Museum](#).

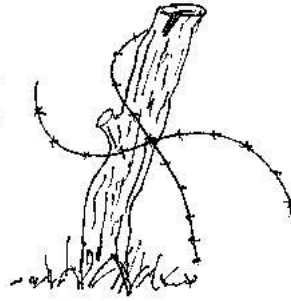
The following steps for adjusting the Walschaert valve gear are given by the American Locomotive Company:

1. The motion must be adjusted with the *crank* on the dead centers by lengthening or shortening the *eccentric rod* until the *link* takes such a position as to impart no motion to the *valve* when the link block is moved from its extreme forward to its extreme backward position. Before these changes in the *eccentric rod* are resorted to, the length of the *valve stem* should be examined, as it may be of advantage to plane off or line under the foot of the link support which might correct the length of both rods, or at least only one of these would need to be changed.
2. The difference between the two positions of the *valve* on the forward and

(Continued on Page 6)

HO Scale Fence Post

Made from copper wire
Joe Robertson, MMR



I had been looking for a way to make fence post for many years. I grew up on a small farm in southern Missouri and all of our fence posts were made from a tree called hedge. Now there is not a straight piece of hedge anywhere. The HO fence post that I had seen were usually made from some sort of dowel rod. They were too much alike and straight for what I was used to seeing. The clinic you are about to see is my answer.

You will need a pair of **wire cutters**, a **file**, some **paint**, a **brush**, some **pliers**, and **copper wire**.

First some information on fences and fence post.

Height of post-----4-1/2 to 5-1/2 feet above ground.

Number of wires-----3 wire, 4 wire, or 5 wire.

Distance between post---12 to 15 feet.

Fence post size-----all different sizes. The largest were for corner post, these were anywhere for 8 to 12 inches in diameter. Again this depends on a number of things, how prosperous you were as a farmer and what you wanted to keep in the pasture. Bulls took larger posts.

Copper Wire size-----14 gauge, 12 gauge, and 10 gauge. I use the 10 gauge for corner post and the 12 and 14 are mixed for the other post to give variety.

Construction-----Cut to length, file one end flat, bend to suit, paint and plant. Add your favorite wire to the post and turn in the livestock.

WATCH YOUR MAIL BOX FOR IMPORTANT ANNOUNCEMENT

Due to recent changes in NMRA structure from top to bottom, Turkey Creek Division (TCD) has had to formulate a revised Constitution. The proposal will be mailed by U.S. Postal Service to all NMRA members who reside in our area of Mid-Continent Region (MCoR) of the NMRA. They, regardless of past membership or not in TCD and MCoR, are now members of Turkey Creek Division, MCoR, and NMRA, if they are dues-paying members of our international NMRA.

The revision to our Constitution will be discussed at our April 25th meeting and with any amendments made, will be voted upon in our May 23, 2006 meeting.

The Brass Pounder's Desk Editor

Dave Eisenstein

E-Mail: vde9076@planetkc.com



Time for more “look alike” wild, wonderful and weird words from proto and model railroading.

Quarter: a coin that is 1/4th of a U.S. dollar.

Quarterly: a publication that comes out four times a year.

Quartered: the final word in “hanged, drawn and ...”

Quarters: enlisted men’s barracks or an officer’s home.

Quarter-Horse: a member of **Ed Briley’s** Stables, illustrated.

If he owns that, he should charge admission to see it.

Quartering: the 90° of 360° that one rod’s driver on the same axle should precede the opposite rod’s driver in two cylinder



steam engines. In *Mainline Modeler* for Nov. 1996, page 14, **Al Armitage** says an SP 4-10-2 which has three cylinders is quartered 120°. Strange word usage, since 120° is 1/3 of 360°. Should it be called “thirling” in that case? I just made it up, since it is not in actual usage.

Model Railroader in its January 1971 issue on page 44 has a fine article on making a model “AN ADJUSTABLE DRIVER QUARTERING JIG” for most scales followed by another article in its February 1971 issue by Bob Higgins on curing binding at such points. More articles can be found on this subject by checking out the web-site of <http://index.mrmag.com/> and then search for “quartering”. 15 entries in various magazines are there.

