



Maricopa Live Steamers

STACK TALK

MAY 2019

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



President's
Page

WOW, that was one big, fat rattler, and it was hidden in the tall weeds, so I only got a glimpse of it. It is starting to get **HOT**, so **HYDRATE** yourself, **PLEASE**.

There have been numerous requests about the fire ban and Propane locomotives. On a normal year, the weeds would be back away from the track, so the hot firebox of a propane fired locomotive would not touch the weeds. But, that is not the case this year. We have weeds growing through the middle

of the track, and they are dead, so just passing over them with a hot firebox could start something that we are dreading – that is, a brush fire. The thing that scares me even more than the fire – the fire trucks from the fire department. Last year when we had a fire started over between Racewatch and Geronimo, the Phoenix fire truck just came onto the property and headed straight for the fire. They ran a 20-ton fire truck over the tracks, which did considerable damage to the track. We were fortunate that they only ran over 4 tracks, since we had to replace the track panels. It was just a little fire and Dave Kulman had it put out with the tractor before they even got to the front gate. But they saw smoke and that is when they took off running over anything and everything in the way. You have to understand that they have one job and that is to put the fire out. Our track damage is not their problem. Do not get me wrong, they are here to do a job, but if it was up to me, I would just as soon not have a brush fire on the property to which they would have to respond. With that being said, we will not have any fire producing locomotives out among the tall dead weeds until we can get them saturated with enough water to make them non-combustible. I know this is against what has been done in the past, but this is an extraordinary year for vegetation, with this yellow topped flowering weed that has



Vice President's
Page

invaded the park. I found out that this is a new weed that was brought to the North Phoenix area by someone who thought the yellow flowers were pretty. You will notice they don't grow anywhere else in Arizona except between the Park and Cave Creek area. I do not know what country they are from, but I will find out. We did find out that regular Roundup does not kill this weed unless it is professional strength Roundup mixed with an added surfactant. So no fires, no smoking out along the tracks, and, if doing any welding, cutting or grinding out there, have a fire watch person with water and shovel in case a spark starts a fire.

We had Boy Scout Troop 526 here to do an Eagle Scout project at the sawmill, at Alkire facing Bobberg. You need to see this façade. They did a fabulous job of making it look like a sawmill. A vast amount of planning and work went into this display and it shows. The Boy Scouts did a wonderful job. **THANK YOU**.

We are trying not to disrupt your choice of routes to run. The board shows Bobberg closed, but you can run Bobberg to north Junction, then cross over to Pottsville and go back to the station that way. Just like you can use FarFlung all the way to Theobald, then come back on Bobberg to the station. The McCully bridge was just retied by Terry Liesegang, was only closed for a few days, and was back open for the weekend. Ray and Charlotte Hughes are working on the westbound main at Martins Ferry, but you still have the eastbound main, so East Werner is open for use. Also, if you have not been out there, West Werner is a really nice ride now that it has been re-paneled and ballasted and had new switches installed. You might want to go give it a look see.

(continued next page)

Vice President's Page (cont'd)

The Membership meeting on May 11 will have a special subject to it about the Sunday Public runs, so I would encourage everyone who is involved with Sunday runs to try to attend the meeting.

Please watch out for spots where we will be working. We will be spacing out concrete ties to be installed, and the Bobberg loop is about 10% done and needs a whole lot more work. The bridge at Gamble is getting new steel walk-boards installed, and when that is done, we will be going to Harnish Valley to do the double track bridge there with steel walkways. Please watch out for our red boards where we have the track out of service, and please be patient. We are working hard in this heat to get it all finished.

We need to stress the importance of watching the track ahead of you. This is just about the time to start seeing heat kinks. We try to keep them from happening, but ground squirrels dig up the ballast and leave weak spots. Also, where the ballast has been pulled away from the ties makes a weak spot for a kink to happen. Driving across the track breaks the ballast loose from the ties, so, AGAIN, I ask everyone to only cross the tracks at the road crossings where we have pans to strengthen the track. People walking on the track can also loosen the ballast from the edge of the ties, and with the structure weakened, a kink will start, unless we can get a water car on it right away to make it solid again.

THANK YOU. Joe

CORAL SNAKES in North America are most notable for their red, yellow/white, and black colored banding. Coral snakes vary widely in their behavior, but most are very elusive. They are burrowing snakes that spend most of their time buried beneath the ground or hidden in the leaf litter of a rainforest floor, coming to the surface only when it rains or during breeding season. When confronted by humans, coral snakes will almost always attempt to flee, and bite only as a last resort. Because their fangs are relatively small and inefficient for venom delivery, rather than biting quickly and letting go (like vipers), coral snakes tend to hold onto their prey and make chewing motions while biting. Any skin penetration is a medical emergency that requires immediate attention. Although the venom takes some time to take full effect, coral snakes possess one of the most potent venoms of any North American snake, a powerful neurotoxin that paralyzes the breathing muscles. Because of this, mechanical or artificial respiration combined with large doses of anti-venom are often required to save a victim's life. There is usually only mild pain associated with a bite, but respiratory failure can occur within hours. Since coral snakes are not aggressive or prone to biting, they account for less than one percent of the number of snake bites each year in the United States.



That fact, combined with the high costs of producing and maintaining an anti-venom supply, has resulted in the halt of anti-venom production in the United States. In 2013, Pfizer was reportedly working on a new synthetic anti-venom, but had not announced when it would become available. As of 2016, the Venom Immunochemistry, Pharmacology and Emergency Response (VIPER) Institute of the University of Arizona College of Medicine was enrolling participants in a clinical trial of INA2013, the new synthetic anti-venom.

Wikipedia

MAY CALENDAR

EVERY Saturday 7:00 – noon General Work Day

Sat. 5 / 11 10:30 AM Holiday Lights Committee (Team)
 12:00 pm Board Meeting
 12:30 pm General Membership Meeting

Sun. 5 / 12 all day **MOTHER'S DAY** (Family)



Thinking of You



Our best wishes for a speedy recovery to **Fred Greenwald**, who broke his hip at home on Sunday (4/28). Surgery to put the femur back in the hip socket is scheduled for Monday (4/29). More news as it arrives.

Keep him amused during recovery:
subdriver39@gmail.com



- | | |
|--|--|
| Pete Pennarts
President | Joe Schnyder
Vice President |
| Mick Janzen
Secretary | Bob Douglas
Treasurer |
| Joe Fego | Mike Grant |
| Members at Large | |
| Cliff Fought
Superintendent
Construction | Hank Gallo
Superintendent
Operations |
| Dave Kulman
Maintenance of Way
Superintendent | Dakota Clemens
Tower Signal
Superintendent |
| Terry Liesegang
Road Signal
Superintendent | Jim Zimmerman
Engineer Test
Administrator |
| Bill Pardee
Boiler Inspector | Public Run Crew
Coordinator |
| Joe Schnyder
Safety | Holiday Lights
Committee Chairman |
| Perry McCully
Facility Administrator | Donna Hohm
Membership
Committee Chairman |
| John Draftz
Advertising | John Bergt
Timothy Freeman
Web Masters |
| | Al Ford
Construction
Superintendent
Emeritus |
| | Ken Giordano
Stack Talk Editor |

Send emails / photos to:
MLSnewsroom@gmail.com

MINUTES – Board and General Membership Meetings
APRIL 13, 2019

- March Spring Meet attendance: **131** people
- Current membership: **134** Resident Members
94 non-Resident Members
228 Total
- Supervisory positions are still open: Public Run Coordinator, Christmas Lights Chairperson, Gift Shop Manager.
- **Fire potential is high. The FIRE BAN will go into effect today. Do not park vehicles on tall weeds because catalytic converters are very hot and will ignite the weeds.**
- Saguaro Central requests that anyone who is not a member of Saguaro Central and is storing a trailer on their property either renew their membership for \$35 or remove their trailer.
- Pete Pennarts attended the AMRS Board meeting to build cohesiveness and coordination between our clubs. We will make up informational brochures. AMRS will have an exhibit at the County Fair.
- A Proposal was read and approved to limit trains consisting of Club Equipment to the length of the shortest siding.
- Tractor is up and running, but needs an oil change. Do not use it until that's done.
- **Snakes have emerged. A Coral Snake was seen last week.**
- Sign-up sheets for the 2019 – 2020 season Sunday Public Rides are in the clubhouse, and Train Crews are badly needed.
- The Boy Scouts are putting a façade on the container at the Sawmill. They will be here for 2 days. They are also pulling weeds.
- Dakota Clemens is building a new circuit board for Whichway Junction that won't be installed /tested until after May 1. Also, the Tower issue that caused last week's derailment is fixed.
- Dave Kulman is replacing walkways on Gamble Bridge, so no Public trains on Far Flung. Center balloon loop is all concrete ties now. Inner loop yet to be finished.
- Bill Unglaube stated that, because his proposal to go back to the original MLS logo without altering its proportions was approved, his concern is that the sign on the clubhouse is a circle rather than the required oval. He is seeking information about who the members were who donated the sign. He also stated that there was another sign made of redwood planks that has not been found. He is asking that anyone who knows anything about either of these two signs, please contact him. Bill also stated that peel and stick logos were made for freight cars while the club was in Scottsdale, and he asked if there was interest in making more such logos for our current public riding cars.

