Maricopa Live Steamers

STACK TALK

March, 2021

The official newsletter of the Adobe Mountain Railroad in Phoenix, Arizona.
Operated by the Maricopa Live Steamers Railroad Heritage Preservation Society.

President's Page

There will be **NO** Board meeting in March. The County wants us to have a waiver all set up, if and when we have the public back in the Park. We are working with the other two clubs to get the waiver written, so it will be the same for all three clubs.

It is very important that only members and the member's family be on the property. Do not bring any guests into the park. You can bring your family with you. Please bring masks for everyone.

The FIRE BAN is still in place due to all of the weeds. As long as we have weeds, the fire ban will stay. Please do not run a steam engine that is coal or oil fired. Propane is the only way to go.

Financially we are in very good shape because of all the donations that the members have provided. A BIG **THANK YOU** goes out to all of you who have supported the club in the past. Here it comes. Donations have slowed down a bit. We could use your loose change to keep the cement ties program going. Don't you hate it when I have to beg. I wouldn't beg if you would just pony up a bit. It's 300 dollars to buy two pallets of cement bags. Joe Schnyder and Dave Kulman keep finding termite eaten wood ties all over the park. I know you love riding the rails here, so pony up if you can. Every time I come out (which is about three time a week), Joe has pulled up more track to replace with cement ties. We can't seem to stay ahead of Joe and can always use extra help making ties. We do give free lessons.

It's starting to warm up a bit, so now is the time to watch out for snakes with fangs under every bush. They will be out very soon. Safety first. **— Perry**

If you wish to be removed from this email distribution list,
please "REPLY" to this email with a request to "UNSUBSCRIBE."
Please, DO NOT tag this email as JUNK.

I hope they open the Park soon.
It has been very lonely being locked
in the gift shop all these months.
I need to see smiling kids again.
— the Gift Shop Helper

COVID-19 RESTRICTIONS are still in place.

For members' health and safety, until further notice, all social activities at the Park have been cancelled.

State mandates are still in place prohibiting gatherings of more than 10 people, and everyone must stay at least 6 feet apart.
ONLY members / immediate family can be at the Park. NO parties or gatherings of any type may take place.

HOLIDAY LIGHTS Monthly Meeting **MOVED** one week to 3/20/2021, 11am. Sorry for any inconvenience.

If you attend **SPRING MEET WEEK**, we do not have a camping permit. **NO CAMPERS ALLOWED**. BUT . . . . **REMEMBER**, the railroad is open to Club members and immediate family **ONLY!!!** — **Joe**

Ed. – I believe, but haven't seen the policy, that, when the County has the Park closed, there is no Liability Insurance in effect for the public. If the County allows members in, then only the members are covered.

Maricopa County Parks: Adobe Dam Regional Park

A fire ban has been initiated to limit the possibility of starting a brush fire, which could cause serious damage to the park. The fire ban includes the use of campfires, fire pits, charcoal grills. **Smoking in Maricopa County parks is prohibited,** except within an enclosed vehicle or at developed recreation sites such as parking lots, picnic ramadas or campsites. Individuals who smoke in the designated areas are asked to ensure that all materials are **FULLY EXTINGUISHED** prior to leaving the area. Violation of this park rule, Rule 113, may result in a citation. However, it is still acceptable to use **gas/propane grills** in designated areas such as: ramada areas, semi-developed, and developed camping sites. A date to lift the fire ban has not been identified and will be determined by the amount of rain Maricopa County receives during the monsoon season. **Thank you for your cooperation.**

NO BURN DAYS at MLS

---- NO ----

COAL or DIESEL FUELED atomizers or BBQS!

