



Maricopa Live Steamers

STACK TALK

August, 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



Before I forget, [Board meeting Aug. 14 at 8 AM.](#)

Boy, these months are flying by. I still need a Stack Talk editor. Ken is not going to do this forever, so he hopes. Please step up, someone. Even some part-time helpers to take the strain off his eyes would be appreciated. It may convince him to stay.

As you can see Joe Schnyder is still at it pulling up track and laying it back down with new ties.

It seems that some of us have lost focus on safety. Two people have fallen and broken knees and ribs either at home or here at the park. Not a very good record. One member got into a fight with an employee and broke his knee. One member will be laid up for at least 6 months. Safety First, **PLEASE.**

The process has been started to get all of the permits to have the Fall Meet. Work session starts on Oct 18, the meet starts on Oct 25 and ends on Nov. 1. There will be an operational session Tues. and Wed., Oct 26 and 27. Please remember things can change with the County at any time over the next few months. We shall see what happens with covid.

We are all adults in this club and there is nothing that we can't fix. If you have a problem with something that is going on in this club please come to me so we can fix it.

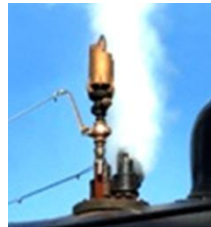
COVID-19 RESTRICTIONS are relaxed but are still in place.
For members' and visitors' health and safety, follow the new rules.

I took a road trip to Minnesota a few weeks ago and ran into a train ride in Abilene Kansas. Beautiful 12 miles round trip in the corn fields of Kansas. Very nice-looking Pacific pulling an old diner, old Gondola and a caboose. The engineer is the retired doctor of Abilene. Abilene is the hometown of the Eisenhower Presidential Library. Moved on to Hutchinson Kansas to an underground salt mine. You go down 650 ft and spend about 3 hours looking around. 90% of the salt goes on roads, while the other 10% is made into salt licks and animal food.

Starting Sunday, Oct. 3rd is the first Sunday public run and every Sunday thereafter, with April 24, 2022 being the last run day. Start time is 11 am until 3 pm. All depends on Covid. There are signup sheets in the club house. We need volunteers to run the public. You need to have a current engineer card to give rides to the public. Sandra Grundy will be running the Gift Shop. **THANK YOU** to anyone who is willing to help.

MLS BLAST

Bobberg sustained a lightning strike that damaged the signal system. Consider the Bobberg Branch as DARK TERRITORY. Per Rule 352: Proceed at a speed that will allow you to stop in half the distance to an obstruction or another train.



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.

Photos by Perry McCully

Pacific engine in Abilene Kansas



Betty Ann in the cab



No. 2 is one of three made for the salt mine

Perry McCully
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Tower Signal
Superintendent

Bill Pardee
Boiler Inspector

Joe Fego
1-inch Operations
Superintendent

Joe Schnyder
Safety

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Engineer Test
Administrator

Pete Pennarts
Facility Administrator

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John Draftz
Advertising

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Holiday Lights
Committee

John Bergt
Timothy Freeman
Web Masters

Stack Talk Editor

Send emails / photos to:
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MEMBER CONTRIBUTIONS!

story and photo by Donna Hohm

Donna Hohm has been inspired to add to the baggage wagon display that Pete Pennarts rehabbed for the MLS. She is asking for donations of any old trunks, luggage or crates that the members no longer need. **THANK YOU** for your donations. Please drop them off at the clubhouse with a note, ATTN: Donna.

I can't believe the response!! I thought maybe a few old suitcases might show up, but I never expected this. Beautiful trunks arrived. They do look old, or should I say of the same period in history as Adobe City. And I understand a few more are on the way.

THANK YOU ALL for your contributions.

— Donna



RUNAWAY TRAIN – SP 7551 East -- 50 mins.

CLICK: https://www.youtube.com/watch?v=0NS84qoYV_Y



FLASH FLOOD 7/23/2021

story, photo and link by Joe Schnyder

Here is the water running at 3,500 cubic feet per second according to the stream flow gauge at Skunk Creek and Happy Valley Road. The water under the bridge is at the 9 foot level and is filling up fast. This picture was taken at 4:35 pm on July 23rd and the stream flow gauge is at 3,856 ft³/sec now at 5:15 pm. The park is under severe threat of a massive flood again. This is only Friday, and it is going to rain for the next two days with flood warnings out until 9 pm today.