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Sign-up sheets for the 2019 – 2020 season Sunday public riding

THE EDITOR'S PERSONAL STORY by Ken Giordano

I have wanted to tell this story ever since my first month in this job, but it never seemed to be the right time, until now. Although I had neither attended a Sunday Public ride nor been on the layout prior to joining, the Membership meeting in October, 2008 was the one that I attended and where I paid my first year's dues. I was very impressed by the decorum of the Board and the Membership during that meeting, as well as with the structure of the organization, as I saw it through the "Rules of Operation" and the "Bylaws" on the website. The 2008 (40th Anniversary) Fall Meet was happening the following Thursday, so I also registered for the Meet at the meeting and quickly passed my Engineer Test.

That Thursday, I checked in and, with that registration packet and layout map in my hand, I walked out to the Station. After an hour and a half of waiting and watching, it was around noon when someone pulled in and parked 4401. He asked if I wanted to use it, since he was going to lunch. I said sure, but could he show me how to operate it. After a quick lesson on the choke, the clutch, and the GPS for telling speed, I was on my way. At the time, Far Flung was not yet complete. The talk at the meeting was that Tell Me Wye was to be used as a reversing wye for the return trip, so I had to go that way to see it, and had my first derailment on the new ballasting. On the way back to the Station, I realized that, yes, I had made a good decision when I joined this club. Even a stranger from Chicago can get assistance, use club equipment and participate on a layout that's bigger than any individual could build on his own.

The next two Octobers (2009 and 2010), I made certain to send in my dues and schedule my vacations so that I could attend the Fall Meets. Then in December of 2010, to my surprise, I unexpectedly received the Stack Talk. I also started receiving other emails, like the 2010 Roster, through which my name finally made it into Jim Ashcraft's hands and onto his email list. The Stack Talk allowed me to actually follow along with the entire year's worth of happenings at the Park, things that I was missing and didn't even know existed, like Holiday Lights Rides, since I was only seeing the club from the once-a-year October point of view.

Through the years, those Stack Talks have been my treasure. I have kept every copy, and I re-read them all at least once per year. It may be vicarious of me, I know, but this club has always felt like my home, my family. Who doesn't enjoy reminiscing through the family photo album, recalling past family adventures? To me, it's not just a newsletter, an email for reading about current events and then deleting. And it's certainly nobody's fault – it's just something that a resident member Newsletter Editor wouldn't feel. Being a resident, going to the Park every week and participating in all of the activities causes a familiarity that takes the importance out of sweating (reporting) the details for the out-of-towners. Unfortunately, as each month passes, the Editor has but one chance to decide that newsletter's content and how it's presented. Whatever is excluded, by choice or by the lack of shared photos or information from others, is forever lost from the history books.

Well, as you can see, my taking this job was no accident. I just had to wait patiently until I had minimized or eliminated the majority of my life commitments. In 2017, with my life minimized, it was time to volunteer. Now, I bet you can see why I am particularly qualified for this job. It's the attitude, and not just the computer skills, that make someone a success at their job, while still being able to enjoy it through the hardships. And I truly love being the keeper of the "family photo album"!

Another reason for wanting this job was to improve the character and mood of the newsletter. It was depressing, with "*We need help. Please volunteer.*" being the recurring theme. It was ruining my "family photo album" experience! It was being said so often, that those words had lost their meaningfulness to the readers. I thought that maybe the readers weren't volunteering because they didn't know what to expect or what was expected of them. My way to describe the need for Holiday Lights volunteers was to show through the photos the immensity of the lines of guests in the station needing to be guided safely to and from the trains, and for the readers to calculate on their own the actual number of train crews needed to transport 1,000 people per night (at 20 - 25 people per train for a 20 minute ride) within that 4 hour time period. I believe that it made a difference, from what I saw in the 2018 Lights photos.

PERSONAL STORY (cont'd)

That was my thinking 14 months ago, when I asked Jerry Grundy to share his Stationmaster Logs with me each week, which he was writing anyway for the club's liability-related documentation. I wanted to give those readers who had never been to the Sunday Public Rides a personal tour of the Public Service side of our club, through Jerry's entertaining stories and Hank's beautiful photos. I was hoping that other resident member Engineers would see the same names repeatedly crewing every week and want to give their fellow members (friends) an occasional Sunday off. This has been a failure, maybe because the readers have never seen a Sunday where the Riders had to be turned away due to an absence of crews. Because these crews have the commitment and loyalty to the club to never let that happen, they are taken for granted.

Well, if you've been reading between the lines of the Stack Talk, you would know that THE DAY has arrived when the Soup and Sewer has hit the fan. And it's not just the Sunday volunteers either. Joe Schnyder's Page 1 has been getting (without diminishing his emphasis on safety) "grumpy." It's normal to "burn out" under never-ending stress. When you need to take a break, but can't because there's nobody else to step in for awhile, that's a frustrating type of stress. I wonder when the last time was that Joe took a train ride just for fun, without looking down at the track to look for any needed repairs?

Many ideas about how to evenly share the load have been discussed in private over the past year. But up to now, and through years of "We need help. Please volunteer." in the Stack Talk, the Board has tried to avoid making assignments or imposing restrictions. Instead, they have opted to leave it up to each individual member's sense of decency to volunteer, expecting the adults to act like adults. Well, so much for that.

Be realistic. If you had a layout in your own backyard, how much money would you be spending on track and switches, and how much time would you be spending to install new track, repair kinks and washouts and replace worn or aging track. A whole lot more than \$170 per year, wouldn't you say? Because the club layout is in the County Park, we get the use of the land. That's it. Responsibility for the layout is all on us, that is, each and every one of us, as members of the club. There's no free rides here, except on Sundays. Even then, donations are expected.

A long time ago, some very smart Board members placed a clause in the Bylaws to handle this issue, but it has never been enforced. It reads:

Article II, Section 2: Classification of membership shall be as follows.

A. REGULAR MEMBER is anyone who has reached the age of 18 years and has paid the required dues.

RESPONSIBILITIES:

3. Assist with MLS requirements for operation and/or maintenance.

In general, the discussions have leaned toward a minimum of 5 hours per month. That's one Saturday morning or one Sunday afternoon per month helping with projects, maybe on the Track Team, the Equipment Maintenance Crew, working at the station during Sunday Public Rides, etc., even weeding. The Holiday Lights Rides, being that they require such a large number of people each night, would require each resident member to work one night per week for every week that the Lights are offered. That totals only 90 hours per year. Certainly not excessive when everyone has to give the same amount of time. And definitely less than the hours that many members are currently having to give by default.

Next Saturday's (5/11) Membership meeting should be interesting. The Board invites all members to attend and participate.



Testimonials

A large group of our family came out Saturday night for the last "Holiday Lights" ride this year. Everyone had a great time. Thanks to all of your great engineers. A big thumbs up to you guys from my grandson, Andrew. We wish you all a very Merry Christmas! — Don Lottes



Charlee got her Jr. Engineer training from Hank. Thanks for showing the kids a wonderful time at Maricopa Live Steamers Railroad Club. — Charlee's Mom



Photos by the Guests

MEMBER CONTRIBUTIONS!

