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STEAM IN THE GARDEN

Vol. 18, № 3
Issue № 99

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

Articles

Departments

FRONT COVER:

Passing in the Light - NKP Berkshire meeting a Great Northern S-2. Both locomotives by Aster.

Photo by Jim Pitts

Editor
Ron Brown

Priceless Assistant
Marie Brown

CAD & Other Drawings in This Issue
Cliff Goding, Kendrick Bisset

Regular Contributors

Larry Bangham	California
Carl Berg	New York
Paul Blake	Australia
Tom Bowdler	New York
Keith Bucklitch	England
Les Knoll	Illinois
Joe Leccese	Massachusetts
Charles McCullough	Iowa
Jim Pitts	South Carolina
Jerry Reshew	Mississippi
Dan Rowe	Texas
Jeff Young	Canada

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Check out our new web site at
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CALENDAR OF EVENTS

Southern California Steamers - contact Sonny Wizelman for dates, places and any other pertinent information. 310-558-4872 ● sonnyw04@ca.rr.com

Check the Calendar of Events on our web site (http:steamup.info) for regional and club events.

June 28 & 29, 2008 - The Finger Lakes Live Steamers Open House will take place on 12 acres in up-state New York at Marengo, between Rochester and Syracuse. Our Gauge One facility includes approximately 1000 feet of stainless track arranged in 3 interconnecting & electrically insulated loops, with minimum 10' radius curves and #6 turnouts. In addition we have a 6' steel thru truss bridge, 8' tunnel and a 20' dual track trestle for convenient train loading / unloading and preparation activities for the live steamers. We expect to have our new elevated freight yard and 15' wooden arch span bridge complete and operational. In addition to the above, FLLS also operates a pair of "ride on" lines: the 7-1/4" gauge (1-1/2" & 2-1/2 " scale) track is over a mile long, plus the recently expanded 4-3/4" gauge (1" scale) track with a new over / under track configuration including a 28' thru truss bridge. Any questions, refer to our web site www.fingerlakeslivesteamers.org or telephone John Spencer (315)689-3402, we look forward to seeing you in June..

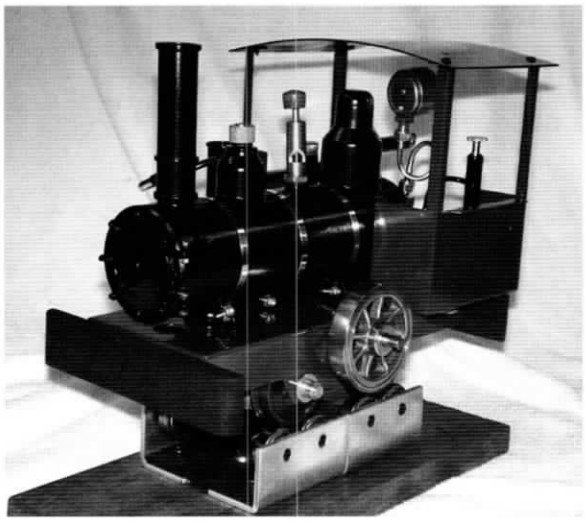
July 16-20, 2008 - The 2008 National Summer Steamup at the Lions Gate Hotel in McClellan, CA. The National Summer Steamup gives owners and operators of small-scale (1:13.7-1:32) live steam locomotives the opportunity to meet and run equipment in a secure, indoor, friendly setting. The 2008 event will feature both 45mm and 32mm tracks, a Saturday night BBQ dinner, clinics and workshops, exhibitor displays and swap tables. The Lions Gate Hotel, on the grounds of the former McClellan Air Force Base in suburban Sacramento, will provide the steamers with a ballroom setting of more than 6400-square-feet. There will be 10 loops of trackage, two of them dual-gauged in 32mm and 45mm. The hotel is providing live steamers with the low room rental rate of $84 per night (double-occupancy). Reservations can be made with the Lions Gate toll-free at 1-866-866-7100. For more information on the 2008 National Summer Steamup, please visit the web site at http://www.summersteamup.com/ or e-mail steamup@summersteamup.com.

August 30 & 31, 2008 - Pennsylvania Live Steamers Labor Day Weekend Steamup, Rte. 29, 1 mile north of Rte. 113, Rahns, PA. Permanent Gauge 1 track and Gauge 0/Gauge 1 portable tracks in operation. Night running with lights. Food available on site with lodging nearby. For information and directions contact Harry Quirk, PO Box 215, Springtown PA 18081 - phone 610-346-8073 or Mike Moore e-mail: trainman722@verizon.net

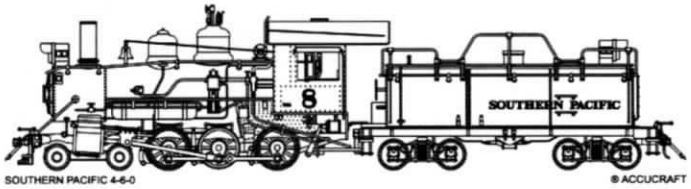
Because of publication lead time, please send info for Calendar of Events well in advance. Include name of host and location of event, with address and/or phone number to contact for complete information. Some basic info about the site is also useful (i.e., ground level or elevated, minimum curve radius, ruling grade, etc.)

WHAT'S NEW?

Westminster Locomotive Works, LLC is pleased to announce a second run of the **Cricket MK II Steam Motor** starting fall 2008. This will be a limited run of 50 units. No money down reservation list. Price $695.00 plus shipping and insurance. Please contact Purkey's Toy Trains at 410-549-6061 or on the web at www.purkeystoytrains.com And please let them know you saw it in SitG.



Accucraft Trains Company, 33268 Central Avenue, Union City CA 94587 - Phone: 510-324-3399 is proud to announce the limited production of the SP 4-6-0 in 1:20.3 scale and 45mm gauge in live steam. The chassis is constructed from brass and stainless steel. All valve gear, drive rods, and wheels are machined from stainless steel. Like other fine products from Accucraft, these models will be meticulously handcrafted. SPECIFICATIONS : Scale/Gauge 1:20.3 Scale/ 45mm Gauge - Minimum Radius 1.2 M (48 in.) - Fuel Butane - Cylinders Two cylinders w/ D-valves - Valve Gear Simulated Stevenson valve gear - Fittings Throttle, Check valve, Water level gauge, Pressure Gauge. Available in 3 different liveries.....Unlettered, SP #8 and SP #9. Contact your Accucraft dealer or Accucraft direct for more information or to place your order. Please say that you saw it in SitG.

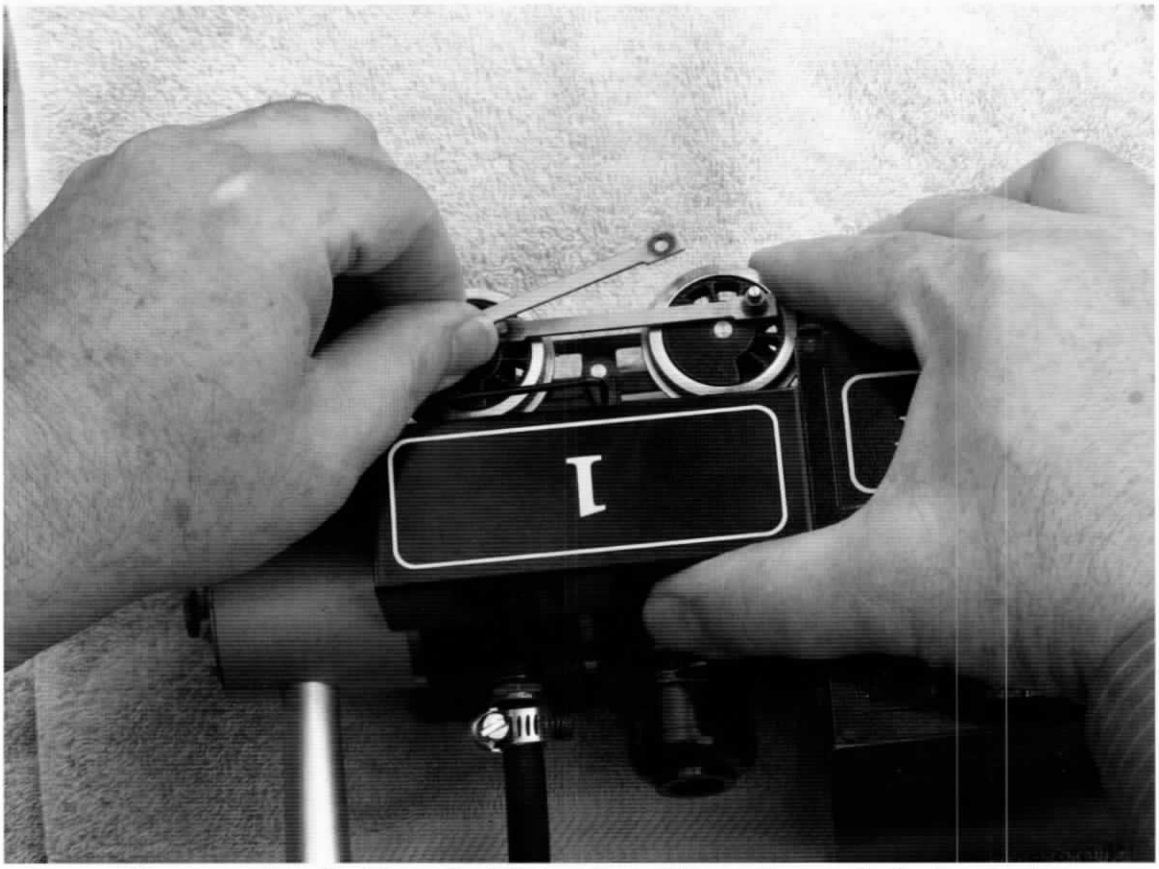


Accucraft Trains Company, 33268 Central Avenue, Union City CA 94587 - Phone: 510-324-3399 announces the production of live steam D&RGW K-36 in 1:20.3 scale and 45mm gauge. TECHNICAL SPECIFICATIONS: Scale/Gauge: 1:20.3 Scale/ 45mm Gauge, Minimum Radius: 1.2 M, 48 inches, Fuel: Butane, Cylinders: Two Cylinders w/ D-slide valves, Valve Gear: Walschaerts, Fittings: Throttle, Check valve, Water level gauge, Pressure gauge. This locomotive is available in the following liveries: K-36 D&RGW #480 Flying Rio Grande - K-36 D&RGW #483 Moffat, Green Boiler - K-36 D&RGW #486 Moffat, Green Boiler - K-36 D&RGW #488 Flying Rio Grande. This is a LIMITED PRODUCTION model, so contact your Accucraft dealer or Accucraft direct to place your order soon.

Adjusting the Valves on the Accucraft Ruby

by Kendrick Bisset
photo by Donna Bisset

I had purchased a Ruby kit, and found the assembly enjoyable, and not too difficult. The mechanism ran on air, if a bit stiff. Upon firing up, I found that she did not run very well, requiring full throttle, frequent 'help', and she could not negotiate my 2% grade. I tinkered with the valve settings, using the groove provided in the valve, but was not able to improve the operation significantly. Ruby's valves cannot be disassembled to observe the actual valve events, so I felt like I was 'shooting in the dark'.



Disconnecting the big end of the main rod from the crankpin (see text).

In thinking about the problem, I reasoned that I needed to know what the valves were doing as the drivers rotated. Since the valves are not accessible, the way to "see" what was happening was to observe the results; that is, to observe the forces on the piston. This would show me the admission events; that is, the points at which the steam is admitted to the cylinders. There is no separate adjustment on Ruby (or, for that matter, on any small scale locomotive of which I am aware) for the exhaust events, so I would have to trust that the exhaust will work correctly if the admission is correct. Actually, on Ruby, the exhaust for one direction is the same as the admission for the other direction, so this is a good assumption.

Using compressed air at about 10 psi or less, I tried the operation. First, I noticed that the cylinders were loose on the frame. I realized that no adjustment would be possible in this state, so the bolts were tight-

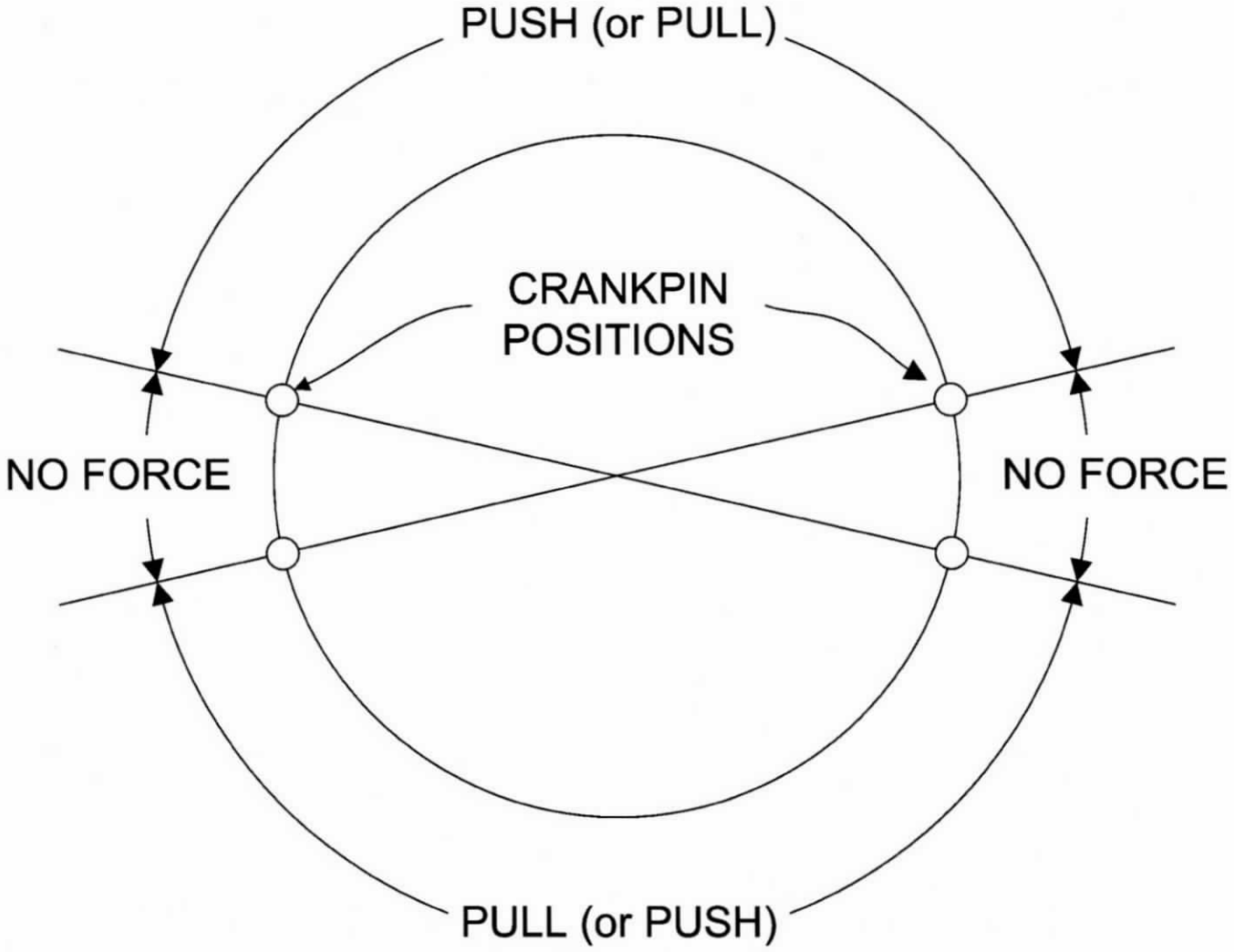


FIGURE 1 – THE GOAL

ened. When I get around to it, I will add pins so that the cylinders will not be able to move fore and aft. It does not seem to me to be good practice to rely on the bolts in shear to maintain alignment. Re-applying air, the operation still did not seem proper, so I disconnected the 'big end' of one main rod from the crank pin ***(see photo)***. On Ruby, this is a very simple matter. Holding the main rod, I rocked the drivers back and forth, and noted the positions of the crank pin where the piston was pushing, pulling, and providing no force. ***Figure 1*** shows the ideal situation. The 'no force' portion of crank pin travel should be symmetrical about the front and back dead center positions of the crank pin. This would be true of an engine with simple valve gear, like Ruby, which has no lead. These tests should be run in both forward and reverse gear, and on both sides of the engine.

