



No. 115, March/April 2011

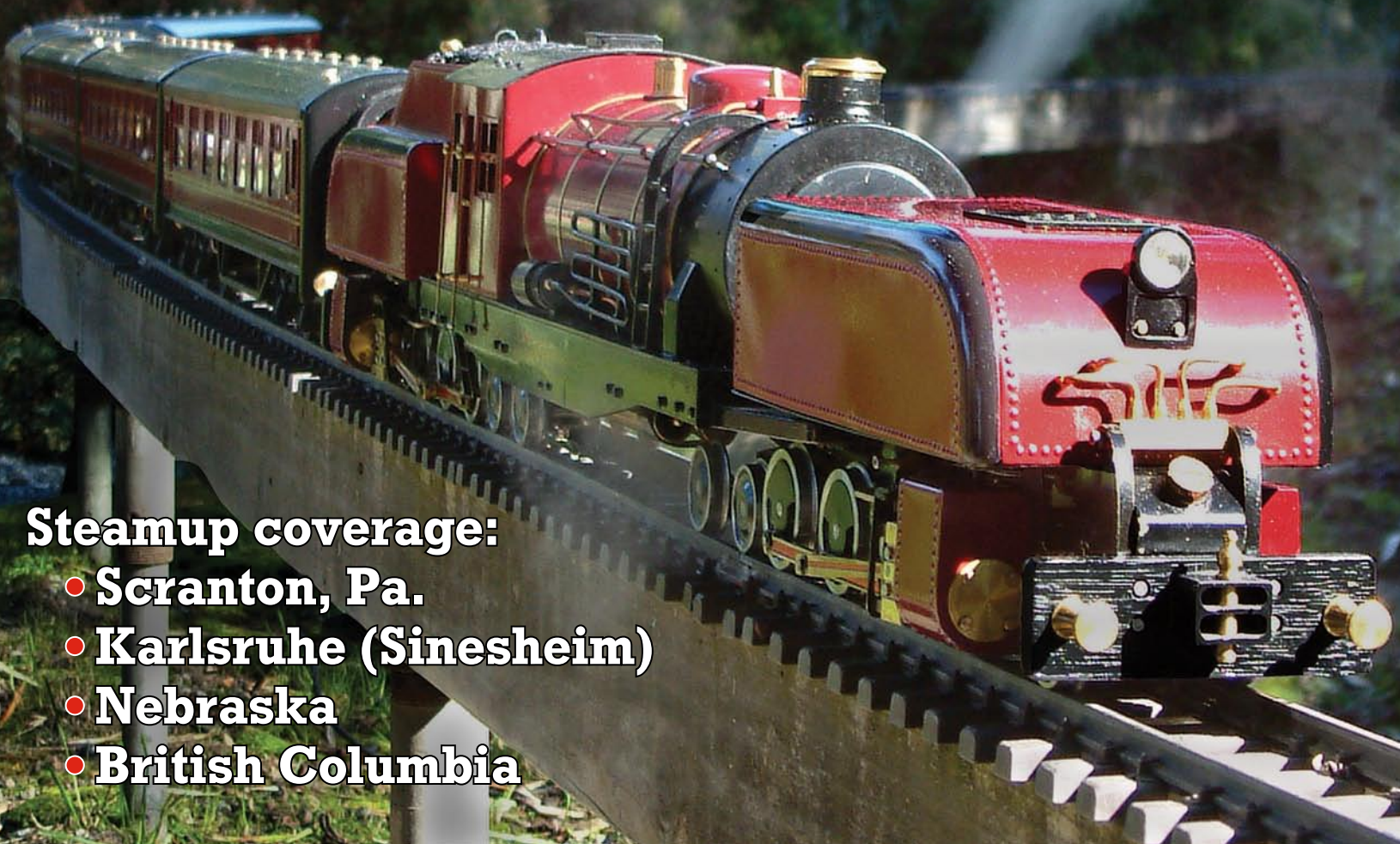
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# STEAM<sup>IN</sup>THE GARDEN

Bill Allen's scratch-built AD60

# Garratt

(It was his first project)



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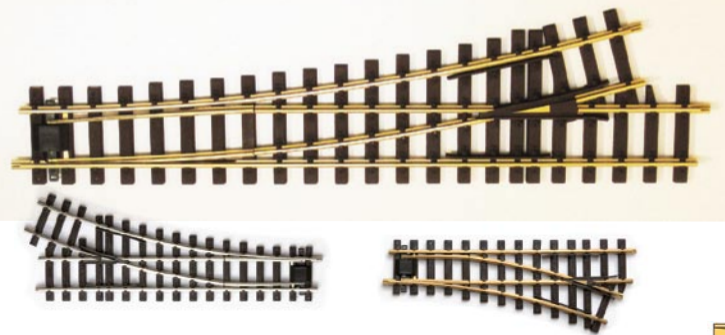
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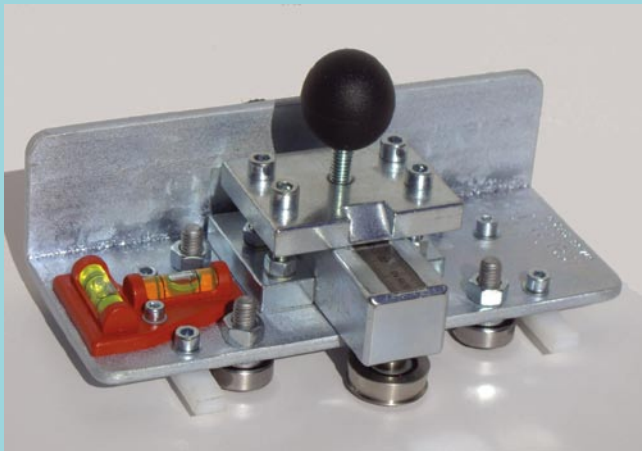
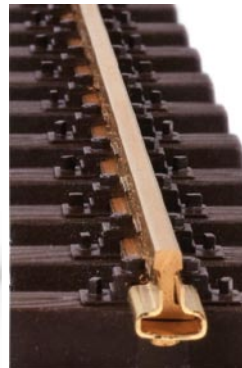
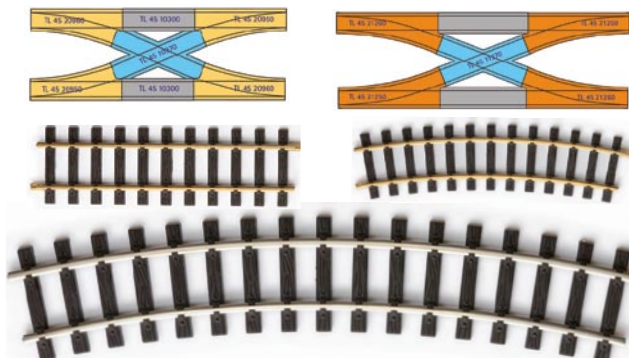
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Vol. 21, No. 2; Issue No. 115; March/April 2011

# STEAM<sup>IN</sup>THE GARDEN

*Gather friends, while we inquire,  
into trains, propelled by fire ...*

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**Cover:** Bill Allen's scratch-built AD60 Garratt on Dr. Dan Liebowitz' layout, Feb. 12, 2011.

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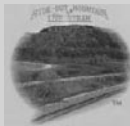
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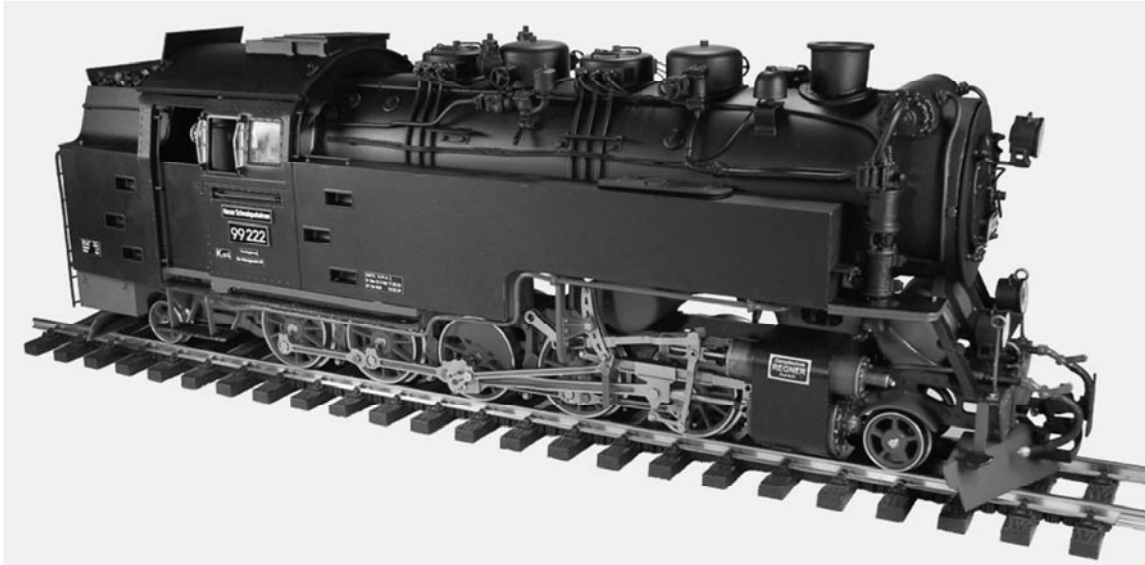
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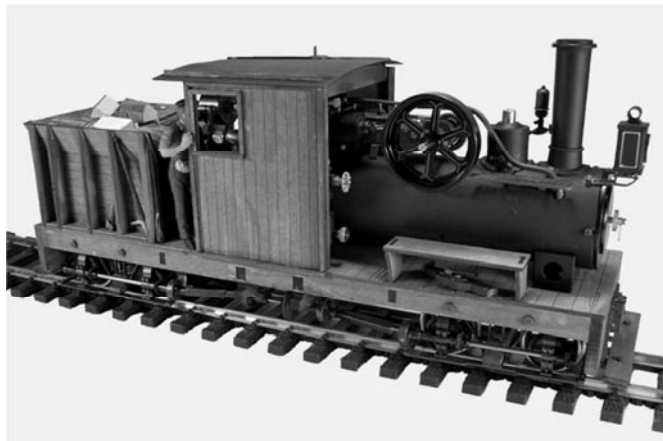
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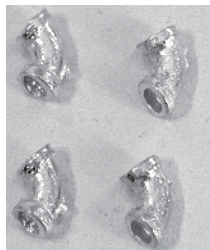
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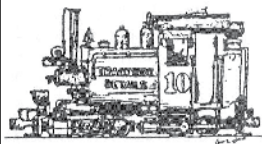
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**RAILWAY POST OFFICE**

### Fire isn't out on rail-truck series

First, let me congratulate the nine members of Steam in the Garden LLC on keeping the *SitG* fires burning. It's been a real inspiration and resource for me, especially getting back issues.

I might add that Sonny Wizelman's continuing friendly prompting to get me into live steam is why I'm here today.

Second, Ron Brown was in the middle of publishing my multi-part series, "Building the steam-powered Model-T rail truck," when he passed away. It appears that issue No. 113 started with my Part Three and only covered about one-third of what I submitted. Then issue No. 114 arrived and the series seemed to have ended abruptly, with no Part Two and only a portion of Part Three.

*Howard Maculsay  
Claremont, Calif.*

*Editor's note: We knew the transition from Ron's leadership to the LLC running the magazine might be difficult, but we didn't expect this. Place the blame for the seemingly abrupt end of Howard's series directly on my shoulders. We'll get the rail-truck articles fired up again in No. 116, May/June. I apologize to the readers — and to Howard — for this unfortunate mistake.*

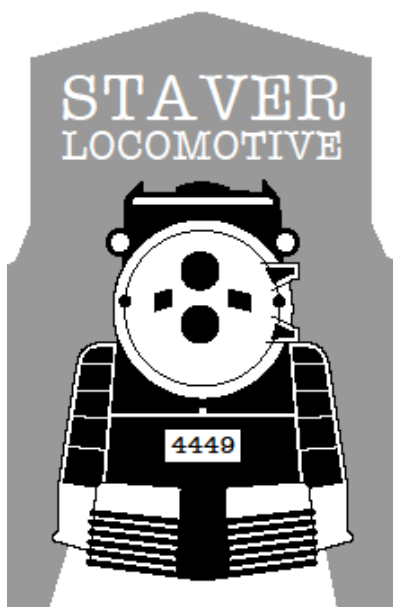
### From Mamod to Baldwin 0-4-2

I want to thank the "Group of Nine" for continuing *Steam in the Garden* magazine. I have been a subscriber for many years and hope to be to for several more.

The article on the new Mamod and the "antique Mamods" at Diamondhead (*SitG*, No. 114), brought back some memories.

About 1984, I attended the National Narrow Gauge Convention in Denver. Marc Horovitz had a steamup down at the old Union Station, which was my introduction to small-scale live steam models. Dutton Foster had a radio controlled 0-4-4 Forney that he had created from a Mamod. I was so impressed that I purchased a Mamod kit as well as a Shirley safety valve and a three-wick alcohol burner for it from Marc.

There had been a three-foot gauge common carrier/logging railroad near where I was living in eastern Virginia, the Surry Sussex and Southampton Railway. The Mamod seemed like a good starting point to create one of their Baldwin 0-4-2 engines.