NO FIRE OF ANY KIND

Until Further Notice

2021 Board of Directors and Adjunct Staff

Perry McCully — President
Joe Schnyder — Vice President
Mick Janzen — Secretary
Bob Douglas — Treasurer
Bill Cobb **Mike Grant** **Tom Harrington** — Members at Large

Cliff Fought — Superintendent Construction
Hank Gallo — Superintendent Operations
Dave Kulman — Maintenance of Way Superintendent
Matt Rockwell — Sawmill Superintendent
Terry Liesegang — Road Signal Superintendent
Dakota Clemens — Tower Signal Superintendent
Bill Pardee — Boiler Inspector
Joe Fego — 1-inch Operations Superintendent
Joe Schnyder — Safety
Jim Zimmerman — Engineer Test Administrator
Pete Pennarts — Facility Administrator
John Broughman — Public Run Crew Coordinator
John Draftz — Advertising
Donna Hohm — Membership Committee Chairman
Matt Rockwell — Holiday Lights Committee
John Bergt **Timothy Freeman** — Web Masters
Ken Giordano — Stack Talk Editor

Send emails / photos to:
MLSnewsroom@Gmail.com

Vice President's Page

It was said to me that steel rail and concrete ties were a luxury for our club. Well, if it was not for the steel rails installed 10 years ago in all of the curves on Werner and through the balloon loop at the station, we would have had numerous derailments at the joints in the curves, and we would be replacing the rail for the third time in the last 15 years that I have been here. With the concrete ties, we have had no issues with gauge problems and track buckling in the heat in those areas, and that just means we can work on other parts of the railroad, instead of going back to fix problems created because we did not put steel rails and concrete ties in when we had the chance.

Many of you do not know that we lost the foundry right here in Phoenix where we used to have the aluminum rail extruded for our club. Now, for us to get replacement aluminum rail, it would be the same price as steel because of the shipping charges to get the aluminum to Phoenix. The steel is close enough, though, that we can go get it with Perry's or Cliff's trailer at no cost to the club. Buying steel is the only intelligent thing to do, not a luxury item as told to me.

Over on Pottsville, between Deadman's Trestle and Massie, we have replaced the ties 3 times between 2005 and 2017. In 2017, I installed the first of the concrete ties where, even after being treated, we were having the ties eaten on a 4- to 5-year cycle. This being the route taken to go to the museum, it gets quite a large amount of traffic, and since the concrete has been down, there have been no issues with ties not being able to hold gauge due to termite infestation. With the steel rail also installed at that time, there is no sign of rail wear, which, when we replaced the track panels the three times before, we had to change the rails due to excessive wear, especially in the curves. With the public trains being so heavy, it wears out that much sooner. This is an example of why going to steel and concrete will save our railroad from destruction in this desert. Plus, there have been no sun kinks in the past 3 years that required repairing.

As you are out there running on the sections of smooth rail and concrete ties, you must say **THANK YOU** to Cliff for coming up with the engineering to make the concrete forms easy to pour in such a quantity that we can mass produce these ties at a cost of LESS than one-fourth the cost of a plastic tie. Also, in a one foot section of track there are 4 plastic ties for a cost of 2.55 each tie but, in concrete ties, there are only 2 per foot at 51 cents each, because they are spaced at 6-inch centers with the wide base of the concrete tie that gives us a bigger bang for our buck. They would be 20 cents more per tie if we had to pay for the plastic tie plates, but they are all donated to the club, so that makes them even less expensive. These plastic tie plates serve the function of preventing corrosion from starting between the concrete and steel. Railroads have plastic tie plates on every concrete tie so that corrosion doesn't start between the chemicals in the concrete and steel rails. Half way through the life span of a concrete tie on railroads that have over 500 million gross tons per year traffic patterns (that would be about 18 to 20 years), there are Tie Pad gangs that go along and replace the plastic pad under the steel tie plates due to crush factors, in places such as the Powder River coal basin, with 125 loaded coal trains per day and 125 empty trains per day. That is where you have cars weighing over 300,000 pounds and locomotives over 486,000 pounds running over them at 60 mph. Fortunately we at MLS do not have that type of weight on our rails, so we should be good for quite a bit longer.

Well, here is March and it seems like our winter nice weather is going by so fast. I am not looking forward to May's 100 plus degrees and the beginning of dry weather. I have been keeping track of the number of tie plates installed by the number of boxes of tie plates. We have installed just shy of 40 thousand tie plates that is 20,000 concrete ties installed and I just received another 10,000 tie plates this week. These are on 6 inch centers, so it comes out to 10,000 feet of track renewed and no longer in need of future maintenance. That is just 560 feet short of 2 miles of track. The greatest part of this is not one penny of your dues

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VICE PRESIDENT PAGE (cont'd)

went to pay for this. It was all done by donations from people specifically for this project. We had some members out this last week having a good time in the sun, while their homes were covered in snow and ice. When they left to go home, they left some donations to buy more concrete to continue this project.