The figures are drawn with the horizontal axis representing the line through the cylinder and the center of the driver. For Ruby (and most locomotives), this line is horizontal on the locomotive, too. The small circles represent the crank pin at various positions, as it travels around the crank circle. ***Figure 1*** has indication of the forces on the crank pin; this is not included on the other figures. The notation "push (or pull)" indicates that the piston is pushing on the crank pin when the locomotive is in, for example, forward gear, but pulling in reverse gear. Forward and reverse mentioned above will interchange on the other side of the locomotive. Which is which is not important; you are looking for the change from push to no force to pull as you rotate the drivers.

Of course, I found that the valves were not operating properly. There are two adjustments on Ruby:

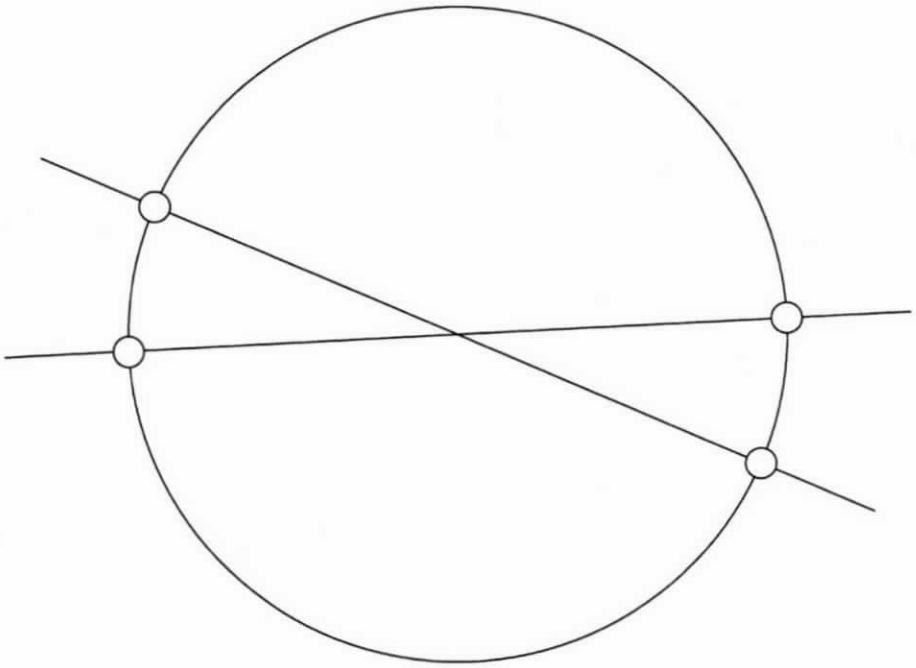


FIGURE 2 – ECCENTRIC

the length of the valve stem connection, and the setting of the eccentric. ***Figures 2 and 3*** show the effects of errors in these settings separately. In the real world, you will most likely find a combination of these two effects, as I did. When the valve events are rotated clockwise, as shown in ***Figure 2***, the eccentric should be shifted clockwise through a similar angle. I adjusted the eccentric first, and then the valve stem connection. These adjustments were made on each side of the engine independently. I found it easier to disconnect the main rod on both sides to do this work, so that there were no forces from the cylinders on the drivers; it is possible to disconnect one side at a time, if the air pressure is low enough that you can still control the movement of the drivers by hand.

The end result: a much smoother running engine, which can run around my railroad without assistance. I have found that radio control is needed to adjust the throttle while operating up and down grade, and on tangent and curved track.

Other locomotives will require different methods to perform these adjustments. Some may require disconnecting the 'small end' of the main rod from the crosshead; on some, it may be difficult to disconnect anything. In this last case, you may be able to observe the forces as they affect play in the crank pin or other connections. In any case, I have found that adjusting the valves based on the piston forces improved the operation immensely.

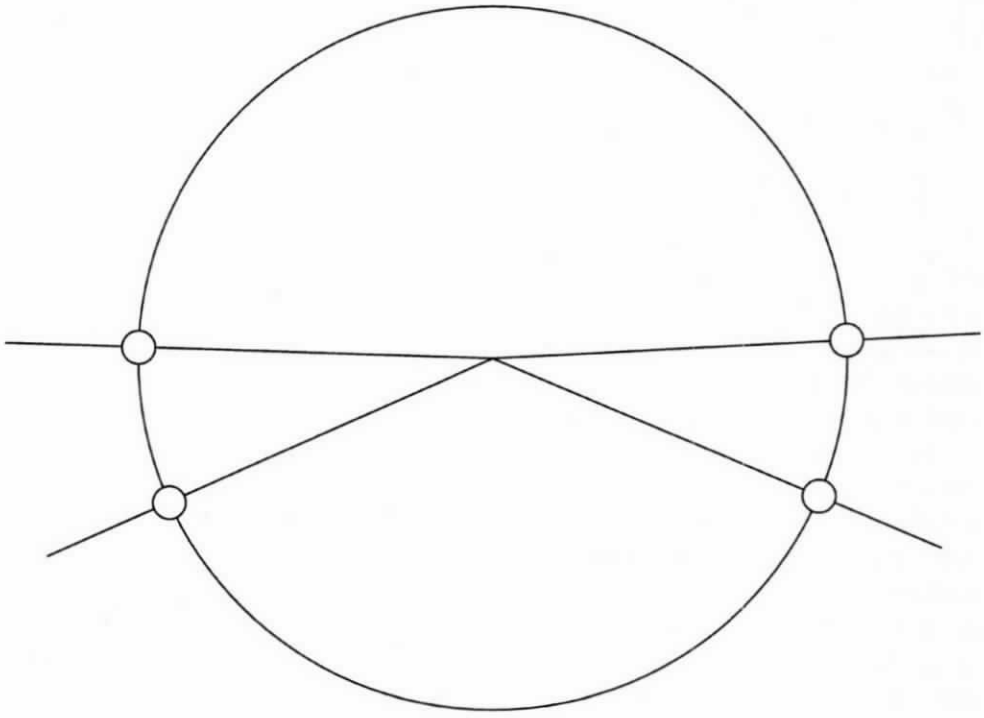


FIGURE 3 – VALVE STEM

Umkhulu Modules

by David Cairns

Modular steam track in South Africa

"Ex Africa semper aliquid novi" Pliny the Elder AD 23-79 would have us believe. Roughly translated this means there is always something new from Africa. Well, not in this case. It has all been done before, many times and probably better, but this is how I planned and built a portable (?!) modular layout to run live steam on 32mm and 45mm tracks. The layout is called Umkhulu Modules, reflecting the fact that I live in South Africa in the land of the Zulus.

It all started when my wife went out to buy a loaf of bread and returned with a townhouse. My dearly beloved had run into an estate agent at the shop who asked if we were thinking of moving house as she had this divine townhouse for sale. WE were certainly not thinking of moving. WE had a 'rondavel', literally a round building in the garden which had been custom built as a billiard room. It was 28 feet in diameter and had a high thatched roof. The previous owners of the house had kindly sold the billiard table, leaving the room empty, but it did not stay that way for long.

After a short spell as an exercise studio, the room had accommodated Durban Modular Railroaders (DMR), an HO/Hon3 portable modular layout, for 15 years. It started off as portable, doing shows in shopping centres, but eventually transporting, erecting and dismantling became too much like hard work. In addition I had a 45mm track running around our swimming pool, so you could say that I was happily ensconced on the property.

But to be fair, our lives were changing. Our children had flown the nest and maintaining a large, thatched property for just the two of us began to make little sense, so after humming and hawing over the townhouse (in South Africa this generally means a number of residences sometimes linked to one another, but can also be detached, with a common entrance and a surrounding wall or fence) a decision was made to move.

This obviously involved dismantling the HO/Hon3 layout (still in storage four and a half years after our move) and digging up the track around the swimming pool. That was quite a traumatic process.

The townhouse did not have a suitable room to accommodate the DMR modules. Several possibilities for creating one were investigated but nothing gelled. In the meantime I had become increasingly interested in live steam. Unfortunately, apart from the larger gauges (mainly three and a half and five inch) there was nobody else in the Durban area whose interest in live steam had extended to building a 32mm or 45mm track, so if one was to eventuate it was a case of do it yourself.

After reading widely on the subject and holding a number of planning meetings with former members of Durban Modular Railroaders, the following broad criteria were compiled:

* Portable, so that the layout could be exhibited to the public, in particular at the Durban Society of Model Engineers.

* Robust construction. DMR modules lasted for over 20 years. I am now 63 so if Umkhulu Modules do the same that will see out my remaining time on this planet!

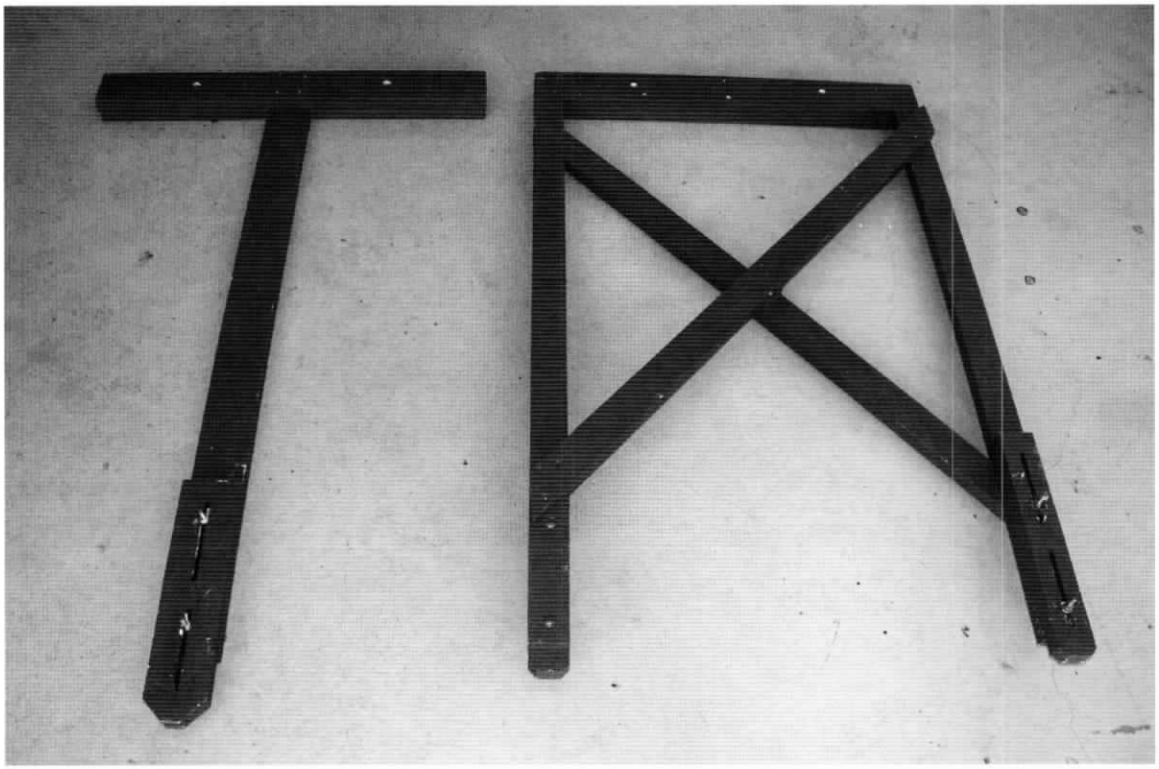
* As weatherproof as reasonably possible.

* Where ever possible use left over wood arising from the dismantling of the DMR layout, so saving costs.

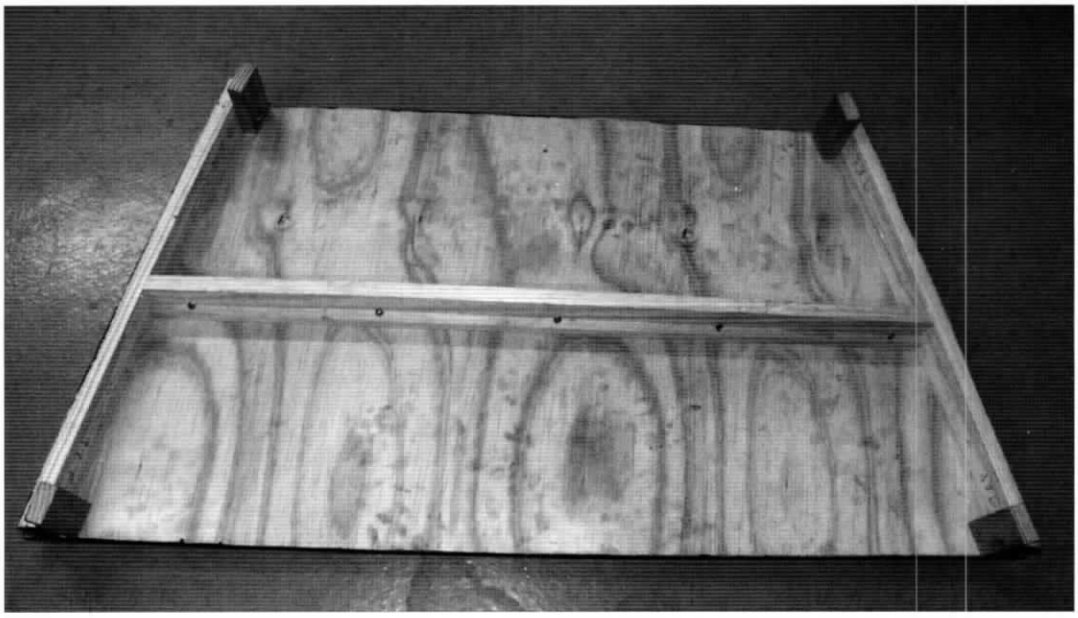
* Incorporate easements (transitions) on curves so that speeding locos did not derail and fly off the boards.

* Radii of curves to be as large as possible (2.1m in the case of 45mm and 1.9m for 32mm).