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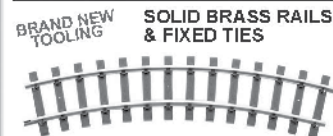
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**Sid's Mamod:** *Rebuilt as a Baldwin 0-4-2.*

Brass sheet, rod, tubing, angle and channel stock, copper plumbing parts and wood — not to mention many happy hours of fabrication — created the radio-controlled engine pictured above.

It still runs and except for the Cheddar butane burner, is essentially unchanged. Like everyone else, I had problems with the drivers and cylinders. Those were upgraded when upgrades became available.

*Sid Tiesenga*  
 White Stone, Va.

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## Magazine a catalyst to hobby's change

It's been years since the hobby has expanded from a few people interested in the mystique of steam-powered toys to becoming an international phenomenon of model engineers enjoying the joys of sophisticated miniature steam trains. The only communication in those early days was through the publications of the Gauge One Model Railway Association and the sister group, the Association of 16mm Narrow Gauge Modelers. Before email and instant messaging, we had to laboriously wait for the mails and see what is happening through the hobby.

When Ron and Marie Brown started *Steam in the Garden* it was truly a breakthrough. Here we were offered an easily accessible and readable forum through which we could all exchange ideas and develop our particular slant on this hobby.

The hobby has changed and *SitG* was its catalyst. From a rather eccentric lot of guys sitting at their machine tools and churning out unique steam engines at a rate of a couple in a lifetime, we now saw hundreds of amateurs who could enjoy the adventure of live steam by learning some rather basic techniques from a magazine available through subscription.

I wish successful continuation of our common asset.

*Jerry Reshew*  
 Diamondhead, Miss.

**STEAM IN THE GARDEN**





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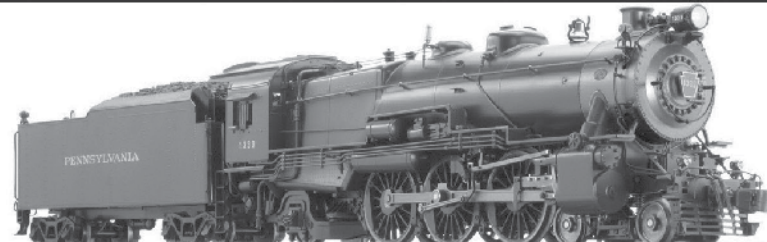
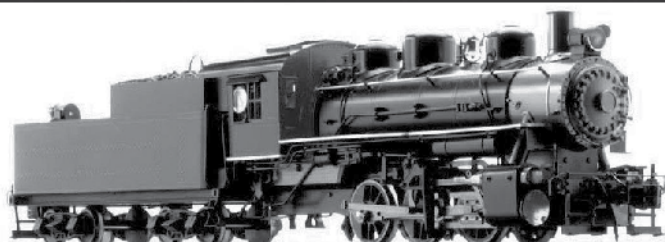
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# Mixing steamups and **Trolleys**

A dozen years of showing small-scale live steam in Scranton, Pa., on President's Day weekend.

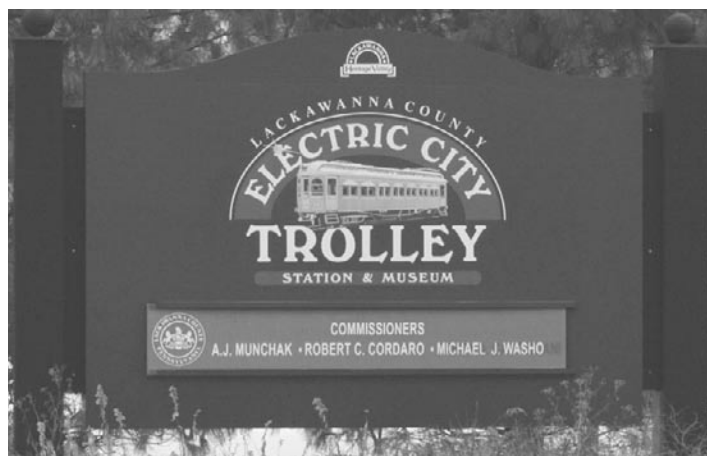
Text and photos by Scott E. McDonald

**F**or the last 12 years, Scranton has celebrated President's Day Weekend with model trains on display. The event first began when Clem O'Jevich of Warrior Run Locomotives in nearby Nanticoke, Pa., and a few of his fellow garden railroaders, began operating their trains at Steamtown National Historic Site. Clem, also an avid live steamer, approached his live-steam friends he knew through the Pennsylvania Live Steamers and asked them to join in and run trains for the entertainment of the populous visiting Steamtown. Soon the event grew and became an annual display.

The location moved a few years back from the National Park Service facilities at Steamtown to the Electric City Trolley Museum that occupies the old Silk Mills building located at the far end of the Steamtown parking lot.

The Trolley Museum was created by the Lackawanna Heritage Valley Authority and is operated by the county. In addition to a museum that celebrates the heritage of trolleys in the area, in good weather the authority operates a five-mile trolley route from Steamtown to the station opposite the baseball stadium near Moosic, Pa.

The renovated historic building that houses the museum also includes a car barn that when cleared of trolleys provides a perfect location to set up a couple of elevated small-scale live steam tracks out



of the weather. The tracks are owned by Mike and Barbara Moore of Ellicott City, Md., who provide the basis of operation for the Aikenback Live Steamers.

A non-club, non-member, non-organization of live steam friends who get together several times a year when Mike sends out the call for steamers to help out at an event, many of these live steamers are members of the Pennsylvania Live Steam organization where a permanent Gauge One track exists. As these off-site events are not under the purview of PLS, the loosely knit group of Aikenback steamers was non-formed in order to give a non-identity that could be used when talking with the general public.

In past years the main track, which is about 25-



feet by 50-feet in size, would circumnavigate around a lone trolley waiting for restoration in the forward part of the car barn. Looking through back issues of the “Steam Scene” photos, you may notice the old trolley in the background. This year was different as the old trolley was sold to another non-profit trolley museum in western Pennsylvania in 2010.

This new real estate gave the live steamers in attendance a bit more room to prepare and operate their machines and also left more viewing area for the general public.

According to Clem, the usual winter-time attendance at the museum does not usually break double digits on a weekend. But on this weekend, all attendance records were broken not only because of the visiting live steamers putting on a great show, but because the museum brought out one of the trolleys for a mid-winter run as well. This really helped to put attendance over the top as the locals took a picturesque ride through the snow-covered valley in a toasty-warm trolley. Many had ridden in spring and fall, but this was a special treat as the trolley passed massive icicles that lined the walls of the cut leading up to the tunnel on the route.

Attendance by live steamers was also up this year. Instead of the usual dozen steamers of years past, the tracks were kept busy by about 35 steamers from all over the Northeast Corridor and from points south in Virginia. The double mainline was kept busy all day, as was the smaller 12-foot by 24-foot track.

A couple of brand-new locomotives also took their maiden voyages around the circuit in addition to



**Trolley time:** Above, the public watches the Aiken-back Live Steamers do their thing at the trolley museum in February. Below, Bob Moser fires up his Accucraft Royal Hudson, with a freight consist.

older antique locos: Rob Gorski unpacked and fired up his AML Dockside that made a very impressive first run on the main track, while Kendrick Bisset had his new Accucraft Ruby No. 5 which received its blessings of steam and oil on the smaller track.

Tom Bowdler of Rochester, N.Y., arrived on Saturday with his Regner Zoo Train bash that received SitG’s prestigious “Best Bash” award in 2008 and continued with his mentoring of young Will Enkulenko of Scranton. Will has been attending the weekend steamup for many years and we have all



# Keeping an eye on projects

**R**egardless of the steamup, whether it is a private affair not open to the general public or an exhibition where steamers congregate to entertain and educate about live steam, there is another aspect that goes on in the background that for me adds to the enjoyment: to see the various projects that people are either thinking about or are in the midst of creating.

Over the last couple of years and attending steamups where there is a core of steamers that are always present, I have watched the process of conversions of locomotives from their indigenous firing to a conversion to something different. In some cases a particular person loves the model, but the fuel of choice that came with that locomotive is not to their liking, so a gas fired locomotive is then subjected to an alcohol conversion, or maybe to coal. In either case, a new boiler is first on the list.

The conversion process brings about opportunity to learn, experiment, and as I found out, to also gain parts no longer needed! At the Scranton Steamup in February, I took possession of a new Accucraft locomotive, the Carolwood Pacific Society's commissioned Walt Disney "Lilly Belle."

As I opened the box to verify the condition of the contents — since it was still in its original packing from when it was purchased in 2003 — I wanted to make sure that in the various transit stages all was well. After all, we have all heard horror stories of shipping companies that have had less than stellar performance with our dear locomotives.

As I continued to unwrap, just like a birthday or Christmas present that draws attention, I had

some spectators looking over the shoulder. And that is a good thing because some of them had experience with the various permutations of the locomotive I had just acquired. Once unwrapped, the inspection and acquaintance process began. "Oh, that is one of the first run-locos," quipped Jason as he looked over my shoulder. "You have the small fuel tank. You'll want to replace that with the second version that holds more fuel for longer runs," he said. OK. While having to immediately dive in and start upgrading a locomotive is not my normal cup of tea, it was good advice.

Sitting a few feet away were Justin and Ryan going over a boiler project for another Accucraft 4-4-0, similar to my new loco, which Justin is changing from gas to alcohol. Having heard the exchange between Jason and me, Justin chimes in, "I have just the tank you need! I won't need it any more." Wow, problem solved. Replacement part is in the house. After a friendly exchange of bartering, the deal was set and I have the part I need.

The other upgrade was a set of new side rods and connecting rod. Again I had the experience of someone who has completed this change right there at hand to give me some pointers on making the change. All-in-all not really daunting, and I now know the proper sequence of removal so as to not remove the wrong or unnecessary screws to make the upgrade easier.

So from good advice to quickly assembling the parts I need, a steamup is more than just running trains. It is the fellowship of knowledge that we have a piece of that makes them more enjoyable.

— Scott E. McDonald

watched him grow through grade school and this year is getting ready for high school.

Of course no steamup is complete without the many young attendees and their families. A special viewing area near the main track was set up so the younger, (and shorter) attendees could get a better view of the trains as they came by. Several radio-controlled locomotives were also available to allow the young attendees to control trains under the watchful eye of the adult steamers.

Steam also made the circuit on Clem's beautifully detailed 1:20.3 fine-scale modules. Not just limited to electric trains, a couple of Accucraft Shays and Mike Peterlin's Climax made appearances trundling

through the logging town diorama.

The weather stayed somewhat helpful through the weekend. We were treated to two extremes: arriving on Friday in short sleeves and high 60s and awaking on Monday to eight inches of snow! Fortunately the snow on the roads had melted by our noon tear-down time for the trip home.

As the weekend came to a close we made the last rounds on the track with double-headed action by Jim Stapleton and your author, with his Aster King Arthur and my Schools.

What a great run to end the festivities as we closed the 2011 chapter on another successful and fun weekend at the Electric City Trolley Museum.

# Steamup as a **Trade fair**

At Karlsruhe (aka Sinsheim), engineers run for free.

Text and photos by Bert Horner



**W**hen the snow is laying deep outside and it is two months or more since the weather allowed a day's running at a club track, live steamers from around the world gather in Karlsruhe, Germany, for the annual indoor live-steam event at the city's trade-fair facility.

The 15th annual iteration of the event took place for the second time in Karlsruhe on Jan. 14-16 — the first 13 were held in Sinsheim, Germany, and the

event may forever be known as “Sinsheim.” The meet covers all forms of live steam modelling: ships, stationary engines, road engines, and of course, railway engines. The main attraction is the five-inch and 7¼-inch ride-on engines, which have about five km (3.1 miles) of track that winds its way through the halls of the Karlsruhe trade fair buildings. It is great fun for the engineers, especially the Saturday-night running — in complete darkness, except for the loco





**Karlsruhe capers:** Above, club layout from Czech Republic. Left, Peter Sidler of Switzerland, oiling an Accucraft Saxonian VIK.

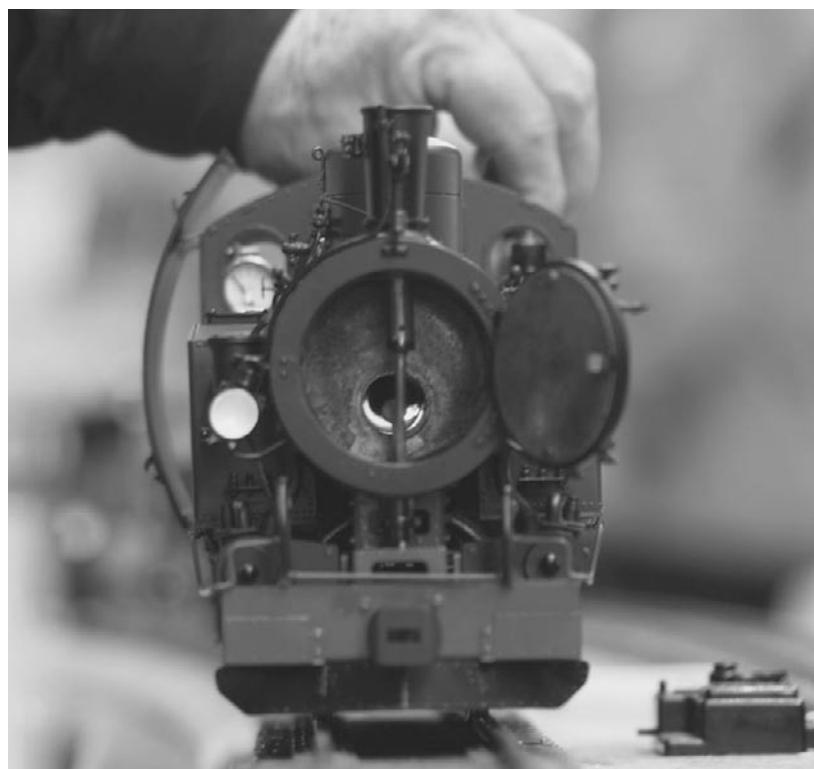
lights and glowing fire under the fireboxes.