I really want to point out some members who did all of the engineering and work to get these concrete forms where we can now pour 130 ties at a time. Cliff Fought did all the work on the forms getting the pins in the correct place so that the screws line up in the tie plates at 7.5 inches. Mike Grant refined the concrete release application process, spraying the forms so that the tie will come out of the form when dry. Pete has refined the pouring process so that now it takes about 90 minutes to pour 130 ties. A vibrator is being used to shake the molds to get an even smooth finish when they dry. All of these ideas have been trial and error to get where we are today. There have been a few other clubs in the country inquiring about our process and what we are doing here. The Houston Area Live Steamers are using concrete ties because of the problem they have when a hurricane comes ashore and floods their park with 4 or 5 feet of water. Their ties are holding their track in place during summer heat and during the flooding. They have been using them successfully because of their flood prone area, and have reported to me their wood tie water rotting problem is just as great as ours from termites and the hot, dry sun, so they are getting going on the concrete tie change out program.

Another program we are working on is the concrete bridge program. Each time we get to a bridge that needs ties changed out and the bridge is less than 4 feet long, we are using concrete block turned on its side to let the water pass through, while securing the rails into the blocks with special fasteners. Here is another item that will make maintenance of bridges a thing of the past. The bigger bridges that have long spans are getting plastic ties on the deck of the bridge, so we will get a 75-year lifespan out of the plastic ties on bridges. Each one of these items makes the railroad better and safer for many years to come. I look forward to the day when we have no maintenance work to do at and can just go out and spend the week riding our trains all day long.

The weeds have been growing slow and we are waiting until the weeds are tall enough to get the spray onto the leaf of the weeds before we attempt to do any spraying. Looking at the weather forecast, we might be getting something in March, but we will wait and see. If we do not get any moisture, it will just keep all the dry weeds out there for the rest of the year. It will not hurt my feelings to not have to cut weeds this year. There are plenty of dry weeds out there just waiting for a spark to get them blazing. Last year, we were fortunate that we did not have any large fires, and we are hoping that will hold true this year also.

I want to thank all of the volunteers who have been coming out to help maintain our park and railroad. **THANK YOU VERY MUCH TO ALL OF YOU**.

— Joe

All About Railroad Spikes – 15 mins.
https://www.youtube.com/watch?v=nInJFLjxcZs

Rail Defects: Crushed Head, Flowed Rail – 11 mins.
Must slide the red bar back to 0:00 to start at the beginning of the video.
https://www.youtube.com/watch?v=ccCc47vdFQ8&t=573s

Army Experiments In Train Derailment & Sabotage – 1944 – 7 mins.
https://www.youtube.com/watch?v=agznZBiK_Bs

Train Mountain Safety Video 2018 – 17 mins.
https://www.youtube.com/watch?v=Vf5AYenI-l4

Train Mountain TRIENNIAL 2018, CHILOQUIN, OR – 34 mins.
https://www.youtube.com/watch?v=yvM2QUz5mHM

Crazy Runaways – 7 mins.
https://www.youtube.com/watch?v=mATptntm_is

From the Desk of: Gail Woodward

Subject: **Bob Woodward Estate Sale**

Cash or Cashier Check GAIL080953@yahoo.com

View/Pick Up at home or LALS – California

NEW ITEM

1" Scale – Three FLAT cars w/containers $500 each OBO

GONDOLA	$500 OBO
FLAT car w/trailers	$500 OBO
CN Steam Engine	$9,000 OBO
Diesel Engine	**$8,000 OBO**

MEMBER CONTRIBUTIONS!

stories and photos by Hank Gallo

FEB. 7

Member Larry Messing purchased a beautiful Railroad Supply GP-40 out of Beverly Hills, CA this week. This is a similar loco to our 1982 club loco Adobe Western #7282 and Larry's had recently been converted to electric. He also got three cars and a caboose.
He took his 1951 Willy's Jeep and a landscape trailer on the almost 800-mile round trip to pick it up.

