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Australia NSWGR C38

A 1:32-scale, butane-fired 12-wheeler



The Australia New South Wales Government Railways C38 was designed in 1938 to haul express trains and to eliminate the need for double-heading. Built between 1943 and 1943, C38s were the only locomotive in the NSWGR to use the Pacific 4-6-2 wheel arrangement. The model will be streamlined in green livery, have a ceramic burner, axle pump, see-through fire box door, bypass valve, tender pump, water gauge, whistle and reversing lever. Gauge One (45mm), 1:32-scale, butane fired.











Ceramic burner patent

granted a patent in China for a ceramic burner. The letter from the State Intelluctual Property

Wuhu Bowande has been Office of the People's Republic of China is shown to the left, while the supporting drawings are on the right.



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The Class 64 was developed from 1926 onward and was built between 1928 and 1940. Many German manufacturers contributed to the series. In 1968 there were still 60

engines in services with the Bundesbahn. Twenty Class 64 locomotives have been preserved, the majority in Gerrmany.

The model will be 1:32 scale, Gauge One

(45mm), butane fired with a ceramic burner, bypass valve, Walschaerts valve gear, hand pump, axle pump, working whistle. Limited to 50 sets worldwide.



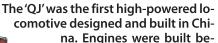
GERMAN BR41 — TWO VERSIONS

Big deflector (left) or small deflector (right). 2-8-2 locomotive, 1:32-scale, Gauge 1 (45mm), butane fired, ceramic burner. With R/C or R/C-ready. Walschaert valve gear; fuly sprung axles, sprung buffers. 29½-inches long, 5½-inches tall, 3¾-inches wide (750mm x 142mm x 97mm). British pressure gauge, water gauge, orking whistle.



China's 'Big Boy' — steam model 'QianJin'

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tween 1956 and 1988, with the last locomotive running in China in 2005. Five of the 2-10-2 engines were sold to U.S. railroads and three are still used

in excursions today. The 1:32-scale model will come in both gas-

fired and coal-fired versions and the butane locomotive uses a ceramic burner. The boiler holds 22 oz. (650ml) of water and the engine runs 70 minutes. Available numbers include 6800, 6988, 7040, 7081, 7143 and 7207. Comes with a working whistle and headlight.

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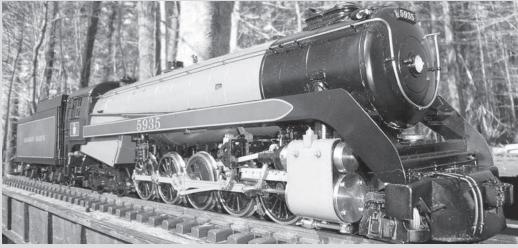


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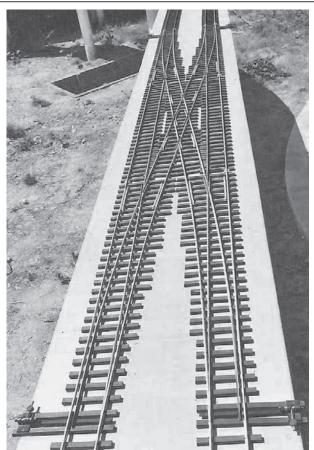


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Canadian Pacific 2-10-4, Selkirk #5935



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Vol. 25, No. 6; Issue No. 142; November/December 2015

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

Latest waybill. 1:32-scale U.K. "Victory." 1:20.3-scale 8-driver Saxon. In memoriam: Andre Anderson. Triple R revives out-of-

stock parts. Steam comes to garden railway convention.



Wuhu G5. Locomotive review - 1:32scale, 4-6-0 engine has reasonable size, reasonable price. By Ernie Noa.



Topaz. Alchemy - building an Accucraft "Ruby" kit and making it a gem. By Michael Ragg.



Tram. Learn to model in tinplate and make a smallscale "steam dummy" out of Accucraft's "Dora." Part

2 of three. By Marc Horovitz.







WWI car. Creating a 7/8thsscale Fort Benning observation car. By Dave Frediani.



Cover: Hobbyists at the 2015 National Summer Steamup gather around the stationary engine display. By Carla Brand Breitner.

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STEAM₩eGARDEN November/December 2015

LATEST WAYBILL

A U.K. 0-6-0 tank in 1:32 scale

err Stuart & Co. Ltd.'s standard-gauge "shunter" — switch engine — named "Victory" will be the next live-steam model for Accucraft UK, the company said in late July.

"Given the demand for our 61XX we were certain that what was needed was a 'starter' locomotive for new live-steam entrants to the scale," the company wrote in a post on its web site. "The challenge was finding a prototype that had a long lifespan, good geographical coverage in the [United Kingdom] and that offered characteristics that would result in a robust, simple to operate model. Enter the 'Victory."

The 1:32-scale, 0-6-oT locomotive will be 45mm gauge, 12-inches long, $3^{1/2}$ -inches wide and $4^{3/4}$ -inches tall (305mm by 87mm by 120mm) and will support a 48-inch minimum radius (125cm). The finished model will weigh in at $6^{1/2}$ pounds (2.95kg).

The butane-fired engine will have a working pressure of 60psi in a center-flue boiler. The simulated Stephenson's link valve gear will include a piston-



'Victory': Accucraft UK plans a 1:32-scale 'shunter' (switch engine) as its next offering.

type reverser with the lever in the cab. Also in the cab will be a steam regulator, gas regulator, lubricator and drain valve.

The model's coal bunker can be lifted out, providing a space for radio control. The locomotive will be offered in two models: black with twin safety valves, or in "Swindon" Great Western Railway green livery with a safety-valve "bonnet."

Accurraft UK is suggesting a price of £1050 (\$US1593) for "Victory"; the company is on the Web at http://www.accucraft.uk.com or by phone at 011-44-1981-241380.



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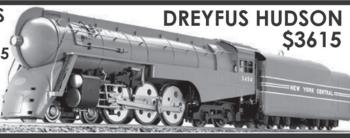


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750mm model: *MBV Schug to build a 1:20.3-scale Saxon locomotive.*

Schug's 8-driver Saxon

odeled after a type of Günther-Meyer German steam locomotive used up until the mid-1990s, MBV Schug said in July its next engine would be the Saxon IV K, a narrow-gauge engine with eight drivers.

The IV K was designed for the Royal Saxon State Railways' 750mm narrow gauge (29½ inches). The unique 0-4-4-0 configuration placed the cylinders back-to-back on each side in the middle of the engine for better adhesion than the predecessor 0-4-0 and 0-6-0 locomotives.

The initial Saxon IV Ks were designed in the 1890s, and 96 were built through 1921 by Sächsis-

che Maschinenfabrik in Chemnitz, Saxony, Germany, to provide both freight and passenger service. After World War II, 20 of the 57 surviving locomotives were updated with new boilers (and sometimes new frames). These were used by Deutsche Railways through until almost the end of the century, according to the 2003 article, "104 Years on the Road," in the German *Lok-Magazin*.

More than 20 of the Saxon IV K

locomotives have been preserved by European railroad museums and preservation groups.

Schug's model will be butane fired, 1:20.3 scale, 45mm gauge, in a limited edition of 70 locomotives. Each engine will be 17%-inches long, 4%-inches wide and 6%-inches tall (454mm by 104mm by 156mm) and weigh almost 13 pounds. They are designed to navigate a 49%-inch minimum radius curve (124.3cm — LGB R3).

Models will include a safety valve, pressure gauge, water-level indicator and drain cocks on the cylinders. The engine will come in two liveries — the Saxon IV K in green and the Reichsbahn VI K No. 99 589 in black.

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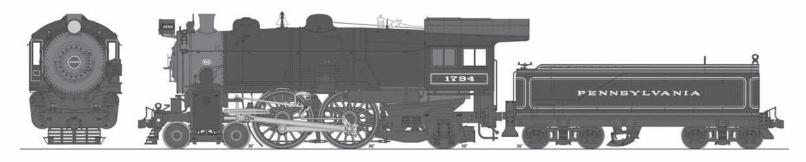
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Steamer Andy:

Anderson at Staver Locomotive in 2014. Photo by Harlan Chinn. MBV Schug, on the Web at http://www.accucraft.de/ and by phone at 011-49-6507-802326, says deposits are required on the pre-order price of €4190 (\$US4671) and that after Dec. 31, 2015, the price will be €4190 (\$US5005).