Photos by Hank Gallo

April 21, 2019



Introducing Diana Stuart, Engineer, with Perry McCully, Instructor, showing her the throttle. Is that a scream she's giving Perry? It must be the RUSH of POWER. Remember, Diana, NO HOT RODDING! Speed limit 5 mph, and 2 mph on switches. That engine is a lawnmower, not a Harley.

She seemed a little calmer upon her return to the station, with Ed Houk as her Conductor. That smile says that it must have been an enjoyable trip. Everybody's first time usually is.

To all of you armchair railroaders out there . . .

If you have any apprehension about becoming an Engineer, please see Hank for an opportunity to take Chessie for a spin.

There's nothing like the view from the front seat, with the wind in your face, and steering is optional.

MEMBER CONTRIBUTIONS (cont'd)**Story and photo by Mick Janzen**

Sandy Rauperstrauch made this quilt for me from a stack of my late husband Rod's Hawaiian shirts. It was displayed at a quilt show where it got a lot of attention. It now hangs on my family room wall. It is a beautiful work of art. I am sure everyone agrees that Sandy is a world-class artist. Her artistic vision saw the potential for this much beauty in a stack of shirts. Thanks, Sandy.



MEMBER CONTRIBUTIONS (cont'd)

April 21, 2019



(left) Engineer Marty Simmon took Engineer Trainer Shelby Gallo, her brother Zavion, and her parents Hank and Carol on a trip around Werner branch with Stationmaster Jerry Grundy's Santa Fe locomotive. April 29 was Hank and Carol's big day in court for Zavion's adoption. Congratulations, Zavion! You're getting one heck of a family.

(right) Zavion's first time running Chessie on his own, and he did well for being only 15 months old.

Stories and photos by Hank Gallo



1956 Doepke Yardbird hand-crank train in original condition. This will be fun once we get it tuned up.



MEMBER CONTRIBUTIONS (cont'd)

Dave Kulman
and his Cat



Story and photo by Hank Gallo

The new track panel storage area behind the container in the sawmill complex, with the new Blacksmith / Sawmill façade on the front side.



MEMBER CONTRIBUTIONS (cont'd)

Stories and photos by Hank Gallo

(left) This family wanted a photo of their trip, but their son didn't want his family to take the photo. But he said it was OK for me to take it. It seems we have a few small openings in the roof allowing some sun to shine in.

(right) I looked over and saw this, and didn't realize someone had placed a safety sign on the ceiling of the station. And this passenger discovered it.



A new visitor is in the Park. He may be here awhile. Let's get the Maintenance Team to work on that aircraft. I hope he remembers to phone home on Mother's Day.

TRACKING TRACKSIDE PROGRESS 2019

April 13 - 14, 2019



Story and photos
by Perry McCully
(*Facility Administrator*)

This is Boy Scout Troop 526 (sponsored by the MLS) working under the direction of Ethan Sterne on his Eagle Scout project. Ethan has been designing this project for 6 months. It is meant to provide camouflage for the container in our sawmill complex. It took the Scouts only two days to complete the installation. **THANK YOU** for a **JOB WELL DONE** to Ethan and the entire Troop. Ethan exhibited EXCELLENT planning and leadership skills. Just look at the 3-dimensional details he included in his design, especially the multitude of saws hanging on the wall of the sawmill, a dozen horseshoes hanging on the blacksmith's doors and an artistically painted forge and anvil.





STEAM LOCOMOTIVES

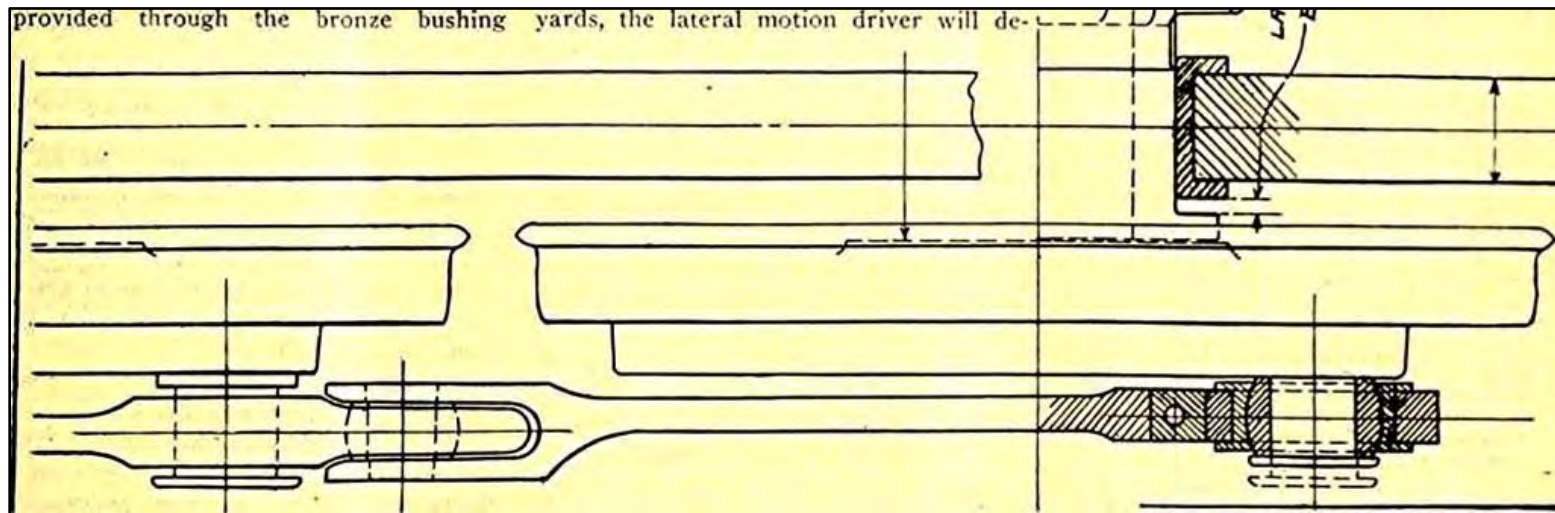
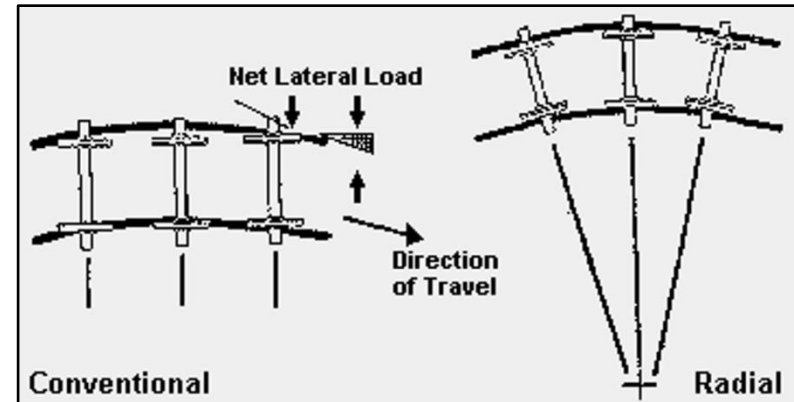
DRIVING BOXES

LATERAL-MOTION

by Dave Griner

Hello. Today, we're going to take a side bar to address a question from our readers (2). They asked if we could elaborate on lateral-motion as found in driving boxes. This was skipped when we discussed driving boxes earlier on. So now, we're going to try to fill that hole.

As can be seen in the first sketch (right), when a locomotive goes through a curve, there is a tendency for the driving wheels to want to follow a straight line. When this occurs, the driving boxes are to their extreme. The way this was overcome was to allow a bit of lost motion between the box and the frame (faced with the shoe) as shown in the following drawing (below). It should also be noted that the crankpin bearing has a radiused surface to allow for the lateral-motion. This was not common on many engines, but indicates the measures taken to address the problem, especially where tight curves were encountered.



The following page from the ALCO Standard Practice book, has a small note indicating the box face be planed between 1/8" and 1/4" total. This is how the lateral was implemented before engines got larger and began using lateral-motion devices.

