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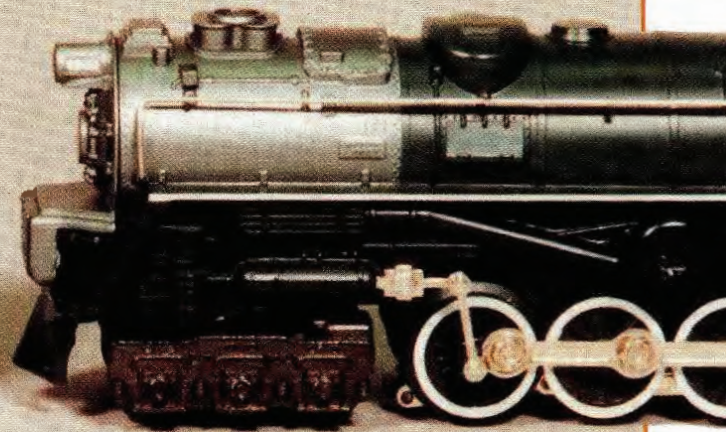
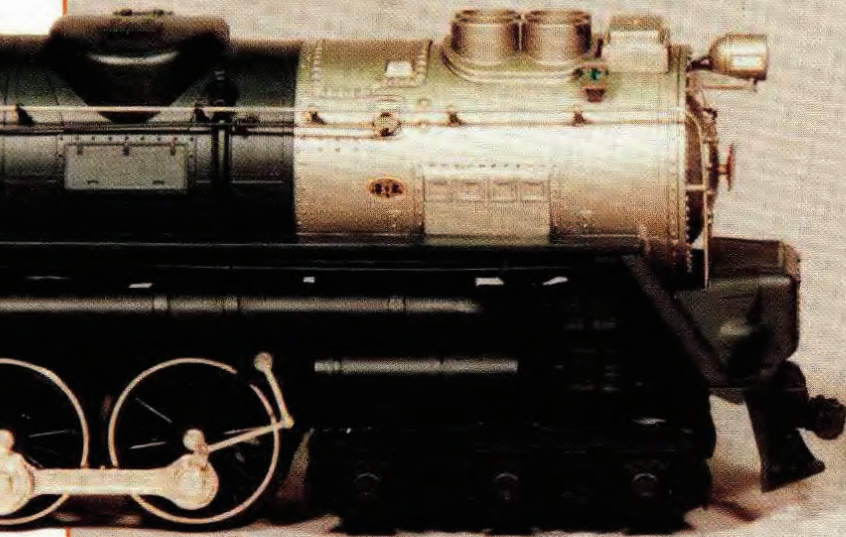
# LION ROARS

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Bimonthly February, April, June, August, October, December

## The New Lionel® Turbine

Review By Bill Schmeelk Begins On Page 4



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(606) 873-3714

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20 Kirkley Lane  
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(812) 883-1584

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(904) 258-8574

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1150 Old River Road Ct.  
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(815) 654-1705

### Registered Agent

Charles P. Seddon  
1150 Old River Road Ct.  
Rockford, IL 61103  
(815) 654-1705

## Appointed Officials

### Editor, *The Lion Roars*

Glenn Patsch  
1144 Dorsh Road  
South Euclid, OH 44121  
(216) 381-8496

### Assistant Editor, *Lion Roars*

Larry Black  
244 Farmbrook Circle  
Frankfort, KY 40601  
(502) 695-4355

### Editor, *The Inuexchange Track*

Bill and AKay Crace  
310 Mariemont Drive  
Lexington, KY 40505  
(606) 299-2423

### Editor, *Roster*

Charles A. Fellecker, Jr.  
3634 Hi Villa Drive  
Lake Orion, MI 48360  
(313) 391-3820

### Librarian

Dennis DeVito  
683 S. Greenbrook Circle  
St. Joseph, MI 49085  
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### Archivist

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Cincinnati, OH 45241  
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(407) 365-7860

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Bert Sams  
3853 Richmond Avenue  
Shreveport, LA 71106  
(318) 861-3554

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LCCA Business Office  
P.O. Box 479  
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## Mailing Problems

The *Lion Roars* is mailed to you based on the information provided to the LCCA Business Office. Computer records maintained there are updated monthly and used to create the mailing labels. It is the member's responsibility to notify the LCCA Business Office at least 60 days in advance of a change of address to insure that your publications will arrive without interruption. The *Lion Roars* is mailed third class. The post office will not forward third class mail unless you specifically request and pay for the forwarding.

## What to do if your *Lion Roars* did not arrive

Send Assistant editor Larry Black a postcard or letter with your name, address and phone number. Do NOT call Larry as that will just slow everything down. He must check the mailing labels to see if the Post Office thinks you have moved. Larry cannot check this information over the phone with you and he needs to verify your address which is best done by you writing it down in a very legible fashion.

## Articles and Photos

The *Lion Roars* needs good color photos of your layout for Trackside Photos. *Please do not write on the photos.* Use a Post-it™ note, instead. Articles on anything related to Lionel trains are welcome and needed. Please send to Editor, *The Lion Roars*. Comments and suggestions are always welcome.

*Glenn Patsch*

The *Lion Roars* is published by the Lionel Collectors Club of America (LCCA) six times a year for the months of February, April, June, August, October and December. Subscription is provided through membership dues to the club. The LCCA is an Illinois not-for-profit corporation. Lionel® is a registered trademark of The Lionel Corporation and is used with the permission of Lionel Trains, Inc. Copies of Lionel copyrighted material have been used in this publication with the permission of Lionel Trains, Inc. The LCCA is not affiliated with Lionel or Lionel Trains, Inc. Opinions and comments made in columns in this publication do not necessarily reflect the official policies of the Officers and Board of Directors nor do they indicate a club endorsement of any products mentioned.

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## Upcoming LCCA Events

### June 20, 1992, Lexington, Kentucky at the Continental Inn

Harry Overtoon (606) 268-1942 is hosting this meet with cohosts Winfrey Adkins (606) 873-2497 and Bill Crace (606) 299-2423. Tables \$9. Guests \$4. Setup at 9 AM. LCCA trading at 10 AM. Public trading from 11 AM to 2:30 PM. The Continental Inn is located on US 60 and New Circle road off exit 110 of I-75 west.

### July 4, 1992, Chattanooga, Tennessee at the Quality Inn - East Ridge

Bill Stitt (615) 894-1284 is hosting this meet with cohost Charles Sahm (615) 894-2599. Tables \$9. Guests \$5, with families \$7. Setup at 9 AM. LCCA trading at 10 AM. Public trading from 11 AM to 2 PM. The East Ridge Quality Inn is located at 1400 N. Mack Smith Road off Exit 1, of I-75.

### July 22 to 26, 1992, Orlando, Florida, *The LCCA 1992 Annual Convention*

Bill Trappen (407) 365-7860 is the Convention host for the LCCA 1992 Annual Convention. The Convention will be at the Orlando Twin Towers Hotel and Convention Center in Orlando Florida. The hotel is located south of downtown Orlando at the intersection of I-4 and the Florida turnpike. Use exit 30B from I-4. The registration fee will be \$25 for payment received before July 1st and \$35 afterwards or at the door. No guests will be allowed at the convention. Setup at noon to 8 PM on Friday the 24th and 7:30 AM to 9 AM on Saturday. Trading from 9 AM to 5 PM on Saturday. Trading continues on Sunday from 9 AM to noon. The Convention officially closes at noon on Sunday the 26th. Tours to Sea World, Daytona Beach, the Orlando International Toy Train Museum, Universal Studios, Cypress Gardens, the Church Street Station, the Kennedy Space Center and the Amtrak auto-train facility are planned. A Hospitality party is planned for Friday night. Registration materials will be included with the April issue of *The Lion Roars*. Plan to attend this terrific event.

### September 5, 1992, Friendship, Ohio at the Shawnee State Park Resort.

David E. Bauer (614) 574-6327 is hosting this event. Tables \$10. Guests \$5. Setup at 8 AM. LCCA trading at 10 AM. Public trading from 11 AM to 2:30 PM. The Shawnee State Park Resort is located on State Route 125 in Friendship, Ohio. Friendship is in the Portsmouth area south of Columbus, Ohio near the Kentucky border.

## Lionel® News and Views by Bill Schmeelk

If you have a question or comment or anything that might be of interest to the club, and don't have time to write an article yourself, just call me at (201) 358-1955. Evenings are usually best, and calling on weekends will save you money. I'll do the writing and credit the contributor. We'll throw any questions out to the membership and print the response in the next issue.

So let's hear from you, even if its just a suggestion for a topic of discussion. Letters are also welcome of course. Although my busy schedule does not allow a personal reply to every letter, I will try to acknowledge receipt of your letter and let you know the issue in which I expect your comments to appear. If you send a letter, please be sure to include your name and address so that I may get back to you with any questions. I will not publish any anonymous letters. As a matter of policy, you must sign your letter if you expect a response.

### 1992 Line - The Latest

Years ago it was Lionel's policy to print an advance catalog. This catalog was distributed to dealers at Toy Fair and was used by them to place their orders. The consumer catalog came out later in the year, after Lionel could react to dealer comments and orders. For the past several years, Lionel has not published an advance catalog, but rather released the consumer catalog at the time of Toy Fair. This has often meant that one or more of the items in the catalog is dropped or changed. For instance, we saw the number on the cab of the Scale Hudson change, and last year, the crossing gate and signal were dropped.

Lionel has announced changes in this year's catalogs as well. In the Traditional Line, the Louisville & Nashville Express set #6-11729 will not be sold as a set. Instead, the loco and cars will be offered for separate sale. The caboose will also be changed from the square window smoking caboose to a red bay window illuminated caboose with yellow Louisville & Nashville markings that will not smoke. The red color on the caboose is prototypically correct. The cars will all feature die-cast trucks. The L&N boxcar will be marked with the number 9791 on the car itself. The carton will be marked with the five digit number #6-19244. Product numbers for the Louisville & Nashville items:

- 6-18819 L&N GP-38 Diesel engine
- 6-16235 REA Express Reefer
- 6-19244 L&N Boxcar (marked 9791 on car)
- 6-16357 L&N Flatbed with Trailer
- 6-16358 L&N Gondola with Coil Covers
- 6-16411 L&N Covered Hopper
- 6-16538 L&N Bay Window Caboose

The Delaware & Hudson 2-6-2 loco #6-18626 is being planned with a whistle. The electronic whistle is still being worked on and may not be available at the time of production. If this occurs, the loco will be produced without the whistle, and the price will be reduced.

In the Collector Line, the Reading "Madison" Cars will not be made. The I-Beam flatcars are going to be reworked, making them shorter. The shorter length will allow operation on regular 'O' gauge track. This reworking means that they will not be available this year. The Lehigh Valley and the Peabody Three-Bay Hopper cars will also not be made. Apparently there is a problem with the operating bay doors and a decision was made to put off production until the problem was satisfactorily solved. Items dropped from 1992 Book II catalog:

- 6-19027 Reading Baggage Car
- 6-19031 Reading Coach Car
- 6-19032 Reading Coach Car
- 6-19033 Reading Observation Car
- 6-17508 Burlington I-Beam Flatcar
- 6-17509 Southern I-Beam Flatcar
- 6-17113 Lehigh Valley Hopper
- 6-17114 Peabody Hopper

The 1992 Feather River Service Station Set #6-11733 will not have the brown trucks on the box car and the gondola that the catalog shows. The #6-16121 stock car door will also be solid green.

Several people have asked about the green color shown in the catalog on the #6-16649 REA Steam RailSounds™ car. Is this green correct in shade? The answer from Lionel's Steve Saxton is "No!" The car will be produced in the correct shade of green.

We had heard rumors that the Pennsylvania MU cars, #6-18306, were not going to be produced. Lionel has advised us that they WILL be made.

We also heard from a couple members that the Norfolk Southern set should not use the gray color for the flat cars and for the top of the caboose. Black would be the correct color. We have also heard comments that the caboose should have been replaced with an end-of-train device on the last flat car.

We've heard several complaints on the New York Central Pacemaker Boxcar with RailSounds. Lionel has produced this car as a regular box car, #9754, and also in Standard 'O', #9469, in past years. Those two cars were painted similarly, but also incorrectly. More was correct on them however, than on the one shown in the catalog. Lets take each part separately. On the new car, the words *Freight Service* are printed with the word *Freight* above the word *Service*. The two words should be on the same

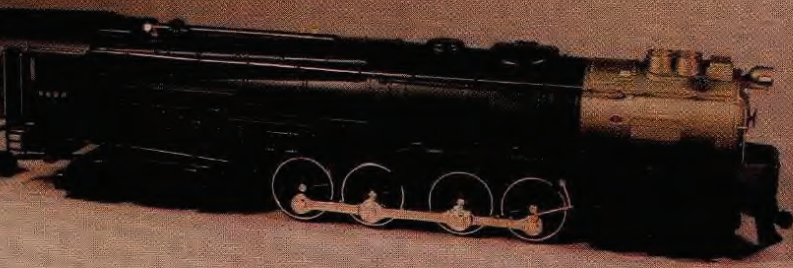


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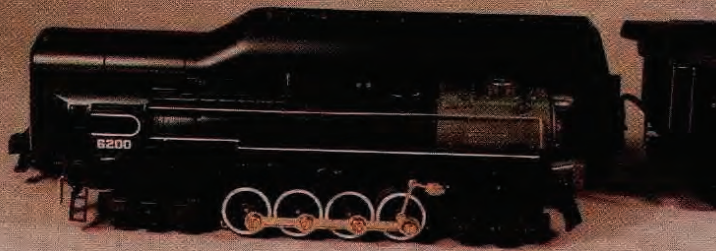


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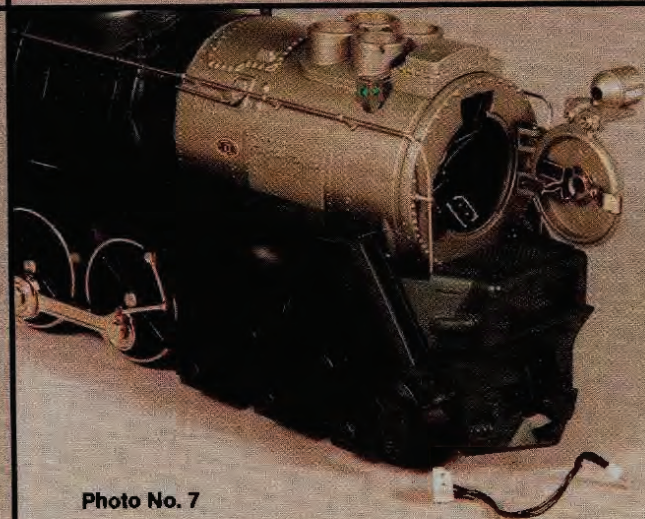


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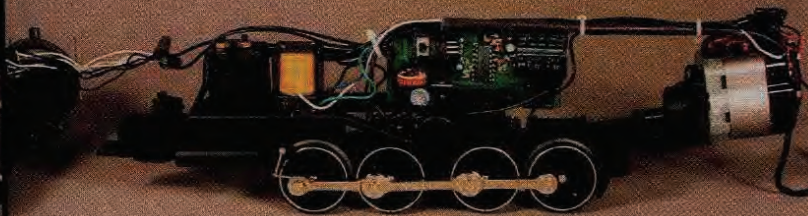


Photo No. 9

line, as was done on the two earlier cars. Under *Freight Service*, should be the letters NYC. These letters should be entirely within the lower gray section of the car, not half in the red and half in the gray. In fact, none of the graphics should cross the meeting of the red upper half and the lower gray half. Again, the two older cars were entirely correct on this point. The new car also has the NYC System oval overlapping the gray area - it shouldn't.