FEB. 14

We were lucky enough to get a ride on Larry's newly purchased GP-40 electric for a trip to Pottsville to see the train equipment displays and then back to Adobe Station through Teeny-Tiny Tunnel. Theresa also celebrated her birthday on her first trip to our club. Happy Birthday!

stories and photos by Hank Gallo

FEB. 5 – Za'vion took the family out for a train ride on this perfectly wonderful day. He took us out on Al & Arlene Ford's Mad Dog mining train for the first time in almost 2 years. It's been out of service until recently when Fred Greenwald and Mike Grant repaired the train. It ran great, and I really appreciate our club members pitching in to make the repairs. This was also Za'vion's first time out with Mad Dog.

FEB. 7 – Za'vion just loves visiting Teeny-Tiny Tunnel. We spent a long time by the elephant, Z's favorite animal.

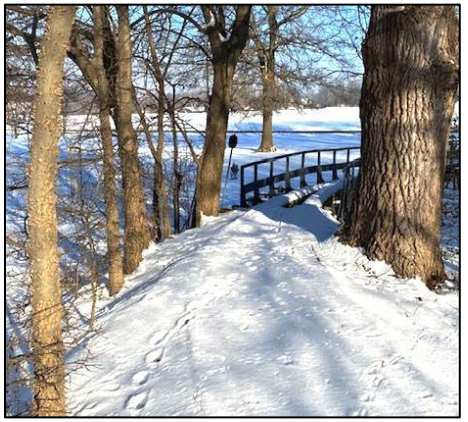
FEB. 14 – Our family went to the park to bring 3-year old Frankie out to run the train. His first time as a Jr. Engineer, he did a great job handling the train.

HAARP Weather Control System

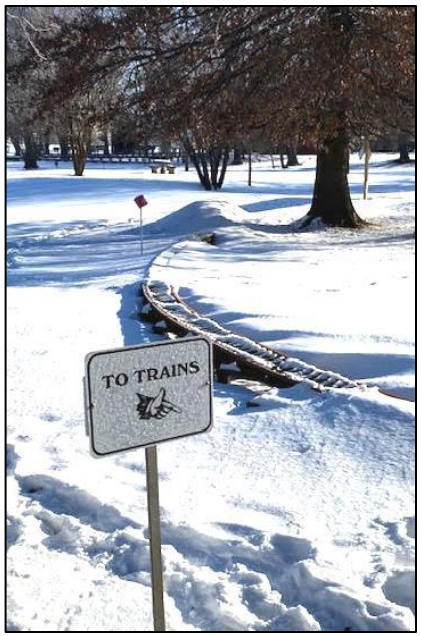
story by Joe Schnyder

photos by Joe Schnyder and Tom Harrington

Here is Tom Harrington, from Oklahoma, out enjoying a warm day installing concrete ties. Here he is ballasting while he waits for me to come over with the tampers and level and tamp it. Today, Tommy's neighbor sent him a picture of his driveway with about 1 inch of ice on it, and the temperature was around 2 below zero, so Tommy is really enjoying being here for a bit. We really do appreciate his help when he could be at home working on his home railroad. If you get a chance to go through Muskogee, Oklahoma, stop in and see Tommy's railroad. He would be happy to give you a ride and also show off his caboose in the back yard. Yes, a real UP caboose.



Ed. – Tom has already consented to writing a future article about the UP caboose. Never expected the need to invest in a rotary plow, though.



Brazilian Ore Train rear end collision Video and Photos

story courtesy of Joe Schnyder

An ore train was stopping at a location where rear end helpers could couple on, but the helper crew was running too fast for conditions and ran into the rear of the train. Video shows the collision and photos show the result. Everything stayed in line due to the weight of the loads on tangent track.