In memoriam: Andre Anderson

man whose hobbies were so numerous

he needed to work at a hobby shop, Andre "Andy" Anderson of Portland, Ore., loved trains so much he worked for a tourist railroad and played with small-scale live steam engines.

Anderson died in his sleep July 30 at age 56 from a heart attack; he is survived by his wife of 29 years, Barbara, and two sisters.

The owner/operator of a semi-truck for 15 years with no accidents, Anderson also worked at Tammies Hobbies in Beaverton, Ore. "He could get you what you wanted at a good price," said his friend,

live steamer Ron Bacon. Additionally, Anderson worked for the tourist railway, the Connecticut Valley Railroad of Essex, Conn., was the operator of a hot-air balloon and piloted radio-controlled model airplanes.

Anderson was an active member of the Rose City Garden Railway Society in Portland and was in charge of setting up and breaking down the group's modular display for public showings, such as the Expo Train shows. Anderson also helped out at Staver Locomotive in Portland and was always a participant in the twice-yearly steamups.

"Andy loved to tell his stories of his truck-driving adventures and working for the railroad," said Ron. "He was liked by all that knew him. We have lost such a good friend of our hobby and he will be missed by everyone who knew him."

Out-of-stock parts revived

Services LLC of Mount Holly, N.J., said in July it is now making Aster locomotive replacement parts for those that are no longer stocked.

The lost-wax castings are made with high-quality jewelry grade bronze and are based on the original parts. Currently available are parts for the Aster Pennsylvania Railroad K4 — the marker light top

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STEAM:#GARDEN November/December 2015



Lost wax: Castings by Triple R Services of an Aster PRR K4 Marker light (original on right in black).

and base, the pilot, the headlight base, the tendertruck sides and the water-overflow drains.

Soon to be available, Triple R said, will be the parts for the Aster GS-4 and NYC Hudson, as well the Aster Mikado.

"If you have an original part we can produce castings from it," said Triple R. "Our shrinkage on final products averages less than one percent and most castings are exactly the same as the original dimensions.'

Triple R is owned and operated by the father-son team of Charles and Ryan Bednarik. In addition to detail parts, Triple R provides kit-assembly services, an aluminum portable live-steam layout frame and locomotive repairs. The company is on the Web at http://www.realsteamservices.com/ and by phone at (609) 320-1866.

Steam comes to garden railway convention

rext year's national garden railway convention will emphasize small-scale live steam, organizers said late last summer.

The 2016 event — the 32nd annual — will be held in Santa Clara, Calif., and is sponsored by the Bay Area Garden Railway Society. The group, which sponsored or co-sponsored the garden rail conventions in 1989, 1993, 1998 and 2006, includes an active contingent that sets up a portable live-steam layout as many as 10 times a year.

In addition to layout tours that will highlight backyard live steam such as Jack Verducci's redesigned operational layout in San Mateo and Richard and Melinda Murray's layout in Millbrae (cover of the September 2015 Garden Railways magazine),







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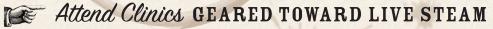


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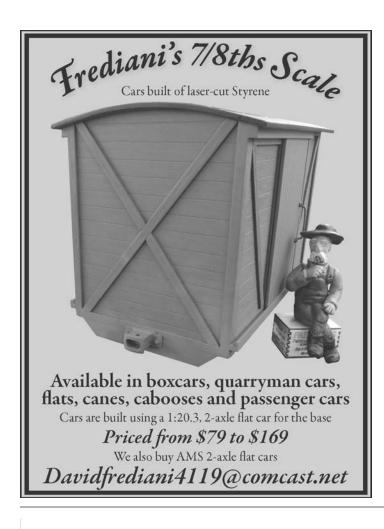
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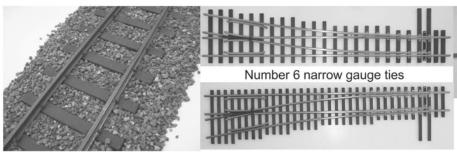
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event organizers say they will have a separate group of clinics that focus exclusively on live steam. Clinics are being organized by Rob Lenicheck, a live steamer from Palo Alto and frequent contributor to *Steam in the Garden*.

The convention will also include a visit to the offices and museum of live-steam maker Accucraft Trains in Union City, and a steam-train excursion ride on the Roaring Camp narrow-gauge railroad in Santa Cruz County.

Because the event runs July 4-10 and optionally

includes self-guided tours of layouts of the Sacramento Valley Garden Railway Society on July 11-13, there's a seamless transition to the 2016 National Summer Steamup in Sacramento, which runs July 13-17. Organizers point out that visiting the convention and steamup can be combined, making a West Coast trip more appealing.

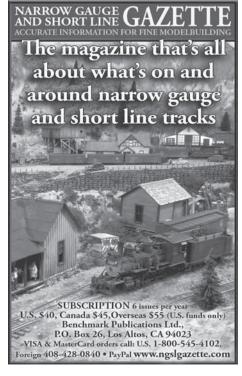
For more information about BAGRS, visit http://www.bagrs.org and for more information about the 32nd Annual National Garden Railroad Convention, visit http://ngrc2016.org/.













STEAM-#aGARDEN November/December 2015

1:32-scale 4-6-0 engine: reasonable size, reasonable price

Wuhu G5

Text and photos by Ernie Noa

Jones" 10-wheeler, with the Pennsylvania Railroad G5 Wuhu Brand Arts & Crafts Co. Ltd. has come out with another live steamer that can be run on almost any track and look good pulling either freight or passenger rolling stock.

I did not buy this engine because I had scratch built one about five years ago. The engine reviewed here is owned by my friend, Lou Metz of New Jersey. (Bob Clark, the U.S. importer of this fine engine and owner of Stoke 'M and Smoke 'M of Mount Airy, Md., suggested I write a review because of my familiarity with the prototype.)

I had recommended the model as a retirement gift to Lou's family

as I was impressed with the running of other Wuhu Bowande engines and thought it would make a wonderful gift. As a kid I remember these engines pulling commuter cars on the Long Island Railroad, and these were the basis for this model. Lou got Long Island Railroad No. 28 (the PRR G5 models offered are numbered 5741 or 5748).



Keystone: Wuhu Bowande's LIRR G5 has iconic Pennsy logo plate.

Specifications

According to the manufacturing specifications there are three versions of the Wuhu Bowande engine, the PRR G5 as delivered paint scheme, the Pennsylvania post war, and the Long Island Railroad G5.

The 1:32-scale, 45mm gauge locomotive is supposed to negotiate a 78³/4-inch radius (two meters) as specified. I was surprised to find out that it actually ran well on a tighter, five-foot radius.

If there is a weakness of the product, it may be in the packaging. Although it is heavily protected for overseas shipment, there was still some damage to the engine we received. I could offer no solutions as to a better way to ship delicate models. But Bob tells

me he is addressing this with better options from Wuhu Bowande. There are still some minor items that will need to be done on Lou's engine. Most are cosmetic; the most serious was a broken tab that holds the swing roof on the cab.

The drivers measured 2.13 inches and the pilot wheels measured .911 inches. At 1/32 scale, this con-



No. 28: Long Island Railroad version of the Wuhu Bowande 1:32-scale Pennsylvania Railroad G5.

verts the drivers to a size of 68 inches. The model is an accurate depiction of the real engine. Starting at the front, the air tank conceals the oil reservoir, the front number board is the correct keystone shape and the front pilot truck is fully equalized.

Front cylinder covers are of stainless steel and un-painted, while marker lights are present on the front buffer and on the smoke box. The head light

has glazing but does not operate, and there is also an operating coupler at the front. The smoke box door can be opened to reveal the boiler tubes and the super heater.