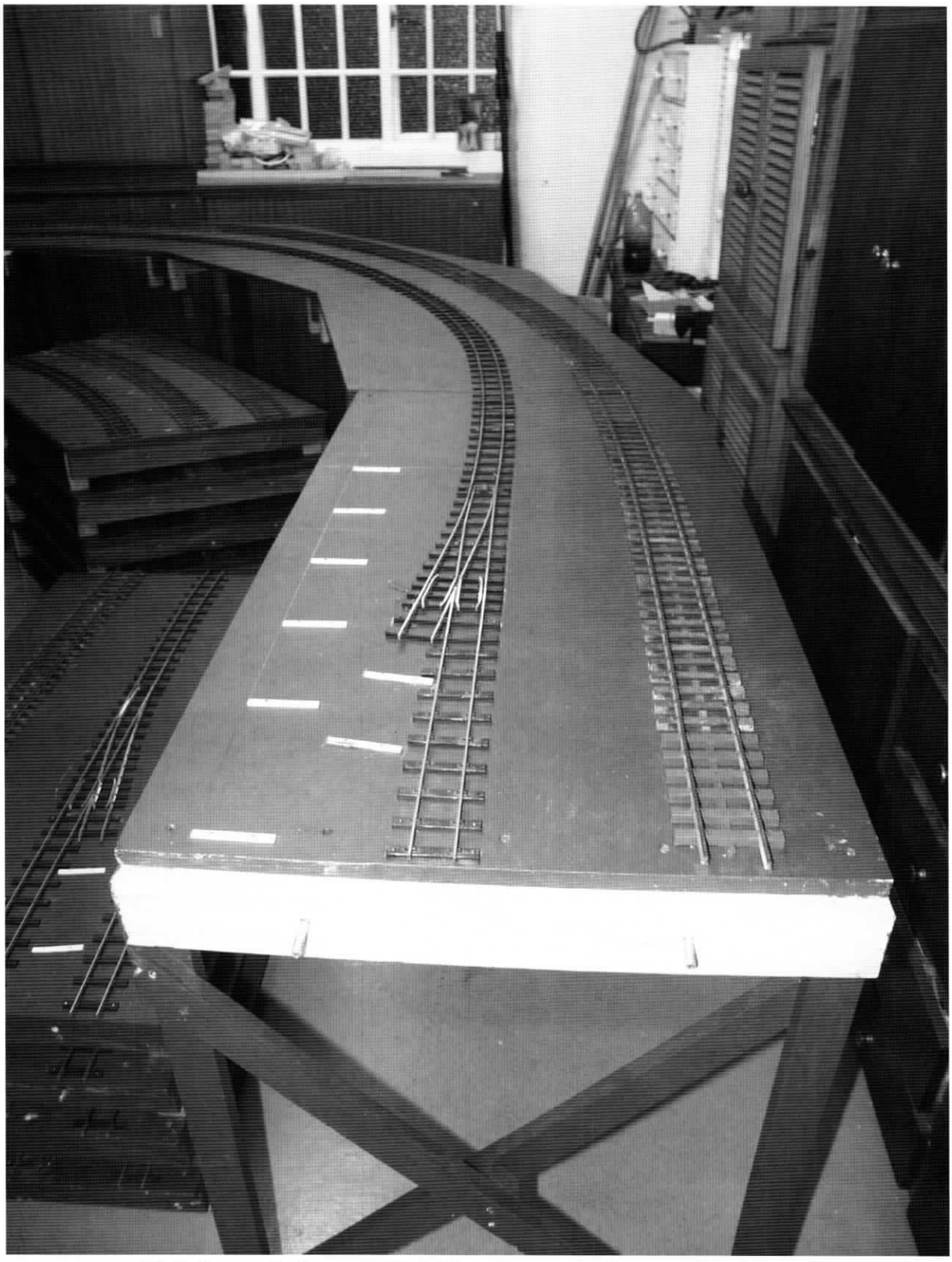
* Separate tracks to enable both 32mm and 45mm gauge locos to be run.



Supports and braces, as described in the article.



Underside view of a curved module section.



Modules partially assembled. Note the styrene locators for the track (white rectangles on left side of the module).

Finished and assembled, the Umkhulu Modules track is put to good use.

The main materials for the modules comprise 18mm, 9 ply shutterboard and 2x1 and 3x1 pine. As the name suggests, shutterboard is used in the building industry for concrete shuttering. This material was chosen for the baseboards because of its robustness and weatherproof nature as it has already been treated to resist water. It is supplied in 1220mm x 610mm sections (4'x2'). There are 18 boards in total, 3 on each side which are straight and thus are 1220mm x 610mm and 2 lots of 6 rhombic shaped boards which were cut to 15 degrees at the end of each board by the supplier, giving a length of 1220mm on the outside and approximately 900mm on the inside. The boards were braced with 2x1 'T' beams down the centre which are secured into 3x1 end pieces running crosswise **(see photograph)**.

The 3x1 crosspieces at the ends of the boards are recessed sufficiently so that when the boards are joined the trestles sit in between them and are interlocked with carriage bolts and butterfly nuts. A jig was used to drill the holes for the carriage bolts so that any trestle can be used for any two boards.

There are two types of trestles. For the first, 2x1 pine was used for the legs and cross bracing with two 3x1 cross members back to back at the top.

The second type comprised two 3x1 cross members back to back and a single 3x1 leg **(see photograph)**.

All legs are adjustable via an extension with a central slot which slides up and down two securing screws at the end of the legs.

Baseboard and trestle construction involved the use of over 600 screws. Thank goodness for "posidrive" screws and an electric screwdriver!

A weatherproof acrylic paint, 'Wall and All' was used to coat the trestles and baseboards after priming with wood pink primer.

Turning now to the track, fortunately, despite already having spent several years outside, the 45mm track was still in fairly good condition and could thus be reused. I should perhaps explain that this track had been produced in South Africa. The rail had the same profile as LGB and so could be used with LGB points. However, unlike LGB which uses brass, the locally produced product was made of copper. There are advantages and disadvantages with copper but in this instance the former prevailed, mainly that the use of a rail bender was unnecessary.

32mm track and points are Peco SM32 nickel silver. The only problem with this track is that insulating joiners

are not available so that for the foreseeable future it will not be possible to run electric locos other than battery powered ones on the 32mm track.

The technique used to lay and secure the track was the result of trial and error. A friend kindly worked out the geometry on his computer and a trammel was used to draw the approximate position of the track on the boards. Some articles on the subject recommend using a piece of string at the end of which is tied a pencil for this purpose, but I prefer a trammel made of a long piece of wood with a nail as the pivot and a pencil fixed in a drilled hole at the other end. This gives greater accuracy.

Having drawn the curves on the baseboards, easements were incorporated by visually sighting along the track gradually decreasing the curvature as the straight track was neared. This is not a scientific approach but it worked for me. Those who wish to obtain insight to the geometry of curves are referred to three articles on the subject in ***Garden Railways*** by Christopher Mills (December 1995, February and April 1996). Harold Fuller's article in the October 1996 ***Garden Railways*** on "Easy Easements" is also a useful reference.

Having decided on the track location, styrene "locators" were placed under the sleepers to hold the track in position **(see photograph)**.

The styrene locators were fixed to the baseboards with brass cabinetmakers pins and then the track was pinned through the sleepers into the locators. The result is a robust system which stands up to a fair amount of punishment experienced with erecting/dismantling/ transport.

When the modules have been erected and joined together and the baseboards levelled using a spirit level, the track is joined by sliding rail joiners retracted into a neighbouring rail into the adjacent rail.

One final feature visible from the photographs is that each baseboard has four short legs located at the corners which facilitates vertical stacking of the modules.

I hope those who suffer from the same problems as me (no readily available permanent track on which to run my locos) will find a useful idea or two in the foregoing.

Please contact me at ***shares@iafrica.com*** if you want any further explanation of how I built Umkhulu Modules. By the way, Umkhulu is Zulu for old men.....

Shunters Anonymous

by John Simon

A welcome change from the usual "round & round".

This little bit of nonsense was held at the Thirlmere Community Hall in New South Wales, Australia on our Rails in the Garden August 2007 Running Day, as well as The Great Southern Steam-Up 2007 in Victoria during October of that year. Only the names have been changed to protect the innocent.

This all came about when Jock Dewar suggested that we have something a little different than the usual running around in circles all the time. So after a few phone calls between us here's what happened.

The comments are those that I made during the day and are not in the order in which the "Contestants" ran. The Great Southern Steam-Up (TGSSU) comments are from memory and the Marking Cards that we used for that event.

The Teams consisted of a Driver, whose sole job was to look after the loco and obey any signals from the Guard, and a Guard who was to direct the Driver and to change the turnouts for the Driver to set each wagon into its designated track.

Dave and Murray in the heat of competition.

Though we allowed half an hour for each Team, speed was not necessary, but smoothness of operation and forward planning was needed.

Thirlemere August 2007 Run Day

Team "A" forgot they were driving a shunting loco and proceeded to try to break all speed limits. Not only that, but each stop was a sudden screech to a halt. Just as well no crew were aboard, otherwise they would have ended up in the firebox.

When the turntable had to be used to spot one wagon the Driver tried to put his eight foot wide loco onto the six foot wide Turntable. Needless to say he beached the loco. Twice! Even managed to derail the Caboose by rough handling. Tsk, tsk, tsk.

Team "B" again running too fast with rough stops. And to top this off the Driver was changing turnouts instead of the Guard doing the job he was employed to do.

Also, this team had to double move wagons to get proper clearance on turnouts then return again to retrieve the Caboose. Then the Driver pushed the loco with his finger to get the loco to start moving. Tsk,tsk,tsk.

Team "C" I have little to comment on other than good speed control, smooth starts and stops and a little rough on connecting once or twice. This team was also interfered with by another competitor twice but still managed to place well.

Team "D" Now for me here was The Team, good speed control, the Driver moved the Johnson Bar in to Neutral when stopped and even used the whistle in the correct code to call in the Guard for a conference on moving wagons. Only to be spoilt by a derailed wagon at the beginning of the run.

Team "E" This team made a lot of double move-

ments to get at or find the correct wagon to set out. A couple of times the Driver moved the loco without the Guards direction and thus had to move back to where he should have been in the first place. A magnificent fly shunt resulted in one wagon being derailed completely. Also the Driver was re-gassing his loco towards the end of the run because the gas was set too high and instead of tending the loco the Driver was telling the Guard what to do.

Team "F" A late entry but they were allowed in to play. A nice smooth pickup of the wagons each time after the first couple of set downs but then a derailment on a turnout saw some loss of points. Using the Turntable as a run-around was unusual and yet another derail on a turnout.

There was no Official Winner announced as we felt that the whole group were the winners, with the fun and enjoyment shown by all those who partook and those that just looked-on.

The Great Southern Steam-Up

We were asked to run a similar Shunting Competition at TGSSU in October, so with some rewritten rules and hurried consultation here are the results. Again the names are altered to protect the guilty and not necessarily in correct order of running.

There were five contesting teams, two of which were running Diesel outline loco's.

Team "A" took the rules to the nth degree and asked the two Judges to inspect their train before starting the Run. Now for those of you who missed out on the Rules and Regulations of the Shunting Competition here's the Rule in question.

"The Judges decision will be final, no correspondence will be entered into unless accompanied by Chocolate biscuits and a Nip of Scotch."

Well, on inspection Jock and I were asked, "Do you like White wine?" Now that is a silly question but.....

On closer inspection here is what we found. I'll not comment on the happenings to the Chocolates and White wine other than to say that they were very tasty.

Anyway, this team proceeded in a goodly manner with a little rough shunting once, but that wagon was empty by now anyway. Points lost by pushing the Caboose by finger. Tsk, tsk, tsk.

Bribery! Shame, shame.....

Team "B" Started off well but was plagued by derailments for some reason with a little rough shunting as well. The Guard positioned the train correctly and checked that the turnouts were set correctly before letting the Driver move the loco.

Team "C" Again this was the team to watch. Train handling by the Driver was excellent with smooth starts and stops and a realistic speed. The Guard checked that the turnouts were aligned before moving the loco and actually led the Driver through each turnout to the position of the shunt. A little rough shunting by the Driver marred an otherwise good performance.

Team "D" This team quizzed the Judges re actual wording of the Rules and asked many questions. The train was marshaled correctly and moved off well with the Driver working under the Guard's instructions. The train was positioned correctly for each shunt and turnouts checked by the Guard before movement of the train. But a little rough shunting and un-necessary movements pushed them down the order. To top this off, the Guard moved the truck with his finger in order to couple up. He didn't think I was watching but I was!

TEAM "E" This team fronted up with a Shay so to my mind he should have won the competition straight away.

Train handling and movements were good and the turnouts were checked only sometimes by the Guard before moving the train. But then the Guard handled the trucks during a shunt and this is what spoilt a good run.

We had to split the Winners, ie: a Winner from two different Teams, and each received a copy of David Burke's latest masterpiece.

I think I'll close with a standard Reader's Digest closure.

"Any relation to persons living or deceased, in this narrative is just a figment of your imagination and no discussion will be entered into unless accompanied with a bottle of Scotch and a box of chocolates."

The "Dieselization" of the Lockstock and Barrel Railway

by Don Beach

OK, OK! Yes, I know. I am, and always have been, a narrow gauge railroad fan and a "dyed in the wool" live steamer. Why, my email address is even NGtrainman for gosh sakes! How did it come to this?!

The Hyde-Out Mountain F7 painted in the bright yellow livery of the Union Pacific.

Well, to tell you the truth, it has been a long slow fermentation that started at, of all places, one of the National Small-scale Live Steam events at Diamond-head a while back. During the show I was taking a stroll through the atrium, looking at all the wonderful stuff that is to be seen at an event like this. You know what I mean... varied scales and gauges of live steam models and rolling stock, the smell of steam and oil in the air and the many smiles of innocent Live Steamers at play. It was just about as close to "Live Steam Heaven" as one could expect to experience on the

face of this particular Earth!

I was well steeped in the ambiance of the place when I had one of those déjà vu moments! It seemed to me that I could hear and smell what could only be a model airplane engine somewhere close by! And then it occurred to me – it was a model airplane engine! At a live steam train event! How dare they!

Now, it is true that when I was a young lad I did mess around with model airplanes, I admit it! I was young but that particular mode of modeling was just a phase in my life, really! In time I cast off such childish pursuits to follow the more satisfying avocation of live steam model railroading.

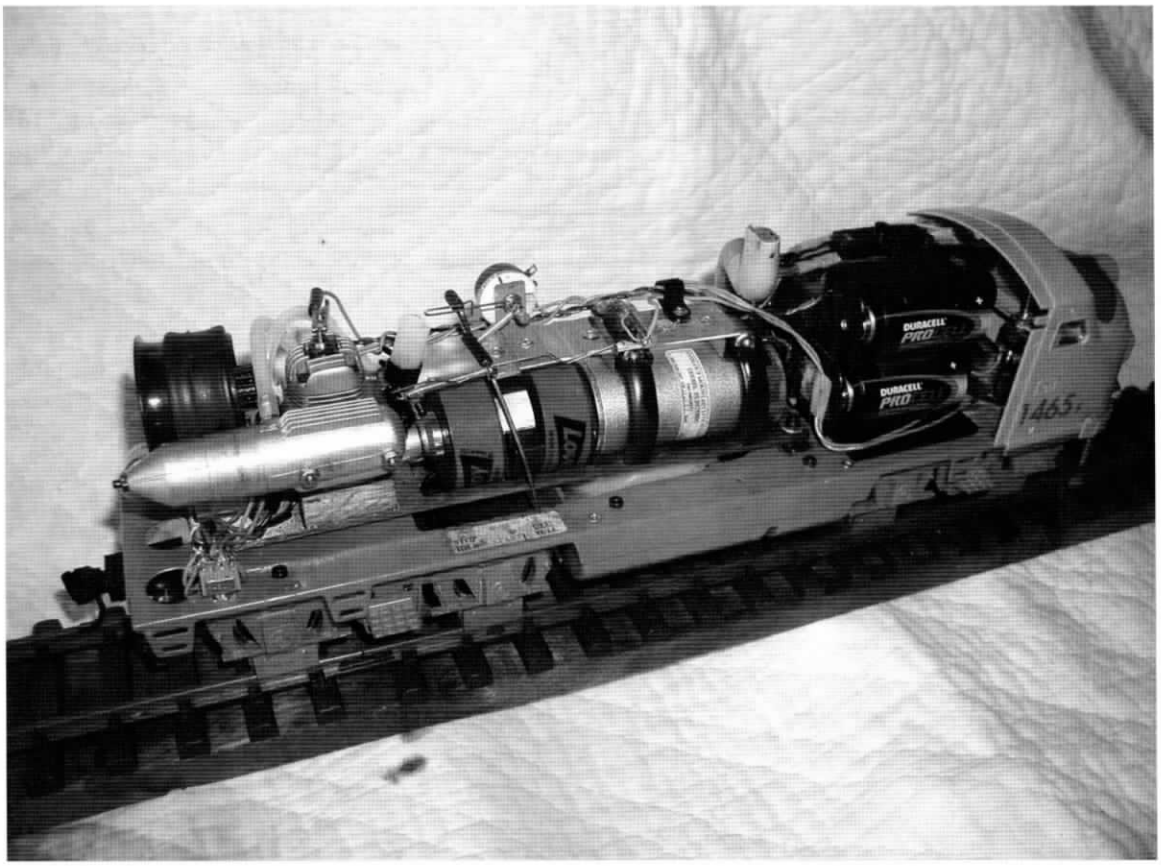
So, anyway, here I am in the middle of all that I consider to be pure and good when this unholy screech assaults my ears. (Actually it was a quite muffled sound, but that doesn't make as good a story.) After looking around for the source of the noise I spotted a bright yellow Union Pacific EMD F7 diesel engine running around one of the tracks! My word, what is that doing here?