Karlsruhe is a little different from a typical U.S. steamup like Diamondhead: the engineers must apply to run their models. If they are accepted, they run free of charge and can run more or less all day, every day. Because it is like a trade fair, the visiting public pays admittance and helps make it all possible. Also, the engineers do come from all over the world: India, Japan, Italy, France Switzerland, Holland and England.

A free meal is provided for engineers on Saturday evening after the doors are closed to the paying public, and this is followed by the night-running session. There are trade stands for all connected with the

hobby: Locomotive builders, (including Manfred Regner), machines — like lathes mills and accessories — and materials for building our models are bought and sold. It is really all there, from a full CNC mill down to a 1mm hex head screw or a 7¼-inch gauge coal-fired Big Boy to a meths-fired Mamod o-gauge engine.

For smaller-scale modelers, there was a huge stage with long runs for Gauge One and 32mm steamers. This was just the thing for radio-controlled models and attracted the vast majority of the guest engineers. Other tracks included a large oval, ideal for those of us who — like me — prefer to control their engines by hand, as well as several club and company



**Engineering marvels:** Clockwise from upper left, Italian family of German prototype o-scale models; Ullrich Pietsch of Germany with a scratch-built loco; Accucraft Germany VIK; Cia Neff's plantation loco.

tracks, including one brought by Aster Europa.

Many interesting scratch-built and kit-bashed models were to be seen, from simple Ruby mods up to Gauge One engines coal fired with live steam turbine generators and Westinghouse pumps for braking systems, as well as the usual well-known products. As many engineers in our scale come from different lands, communication can be fun and many sketches change hands after each has added his improvements to the initial drawing.

The high point of the meet for me was the opportunity to fire up the recently delivered engineering sample of Accucraft Germany's new Saxonian VIK,

O-10-0 (a review will appear at a later date). For the moment, it is enough to say I have now ordered one. But one small comment: after years of complaining that Accucraft has had its Walschaerts valve gear upside down, it has at long last got it right — the radius rod at the bottom, in the direction usually run. Some Garratts had their own rules.

Of course I saw many old friends and met some new ones. I took lots of photos and screwed up my captions; some got mixed up in the translations. So just enjoy the photos and try to imagine it with the smell of coal smoke mixed with steam oil in your nostrils during three days and one night running.



# Nine years in Nebraska

Marty Cozad's fall steamup draws from all over Midwest.

Text and photos by Jerry Barnes

**F**or nine years Marty Cozad of Nebraska City, Neb., has been having a fall open house — he has a large garden layout of more than 3500 feet, much of it double tracked. Every year he makes changes and improvements to it — he's one hard-working guy. It's held the last weekend in September, starting on Friday and running through Sunday. A banquet is held Saturday night with many door prizes. Quite a few vendors show up and steamers bring excess to sell.

It was originally billed as a “steamup,” but mostly it was battery-powered trains. A few live steamers would show up, including me. Gradually our attendance has increased and this year, Sept. 24-26, there were more than 20, mostly running on the portable track that Rodney Eddington brought up every year, but now Marty has built a new, dual-track elevated line, with 20-foot diameter curves. He also built a turntable for the live steamers, a part of his ceaseless on-going improvement of his layout. Marty is also using the new track quite a bit for his battery-powered trains (he tried live steam but didn't like the fiddling it entailed).

Friday was a great weather day, still and about 70 degrees. The track was up by the time I arrived (it's more than a three-hour drive from my house) and several guys were steaming. Larry Herget had his Atlantic going very smoothly. He made it from a Aristo-Craft Live Steam Mikado he cut down and put Pacific wheels on; he also was running a U.K. outline locomotive at breakneck Aster-type speeds, but it was one that he had made and he's quite a craftsman.

Joe Hall was there with the K-28 he wrote a review on in *Steam in the Garden* No. 95 (September/October 2007). He also ran his Catatonk Climax with



**Back to basics:** Wisconsin's Pete Kaishian lights up one of his BAGRS Basic Project-like loco; he built his without knowing about the project.

some ore wagons and it is a very smooth runner.

I met Pete Kaishian for the first time; he is from Wisconsin and he had two BAGRS Basic Project-type locomotives he had made. What was remarkable about them was that he had never heard of or



**Great steam weather:** Clockwise from upper left, Mitch Mitchell moves some cars; Richard Snyder radio controls his Mogul as Don Hofsheier, Art Bruner look on; Dave Hottmann examines George Scheil's Ruby bash; Dennis Taylor and his Mogul.

seen that type of steam locomotive before or even knew about *SitG*. Both are alcohol fired by burners he made. One was from a small shoe polish can with three holes in it, no wicks.

They use oscillators — one drives through gears, the other through a rubber belt he made from a slice off a bicycle inner tube. Both are made on LGB bobber caboose frames, much burned and warped from the heat. Pete put on quite a show with the alcohol and flames burning all over the place. Friday night was a laugh riot with all the flames, luckily no harm was done. Marty's wife Carrie made a video of it that should be quite entertaining to see.

Pete also had a Aristo-Craft Live Steam Mikado that he was firing with propane, with the bottle in a trailing car. He just used a torch valve running the gas through a small copper tube up to the burner. No modifications to the jet or burner. It ran nice and

smooth and he said he had run it when the weather was 20 degrees, with no problems. There were several Aristo Mikes there, the most I've ever seen.

Saturday was cool, drizzly, damp — great steam weather! Ron Senek and I took our Mikes down to Richard Snyder's layout about 20 minutes south of Marty's. He has a very scenic layout behind his house in the country. We each ran, towing the cars I had brought along, but did not double head as we did last year. Mitch Mitchell and his son Mike came along to run their Accucraft Mogul and Ruby. Dave Hottmann also came down with his Mogul.

There was steaming from early morning to late at night. Mitch said he loved running in the rain and he did it a lot, as did many others and we all had a great time. Marty is planning to do it again next year, the last weekend in September. Make your room reservations early, some have already done so for 2011.



# B.C. steamers raise funds, run trains

**I**n the mystical world of garden railways there is a group of enthusiastic gentlemen who possess a wide range of skills and experiences. In British Columbia, these abilities have been combined into a group known as the Fraser Valley G Scale Friends. Their train activities include the maintenance and operation of a portable, 27-section modular layout, sharing past experiences, implementing innovative ideas, and assisting others as required. Our layout has double tracks, two spurs, and a steamup area and is used to run electric, battery and live-steam locomotives.

During the last two weeks in January, Art Knapp Plantland, a Surrey, British Columbia, local nursery, provides greenhouse space for our layout. This year's nursery cooperation included the sponsorship of a "Time For Trains" weekend, where a share of the funds earned from the sale of hot dogs and drinks was donated to our group for the maintenance of our layout. The large crowd on hand was amazed at the display of operating locomotives, cars and engineers.

On Jan. 29, plans were made to have each mem-



**18-heading at the nurse:** *The last three locos in the Fraser Valley G Scale Friends lashup.*

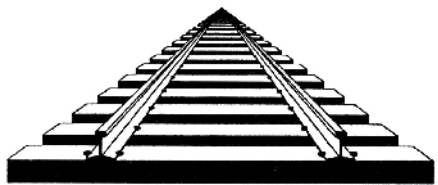
ber bring at least two live steam locomotives, so we could run them on the track at the same time, in what would be the first mass steam up attempted by our group.

The event was scheduled for noon and by that time we had more than 20 locomotives sitting on the track in various stages of preparation. Within a half hour we were able to run 18 locomotives on the same track at the same time.

It is important to note that in our group the individual experience with live steam locomotives ranges from three days to more than 20 years. One member of our group does not run live steam and was able to video the activities from start to finish (you can see it at <http://www.youtube.com/watch?v=dqyu2cKe5dU>).

Each member agreed it was great to be part of this event. Where else could you share friendship, express an ongoing passion for G-scale trains, and operate a large number of live steam locomotives? The common question was, "When can we do this again?"

— Duane Rose



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# A first project: The scratch-built AD60 **Garratt**

Text and photos by Bill Allen



**M**y involvement in live steam started in Summer 2009, when I purchased a Accucraft Ruby. Shortly afterward, I got a used Accucraft C-16 from a fellow member of the Bay Area Garden Railway Society and with a little tuning, they were both performing wonderfully. While perusing Ruby bashes on the Internet, I came across Dave Hottmann's Ruby-Garratt conversion and thought that would be a fun project, although I was really looking for something that hadn't been done before. I later came across a photo of the Aster AD60 and decided I wanted something in-between.

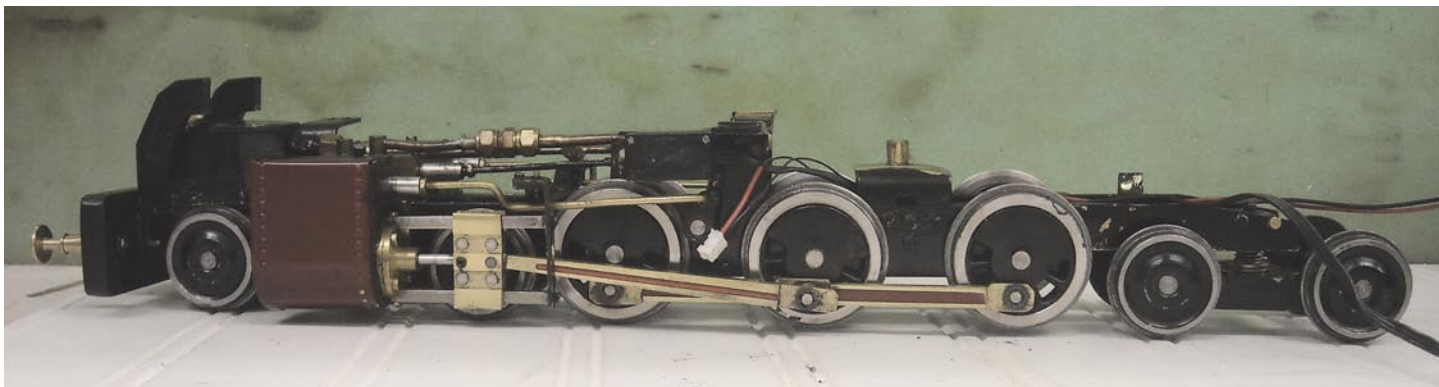
Earlier, my hobby had been making fine furniture, so I was familiar with power equipment, but had

no experience or tools for metalworking. I was able to convince my family to chip in and get me a 7 x 14 lathe for Christmas and purchased the cheapest micro mill I could find (\$319).

I received much guidance on the tool selection from the "My Little Machine Shop" web site, but even more from my friend Dennis Mead who not only gave me advice but also set me up with some cutting tools he had lying around the garage. One important thing he helped me with was setting up both the lathe and mill with permanently attached dial indicators and digital read outs.

Harbor Freight had a sale on six-inch calipers so I ordered a half dozen, cut off the jaws and was in busi-

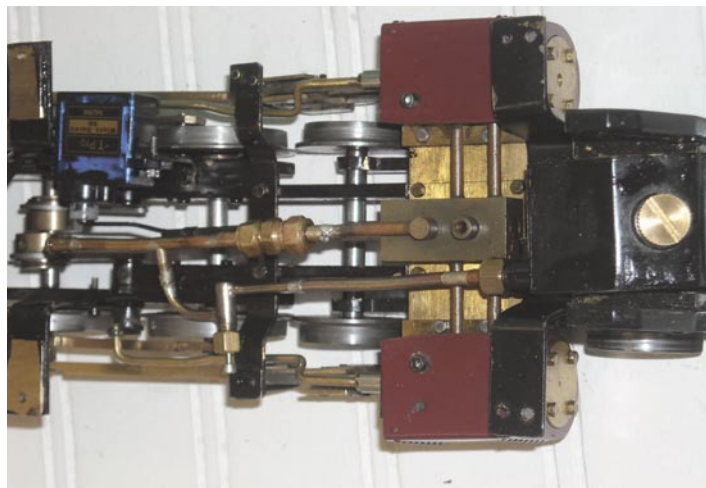




**Drive train:** Side view of engine chassis. The king pin, for articulation, is between second and third drive axles.

### Specifications

- **Inspiration:** Beyer Garratt GMGA Type-60 Series, used in Australia, Africa.
- **Scale:** 1/32
- **Configuration:** 4-6-4 + 4-6-4
- **Length:** 38-inches
- **Dry weight:** 27 pounds
- **Boiler size:** Three-inch inside diameter x 9½-inches
- **Boiler capacity:** 950ml (32.1 ounces)
- **Boiler pressure:** 60 pounds per square inch
- **Pressure valves:** Pop-off (two)
- **Fuel:** Butane (dual burners)
- **Fuel tank size:** Two-inch outside diameter x 3½-inches
- **Valving:** Ruby



**Inside the frame:** Ruby eccentrics, reverse servo and dead-leg lubricator and adjustment valve are seen here. The frame horns were stepped down for pony-wheel movement.

ness. During the process of setting up my shop, my Ruby had taken a swan dive off my elevated track, so I decided to use it for parts. I was lucky to find a partial Ruby kit for the second engine and picked up two extra Ruby drive axles from Accucraft. This is not a stocked item but Accucraft's Cliff Luscher did have a couple of warranty turn-ins I was able to use.