The drivers are nicely cast showing the spoke profile and the rims are painted black. The drivers are also sprung and have been made with lateral movement for negotiating sharp curves.

All the boiler detail is present, from the steam generator and brass bell to the steam and sand domes. Even the detail of the electrical conduit is nicely executed. The air pump is on the fireman's side and the power reverser is on the engineer's side. The reversing linkage is not

painted. The side rods are also nicely detailed. Turning the engine over allows a view of the axle pump and the axle pump eccentric.

The cab roof is hinged to gain access to the back head, and opens to the side. At the back is a sight glass, pressure gauge and a whistle valve. Right in the middle is the regulator. At the bottom of the cab on the fireman's side is the bypass valve.

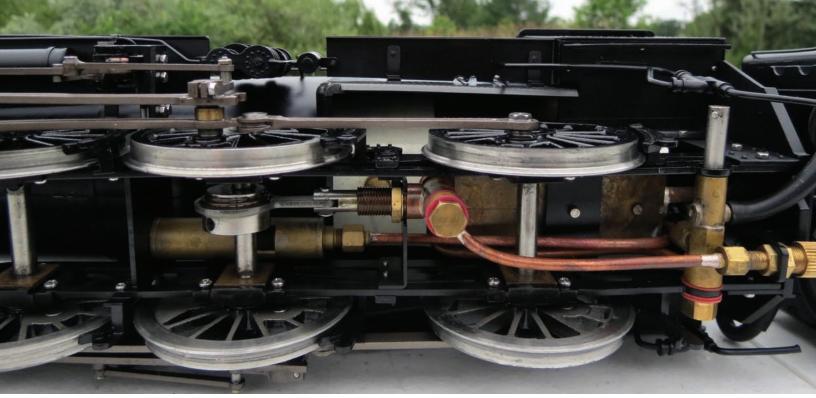
The pressure gauge is visible through the fireman's window. On the engineer's side there is a reversing lever. Since the model is using Walschaert valve gear, it should be possible to "notch" it up.

Moving to the tender, there is no lacking for detail here. A nice coal load is provided to hide the gas valve and the hand pump. Three rubber hoses port water and gas to the engine. One hose comes from the hand pump to fill and supply water to the engine when it is not moving. The next hose in the middle is the gas line connecting to the gas jet, which fits in a hole in the engine leading to the burner. This

Wuhu Bowande G5

- Loco prototype: Pennsylvania Railroad, Altoona Shops, 4-6-0 freight, passenger, commuter engine. Cylinders: 24-inches by 28-inches. Drivers: 68 inches. Boiler pressure: 205psi. Engine weight: 233,700 pounds. Tractive effort: 41,328. Walschaert valve gear.
- Scale: 1:32, 45mm gauge.
- Length: 27³/4 inches (702mm).
- Width: 41/8 inches (106mm).
- **Height:** 5³/₄ inches (147mm).
- Boiler: Ceramic burner; 60psi.
- Fuel: Butane.
- Min. radius: 783/4 inches (2 meters).
- Water pumps: Axle pump with bypass valve; tender water pump.
- Cylinders: Two piston.
- Valve gear: Walschaert.
- **Fittings:** Throttle, water-level gauge, pressure gauge (U.K. imported), adjustable safety valves, sprung axles, working whistle.
- Available models: Pennsylvania Railroad Nos. 5741, 5748; Long Island Railroad No. 28.

• MSRP: \$2995.



Under carriage: *Brass and stainless, with whistle (center) and unique tender gas connector (right).*



Back head: Controls as well as window to fire box.

connection was a little loose, so we added just one layer of Teflon tape to make it fit tight. The last hose is for the water return from the axle pump via the bypass valve.

The water compartment of the tender is water tight. The tender pump picks up water to feed the engine. The water in the tender is also useful for equalizing the pressure in the fuel tank. At the back

A slightly different version of this article was scheduled to appear in the Gauge One Model Railway Association's Newsletter & Journal 247 Fall 2015.



Tender trucks: Solid construction on underside.

of the tender is the water hatch. It conceals the fuel filler. The back of the tender has a set of marker lights and nice detail with an operating coupler. The tender trucks are also equalized. A unique connector attaches the tender to the engine, one of the best I have seen (shown in the top photo on this page).

The lettering is clear and crisp. Rivet detail is crisp and visible but not overwhelming. The overall shape and proportions are just like the original.

The run

I do believe that the Wuhu Bowande ceramic burner is the way gas Gauge One engines should go. It is quiet, efficient and powerful. It creates a coal burning type of heat with a glow just like coal. My favorite type of fuel has been alcohol as I like the way it runs and I like the operation, but this burner will make me a convert to gas.

We wrapped Teflon tape around the gas jet - it is

1920s power engine

y the early 1920s, the Pennsylvania Railroad needed a more powerful engine for its commuter trains with their many stations and tight schedules. The G5 4-6-0 was developed to handle heavier trains — both passenger and freight - than the typical 4-4-0 of the time. Fifty G5s were built between 1923 and 1925 at the Altoona shops, numbered 5700-5749 for the Pennsylvania. Another batch of 31 was built for the Pennsylvania subsidiary, the Long Island Railroad, which were numbered 20-50. These engines were used until the end of steam in the mid 1950s.

According to Ron Ziel in "Long Island Heritage The G5 1924-1955" (Railroad Heritage Press, 1979), No. 28 was built by the PRR in January 1925 with builder number 3975. The historical photo in his book provides a good side view of the engine, but sporting the larger tender that was more commonly used with Pennsy K4s 4-6-2 Pacifics. It was retired in July 1955.

No. 5741 was leased to the



Preserved: Pennsy No. 5741 — long leased to the Long Island Railroad — at a Lancaster, Pa., museum. Public domain photo.

LIRR and now resides at the Pennsylvania Railroad Museum in Lancaster, Pa. It is interesting to note that LIRR Nos. 35 and 39 are still in existence and are currently undergoing restoration. Overall there were more than 80 engines built to this class.

For those interested in Pennsy history visit http://sbiii.com/

prrbibli.html#ballwood or read the Zeil book or the books "Pennsy Power — Steam and Electric Locomotives of the Pennsylvania Railroad 1900 to 1957" (Alvin F. Staufer, self published, 1962) or "Pennsy Power III — 1847 to 1968" (Alvin F. Staufer, self published, 1993).

-E.N.

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just a push-in fitting and should be a little tight. We did the usual engine prep of oiling around, adding water, steam oil and fuel. Water was added using the tender hand pump, which primes the axle pump and confirms that water is moving through the system. We used the sight glass to determine the water level, which should be at the two-thirds mark to start. Water could be added through one of the safety valves, but it is better to prime the system with the tender pump.

The engine lit right off with a nice 'pop' sound. Looking at the back of the engine, there is a glass window where you can see the fire to confirm that it is lit. No gas-burner howl — how nice. The boiler and burner work so efficiently together that the pressure comes up within two or three minutes. The loco's first few runs were on a treadmill, so that we could learn how to operate it. The bypass is not in the best location, as it is right next to a detail of an

injector. It should be left open one-quarter turn at the start. The sight glass seems to operate reliably.

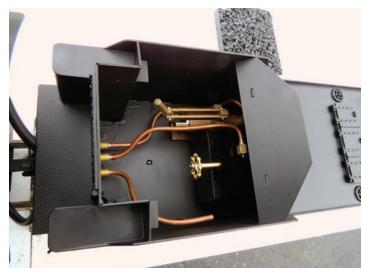
Another reason to do the first run on a treadmill is to learn the proper setting of the bypass. The fuel tank is large and should produce a long run, so it is essential that you keep an eye on the water level while operating the engine. With a gas-fired engine, you don't want to run out of water before you run out of gas, as this would risk damaging the boiler. There were a few water/steam leaks that were easily fixed.

Lou does not have a railroad to run on, so I brought some LGB sectional track to set up a small loop on the ground for a run. The only place we could put down sectional track was on a driveway. The first position where we set up the track meant that the track had a small incline, not the best place to test a new engine.