That engine, as it turned out, is the brain child of Jerry Hyde of Hyde-Out Mountain Live Steam fame. Years ago when I was still working in the U.K., I had purchased one of Jerry's wonderful little Sterno-fired live steam Shays by mail order. It was a quirky little engine with a porcupine boiler and a little bucket like device slung beneath it to hold the Sterno! I have that engine to this day. Anyway, Jerry has figured out how to mount a model airplane engine and small generator into a Marklin F7 chassis to build a working model of a "live diesel" electric locomotive!

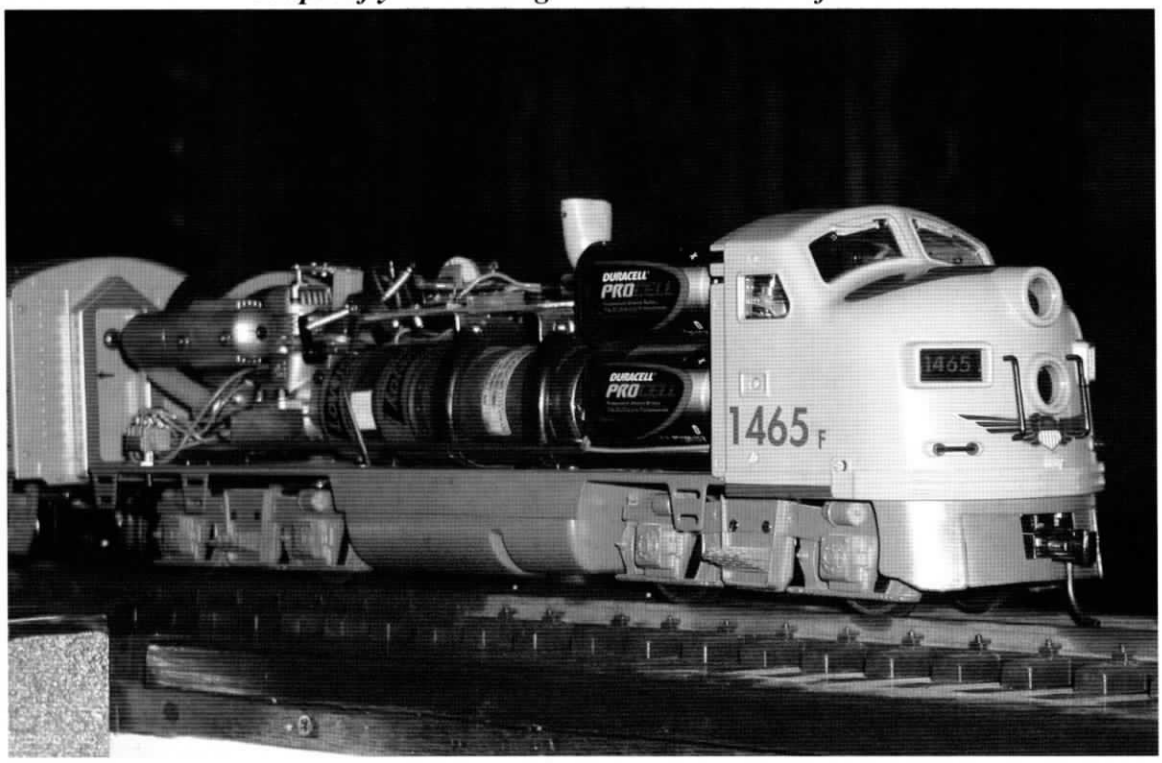
Ingenious, but it is still not live steam! I tried to ignore what I considered to be a mild affront to the live steam hobby, but somehow I couldn't quite get the F7 out of my mind. Diamondhead came to an end and we all returned to our other lives and pursuits among those lesser Beings who do not share our fondness for things powered by boiling water.

The "Last Straw":

I try to keep up with the live steam "scene" through the model railroading publications that fall through



Above and below: The F7 with the hood removed. Note the engine, coupler/flywheel and generator on the sub-frame.



my mail slot on a regular basis. The F7 had become just a faint memory until about a month ago when I opened the cover of the latest issue of ***Steam in the Garden*** magazine. The inside front cover is where the Hyde-Out Mountain advertisement lurks. There in living color was that bright yellow image of the F7, and the darned thing was on sale this time! So I gave in and made a call to Jerry - just to check things out...

Yes, he was working on a batch of the F7s and planned to have a few completed within a couple of weeks. Sure, I could buy a dummy unit to go along with the powered unit if I decided to purchase one. By the way, had I seen the video on youtube.com of the engine running? I really should take a look! Drat! That was the "last straw!" In a matter of weeks I had alerted my local Post Office to be on the lookout for a very large box marked fragile and wrapped in plain

brown paper.

After opening the box and examining my new bright yellow F7 in the privacy of my own home and having put a full quart of the finest 20% Nitro fuel through it, I now feel that it is time to share my impressions of the model with others.

Now please don't get me wrong, I realize that most of you won't be interested in my impressions of one of these noisy, smelly things. If you are one of those, just turn the page and enjoy the rest of this issue of ***SitG***. By the way, don't write to Ron to complain. It's too late; the article is already in print!

When I placed my order with Hyde-Out Mountain, I ask if the shipment could be made through the USPS rather than the usual UPS method of shipment. I live high up in the Colorado Rockies and the normal methods of shipment are not always available. The Post Office is usually my best bet (we snowmobile in to our houses during the winter months). Jerry Hyde was very accommodating. The model came packed in the original Marklin Maxi boxes packed in turn in a large cardboard shipping box.

The Model:

As I understand it, Hyde-Out Mountain has obtained most of the remaining Marklin F7s in this country. There were both powered and dummy units. Jerry explained that he had enough units on hand to build a total of 37 converted powered units. My model is number 14 of 37. For those of you that have not seen or read about the Marklin Maxi F7s here is a brief overview: The model is made in the Czech Republic (boggles the mind, eh?) of pressed steel from stem to stern and is very robust. There are any number of departures from a scale rendition of an EMD F7, but there is enough detail to be able to peg the model as a phase 2 unit from 1951. The model is scaled in 1:32 and is just a tad smaller than most of the standard gauge models available on today's market for gauge one track. It is finished in a powder coating that should resist any contact with model airplane fuel. The model conveys a good impression of an EMD third generation "covered wagon" of the early 1950's.

The Modifications:

Hyde-Out Mountain has constructed a second frame to hold the OS .15 engine, coupler/flywheel and 12 volt generator/starter motor. This is fastened to the original Marklin frame with vibration dampening mountings. On top of this structure is an aluminum plate that holds the throttle coupling and various switches that control the engine glow plug power and a rotary switch for the hi-speed cooling fan, all coupled together with the throttle linkage. The fan is mounted at the rear and is designed to pull cool air over the engine when the hood is attached.

In front of the engine power unit and generator assembly are two different battery assemblies. One is a small sealed 12 volt battery that powers the electric starter component and the cab lighting/headlights. The second is a battery holder for two D cells that power the glow plug in the engine. On the left side of the loco is a copper tube that serves as an addition to the muffler and a collector of the fuel residue that would normally be released into the air on a model airplane. The tube is routed to the top of the model where it releases the exhaust in the same manner as the prototype. All of this is accessed by removing the locomotive's superstructure (hood) from just in front of the cab doors. The fuel tank is located in the belly of the model, just where it is on the real thing.

The Advertisements for the Hyde-Out live-diesel state that all you need to do is to *"fuel it, set the throttle, push the button!"* and that turns out to be a fact! The linkage for the throttle is almost invisible when the hood is installed on the engine. In addition to the throttle there is a small three way switch located just behind the steps on the lower right corner of the loco. Push it to the front position and the engine moves forward, center position is neutral and back is reverse. Push the throttle forward and the engine accelerates; back and it idles. Real simple. If I had any complaint with the controls it would be that the headlight switch is located inside the cab and is only accessible when the hood is removed. A very minor complaint indeed, but it could be relocated to a switch just beneath the cab, near the leading power truck, much like the direction switch in the rear. Jerry has spent many hours developing the system that drives this model. His work is first rate and the model performs just as advertised.

Due to the very hard winter we are experiencing this year, I have not had an opportunity to really put the F7 to a real world test on my railroad. My track is buried under about four feet of snow as I write this in April. I have set up a small circle of track on the deck and run the loco and a couple of cars around and around the loop until my wife has begun to complain about me scaring all the birds away from the feeders located there. I suppose I will have to wait for the thaw and put it through all its paces come spring.

The Future:

I have had a number of conversations with Jerry since I first ran my diesel. He has said that when this limited run of Marklin based locomotives is sold out he has plans to make a more sophisticated model. It will be based on the MTH F3 platform and will incorporate radio control for starting, sound, throttle, reversing and any number of other improvements. It will also be more expensive as a result.

Conclusion:

OK, what do I think about this affront to the world of small scale live steam? It is an orange in a world of apples. The Hyde-Out F7 is similar to a model live steam locomotive in that it produces its own power (electricity) to propel it around a track just as our live steam models produce their own power (steam) to propel them around a track. It all comes down to personal choice. I doubt that my F7 will ever replace my live steam engines on the Lockstock & Barrel, even if it turns out to be easier to operate, cleaner to use, or even more powerful than any of my live steamers. My railroad will always reflect a space in time that can never return in the real world – long live 1950!

The Specifications:

Model:	General Motors EMD F7 Diesel-electric A Unit
Scale:	1/32 - correct scale for Standard Gauge on 45mm track, Gauge 1
Fuel:	20% nitro model engine fuel (model airplane/car)
Run Time:	About 20 minutes using the supplied 2oz fuel tank.
Minimum radius:	2 foot radius
Road Name:	Union Pacific No. 1465 – Dummy unit is No. 1470
Color:	Bright Yellow!
Manufacturer:	Hyde-Out Mountain Live Steam, 89060 NRR, Jewett, Ohio, 43986
Price:	Contact the manufacturer at 740-946-6611 or hydeoutmountain@verizon.net

A 16mm scale Finescale Talyllyn Railway "Dolgoch" hauls a preservation-era Talyllyn train on Jeff Young's Algonquin Light Railway.

photo by Jeff Young

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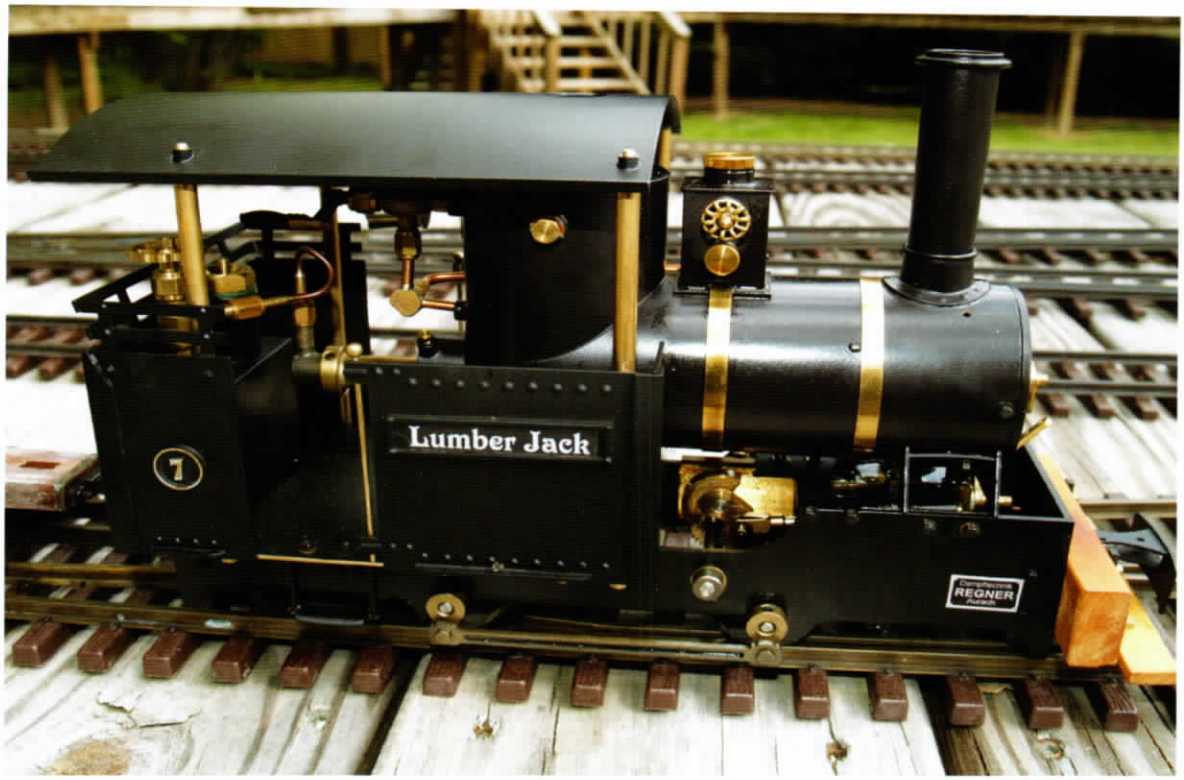

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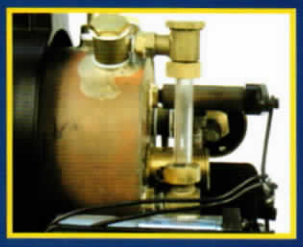

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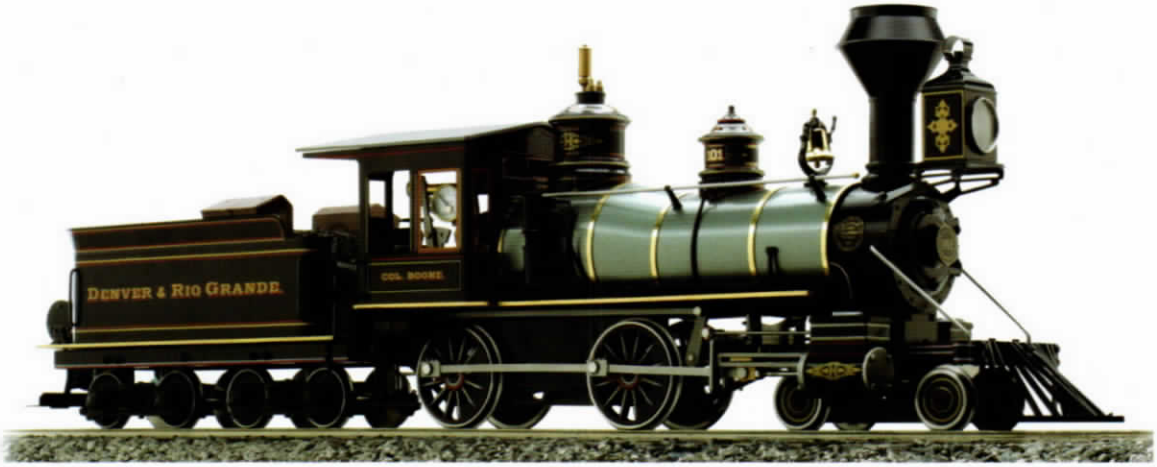

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Spring Steamups in the Bay Area... Pacific Coast Live Steamers Hold Two Events in Seven Days

by Dave Cole
photos by Mike Martin

What better way to celebrate the coming of spring to the San Francisco Bay Area than two back-to-back backyard steamups? No question about it, there was still a bit of a chill in the air, but that only made the steam plumes better.