It is unclear to me why Lionel changed from the correct graphics it had used in the past. The red color should be on the entire upper half of the car. This includes the entire roof and the top half of the ends. The lower half should be entirely gray, except for the door, which should be entirely red. The new car has a gray roof and ends, and for the first time, a door painted half red and half gray. The older cars are wrong only in that they have the ends painted entirely red.

New York Central is a favorite road name of mine, and I checked several NYC books for photos of the Pacemaker Box Car. All were consistent, with one exception. Some appear to have the NYC oval interior in black with white border and letters. More often though the oval is not filled in. A great color photo of a new Pacemaker car can be seen on page 45 of David Sweetland's book, *New York Central Lightning Stripes*. It is interesting to note that the Pacemaker car appears on page 41 of the new catalog with a different and also incorrect, red and gray scheme, and still with the incorrect graphics.

The new Pacemaker car seems to follow more closely the postwar operating boxcar, No. 3494. This car also had the words *Freight Service* incorrectly positioned, and had a gray roof and gray ends which is incorrect. It does correctly have the door entirely red, and the graphics on the face do not cross the border of the red and the gray.

Steve Saxton advised us that the graphics on the Pacemaker car will not cross the colors as shown in the catalog. Will the red and gray areas be changed to be prototypical? No answer yet, but it is being looked into.

The #6-18308 Pennsylvania GG-1 will have Lionel AC Pullmor motors as in the past. Some had heard that it was going to be manufactured in Korea with heavy-duty can motors. It will be made in the United States.

One announcement that was especially sad to hear, is that the ZW II transformer will not be made. Although Lionel had made substantial improvements, Underwriters Laboratories (UL) was not satisfied.

### ZW Recommendations

Although Lionel will not be producing the ZW II transformer, I sincerely hope that work will continue on developing a transformer to replace it. Apparently many of the problems with the ZW II, concern accomplishing the task while using the original ZW case. My advice

therefore is to abandon the case, but not the transformer. What I feel Lionel needs, is a transformer with the following features:

- Four variable power controls
- At least as much power and preferably slightly more, than the ZW
- RailSound controls for both whistle and bell, on two of the variable controls. The RailSounds activation button currently made by Lionel, operates the electronic whistles far better than the older ZW transformer whistle controls.

Now we'll discuss each of the above points in more detail. Four variable supplies is what most ZW users are used to. Although Lionel's ads suggested that you could operate four sets of trains, it is rare that the two inner controls were used to operate trains. Furthermore, the transformer is really not powerful enough to operate four trains which have illuminated cars, smoking cabooses etc. More often, the inner controls are used to operate accessories. These include accessories which are not on all the time and therefore do not rob transformer power from the operation of the trains. Variable power for accessories offers a definite advantage. This is especially true when you are operating accessories which use Lionel's AC vibrator motor. The ability to adjust the voltage to an accessory allows for optimum performance.

The ZW first appeared in the 1948 catalog. The original ZW, although rated for 250 watts, actually supplied only 180 watts at 14 amperes. This information is taken directly from Lionel's service manual. In 1950 without any fanfare, the ZW was increased to a 275 watt rating. Lionel's *How to Operate Lionel Trains and Accessories* manual states that: "a 275 watt ZW transformer should not be counted on to supply more than 200 watts." Later editions of the manual also suggested a maximum of 12 amperes. Lionel explained this difference by stating that: "the wattage rating of a transformer tells you how much power it will take from your household mains. However, all of this power is not available for your train. From about one-quarter to one-eighth of the total wattage taken from the lines is used up by the transformer itself in transforming the power from high to low voltage."

This difference in input and output power is given off as heat. Jeff Jones, of Lionel, has been working on the ZW II project and explained that this difference is roughly equivalent, in heat output, to having a 75 watt light bulb inside the transformer. This heat is unacceptable to Underwriters Laboratory (UL). Jeff further explained that they were able to engineer this difference down to thirty watts. This was still too much heat to satisfy UL.

Experts have advised that to accomplish what Lionel is trying to do, and continue to use the original ZW case design, is an impossibility. Therefore, my conclusion is that the case and the familiar look of the ZW should be abandoned.

I see nothing wrong with using modern technology to accomplish the task. I doubt that operators would object to a newer design if the transformer was at least as good in operation as the ZW. In volume IV pages 32, 33 and 40 of McComas & Tuohy's book, *Lionel A Collector's Guide and History*, four prototypes are shown of transformers, which judging by their design, were made after the ZW. On two of them, the nameplate can clearly be read. They are both 275 watts, and were designated with the letters XW. In volume V, page 75 of the same series, a 400 watt prototype transformer is shown.

I think its time that Lionel Trains, Inc. completes the work that Lionel started and designs a totally new replacement for the ZW. The new model should be designed so that it can be advertised as better than the ZW. This is especially important since it will probably have to sell for more than used ZWs.

After having used RailSounds, I am convinced that the best way to operate both the whistle and the bell, is by using Lionel's #5906 Sound Activation Button. More on using RailSounds when we discuss the new scale Turbine. The sound activation buttons should be incorporated into the transformer.

The original ZW employed a copper oxide rectifier disk to supply the DC for the whistle and a circuit which boosted the AC by about 5 volts while the whistle was being blown. This was done to compensate for the power used by the whistle motor.

Today's modern electronic whistles do not have motors and the voltage boost is not needed. I would rather see the transformer made to favor the modern equipment being brought out today. It can still be used to operate the older equipment, but the train may slow up slightly while the whistle is blown. I'd rather see the older equipment slow down slightly, than see all the newer equipment speed up and have poorer whistle performance.

It would also be prudent for Lionel to make available an electronic whistle which could be retrofitted into Lionel's postwar equipment. Lionel could either sell an entire tender chassis, or a kit to make the conversion. I think it would sell well. To keep the cost reasonable, this could be strictly a whistle, without the steam sound.

Postwar diesels did not need the extra voltage boost of the whistle circuit of an older transformer. This is because the power for the horn was supplied by the infamous D cell battery which ruined so many postwar diesels. So we're really talking about inconveniencing the fewest number of operators, by not including the voltage

boost in the whistle circuit. Another alternative is to have three buttons. Two for RailSounds and one for the older postwar whistles that need the voltage boost.

Those who still desire the voltage boost for older steam locos, could use older transformers like the original ZW for those trains. My own feeling is that Lionel should not compromise operation of newer equipment to allow optimum performance of older equipment. In the case of older steam locos, the loss of the voltage boost is a minimal and solvable problem.

How do you feel? I'd like to encourage Lionel to make a heavy duty transformer that is bigger and better than the original ZW. I feel strongly that Lionel should be making a power supply capable of handling large layouts and the new equipment they're making. What better way to encourage operation? And what about Standard Gauge operators?

Would the abandonment of the old case, for a better, more efficiently designed transformer bother you? Do you agree with my comments on whistle operation? I hope you'll also read my comments in the Steam Turbine review and let me know how you feel about a new Lionel transformer. We'll report on your comments and pass them along to Lionel. So, all you operators out there, please take a few moments and write down your comments or give me a call. Lets hear from you!

#### **Sears Union Pacific GP-9**

Although you may have heard otherwise, the Union Pacific GP-9 with display case is still available from Sears. For those wishing to purchase the engine, you may do so by calling toll free (800) 336-3000. The item number is 95285 and the price is \$240 plus tax and shipping.

#### **Limited Edition Boxcar**

From Hal Krekorian, of Lionel Trains, comes news of a limited edition boxcar being offered by the United States JCI Senate. This is a branch of the Junior Chamber of Commerce (JC's). Hal is the current National President and has arranged through Lionel Trains to offer a special boxcar to commemorate their 20th anniversary. See photo 1 on page 9. The body is painted white, with the roof, doors, and lettering in blue. The logo in the photo is also in blue, but the actual production car will feature a three color logo. Profits from sales of the car will benefit the JCI Senate for International programs. The cars are being offered around the country at various JCI Senates, but Hal informs me that if any of our members would like to purchase the car, they can order it by mail at the following address:

Alan J. Hancock, Treasurer  
P.O. Box 56825  
Jacksonville, FL 32241

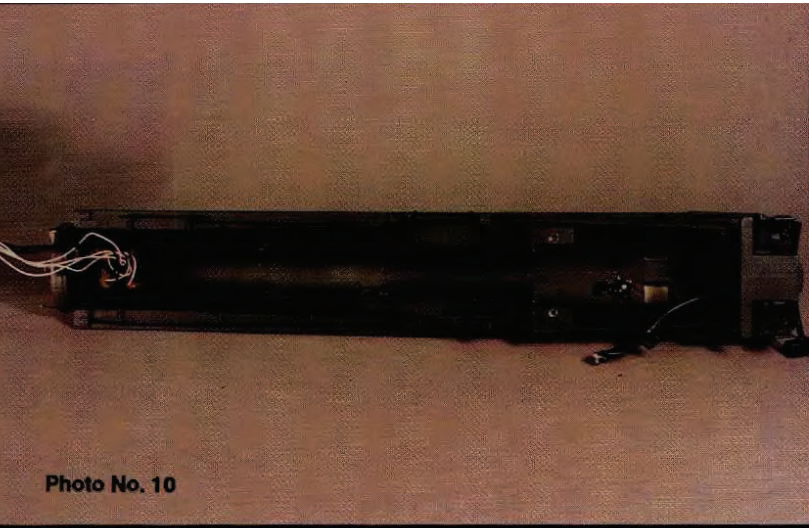


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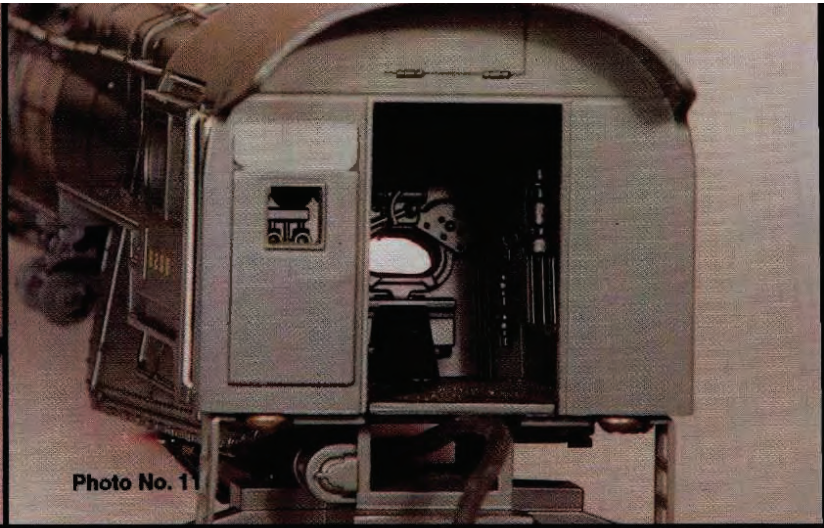


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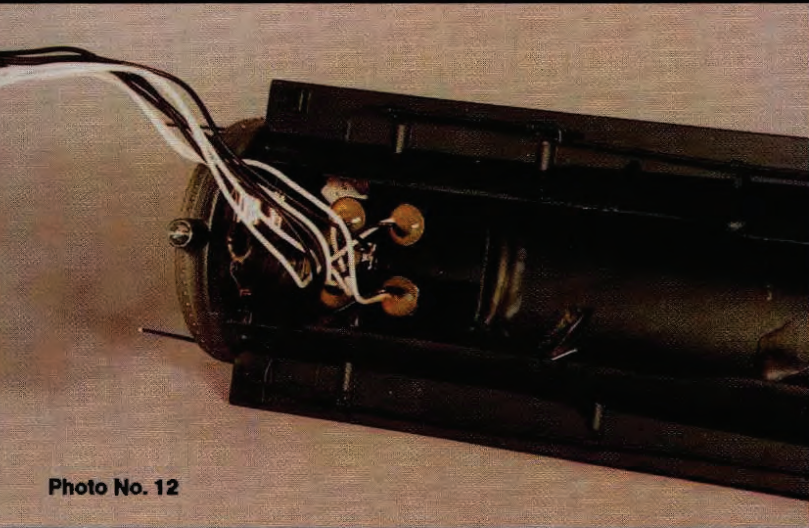