Once I was able to determine I would have the parts and tools I would need, I began in earnest on the plans. I was able to get all of the important dimensions of the original AD60 and merely divide by 32. I wanted to go with 1/32 because of the small Ruby drive wheels. I used ratio and proportion for other measurements and came up with the proper pony wheel size to have the look I wanted with the small-diameter drive wheels.

I was lucky to find I had 16 LGB passenger car wheels that I had replaced because the chrome plating had blistered off. They were about .030-inch larger than what I needed, which would work perfectly after machining off the chrome and cutting the prototypical flanges on the lathe. The plastic insulator in the center came out and left a 5mm machined hole in

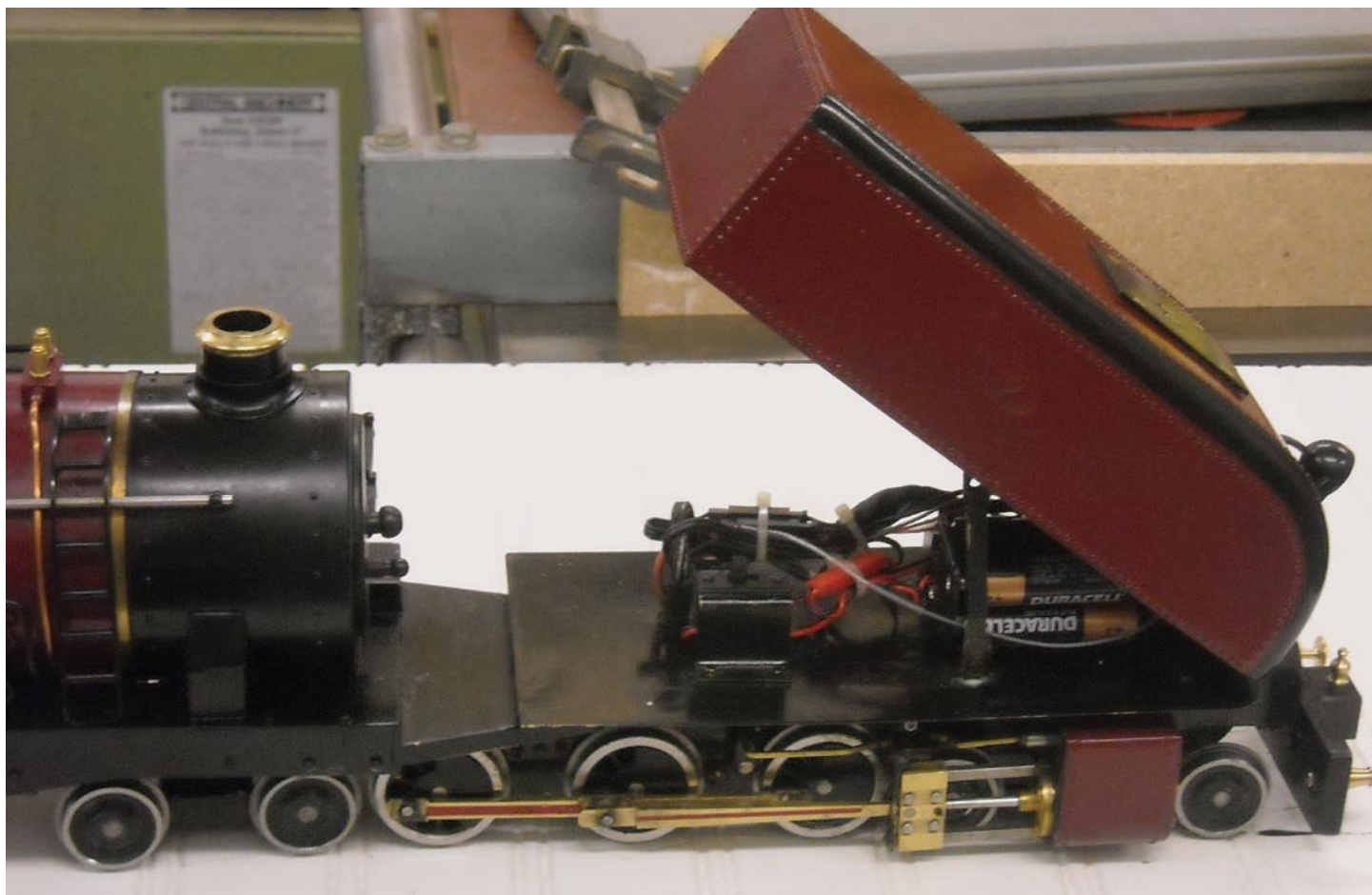
the steel wheels. For the axles, I used 7/32-inch drill rod with a 5mm shoulder cut for the wheels.

I did hand drawings with a rule, compass and digital calipers using a 1:1 scale to the model. This was very helpful while building the part as I was able to compare the part to the drawing either with the calipers or placing it over the drawing. I was able to borrow a *Garratts of the World* book and made the changes to the AD60, which I wanted to make so as to have a unique look. The AD60 is standard gauge but much of my design was from the Australian Garratts, which are mostly narrow gauge.

### Construction

The plans were finished and the machine shop set up in early January 2010. Before I started on anything, I needed some experienced people to look things over for flaws. The two resident mechanical experts in my area are Henner Meinhold of Fremont, Calif., and David Wegmuller of Palo Alto. I went over the plans with them and to my surprise, Henner only made one change to the superheater design.

Some of the deviations I wanted to make include



**Open sesame:** *The front bunker pivots up to access the radio control and to open the smokebox door.*

rounded bunkers (GMA/G type), dual superheaters, and a rear steam exhaust.

I decided that the bunker/engine sections would be the most difficult so I started on them first. I assumed the rounded bunkers could be done in brass but I wanted to try something first. I took some poplar, which is a hard stable wood that paints well, and made the bunker sides out of half-inch material. I cut it to shape and rounded the edge with a rounding-over bit in the wood-working router table. I then carefully cut a .030-inch deep recess on the router to accept the brass side and top pieces. The side pieces were rivet embossed with a homemade tool and glued on with E6000 adhesive. The rear bunker top section required some extra bending and soldering to accommodate the watertight butane section and the coal load cover.

## Engine and chassis

During the design, I decided to use only the valves, eccentrics and wheels from the Ruby. I liked the Ruby valves because I could easily control reverse with servos. I am running the forward engine with reverse admission and the rear stock. The next step was to make the one-half-inch cylinders. My friends got a good laugh when I asked them about using



**Fuel details:** *The rear bunker with the coal load removed shows the fuel tank. The fuel valve comes up through the coal load so it can be adjusted mid-run. The stack in the back is the rear-engine exhaust.*

a wood-working router for machining brass, but I wanted to try it anyway. I bought a one-inch by one-inch piece of square brass about three inches longer than I would need for four cylinders.

On the table saw, I used a one-eighth-inch wide carbide blade to cut the slot for the mounting plate and trim the cylinder portion to three-quarters-inch wide. Then on the router with a three-eighth-inch rounding over bit, with the piece still at full length, I rounded out the bottom of the cylinder.

The cylinders were then cut to size on the table

— Continued on Page 26





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## Southern Pacific 4-6-0 #8, #9

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## East Broad Top #12

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- Available: Q2 2011

## D&RGW C-25 2-8-0

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- Available: Q3 2011

## Forney 0-4-4 & 2-4-4

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## Plantation 0-4-2

- 1:20.3 Scale, 45 mm Gauge
- Butane Fired
- Available

## Mogul 2-6-0

- 1:20.3 Scale, 45 mm Gauge
- Butane Fired
- Available



## D&RGW K-36 2-8-2

- 1:20.3 Scale, 45 mm Gauge
- Butane Fired
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## Southern Pacific GS5

- 1:32 Scale, 45 mm Gauge
- Butane Fired
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## Pennsylvania T1 4-4-4-4

- 1:32 Scale, 45 mm Gauge
- Alcohol Fired
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## Pennsylvania Caboose

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## H8 Allegheny 2-6-6-6

- 1:32 Scale, 45 mm Gauge
- Butane Fired
- Available: Q4 2011



O Scale Model Shown

## Southern Pacific M6

- 1:32 Scale, 45 mm Gauge
- Butane Fired
- Available: Q4 2011



Photo by Joe Dale Morris

## CP Royal Hudson 4-6-4

- 1:32 Scale, 45 mm Gauge
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## Southern Pacific F4/F5 2-10-2

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- Butane Fired
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# ACCUCRAFT TRAINS

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### B&O 0-4-0 Switcher w/ Slope Tender

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### B&O 0-4-0 Dockside

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- Butane Fired
- Available



### USRA 0-6-0 Switcher

- 1:29 Scale, 45 mm Gauge
- Butane Fired
- Available



### W&L 0-6-0T Countess

- 1:19 Scale, 45 mm Gauge
- Butane Fired
- Available: Q2 2011



### L&B 2-4-2T 'LYN'

- 1:19 Scale, 45 mm Gauge
- Butane Fired
- Available: Q2 2011



### IOM Caledonia

- 1:20.3 Scale, 45 mm Gauge
- Butane Fired
- Available: Q2 2011



### VIK 0-10-0

- 1:20.3 Scale, 45 mm Gauge
- Butane Fired
- Available: Q2 2011



### Ragleth 0-4-0T

- 1:19 Scale, 45 mm Gauge
- Butane Fired
- Available: Q2 2011

### War Department Baldwin 4-6-0

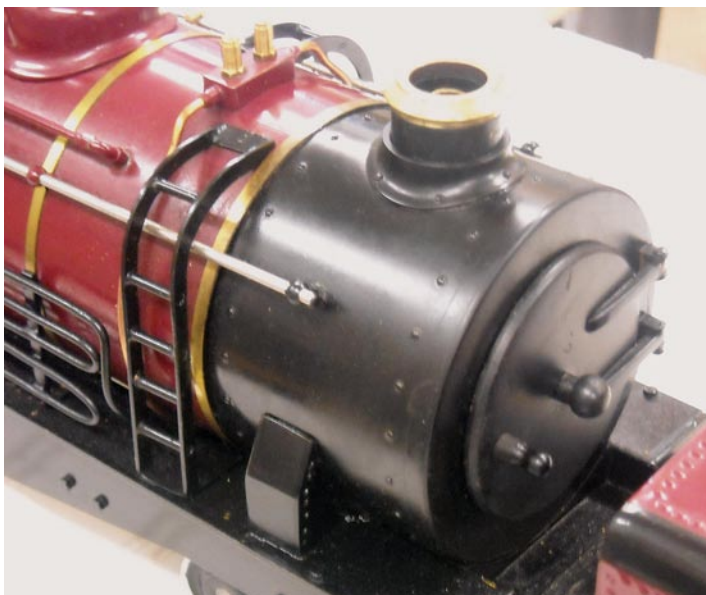
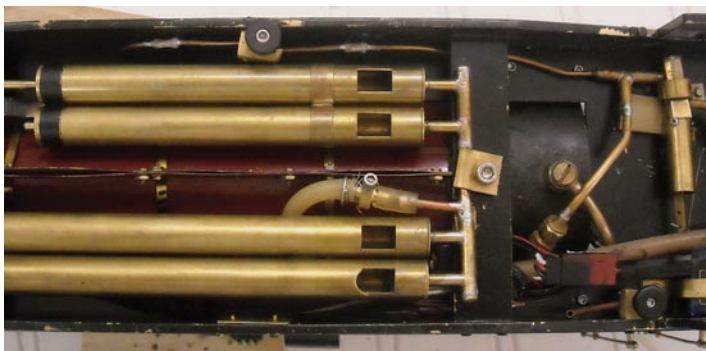
- 1:19 Scale, 45 mm Gauge
- Butane Fired
- Available: Q4 2011

### BR Britannia Class 7

- 1:32 Scale, 45 mm Gauge
- Alcohol Fired / Butane Fired
- Available







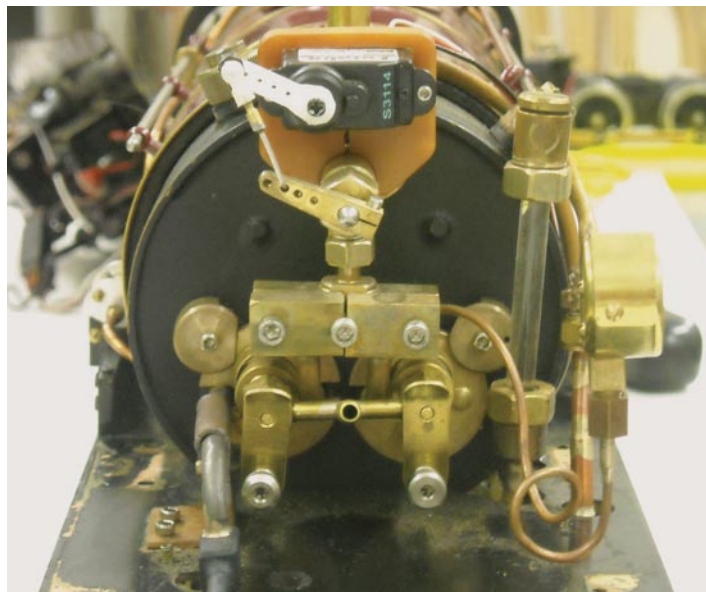
**Whistle and smoke:** Above, the underside of the boiler shows the massive whistles and valving. The round dial at the top is the knob for the steam flow to the generator. Below, the smokebox in detail. The rivets are from MicroFasteners.