(continued next page)

LATERAL MOTION
(cont'd)

American Locomotive Company

ENGINEERING DEPARTMENT

STANDARD PRACTICE

16 S 2256 a

January 26th, 1920

DRIVING BOXES

Superseding
16 S 2256

APPROVED
ENGINEERING
COMMITTEE

1. Use the following dimensions for Driving Box Journals:

NOMINAL LENGTH OF JOURNALS	CENTERS OF FRAMES	ACTUAL LENGTH OF BOXES FROM FRAME CENTER	
		Outside Next Hub	Inside
8"	47"	3 $\frac{1}{2}$ "	4 $\frac{1}{4}$ "
9"	46"	4 $\frac{1}{2}$ "	4 $\frac{3}{4}$ "
10"	45"	4 $\frac{3}{4}$ "	5 $\frac{1}{4}$ "
11"	44"	5 $\frac{1}{2}$ "	5 $\frac{3}{4}$ "
12"	43"	5 $\frac{3}{4}$ "	6 $\frac{1}{4}$ "
13"	42"	6"	6 $\frac{3}{4}$ "
14"	42"	6 $\frac{1}{2}$ "	7"

DIAMETER AND LENGTH	
7" x 8"	8 $\frac{1}{2}$ " x 12"
7 $\frac{1}{2}$ " x 8"	9" x 12"
7 $\frac{1}{2}$ " x 9"	9 $\frac{1}{2}$ " x 12"
8" x 9"	10" x 12"
8" x 10"	10 $\frac{1}{2}$ " x 12"
8 $\frac{1}{2}$ " x 10"	11" x 12"
8 $\frac{1}{2}$ " x 11"	
9" x 11"	
9 $\frac{1}{2}$ " x 13"	10 $\frac{1}{2}$ " x 14"
10" x 13"	11" x 14"
10 $\frac{1}{2}$ " x 13"	11 $\frac{1}{2}$ " x 14"
11" x 13"	12" x 14"
11 $\frac{1}{2}$ " x 13"	

Preferred sizes in full-faced type.

Distance between driving wheel hubs 55".

Centers of frames in even inches.

End play in boxes ($\frac{1}{8}$ " each side, $\frac{1}{4}$ " total) to be made by reducing side next to hub.

Driving boxes 8" to 13" must be central except for end play.

14" Boxes out of center to use 42" frame centers.

Spring supports must be substantially central on all boxes.

2. Accurately fit driving box Bearings to boxes and force in place by hydraulic pressure not less, per inch diameter of journal, than the following:

Cast iron boxes.....	1 $\frac{1}{2}$ tons
Cast steel "	2 "

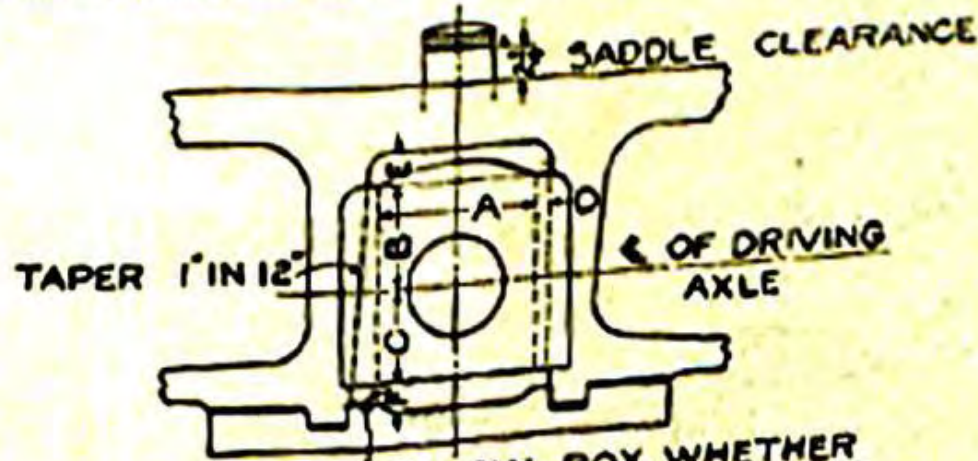
3. Use taper $\frac{3}{8}$ " in 12" on Driving Box Flanges, leave 2" straight portion in center and allow $\frac{3}{16}$ " total clearance at straight portion for shoes and wedges.

Where Railroad Companies' drawings or specifications require less taper, raise question, and unless they are very insistent, or in cases of doubt, use the standard taper.

Do not use less taper than $\frac{3}{8}$ " in 12" for driving boxes over 14" in length, under any circumstances.

LATERAL-MOTION (cont'd)

4. Apply babbit face to Cast Steel Driving Boxes used with Cast Iron driving wheel centers having plain hub face, or with wheels having cast iron hub liners.
5. Use the following working clearances, &c., on new elevation drawings.



PLAY BELOW BOX, WHETHER LIMITED BY RECESS IN BINDER OR OTHERWISE.

DIAM. OF JOURNAL	A	B	C	D	PLAY		TOTAL
					E	F	
7	11	8	6 1/2	3/4	2 1/2	1 1/2	4
7 1/2	11 1/2	8 1/2	6 1/4	3/4	2 1/2	1 1/2	4 1/2
8	12	8 1/2	7 1/2	3/4	2 1/2	1 1/2	4 1/2
8 1/2 x 10	13	9 1/2	7 1/2	3/4	3	1 1/2	4 1/2
8 1/2 x 12	13	9	8	3/4	3	1 1/2	4 1/2
9	13 1/2	9	8 1/2	3/4	3	1 1/2	4 1/2
9 1/2	14	9 1/2	8 1/2	1	3	1 1/2	4 1/2
10	14 1/2	9 1/2	8 1/2	1	3	1 1/2	4 1/2
10 1/2	15	9 1/2	8 1/2	1	3	1 1/2	4 1/2
11	16	10	9 1/2	1 1/2	3	1 1/2	4 1/2
11 1/2	16 1/2	10	9 1/2	1 1/2	3	1 1/2	4 1/2
12	17	10 1/2	10	1 1/2	3	1 1/2	4 1/2

LATERAL-MOTION The following information has been taken from the ICS tutorial (1945) on locomotive driving boxes, specifically (cont'd) the aspect of lateral-motion, and the application of lateral-motion devices and the specifics of how they work.

LATERAL-MOTION DRIVING BOX

10. Reason for Use. — When a locomotive with a long rigid wheel base is rounding a curve, the flanges on the tires of the driving wheels, particularly on the first and last wheels, are forced against the outside rail. This condition causes the flanges of the tires and the rail heads to wear, as well as the hubs of the driving wheels and the hub liners of the driving boxes.

Locomotives with long rigid wheel bases, in addition to having the ordinary clearance of 1/8 inch at the wheel hubs, are now generally equipped with lateral-motion driving boxes on the forward driving wheels. A lateral-motion driving box is one that yields and moves sideways in the pedestals on curves, after the clearance between the hub and the box is taken up, and as soon as the wheel hub is forced against the driving box with a certain predetermined pressure. This action implies that the driving boxes are made wider than the shoes and wedges, instead of having practically the same width as the ordinary type of box. Then, too, the arrangement keeps the frame stable and prevents the driving boxes from pounding against the hubs of the driving wheels when running on straight track. The lateral-motion driving box is used to permit a greater side movement of the driving wheels on curves than is practical to obtain by giving clearance between the wheel hub and the driving box, and thereby reduces the wear at the tire, the rail, the driving box, and the hub.

11. Arrangement. — An arrangement of a lateral-motion driving box manufactured by the Franklin Railway Supply Co., Inc., is shown in figures 7 and 8 (*next page*). To make the details clear, the frame is sectioned forward of the driving boxes, and the front part of the locomotive is removed; therefore, this illustration shows a front view of the device. The arrangement consists of two crossties *a*, one bolted to the pedestals *b* in front of the driving boxes, and the other to the pedestals at the rear of the driving boxes, and two rockers *c*, hung on the driving boxes, with the lower ends *d* extended down into recesses in the crossties *a*. The driving boxes *e* are the same as ordinarily used, with the exception that two lugs *f* are cast on each one to carry the rockers *c*. The flanges *g* on the inside of the box are in contact with sides *h* of the shoe, but on the outside a space of 3/4 inch exists between the flanges *i* of the boxes and the sides *j* of the shoes. One leg *k* of the spring saddles rests on the driving boxes, and the other leg *l* rests on the rockers *c*. Lubrication is applied to the bearing surfaces of the rockers through the cavities *m*.