After the usual prep of steam oil, water, fuel and



Dead-on scale: Excellent finish and materials, good running, efficient ceramic gas burner and nice whistle.



Plumbing: Coal-load removed, the internals of the tender, including water pump and gas valve.

oiling of bearings, the burner lit right off. It did not pop back into the flue right away this time, but after about 30 seconds it popped back to the burner. Looking at the back head confirmed that the burner was lit — from the window, it looks like it is coal fired.

Once the safety valves lifted it was time to move off. Some cylinder hydro lock prevented movement, but after a back and forth movement of the Johnson bar, the engine took off in reverse. Then moving the Johnson bar forward, it took off in the right direction. The incline was a bit difficult to ascend, but after a few warm up laps, it was off and running. After about 20 minutes we decided to move the track to another position on the driveway, eliminating a long incline.

The second run on the track was much better, and you could see that some break-in time would make for better runs. Overall I am impressed with how well the engine runs. The axle pump works just fine. The second run ended when the feed water hose broke when using the tender pump.

Sectional track is not the best way to test an engine as some of the sections came apart causing a derailment. I think the feed water hose was snagged on a section of the track and was cut during the derailment. When Lou went to use the tender pump the hose had been compromised and burst.

Evaluation

What's right: Dead on 1:32-scale model, excellent finish and materials, good running and can pull a scale train with no problem, efficient ceramic gas burner and nice whistle.

What's wrong: No builder plates, loose gas-jet holder in the housing, no cylinder cocks.

Problems from shipping: Tender trucks damaged, cab mounting stud broken, a few loose fittings. Possibly should be using RTV rubber or other sealant on water and steam joints.

In conclusion, I can recommend this engine for anyone wanting a freight or passenger engine. It will negotiate tight curves. It is a good sized and powerful engine. It should be able to run on small portable tracks and is light enough to carry with one hand in a box built for it.

To top it off it is a reasonable price; a good value for the money. Distributor Bob Clark has been great to work with and is willing to help you with operating and quality issues. Alchemy — building an Accucraft 'Ruby' kit, making it a gem

Text and photos by Michael Ragg

s Christmas 2013 approached, my wife Lesley casually mentioned that she would like to have a go at assembling a kit locomotive. She has always enjoyed doing puzzles and was familiar with the loco kits we sell through Argyle Locomotive Works here in Australia. I thought about the available kits and asked her for her preference. Her reply was immediate and certain. "... A blue one, of course."

I did have an Accucraft "Ruby" kit that had been robbed of parts but was mainly intact, but it was black, not blue. A phone call to my friend Larry saw the necessary

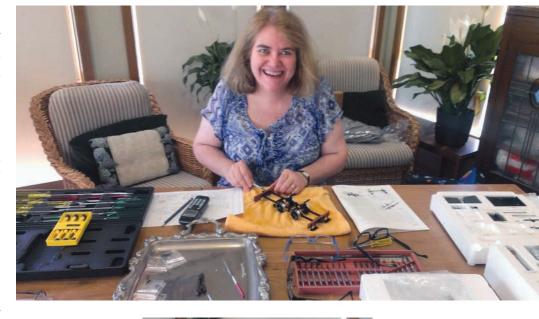
body panels (cab and side tanks) in his workshop for a re-spray. "What sort of blue do you want?" he asked. "Well, a sort of girly blue I suppose," was my reply.

As Christmas approached, two suitably wrapped parcels appeared under the tree. The smaller one had her favorite perfume in it and the other, much larger and heavier parcel was wrapped with brown paper and tied with a large blue bow, and rattled when she shook it.

Initial progress was good. The frame and wheels went together well followed by the cylinders and the motion work, but then business and other matters got in the way and the project was set aside.

For several months the mostly assembled chassis with the adjacent box of parts and tools were neatly placed at the end of the kitchen bench awaiting their

— Continued on Page 26





Holiday
handiwork:
Lesley Ragg,
left, with her
Accucraft
'Ruby' kit on
Christmas
morning.
Top, Lesley at
work on the
locomotive
chassis.

STEAM:#⊫GARDEN November/December 2015



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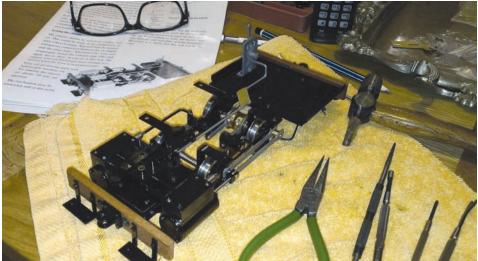
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Alchemy: Lower photo, Lesley has most of the chassis built. Upper photo, the completed 'Topaz' on display on the Ragg railroad.

- Continued from Page 23

ascent on the "things to do" list. At this point, I will definitely *not* mention that should one of my projects remain on the kitchen bench for more than a day, its presence would have been pointed out with the inference that it should be removed to a more appropriate place.

Anyway, come May when things became a little less busy, work resumed on the kit. In reality, all that was

This article also appeared in Rails in the Garden, the Australian small-scale live steam magazine.

needed was for the valves to be timed and set, the boiler installed and the body work fitted. It was difficult for me to resist the urge to "help" but Lesley proved capable of letting me know when she had received sufficient "advice."

I can remember being asked "What's a M2-4 pan-head screw look like?" and "What the heck is a cross head?" From an absolute novice builders' perspective, I have a couple of suggestions that Mr. Accucraft may like to include in the next revision of the assembly instructions.

The day arrived for the engine's first steaming and to my surprise

(not hers), it ran perfectly. The valve timing was spot on and there were no steam or gas leaks; a feat I've never been able to achieve on my own projects. The loco has since been named "Topaz." "Ruby" is OK for a red locomotive but a blue jewel should definitely be called "Topaz." It also has a brass number "2" on the cab side, because it's her second loco, the first being a wedding present from me. It also is blue.

The next kit build is now being discussed. It might be a Roundhouse "Fowler" (blue of course) or an Aster "Thunderbolt." (A blue "Thunderbolt"? – we might need to talk about that.)

Learn tinplate skills and bash Accucraft's 'Dora' into a

Text, illustrations and photos by Marc Horovitz

into a tram engine involves many steps. However, none of them are difficult. In the last issue, we removed the cab and side tanks from the locomotive and started making some of the tinplate parts necessary for the new body. In this issue we'll finish making all of the parts in preparation for assembly.

• Roof supports. There are eight roof supports — four left hand and four right hand. Cut them out and flatten them. Grip a support in the vise by the side that has the hole in it (Photo 24). Fold it flat and tap down the edge. Repeat for each support. If you fold each one in the same direction with respect to the pattern, you should end up with four of each (Photo 25).

• Ends. Cut the two ends out together, as a block, then separate them by cutting in between. Flatten any areas that may have taken on a curl. In the front end, there are several ways that the cutout for the smoke box door may be made. One is to drill a series of small holes just outside the line, all the way around, then chop between them with a tiny chisel or graver. However, I prefer to use a jeweler's saw (Photo 26). For thin metal, like tinplate, a very



Total tram: A completed 'Dora' tram bash on the author's railway.

fine-tooth blade is recommended for ease of cutting. Cut as close to the line as possible, then clean up the edge using a sanding drum in your rotary tool.

The other tricky part on the ends is cutting out the coupler notch. I found the best and cleanest way to do that is to use a small, sharp wood chisel and chop the top line (**Photo 27**). Back up the tinplate with something fairly solid. End-grain hardwood works well, and a hockey puck works pretty well, too. Make sure the beveled edge of the chisel is facing the scrap side

STEAM-HEGARDEN November/December 2015



Photo 24



Photo 25

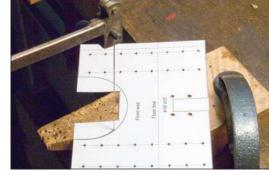


Photo 26



Photo 27



Photo 28

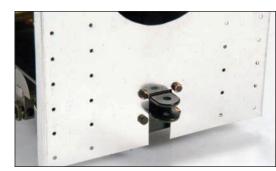


Photo 29

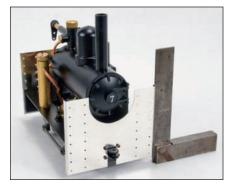


Photo 30



Photo 31



Photo 32

of the work. Give the chisel a good whack with a hammer. (If you're unsure, try some practice pieces.)