For almost a decade the Pacific Coast Live Steamers — the club without officers, dues or rules — has held backyard steamups up and down the West Coast. There is a lively group of steamups throughout Southern California that are organized by Sonny Wizelmann of Los Angeles — not to mention those organized by Clark Lord at his Las Vegas backyard layout — but the Bay Area contingent doesn't even have that degree of marshalling. San Francisco area steam-track owners send an e-mail to a computer robot that squirts it out over the Internet to the couple of hundred e-mail addresses that are stored on the P-C-L-S.com list server. And the next thing you know, a steamup happens.

About a dozen Bay Area layouts participate, depending upon state of construction and temperament of spouses. And while the initial plan had been that they would happen three weeks apart, serendipity and a little rain caused the steamups of March 29 and April 5 to happen within seven days of each other, but it didn't appear that anybody complained.

Dr. Dan Liebowitz of Woodside, California, opens up his park-like layout about six times a year to local small-scale steamers and the March event was his second of 2008. Dan's layout is set up in three segments: an elevated loop, double-tracked, about 100 feet in diameter that has steamup bays on both sides; a connected garden railway that runs another 100-foot loop at ground level off the southern end of the elevated area and a 50-foot ground-level loop called the "narrow gauge" that travels over hills best suited to geared locomotives like Shays.

This massive layout has been developed by a number of people over the years on Dan's behalf, and has included the work of Jack Verducci, Mike Martin, Tom King and Paul Gamlin.

In addition to the large amount of trackage, there's plenty of room to sit and watch the trains, have lunch and — most important for many — plenty of places to park automobiles.

Lunch at Dr. Dan's is a pot-luck affair and, besides the normal steamer chili and hot dogs, in March there was a large tray of egg rolls, with sweet-and-sour sauce to complement, as well as fruit, potato and macaroni salads. Cookies and other treats abounded.

The March event had almost 30 people in attendance, and locomotives ranged from American prototypes like the new Accucraft AC12 Southern Pacific Cab Forward, to Roundhouse British profiles, to hand-crafted machines.

The aforementioned Sonny Wizelmann and his south-state cohort Bill Turkel showed up at the Li-

Jim McDavid (r.) watches as Tony Dixon prepares his Aster Duchess for a run.

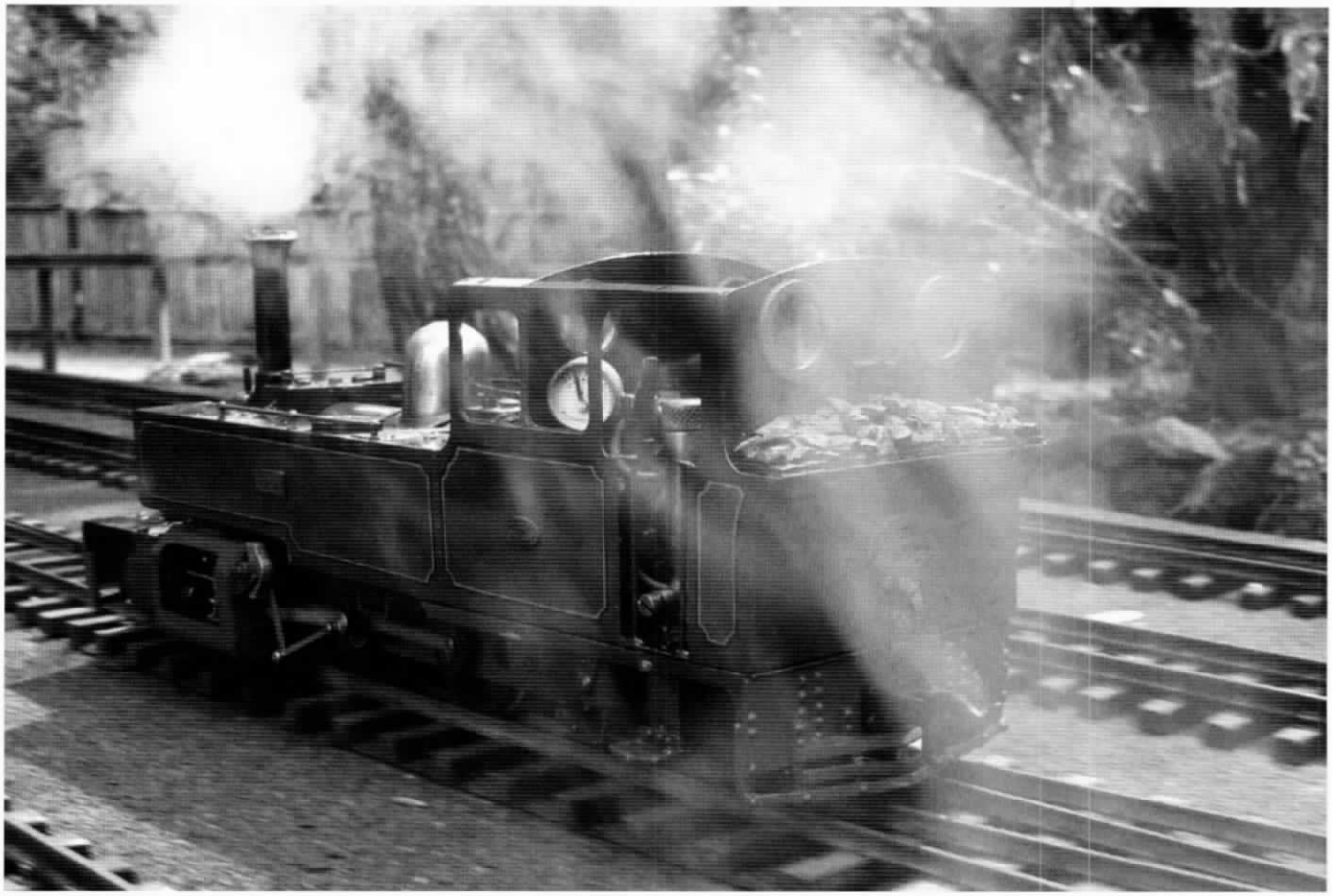
Jim McDavid takes a turn with his own Aster Duchess.

Above: Some of the steamup attendees tending to their locomotives.

Above: One of the Southern California contingent's Accucraft AC12 Southern Pacific Cab Forward locomotives.

Below: It kills my knees just to look at this photo!

Below: An old timer clanks along, providing transportation from the back woods to the main line.



In a cloud of steam.....

ebowitz layout because they had brought their newly purchased Cab Forwards up to Accucraft's Union City, Calif., headquarters for some adjustments. Were it not for their appearance, Jim McDavid's 150-mile trek from West Point, Calif., would have made him the farthest travelled.

Steamers were both young (including Arthur Squires of Half Moon Bay, Calif. and Peter Lenicheck and Charlie Knoth of Palo Alto, California) and old (no need to name names there) participated. Didn't show up with a locomotive? Dr. Dan would be happy to loan you one from his fleet so that you can make a circuit or two.

McDavid and his partner in crime, Tony Dixon of Pleasanton, California, made lots of coal smoke — and not an inconsiderable amount of steam — running their matching pair of coal-fired Duchesses, while Steve Shyvers' hand-crafted machines moved around the loop in a more stately manner..

The following week, another dozen steamers trooped over to Bob Trabucco's backyard in Los Gatos, about 15 miles south of the Liebowitz layout.

Trabucco's layout is all elevated and much of it is double-tracked. He built it himself in 2004-2005. It runs about 25 feet south, makes a turn at the property line and then runs 25 feet east, with a loop around a fruit tree to bring it back. At the steamup bay there is a 10-foot loop that is independent of the main line.

Bob and Janet Trabucco always lay on a good lunch for steamers and this time served baked lasagna with toasted French bread. A salad was contributed by Melinda Murray and there were sweet treats and fruit.

Certainly the steaming highlight of the event was the appearance of Dwight Ennis and his North Pacific Coast No. 21, the "Thomas Stetson." Ennis, of Milpitas, California, has hand-crafted a scale model of this one-of-a-kind locomotive that was built at the NPC shops in Sausalito, Calif., in 1901.

Known affectionately as "The Freak," the No. 21 was built from an oil-fired marine boiler and had a tender with two vertical tanks — one for oil, the other for water. Dwight built his model on the frame of an Accucraft Mogul and has included radio control.

While not yet painted, "The Freak" makes a great appearance on a layout and not only performed well, but paused on a couple of occasions for a beauty shot or two.

Though only a dozen steamers showed up at the Trabucco home, it was a wonderfully pleasant afternoon for all. Proving once again that you don't need officers, rules or dues to have a good time.

Workshop Project

Another Ruby Conversion Part II

by Cliff Goding

The Slope - Back Tender

There are several tenders available for RUBY. Most look too small, with little tiny wheels. I decided to design and build a tender that I thought of appropriate size and style for my RUBY conversion. I like standard 4-wheel trucks, but decided even my design would be too short for this feature. Thus, I settled for a two - axle design. Since Ruby's 0 - 4 - 0 configuration is basically that of a switcher, I decided on the slope-back style. Method of construction is fairly simple since my inventory of tools is limited. As with the RUBY engine conversion ***(SitG #98)***, all fastening is done using small (No. 6) self-tapping screws and a strong adhesive called "Goop™". Where this adhesive is called for, soldering could be done to the brass parts. The sheet brass body parts are fastened to the plastic undercarriage using screws so that the body can be completely removed from the frame, if need be, to work on it or add something - - such as radio control components.

TOOLS: Use your best tools for cutting and bending sheet brass, and cutting and grinding plastic parts. For cutting 0.015" thick sheet brass I used Wiss™ Metal Master shears rated for cutting up to No. 20-gauge (0.035") low carbon steel. I used an old miter box and handsaw to cut the plastic Aristocraft™ two-axle car body undercarriage and used a DremelT™ Rotary Tool System with various cut-off and grinding tools for miscellaneous cut-off and shaping operations. Bending the sheet brass involved laying the precut shape on a Formica - covered table at the very edge, placing a 1/4" thick x 1-1/4" wide x 10" long steel strap along the edge to be bent, then using several C-clamps to hold the parts to the table. Bend at the table's edge, by hand or with the aid of a pair of pliers. An electric drill will be needed for mounting and self-tapping screw holes.

Material: The two sides, sloped back, coal bin and most other flat parts are cut from .015" thick brass, which I found in 4" wide x 10" long sheets. Formed 1/4" brass angle x 12" long was used to make reinforcing/mounting members used to fasten sides to the undercarriage, and 3/16" brass angle used to support the sloped back onto the side members. The undercarriage is the basic part remaining after removing the body from any Aristocraft 2-axle G - gauge freight car. I used a flat car. All mounting screws are No. 6 x 3/8" long stainless steel self-tapping Philips head screws. The water fill hatch, back-up light and two water shut-off valve handles are from Ozark Miniatures. The metal wheels are Bachmann item No. 92422, 24.5mm dia. (<1 inch) small metal wheel set. The draw bar hook and loop are replacement parts from Aristocraft for their 4 - wheel G -gauge switch engine. A hand full of small stones make the coal load.

Refer to **Figure 2**, which shows the slope-back tender and gives highlights of the revisions to be made.

STEP 1: Disassemble an Aristocraft 2-wheel freight car, leaving only the basic undercarriage with wheels. Leave the standard Aristocraft knuckle coupler on one end, remove the entire coupler from the other end. NOTE: If you intend to utilize another coupler system, remove couplers from both ends. There are two screws holding each side member to the main undercarriage. Remove these screws and both side members. Discard the two plastic axles and wheels, and place the side members aside for future work. Label inside of one side member LH as well as a LH label on the bottom of the undercarriage. Parts will reassemble easier if returned to their original position.

STEP 2: Shorten the undercarriage to the required length. Mark the underneath of the main undercarriage to show the portion which will be removed.

This will be a 2-3/8" floor section straddling the exact center of the undercarriage. Place the piece with its flat side down on a miter box, and carefully remove this 2-3/8" section. Make sure these cuts are square and straight. Adhere these two undercarriage parts with "Goop". Let this rejoined piece set overnight before further handling. Place one of the removed side members with its flat side on a cutting surface and remove a 2-3/8" piece from the exact center of this part. Before doing this, cut the plastic strap that joins the "fake" tool box and both wheel housings with a grinding/cutoff wheel so that this strap can be saved and rejoined with the two cut halves of the side member as shown in **Figure 2**. Rejoin the two halves, including the wheel housing straps, using "Goop". Let this rejoined side member set overnight before further handling. Do the same operation to the other (LH) side member.

STEP 3: Add reinforcement angles to the side frames. Cut two 3/16" brass angle pieces 3-1/4" long and adhere one to the inside frame of each side member. Position this reinforcing angle so that half its length is on each side of the glued joint, and its turned-out flange so that it will clear the cross braces of the undercarriage (floor) when these three pieces are reassembled. Allow reinforced sides to dry overnight. Using the original 4 screws, reassemble the shortened floor and two shortened side members.