(continued next page)

Editor's Disclosure: Figures 7 through 10 each had a website watermark (*see right*) placed on them to prevent copyright infringement (not applicable here since MLS is a non-profit organization, data used for education only, and cited). Most drawings were symmetrical, so I was able to copy the opposite side to remove the watermark. However, the 3D drawing in figure 8 was more difficult to Photoshop, since the watermark was in the same shades of grey as the drawing. Because I could not see past the watermark (under, if you prefer) to distinguish the parts in the central interior, I used my training in Mechanical Drawing to guesstimate the shape of those parts. The original is included in the blue border, so that the readers who need more accuracy can maybe see more correct detail than I was able to offer.



LATERAL-MOTION (cont'd)

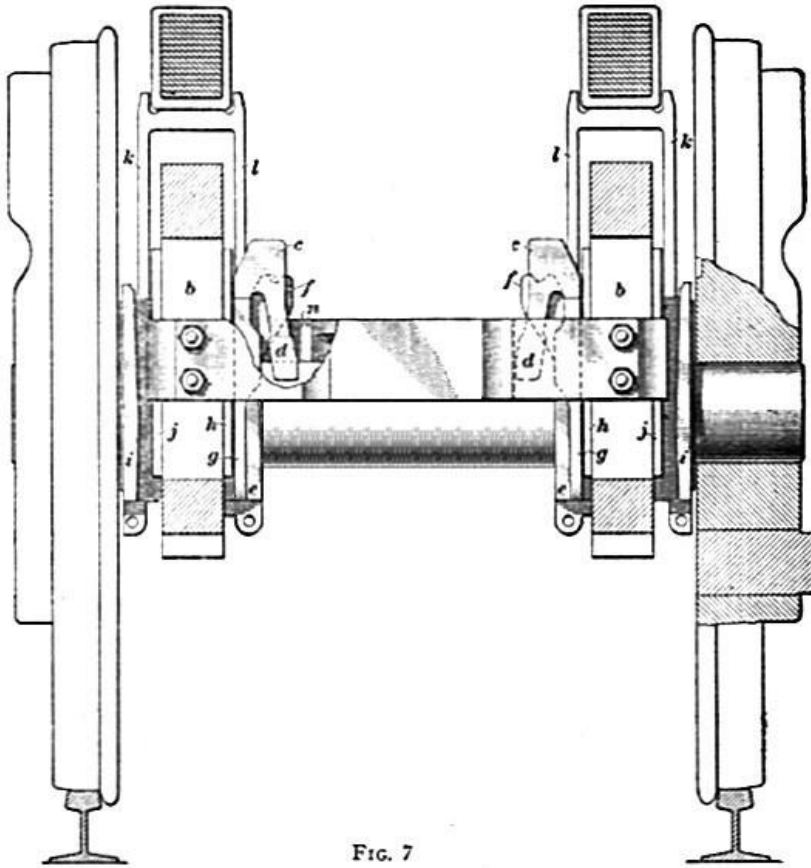


FIG. 7

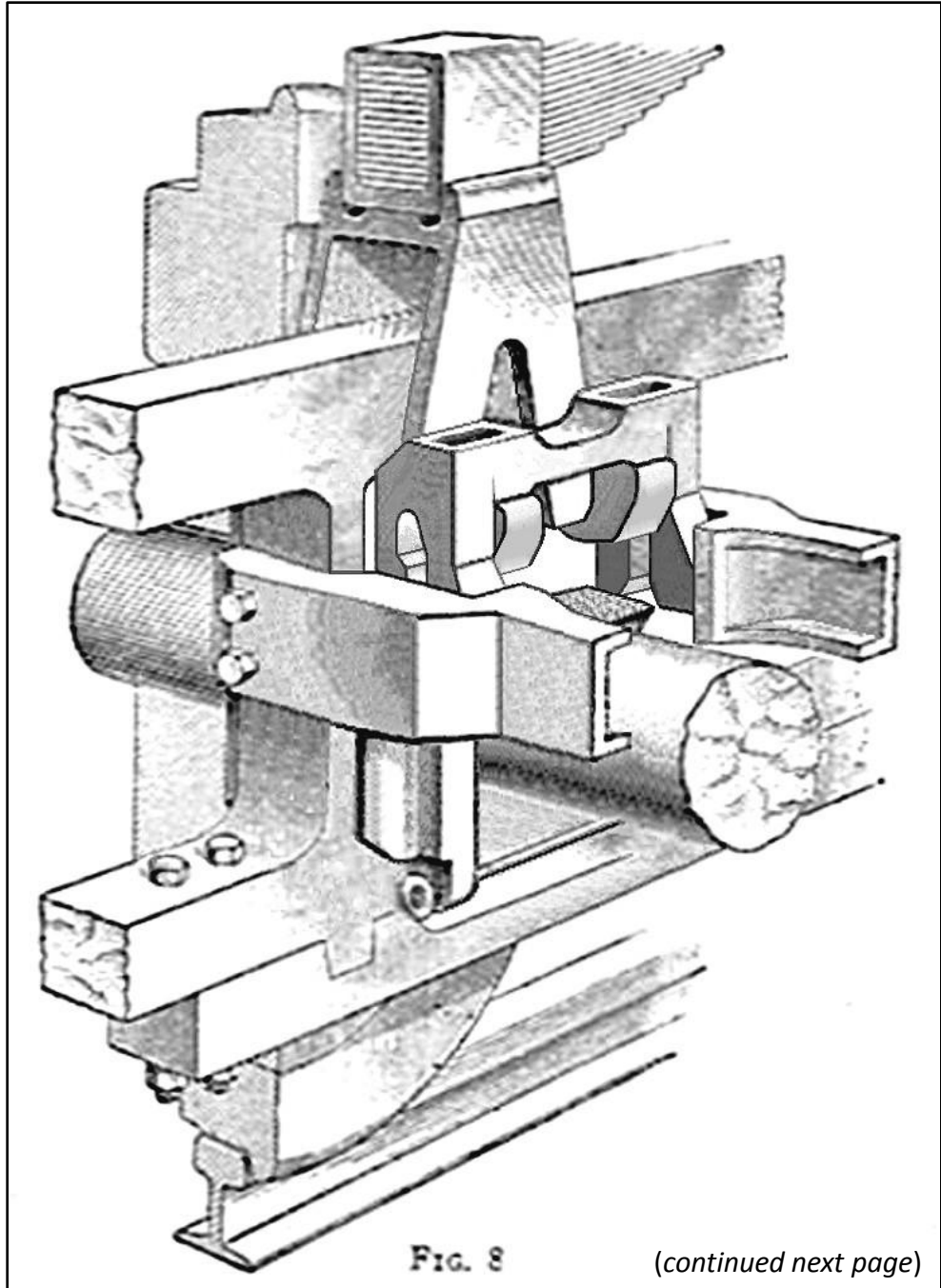
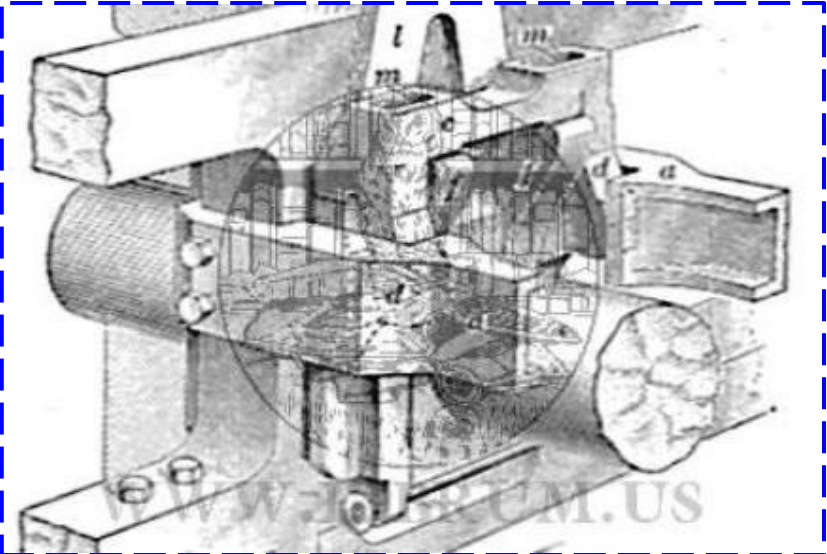