For animation of drivers, rods and cylinders, try:

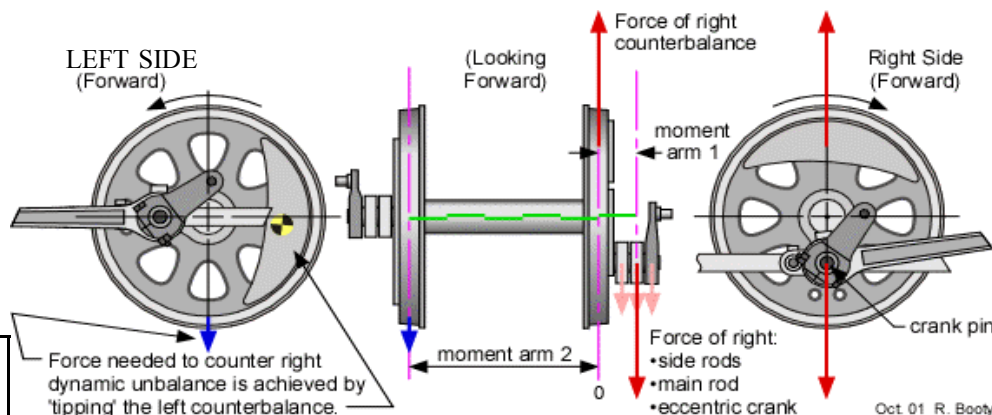
<http://home.new.rr.com/trumpetb/loco/index.html> That’s fun to see!

Why Are the Main Driver Counterbalances Not Symmetrical?

First, recall that locomotive drivers are *quartered*; ie: the right/left connecting rod pins are oriented 90 degrees apart. As one crank is on dead center, the other is at the position of maximum torque, and the power strokes are evenly spaced throughout the driver rotation. It appears that most locomotive drivers are quartered with the right side leading by 90 degrees, as illustrated. (At least one example however, PRR K-4s #1361, has 'left hand lead'.)

The above text and drawing to the right is from R. A. Booty, a contributor to the Wikipedia site from which they are drawn. Found at: <http://home.new.rr.com/trumpetb/loco/cbal.html>

The word to the right shown as “ipping” should be “tipping”



Minutes of Turkey Creek Meeting, March 28th, 2006

Paul Richardson, MMR, brought the meeting to order. Twenty nine attended.. Two visitors: **Bob Bayley** from Olathe and **James Baker** from Leavenworth (who received the notice of the meeting by LS. He had never had received one before).

Joe Robertson, MMR, handed out two Certificates of Achievement: **Gary Hankins** for Volunteer and **Jim Flynn** for Structures. There was also a Merit Award given to **Paul Myers** (in his absence **Paul Richardson** accepted it).

Charles Stapleton showed maps of the old right of way of the KC Wyandotte + NW Railroad.

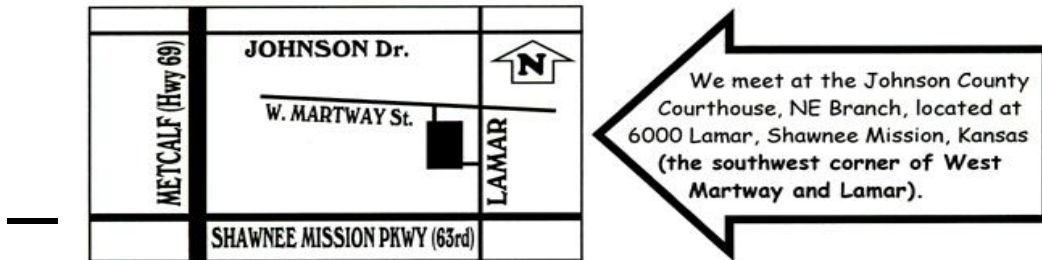
Louis Seibel talked about the Homes Show that was March 23,24, 25, &26 where 1500 of the World's Greatest Hobby Books were passed out. He also had a picture of KC Union Station that was taken June 2, 1924 at the beginning of a parade. He also had some HO vehicles from Norscot Scale Models: One from a Hobby shop and one from Kmart. He suggested that you might try other outlets than hobby shops.

Joe Robertson, MMR, gave a clinic on HO Scale Fence Posts which he had made from copper wire. A copy of his clinic was given out and will be found in the LS this month. **Paul Richardson, MMR**. had bought some black coffee stirrers to make pipe loads. He also suggested that for storing paint that Michael's carries a small spinner rack.

Louis Seibel brought up that the LS had been sent by Email to about 120 members (most of whom had not been members prior to recent NMRA changes). 20 had a bad email address and 5 to 10 could not down load because of various reasons There will be a copy of their comments that were sent back. The Constitution was brought up. **Paul Richardson, MMR**, said that he would see how it was progressing so that it will be ready to be discussed in the April 25 meeting and voted on in May.

Respectfully, **Louis Seibel, Clerk**

We meet at 7:00 PM April 25th at Johnson County NE Courthouse, 6000 Lamar, Shawnee Mission, KS.



We meet at the Johnson County Courthouse, NE Branch, located at 6000 Lamar, Shawnee Mission, Kansas (the southwest corner of West Martway and Lamar).

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