At this point, I am watching the water rise in the Adobe dam containment area. We have closed the park because the rising waters are getting close to Pardee point right now. It is 6 pm Friday July 23rd. Fortunately it did not get high enough to reach Pardee Point, which is about 100 feet away.

We dodged a bullet this time.

Flash Flood Phoenix AZ 07-23-21

CLICK: <https://youtu.be/xT9zk80cpg0>



**SKUNK CREEK at
PINNACLE PEAK RD.**

CROSSING SIGNALS

story and photos by Hank Gallo

I got a call from Doug Stephens from California last weekend who is a RR buff. He is in contact with a company that is refurbishing the GO line. They were going to scrap all of these, so he was contacting people around the country to come and make a pickup THIS WEEK, but no one could get there that quickly. Perry McCully and Pete Pennarts volunteered to drive over and haul them back. I don't have any more details yet but, by them getting there quickly, we were able to save the signals. And in several months, there will be another load of them for us, since we followed through on the pickup. On our next trip, Doug will give us several crossing bells from his collection.



story and photos by Perry McCully

Pete Pennarts and I drove over 750 miles to La Verne California and picked up 6 Crossing Gates with all the bells and whistles. We left on the 28th at 6 am and were back in town by 7:30 pm that night. We had to take off all the lights in order to get all 6 gates on my trailer. The people at Mass Electric Construction Co. and Jonathan Garcia were very instrumental in helping us get the gates loaded onto the trailer. A big **THANK YOU** to Mass Electric for all their help getting it done. There are two other people I would like to thank – Hank Gallo and Doug Stephens. Doug was our contact person in CA. **THANK YOU** for your great help. We hope to go over and get more stuff later in the year.

Pete is on the fork lift

Mass Electric Corp helpers



TRACKING TRACKSIDE PROGRESS 2021

RACEWATCH

story and photos by Joe Schnyder

Here is a photo of Joe and Trish Kalisak installing concrete ties in the curve just north of Racewatch. They asked me what they could do to help, because they wanted to be part of the track crew and concrete tie program. I started them with digging out the old ties, grading it smooth, then installing the concrete ties and securing them to the steel rails in this curve, before replacing the ballast, smoothing out the alignment of the curve, tamping the ties, smoothing out the ballast and, lastly, putting two car loads of water on it to hold the track in place. This is one of the most important parts of keeping our track usable. When the ballast is disturbed by tie replacement, or by walking on the sides of the track and breaking the ballast away from the edges of the ties, the ties become compromised, which allows sun kinks to happen on our tracks. Watering the track for compaction is the way to keep it from moving when we are done.



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Joe and Trish started by doing a kink at Theobald on the westbound main, digging out the kinked ties, leveling out the ballast, installing plastic ties and restoring the ballast, then leveling and tamping the ties before watering it down for compaction. That spot is now good for many years to come, and it was done by Railroad Standard Practices. They are coming out in the very early morning and working for a couple of hours, before it gets too hot to pick up the tools in the sun. Our drills and screw guns get too hot to hold onto. That is when we call it a day and come back another day. Joe and Trish have set up their tool car to be able to work with their own tools. They also know that there are plenty of hand tools in front of the switch barn, if they need something. All that is required is to put back any tools that were taken so that they will be available for the next person who needs them.

I had a person complain to me that, when they came out and asked what they could do to help, the only job planned for that day was a one man job already being done by me, so I had nothing for them to do. When I plan each day's work schedule, I only plan for work for myself, since I want to be able to stop working when I want to, when I'm too hot or tired. I really do appreciate any help offered, and do not wish to make anyone angry, but **PLEASE** understand that I need advance notice when someone wants to help. Then I can plan for and have the tools / materials ready for other jobs along with what I am trying to accomplish myself for that day. One of the problems that I run into is tools for helpers. I used to have a full set of 18V Dewalt impact driver, drill, saw, drill bits, gauges, screws and bag to carry them for persons that came out to help. Unfortunately, this bag was in my cart when we had the fire at the south end of the park, and that day my extra bag of tools disappeared. Now I do not have extra tools for loaners.