— Continued from Page 23

saw using a homemade precision cutoff table. Before cutting to size, about one inch of the ends were discarded in case of any divots from the router, which can happen if everything is not perfect. This whole operation took less than an hour from brass bar to four cylinders. The rest of the cylinder and piston machining was done on the mill and lathe and nothing different than the norm was done there. During this time, I was receiving mill and lathe instructions from my friend Dennis.

I decided to make the frames and cross members from one-eighth-inch brass for strength and traction weight. Because I wanted this engine to run on a five-foot radius track, I had to step the frame width down in front of, and behind, the drivers to accommodate the pony wheel movements.

A one-eighth-inch spacer section was placed inside the middle section and outside the end frames to give a total reduction in width of one-quarter-inch per side. All frame rails were cut on the table saw and band



**Backhead brass tacks:** The boiler backhead shows the throttle valve and servo with the boiler stays just below. The oblong block is the steam manifold with fittings going into the burner tubes for the superheater. The tube on the left side is the steam pipe coming back from the superheater, going to the rear engine.

saw, clamped together and milled or drilled together. The frame sections and spacers were secured using two 3/32-inch stainless dowels and four 2-56 screws at each joint (see top photo, Page 22).

## Boiler and frame

I wanted the center frame to be heavy so I used one-eighth-inch by one-inch frame rails connected to a quarter-inch plate extending under the bunkers and over the kingpins. Horizontal one-eighth-inch cross members support the bronze boiler supports, and vertical ones add rigidly to the unit.

I decided to make a three-inch inside-diameter boiler with two butane burners and two superheaters. Henner had a handy bender which easily bent the one-eighth-inch stainless steel tubing into a “U” shape, which fit inside the three-quarter-inch burner flue. The front superheater goes through to the smokebox in the normal fashion and the rear turns around inside the other flu and comes back into the cab. I wanted to do this because I had heard horror stories about articulated engines not being able to keep the temperature up at the cylinders. I also insulated the tubing and cylinders to maintain an even temperature.

Because the 1/32 scale didn't allow for much room above the boiler in the cab, I used a working steam dome with a 5/32-inch thin wall collection tube, to which I silver soldered a support in the boiler so it couldn't drop down but could be removed by turning a quarter turn.

Bronze bushings were made and then a trip to Henner's to silver solder everything up. After pickling in citric acid, it was pressure tested and we found a pinhole leak. Henner said that the old boilermakers sometimes fixed these with a pin punch. A couple of light taps and it was, and still is, steam tight. We run at 60 psi and so we tested it to 150 psi with no problems.

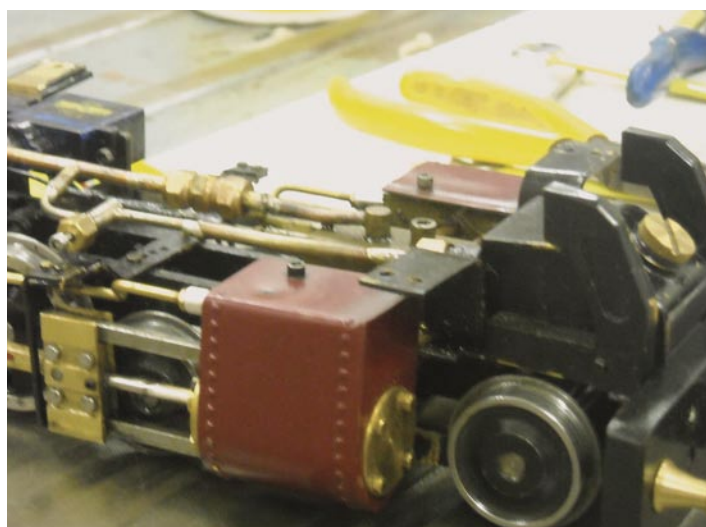
I was going to buy some burners, but Dennis wanted to make some, so we (mostly him) went about it and came up with a working design that worked the first time. We tried different size jets and settled on .010-inch. Dennis made all of the valves with a little help from me. The boiler attachments include a steam dome, two pop-off valves, two boiler mounts, a throttle regulator, a pressure gauge, a sight glass, a steam vent, a whistle and a generator steam pipe.

The smokebox was fairly easy: I was able to pick up a piece of 3/8-inch inside-diameter brass pipe that was a perfect fit to the outside dimension of the boiler. The front cover was turned out of quarter-inch plate, glued with cyanoacrylate to an arbor on the lathe and popped off with a chisel when it was done. I cut a one-eighth-inch recess to provide a tight inside fit and a flush exterior fit. The door was turned on the lathe in the same manner and the hinges made on the mill.

## Cab

I was concerned about several parts of the cab construction, especially when I found that the jigsaw really didn't work on sheet brass. I could have used a jeweler's saw but that would have taken forever and I am not really good at cutting a straight line by hand. So, I went back to my woodworking skills and cut some jigs out of Masonite and was easily able to make the cutouts, in the brass, on the router with a pattern-making setup and a four flute end mill chucked up in the quarter-inch collet. The corners were cleaned up with a square diamond file.

I didn't have a sheet-metal bending brake but while I was getting supplies at the metal yard I stumbled across a piece of half-inch steel angle iron. They threw the two-foot piece in at no charge, so I was on my way. Back home, I cleaned up the inside with a file to get a little less radius at the corner and cut a 90-degree "V" in a piece of wood to hold it level. I took a piece of one-eighth-inch by one-half-inch flat stainless steel bar a couple inches longer than the height of the cab. I then ground it at a 45-degree angle to form a sharp edge for the male part of the brake. I milled a one-eighth-inch slot in a short piece of cold roll steel to hold the stainless steel blade vertical and relived the end at 45 degrees



**Of doors and crossheads:** Above, the cab's door works and hand rails slide up and down; all the hardware was handmade (left rail is raised in photo). Below, cylinder crossheads were a challenge. Lube valve is directly above crosshead and accessible when assembled with a long hex wrench. Lubricator is in front between the frame rails.

to keep it from interfering with the work piece.

I scribed lines on the inside of the cab where I wanted the bends, placed it in the arbor, set the blade edge on the line and went for it. The sharp edge of the blade kept it perfectly aligned throughout the process and when the final corner was bent and all sides were in perfect alignment. I now have a tool that will make a bend in material up to 24-inches long.

I wanted the doors to work and to have a piano



hinge look. I soldered a piece of 1/16-inch outside diameter tubing the full length of the doors and secured them through holes in top and bottom of the door frame with music wire.

## Closing observations

This was a very rewarding project. My father always told me that you learn the most from the mistakes you make. I had to make a few parts more than once, but the lessons learned were invaluable. I

learned a new skill by just rolling up my sleeves and getting started.

I took many photos of the construction but they were not high enough resolution for magazine reproduction. I will post these on the web in the coming weeks.

I think the most challenging part of this was making the cross heads. I couldn't find any 303 stainless and settled on 304 for the slide rails. Drilling and tapping o-80 holes was almost impossible for me to do, and if you look closely at the workmanship there, you would see that there is a lot to be desired.

Also challenging were the dead-leg lubricators, which I had heard didn't draw oil very well. So we used one-eighth-inch tubing to the lubricator with a .040 orifice drilled at the intake. On the first run, it used about four syringes of oil the first loop around the track. After cleaning everything up, we installed the regulating valves shown on pages 22 and 27 and it worked like a charm after that.

Building the boiler, making the cylinders and pistons, and the frame and sheet metal work turned out to be much easier than I thought it would be. Of course, it helps to have friends who have done it before to help along the way.



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# A coal-fired tribute to **Ron Brown**

A Basic Project conversion with the late editor at the throttle.  
By Tom Bowdler



**Funky, junky, chunky:** Ron's likeness piloting his favorite type of locomotive. Photo by Scott E. McDonald.

**A**s I joined others in the small-scale live steam world saddened by Ron Brown's passing to peace last fall, I was struck by the idea of modifying a little chain-drive locomotive I owned as a tribute to Ron and his friendship.

John Thomson, a live steamer from Sioux Falls, S.D., advertised an inexpensive way to learn coal firing with a BAGRS Basic Project locomotive derivative steamed by a modified Midwest boiler. I obtained serial No. Three in 2003 and ran it extensively. One of its best outings was on my portable track in Roger Caiazza's front yard near Syracuse, N.Y. I was there to assist my friend Ron in introducing small-scale live steam to those attending a regional railway meet.

Later, John made a vertical coal-fired boiler for a Shay project I was building and the Basic Project loco sat on the shelf. I almost sold it but then dusted off the cobwebs so I could run it last August at Ron and Marie Brown's steamup at the request of my friend Doug Blue. It ran well but couldn't pull much because the power of its little oscillator and chain reduction drive to only two drive wheels caused slippage on anything less than perfectly clean, dry track. I gave the loky to Norm Saley, the steam repair whiz from Orlando, Fla., who added side rods to make it all-wheel drive and he converted the Regner electric pump to operate from an eccentric on the front axle.

John — who called this particular example the “Donkey” — constructed a simple locomotive follow-



ing the Basic Project formula (you can learn more about the Basic Project at <http://www.panyo.com/mso/BPE.htm>): A plywood deck supports the boiler, oscillating steam motor, chain drive, lubricator and associated plumbing. Elegant in its simplicity, even the brass piping is a work of art. The steam line has a valve controlling the draft-inducing blower, which then passes to a manifold from which exit the blow-down line and steam line through the lubricator to the steam motor, each with its own valve control. The motor's exhaust is routed to the smoke stack to maintain draft while running and allow the blower use to be reduced. A sight glass shows the water level and a Regner servo-operated water pump could be switched on to maintain boiler level.

The tender follows the KISS principle, with an Aster track-side tank with hand pump riding on a Hartland four-wheel chassis with metal wheels. Enclosed within a simple plywood box with an Ozark Miniatures water hatch, the tank pump is operated with a handle which protrudes through a slot in the top and squirts water through tubing which connects this water supply to the locomotive through a one-way valve. Ozark coupler pockets allow connection to the locomotive and coupling of rolling stock behind.

No particular scale was specified, and my recent introduction to 1:13.7 or 7/8-inch scale — where 45mm track represents two-foot narrow gauge —

caused me to view this loco in a new light. Ron and I had often discussed our common interest in funky, chunky and junky backwoods-type engines, so modifications in that vein to this loco would be a fitting tribute to a man who gave so much to the hobby he loved.

I started by removing the pump box from the loco rear deck and replacing it with mahogany floor boards. I also added a mahogany side piece to the ply chassis to give a thicker appearance. Norm had placed the piping with bypass valve to one side leaving an open space where I would add an engineer. Consulting with my son Greg, we planned one side railing that would contain a seat for an engineer figure while still allowing access to the fire door through which to shovel coal.

Working from photos, Greg sculpted a figure of Ron from Sculpey clay to sit on the railing I fabricated from one-eighth-inch brass rod with telescoping tubing soldered on to represent cast fittings and screwed to the deck.

I sawed off the front of the tender and built a coal bunker from mahogany to hide the front of the Aster tank. Rice coal of the type we use to heat our homes in winter was glued in place and I made a shovel from brass sheet, tubing and a wooden skewer. A number of Ozark nut, bolt and washer castings were added then the bunker was stained and weathered along with the new mahogany parts on the loco.

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Photo by Michael Martin

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Marie Brown told me that Ron's favorite color was green, so that's what was used to paint the tender, new running-gear parts, railing and even "mini Ron" himself. Simple lettering from dry transfers was added just in time to take the project to Diamond-head 2011 for its first run. It did quite well there and Norm helped me tweak its performance with a stronger spring for the oscillator.

How many of you know that Ron was really George Ronald Brown? I discovered this when visiting at the rehab center where Ron was recuperating from leg surgery last year. "We have no Ron Brown," I was told at the desk "but there is a George Brown here." Ron, Marie and I had a good laugh over that one.

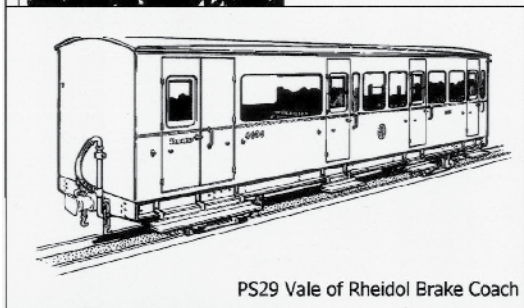
Remembering that prompted me to strip the tender lettering and order new lettering from G Scale Graphics. Ron always referred to his home in Newark Valley, N.Y., as Paradise East and even though their railway was called the Silo Falls Scenic, I elected to remind us that Ron's strong faith surely has him now in Paradise.

Hopefully this is a fitting tribute to my mentor and friend to all in the live-steam hobby who with his Faithful Assistant Marie worked tirelessly to share, encourage and promote the love of live steam trains. Rest in peace George Ronald Brown.



**Sculpey Ron:** Greg Bowdler used photos of Ron Brown to make a clay figure of the late editor. Photo by Scott E. McDonald.

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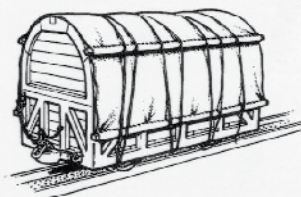


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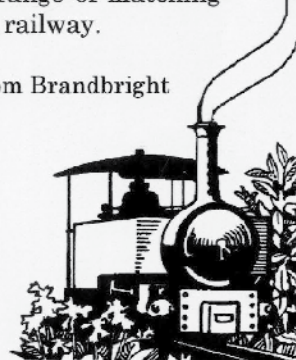
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# Citizen Cane

Converting a Roundhouse Sandy River  
to a sugar plantation locomotive.