FIG. 8

(continued next page)



WWW.MARICOPA.US

LATERAL MOTION (cont'd)

12. Operation. — When a locomotive enters a curve, the flange of the front driving wheel on the outside of the curve is forced against the rail. As soon as the pressure between the flange of the wheel and the rail reaches a certain predetermined amount, the wheel yields and, although the flange remains in contact with the rail, moves the flange *i* of the driving box inward toward the shoe *j*, as shown in figure 9. Therefore, the rail and the flange, as well as the wheel hub liner, do not wear to the same extent as if the driving box had no lateral or side

movement. The inward movement of the driving box forces the end *d* of the rocker *c* against the side *n* of the recess in the crosstie *a* and the rocker fulcrums at this point. A further movement of the box then causes the rocker to turn on the lugs *f*, and straighten up because the lower end *d* of the rocker is held fixed by the crosstie which does not move sidewise with the driving box. The tilting of the rocker carries the part *o* and the leg *l* of the spring saddle upwards against the weight on the spring *p*. The action of the rocker at this time is the same as if the box were not moved and the leg *d* of the rocker were moved toward the box instead.

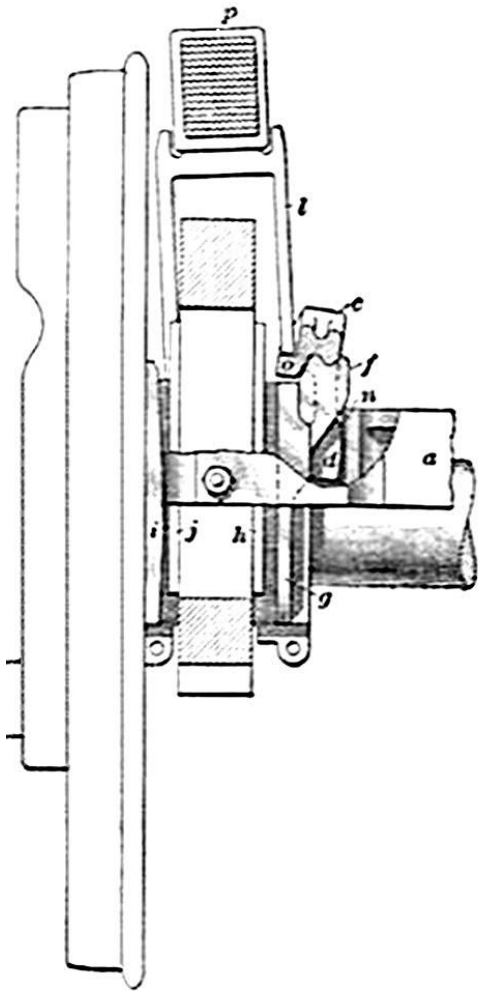


FIG. 9

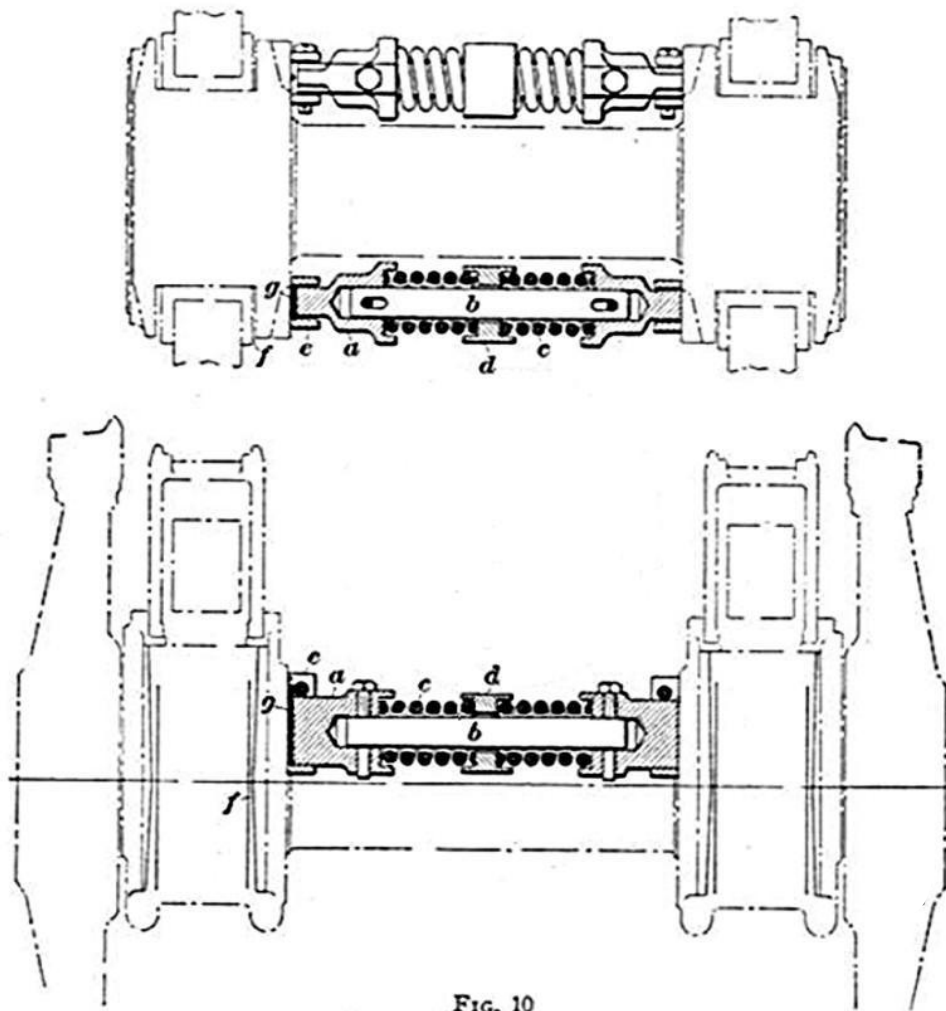


FIG. 10

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LATERAL MOTION (cont'd)