My chisel was too small to go all the way across the top, so I had to do it in two goes. Once you have cut the top line, it's a simple matter of cutting up to it on either side with your scissors. Tap down any areas

that may have become slightly deformed.

Once all of the cutouts have been made, grip an end in the vise by a side tab, aligning the dotted fold line with the vise jaws. Bend it over 90-degrees with the wooden block as before, and tap down the fold with your tap hammer. Do the same with the other three folds. The finished ends are in **Photo 28**.

Now it's time for a test fit. Retrieve your "Dora"

Bashing 'Dora' into a tram

- ive steamer Marc Horovitz wanted to turn an Accucraft "Dora" into a steam tram. While the project has many steps, it is really quite easy.
- Part One: An introduction to the project, showing how to remove the "Dora" body, starting with part making.
- **Part Two:** Making the roof supports, the interior braces, the roof side valance and the sides.
- **Part Three:** Putting it all together soldering, pre-body assembly, rivets, final body assembly, roof connectors, steps and grab irons.

chassis and remove the coupler-mounting screws from both ends. If yours are like mine, they are caked in paint and will take a little effort to unscrew. Also, if your engine is like mine, the coupler will be glued in place by paint. This is fine — don't take it off. Now put the ends in place over the couplers. Make sure the

coupler notch is the right size and that the holes line up properly.

If all is good, screw both front and rear ends to the frame with the coupler screws (**Photo 29**). Check with a triangle or machinist's square to ensure that the sides are square to the ground (**Photo 30**). If they are slightly off, you may have to adjust the hole size a little so the ends can be brought into square. This is important. When all is



Photo 33

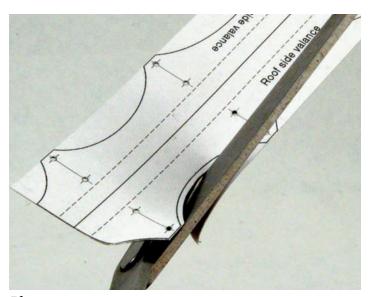
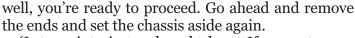


Photo 35



(Let me interject a thought here. If you get some little dents and dings in your parts while you're working on them, don't worry. The beauty of working with sheet metal — as opposed to plate — to represent sheet metal is that it looks like sheet metal. You rarely see things made of sheet metal in the real world that aren't dinged up to a greater or lesser degree. It just goes with the territory.)

• Interior braces. The left and right interior braces come next. These are designed to clear the gas tank and lubricator, respectively, while adding a little stiffness to the sides. They are simple cut-

outs, but make sure you make the two partial cuts in each piece, as noted. Flatten the cut pieces as necessary.

Grip one in your vise by the long edge that doesn't have the cutout, with the fold line aligned



Photo 34

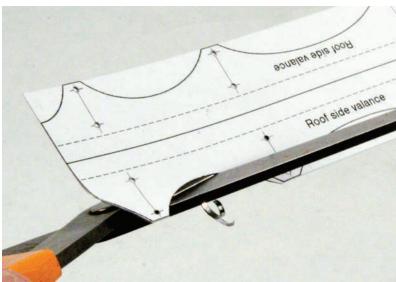


Photo 36

with the top of the jaws (**Photo 31**). Fold down one end tab (**Photo 32**). Slide the piece down in the vise (**Photo 33**) and fold down the other end tab, leaving the middle tab upstanding. Be sure to make the folds so that the paper pattern is on the inside of the angle. Remove the paper. Do the same with the other one. The finished braces can be seen in **Photo 34**.

• **Roof side valances.** I hope that you're getting the feel of working with tinplate a little. This part has a couple of tricky bits.

Cut out the pair of valances *en bloc*. Don't separate them yet. Now the curvy parts have to be cut. Cutting curves, especially fairly tight ones, takes some practice and it can be a little nerve wracking.

Regardless of what you do, the metal will distort some. The idea is to minimize the distortion. Here's a hint. To lessen the amount of distortion, first make a cut parallel to the curve with your scissors, but a little bit

Plan sheets

fter the first part of this article was published, a minor error was found in one of the plan sheets. If you downloaded any of the sheets before Sept. 1, please go back and download them again. http://www.steamup.com/dora-tram/







Photo 38

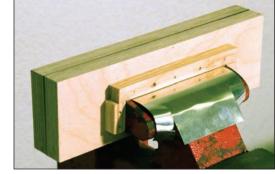


Photo 39

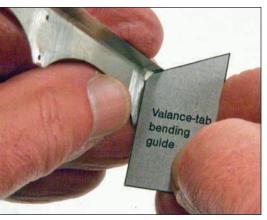




Photo 40

Photo 41

Photo 42

away from the line — say 3/32-inches or so (**Photo 35**). Then go back and make the final cut.

The mass of metal being removed with the second cut is much smaller and won't resist the cut so much. It will just curl away, which you can see in **Photo 36**, leaving you a better cut. **Photo 37** shows the amount of distortion my piece suffered before flattening. When you've finished cutting out all of the curves, flatten the piece with your hammer. Because tinplate is so malleable, there will be a dramatic difference (**Photo 38**). You can now cut the two valances apart.

There's a long tab across the top of each valance that must be bent. This is probably longer than your vise is wide. You may want to make a set of vise extenders (**Photo 39**), which is what I did. Basically, these are just larger wooden jaws, faced with Formica, that snap onto your vise jaws. Free downloadable plans for them can be found on the Tinplate Girl web site (http://tinplategirl.com/2011/09/12/026-vise-extenders/). Once they're in place, they function just like your vise, so I'll just refer to them as the "vise." Cut out the Valance-Tab Bending Guide on Plan Sheet 3. This guide will work best if you make it in tinplate or cardboard.

Grip a valance in your vise by the small tab, aligning the folding edge with the vise jaws. Using a block of wood, bend the valance over, as before. However, don't bend it a full 90-degrees. Use the less-than-90-degree angle on the Valance-Tab Bending Guide to gauge the bend (**Photo 40**). A little too much is better than not enough. When the tabs are properly bent, remove the paper. The finished valances

should look like Photo 41.

• **The roof.** Cut out the roof but leave some extra metal on the sides for the time being (**Photo 42**). Cut the ends on the line. The next thing to do is to put the curve in the roof.

The best way of putting an accurate curve in sheet metal is with a set of bending rolls. If you have not been blessed with such a device, go to the kitchen and get a rolling pin. You'll also need a soft mat of some kind. A bath towel folded into several layers works well.

Place the roof paper-side down on your mat and start rolling. The axis of the roller should be parallel to the long axis of the roof. You'll have to bear down pretty hard. Don't use the handles of the roller — put the pressure right on the roller itself (**Photo 43**). Use the roof end valance as a guide to achieving the correct curvature (**Photo 44**). If you go too far, don't worry. It's easy to unbend it a little with your fingers.

Once you've got a nice curve to the roof, place the roof in your vise, gripping it by the excess metal on one side and aligning the fold line with the top of the jaws. Make sure the vise is good and tight, then bend the roof over 90-degrees so that the tab will form a lip on the edge of the roof. Do the same on the other side. Now carefully trim off the excess metal on the sides. Remove the paper. You might want to round off the corners a little with a file. The finished roof should look like **Photo 45**.