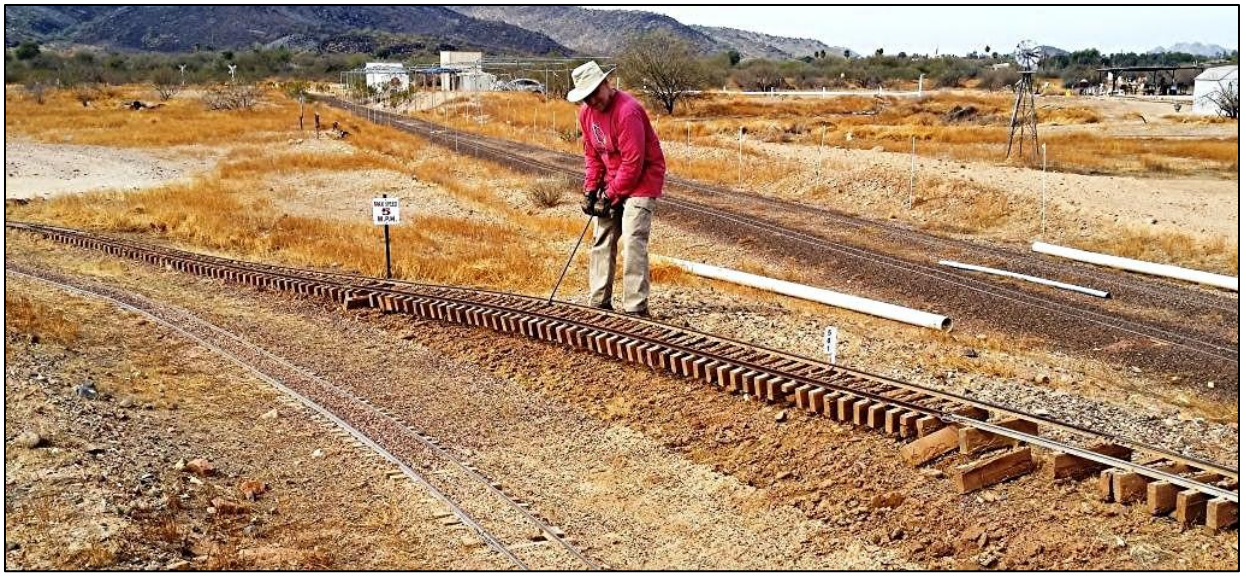
CLICK HERE to open Google Drive, then click ⬇ to download the video to your hard drive, and play it from there with Windows Media Player:

https://drive.google.com/file/d/1b726I1WI0eZRohdnayIgUJRA0fYulLV8/view?usp=sharing

TRACKING TRACKSIDE PROGRESS 2020

BROWN BEAR

story and photos by Joe Schnyder



Here is Scott Mack pulling up the track in the curve at Brown Bear, where we have ties eaten by termites and a serious wide gauge issue, because the aluminum rails have worn down in the curve and the outside rail is pushing out from lateral forces in the curve.

This section of Brown Bear has only been in for 10 years. The ties have been eaten by termites, and most of the curve was steel rail, but had an 80 foot section that was aluminum rail and was worn down so much that it was creating wide gauge issues in the curve. Trains were falling in between the rails because the aluminum had worn down that much, along with the ties not being able to hold the screws tight because the inside of the ties were termite ravaged. We are replacing the ties with concrete and will put steel rails in the rest of the curve, so as not to wear out in 10 years, because I am sure I will not be doing track work ten years from now to replace these bad spots.

As the railroads do with continuous welded rail (CWR or ribbon rail), it eliminates joints, and joints are the weak spot in the track structure. I am welding the rails like the railroad does, so as to not have joints in the curves, which is where 95% of our derailment problems start. Because we are using steel we can weld out the joints, but with aluminum rail, we have to put up with the joints in the track. This is just another instance of where using steel will make our track usable for many years to come and is not one of those luxury items.