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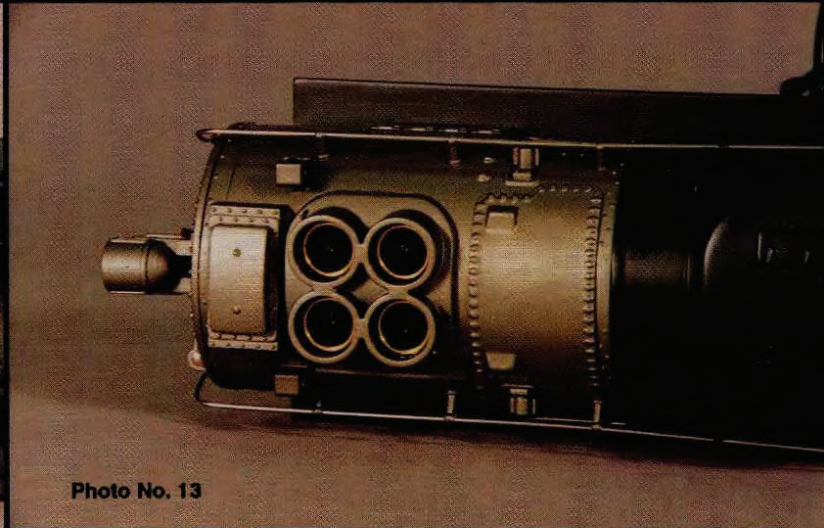


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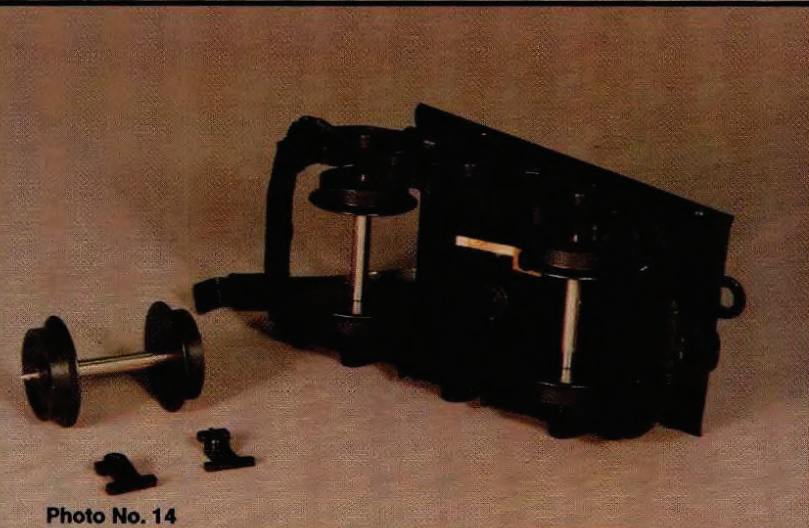


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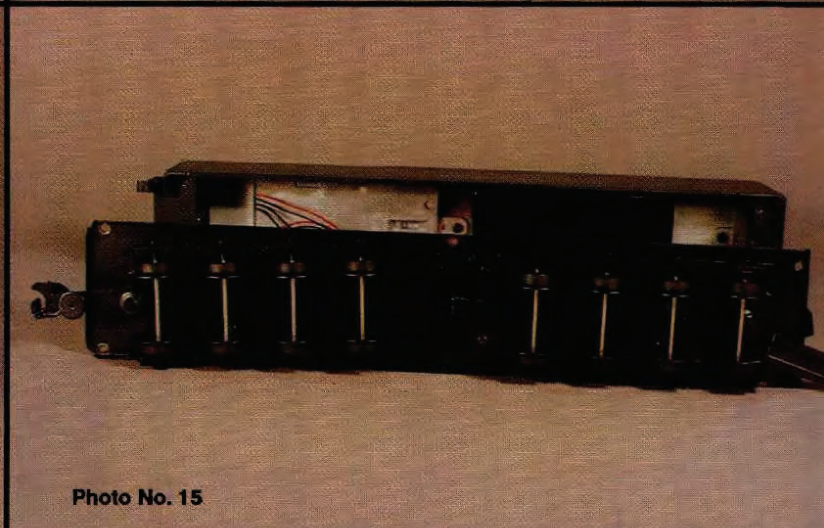


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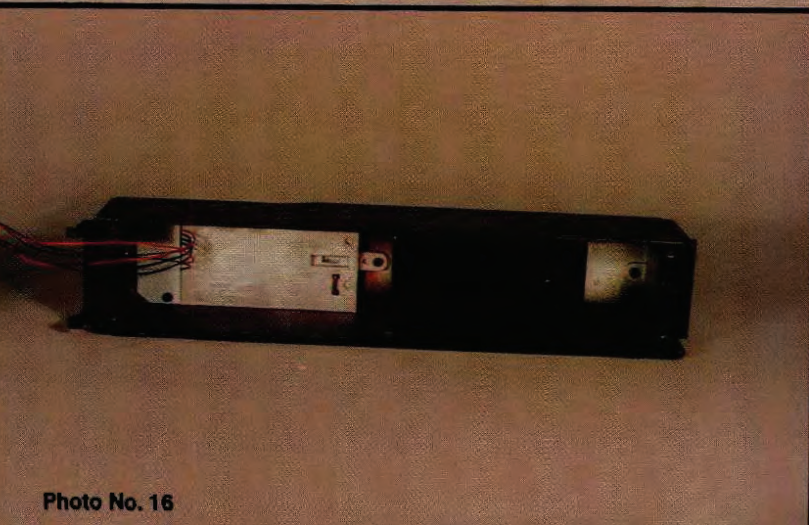


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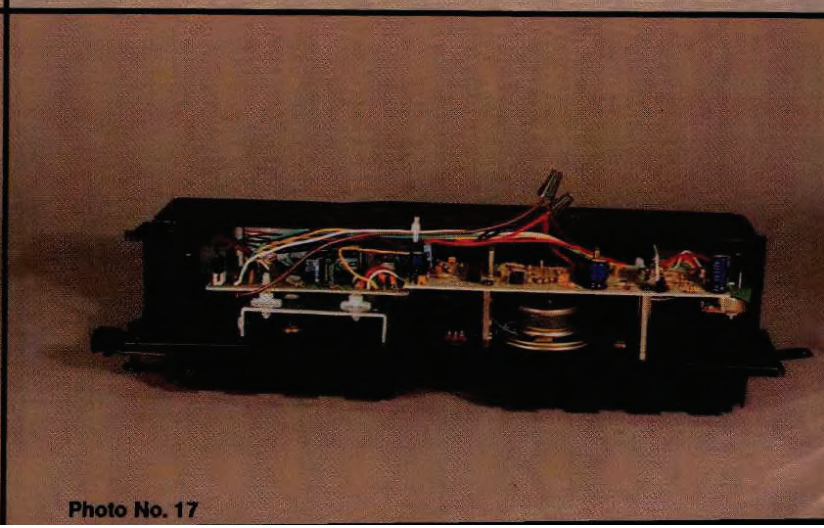


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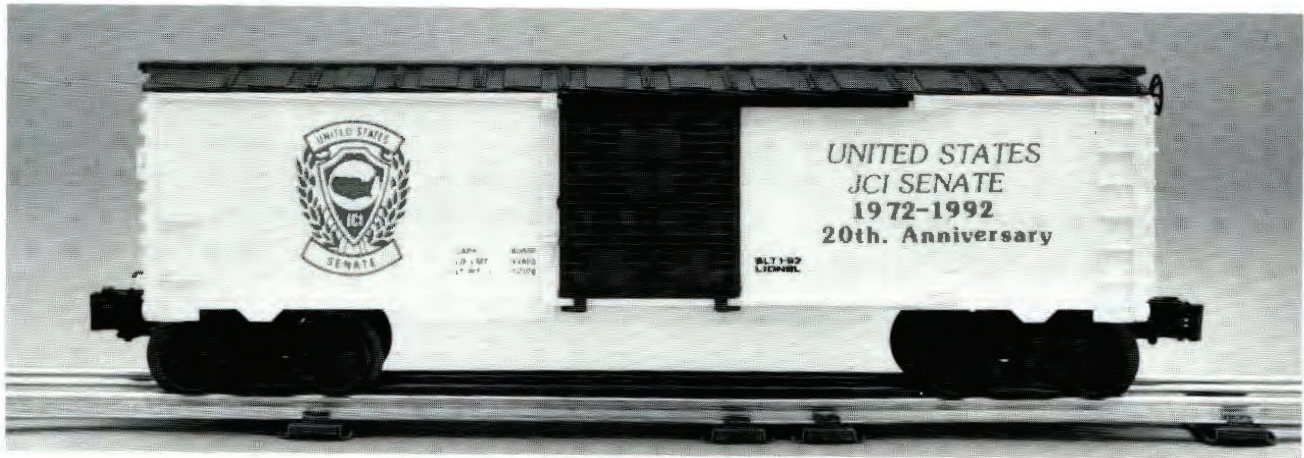


Photo 1 - Limited edition JCI Senate boxcar

The cost is \$32.50 each, which includes the shipping charges. This will be a strictly limited edition and order must be received by May 1st, 1992. The cars will be sold on a first come, first served basis.

Thanks Hal, for the info. I'm sure many Lionel boxcar collectors will appreciate it.

### The New Pennsy Turbine

As the changeover to diesels was sweeping America's railroads, the Pennsylvania Railroad in the heart of coal country experimented with a different way to use coal in a steam locomotive. The experimental S-2 steam turbine engine was developed with the Baldwin Locomotive Works and Westinghouse in 1944. The Pennsylvania Railroad had high hopes for the turbine engine. After all, coal was mined in Pennsylvania and there was an abundance of it available at a reasonable cost.

The S-2 was revolutionary. The locomotive had no cylinders or pistons to move the drive wheels. They were replaced with a turbine which supplied power directly to the two center pairs of drive wheels. If you look at photo 2 on page 5, you can see that the space between the two center drivers is larger than the space between the front and rear pairs. Lionel ignored this detail in its 1946 model, the 671. Power to the front and rear pairs of drivers was through the heavy connecting rods. The loco boasted of roller bearings throughout.

From the start, it was known that the engine would need large amounts of coal and water. The huge tender held 19,500 gallons of water and 42.5 tons of coal.

The turbine was able to use the steam energy 20% more efficiently than a conventional steam engine. Tests also indicated that the decreased pounding on the rails by the smooth operation of the turbine would result in less track and roadbed maintenance. The loco's designers boasted that an unprecedented 97% of the turbine's power reached the wheels. The loco consumed nearly the same amount of fuel at both high speed and slow stop and go travel. When the loco slowed down, it continued to consume large amounts of fuel and required an

enormous amount of fuel to start up. Because of the Pennsylvania Railroad's requirements for an engine that would be suitable for both high and slow speed, the turbine was not practical. It simply used too much fuel and water.

The S-2 was a truly huge locomotive at 123 feet in overall length including the tender. The locomotive weighed 500 tons. It was far larger than a Hudson loco for example. When Lionel designers were contemplating the resumption of train manufacturing after World War II, it was decided that a new steam loco was needed. The S-2 seemed a great loco to model. Lionel would be on the edge of modern technology. Unfortunately as it turned out, only the one experimental prototype of the steam turbine was made.

On the other hand, Lionel had spent considerable money tooling up for the loco and did not alter its course. The turbine was a staple of the Lionel Line for ten years. The catalog proudly stated that, "Only Lionel produces this unusual steam turbine." The turbine first appeared in the 1946 catalog as the 671 and 2020. It remained in the catalog every year, making its last appearance in the 1955 catalog as the 682. It would be interesting to know how many thousands of these locomotives Lionel made.

The photo on the cover of this issue shows the new turbine on the left meeting Fundimension's 1984 re-issue of the turbine on the right. The new turbine is 1/4" scale, obviously the original is quite a bit short of scale. When I first saw the new turbine at Toy Fair last year, I commented that the tender was the size of the original loco. As you can see in photo 3 on page 5, I was wrong. The scale tender is larger than the original loco. Photo 4 compares the two tenders.

One of the problems with the prototype was that it consumed large amounts of water and coal. For long runs, even the large tender was not sufficient, and refueling was necessary. Perhaps photo 5 better illustrates the proportions that might have been necessary for long runs. Even a tender this size might not have held enough water and coal!

While comparing the two engines, I realized that the lubricator linkage on the 1984 re-issue was incorrectly installed. Lionel first added this linkage to the loco in 1954 and changed the number to 682. I checked back to see how Lionel's 682 linkage was. It was correct and matched the look of the prototype. Look back at the cover and notice the difference in the small linkage. The top part of the linkage on the 1984 engine, should be mounted in the vertical and not the horizontal position. The 682 linkage is correct.

Removing the boiler of the new turbine is pretty straight forward and similar to other Lionel locos. Photo 6 on page 5, shows the front of the loco. Before removing the boiler, the front headlight must be unplugged. The bulb is a very small one, and is attached to a wiring harness which can be easily unplugged. Photo 7 shows the boiler front opened and the bulb harness removed. It is not necessary to remove the harness to disassemble the loco. It must merely be unplugged. The clip on the boiler front holds the wire in place and the bulb is inserted into the headlight housing on top.

Photo 8 illustrates the bottom of the loco with the rear trailing truck removed. Here too is a plug and socket which must be separated before the boiler can be removed. A careful look at the wire in the photo shows that it had been pinched by the rear truck assembly. This should be avoided when the truck is reassembled.

Now by removing three screws, the boiler can be separated from the chassis. The front steps will fall free. I also removed one other screw in the front, which allows the radiator and pilot assembly to be removed. The boiler will still be attached to the chassis by the wiring to the smoke units. Plugs would have been convenient here. Photo 9 shows the chassis. The circuit board provides constant voltage for the head lamp, fire glow lamp, and the four - count-em, *four* smoke units.

The drive system is a typical Lionel type. The E-unit is the mechanical type, but was manufactured in Korea. This may well be the last of the mechanical E-unit and typical Lionel universal motor in new design steam locos. The imported locos which will be coming out this year, feature heavy-duty DC can motors and electronic E-units. There is a small weight just in front of the E-unit. Most of the weight however is provided by the boiler casting. This is one heavy-duty casting. The scale details are superb.

The connecting rods on the drivers are not one single piece as was the case on Lionel's original turbine. Four separate links are used. I assume this is prototypical, since in the actual prototype, some allowance would have to be made to allow the drivers to independently move up and down.