TRACKING TRACKSIDE PROGRESS 2021

RACEWATCH (cont'd)

On some days, I have help from Charlotte Hughes, who comes out to the park when she can and gets involved with the current project. She has many years of track experience from being a member of the Cinder Sniffers from Ohio. I heard through the grapevine that they really miss her because there is no track work that she cannot do better than most. She has helped me on concrete tie projects and even installing bridges and repairing cars and welding rails together. These people are called "Jack of all Trades". She has a keen eye for the alignment of curves and getting the track level, which came in handy as we put the curve in the yard tracks that we rehabilitated.

On Saturdays, Scott Mack comes out to help me in the morning. Since he is 20 plus years younger than me, he helps me accomplish in just hours tasks that would have taken me all day, or sometimes two days. Again, another person who has been working with me and is well versed in concrete tie installation and track dynamics. All of these people who come out to work are of a great value to our club for their effort and experience in track maintenance. There are quite a few who work behind the scenes, even at their home workshops, when working on our train equipment and maintenance equipment, and keeping things moving well.

I have focused on just a few of the members who come out to help, and each month I will highlight another member who is doing what they are able to for the good of the club. Remember not to exceed your physical capabilities when out at the park, as we do not want anyone to get hurt trying to lift something beyond their abilities or do any task beyond their physical capacity.

SAFETY FIRST.

Here is another picture of Racewatch where Joe and Trish have been installing concrete ties. This photo was taken after they stopped for the day because the tools were too hot to touch and the sun was beating down at a blistering 106 degrees with a dew point of 65. Someone once said to me that Phoenix has a dry heat. I say that someone is really stretching the truth.



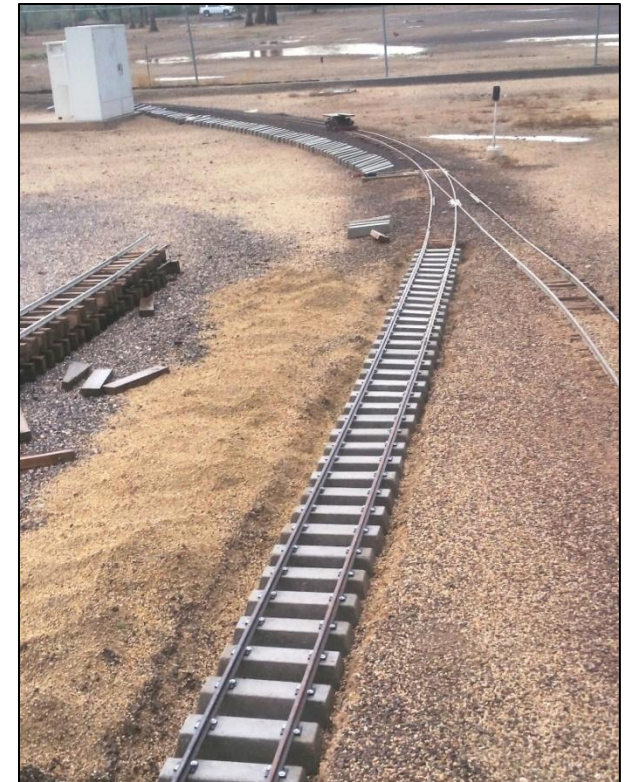
TRACKING TRACKSIDE PROGRESS 2021

MUSEUM TRACK TERMITES story and photos by Joe Schnyder

Here is a photo of the ties we removed from the museum track at the switches at the north side of Pottsville station. There have been a few helpers working on trying to get this in shape for the up and coming public run season. Joe and Trish Kalisak have been working on installing concrete ties at Pottsville, along with myself and Charlotte Hughes, Terry Liesegang, Larry Messing and Scott Mack. We have managed to replace a switch with plastic ties and over 500 concrete ties in Pottsville. We are working toward getting it where the ties will hold gauge in the curves and also replacing some of the rail in the curves. This portion of the Pottsville branch is closed, but the rest of it is open for use. Just use the turnout for Lowe Bridge and return to Adobe yard via the tunnel. The Kalisaks asked me about learning some track techniques and they have been out sweating in 100 plus heat and dew points over 65, learning how to do maintenance on the railroad. They are helping work toward a safe and long lasting solution to our termite problem.