STEAM LOCOMOTIVES

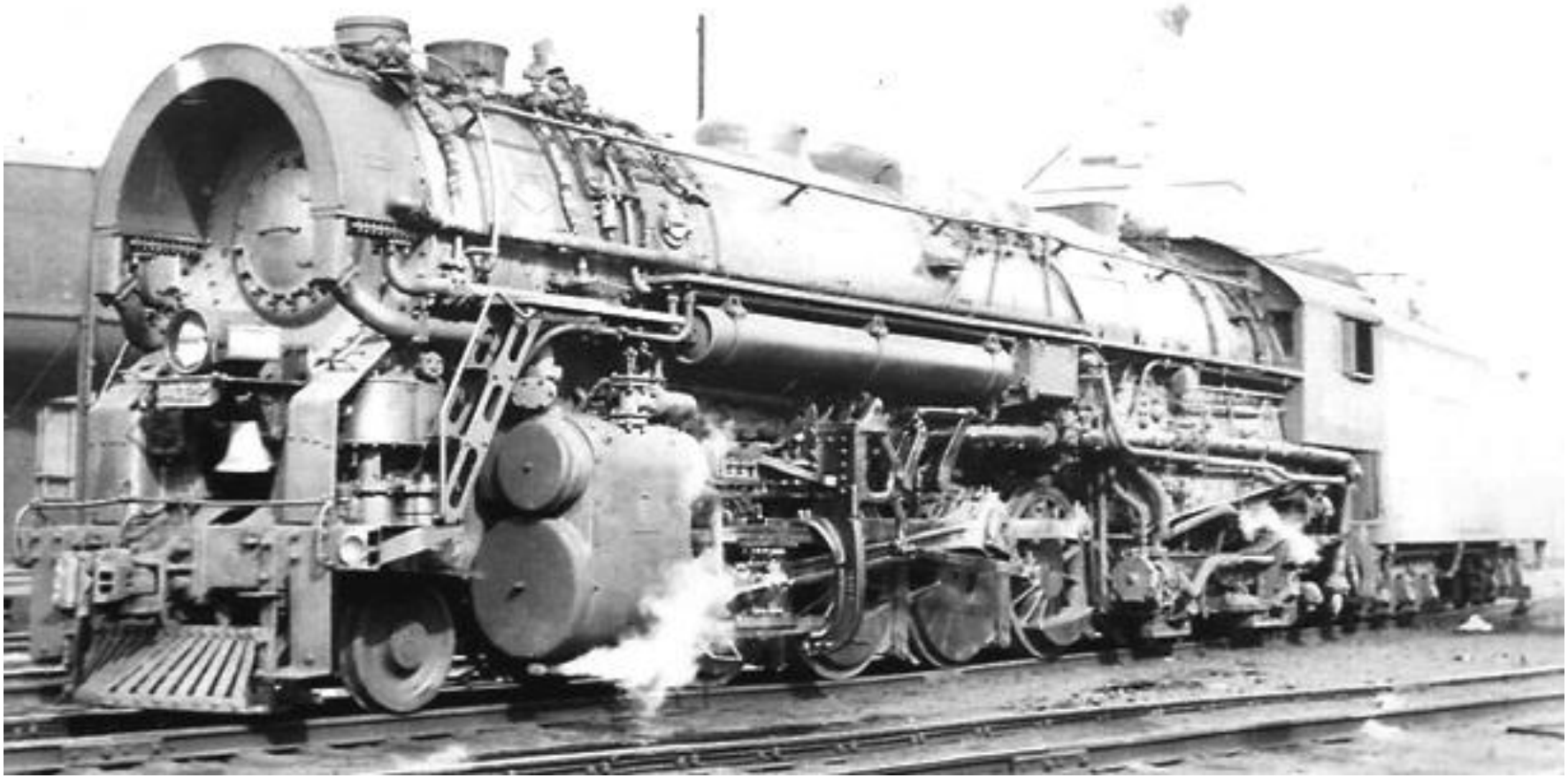
BOILER Appliances and Attachments

Feedwater Heaters

by Dave Griner

Hello, again.
We're going to look at one of the other two major feedwater heating systems, the Coffin and the Worthington.

Here is a fine photograph of a Boston and Maine 2-8-4 that has the Coffin system. Notice the "beetle brow," which turns out to be the heat exchanger. Sometimes it was installed inside the smoke box but, where room is at a premium, it was hung as shown.