Photo 10 on page 8, shows the interior of the boiler casting. There are many thick solid sections. Notice for example where the screw holes are toward the rear. Parts

of the boiler are assembled from smaller die-cast pieces. This allows the boiler to show more detail.

Photo 11 is a shot from the rear of the boiler. Notice the interior cab detail. As you can see, the fire doors are open and a red glow illuminates the cab in operation. As we have commented before, prototypically an engine would never run with these doors in the open position. The prototype was mechanically stoked.

Photo 12 shows the interior at the front, photo 13 the exterior. Here you can see the four South type smoke generators. This engine really pours out the smoke. For those who have wives or family that haven't yet developed a love for smell of heated oil, there is a switch under the front of the loco which can be used to turn off the power to the smoke units. This is a welcome feature, since I have been told that you will shorten the life of a smoke unit that is operated without fluid.

Photo 14 shows the rear trailing truck of the loco. The axles are quite thick and ride in Delrin™ bearings which snap into the truck sides. What I particularly liked, was that it was quite easy to remove the bearings and the axles. This is not true of most of Lionel's die-cast trucks. The Standard 'O' trucks for example cannot be disassembled because the side frames are staked during assembly. Notice in the photo, that there is a phosphor bronze wiper which contacts two of the axles. I believe this was added for an additional ground for the loco chassis. Since the wheels of the front and rear trucks ride in non-conductive bearings, the wiper provides the additional ground.

Photo 15 shows a bottom view of the tender. Notice the very small water scoop. I am assuming that this is the prototypical size, which means that the typical Lionel postwar scoop is quite oversized. Lionel's original scoop may have been designed more for its ability to allow the whistle sound to escape the tender. The interior of the tender shell is shown in photo 16. The tender shell is also die cast and quite heavy. The coal pile in the tender is real coal. There is a warning on the plastic wrapping the tender. When you repack the tender, be sure that any loose particles of coal are removed to avoid them from coming in contact with the paint finish.

The rear of the tender features two red lights and a center white back-up light. These lights are also on wiring harnesses which can be unplugged from the tender chassis. The two red lights are on a single plug and the white back-up light is on a separate harness. When these bulbs need replacing, the entire harness is replaced. The rear coupler on the tender is an all metal coupler.

Photo 17 shows the interior circuitry of the tender. The RailSounds boards are different from previous versions. This is probably due to the different type of sound that the turbine has. Since there were no cylinders or pistons, the loco did not have a chug chug sound. As

Lionel states in its ad, the engine was nicknamed, the big swoosh. Since sound recordings of the original engine were not available, Lionel had to use its best judgment on the sound. The sound produced by the engine is similar to the steam sound of other Lionel locos, but it is a steady sound, without the chugging which is so typical of most steam engines. Several members have suggested that Lionel put out a new tender or boxcar with these sounds. That way owners of the original turbines, and there are a lot of them out there, could add prototypical sound.

I actually operated this engine and found that it ran quite well. The mechanical E-unit caused the engine to lurch slightly in the neutral position. I believe this is caused by the fact that the motor begins to turn before the E-unit solenoid energizes enough to turn the drum. The lurch was about 5/8 to 3/4 of an inch.

At twelve volts the loco and tender running without cars, drew about 1.75 amps. In reverse, the loco used almost 2 amps. You could expect it to draw more if it were pulling a load of cars. I have seen this engine pull over forty cars on a level layout.

The red lights at the rear of the tender were constant voltage. I'm not sure whether or not the circuit board in the loco controls this. Oddly, however, the back-up light varies in intensity with the voltage. The back-up light also dims when the RailSounds button is pressed.

This is also the first time that I have had a chance to actually operate RailSounds. Ah, the advantages of having some electrified track. I wired the Sound Activation Button as detailed in the instructions and it operated the bell. I used the whistle controller on my ZW to operate the whistle. I quickly found that you must operate the transformer whistle controller differently for RailSounds. When I pushed the whistle controller fully forward, the whistle did not blow. If however, I pushed it just over halfway, the whistle blew. I also heard what I believe was the E-unit chattering as I activated the whistle control. When I tried it in reverse, I could not get the whistle to blow properly.

I next tried reversing the leads on the sound activation button, so that it would now control the whistle. This was a thousand percent improvement. The whistle sound was more controllable and was quite impressive. With the transformer controller, the whistle often cut off too soon and stopped too abruptly. I also found that the transformer controller caused the E-unit to chatter. This was completely eliminated by using the sound activation button. The button also does not add to the AC voltage to compensate for older motorized whistles. You'll find that the loco tends to speed up slightly when you use the ZW controller.

In short, I feel that to get the optimum from RailSounds, use two sound activation buttons. You merely wire them in series, connecting the two black

wires on the buttons together. One red wire goes to the track and the other to the transformer. In this way, one button will activate the whistle and the other, the bell.

The whistle and bell sounds are quite realistic. They are the same whistle and bell sound used in all other RailSounds locos. If you are operating a postwar steam loco, you could still use the whistle controller on the transformer to activate the whistle and get the extra voltage boost, which compensates for the current drawn by the whistle motor. Bill Beatty wrote an informative Back Shop article covering RailSounds in the February 1991, Vol. 20 No. 4, issue of *The Lion Roars*.

During operation, I found it best to stop the engine by lowering the voltage and then quickly flipping the direction lever on the ZW. This allows you to bring the engine to a halt and in neutral without bringing the sound to a complete shut off. The engine performed quite well. I was able to operate it smoothly even at very slow speeds. There's no denying that you'll need 072 curves to run this loco.

Pennsylvania Railroad's single prototype and Lionel's ten year production, make this a unique and desirable loco. Its probably the only experimental loco that has had such a large number of models made from it. The detailing on this latest model is quite superb and sure to please those who make the large investment in order to purchase the loco.

If you or anyone you know has information on the original Pennsylvania turbine, please let me know so we can share this with other members. I would be interested in photos, sound recordings and any technical data on the locomotive. We'll write this up in a future column.

#### **That's It For Now**

Last issue I asked for comments from those operating this loco, but I'm writing this article before I have received that issue. So we'll print any comments we receive next issue. Let's hear from all you operators with your transformer suggestions.

Bill Schmeelk, #6643  
15 Birchwood Lane  
Hillsdale, NJ 07642  
(201) 358-1955





On the best run Christmas pine, accidents will happen, but with time the train will learn to stay on the track while the child learns to stay off.

# They came from

Here's how a stock of lead, plastics, metals, and paint becomes a model train.

By Gordon K. Zern

Pictures by Robert L. Purdy

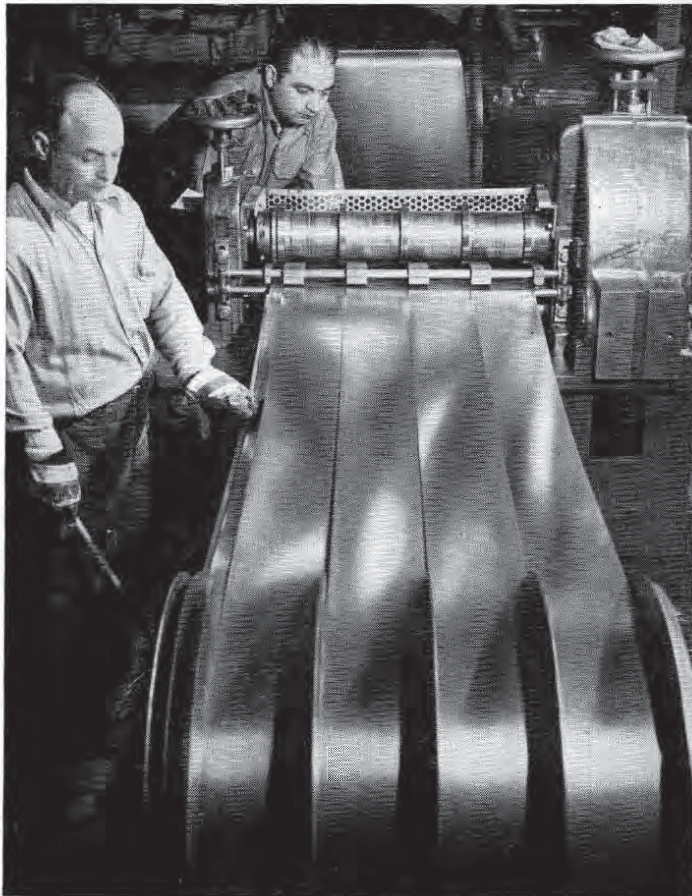
**T**HE trains that run a million miles on tiny tracks under thousands upon thousands of Christmas trees and upon thousands of table layouts come from a surprisingly large and cheerful factory in Irvington, New Jersey.

I've seen the Lionel factory often and have been shown through it several times even though the main office is located in Manhattan, some twenty miles or so away. The photographer, Robert Purdy, had never seen the plant before, but he has photographed many industrial plants through the East, and has some pretty good ideas of comparisons.

Let's see what his reaction was and how he liked it.

You first notice the water tank of the factory looming over the low houses of Irvington, and it looks surprisingly like one of the company products magnified about one hundred times. There was a parking lot with a few hundred cars in it and around that are several park-like places with tables and benches that during the summer can be used for eating out.

The organization of the factory is complicated in the sense that there are many things going on, but simple in its basic organization. There are four major assembly lines—one for engines, two for cars and transformers, and one for accessories. Off from these are feeder assembly lines that turn out electric motors, transformer parts, freight or passenger trucks and so on. Beyond these are the departments that supply the feeder lines by making initial castings and moldings,



**5** Huge rolls of strip steel are cut into smaller rolls of various sizes after which presses and punches will shape them into various parts for car floors, switch parts, motor braces, transformer parts and a variety of other items. The metal is so heavy it must be handled by lift trucks.



**6** The excess metal must be cleaned from the die-cast bodies which will then be sent to other men who will grind and polish until surfaces are smooth and even and all edges cleaned of roughness. Although it is basically there, the GG-1 at this point lacks any handsome appearance.



**1** The first stage in making metal engine bodies is the die-casting operation. Workmen keep the reservoirs full of molten lead while the operators run the presses. Some wheels, frames and other parts for trucks are made in the same way, later given a hard, baked-in finish or paint.



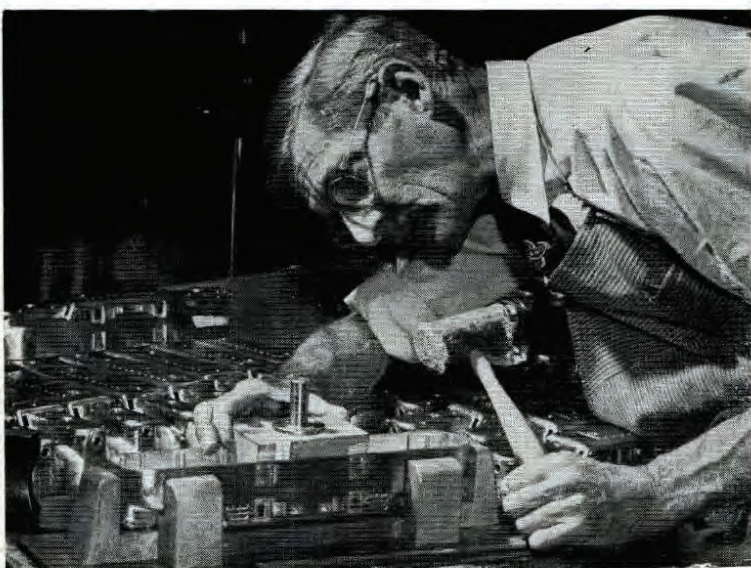
**2** Hard black plastic makes the bodies for the Pullman coaches, however there is a long process of adding and fitting before the cars will be able to run on any railroad. The use of plastic permits detailing, such as the rivet heads, to be much finer than they could be in stamped metal.



**3** Another plastic car body is made in a smaller press and as in most cases, the necks must be trimmed off. The Pullman car press will use pressures as high as 300 tons, but the clear plastic can be handled at lower pressures and still show fine details which are properly placed.



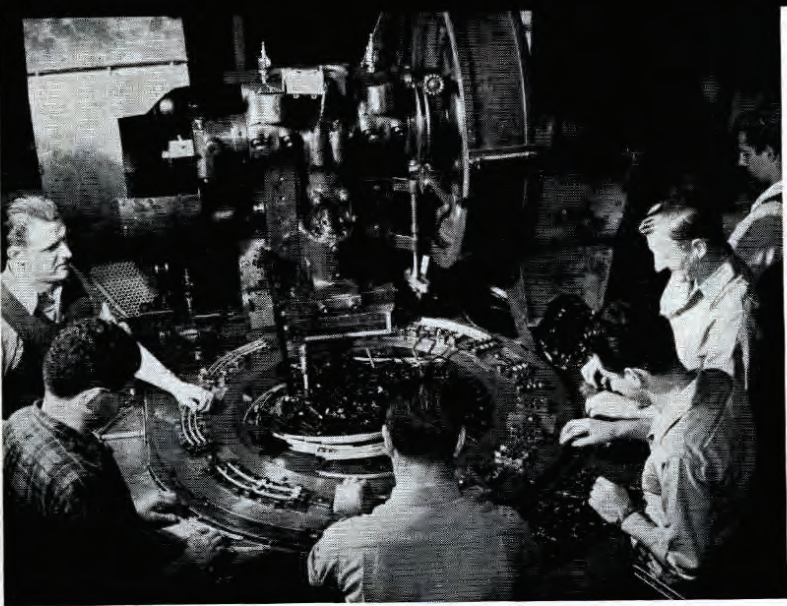
**4** Still another way to make initial parts is by powder metallurgy. In this process, metal powder is poured in the top and subjected to great pressure, the wheels rolling out the bottom where one can be seen coming down the slide. Like most of the machines, it makes a racket.



**7** Checking the GG-1 body to ensure that it meets all inside and outside dimensions is a job for a master craftsman with a deft touch and untiring eyesight. The castings usually check unless they have been crushed by a heavy weight, for the die-casting machinery is very accurate.



**8** Shaping products from the metal strips, this operator is protected by her strange gauntlets. As long as her hands are forward and under the press, the wristlets keep a wire taut. The press cannot come down until she has moved her hands back and slackened on the attached wires.