Text and photos by Jim Petropulos

**W**hen I discovered the similarities between a locomotive that was delivered to a Cuban sugar plantation in 1919 and the Sandy River & Rangeley Lakes No. 24, I realized how the nicely detailed Sandy River live-steam model from Roundhouse Engineering — with slight detail modifications — could be made to represent a similar engine from another place.

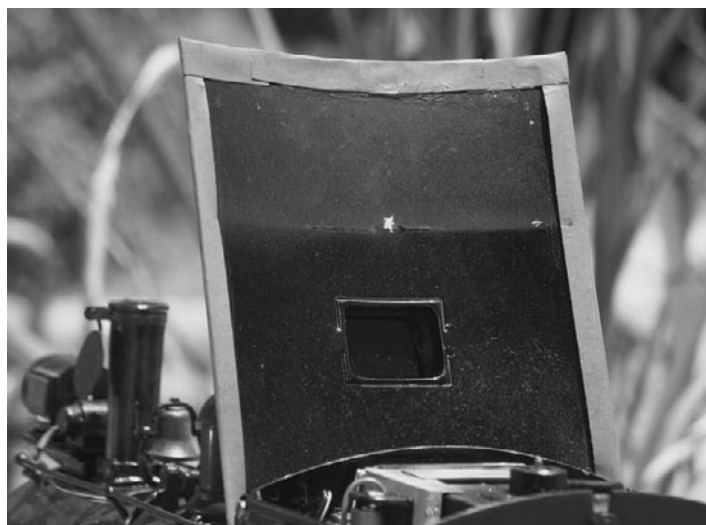
The 2-6-2 “Prairie” type locomotive was a popular wheel arrangement among industrial lines where rough track was the rule and running in reverse was common — where in many cases there wasn’t a turntable or wye to turn the engine.

The Sandy River & Rangeley Lakes (SR&RL) No. 24, a 2-6-2 tender type constructed by Baldwin in 1919, is a two-foot-gauge example of an “off the shelf” stock locomotive from one of the major builders. That same year Guantánamo Sugar Co. in Cuba ordered its No. 8, a three-foot-gauge Baldwin 2-6-2 tender locomotive.

Except for the gauge difference, No. 8 was nearly identical in appearance to the SR&RL No. 24. Both were fitted with wood cabs, an economical option back then. Guantánamo Sugar No. 8 survives today as No. 1261 in the re-numbering after the Cuban revolution, and is now preserved.

My SR&RL No. 24’s new assigned number is 1262, a “could have been,” as perhaps another ex-Guantánamo Sugar Co. engine.

One way I decided to achieve the transformation was to laminate the model’s metal roof to simulate a canvas covered wood roof, as the rest of the cab is simulated wood construction.



**Sandpaper roof:** *To emulate the canvas on the roof of the Cuban cane engine, 1500-grit sandpaper was attached with glue.*

I used 1500-grit sandpaper to represent the canvas on the roof. I removed the Roundhouse roof from the cab to work on it. Having a detailed view from a video of another Cuban cane engine, showing clearly the canvas covered cab roof from the top, I saw it was made up with three panels. So I cut three pieces of the sandpaper to fit to No. 24’s cab roof in the same way.

The center panel is cut 2½-inches wide by 5½-inches long. I cut the left and right side panels each 1¼-inches wide by 5½-inches long. The center panel overlapped the two side panels by about one-quarter inch.

On the center portion, I located and carefully cut out an opening for the cab vent hatch to fit through.



I used a No. 11 X-Acto blade and a steel straight edge to make the cuts.

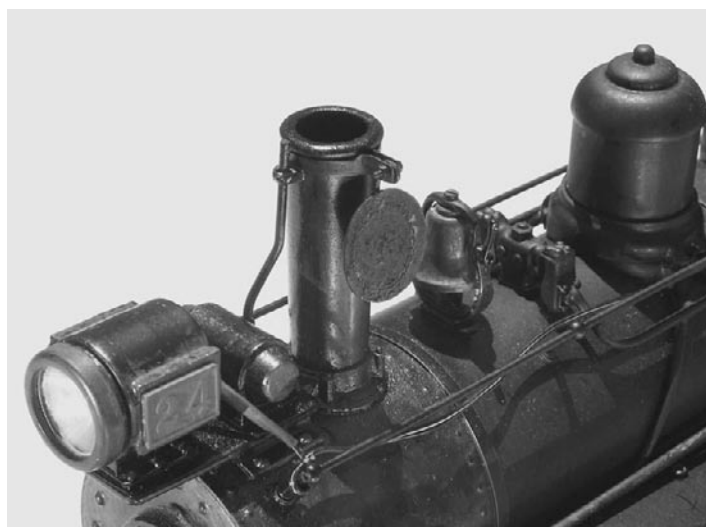
Next, I creased/folded about one-quarter inch with my fingers, overlapping the edges of each panel, to fit underneath the front, rear and side edges of the roof. When satisfied with the fit, I glued the left and right side panels to the roof. I used a clear, quick-setting two-part epoxy adhesive rated for gluing onto metal. I used wooden clothes pins (the kind with the metal spring) for clamps around the edges until the epoxy set. The clothes pins hold tight enough without leaving any marks or dents on the sandpaper.

The center portion went on next as it overlapped the left and right side panels. Last, I epoxied a small piece of sandpaper to the cab vent lid.

The actual sandpaper color was a dark gray. I sprayed my roof with a coat of light-gray auto primer paint to match the color of the one in the video. I then sprayed a coat of Krylon Clear Matte Finish to weatherproof it; after seven years it has held up well.

I made some other detail changes on the engine, such as adding a steam pipe coming out of the top of the steam dome, running forward, along the left side of the boiler, where it would be attached to a hose and pipe mounted on a flat car fitted for scalding weeds (as seen on the Central Rafael Freyre line).

Another detail was the stack cap found on many cane engines. The cap was made from .025 brass cut and shaped into a three-quarter-inch disk. A strip of .014 x 1/8-inch wide brass was used to fabricate the band-bracket around the smoke stack. I used a piece of 3/64-inch brass rod cut, bent and shaped to fabri-



**Sugar situation:** Above, No. 1262 just before heading out to the cane fields on the author's Wilmington, Calif. railroad. Below, the smokestack cap was made from .025-inch sheet brass.

cate the hinge and soldered it to the top of the disk.

A 00-90 x 3/16 size hex head screw and nut was used to secure the cap to the band. It also lets the cap actually work to close over the stack.

The headlight was made to operate from information I learned from live steamer Carl Weaver of Roanoke, Va., who lit his SR&RL No. 24 headlight and told me how to do mine. Carl even drew a schematic for me to follow.

I built the oil bunker out of .025 K&S brass, and added a Tracksides Details' oil/water round hatch, No. X37, to complete the oil bunker.





**Goes both ways:** *Trackside Details No. 196 pilot and Kadee No. 821 coupler; the prototype ran often in reverse.*

I added a TD No. 196 pilot to the rear of the tender, as many cane engines were fitted this way for safer running backwards through the fields. To do this I drilled and tapped four 0-80 x 1/4 hex head screws into the end beam and pilot then bolted the pilot on. A TD No. 101 ladder was epoxied to the rear of the tender rather than solder it on, so as to not ruin the paint.

A Kadee No. 821 coupler was used on the engine pilot. I used a No. 820 on the tender. I removed the un-coupling pins since I uncouple manually.

Woodland Scenics' "R.R. Gothic White" dry transfer lettering and striping was used for the graphics. I sprayed a coat of Krylon Clear Matte Finish over all for protection.

The side rods were painted red as seen on most of the cane locomotives after roster re-numbering and

re-naming of the sugar mills after the revolution. I used Floquil SP Daylight Red and a camel hair brush after first cleaning the rods thoroughly with alcohol. I also mildly weathered the boiler and smoke box with Scale Coat NYC Gray. I found any model railroad paint will apply well and stick to the original glossy factory paint, if you first spray over the factory paint with a light coat of a clear matte finish.

No. 1262 looks like it was recently repainted, but not too fresh. Most cane engines were lucky to get a fresh coat of paint at all in later years. Now No. 1262, ex-SR&RL No. 24, is a Cuban-style cane engine for my "Cinco de Agosto" garden railroad.

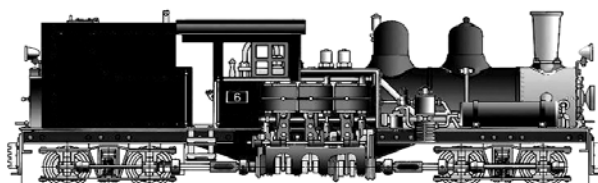
There really was a "Seis de Agosto" (Aug. 6) railroad, named to commemorate some important event of the revolution. However "Cinco de Agosto" (Aug. 5) just happens to be my birthday!

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## Reverse gear and the smaller **Bits**

By Dan Rowe

**A**s the penultimate article in this series about the Mapleton Tramway Shays from an engineer's view — a series that started with the big stuff — we will finish off with drawings and descriptions of the smaller bits, focusing on the reverse gear and assembly drawing. The rest of the drawings are more parts bolted to the boiler like the bell, smokestack, smokebox door and a few smaller items.

On both the Mapleton and the Dulong, the reverse lever is on the right side of the locomotive, which was standard practice for U.S. Shays, so the engineer could reach it. The only Shays I know of that had the reverse lever on the left-hand side were the four left-handed Shays that were delivered to Mexico for 23<sup>5</sup>/<sub>8</sub>-inches gauge, with shop numbers 757, 758, 826 & 827. Their trucks were very similar to the Dulong trucks only they had outside brakes. The steam engine for those left-handers was the old style 2-6x10 engine that had both cylinders and frames made as a single casting.

The reverse gear assembly is made up of several parts including the reverse lever, the quadrant and the universal ball coupling. These individual parts are shown in the drawings on the following pages. They used two drawings to show both lever arms of the reverse shaft. Card 8803 shows the reverse lever that the engineer works and Card 8308 shows the same shaft from the top and side to show the forked output arm.

I could not locate the correct reverse gear assembly drawing for the Mapleton and Dulong. The drawing that my notes call for is not made from the set of parts in this article, which have reference to Plan 1553. Therefore, I made my own two-foot gauge assembly drawing and used Card 9 — the assembly drawing for 2-7x12 engines — to draw the missing latch lever.

The universal ball coupling is the connection between the reverse lever and the tumbling shaft on the steam engine. The lengths of the reverse shaft changes with the gauge. On the drawing, I added the gauge to the locos listed on the reverse lever shaft Card 8308. The relationship between the tumbling

shaft and the reverse lever is also set by the gauge.

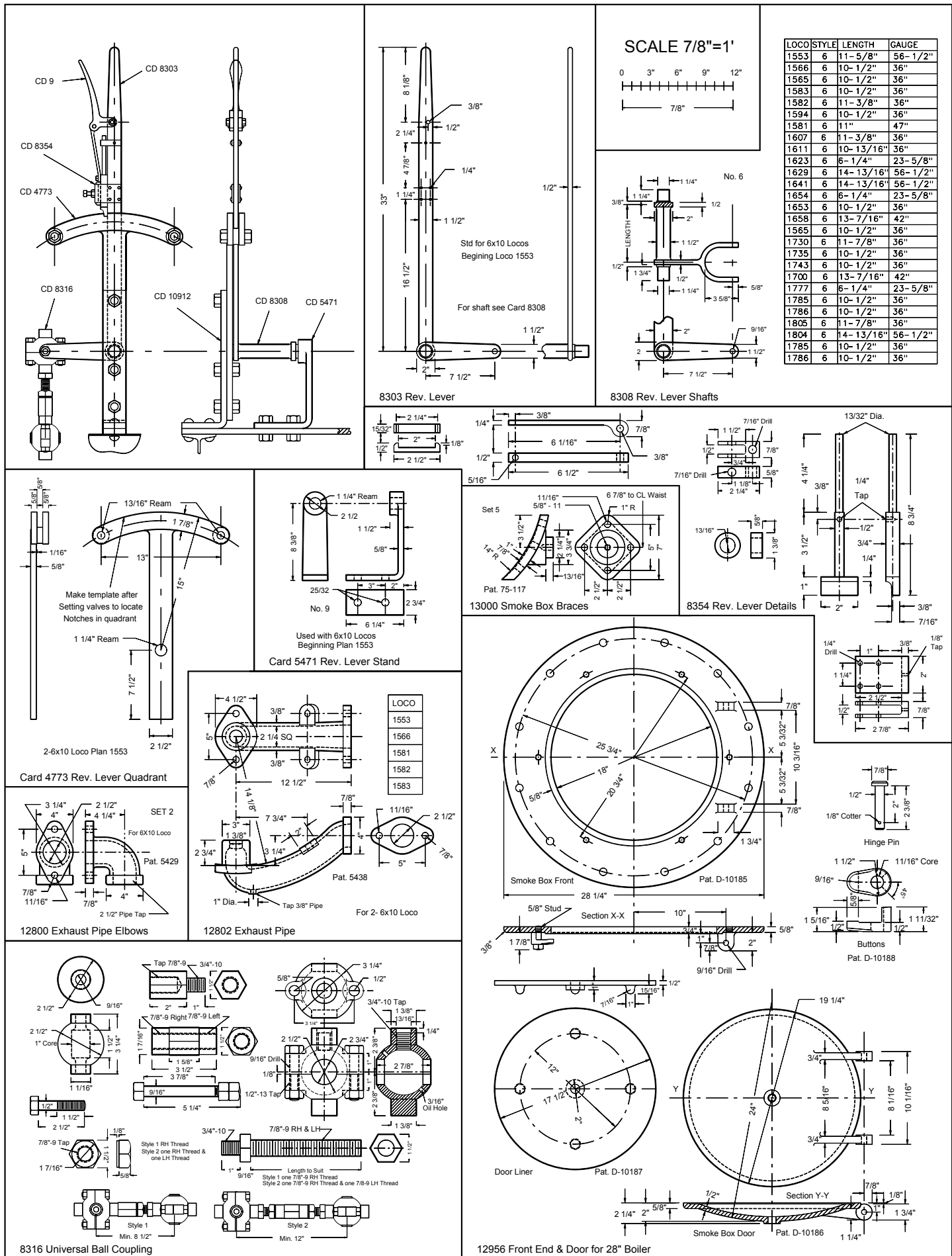
The supplemental end drawings in a recent issue (No. 113, September/October 2010), show the relationship between the reverse shaft and the tumbling shaft. The forked lever on the tumbling shaft and the forked end of the reverse lever are connected by the universal ball coupling. The supplemental end drawings always show the forked lever of the tumbling shaft is horizontal and the forked end of the reverse shaft is directly above so that the universal ball coupling linkage is vertical. The other arms of the tumbling shaft are nearly at the same angle as the cylinder center-line.