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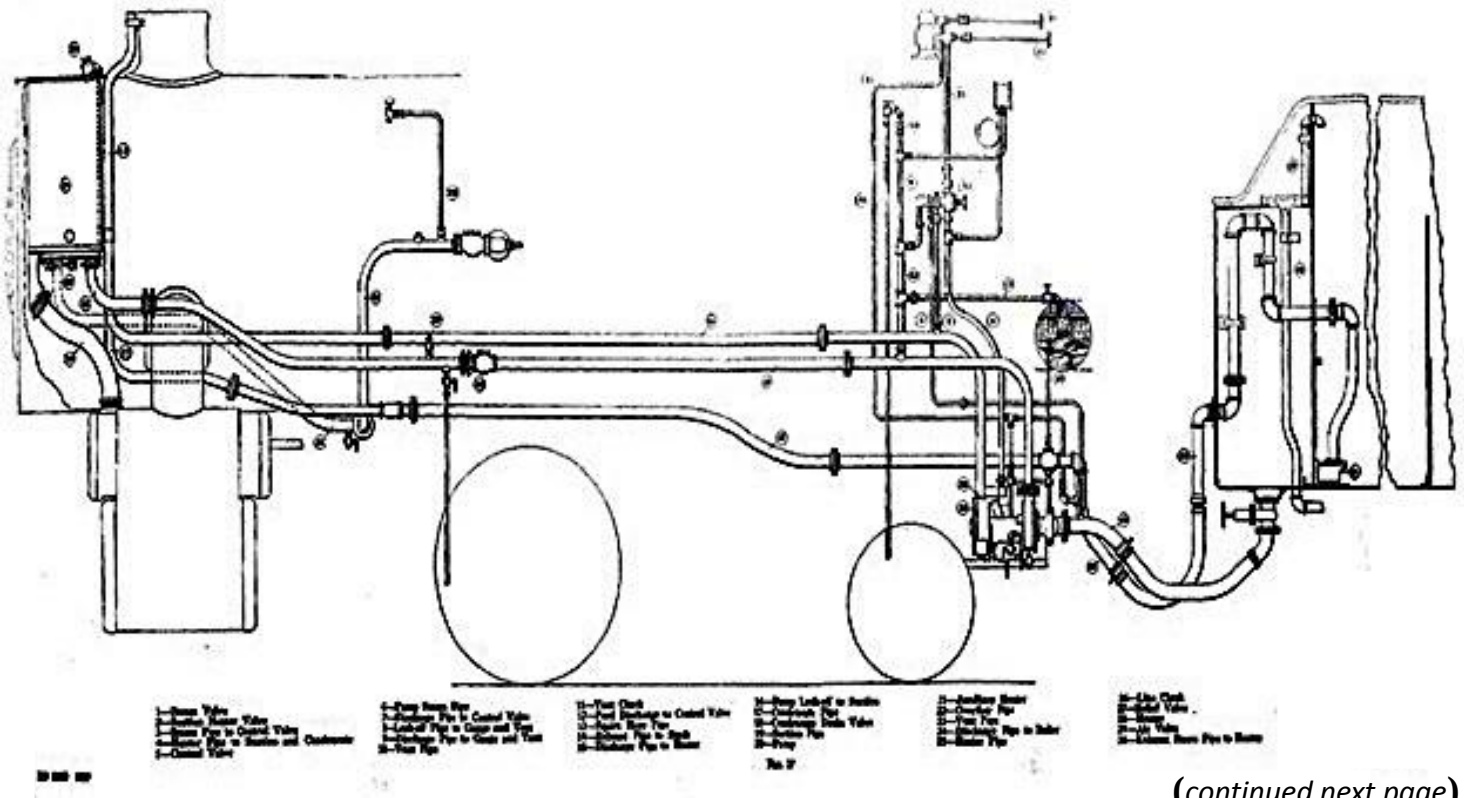
FEEDWATER HEATERS (cont'd)

Now, lifting more description from the ICS work:

COFFIN FEEDWATER HEATING EQUIPMENT

49. **General Arrangement.**—The general arrangement of the Coffin feedwater heating equipment is shown in Fig. 37. It comprises a centrifugal pump, a main heater, and an auxiliary heater in the tank. The pump is a high-pressure one, and it forces the water which flows into it by gravity, through the pipe *15* into the heater, and thence through the pipe *24* to the boiler. The exhaust steam from the cylinders enters the heater through the pipe *30* and the condensate and excess exhaust steam is returned through the pipe *17* to the auxiliary heater in the tender. Here the condensate is mixed with the water and heats it as it passes under the heater to the pump; hence the water in the tender is not heated, whereas the water in its passage to the boiler is heated twice.

This is a diagram of the system, where there is a turbine driven centrifugal pump supplying the heater bundle.