• **The sides.** All of the parts have been made now, except the sides. Cut the sides out *en bloc*, then cut them apart as rectangles—just cut straight across between the holes. With a Stanley knife, on a smooth,



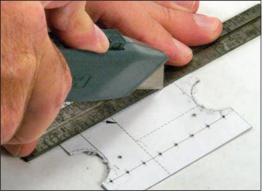


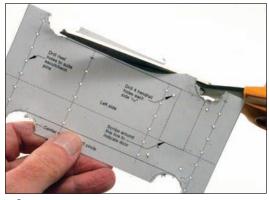


Photo 43

Photo 44

Photo 45





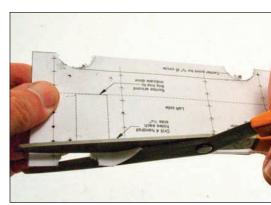
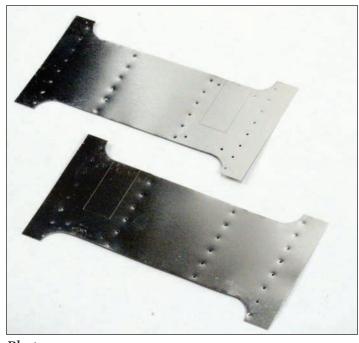


Photo 46

Photo 47

Photo 48



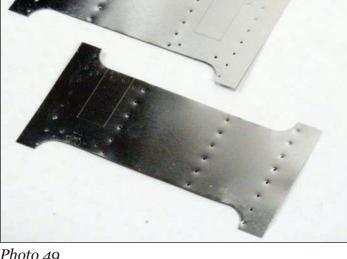


Photo 49

hard surface, using a steel rule as a guide, scribe the lines around the doors, as per the plan (**Photo 46**).

Use your scissors to make the cuts on the lines between the circle cutouts. As you did when cutting the curves on the valances, make a cut close to, but not on, the line. Then go back for the finish cut. Don't start the cut at the end, but come in from the side (**Photo 47**). Then come back the other way to finish the cut (Photo 48). Remove the paper and



Photo 50

examine the edges carefully. If the scissor-cut lines didn't exactly meet the drilled curves, fair them in with your rotary tool or files. Flatten anything that needs flattening. Clean up any rough edges. The finished sides can be seen in **Photo 49**. All of the sheetmetal parts for the tram are in **Photo 50**.

At this point, it would be a good idea to clean up all the parts. Any spray-glue residue must be removed. This can be done with something nasty, like acetone, or with something more benign, like a commercial degreaser such as Goo Gone, followed by a good scrub with soapy water.

Now that you've cut out all of the parts, it's time to put them together. I'm afraid, though, that will have to wait until next time.

National Summer Steamup highlights miniature machinery

SACRAMENTO STATIONARIES

Text by Brittany Grimm and Vickie-Marie Parker Ward. Photos by Carla Brand Breitner, Mike Martin, Rick Parker.

nce again, a great time was had by all at the National Summer Steamup. The 2015 edition, held July 15-19 in suburban Sacramento, was a chance to see old friends and reignite those friendships, as well as making new ones. Taking place in the McClellan Conference Center adjacent to the Lions Gate Hotel, everyone was comfortable inside the air conditioned hall, no matter the heat outside. A far cry from the bomber-hangar steamup of 2012.

This year's event began with a touching remembrance of everyone's friend, Tom King, with the running of his Shay and a logging consist with his trademark Gumby as a hitchhiker. In Tom's memory, and because of his long asso-

ciation with Llagas Creek Railways, the new layout which was built last year and dubbed the "Triple R Services/Llagas Creek Track" has been renamed the "Tom King/Triple R Services Track" (except when it's known as the "Triple R Services/Tom King Track").

After a few minutes of everyone quietly watching the Shay run, the action began. It wasn't quite like one of NASCAR's running starts, but it had a similar effect as everyone headed for their layout of choice to perk some steam.



Stationary steam: *Grover Cleveland keeps an eye on the engine.*

This year, as last, there were eight layouts available for running trains, giving 17 loops for locomotives and coaches of all shapes and sizes in a 23,600-square-foot room. There was an ample supply of trackage, allowing everyone to have somewhere to run without too much of a wait for a time slot. In some ways, perhaps, this increased availability in a larger hall has changed the character of the National Summer Steamup — in a most positive way.

In the old Garden Pavilion days (2002-2011), it



'Cricket': Phil Oldenhage, who loans his layout, makes a run.



Stirling: Art Busalacchi's little 'Rocket L1' won hearts at event.



Memorial run: *Tom King's Shay* ran first at the Summer Steamup.



Coal clinic: Justin Fry, left, takes guidance from Rob Lenicheck.



American 'Armig': Left to right, Dai Coley, Bob Sorenson, Don Breitbarth and Jim Goss talk about a conversion of the project.

used to be that the two longest tracks, the Paso Robles and Pacific Coast Live Steamers layouts, were the "show-off" tracks, the places to make the longest runs, with the biggest engines and the lengthiest consists. These tracks were mostly controlled by "scheduling boards," where you signed up for a half-hour run at whatever part of the day was available. Nowadays, white boards still control those two tracks, but only until 8 p.m., and if you miss your slot or your engine poops out, you won't endure the complete censure of your steaming colleagues.

Why? Because there's always another track to run on. You're as likely to find Bill Allen of Woodside, Calif., running a new scratch-built locomotive, or Matt Abreu of Granite Bay, Calif., tweaking his super-detailed K-27 on one of the smaller tracks as not, as long as they can handle the radius. And this makes for a more relaxed atmosphere. It's taken us all a few years to get used to, but more tracks entertain more "visiting locomotives" than they used to.

There were two new additions immediately obvious this year. One fed your stomach, and the other fed the child in us all.

The tummy-feeder was a new coffee shop which had opened in the conference center building just a few months before. "The Coffee Hangar" supplied hungry steamers with lattes, smoothies and sandwiches right next door, providing a new convenience during much of the day, every day.

The other was a "show-and-tell" table of stationary steam engines and equipment, as well as some steam tractors. Some were there simply for display, but most were operational — an interesting aspect of the live steam hobby that is not often showcased. Three tables worth of equipment accumulated until the pop-off event on "Stationary Saturday," when everything that could be lit off, was.

Wow. Complete miniature working sawmills,

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Adjustments: Peter Ronney, left, takes a picture of Dawn Brightwell tweaking her Roundhouse.



Board: *Organizer Bob Trabucco checks the times.*

steam donkeys, beautifully crafted brass pieces, solitary steam farm equipment miniatures and tiny saws and hammers were among the many items spinning, sputtering and rattling. It was amazing and extremely popular. There were moments when, with nearly all of the stationary items running, the enthusiasm of the participants could easily remind one of either a busy, noisy beehive or something akin to Filene's Bargain Basement just after the doors open on Black Friday morning.

Amongst all the "golly's" and "wows," a refrain emerged — two variations on a theme, actually. One version went, "I used to have one just like that" (with subvariants of, "I had the model just before that," and, "But mine was red"). The other, perhaps more telling, variation was a wistful, "Gee, I always wanted one of those when I was a kid." And a few of us decided that we weren't done growing up after all — "I'm going to get one of those and bring it next year." Undoubtedly, this feature will be back with even more gusto in 2016 by popular demand.

One of the things always anticipated by attendees is



Streamline steam: Alan Redeker works the throttle on Accucraft's new N&W J-class No. 611.



Narrow: *Paul Hagglund ready to run on 32mm track.*

the showing of the new releases by dealers and companies at the show. This year saw the display of the Norfolk and Western Class J No. 611 by Accucraft Trains of Union City, Calif. This prototype has been seen before but changes are made with each appearance and the engine becomes more refined. The locomotive seemed to run smooth and had good pulling power.

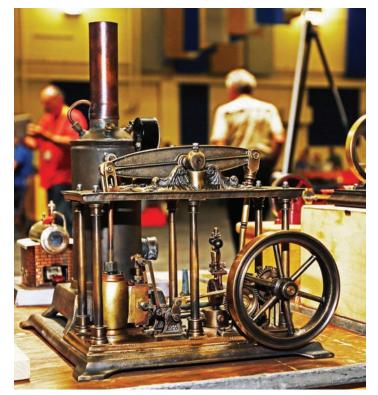
The next offering from Accucraft is the Allegheny, which has been under development for a few years now. The 2-6-6-6 locomotive looked great in detail and appeared to run well, pulling a decent string of cars smoothly.