9 This machine fascinates most visitors. The table revolves clockwise, each man adding one piece to the track. It is stamped, moves to next point where a gust of compressed air blows it down chute in right rear. Men work speedily, one man setting the pace for the track laying team.

### They Came From Here, Continued

cutting gears, stamping metal parts, winding coils, and by doing all the miscellaneous things that go into a complete train set with all the accessories.

It did not astonish me that there was noise and bustle and a tremendous busy-ness throughout the place; nor did the cheerful cooperation we received surprise me. It did surprise the photographer enough for him to comment on it several times. He could, by comparing it with a number of other places he knew, conclude that here was a group of people who seemed to enjoy their work.

It did not surprise us to hear music coming over the public address system for a period in the morning and for a time in the afternoon. It was cheerful music—a few familiar light classical bits, some current jazz music, and some of the standard Christmas music, including "White Christmas." During the music, all of the assembly lines took a short rest, most of which was spent wandering around gossiping.

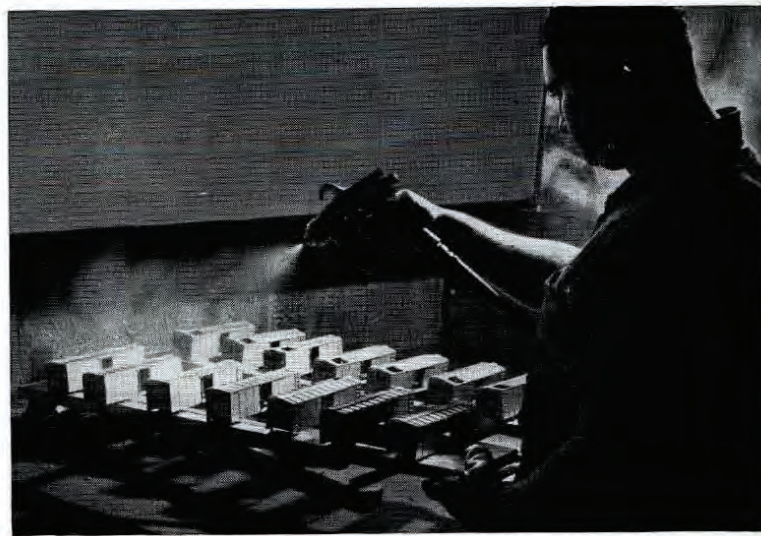
Another thing that interested us both was an odd-shaped chariot of stainless steel on which hot lunches are carted around the plant for those who don't want to go to the cafeteria. The ten-foot long cart moves slowly and immediately collects a crowd when it stops, steam curling from the coffee dispenser over the heads of the people around it.

The model train factory is carefully illuminated with long lines of fluorescent lights suspended low from the high ceiling. There are plenty of windows, and the atmosphere is clear. Down in the cellar, though, things are different. For the most part the place is well lighted even there, but far back in one corner are the boilers, and here the firemen run the stokers that keep up pressure for heating and supply steam for some operations. Even beyond these fiery furnaces are some of the die-casting machines that make truck frames and locomotive bodies and many other items. There are pots about three feet in diameter and a couple of feet deep where about one ton of lead is melted at a time. The lead is carried by hand ladles and poured into the machines in what is probably the most dramatic single operation.

A remark that our guide made to us may be one way of explaining the pleasant kidding that goes on so much. When Bob asked about one girl's job, our guide also explained to us that she was his sister-in-law.

"It is not true," he continued, "that everyone in the factory is related to everyone else, but it's not far from the truth either. See that foreman over there—that's his wife and his sister he's talking to. A guy can't get away with much bluffing around his family and maybe that's a good thing."

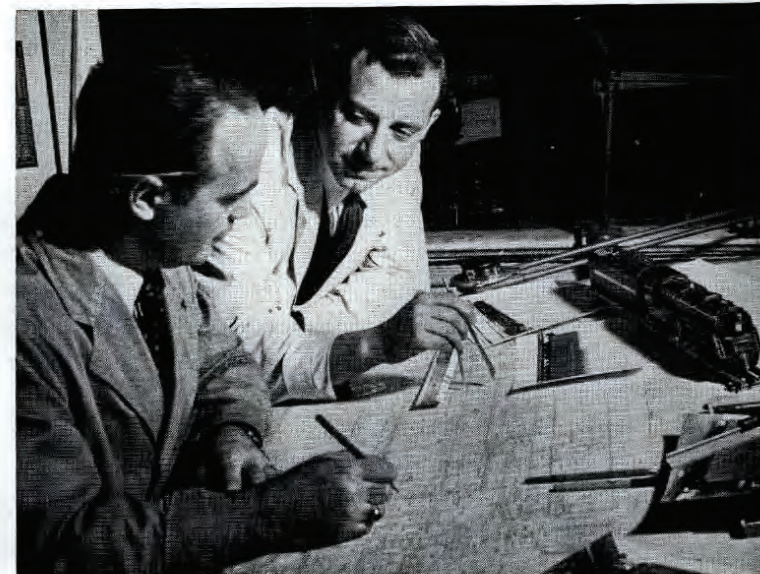
And maybe it is, at that.



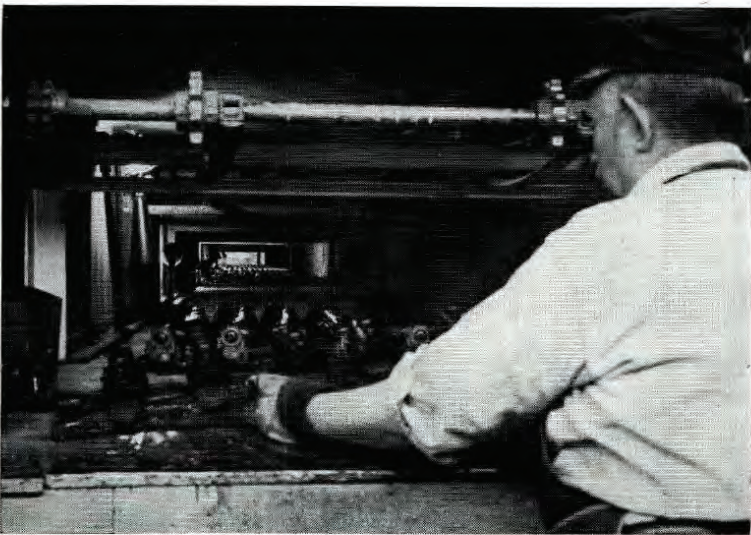
10 Painting the car bodies of clear plastic is a double operation, once for the outside, once inside. Fumes are pulled to rear by blower and painting is done only in special booths. Some items are painted by dipping in a long machine which dips and bakes the paint in one operation.



13 More details are added as the line moves, each operator normally performing only one operation. There is a break in the morning and afternoon when music is played, and in spite of the work, the people are still surprisingly fresh and quite happy at the end of a day's work.



16 Engineering work is coordinated under Joseph Bonnano, Chief Engineer, who has the electrical department, the development engineering department and the production engineers under him. Here he talks with an engineer over some details for a new tender for the S-2.



**11** After spraying, cars and engines are put into a long baking oven where they are moved by a continuous belt. The oven is about seventy-five feet in length and is heated to several hundred degrees. From here the bodies will move to the production lines for the final assembly.



**12** First step on the production lines is the adding of handrails, and then other details are added by some fifty workers on both sides of the moving belt. All small parts come from operations in the factory, and the motors are assembled on a different line and then inserted here.



**14** While adding a detail and tightening a screw, this girl checks the smoke and the running of the train in a special jig. As with all of the production line workers, her motions are quick, deft and sure. Special jigs make for easy handling of engines, even though they're heavy.



**15** Another thing that amazes visitors is that at the last stage on the production lines, the engines run along on their own power. The little engine at the left will make a turn under the watchful eye of the inspector and then will run off to the left background for a final check.



**17** A production line of cars and tenders stretches out for nearly 100 feet and the light is supplied by fluorescent lights. These are so bright that they provided the only illumination for this picture. Other production lines make accessories, transformers, other cars and trucks.



**18** The final job is packing the boxes, after which they'll be shipped to the stores and consumers. In due time, these engines will emerge from their wrappings to pull cars on tracks past the accessories that are the products of a very large and constantly busy model train factory.

# The Back Shop

By Bill Beatty

## Building An AC to DC Converter

Last December, member John Cleveland #12040, tracked me down at a LCCA train meet and discussed a problem that he and his friend Stan were having. As the story unfolded, John was having a cup of coffee in Stan's restaurant and Stan made a comment about John's train jacket. Well, as you might surmise, Stan started reminiscing about his younger days and playing with Lionel® trains. John suggested that adding an overhead train running around the perimeter of Stan's restaurant might be a traffic builder for bringing the entire family in for a home cooked country meal. The idea took!

Lionel Large Scale™ was selected and 110 feet of track was carefully elevated around the room using 1" x 6" lumber and metal shelf brackets. To guard against a derailling accident, John purchased four foot pieces of aluminum gutter guard and cut them in half lengthwise. With a little trimming to obtain a scaled height and small wooden dowel rods painted silver, the gutter guard takes on the appearance of a chain link fence.

Seeing a short freight train just is not a common site in the midwest. Double heading the engines and adding more rolling stock was the plan. To help underwrite this endeavor, John scratch built 12 wooden crates to be placed on Large Scale flat cars. Stan solicited other local merchants to buy stock in the SW railroad by selling them advertising rights to these crate cars.

Two Seaboard GP-9 diesels with Railsounds™ provide the pulling power and a nice touch of realism. Following the crate cars, John customized a search light car to project Stan's name up on the ceiling.

John and Stan tried several DC transformers but the results were not dependable. My challenge was to find a power source big enough to handle the amperage requirements of the engines, lighted cars and other accessories and allow for multiple hours of enjoyment.

My recommendation was to use a Lionel "KW" or "ZW" transformer with an AC/DC converter box between the transformer and train. Lionel's #8-82116 AC/DC converter box is not yet available.

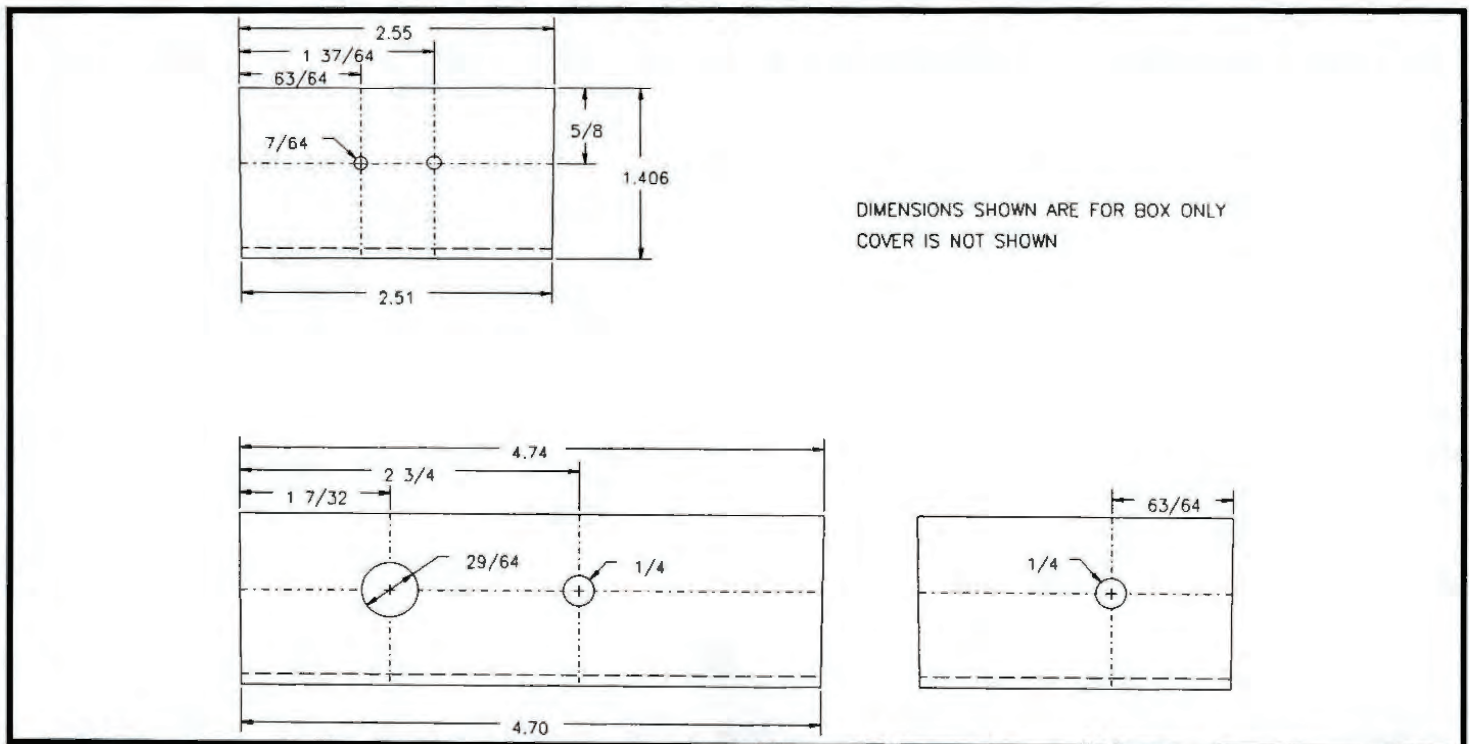


Figure One - Box Layout Dimensions

## Drilling The Box

I chose the Radio Shack #270-222 plastic box for two reasons: the built-in slot to hold a circuit board and the case material would be non-conductive.

Figure One shows the box layout dimensions.

Although component location is usually not critical, in this box it is! The circuit breaker *just* fits!! There is NO margin for vertical displacement for the circuit breaker. An error of 1/32" may render the box worthless.