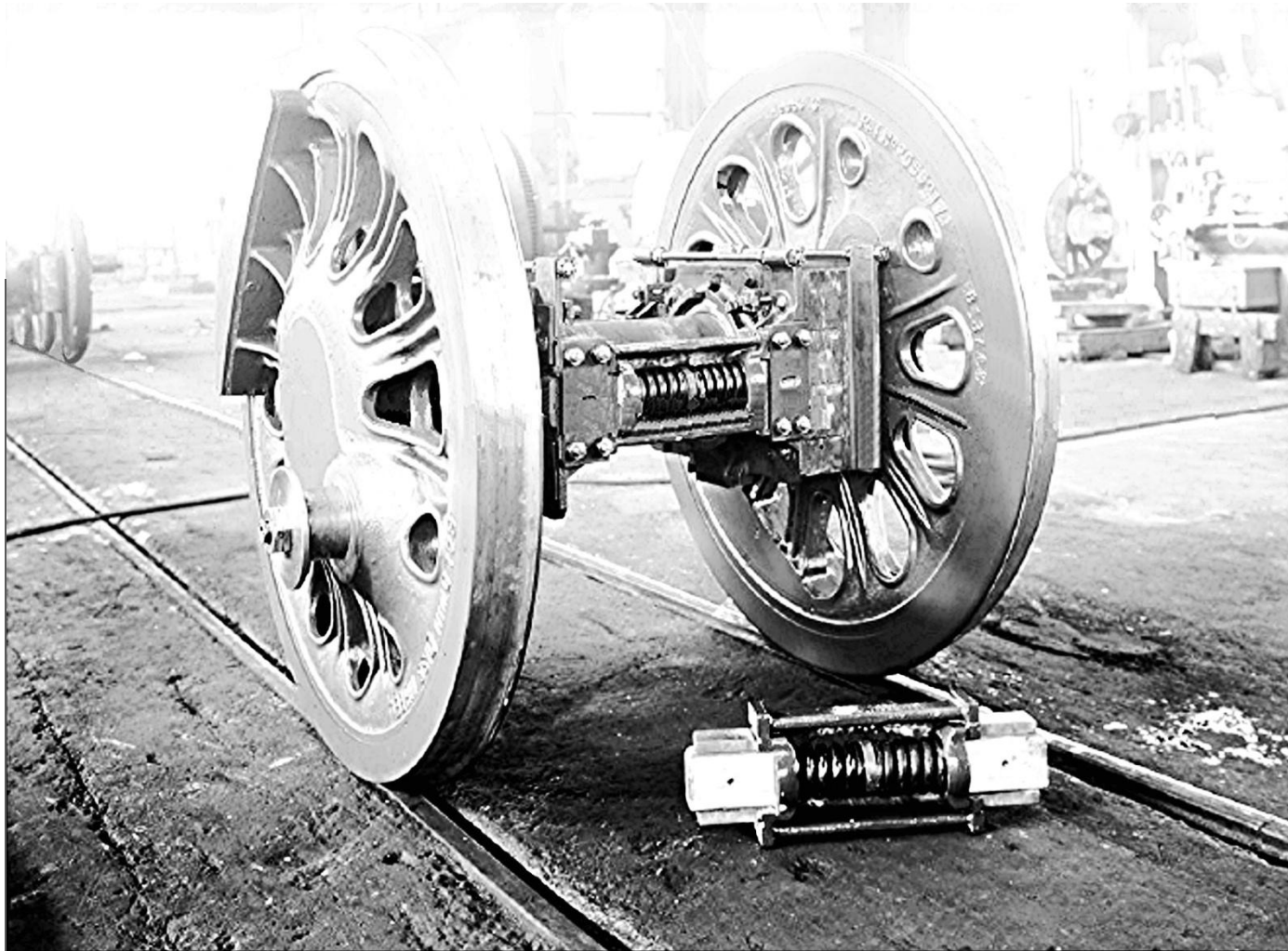
After the locomotive rounds the curve, the weight on the spring and the spring saddle forces the rocker *c* down and thereby moves the driving box outwards to normal position. Only one driving box and rocker operate at a time, the operating rocker being the one on the outside of the curve. The other driving box does not move; instead, it's journal slips through it. Any side or lateral movement of the frame due to the

clearance of 3/4 inch at the driving boxes is prevented by the rockers. For example, in figure 7, if the frame begins to move to the left so as to take up the clearance between *i* and *j*, at the left wheel, the part *n* of the crossie would strike the part *d* of the rocker. The movement would be arrested because the weight on the leg *l* of the spring saddle would prevent the rocker from tilting.

And here's a picture of a real one, a spectacular piece of work. Well, I hope this gives a bit of an idea on how lateral-motion is handled.

Take care.

Dave



Stories by
Jerry Grundy

STATIONMASTER'S LOG

Photos by
Hank Gallo

a Truly Sincere THANK YOU to the Run Crews and Station Staff.

APR. 7, 2019 - SUNDAY PUBLIC RUNS - Well, I finally got back to being Stationmaster, after being sick. Then last week, we got that dreaded phone call that said our Aunt had passed away. We were planning on going to see her anyway. My sister was there from the beginning of the final operation, so we helped my sister (Arleta and my brother-in-law Carl).

Anyway, the trips started out as usual with train crews Mickey Janzen (E) and Jim Zimmerman (C) on the first trip out, and Jim Theobald (E) and Chuck Larom (C) on the next trip out. Mickey and Jim ran all day. Jim and Chuck ran until around 2:30. We were waiting for Ed Houk to come back from the museum, so Hank Gallo engineered and Bill Unglaube was the Conductor. Then for the remaining trips, Ed Houk was Engineer and Bill Unglaube was the Conductor. We had a total of 171 riders. Gatekeeper Bill Unglaube helped with the Safety Briefing when not being Conductor Bill Unglaube. The Gift Shopkeepers were Sandra Grundy, Judy Grant and Myrna Brooks, who left around 2 pm. (Ed. – I apologize for not having a photo of Judy in the Gift Shop.) It was nice to see Judy and Myrna there to help out. Marty Simmon was there giving a ride to his Aunt and Uncle using my train. He would have helped out if we needed him. I plan on being here the rest of the month. Then I'm planning to retire and maybe be Stationmaster only once a month next season. Happy Rails. Stationmaster Jerry Grundy.



Bill Unglaube (Gatekeeper) (left) and Jerry Grundy (Stationmaster) (right)



Myrna Brooks (Gift Shopkeeper) (left) and Sandra Grundy (Gift Shopkeeper) (right)

Mick Janzen (E) and Jim Zimmerman (C)



Jim Theobald (E) and Chuck Larom (C)



Ed Houk (E) and Bill Unglaube (C)



Stories by
Jerry Grundy

STATIONMASTER'S LOG

Photos by
Hank Gallo

a Truly Sincere THANK YOU to the Run Crews and Station Staff.

APR. 14, 2019 - SUNDAY PUBLIC RUNS - Well, another weekend has ended, and It was nice that I had 3 trains running, Mick Janzen (E) and Jim Zimmerman (C), Jim Theobald (E) and Chuck Larom (C), and Marty Simmon (E) and Ed Houk (C). Mick and JimZim left at 2:45, and Jim and Chuck hung on until 4 pm. Marty and Ed ran what turned out to be the last train of the day, and they arrived back around 4:20. There were no other riders. Gatekeeper Bill Unglaube worked the gate and safety briefing, and set the outbound routes. Gift Shopkeepers Sandra Grundy and Sondra Bronsard worked the gift shop with John Broughman as back up. (Ed. – I apologize for not having a photo of Sondra in the Gift Shop.) John and Sondra left at 4 pm to go bowling. If they are to run the gift shop and be Stationmaster next season, there will have to be someone to take over at 4pm. We had 13 runs and 230 riders. There was a birthday party at the boxcar pavilion. The birthday party came over for a couple of rides. It was nice to have 3 trains, but I don't always have that luxury, as Marty is always on the road. Happy Rails. Stationmaster Jerry Grundy.



Jerry Grundy (Stationmaster) (left) and Bill Unglaube (Gatekeeper) (right)



Sandra Grundy (Gift Shopkeeper)



John Broughman (Gift Shopkeeper)

Tim Freeman (rear) (Troubleshooter)



Mick Janzen (E) and Jim Zimmerman (C)



Jim Theobald (E) and Chuck Larom (C)



Marty Simmon (E) and Ed Houk (C)



Stories by
Jerry Grundy

STATIONMASTER'S LOG

Photos by
Hank Gallo

a Truly Sincere THANK YOU to the Run Crews and Station Staff.

APR. 21, 2019 - SUNDAY PUBLIC RUNS - Here we are again. We arrived at 12:00 and everyone was in place to start the run day. I started the public runs a little differently, because there was an 8 year old girl that was going to be by herself on the train, as her grandmother had a walking boot on and didn't want to ride. So I sent Jim Theobald (E) and Chuck Larom (C) out on Werner. I didn't think it was a good idea for the girl to go to the museum unsupervised. Then, Mick Jenzen (E) and Jim Zimmerman (C) went to the museum on the next train out. There were 3 in succession going to the museum, with different engineers. There was a total of 4 on Werner and that made up the day. There was a total of 74 riders. I was lucky to have 3 trains, as Marty was still in town and he had my engine out and running. That really makes it an easy day. Well, Gatekeeper Bill Unglaube talked to the people and did the safety briefing and showed them which train to get on, so that was a great help. The Gift Shop was lovingly cared for by Gift Shopkeepers Betty Ann and Mary Jo McCully and Sandra Grundy. Thanks, Ladies. Perry McCully was my back up, and he gave Diana Stuart a training session on 4402. She would like to be an engineer or conductor next season. Hank Gallo ran Jr. Engineer school. I did notice that Donna Hohm was doing some painting on the building fronts. Again a big thanks to my crews. Happy Rails, Everyone. Stationmaster Jerry Grundy.