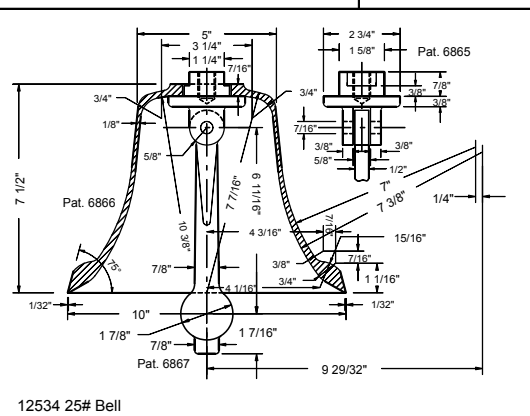
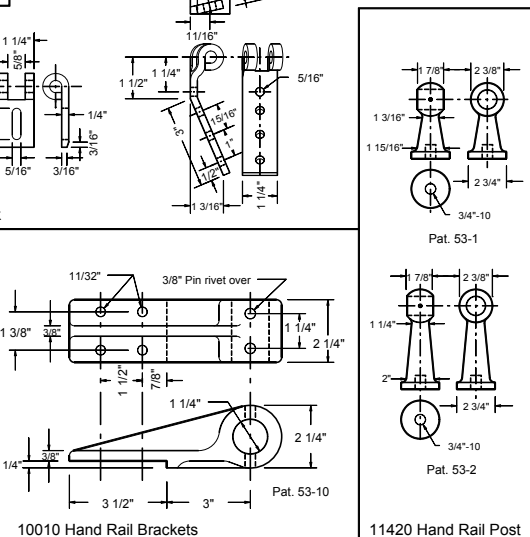
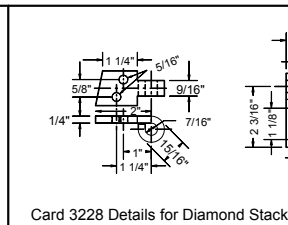
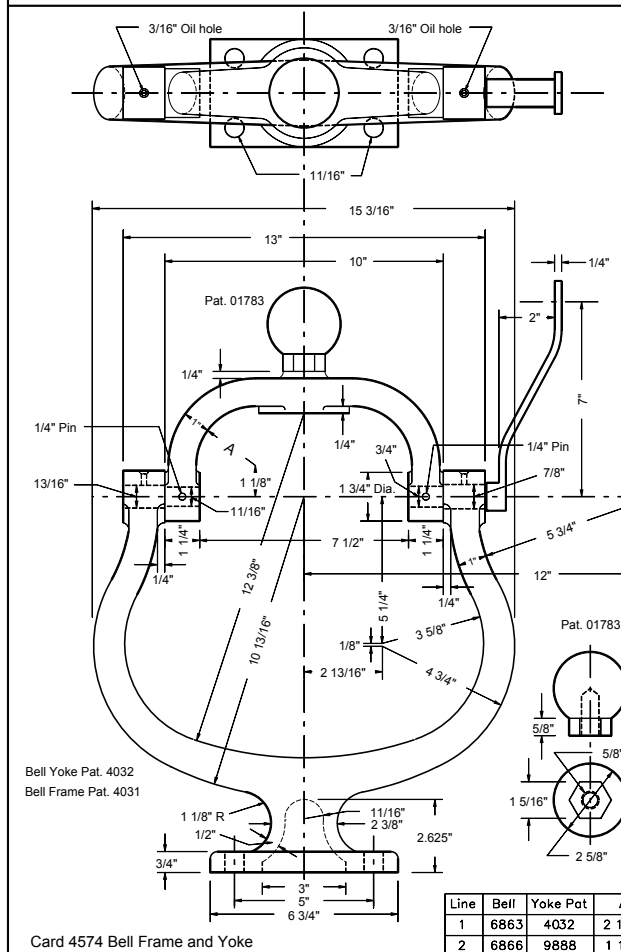
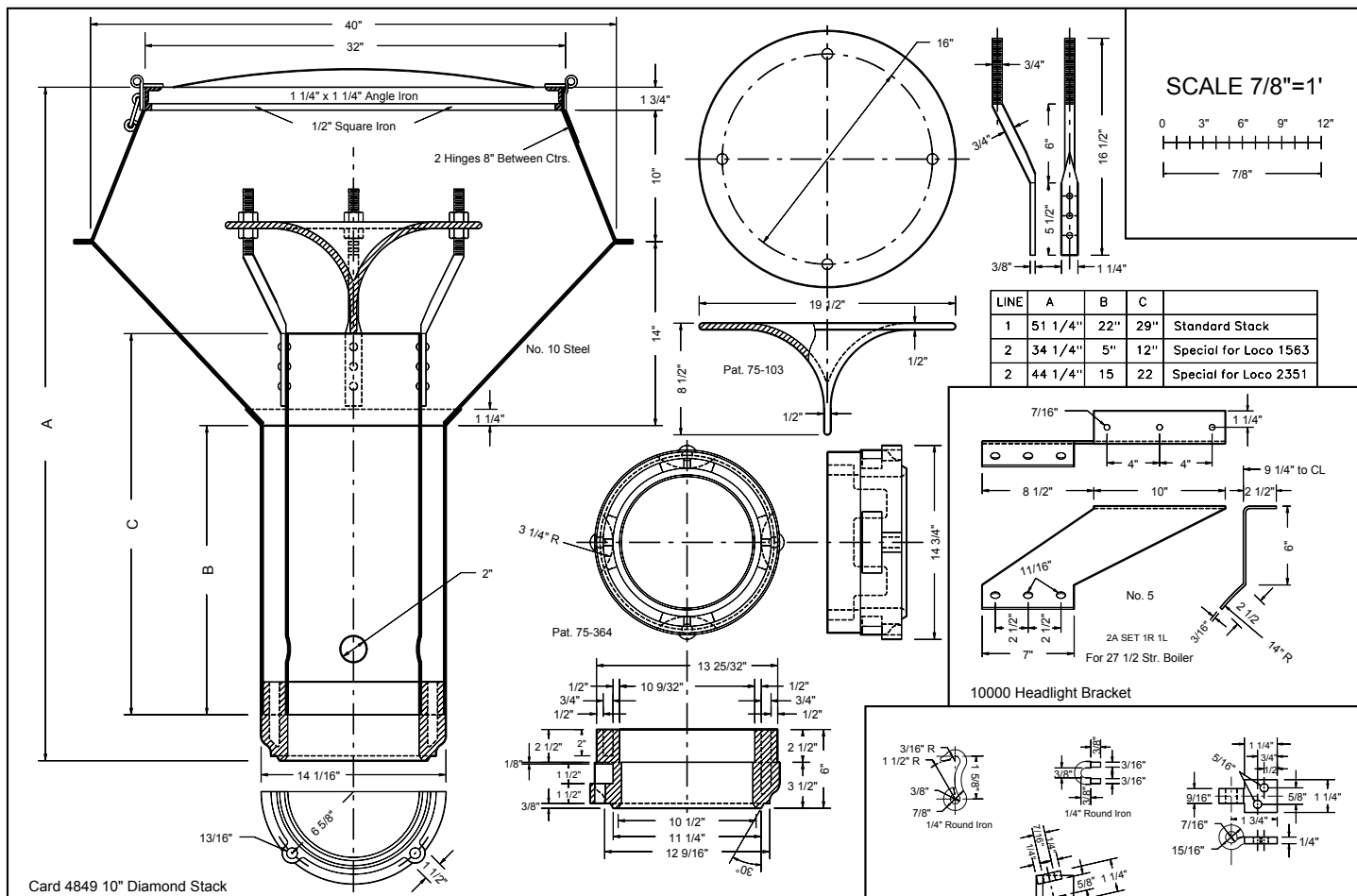
I think this was done so the reverse gear was all square in mid-gear. This made it simpler for assembly on the shop floor. A template was made for the quadrant bracket after the valves were set. The notches are specified on some of the quadrant brackets but not this one. I cannot say for sure about the locations of the notches for the valve gear settings except for the mid-gear notch which was the all square position.

The length of the reverse lever for Shop No. 1553 is not the normal length for standard gauge. A close examination of the photo shows that the crankcase bracket is not made from the same pattern as the later versions. This is odd because the pattern number and the drawing are the same. It was common practice at the Lima Locomotive Works to reissue pattern numbers and drawing numbers to redesigned versions of the same part. That might account for the difference in the reverse gear length.

I have now covered all the big pieces of the Mapleton Tramway Shays. The only stuff left is what I call the “crash bits” — or the parts that will break off when you drop the model. The next article will complete the series with the sand boxes and other miscellaneous details. I will not be including the throttle valve or the brake valve as they are complex drawings and not many folks will build a scale version. The card numbers for those are “12134 two-inch Throttle Valve” and “13504 Steam Brake Valve No. 1,” for anyone going the extra mile.









## A safety valve that goes

# 'Pop'

By Jeff Young

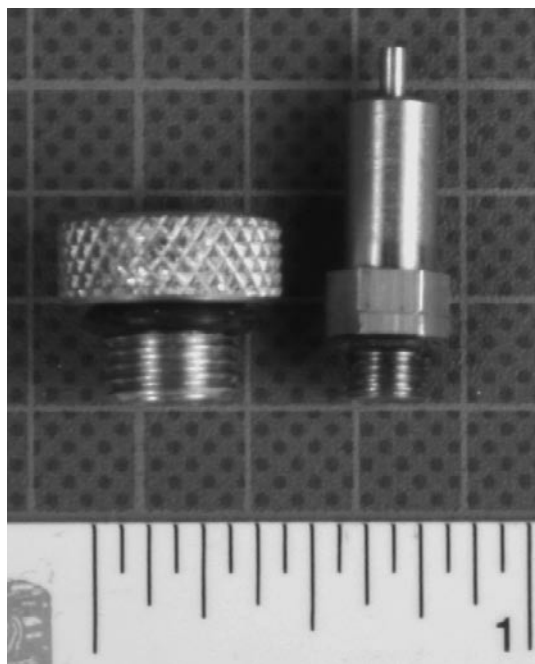
**S**afety valves are one of the important parts on a small-scale live steam locomotive. Although they keep the boiler at a safe pressure, unfortunately many safety valves supplied with commercial locomotives today tend to be over scale in appearance and weep over a wide pressure range.

A proper "pop" safety valve will lift quite smartly, relieve the boiler pressure and then close succinctly, over a very narrow pressure range. In doing so, less steam is wasted and the pressure is kept at a more precise level.

Wee Bee Loco of Indianapolis has introduced a line of pop valves of near-scale size appearance for our model locomotives. These valves are available preset for 40- and 60-pounds-per-square-inch. The valves are roughly 13/16-inch long and 3/16-inch in diameter and are supplied with either 1/4-inch x 40 or 0.5mm x 5mm threads.

Knurled adapters are available threaded 0.5mm x 5mm on the inside and either Accucraft (1mm x 10mm) or Roundhouse (5/16-inch x 32) threads. Prices are listed at the time of this writing as \$35 for the valves and \$10 for the adapters.

I recently replaced the safety valves on two Accucraft Ruby locomotives with Wee Bee Loco 40-psi pop valves. One Ruby had the original Accucraft safety valve and the other had another after-market



**Adapter, valve:** *Wee Bee's components.*

safety valve. In both cases, the valve preformed very well. It opened and closed quickly to relieve the pressure without covering the locomotive with condensate or weeping, performing just as pop valves do on full size locomotives.

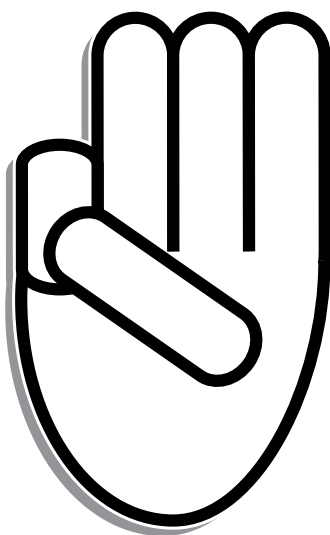
Noticeably longer runs resulted as less steam was wasted each time the safety lifted. Of special note is that one of the Ruby locomotives has a modified steam dome, which the stock adapter would not fit. Upon enquiry, Wee Bee Loco was able to supply a new adapter to fit.