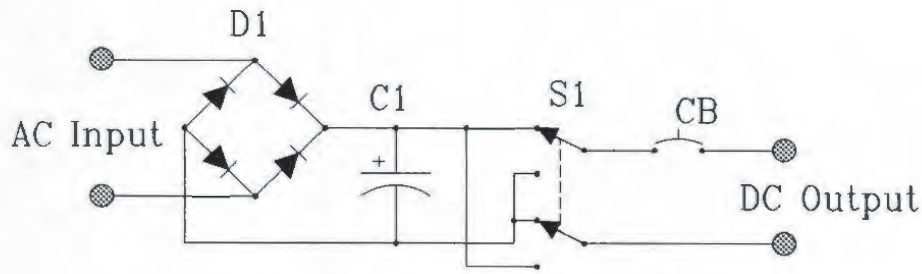


Figure 2 - AC/DC Converter Schematic Diagram

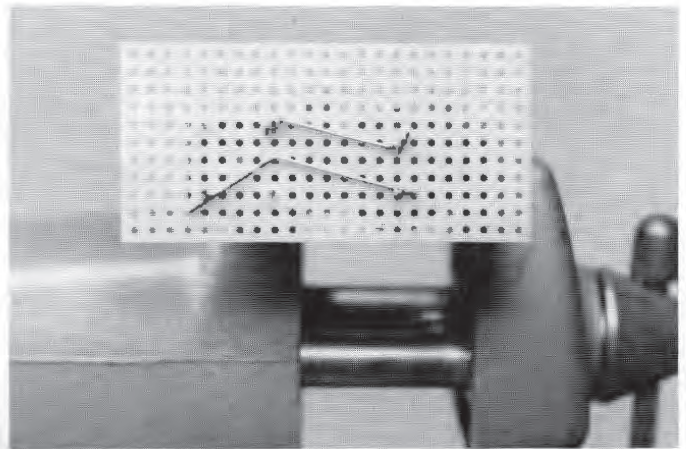
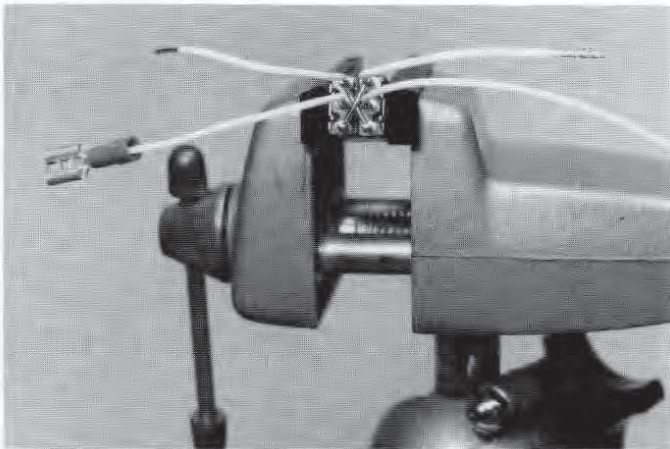
### Preparing The Wire

1. Cut five pieces of 20 gauge hookup wire:
  - 2 pieces - 3"
  - 1 piece - 3 1/2"
  - 1 piece - 5"
  - 1 piece - 7 1/2"

Strip approximately 1/2" of wire off each end and tin the wire with solder using a soldering iron.

2. Using the 5" piece of wire, trim each end to approximately 3/16" and crimp a #4 ring terminal to one end. Crimp a 0.25" insulated spade terminal to the other end. Set the wire aside.

5. Trim the other end of these wires to approximately 3/16". Crimp a 0.25" insulated spade terminal to the remaining end of the 3 1/2" wire. Crimp a #4 ring terminal to the end of the 7" wire.
6. Take both 3" pieces of hookup wire and trim the ends so that the tinned wire length matches that of the switch lug. Solder the trimmed end of one wire to the upper right switch lug (formally the lower left). Repeat this procedure using the second 3" piece of wire and solder it to the upper left switch terminal.



### Pre Switch Wiring

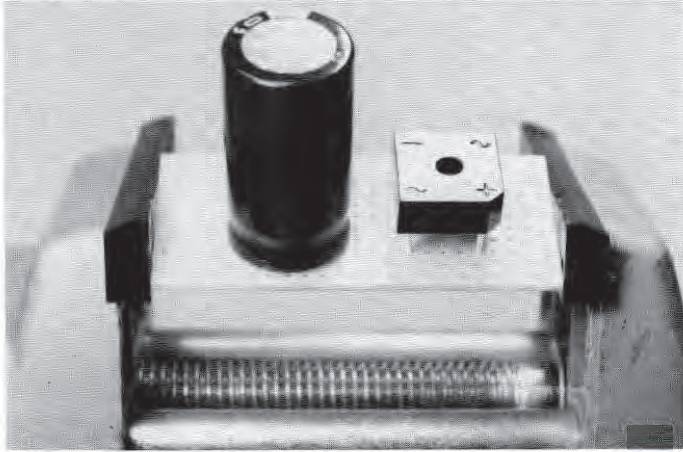
1. Cut two pieces of 20 gauge Teflon tubing having a length of 11/32". These pieces should fit between opposite inside corners of the switch lugs.
2. Insert a piece of 22 gauge buss wire through the bottom left switch terminal, passing it through the Teflon tubing and into the upper right switch lug. Repeat for the lower right/upper left switch lug.
3. At this point in time, solder only the upper switch terminals. When cool, trim wires and rotate switch 180 degrees.
4. Using the 3 1/2" piece of hook up wire, trim one end so that the tinned wire length matches that of a switch terminal lug. Solder this trimmed end to the left center switch terminal lug. Repeat this procedure

### Building The Perf Board

1. Cut a piece of 0.1" x 0.1" perfboard to a size of 2.4" x 1.2". Cut between the holes and sand edges smooth.
2. Viewing the perfboard from the wire (foil) side and using the lower left corner as a reference, mount the components as shown in the photo above. The "+" positive (chopped off corner) lead of the bridge rectifier, mounts in the fifth hole from the left edge and third hole from the bottom. The remaining rectifier leads will be four holes over and up. Do not press the rectifier down on the perfboard. Leave approximately a 1/4" gap between the bottom of the rectifier and component (top) side of perfboard. This gap is needed for heat dissipation and also allows one to secure a small heat sink to the bridge rectifier

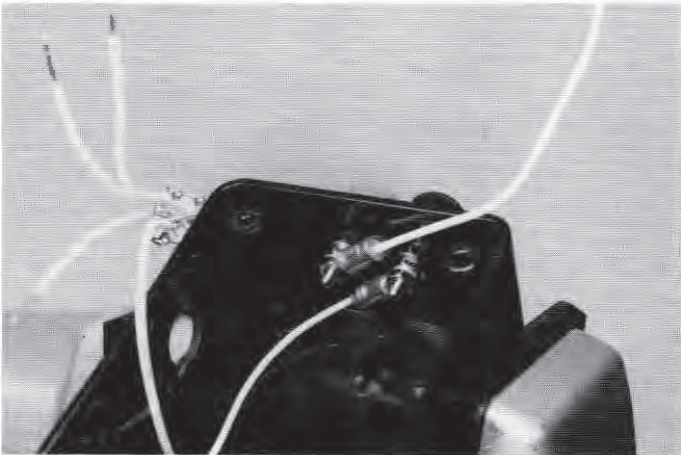
using a #6-32 machine screw and bolt. A heat sink is recommended. See photo below.

3. The positive lead of the capacitor mounts in the sixteenth hole from the left edge and also the third hole from the bottom. The negative lead is directly above the positive lead three rows up.
4. Double check the polarity position of both devices.
5. Using 20 gauge buss wire, run jumpers on the back side of the perfboard to interconnect the capacitor and bridge rectifier.



#### Stuffing The Box

1. Position the box so that the long side having the two large holes are away from you. The short end with the single 1/4" hole should be on your left side.
2. Mount the rubber grommet in the 1/4" hole on the left side.
3. Mount the binding post on the right side with the red post toward the long side having the two holes. The black post goes towards the long side without any holes.

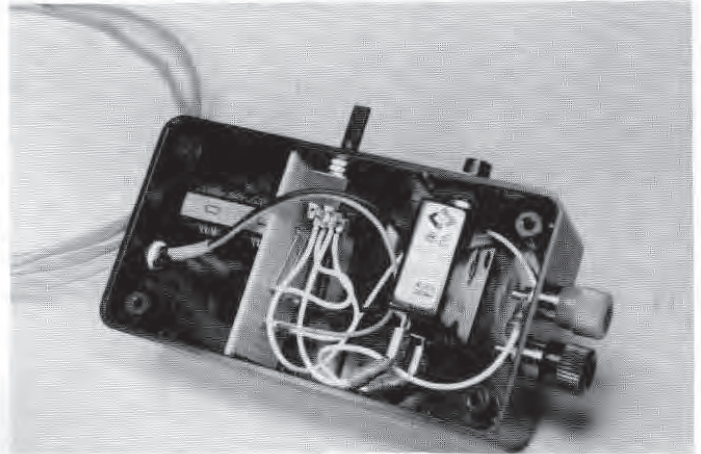


#### Final Assembly

1. Looking at the rear of the switch, turn the switch so that the two terminals without wires are up (top). Solder the free end from the 3" switch wire on the left center switch terminal to the negative "-" rectifier

lead. Solder the free end from the 3" switch wire on the right center switch terminal to the positive "+" rectifier lead.

2. Attach the free end from the 7" wire having the #4 ring terminal to the negative (black) binding post. Position ring terminal so that the wire runs underneath the red binding post and towards the mounting hole for the circuit breaker.
3. Using the 5" piece of wire with terminals attached, connect the end having the #4 ring terminal to the positive (red) binding post. Position ring terminal so that the wire runs above the black binding post and towards the box corner as viewed in photo. These two ring terminals should parallel each other.
4. Using a piece of 20 gauge jacketed cable, remove the jacket from one end at least 7". From the jacket end, measure back 6" and mark each wire. At these marks, strip, tin and trim wire end to a length of 3/16". Insert wires through the rubber grommet and pull enough cable inside the box until the jacket is a couple of inches inside.
5. Solder each wire from the jacketed cable to an AC "~" rectifier lead.



6. Mount the switch in the box while positioning the perfboard inside the card guide slots. Secure switch with its mounting hardware.
7. Place a small cable tie around the jacketed cable approximately 1/2" from its end and tighten. Pull any excess cable out of box till cable tie is up against the grommet.
8. Bend the 0.25" spade terminal on the other end towards itself approximately 45 degrees and push terminal on the lower circuit breaker lug.
9. Bend the remaining 0.25" spade terminal crimped on the 3 1/2" switch wire and push connector on the upper circuit breaker terminal.
10. Because the circuit breaker straddles the internal card guide slots, add a suitable fiber or metal washer on the shaft of the circuit breaker before mounting it. This will provide a flat mounting surface when it is

tighten up against the box. Mount breaker in the 15/32" hole by sliding it in from an angle. Add "ID" plate and tighten hex nut.

11. Double check your wiring and polarities per photos and schematic drawing.

### Testing

1. Strip free end of jacketed cable and attach to an AC Lionel transformer output terminals.
2. CAUTION: The polarity of the DC output is dependent on the position of the switch, S1. Using a DC voltmeter, measure the DC voltage across the binding post.
3. Remove meter leads and throw switch, S1. The DC polarity should be just the opposite. Confirm with a DC voltmeter.
4. If Okay, secure cover to box using the supplied screws.

### Final Comments

Although the current rating of the full wave bridge rectifier is 8 amps, the current rating for the switch and circuit breaker is at 6 amps. A smaller rated circuit breaker was selected to protect to the bridge rectifier in case of a short circuit.

Due to the compact size of the box, heat dissipation may be a concern depending on the DC load. A heat sink may be added to better dissipate the heat. You may want to add a small lamp to show when the converter box is on.

If your requirement demands a higher current rating, purchase components with a higher current rating, as well as a larger box. Select a circuit breaker with a current rating 70 to 75% of the bridge rectifier and switch rating.

Remember, regardless of the component rating for the AC/DC box, the AC train transformer must be able to supply the power. Although a Lionel "ZW" transformer may be rated at 250 or 275 watts, that is *peak* power, not average or continuous! By today's standards it will be able to supply only 180 watts or 14 amps, providing it does not die of heat stroke first.

Bill Beatty, #11124  
20 Kirkley Lane  
Springfield, IL 62704  
(217) 546-8591 - Home  
(217) 787-4855 - Work  
(217) 787-4865 - FAX

### PARTS LIST

Qty	Supplier	Part No.	Description	Designation	Cost	Note
1	RS	#270-222	Deluxe project case, 4 $\frac{5}{8}$ (L) by 2 $\frac{9}{16}$ (W) by 1 $\frac{9}{16}$ (D) inches		\$2.49	
1	RS	#274-661	Insulated binding posts (2 red and 2 black)		\$2.19	*
1			2200 uF 35 volt radial mount electrolytic capacitor	C1	\$3.69	
1	RS	#275-664	DPDT center off miniature toggle switch, 6 Amp	S1	\$3.79	
1	ECG	#5312	8 Amp 100 volt bridge rectifier	D1	\$3.42	
1	GCE	#35-2106	6 Amp circuit breaker	CB	\$3.30	
1	GCE	#11-284-C	Rubber grommet, $\frac{1}{8}$ inch I.D., $\frac{1}{4}$ inch mounting hole			
2			$\frac{1}{4}$ inch insulated spade terminals, red			
2			#4 insulated ring terminals, red			
			20 and 22 gauge buss wire			
			20 gauge hookup wire			
			Perfboard			

Notes: \* Package contains 2 pairs of Binding Posts, only one pair is required.

RS = Radio Shack

ECG = Sylvania General Purpose Semiconductors

GCE = G.C. Electronics

*Special Notice:* Circuit boards for Willy's Whistle are now available. See October 1991, Back Shop article for details.

*Correction:* The October 1991 Back Shop article on Willy's Whistle has an error. Page 16 second column under the heading "Building the Whistle Circuit", the second paragraph, third sentence should read: The big hole on the right is **25/64 inch** (not 25/32 inch).

# See You at the Convention by Russell N. MacNair

I really enjoy the LCCA conventions. It is great to see friends, enjoy tours of the area and check out the trains. The Lancaster, Pennsylvania convention last year was really memorable. I can still see the big Lionel® postwar passenger set display. I believe it was the only time such a complete display was assembled.