Terry has been taking loaded tie cars to where we are working and set them out where we will be using them. Larry moves equipment and supplies to where we need them. Unloading these cars is a task that is stressing. Each car holds about 60 ties and each tie weighs about 12 to 13 lbs., depending on how full the pan was, and taking them and setting them where we can reach them while installing them. This is important because you do not want to have to reach too far with a 12 lbs. tie from 60 to 120 times while setting them up for installation. If you want to come out and see what your tolerance for heat is, stop by while they are making ties and go from there.

The ties we pulled out were very old as this portion of Pottsville is from 2000 to 2001. Inside the Pottsville gated area, steel rail had been put in some of the curves, so now the rest of the curves have been redone in steel and concrete, as to last for many years to come. We are going to work toward finishing more of this branch's maintenance before Oct. 1st when we wish to start doing public runs again.



TRACKING TRACKSIDE PROGRESS 2021

FISHER MP 410

story and photos by Joe Schnyder

Here is MP 410 on East Werner, where we had a sun kink. It was within 25 feet of the end of the concrete ties, so Charlotte Hughes and I just added 125 more ties to this area and filled in another spot good for many years of service to the club with steel ribbon rail and concrete ties. When we aligned this curve, it was 115 degrees (the temperature, not the curve), so it should be just fine for the summers to come. Again, we need to say **THANK YOU ALL** to the members who have stepped up to keep our concrete tie program going with donations for concrete and rebar for making these ties. Right now the pan count is close to 140 ties per pour, and the members who come out and do this at 6:00 in the morning are staying ahead of us who are installing the ties. They have refined the process to a science to get a pour done and setting out to cure in less than 2 hours. With the heat we are having, it is only taking 1 day before they can knock them out of their forms and get ready for another morning of mixing concrete.



The people that come here from out of town notice all the changes we are making and look forward to see what we have done each time they visit our club. All the members who are involved with this, from buying the concrete to making ties and putting them out to be installed, down to the installers can be so proud of what they have accomplished and done for our club. I have had quite a few inquiries from other clubs as to our process of making and installing ties. Other clubs are making them, but are not nearly as big as the ones we make. There is good reason for that. The weight of the tie is what keeps the track down, and with good ballast around each tie that is sufficiently watered down, it is kept from moving.

Even on the prototype railroads, you do not see the track lift from sun kinks. Instead, it moves to the side because of disturbed ballast sections. The weight of the ties and rail keep it from lifting, and that is why we are making ties that are 12 pounds each.

With 6 inch spacing so we have 2 ties per foot that means in a 20 foot section of track we have 40 ties that weigh 480 pounds. Plus the weight of 2 rails is another 30 pounds, making it 510 pounds, and that is a lot to try and move with expanding rail from summer heat.

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TRACKING TRACKSIDE PROGRESS 2021

FISHER MP 410 (cont'd)

Here in the Arizona desert, we have a different set of circumstances that we must deal with, as compared to other clubs with extreme cold and wet climates. Where other places need ballast that will let water run out of the ballast and not freeze and expand the ballast, which breaks it loose causing a soft spot or kink from disturbed ballast, we can use ballast that has a high concentration of soil that acts like an adobe brick when wet and hardens like a rock to hold our track in place. We use a ¼ minus with a clay base to make it harden like an adobe brick after it dries out after being watered. This is our method of compaction that holds us down and this would never work on tracks where the water would freeze in the ballast and expand or where they need open ballast to rid the track of excess water from extended periods of rain like a two or three day continuous rain event. We in the Phoenix area could not have a three day rain event of 12 to 20 inches of rain like in places along the gulf coast and Canada and even some places in the Midwest and eastern seaboard where a hurricane will deposit large amounts of rain. Here it all falls and runs off in a matter of just hours and that is why there are 245 bridges and culverts on our track that are inspected every year for the safety of our members and guests.



STEAM LOCOMOTIVES BOILER

Stokers

by Dave Griner



Hello there . . . more of this AZ summer thing . . . so much fun!!!
Anyway, we'll continue studying the Good Firing Manual as follows:

of the cylinder walls, requires more careful lubrication than a saturated engine.