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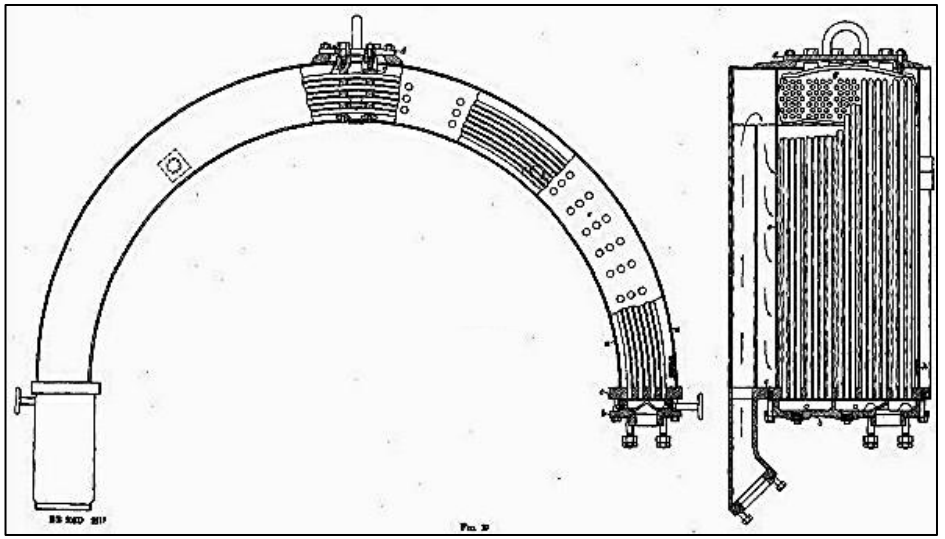
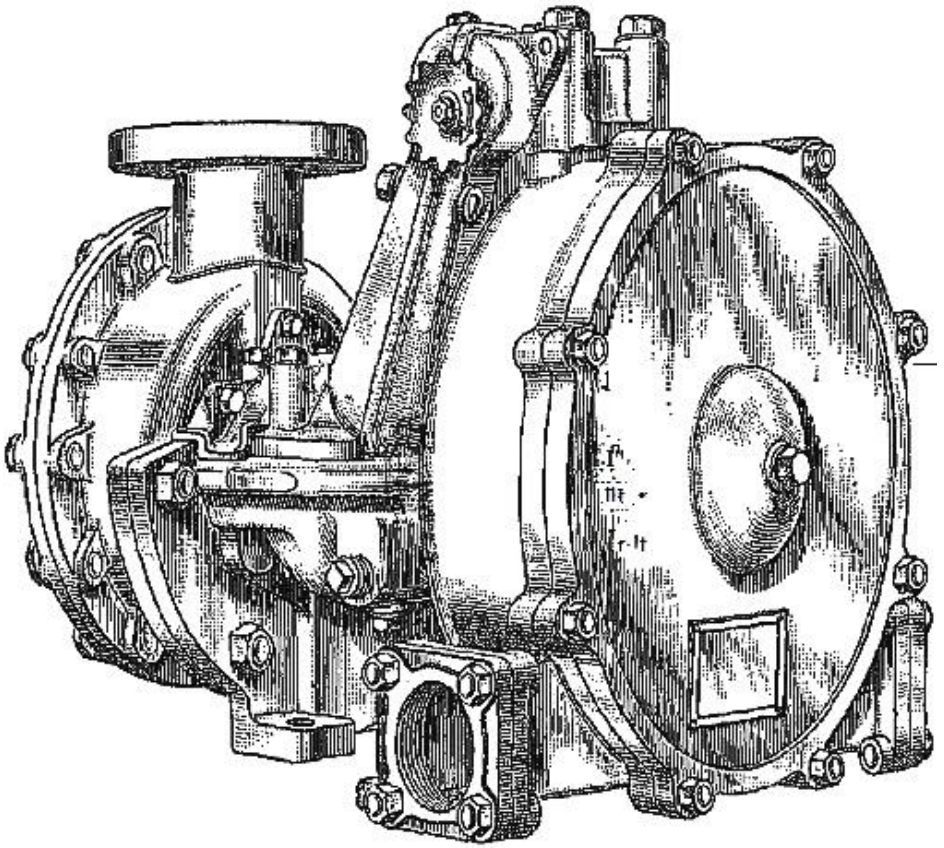
FEEDWATER HEATERS (cont'd**)**

This is the tube bundle for the heat exchanger.



This is the turbine driven pump.



That will do it for this time.
The Worthington is next.

Take care.
Dave