## 1991 Lancaster Convention

A record 699 LCCA members attended the 1991 convention in Lancaster. With family members, the attendance totaled 1330 people. Members enjoyed the Strasburg Railroad and Pennsylvania Railroad museum tour. A tour of the Amish country was also popular.

## Self-Guided Layout Tour

Another great memory is the self-guided layout tour. Three local LCCA members opened their homes and train collections to guests. Bob Breneman, #11461, Jerry Heisey, #1241, and Ray Myers, #13066 were gracious hosts to LCCA members. The Breneman and Heisey layouts were featured in Trackside Photos in the October 1991 issue of *The Lion Roars*.

Bob Breneman's collection featured an outstanding display of prewar Lionel and American Flyer trains and an operating prewar layout. Guests were also treated to a large outside LGB garden railway.

Jerry Heisey's collection consists of postwar and MPC Lionel trains. His immaculately detailed operating layout included a recreation of the famous Pennsylvania Railroad Horseshoe curve.

Ray Myers's collection and layout represents over three dozen train manufacturers. There is "a little of a lot, but not a lot of anything" according to Ray. Guests were also amazed to see original Lionel No. 43 and No. 44 boats actually running in the backyard pool.

## Operating Layouts and Exhibits

Everyone at the Lancaster convention was also treated to several operating layouts and displays in the exhibit hall. You do not often get to see a 1956 Lionel Dealer display or an operating Lionel airplane. Lionel Trains had a layout and a display of their new items. There was also Bill Royer's and Bob Breneman's operating standard gauge layout and Keith Arnold's postwar 'O' gauge layout. Jim Boylan had a great 'O' gauge layout with an operating catenary.

## Memorable Postwar Passenger Display

The most memorable display was the collection of postwar Lionel passenger from 1946 to 1964. This included 65 different cataloged and uncataloged sets and took more than 350 feet of shelving. This unbelievable display was assembled by Barry Keener, #728 and Russ MacNair, #10258. If you would like a souvenir photo of this special display with a list of the trains, contact me at:

Russ MacNair  
638 Eastside Drive  
Landisville, PA 17538

The 5" x 14" color photos are \$18 each and the 10" x 30" color photos are \$31 each. Prices include postage and handling. These are available until May 31st, 1992.

And the real reason to come - the trains. The convention hall had plenty of trains. Some old, some new, but all for sale. There was a wide variety of Lionel trains and accessories. Several dealers were present with lots of new Lionel items.

## The Banquet

The banquet was great. Then club president, Bill Schmeelk, treated everyone to a series of Jackie Gleason film clips featuring Lionel trains and a magic show. Raffle prizes were awarded with the grand prize of a complete 10 year LCCA convention car train. Peter Wicha, #13458 was the grand prize winner. Other prizes included a No. 318 Lionel Classics station donated by Lionel Trains, Inc. which was won by Krissy Chiarello. Charles Ro donated a No. 2115 Lionel Classics station, which was won by Clair Turnbaugh, #11435. Pride Lines donated a Convention lamp post, which was won by Marge Foote, #351.

Train trading continued on Sunday morning and then it was time to say goodbye to everyone until next year. A special thanks to all those who made the Lancaster convention a tremendous success. To those members who were unable to attend, we missed you. Hope to see you in Orlando where 1992 Convention host Bill Trappen promises another great convention.

## The Orlando Convention

I wonder what great tours, layouts, exhibits and trains await us in Orlando, Florida. I don't know about you, but I can hardly wait till July to find out. See you at the convention!



Above, Postwar 1946-1966 Passenger Set Display at 1991 LCCA Lancaster Convention



Above, Church Street Station in Orlando



Above, Orlando Atlantic Coast Line Railroad Passenger Station. Left, the trading hall at the 1991 LCCA Lancaster Convention.



# The Three Rail Rambler by John William Coniglio

## New Product Announcement

Third Rail Ramifications of Hixson, Tennessee is pleased to announce PROTO-III due to popular demand across the entire model railroad spectrum. PROTO-III is the center rail add-on for all 2 rail track. Properly applied, PROTO-III can make even the finest scale model look like a real toy train. Phone 1-800-APR-FOOL.

## Building the Tennessee Central (Again)

The Rambler's crew recently settled into new (to us) quarters on a hillside in Southeast Tennessee (sounds like a song ---). The bad news was the abandonment of our TC RR Couch Canyon line. The good news is if we can ever find the box of 'O' gauge track there is space in the downstairs wreck room for a layout!! Management gave the project her blessing as long as we don't tunnel through the Dixie Cup dispenser or bake our paint jobs in the microwave.

Now the old TC was our largest layout ever at 16 inches wide for most of its length. The turn around loops sprawled out to 33 inches at max. What to do with a 30 foot wall?? We don't know yet, but as a way to encourage others to try their hand at layout building and actually *operating* their trains, we will document our progress in this column, beginning with the next edition. Let's see now, will the new lift bridge span both washer and dryer?

## Overheard at the Mall

Eavesdropping at a "local" train show can be as instructive, but not quite as expensive as buying a fake. Since "Top Ten" lists are 1) Someone else's idea and 2) Passe in the new South, the Rambler submits just a few reasons why the general public is (or oughta be) leery of the stuff on tables at train shows. Unfortunately these are true stories.

- "Its a LIONEL®. Old Lionel Trains are hard to find." Then why did I just pay \$5 to tour a room full of them ??
- "This is a rare piece, you NEVER see this car." So what am I looking at?
- "It's MINT." Those scratches were applied by careless packers at the factory - green bay packers!
- "Its a 1946 set - - -." Contents were 2046/2046W, 6464-1, a pair of 1122E, etc., etc., and I'm a rock 'n roll star.
- "You should see what I can sell this stuff for in New York." That's why I have 3 tables full of it in Chattanooga - - -.

- "Just look at the condition of those decals - - -." NOT so closely!!
- "I got it from the original owner." Who got it from the original owner, who got it - - -.
- "Old trains are hard to get, that's why they're so high." Or so high that they're hard to get.
- "It's original, and like new!" True enough. The shells and trucks were original Lionel. The paint was original Rustoleum. The decals were original Kramer. The WD-40 dripping from beneath the motor was originally in a spray can about an hour ago.

## Guilty Grandmother Syndrome

It's not always the civilian population who has to put up with collectors. The 'ole Rambler ran a for sale ad in the paper recently. We had acquired a mess of 027 track, switches and other train stuff and had culled out a couple of items just itchin' to wear the maroon and gold of the Tennessee Central. All the rest had to go. This is NOT, repeat NOT a misplaced "Interchange ad." No trades will occur as a result of this story. Any trade inquiries will be forwarded to one of the dealers quoted above.

Back to the ad. The calls started early Saturday morning. Some were collectors I know and some were new voices. Many of the calls went as follows:

- Woman - I'm calling about the train. Is it them old heavy ones?  
Rambler - That's correct. The items are Lionel 027 size, made in the late 1940's and 50's.  
Woman - How much do you want fur 'em?  
Rambler - They are priced by the item. mam. There are several engines, cars, switches and enough track to go from here to Chicago.  
(Should have picked a place she knew of)  
Woman - Well ain't it like a set - - - ?  
Rambler - (counting silently to ten) - I can make up a set for you if that's what you want, or you can purchase items individually.  
Woman - Well, my son(s) had trains when they were little but they was thrown out years ago. Now my grandkids are crazy about trains. I'd like to find a couple of sets.  
Rambler - I can fix you up with two sets and give you a break on the price for taking two at once.  
Woman - Well, I'll have to talk to my husband.

The 'ole Rambler never dreamed there were so many frustrated train crazy children going without because grandma trashed the family Lionel's in 1963. If ya'll can't read between the lines meet me on the Lionel lift bridge at sunset and I'll explain. Coming Soon: LTI 4501; different views of the news (Sorry, Bill)

Contact the Three Rail Rambler at P.O. Box 6312, Chattanooga, TN 37401. Phone (615) 843-2360 before 10:30 EST. Please do not call collect, not even train collect. Especially not train collect. Happy ramblin' - - -.



### *From the Vice President*

**Meets:** Beginning February 29, 1992, ten regional LCCA meets are scheduled in March, April, June and July. We are still looking for members interested in hosting an LCCA meet. If you are interested in hosting a meet, please contact me as soon as possible.

**Complaints:** The number of complaints has been fewer this year than in 1990-91. One problem area this year is members who advertise new trains to be released by Lionel Trains Inc., but are not in their possession when placing their ad in the Interchange Track. Remember you *cannot* advertise something in the *Interchange Track* that you do not have in your possession *at the time you place the ad*.

**Conventions:** Everyone is looking forward to a great convention in Orlando, Florida, July 22-26, 1992. The convention is being hosted by Bill Trappen and his fine committee. You should be planning to attend this event!

Work continues by the committee in Shreveport/Bossier City, LA on the 1993 convention. If any of you have attended an LCCA meet there, you already know about the enthusiasm that Bert Sams and his committee will put into a convention.

As the club continues to look for future convention sites, there are several important factors that are given strong consideration as follows:

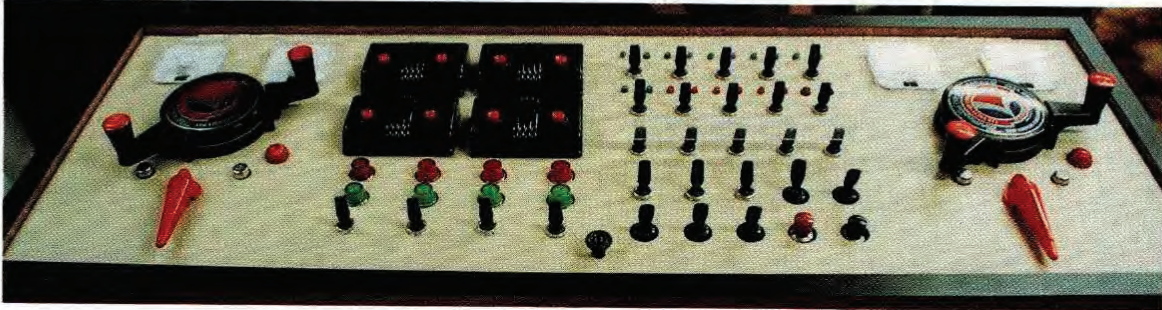
1. Members are available who have an interest in hosting an LCCA convention and who are willing to work the necessary long hours together and in coordination with Club officers.
2. Adequate facilities are available. This includes hotels, a large trading area, meeting rooms and banquet rooms to accommodate all the LCCA members who might attend.
3. Facility costs that would not be prohibitive for Club members and their families to attend.
4. Facility costs that would minimize the risk of the LCCA losing revenue on the Convention.
5. Availability of interesting tours that would include activities for members' families and also the possibility of tours with railroad themes at a reasonable cost to members.

I hope you will consider hosting an event in your area, maybe even a convention.

*Bill Stitt*

# Lionel® Trackside Photos

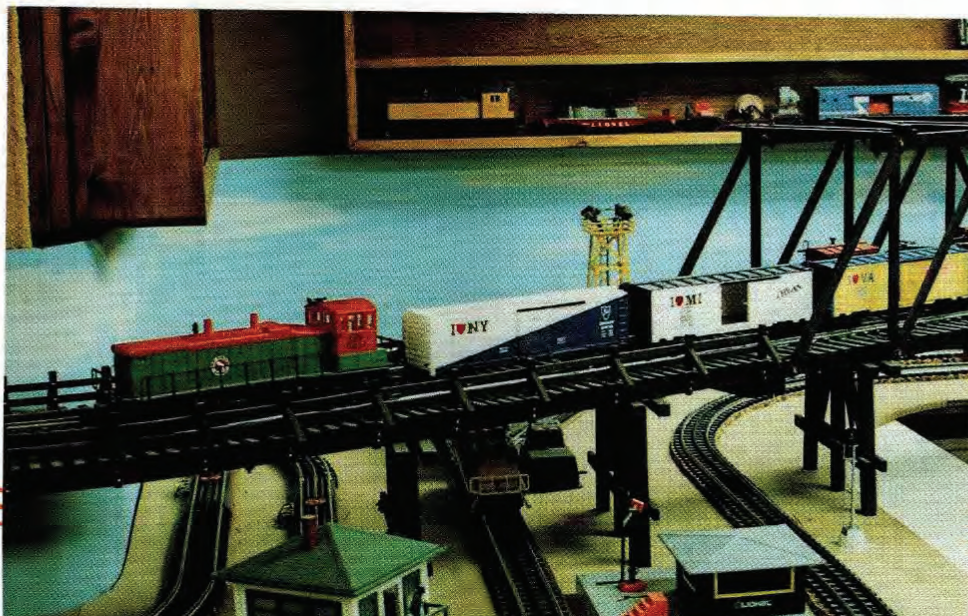
Trackside photos is where the pictures tell the story.  
Send in a photo of your layout, favorite train or accessory to share with everyone.



Don Pizmoht's, #10186 layout. Above, the control panel with two Lionel® KW transformers runs up to four trains.  
Below, the 681 turbine and four car freight set No. 2211WS was Don's first train set. He received it in 1953.