Mary Jo and Betty Ann McCully
(Gift Shopkeepers)



Sandra Grundy (Gift Shopkeeper)
and Jerry Grundy (Stationmaster)



Mick Janzen (E) and Jim Zimmerman (C)



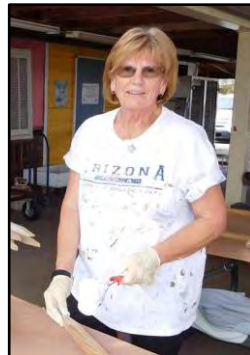
Jim Theobald (E) and Chuck Larom (C)

Perry McCully
(Stationmaster)

Bill Unglaube
(Gatekeeper)

Larry Messing (E) *(standing)*
and Marty Simmon (E)

Donna Hohm
(Painter)



Stories by
Jerry Grundy

STATIONMASTER'S LOG

Photos by
Hank Gallo

a Truly Sincere THANK YOU to the Run Crews and Station Staff.

APR. 28, 2019 - SUNDAY PUBLIC RUNS - Well, the last run of the season has come and gone. The usual crews Mick Janzen (E), Jim Zimmerman (C), Jim Theobald (E), and Chuck Larom (C). The standby crew was Larry Messing (E) and Ed Houk (C). Mick and JimZim left at 3 pm, and so did Jim and Chuck. So, the standby crew took over and they used BNSF 2001. 4402 developed an oil leak, so was taken out of service. With that happening, I radioed the museum that they could go home. I would not be sending any more trains their way. It turned out that there would only be 2 more runs after 3 pm. There was a total of 9 runs with 99 riders. John Draftz put out the signs and Hank Gallo picked them up. John Draftz hung around for some time just in case he was needed. It was nice to have him out there. Gatekeeper Bill Unglaube took care of the gates and safety briefings. Oh, he also set the outgoing routes, which helps me tremendously. Tim Freeman, as always, turned on the power for the signals and buttons for the routes. That also is a big help, as I don't have to do it manually. Gift Shopkeeper Sandra Grundy opened the Gift Shop and Diana Stuart was there to help out, also. (Ed. – I apologize for not having a photo of Diana in the Gift Shop.) Hank Gallo also ran Junior Engineer School. Oh, my gosh, we had 2 surprise visitors, Betty Moore and Stephanie Hovanitz. I see Stephanie every year at her and Karl's train club in Arroyo Grande, CA, for the 4th of July train run. We enjoy going there so much.

Well, if you didn't know, the 2019-2020 Public Rides season will begin on OCTOBER 6th, due to the late heat. I am retiring from my every Sunday Stationmaster position, but I am willing to do it one Sunday per month. If we could get 3 more couples to work one Sunday per month, that would be nice and easy on everyone. Then, we would only need one more couple on standby just in case one of the other four can't make it. This also could be done with train crews operating just one Sunday per month. We really need more participating train crews and the same goes for the maintenance crews, too. It seems that the same people are doing ALL of the work, which is wearing out ALL of these same people. Well, so long. Happy Rails, from Stationmaster Jerry Grundy and Gift Shopkeeper Sandra Grundy.



Jerry Grundy
(Stationmaster)



John Draftz
(Advertising)

Mick Janzen (E) (left) and
Jim Zimmerman (C)

Jim Theobald (E) (left)
and Chuck Larom (C)

Larry Messing (E) (left)
and Ed Houk (C)

Today was Ed Houk's final ride before returning home to South Dakota for the summer. See you next Fall, Ed. And thanks.

Bill Unglaube
(Gatekeeper)



Sandra Grundy
(Gift Shopkeeper)



HAPPENINGS PAST!

VOLUNTEER APPRECIATION LUNCH – April 13, 2019

Story and photos by Hank Gallo

Donna Hohm, Belinda Kulman, Dave Kulman and Joe Schnyder were our hosts for the member / volunteer appreciation lunch today. Each year, we gratefully thank our volunteers for helping to provide train rides, maintenance and all of the kinds of help around the Park that a club as large as ours needs to survive over the long-term, and continue to thrive.



Dave was our Grill Master, while Bob Rauperstrauch and Tom Harrington were dealing with the weeds.

THANK YOU, ONE and ALL, INCLUDING THOSE FOLKS WHO COULD NOT ATTEND the LUNCH!



WE HONESTLY COULD NOT KEEP THIS THING GOING WITHOUT ALL OF YOU!



PARK GUESTS – April 7, 2019

photos by Hank Gallo

Bob and Sandy Rauperstrauch – Members



Arizona Big Train Operators



We are a membership of dedicated Garden Railroad enthusiasts located in the Phoenix area. Our interest is G-Scale, or garden railroads. Building train layouts in the garden with natural vegetation and running large scale trains is a hobby that is enjoyed by people of all ages. We always welcome new members, who may be interested in building a layout or just wish to socialize and share the experience of watching trains at monthly meetings held at members' homes. There are many members with years of experience willing to share their knowledge. Christmas Open House Tours and Spring Open House Tours are two events where club members open their train layouts for the public to enjoy. Donations are accepted and help to support the G-scale indoor train layout that the club helped to build at Cardon Children's Medical Center.

<http://azbigtrains.org/>

For more information, contact: Darrell Woolfolk
480-818-1715 cell or email dpwoolfolk@yahoo.com



HAPPENINGS IN THE NEIGHBORHOOD!

Another beautiful day in the Neighborhood!

**CHULA VISTA
LIVE STEAMERS**

**OPERATORS
FLYER
AUGUST
29TH-
SEPTEMBER
2ND**

**45TH ANNIVERSARY
AND FALL MEET
CELEBRATION**



ROHRING DOWN THE TRACKS FOR 45 YEARS

**Rohr Park Gate B, 4548 Sweetwater Road Bonita, CA
91902**

The Chula Vista Live Steamers invite you to our 45th Anniversary and Fall Meet celebration. We will have a catered taco dinner from Rodeo Market with a side dish and dessert potluck on Saturday at 5 pm for \$10.00 per person. And of course, running your trains on our railroad.

**FOR MORE INFO, PLEASE EMAIL SCOTT LEWIS AT
SLEWIS100@COX.NET**

(continued next page)

CHULA VISTA LIVE STEAMERS



45th Anniversary and Fall Meet Celebration

International Brotherhood of Live Steam standards.

We use radios at CVLS. If you have one, bring it with you. We will have the channel we use available at registration. Conductors and Engineers should refrain from cell phone use while operating your train and at the station.

Camping: Self contained units please contact Scott Lewis (slewis100@cox.net) as soon as possible. There is limited space. Tent Camping is available.

Welcome to the Fall Meet for Chula Vista Live Steamers. The following operation orders will be in effect for this meet.

Thursday August 29th

Set up for the weekend festivities, unloading equipment, track work as needed, private train operation and night operation

Friday August 30th

Private train operation and night operation, track work as needed

Saturday August 31st

Public Operation 12 noon to 2:30 pm and private train operation and night operation, Taco Dinner with side dish and dessert potluck, cost per person is \$10.00 at 5:00 pm

Sunday September 1st

Public Operation 12 noon to 2:30 pm and private train operation and night operation

Monday Labor Day September 2nd

Final train operation,
Pack up, go home by noon.

- All Locomotives with a train shall have a conductor. Every train will have a red safety flag and conductors will have a whistle. When stopping anywhere, other than locked sidings, conductors are to protect the rear of the train. Remember, there will be many locomotives and trains running, please be courteous with others and please pay attention.
- Rohr Park is a public park, which requires that all switches (except the yard switches) be locked at all times. If you need to unlock a switch to go into a siding, please relock the switch in the position you found it. Switch keys will be available at the Registration desk.
- The expansion loop is open to everyone. There maybe a switchman at the switch during the Public Run period (12:00 noon to 2:30PM, Saturday and Sunday). If you want to use the expansion loop, notify the switchman and stationmaster that you will be on the loop. Public Run passenger trains will not be using the expansion loop for this meet. Public Run trains have the right away at the expansion crossover, please use caution. Radio the stationmaster and switchman when returning to the main from the loop.
- If you want to provide rides to your guests, please use the gazebo 7 siding, to load and unload your guests.
- Station operation during the Public Run. All public trains will load and unload passengers on the station lead. Servicing Steam locomotives will occur at the Station lead #2. There are air operated control switches that control for access to these tracks. Stop at the control switch prior to entering the station to confirm your train is going to the right track.
- Should you need assistance please contact the acting trainmaster.