(b) Move engine from ready tracks by use of the drifting valve, supplemented by the use of the throttle when necessary, in order that the engine may be moved slowly, allowing condensation to work out of superheater and cylinders before throttle is opened. Trains should be started with the drifting valve when possible. The throttle should not be used to start unless it is found that the drifting valve will not start the train.

(c) Start engine carefully with cylinder cocks open until dry steam appears. In starting the reverse lever should be in full gear to insure oil distribution the full length of the valve bushings.

(d) Keep water level as low as in saturated steam locomotives. Actual tests with a pyrometer show that the temperature is 40° higher with two gauges of water than with three.

(e) The man who carries the boiler on a superheater locomotive full of water is using the superheater units for a boiler to boil water and not to superheat steam; therefore the engine will not steam as well, as these superheater units with proper operation add 25% greater capacity to be boiler.

(f) Do not close the throttle entirely on a superheater locomotive; leave the throttle cracked enough to keep steam in the steam chests and cylinders while drifting unless

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equipped with a drifting valve. If the engine is equipped with a drifting valve it should be kept open while the engine is running to prevent fouling and carbonizing the cylinders in case it is necessary for any reason to close the throttle quickly. This will also prevent damage to cylinder packing. Keep the drifting valve open from the time the engine starts until 100 feet from stop, in order to avoid the accumulation of condensation in the drifting feature pipe between the superheater header and the drifting feature operating valve. Otherwise if this valve is opened suddenly it will cause a sudden flow of water through the units, which will cause the units to leak and will destroy lubrication. Also be sure the reverse lever is dropped as far down as necessary while drifting.

(g) Do not put engine oil on the pistons of a superheater locomotive.

(h) Leaks in front end of superheater units, steam pipes and exhaust column, fire tubes stopped up, and derangement of draft appliances not only interfere with the proper steaming of the locomotive, but reduce the degree of superheat. Blows in cylinder and valve stem packing will cause scoring, due to removal of oil from the wearing surfaces. All leaks such as those mentioned above should be reported promptly by the engineer, because if neglected, they seriously affect the economical operation of the locomotive.

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(i) In order to get the highest temperature, most steam, stronger and quicker locomotive, all-around higher efficiency, burn less coal and use less water, keep the water level as low as possible and fire according to the correct principles of firing illustrated in the forepart of this book.

Operation of Corner (Muffler) Blow-off Cock

78. On engines equipped with the back corner (muffler) blow-off cock it will be opened when passing over each wooden structure where sparks might start fire, regardless of weather conditions, and also at any point where ties are seen to be on fire. Under ordinary conditions the muffler blow-off cock will be opened not less than 15 seconds in every 15 minutes that the engine is in motion and more than this if necessary, to overcome foaming conditions. Due to the various qualities of water and the differences in water treatment on different divisions, the blowing down of boilers will be handled in accordance with local instructions.

Operation of Flue Blower

79. Full boiler capacity can only be secured by keeping flues clean. Soot is an effective insulator; $\frac{1}{4}$ inch reduces heat transmission as much as 1 inch of asbestos.

The flue blower, operated while the locomotive is in service—

- (a) Keeps flues clean.
- (b) Saves and keeps arch in good condition.
- (c) Keeps superheater units clean and reduces chances of their burning or warping.

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- (d) Saves fuel.
- (e) Makes a better steaming engine.
- (f) Lessens labor of the enginemen.

On locomotives equipped with the "Superior Flue Blower" the following instructions will govern the handling and operation of the Flue Blowers:

The blowers should be used wide open, one set at a time, for fully two minutes while getting your engine ready for the trip. This should be done as soon as possible after the boiler pressure reaches its maximum. (This cleans out all soot accumulated during the firing of the engine in the engine house.)

During the run, when the throttle is shut off or the drifting throttle is used, each blower should be operated not less than two minutes. Best results are obtained if this is done AFTER maximum firebox temperature is reduced to a point somewhere near that of the boiler. (Keep in mind the fact that when the engine is working hard, any accumulation on the flue sheet is heated to the extremely high temperature maintained in the firebox, therefore, it is almost impossible to dislodge it; but when throttle is closed, the firebox temperature lowers very quickly, and the lower the firebox temperature, the better are the results obtained.)