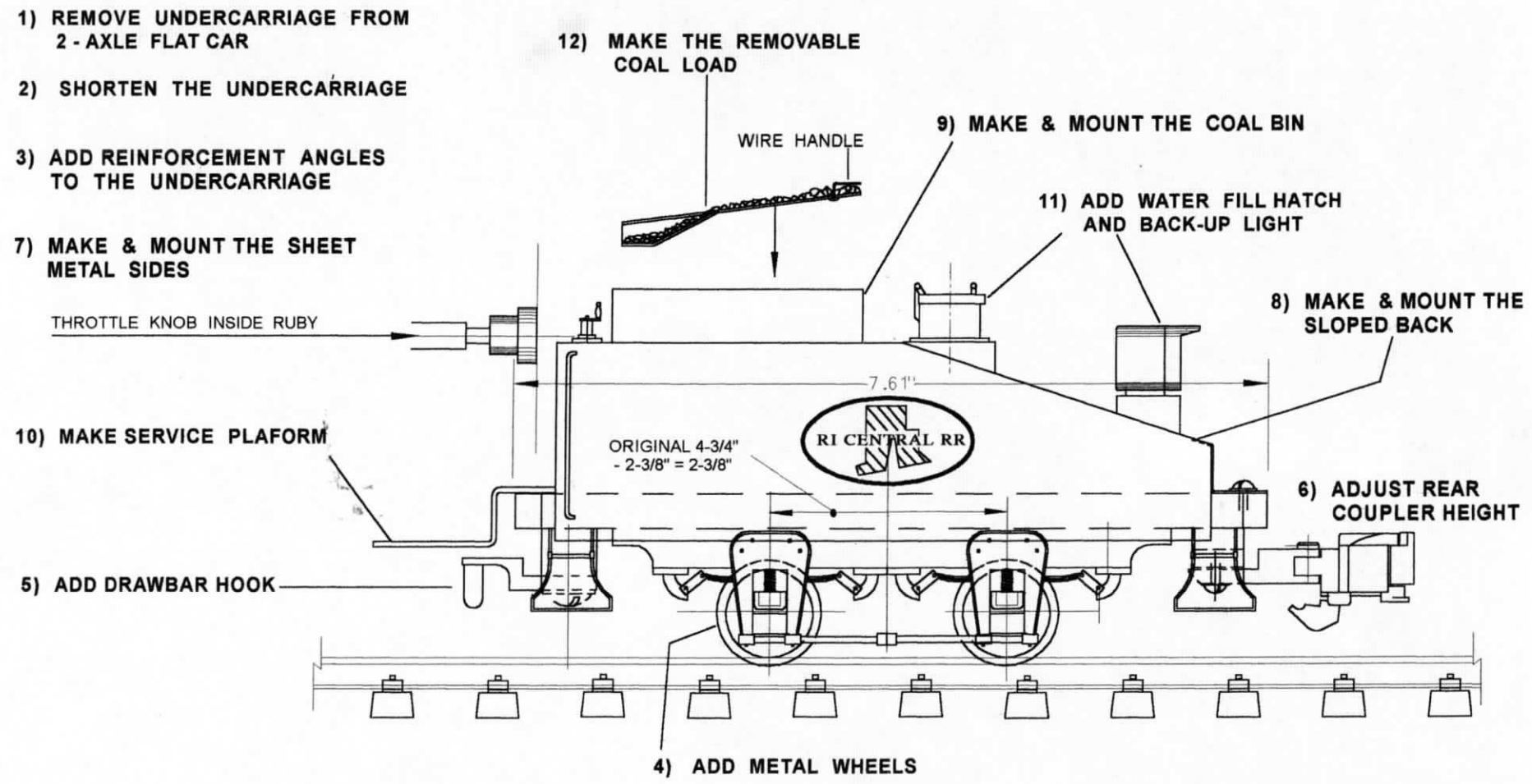
STEP 4: Insert the new 1" diameter metal wheel and axle units into the wheel housings of the above side members, If all cutting of the undercarriage parts and re-assembly has been done carefully, the wheels should turn freely when the assembly is lightly pushed along a straight section of track.

STEP 5: Add draw bar hook. The undercarriage has a rectangular boss at each end on which the standard Aristocraft couplers were mounted. If you are using these couplers, the one left in place after disassembly of the original two-axle freight car will signify the back end of the tender. Assemble the hook to the other rectangular boss. This piece should fit directly onto the boss using the same mounting screw originally holding the removed coupler. This will be the front, or locomotive end of the tender. If you are using another method of coupling the engine and tender together you may have to alter this boss to accommodate your assembly.

STEP 6: Adjust height of rear coupler. Remove the existing coupler so that the mounting boss can be altered. The metal wheels added in step 4, in place of the original plastic wheels, are 1/4" smaller in diameter. To compensate for this, so the couplers will match up with couplers on other cars, remove 1/8" from the height of the rear boss. This will raise the coupler by 1/8". Reassemble the coupler to this boss. If you are using another type of coupler, alter this boss as necessary for your coupler. At this time you now have the completed undercarriage for the slope-back tender.

STEP 7: Make the sheet metal sides. The sheet metal sides are to be cut from 0.015" thick sheet brass. See figures 3 through 7 for layouts of the sheet metal parts. These drawings were made to scale on an 11" x 17" size sheet, and all parts are dimensioned. They also have a 6" long scale bar. You can either draw your own templates from the dimensions given, or the drawings can be increased in size, using a printer with this feature, until the final drawing measures 11" x 17", or until the scale bar measures exactly 6 inches. The drawings can then be used as a full scale template - two will be required for the sides -- one for the left side, one for the right side. Cut out the templates and line up the bottom edge of the template with the bottom edge of the brass sheet. This will eliminate one cut. Adhere template to the metal sheet with rubber cement so that it can be removed after cutting. If a 4" x 10" sheet is used, use a separate sheet for each tender side. The left-over portions can be used later for other miscellaneous small parts. After cutting remove the templates and mark location of the two front bends on what will be the inside surface. Make the front end bends as shown in **Figure 3** to produce the right hand side. Make these bends in the opposite direction to produce the left hand side.

There are two phantom lines shown on the side templates. The upper line is in line with the bottom of the two front end bends and represents the location of the top of the undercarriage floor when the side piece is mounted. Score a line on the inside surface of each side to match this phantom line. This is where the turned out flange of a reinforcing/mounting angle will be located. Make two of these reinforcing/mounting pieces, each 5-1/2" long, from 1/4" brass angle. Make two 5/32" diameter mounting holes in one flange of each angle. Locate holes 1" from each end of the angle. Adhere one angle to the inside of each side member using "Goop". The flange with the mounting holes to be along the scribed line, and on the bottom, positioned for resting on the top of the undercarriage floor. Place the right hand side piece



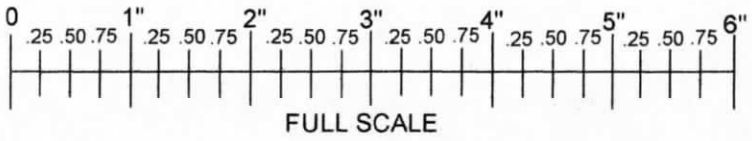
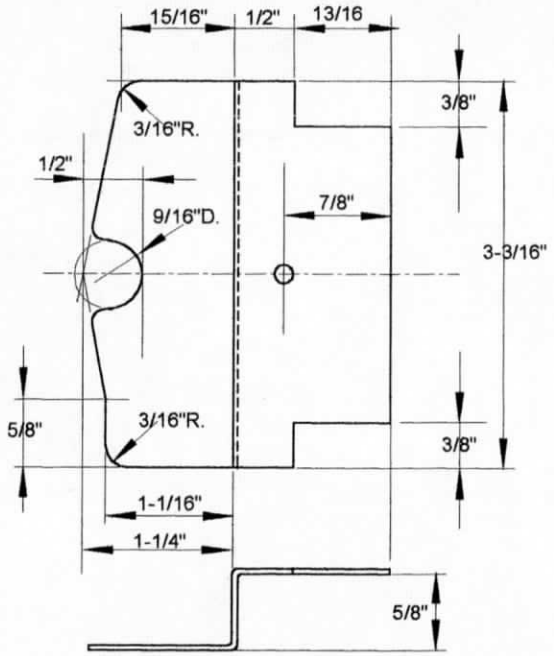


FIGURE 2

RubySlopedTender
FULL SCALE on 11" x 17" Sheet
Date: Rev JAN 08



SERVICE PLATFORM

FIGURE 4

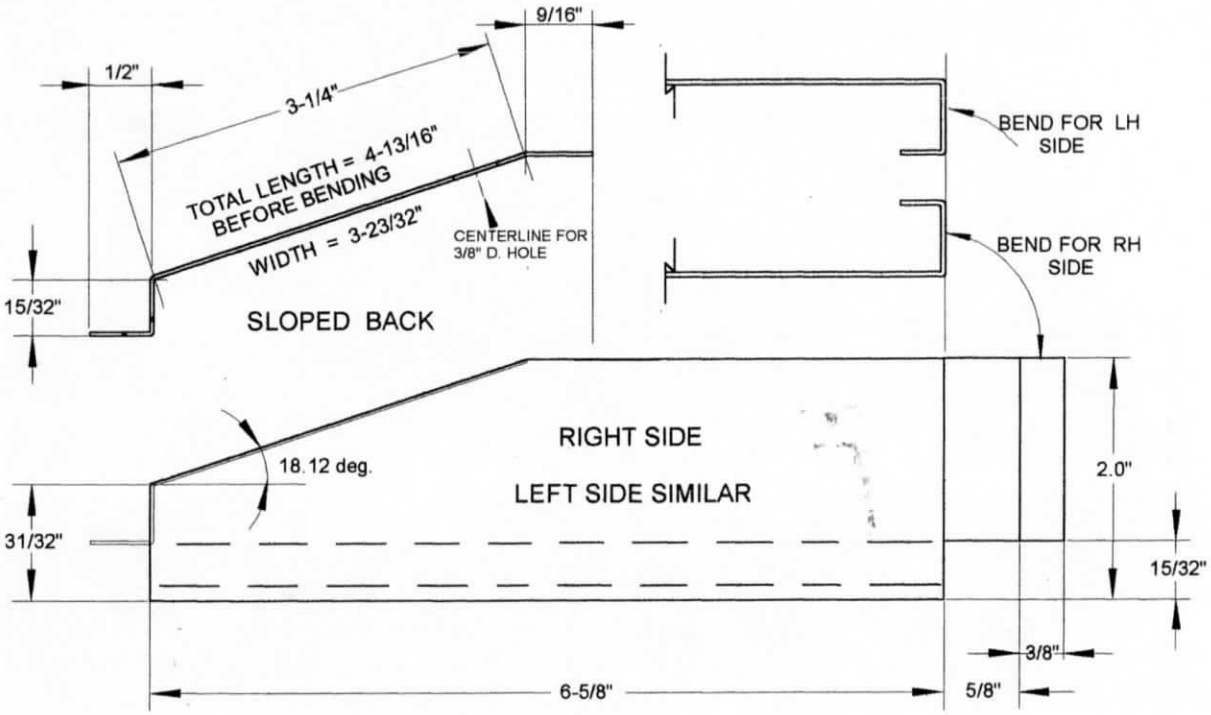
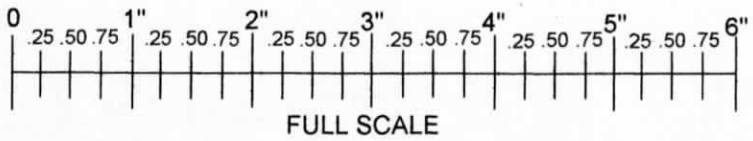


FIGURE 3

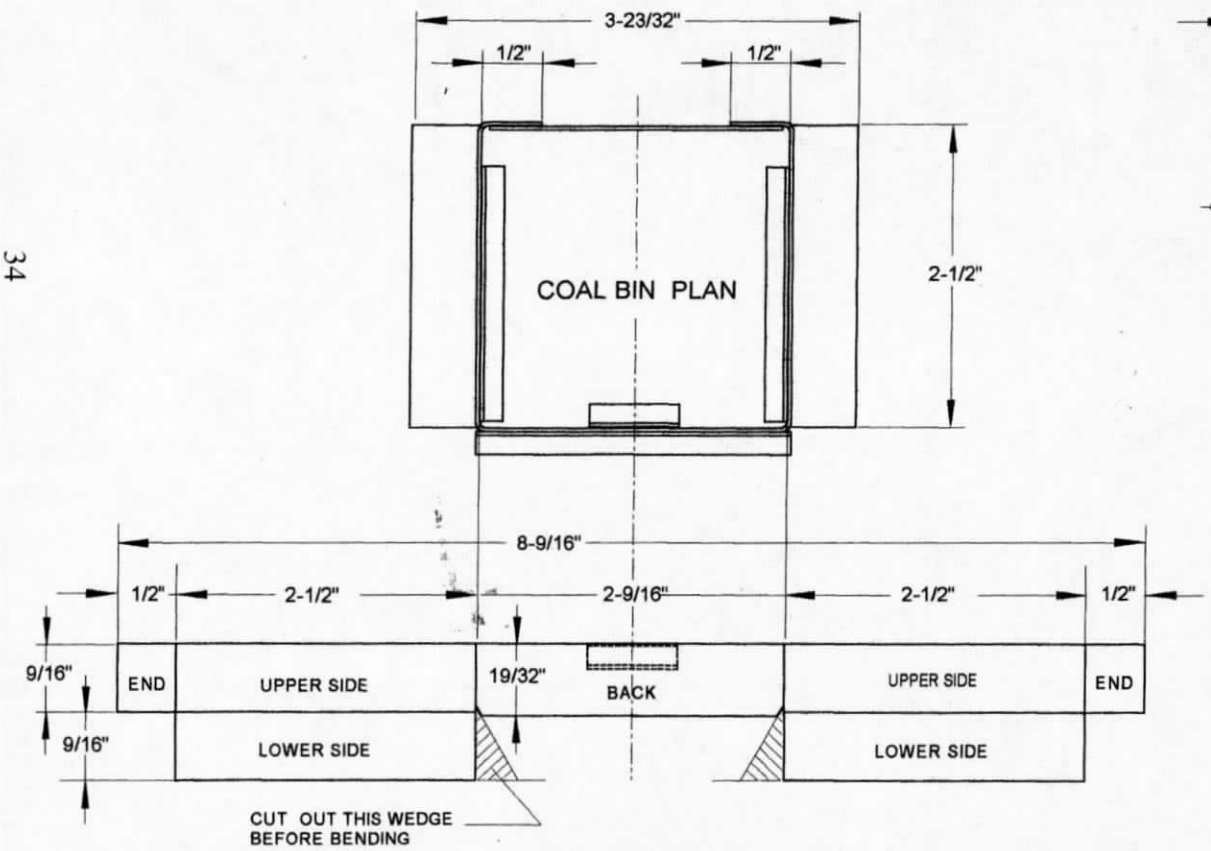


FULL SCALE

RubyTender3 Parts

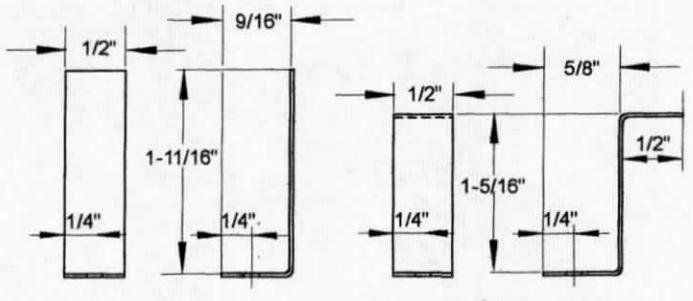
FULL SCALE on 11" x 17" Sheet

Date: Rev JAN 08



COAL BIN TEMPLATE

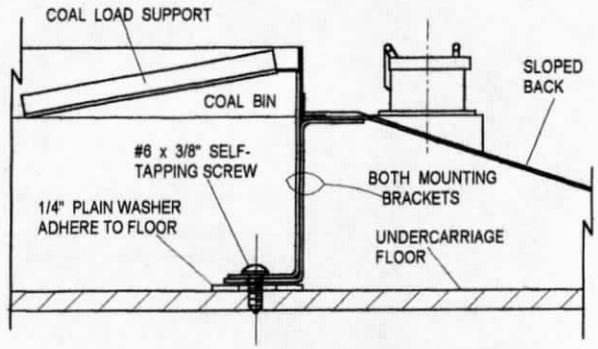
FIGURE 5



COAL BIN MTG. BRKT

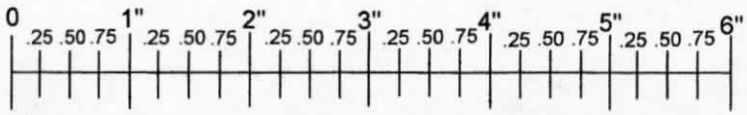
SLOPED BACK MTG. BRKT

FIGURE 6



PARTIAL ASSEMBLY SECTION

FIGURE 7



FULL SCALE

RubyTender4 Parts

FULL SCALE on 11" x 17" Sheet

Date: Rev JAN 08

on the floor with two mounting holes down and the front edge of the side piece 7/16" from the front edge of the undercarriage. NOTE: the front most edge of the undercarriage has a slight taper from the middle to the outside edge. The 7/16" is measured at the outside edge.