I also added 40-psi Wee Bee Loco pop valves to a Roundhouse "Lady Anne" and a "Katie" with similar positive

results. For certain Roundhouse locomotives that have domes sized to cover the original safety valve (like "Katie"), they can supply a collar which fits over the pop valve and keeps the dome in place.

In summary, I am quite happy with the Wee Bee Loco pop valves and would recommend them highly. They do not have a web site, but an illustrative price list can be obtained from the address below:

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## THE STEAM SCENE



### Backyard steam:

*Clockwise from upper left, a 7/8ths Decauville built by Harvey Watkins on Carl Malone's San Angelo, Texas, layout; Plumes Above Piedmont steamup last spring at Bruce Gathman's home in Easley, S.C.; another Gathman view; Simon Duhamel's Aster Chapelon's NORD 231 E 22 in Valmondois, France, and Paul Dibben's Roundhouse Russell on Rob Lenicheck's layout in Palo Alto, Calif.*





## THE CUPOLA VIEW

### Introducing the live-steam hobby

**D**on't know Steve Baker; didn't suggest to him to present an agenda. Nonetheless, when his review of the International Small Scale Steamup appeared in my email in January ("A biased view of 2011's 18th Annual International Small Scale Steamup," January/February 2001), I was heartened by a question he posed in the text:

"What will you do this year to introduce someone to the live-steam hobby?"

This is a question I think everyone in this hobby needs to ask themselves, if not on a daily basis, at least each time you take out a loco and run it on a track.

We are a small, insular group that needs to get bigger — as quickly as possible. The eco-system of hobbyists, locomotive-makers, dealers and parts-makers (and, yes, magazine publishers) needs to

*Cupola View is written by Dave Cole; you can contact him at [sitg@45mm.com](mailto:sitg@45mm.com) or P.O. Box 719, Pacifica, Calif. 94044-0719.*

get more commerce if it is to survive. And that commerce is going to come about through more hobbyists rather than from increased spending by the existing hobbyist community.

Totally unrelated to my thoughts on expanding the hobby, the Bay Area Garden Railway Society (BAGRS) nonetheless took up that challenge last month.

This San Francisco-area club has been in existence since 1988 and has had a live-steam contingent almost from the start. Center to that contingent has been a portable track that was originally built for a hobby shop in the area, which the shop eventually sold to

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the club. Officials estimate that the club has almost 60 members in the live-steam special interest group, just less than a quarter of its total membership.

The BAGRS annual meeting was held Feb. 26 at the Hiller Aviation Museum, which is just off Highway 101 in San Carlos, Calif. The museum has a 40-foot high electronic message sign outside that displays its upcoming events for the tens of thousands of drivers who use that main artery daily between San Francisco and San Jose. Apparently all the previous week the sign flashed the message, "Garden Railroads Saturday."

Richard Murray is the BAGRS live-steam coordinator and directly negotiated with the museum's management to get the live-steam track placed inside the museum's main display area for the event; it had been forecast to be cold (from a Bay Area perspective) and perhaps even snow and neither the club nor the museum wanted a cancellation because of weather. So Murray provided the museum with dimensions for the portable track and workers there cleared a space by moving around some fighter planes and such.

Thus, the steam oval was literally in the middle of the museum's exhibits — there was an ancient helicopter to the right, a retired military jet to the left and a big hunk of a prototype Boeing SST fuselage was along one end. To go anywhere in the museum, you had to walk by the track.

If you arrived at the BAGRS steam oval at 11 a.m., you would have found pretty much the entire 20-foot by 40-foot track was surrounded by civilians — mostly youngish moms and dads with really small kids.

While the crowd waxed and waned, it was pretty steady until 3 o'clock, with dozens and dozens of people standing one- or two-deep around the track. Museum docents unofficially said the crowd was six times larger than a normal Saturday crowd and BAGRS members not only ran trains, but answered the normal civilian questions ("Butane, alcohol and some people actually use coal." "Some are kits, some are scratch built, but most buy them ready-to-run." "Anywhere from \$500 to \$5000." "Yes, it's real steam.").

The rough estimate is that there were around 600 people at the museum that day; it isn't clear whether that was 100 BAGRS and 500 civilians, or just 600 civilians.

Probably the most interested child seemed to be a seven- or eight-year-old girl, who while she was shy and soft-spoken, asked the best questions (sometimes she whispered the question to her mom's ear and then mom gave volume to the query).

BAGRS members Peter Lenicheck and his dad double-headed their Accucraft C-16s and later Rob ran his scratch-built RGS. Steve Heselton ran his C-17 coal conversion. Joel Taylor ran some Asters.

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Two BAGRS ran fresh-out-of-the-box Accucrafts: Dwight Ennis the Mason Bogie and Gary Whaley the Climax. Bill Allen ran the Garratt detailed in this very issue.

Murray ran his German single-cylinder "micro" locomotive with a one-quarter-inch piston. It didn't move fast, but it did move.

The BAGRS folks introduced hundreds of people to the hobby last February; what did you do?

A quick update on the activities of Steam in the Garden LLC: we continue to get our sea legs in the field of magazine publishing, learning about arcane issues like postal regulations and accounting procedures.

Obviously, you hold in your hands our second issue of the print magazine, which gets us back on schedule to deliver copies to your mailbox the first of every even-numbered month.

We continue to work on the web site (albeit out of public view) and hope to have a wide swath of new webified features available shortly.

And we launch our new "Take the pledge," campaign, which exhorts readers to become subscribers, subscribers to renew and to give the magazine as gifts



**Kids, big and small:** *Throngs of children and parents watch Steve Heselton coal-fire his Accucraft K-27 at the BAGRS event Feb. 26 at the Hiller Aviation Museum in San Carlos, Calif. Photo by Michael Martin.*

to their friends, tell advertisers they saw their ads in *Steam in the Garden* and to visit the web site ([www.steamup.net](http://www.steamup.net)).

That next-to-last request bears repeating: As we have ventured out into the hobby's commercial community, we frequently hear that ads in *Steam in the Garden*

don't work, because buyers rarely (if ever) say they saw an ad. While we can tell those in commerce that readers merely forget to say an ad drove them to make a purchase, it would help our cause greatly if you volunteered the information.

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## TIMETABLE

**April 28-May 1, 2011** — Staver Locomotive Spring Steamup, Portland, Ore. More info: (503) 222-3223 or visit <http://www.staverlocomotive.com/>.

**June 18, 2011** — The second Annual Father's Day Weekend, Cape Cod Steam Up. Doug Hill's Satucket Creek & Millshire Railway is a semi-elevated garden pike of 300 feet of double mainline with one eight-foot curve, the rest are 10-foot plus. Two steamup bays with schedule/sign-up board. Lunch and child-safe beverages will be provided. RSVP or more info: Kent Killam, [capecodsteam@yahoo.com](mailto:capecodsteam@yahoo.com).

**June 24-30, 2011** — Great International steam boat meet, Little Falls, N.Y., on the Erie Canal travel to Waterford, N.Y. More info: Dave Conroy, [libertyboat@huno.com](mailto:libertyboat@huno.com) or Carl Kriegeskotte, [carlk@hotmail.com](mailto:carlk@hotmail.com).

**July 10-11, 2011** — West Coast Regional Meet Steamups, S.F. Bay Area. In conjunction with the NMRA 2011 West Convention and the National Summer Steamup, the Bay Area Garden Railroad Society (BAGRS) will be hosting steamups in members' backyards on the Monday and Tuesday after NMRA and before the NSS. More info: Richard Murray, [steamer060@sbcglobal.net](mailto:steamer060@sbcglobal.net).

**July 13-17, 2011** — National Summer Steamup, McClellan, Calif. Featuring 45mm and 32mm tracks, a Saturday night BBQ dinner, clinics and workshops, exhibitor displays and swap tables. The Lions Gate Hotel, in suburban Sacramento, has a low room rental rate of \$91 per night; call (866) 866-7100 for reservations. More info: [\[steamup.com/\]\(http://steamup.com/\), \[steamup@steamevents.com\]\(mailto:steamup@steamevents.com\) or call \(650\) 557-2993.](http://www.summer-</a></p></div><div data-bbox=)

**Sept. 3-6, 2011** — Narrow Gauge Convention Pre-steamup, Easley, S.C. Bruce Gathman will be hosting a "narrow-gauge live steam only" steamup 9 a.m. to dusk daily. Steaming supplies and narrow gauge cars will be available to steamers flying to the event and you can also ship your locomotive to his house. RSVP is appreciated; (864) 850-3642 or [shaygearhead@bellsouth.net](mailto:shaygearhead@bellsouth.net).

**Sept. 7-10, 2011** — 31st National Narrow Gauge Convention, Hickory, N.C. More info: <http://www.tarheelpress.com/ngc/>.

**September 22-25, 2011** — Staver Locomotive Fall Steamup, Portland, Ore. More info: (503) 222-3223 or visit <http://www.staverlocomotive.com/>.

### Regularly scheduled events

**Greater Baton Rouge Model Railroad Club Open House and Gauge One Steamup.** More info: Ted Powell, (225) 236-2718 (cell), (225) 654-3615 (home), [powell876@hotmail.com](mailto:powell876@hotmail.com).

**Michigan Small Scale Live Steamers (MSSLs)** hosts a large number of steamups. More info: <http://www.mssl.info/>.

**Pacific Coast Live Steamers.** Irregularly scheduled backyard steamups, mostly in Northern California. More info: <http://www.p-c-l-s.org/>.

**Puget Sound Garden Railway Society.** Two steamups per month, one at the Georgetown Powerplant in Seattle on the second Saturday and a steamup at a member's track on the fourth Saturday. More info: <http://psgrs.org/livesteamtimetable.html>.

**Southern California Steamers:** Contact Sonny Wizleman for dates, places and other pertinent information. (310) 558-4872. [sonnywo4@ca.rr.com](mailto:sonnywo4@ca.rr.com).

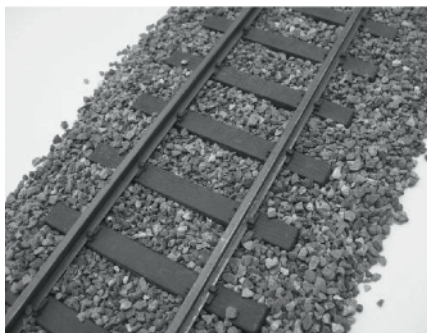
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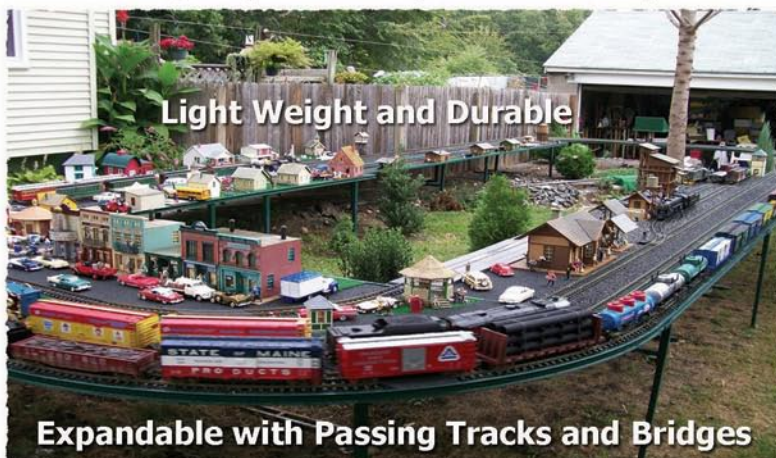
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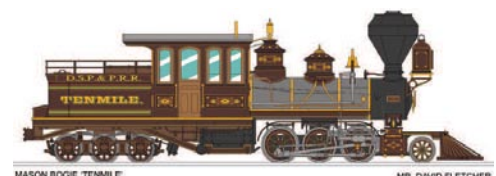
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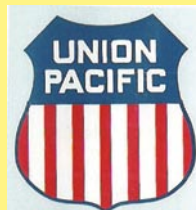
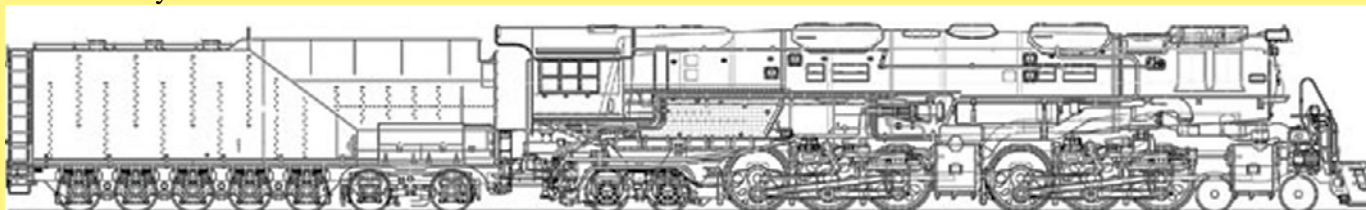


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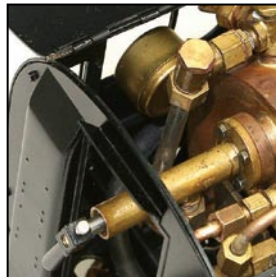




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