Use the blowers wide open, two minutes on each side, approaching the yard at the end of the trip. (This will assure a clean combustion chamber for the proper firebox inspection by the engine-house forces.)

The stack blowers MUST be kept wide open during the full operation of the flue blowers.

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Heavy honeycomb, gradually closing the tube openings, causes the engine to lag in steam pressure, and possibly fail; therefore, prevent heavy formation by the use of the Flue Blowers at frequent intervals BEFORE formation becomes heavy. Begin early on the trip and use it as outlined above.

Brick Arches

80. Since most of our engines are now equipped with brick arches, it is well to consider the functions of this device. Its advantages are well understood by all engineers—but just how it affects these advantages is not so well understood.

81. The brick arch is interposed as a barrier between the fuel bed and the flues, thereby forming a combustion chamber. On the Baltimore and Ohio the arch is run solid against the flue sheet to prevent any short circuiting of the gases from the front of the fire into the lower flues and compelling all of the gases to pass around back of and over the arch before entering the flues.

82. As is clearly indicated in Fig. 1, this forcing of all the gases to pass through the restricted opening above the arch causes an intimate mixture of the various combustible gases with the oxygen that might be present, and tends to promote combustion and to prevent the escape of any combustible matter into the flues uncombined.

83. The arch also acts as a baffle, and holds the fine particles of coal and coal-dust in the

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fire-box until they can be burned—thereby reducing the losses due to sparks and cinders. The heat loss from this source is very high, amounting to as much as 25% on stoker-fired engines, where fine Run of Mine coal or screenings are used.

84. Tests on hand-fired engines indicate that the arch will effect a saving of more than 40% on the cinder loss alone. On stoker-fired engines the saving will be greater, due to the grade of coal used; but will be governed to some extent by the length of the arch—the long arch being more efficient than the shorter one.

85. The arch increases the fire-box temperature and maintains it at a more constant level, thereby increasing the evaporation from the fire-box heating surfaces and protecting the flues. By making all the flames pass back and over the arch, the flame-way is increased, the radiating surfaces are increased and the evaporation from the fire-box is increased.

86. The statement is sometimes made that the arch causes honeycombing on the flue sheet. This is erroneous. There is nothing used in the composition of the fire-brick that will cause slag or honeycomb; in fact, the arch tends to decrease the honeycomb on the flue sheet.

87. Perhaps the most important function that the arch performs is the intimate mixing of the gases. As shown in Fig. 2, the ill effects of "bank firing" under the doors are partly neutralized by the action of the arch, as it compels the hydro-carbon gases (distilled off in large quantities from the green coal) to mix intimately

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(continued next page)

with the oxygen and other gases present, and increases the probability of these gases being completely burned in the fire-box.

88. Fig. 4 shows what would happen under the same conditions without an arch. The hydro-carbon gases driven off in the coal under the door, pass in a stream up along the crown sheet and into the upper flues—to a large extent unburned, due to the absence of any efficient mixing with the oxygen that might be present.

89. Fig. 3 illustrates the same mixing effect which takes place when large volumes of hydro-carbon gases and smoke are being driven off, due to uneven firing.

90. Fig. 5 illustrates the protection that the arch affords the flues from cold air shafts entering through the fire-door or through holes in the fire. The mixing of the cold air with the hot gases insures a more nearly uniform temperature above the arch, and protects the flues from wide variations in temperature—which are responsible for most flue leaks. Without an arch, a hole in the fire would result in a rush of cold air into the flues as shown in Fig. 4. This would result in leaky flues and a possible steam failure.

91. The arch, by causing the fine particles of coal to be more thoroughly burned, reduces the amount of accumulation in flues and the amount of flue blowing generally necessary.

92. When spacer blocks are used against the flue sheet, the arch is self-cleansing; but when run tight against the sheet (as is the practice on the



FIG. 4 Note hydrocarbon gases being distilled off from back of green coal under door. See how they escape unaccommodated for the most part when arch is not used. Also note how the fire and cold air rushing into lower flues, causing them to contract and leak.