Holding the side in this position, mark the location of a 3/32" diameter tap drill for the two No. 6 mounting screws from the holes already in the side piece. Use a screw to tap the threads, then mount this right hand side piece. The lower edge of the side piece will extend approximately 3/32" below the undercarriage - - as indicated by the lower phantom line on the template. Repeat this procedure for the left hand side.

Make two sets of three reinforcing angles for the top edge, slope and rear end of the sides. Using 1/4" brass angle, make one 2-15/16" long for the top edge, one 2-3/4" long for the sloped edge, and one 7/16" long for rear end edge. Adhere these to the inside surfaces: locate the top angle 3/32" down from the top edge of the side piece, locate the slope angle and the rear end angle 1/32" down from their respective edges. Let these parts dry overnight before doing any other work on them. You will note that these reinforcing angles partially hide the mounting screws below them. Using a Dremel tool with the appropriate cutting and grinding attachments, make a segment of a (about 3/8" diameter) hole directly above each mounting screw to allow screwdriver access.

STEP 8: Make one sheet metal sloped back piece. Refer to **Figure 3** which shows a bending template for the sloped back. It is shown just above one of the sides where it will be located. Cut a rectangular piece of sheet brass 3-23/32" wide x 4-13/16" (expanded) length. Make sure all edges are cut straight and square. Lightly scribe lines along the inside of the 3-23/32" width where the three bends will be made. Make the 90 degree bend first, then make the upper and lower angle bends in several steps, checking the piece with the template until the proper shape is obtained. Also try it on the sides that are already assembled to the undercarriage to see that it fits as desired. Minor adjustments from the templates shape may be required to get the best fit. When in place, the 1/2" wide flat section at the very back of this piece will be mounted onto the rear end of the undercarriage floor. The rear edge of this flat section should fall even with the rear end edge of the undercarriage. When the proper fit is obtained, make two 5/32" diameter mounting holes 1/4" in from the rear edge and 3/4" in from each side. Also, make a 3/8 diameter hole 7/16" down from the top surface as shown on the template drawing. Locate this hole on the centerline of the 3-23/32" width. This will fall directly beneath the water fill hatch which will be added later. Hold, or clamp, this sloped piece in place and mark the location of a 3/32" tap drill for each of the two No. 6 self - tapping screws from the holes already in the mounting flange. Make two holes in the undercarriage floor. Use a screw to tap the threads, then mount this sloped piece to the undercarriage. The sloped back piece should rest on the top of the side reinforcing angles.

Refer to the parts drawing, **Figure 6**, which shows a sloped back mounting bracket. Make one of these from a piece of the 0.015" brass sheet. Also make one coal bin mounting bracket from the same material, and put this aside for later use. Note that each bracket has a 5/32" diameter mounting hole in its lower flange. Adhere the short mounting bracket to the underside, and on the centerline, of the top surface of the sloped back piece. The vertical, straight portion of the bracket should be flush with the front edge of top surface. The bottom, with mounting hole, should not touch the floor.

STEP 9: Make the sheet metal coal bin. Refer to **Figure 5** which shows a cut-out template for the coal bin. Lay out the top edge of this piece along the straight edge of the brass sheet to obtain a good straight top edge and to eliminate one cut. Lightly scribe bend lines on what will be the inside of the piece. Make the two cut outs shown shaded in figure 5 before bending, then after bending to match plan view, cut lower back edge with shears as close to the 19/32" dimension shown as possible. Cut a rectangular piece of brass sheet 2-7/16" x 1-1/4" and adhere this to the inside of the front end flaps. Locate this piece about 1/32" down from top edge of the two flaps. While "GOOP" is still not set, check 3-23/32" dimension over the full length of the bin to make sure it is constant, then press together tightly. If this dimension is somewhat more than the 3-23/32", when fully dry, grind lower side pieces as necessary to obtain this size so that the bin will fit easily within the opening of the two side members.

Add three 3/16" brass angles inside to support coal load. One piece, 3/4" long, to be affixed to the back and straddle centerline, with its top, adhered, flange flush with the top edge of the back as shown in **Figure 5.** The other two angle pieces, each to be 2-1/8" long. Adhere one angle to each side, on a downward slope as shown is **Figure 7**. Also cut a piece of 3/16"

angle 2-9/16" long and adhere to the lower outside back so that it will come in contact with the top flat surface of the sloped back when the two are fitted together at assembly. Adhere the previously made coal bin mounting bracket to the inside back of the coal bin. It must be located directly beneath the 3/4" long coal load angle support as shown in **Figure 7**.

When the coal bin and sloped back are both assembled onto the undercarriage floor, the coal bin mounting bracket should lay against the inside of the sloped back mounting bracket as shown in **Figure 7**, and the two mounting holes in the lower turnbacks should line up. Using these holes, mark the location of a 3/32" diameter tap drill hole. Make the hole in the plastic undercarriage floor and insert the self-tapping screw to make the threads. The brackets lower turnbacks should be about 3/32" above the floor. Add a 1/4" plain steel washer, with all holes lined up, and adhere washer to floor. Fasten all pieces to the floor as shown in **Figure 7**. There should be enough space between mounting bracket turnbacks and the steel washer to cause the mounting screw to pull down on the parts, making them a good tight assembly.

STEP 10: Make the service platform. The service platform will give the Engine & Tender a finished, close-coupled appearance when the two are connected for a run. When made to the exact configuration shown, and fastened to the tender floor (see **Figure 2**) the front contour will clear the gas tank, and the head of the screw holding the draw bar loop, and will allow for a 4 foot radius track turn. See **Figure 4** for dimensions and bending profile. Cut a piece of 0.015" brass sheet 3-3/16" wide x 2-15/16" long. The 2-15/16" dimension being the expanded length before shaping and bending. Lightly scribe the two bending lines on the inside of each bend. Cut the Front edge shape and two cut outs on the back end, and drill the 5/32" diameter mounting hole. Bend to the profile shown. Couple the tender to the rear of RUBY and set on a 4 foot radius section of tack. Place the service platform in the position shown in **Figure 2** and move assembly to check that front edge of platform does not interfere with any part of RUBY. When best location is obtained, mark location of a 3/32" diameter tap drill from the mounting hole in platform. Drill mounting hole and insert No. 6 self - tapping screw to form threads. Assemble service platform to the tender floor,

STEP 11: Add water fill hatch, back-up light and fill valves. These are three items that can be obtained from Ozark Miniatures or other part suppliers. Make mounting bases for each part, exact designs not provided here, but both can be cut from left over pieces of 0.015" Brass sheet. The water fill hatch base should be fully enclosed (except for its bottom), approximately 7/8" square on top with sides conforming to the sloped back. Adhere this base over the 3/8" hole previously made in the sloped back, then adhere the water fill hatch to its top flat surface. The back-up light base can be a u-shaped piece, approximately 3/4" wide x 5/8" long at the top with sides conforming to the sloped back. Both sides should have a 1/8" turned out flange on bottom, used to adhere the base to the sloped back. Adhere the back-up light to top flat surface of this base. Working lights were not part of this project, but the tender light could be wired to a switch and battery inside tender body, or both the RUBY headlight and tender backup light could be made with self contained bulb, battery and turn-on method as described in previous issues of ***Steam in the Garden***. See issue No. 82, page 19 and issue No. 73, page 39.

Note that with the coal bin fastened in place, there are two small openings, about 3/8" x 5/8", between the front edge of the coal bin side flanges and the front u-bends of the side members. Custom cut two small pieces from 0.015" brass sheet, grind and shape until a good fit is obtained, then adhere each to top reinforcing angle that extends into these openings. Adhere the water supply valve handle castings onto these front corner pieces

STEP 12: Make the removable coal load. No drawing detail is provided - - a side view section is shown in **Figure 2**. Make a 2-1/2" square piece from 1/32" thick styrene sheet. When placed in the coal bin opening, this should rest on the three support angles inside this opening, and slope full length from back to front. Check the fit and file or grind smaller if needed, or cut a larger piece, if necessary, to fit the opening in your unit. To make the coal load look like some coal had been used, make a depression in the center and at the front edge by making a scissors cut 1-1/4" wide tapering to 3/4" wide at the center. Do not cut this piece out, but bend it down about 7/16" in the front. Cut two triangular styrene pieces to hold this flap down and adhere these to fill in the gap on both sides of this flap. Gather a hand full of small (about 3/4" dia.) stones. Break with a hammer to get a bunch of small stones that look the right size to be G gauge pieces of coal. Adhere these small stones to the upper surface of the styrene piece until completely covered.

After completely dry, paint the entire stone - covered surface, using a small paint brush, with flat black paint. Get into all the crevasses. Then, using gloss black paint, dab on some stones at random locations to give it a real coal look. Make a small handle to help in removal from coal bin. Cut an approximately 1/32" diameter wire about 3/4" long and make a 90 degree bend about 1/4" from one end. Make a tight fitting drilled hole through the coal load and close to the back end. Insert the 1/2" portion of the handle through this hole, as shown in **Figure 2**, and put a dab of glue at the bottom to hold in place. Paint the visible part of the handle black.

FINISHING UP: Completely disassemble the tender for painting. The sheet brass parts should be thoroughly cleaned (I used white vinegar) and spray primed, then spray painted your color choice. I used black all over to match RUBY except the sloped back which I made a medium green. The complete undercarriage does not need painting.

The weight of the new brass parts on the 2 - axle undercarriage causes the springs to compress more than desired. To prevent this put a small dab of "GOOP" on each spring and allow to dry overnight with no weight on the springs, i.e., place the disassembled undercarriage upside down on its flat floor surface. After the paint on all parts is dry, reassemble. You now have a sloped back tender for your RUBY.

There is ample space in this tender to place radio control components inside, making it necessary to mount only the speed control servo in the cab. I drilled a 1/6" diameter hole in the rear bumper of the tender's undercarriage which allows a long (wire type) antenna on the receiver to be run under the tender's floor, through this hole and into the freight car coupled to the tender. But radio control is not necessary with this RUBY. I found that the weight added by this mostly all metal tender and four of the Aristocraft 2-axle freight cars was an ideal load for RUBY. Two beautiful runs at Ron and Marie Brown's summer 2007 steamup were made, lasting about 10 to 12 minutes each and running at a constant speed which appeared just right for this little train.

A Skunk in the Gardens

by Tony Phillips and Dan Fessler

U.S. history and logging railroads are the key ingredients in any discussion of Fort Bragg, California. Named after Braxton Bragg, then the Commanding General of the Western Division of the United States Army and later a key commander in the forces of the Confederacy, Fort Bragg was established in 1857 to contain Russian efforts to colonize the northern California coast.

During its short history (1857-59) as a military installation, Fort Bragg is perhaps most notable for an incident that took place some three years earlier. In 1854 Captain U.S. Grant led a military expedition seeking suitable sites for an installation that would isolate the Russian settlement at Fort Ross. Though disputed by some recent historians, local tradition asserts that Grant became intoxicated in an incident or incidents which led to his being court marshaled. In 1854 he resigned his commission. Fortunately for the Republic, Grant's military career was revived in time to rout Bragg at the Battle of Chattanooga, giving the Union control over that vital rail junction. But that is a story drawn from relatively recent history. Long before the Russians, the Americans, or even the Native Americans sought to inhabit the environs of Fort Bragg, giant redwoods populated these shores and it was these trees that attracted the attention and ultimately the establishment of the logging railroads and mills that for more than a century were the heart of our lives and today are the focus of the Mendocino Coast Model Railroad and Historical Society.

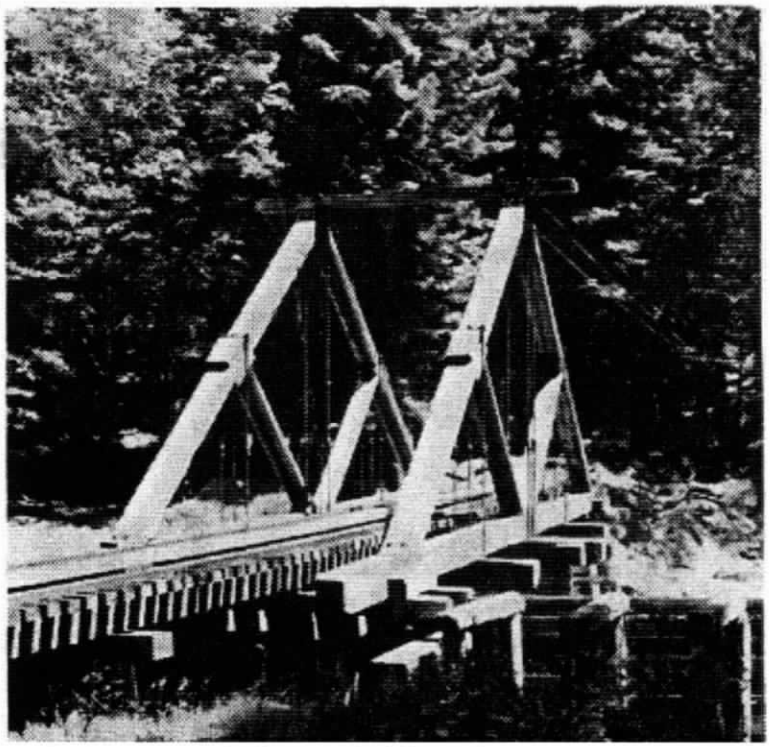
Steam returned to the redwoods over the Christmas holidays owing to the efforts of our members to share this heritage. In late August 2007 our Club received permission to stage a train show from December 15th through 24th at the Mendocino Coast Botanical Gardens. Frantic planning by club members then ensued. The decision was taken to create as our centre piece a 22 by 17 foot G Scale railroad raised 42 inches off the ground – the Big Layout. In addition we wanted to have as many "exhibits" and layouts as we could manage. Ultimately we had 16 separate working models/exhibits.

The show was a huge success - nearly 1,000 locals and visitors (Fort Bragg – 160 miles north of San Francisco - has a population of 5,700) watched trains chuff, rumble and hoot though the models. THE big hit of the show though was the demonstration on the last Saturday of club members' live steam engines. We believe that this was the first time that model live steam engines have ever been on public display in, what is literally, our neck of the woods.