The last offering from Accucraft in conjunction with The Train Department of Hazlet, N.J., was the showing of the PRR E6 Atlantic, which is also in development. The 4-4-2 "Atlantic" engine ran well and was alcohol fired for this showing, whereas in previous runs it had been on butane. The locomotive had been painted just before the show and although the paint wasn't perfect, as a prototype sample it ran well.

Another thing offered that was a welcome surprise in the dealer room was the assortment of new brass



Wall-to-wall Wilesco: Tractors, steam plants aplenty.



Walking beam: *Mike McKenna's antique engine.*

castings offered by Triple R Services to replace outof-stock Aster spare parts.

The event program had said that Custom Model Products of Walnut Creek, Calif., would be in the dealer room, but in the hours before the steamup, Mark Johnson of Silver State Trains of Las Vegas, bought out all of Custom Model's inventory, so Silver State had bargains galore.

Additionally, Wuhu Brand Arts & Crafts Co. Ltd. of China showed its new QJ 2-10-2 locomotive, Sunset Valley Railroad of Lake Tapps, Wash., showed a new set of passenger cars, Cab Forwards by RMC of Queensbury, N.Y., had those lovely Southern Pacific locomotives, Dave Frediani of Sonora, Calif., displayed some new 7/8ths-scale rolling stock and the Steam in the Garden guys arm-twisted for subscriptions or to buy a back issue.

Every Summer Steamup seems to have its "darling of the year" locomotive; sometimes a hand-made,



Steam student: Jack Verducci, left, shows his granddaughter Carmella the finer points of setup.



Fill'er up: Bill Wilbanks adds some alcohol to burner.

one-off engine, sometimes a new offering from a commercial manufacturer. This year an obvious candidate for this award was Sonora, Calif. steamer Art Busalacchi's little "Rocket L1," a shiny silverand brass reproduction of the engine which won the Rainhill Trials of 1829.

This is actually a Stirling hot air engine which requires no fuel. Just heat up a sort of heat-sink "lug" at the back with your lighter, and in a few minutes the tiny locomotive will start to buzz down the track. Every day several people would ask Art for a repeat demonstration, and at least three were ordered from the manufacturer, Bohm Stirling-Technik of Germany, before the steamup was over.

All the other elements that make up the National Summer Steamup seemed to go smoothly. Clinics

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Shay: *Jim Hadden's scratch-built engine.*



Allegheny: Rick Gross adds butane for run.



Brown award winners: Paul Brink, left, was this year's recipient, while Glen Simpson, right, won in 2013 and Brittany Grimm, center, won in 2012.





Brothers Johnson: Tyler, top, with a 'Ruby'; Zach, bottom, with an o-6-o.





All scales: Left, a 1:32 PRR T1 on the Paso Robles layout; right, a 1:20.3 Rio Grande K-37 on the Brink layout.

were well-attended, with lots of questions and discussion afterwards. Bob Sorenson, the Las Vegas live steamer, led three sessions (one each on the metal lathe, boiler building and butane), while Bill Allen discussed his development of the "Hot Rod Ruby" (soon to be an article in this very magazine) and Dave Cole, editor of this very journal, led a discussion on whether the G1MRA "Armig" kit locomotive could be modified to an American profile (maybe, came away the consensus).

The highlight of the sessions, though, was a presentation by Sacramento rail historian and author Dr. Robert Church, who has had exclusive access to the turn-of-the-20th-century photos of Sierra Nevada rail fan Stanley Church.

The Saturday-night dinner (called a "BBQ," though with few barbecue items) was as delicious and as filling as ever. The weather was cooperative this year; a balmy breeze made dining on the patio a comfortable option of which many took advantage. And more folks have learned to stick around for the door prize drawings: Rolling stock, accessories, photographs, books,

gift certificates and subscriptions all were given away amid raucous cheers and friendly cat-calls.

The 2015 Ron Brown Memorial Steamup Enthusiasm Award was given to Paul Brink, who has loaned his "On the Brink" layout to the Summer Steamup for 15 years when you count this one.

Those who have known Paul, a Rancho Cordova, Calif. steamer, at all also know how generous he has been with his expertise and tool kit, helping one neophyte re-gauge his pilot wheels, or showing another how to create a radiant burner, using some nichrome wire that he "just happens to have on hand."

Most importantly, Paul has been generous with his enthusiasm and gentle encouragement of beginning steamers. A better recipient for the award — named after the founder of *Steam in the Garden* magazine — couldn't be found.

And that was it for the National Summer Steamup of 2015. What's that you say? You've got the itch to burn some finger-tips? Love the smell of steam oil in the morning? Then we guess we'll be seeing you in Sacramento next year.

Creating a 7/8ths-scale Fort Benning railroad observation

WWI GAR

Text and photos by Dave Frediani

ust before the end of World War I, the United States Army created Camp Benning (later Fort Benning) on the Alabama/Georgia line and built a narrow-gauge railroad to service it. Following French trenchwarfare practice, the railroad was two-foot-gauge and had more than 27 miles of track, 18 locomotives and about 200 pieces of rolling stock.

The railroad was used to transport personnel and supplies from 1918 until 1946, at which time it was dismantled. Almost all rolling

stock and locomotives were sold to a sugar plantation in Cuba. Only one observation car and one locomotive survived and are on display at the fort, which is just outside of Columbus, Ga. The display includes a Davenport 2-4-2 locomotive and an unusual observation car the railroad used for visiting VIPs (Very Important People). The VIP car was built in 1935.

A fellow live steamer, Mike McCormick of Hudson, Mass., asked if I would build him a model of that Fort Benning VIP car in 1:13.7 scale. Keep in mind, Mike didn't have any measurements and I had never seen one before. But I have built a few 7/8th-scale cars, so after seeing a photo of the car, I knew what dimensions I might need.

Before I got started, Mike wanted to make a few changes. The most important was to shorten the car so it wouldn't look odd with his other 7/8th-scale, two-axle cars, and changing the couplers to link and pin.



Completed: 7/8ths-scale car on the author's Sonora, Calif. railroad.



Styriene: Walls and roof pieces are cut out.

The car I designed is a free-lanced version of the Fort Benning car. I sent Mike many pictures of the construction along the way. I was anxious to finish the car and deliver it to Mike for the Diamondhead International Steamup in Mississippi in January 2015. Mike was happy with the design and I was

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Pieces: *Doors, windows and frames from styriene.*



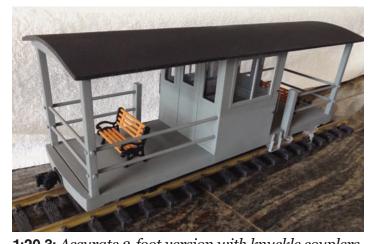
Superstructure: Early construction step and paint.



Wheels: Commercial trucks attached to underside.



7/8ths: Slightly shorter version on Dave's railway.



1:20.3: Accurate 3-foot version with knuckle couplers.



Under power: Dave's personal Fort Benning car at Summer Steamup. Photo by Carla Brand Breitner.

happy that it pleased him.

Therefore, I thought that was the end of it. After returning home from Mississippi, Mike contacted me and wanted me to build him another Fort Benning VIP car. This time he wanted me to build the Fort Benning in 1:20.3 and build it to scale. This was a more challenging build. It took more than three weeks to complete. I was pleased with the outcome

and shipped it to Mike. Again, he was satisfied.

I swore I wouldn't build another one, because of the work involved. But after a time, I decided to build one more for myself in 7/8ths scale using the same modifications; shortening the car, using link and pin couplers and changing the design of the hand rails.

I think it's cool knowing there are only two of the Fort Benning VIP cars in 7/8ths scale in existence.