STOKERS

Baltimore and Ohio), it is necessary to draft the engine so as to insure a free flow of gases through the bottom flues, in order to keep the arch swept clean.

93. In this connection, the fireman should exercise great care to avoid throwing any coal over the top of the arch. He should also refrain from banking coal up under the arch, on throat sheet; as this shuts off draft through that portion of the fire and reduces the amount of coal being burned, thereby impairing the steaming qualities of the engine. He should also be careful, in firing shallow fire-box engines equipped with arches, to avoid throwing coal against the bottom of the arch, as this sometimes results in forming a bank across the fire-box some distance back from the throat. The formation of such a bank naturally causes the fire ahead to burn out, as the fireman cannot see that part of his fuel bed, on account of the bank; and the inrush of cold air through the holes so formed is often sufficient to cause an engine failure.

94. The work performed by the arch depends largely upon the length of the arch, and the engine crews should make it a point to see that the arch is run full (or standard) length at all times. Its efficiency depends upon the method with which it is kept up—and a 100% arch should always be used. The loss of two or three brick—while not sufficient, generally, to cause an engine failure—will disturb the draft conditions to some extent. Such a loss should be promptly reported in order that the arch may be kept in perfect repair.



FIG. 5 Note how the arch deflects and mixes the shafts of cold air entering through the open fire-door and through holes in the fire. This mixing produces a more uniform temperature of the gases entering the flues and prevents the contraction of flues that causes them to leak.

(cont'd)

95. Engine crews should also notice the condition of arch tubes and report any defects, such as bulges, blisters or warped tubes. The formation of heavy scale on the outside of the tube is very often an indication that the inside is not clean, and such conditions should be reported, as a little care and attention at the proper time will prevent accidents.

96. To SUMMARIZE:

The arch saves coal by reducing smoke loss, by reducing losses due to sparks and cinders, by reducing CO losses and by reducing losses due to unconsumed hydro-carbon gases. It increases the evaporation from the fire-box heating surfaces, by increasing the temperature in the fire-box and by increasing the radiating surfaces. It is a direct aid to the fireman, as it enables the same amount of steam to be produced with less coal, or will increase the capacity of the boiler with the same amount of coal. It protects the flues, and reduces flue leaks and failures.

STOKER FIRING.

97. A stoker-fired engine requires a light, thin fire so as to be productive of best results. The fire in a stoker-fired engine should be uniformly level and burned through. Best results are obtained by using the shovel to prepare the fire for the trip, and stoker should not be used to build, maintain or prepare fires in engine terminal. It may be advisable to have the fire slightly heavier at the back end when starting out so as to compensate for heavy draught through the back portion of the fire on some engines equipped with an arch.

98. In preparing the fire for stoker-equipped locomotives, the blower should be used as sparingly as possible and the fire should be burned through properly, adding coal to bright spots where needed with the shovel—this in order to avoid raising the fire-box temperature too rapidly. Where strong blower draft is used, it has a tendency to cause clinkers due to the draft not being strong enough to draw air through the grates, but burning the fire over the top surface and frequently causing clinkers.

99. The coal should be kept well dampened, as by so doing the fine particles of coal will adhere to the coarse coal and reach the fire bed while if it were dry many of the fine particles would pass over the arch in the draft in a partly burned or tarry condition. Also, in many cases this partly burned coal will adhere to bridges between flues, providing a resting place for cinders and later develop into honeycomb. Damp coal reduces

We'll stop here for now, finishing it off next month.

Take care,

Dave



CALENDAR OF EVENTS

2021 - 2022

Fall Meet 2021: October 27th – 31st, preceded by a work week October 17th – 26th.

Operations Meet 2022: January 13th – 16th, preceded by a work week January 3 – 12th.

Spring Meet 2022: March 13th – 20th, preceded by a work week March 7th – 12th.

Fall Meet 2022: October 23rd – 29th, preceded by a work week October 16th – 22nd.



Ed –

This photo shows the dedication of the MLS club photographers who work tirelessly to make sure that I have at my disposal a complete, visible record of all of the events that are important to the club and its members.

Neither rain nor snow nor being lifted and carried away by a tornado will keep our photographers from getting that one important photo.

THANK YOU to all of those special photographers who help me produce the best newsletter in the hobby.