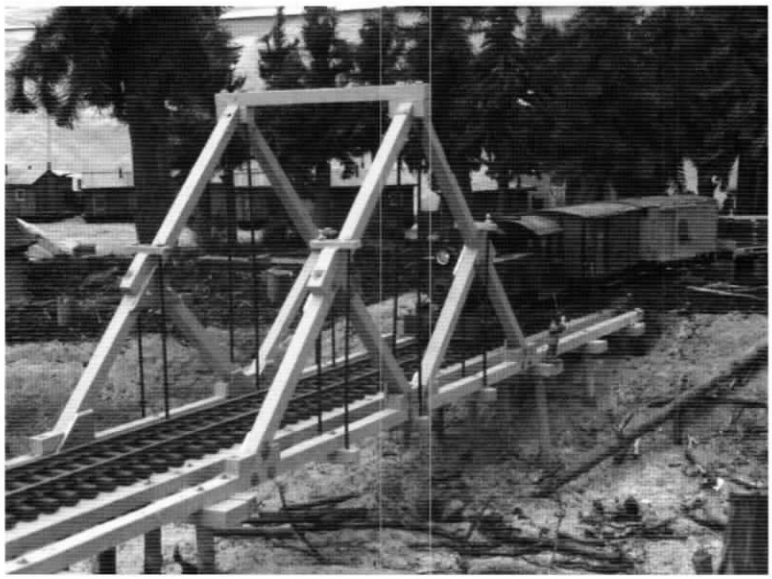
Our show centre piece, we decided, would be a contiguous scene built so that the "scenes", once the show was over, could form part of our (under construction) Club permanent layout which will illustrate the history of the Mendocino Coast logging railroads back when the California Western Railroad (CWR) was a working logging railroad some 70 years ago. Fort Bragg is the home of the California Western Railroad (CWR) and it is better known as the Skunk Line. Our Big Layout depicted locations on the Skunk Line as they looked back in the 1930s to 1950s – hence the title of this piece: "The Skunk in the (Botanical) Gardens."

The CWR was owned by the Union Lumber Company, whose mill in Fort Bragg was the largest along the Mendocino Coast. On the layout we created a logging camp based on ULC's Camp 1, an old-fashioned A-Frame Bridge (the Skunk Line once had 37 of them) ***Photo 1 and 2***, a model of the long-extinct Virgin Creek Trestle (one of five large trestles that took the ULC's logging trains 10 miles north of Fort Bragg to the Ten Mile River and then east to 42 logging camps stretching nearly 35 miles inland toward Laytonville), a model Point Cabrillo lighthouse (now a museum but still working) and a model of Tunnel #1 on the still running line from Fort Bragg to Willits.

Tunnel #1, just outside Fort Bragg, is a 1,112 foot

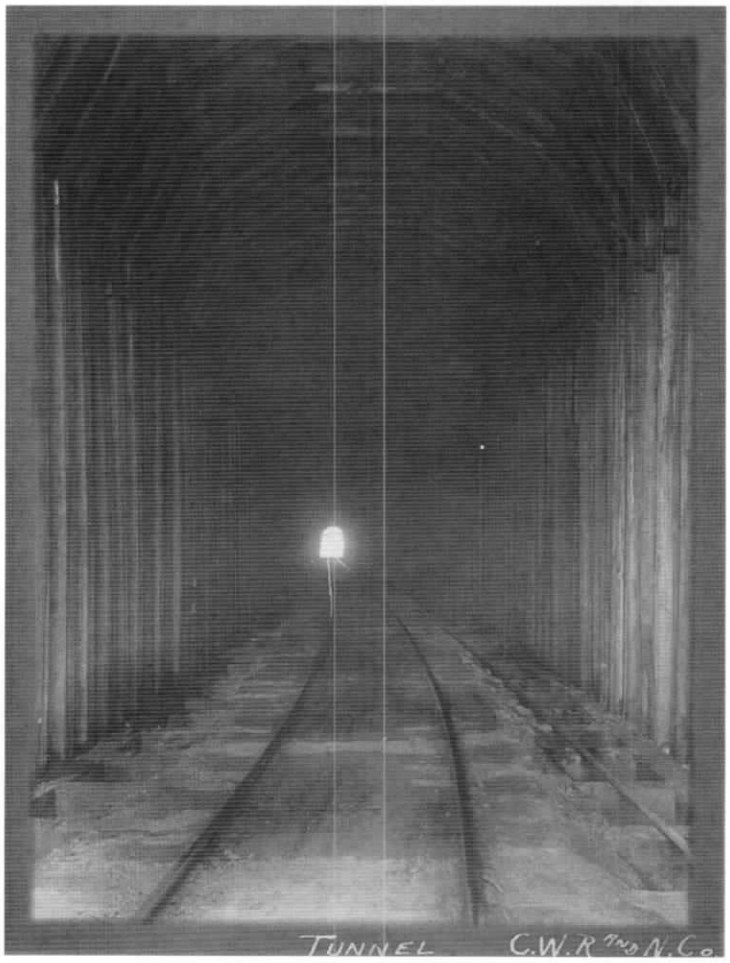


A-frame bridge close to CWR tunnel #1 over Noyo River.

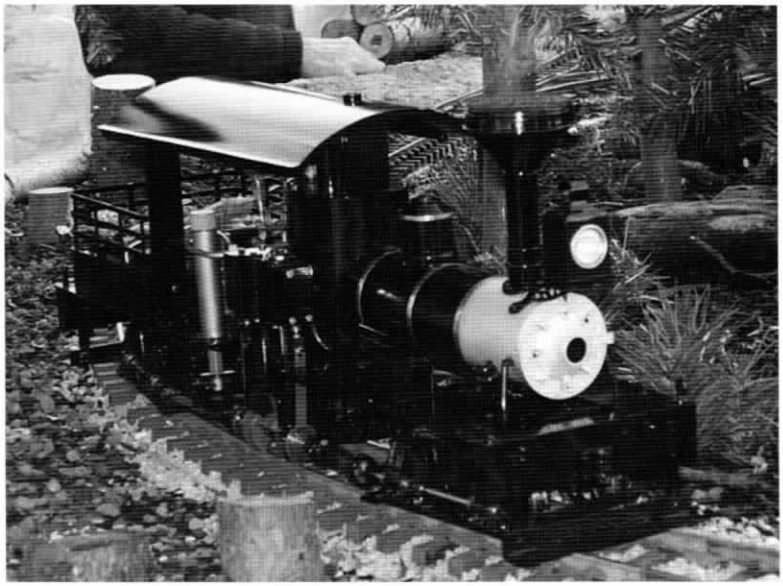


Club model of A-Frame bridge with train approaching.

Log train coming through club model of tunnel #1.



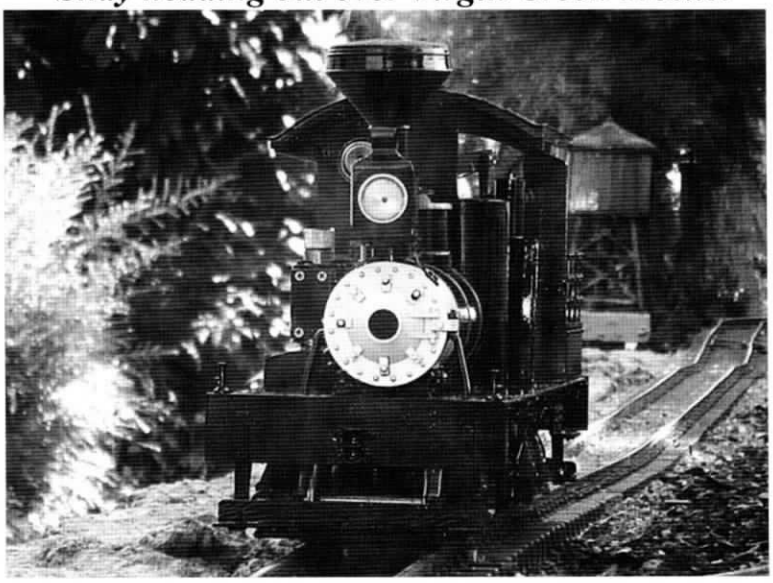
CWR tunnel #1 soon after construction in 1893.



Shay at Black Bear Corner.

Shay heading out over Virgin Creek Trestle.

Shay working past the logging camp.



Shay coming down past the water tower.

Porter steaming out of the logging camp.

bore which runs through the rocky hill between Pudding Creek and the Noyo River. The tunnel was completed more than a century ago in 1893, and is still in use on the Skunk line. The tunnel was built by skilled Chinese laborers, but not before there was a near riot in Fort Bragg. A mob decided that it was improper for the work to be given to the Chinese. The scene got pretty ugly and the sheriff rode over on his horse from Ukiah (78 miles away) and faced the mob down. He told them either they did the job or the Chinese did. When it came time to start none of the mob was willing to do the tough, dangerous job of digging through the mountain ***(photo 3 and 4)***.

When the tunnel was finished the ULC was able to extend its logging operations into large stands of redwoods they had recently bought on the other side of the hill. Within five years the CWR stretched eastward 10 more miles. Besides logs being hauled to the mill, passengers rode inland to where they boarded a stagecoach to Willits. By 1904 the railroad stretched 18 miles to Alpine. It was not until 1911, after the Northwestern Pacific Railroad (NWP) reached Willits, that the CWR made it "over the hill" through a second 795 foot long tunnel at the top of the last 1,740 foot hill that the line reached Willits and joined the NWP. Until then all the lumber from the mill went to market by sea from ULC's 700 foot long pier in Fort Bragg.

So much for the history! Now for the steam up story.

The rain, which had been torrential for three days during the week, cleared off and the day was typical Fort Bragg – early morning fog (the redwoods won't grow without it), and then clear, cool and sunny. The Mendocino Coast Botanical Gardens are located on the cliffs over the Pacific, and so we got a whiff of the sea, too.

The layout is electrified, and a great variety of period engines (both electric and live steam) were run by club members, and admired by the public. We had three steam engines on display the morning of Saturday, December 22nd, two of which operated that day: one club member brought his Accucraft 0-4-0 live steam Ruby (modeled after a side tank Porter or Davenport industrial-style engine) that hauled a consist of logs at scale speed 'round the layout. Another member operated an Accucraft live steam open cab, 14-ton, two cylinder Shay with radio control ***(Photos 5, 6, 7 and 8)***. With the cool, moist air, these engines' steam plumes set off against the layout's redwoods added magic and verisimilitude to the scenes. Many an "oooooooo" and "ahhhhhhh" was heard from the happy viewers!

As one visitor, an old-timer who had ridden the rails to work in the ULC woods, put it ..... "the locos are long gone but not forgotten. Watching these guys work round your layout brought memories from long ago when we lived our lives by the whistle from the mill and the clang of the bell from the train..."

You can contact the authors by e-mail at:
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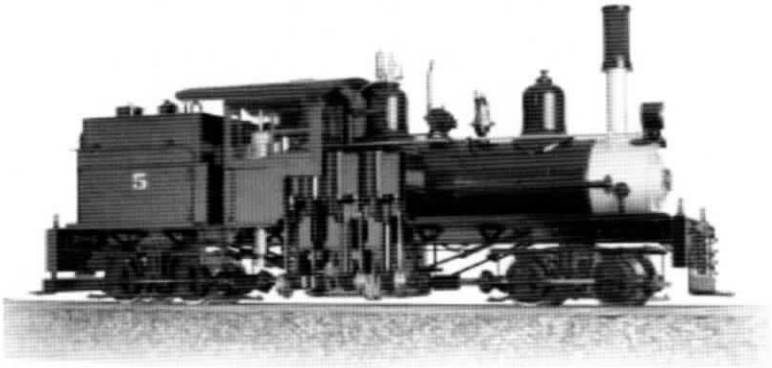

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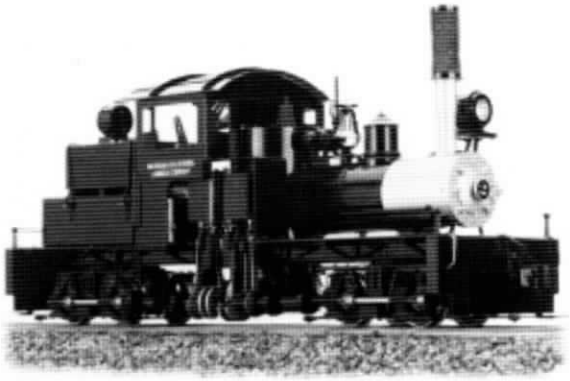

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WANTED: I am hoping to locate "Meteor", a Roundhouse-based locomotive I built in 1995. Information appreciated. Contact richard.finlayson@gmail.com Images: http://www.steamup.com/temp/meteor/meteor.htm (98)

FOR SALE: Accurcraft Wreckin 0-6-0 tank engine. Good running live steam British engine From Accurcraft. Water sight glass, steady, long running, can pull quite a few cars. $775.00. Call for pictures or more information, Paul at: pinecrest.4@comcast.net phone: 650-364-4462 (98)

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1x Aster Climax - Live Steam
1x Aster Alisan Shay (B-Shay) - Steam

Everyone who is interested should contact me. Pictures and more information available on request or on my website. Lorenz Schug, e-mail: info@accucraft.de or web site: www.accucraft.de (98)

WANTED: Roundhouse "Argyll" locomotive in good working order. Ed Sholkovitz (Falmouth, MA). Contact me via e-mail at msholko@comcast.net (99)

FOR SALE: Accucraft Nevada NCNG #2 Mogul. Engine is in new condition with original boxes. Beautiful slow running characteristics in forward and reverse. Asking $1200 plus shipping. Contact Bruce Price at bruceprice@embarqmail.com (99)

Swap Shop listings are offered at no charge as space permits. No dealers and no phone-in ads, please! Send your listings to SitG, PO Box 335, Newark Valley NY 13811 ● fax to 253-323-2125 ● e-mail to <rbrown54@stny.rr.com>. Ads must contain sellers name, plus address and/or phone number. Ads will be run one time only unless previous arrangements are made.

END OF THE LINE

In many parts of the USA and around the world this is the beginning of steamup season. What essential items do we need for a steamup, besides a steam loco and a passion for steam? Well, we better have a track...either one of our own or one that we have access to.

After requests for information on steam locos, our next most requested item is "How do I build a track for running live steam?"

We try to provide our readers with a wide range of alternatives for building their own tracks. Portable or permanent. Check out the article in this issue by David Cairns, a fellow steamer in South Africa. David explains how necessity required him to design and build his own portable track.

Build Your Own Steamer

BRAZIL, a beautiful little meths-fired saddle tanker.

Keith Bucklitch is a name that will be recognized around the world in the small scale live steam community. He has written numerous articles for publication in SitG, as well as many other magazines.

Keith has designed a wonderful little loco that runs as good as it looks.... and you can build it yourself with his help.

Detailed information, drawings and more are provided in the Kerr Stuart 0-4-2ST "Brazil" 3D Companion and Builders Reference Disk, by Francis Leach and Keith Bucklitch.

It contains a comprehensive study of the locomotive, as well as a 3D model. All parts & assemblies are covered. Also included is a steam video, "Trankil in Steam".

Contact Keith at:
keith.bucklitch@which.net
for full information on ordering the **BRAZIL** package.

Is there anything more rewarding than bringing a locomotive to life from a pile of metal and other bits?

Happy steaming!

Ron

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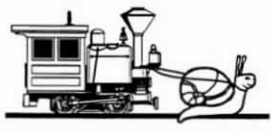

Aster Hobby USA LLC

101 Theiler Rd. Spartanburg SC 29301 USA
Tel: 864 587 7999 Fax: 864 587 2299
Web: asterhobbyusa.com Email: asterhobbyusa@teleplex.net

--------- Exclusive US importer and distributor for Aster live steam locomotives and accessories ----------

If your passion demands 1/32 scale live steam models of highest precision, aesthetic presentation and prototypical functionality, look no further than Aster. All locomotives are designed and manufactured by Aster Hobby Co. Inc. of Yokohama Japan.

The Great Northern S-2 is now in production with a projected release date of late April 2008. A total of 250 units will be produced, including the green version #2584 and black version #2575. The black version #2575 will be available by advanced reservation. Don't miss out on this milestone US locomotive. E-mail or call us during business hours to place your reservation. Additional pictures and technical specifications may also be viewed on our website www.asterhobbyusa.com

The production version may vary slightly from the pilot model shown in these pictures

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