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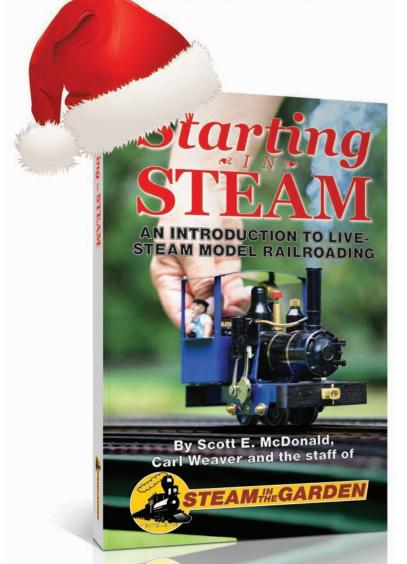
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Line-side lament

verybody has their strengths and weaknesses in this hobby — or to put it another way, everybody has the tasks they enjoy and the tasks they enjoy less.

Not to make too broad of a generalization, but anecdotal evidence suggests that many small-scale live steamers don't put a lot of effort into scenicking their railroads. There aren't a lot of line-side buildings on many live-steam railroads; not a lot of windmills or lighthouses or churches.

Two of my Southern California compadres — Sonny Wizelman of Los Angeles and Gary Woolard of West Hills — recently wrote me notes about their concern that live steamers don't put enough effort into their layouts.

"Of all the steamups I have attended," wrote Sonny

'Cupola view' is written by Editor Dave Cole; you can contact him at dmcole@steamup.com or P.O. Box 719, Pacifica, Calif. 94044-0719.

of his 30 years in the hobby, "I can only remember one or two on which the railroad had any scenery. It seems that all the railways are elevated benches."

Gary agreed. "The live steam segment of model railroading, in this country at least, has largely sacrificed the scenery of a 'garden railroad' for the ease-of-use of an elevated track," he wrote.

Sonny points out that this then becomes a selffulfilling prophesy. Two years ago he attended the National Narrow Gauge Convention in Pasadena, Calif.

"There were many kit makers there," he wrote. "They had kits in every other scale, but none in Gauge One. I asked many of them if they made anything in Gauge One and the answer was no. I asked if they would make me a kit in Gauge One and the answer was no. One added that that would never happen."

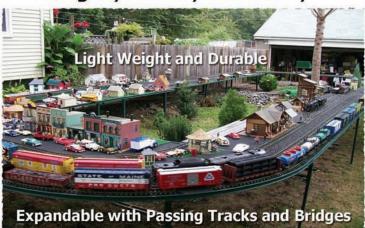
Of course, Sonny is a craftsman and wants a highly detailed building. "Much of what I have seen for garden railways is made to be weather resistant, and seems to lack the realism that I like. They seem to give up the realism factor for the weather resistance. This limits the materials they use." He points out, though, that he doesn't leave his buildings outdoors — after a steamup, he brings his creations inside.

Despite the general theory that live steamers don't



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scenic, I know of dozens who do: careful readers of this magazine have seen the layouts of contributors Shawn Viggiano of New Jersey, Eric Schade of Maine and Les Knoll of North Carolina in recent issues, with dozens of instances of buildings and line-side quirkiness. And live-steam legends such as Marc Horovitz and Jack Verducci have profusely scenicked railroads.

My own personal confession is that my elevated railway has had limited attempts at scenery. I built a 1:24-scale red barn from plans bought off the Internet, but that was a weeks-long project; and one winter day in the early 2000s I found some cheap wooden birdhouses at a chain drug store. They were painted gaudily, with little signs and porches, and cost

about \$10. I bought one, put it out and it passed the "10-foot rule" — it looked OK 10 feet way.

Over the next few years, I bought more and more of these cheap buildings, added in a few real projects I'd built, and went so far as to put lights inside them, making a nice evening display from the house. All suffered in the weather.

With all my other responsibilities recently, I let all the buildings deteriorate, and now there's a big project awaiting to replace them — with something.

All of this brooks a number of questions: If you have a live-steam layout, is it scenicked? Do you have nothing, or do you have miniature trees and



Realism: Shawn Viggiano's photo of his 'Otto' and New Jersey layout; it shows a number of line-side buildings, including a church and shed.

ground covers, mountains and buildings and water features that could break the scenery into separate vignettes, allowing trains to hide and then reappear around the curve?

If you have nothing, why? Too much trouble? Not your favorite task? Would scenery make it too difficult to service your live-steam trains?

In part to satisfy our curiosity, and in part to perhaps sway the makers of line-side elements in other scales, could we ask you to answer these questions in writing? Just send me an email or note to the addresses on Page 42. Let's get to the bottom of the scenic/no scenic question.

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Nov. 27, 2015 — Turkey Trot Run, invitation-only Gauge One steamup. Pennsylvania Live Steamers, Collegeville, Pa. Info: http://www.palivesteamers.org.

Jan. 10-17, 2016 — International Small Scale Steamup and Arts Festival, Diamondhead Inn and Suites, Diamondhead, Miss. Called "the most important small-scale event in the United States," Diamondhead includes 24-hour steaming, a "flea market" and seminars. Diamondhead Inn & Suites: (228) 255-1300. Info: Patrick Darby, k5pat@bellsouth.net, (985) 867-8695; http://www.diamondhead.org.

Jan. 15-17, 2016 — Cabin Fever Model Engineering Expo, Lebanon Valley Expo Center, Lebanon, Pa. Info: http://www.cabinfeverexpo.com.

Feb. 12-14, 2016 — 18th Annual Presidents' Day Steamup, Electric City Trolley Station & Museum (Steamtown), Scranton, Pa. Sponsored by the Pennsylvania Garden Railway Society, Warrior Run Loco Works, Aikenback Live Steamers and Wyoming Valley Live Steamers. Info: Clem O'Jevich Jr., (570) 735-5570 or wrunloco@aol.com.

March 26-27, 2016 — East Coast Large Scale Train Show, York Fairgrounds, York, Pa. Aikenback Live Steamers will set up. Info: http://www.eclsts.com and Mike Moore, mike@aikenback.net.

April 21-24, 2016 — Spring Steamup, Staver Locomotive, Portland, Ore. Info: http://www.staverlocomotive.com.

July 4-10, 2016 — National Garden Railway Convention, Santa Clara, Calif. Self-guided and motor-

coach tours of area garden railroads; clinics, vendor hall, speakers, banquet, ice cream social. Steam layouts. Info: http://ngrc2016.org.

July 13-17, 2016 — National Summer Steamup, Lions Gate Hotel, McClellan, Calif. Multiple layouts. Lions Gate room reservations: (916) 643-6222 (http://www.lionsgatehotel.com). Info: http://www.summersteamup.com or (650) 898-7878.

Sept. 7-10, 2016 — Thirty-sixth National Narrow Gauge Convention. Augusta, Maine. Info: http://nngc2016.org.

Regular steamups

Michigan Small Scale Live Steamers (MSSLS). Info: http://www.mssls.info.

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

Upstate N.Y. Steamers. Several steamups per year in various locations around Western New York. Info: http://www.tinyurl.com/upstatesteamers.

Southern California Steamers. Contact Jim Gabelich for dates, places and other pertinent information. (310) 373-3096. jfgabelich@msn.com.

Crescent City High Iron. Steamups as necessary on Northern California's upper coast. Info: Don Cure, diamondd1947@msn.com.

On the Brink Live Steamers. Greater Sacramento, Calif., steamups on elevated live-steam tracks at two locations, as well as special events. Info: Paul Brink, (916) 935-1559, paulbr@aol.com.

Puget Sound Garden Railway Society. Two steamups per month, second Saturday and fourth Saturday. Info: http://psgrs.org/ or call Pete Comely at (253) 862-6748.

AGOCIATIO

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At 68 years G1MRA is the longest established worldwide association for large scale and garden railway enthusiasts.

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For more on joining please contact one of the two North American membership co-ordinators below.

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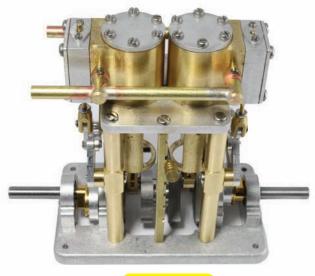


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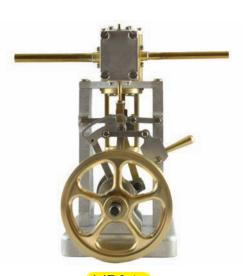


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