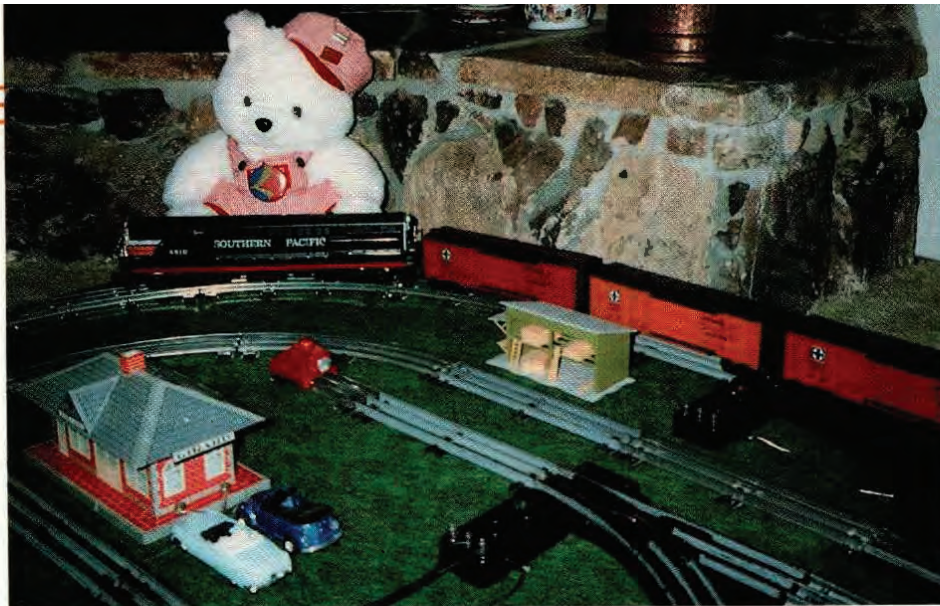


The bridge below was built from an Oakridge Corp. kit. The trestle leading to the bridge was scratch built by Don.

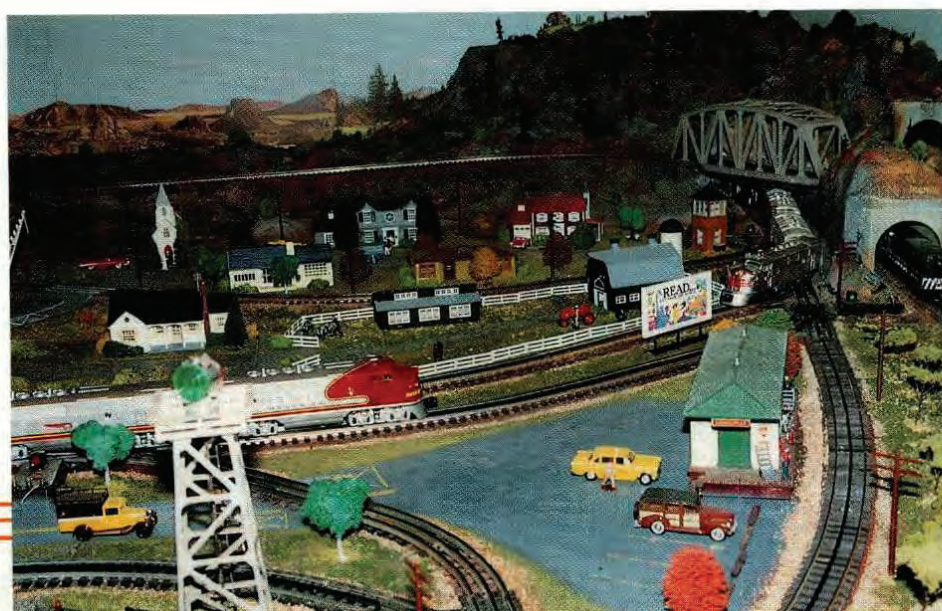
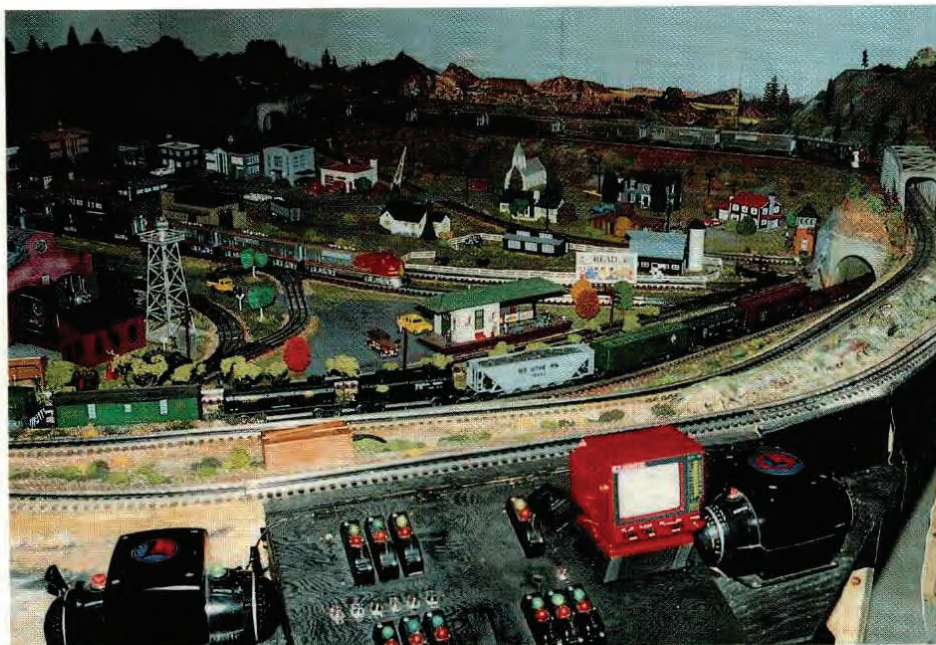




Bob Spivock's,  
#10300, layout.  
The Lionel Bear  
is watching the  
Southern Pacific  
express go by.  
The FM is a  
Lionel 2321  
Lackawanna  
that was  
repainted.

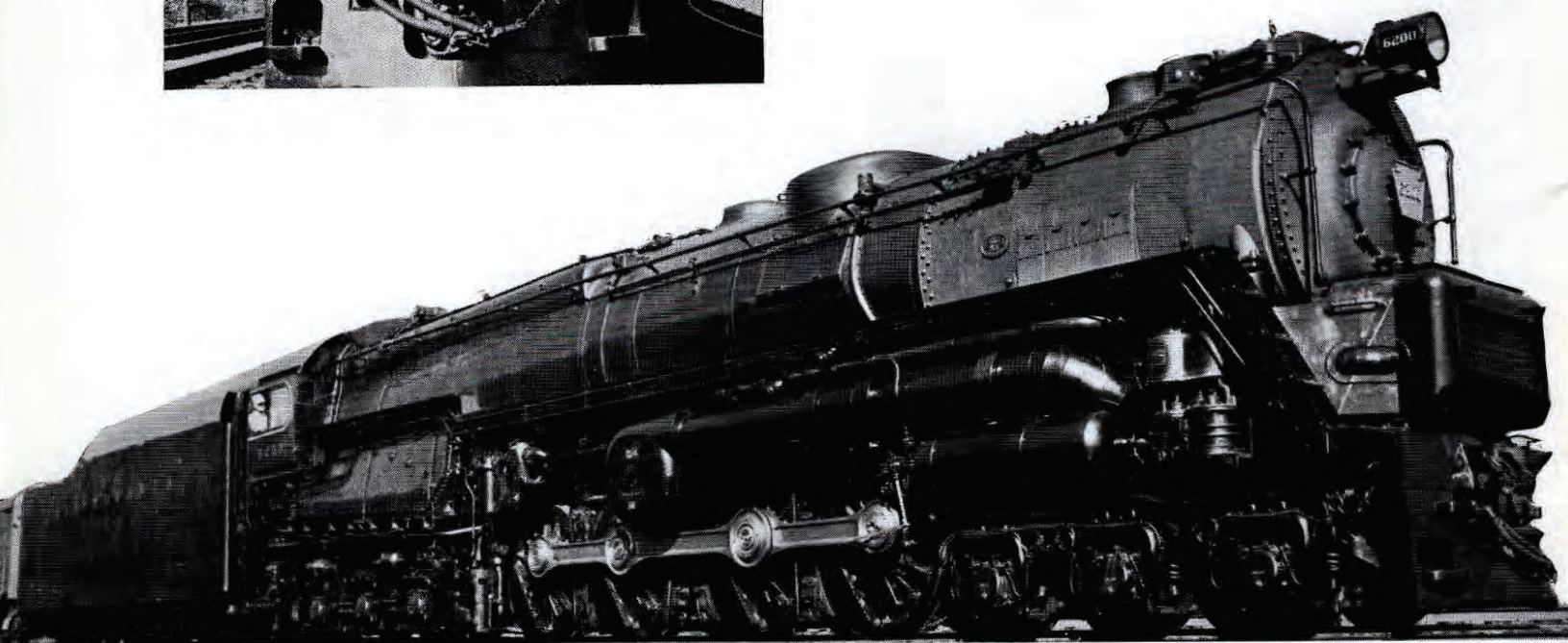


Right and below,  
Gary Ahnquist's,  
#9523, layout. It  
has been under  
construction since  
1987.

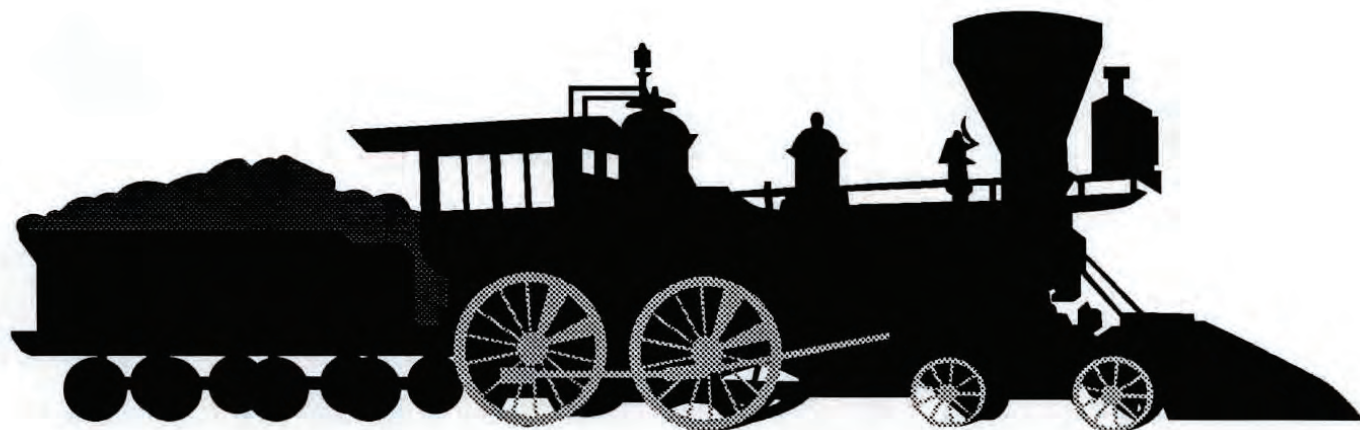


# The Real Pennsylvania S-2 Turbine

The real Pennsylvania S-2 steam turbine with a wheel arrangement of 6-8-6 is a powerhouse. The first direct drive steam turbine locomotive to be built in the United States. It developed 6900 horsepower providing 100 mile per hour speeds with a full length passenger train. A single control lever in the engine made this one of the easiest engines to operate. The S-2 was an experimental engine designed to test the feasibility of using the steam turbine. Pictured below is the massive S-2 turbine engine shown from the side and a front view. It was number 6200, truly one of a kind.



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## Welcome Aboard New Members

13637	Jay W. Procter 3535 Calder Suite 240 Beaumont, TX 77706	13656	Archie R. Talley P. O. Box 4483 Winston Salem, NC 27115	13674	John C. Nowaczyk 1417 Melbrook Drive Munster, IN 46321	13693	Dennis C. Wellman 564 Riverbank Lincoln Park, MI 48146
13638	Malcolm M. Wilson 2743 Pampas Drive Fort Collins, CO 80526	13657	John H. Vaughn Route 2, Box 20410 Benton, LA 71006	13675	Oliver T. Evenson 2553 Booth Road Honolulu, HI 96813	13694	Roy W. Deere 7041 Rodas Place West Melbourne, FL 32904
13639	Frank P. Costanzo Route 1, Box 418-B Emporium, PA 15834	13658	Robert C. Sample P. O. Box 3545 Apollo Beach, FL 33572	13676	Robert E. Panico 960 Cypress Drive Delray Beach, FL 33483	13695	John H. McBride 9623 Fulton Avenue Hudson, FL 34667
13640	J. R. Lino 921 Main Street Malden, MA 02148	13659	Salvatore P. Russo 106 Cochran Place Valley Stream, NY 11581	13677	Michael J. Lukas 2050 Judith Place Longwood, FL 32779	13696	Greg Winter P. O. Box 061143 Palm Bay, FL 32906
13641	Michael J. Mitchell Route 3, Box 657 E-1 New Iberia, LA 70560	13660	Michael Yudiskas 3313 Oakmeadow Lane Midlothian, VA 23112	13678	Parsons Metzkw 3 Bluefish Avenue Ponte Vedra Beach, FL 32082	13697	Henry A. Winter P. O. Box 372121 Satellite Beach, FL 32937
13642	Robert E. Scheel P. O. Box 9385 Truckee, CA 96162	13661	I. William Brownlee 10730 Carolina Trace Harrison, OH 45030	13679	John A. Mihok 5805 Cordwood Lane Fort Myers, FL 33919	13698	Clifford A. Weidel 20026 Damman Harper Woods, MI 48225
13643	Karl P. Schoepp 118 Carley Drive West Sayville, NY 11796	13662	Glen A. Yeater P. O. Box 82524 Tampa, FL 33682	13680	Robert J. Laniewicz 10085 Northway Allen Park, MI 48101	13699	Bernard C. O'Neill 2218 Via Tuscany Winter Park, FL 32789
13644	Russell L. Pedro 9910 Green Oak Drive Shreveport, LA 71106	13663	Fred Dickmann Route 1, Box 263 Altamont, IL 62411	13681	Craig S. Steffey 9001 West Red Bud Lane Muncie, IN 47304	13700	Robert V. Dolan 43 Buck Road Lansing, NY 14882-9016
13645	Michael R. Ellis 9063 Marva Drive Shreveport, LA 71118	13664	Daniel D. Diestler 5212 Rowe Trail Pace, FL 32571	13682	Frank A. Gudac 312 Shirley Lane Uniontown, PA 15401	13701	Kenneth W. Fisher, Jr. 201 Columbus Avenue Susquehanna, PA 18847
13646	Tim Duffy 1617 West Barton Drive Normal, IL 61761	13665	Dallas E. Rennie 2154 Drew Valley Road Atlanta, GA 30319	13683	Gerald Valente 4 Cliff Drive Englewood, NJ 07631	13702	John G. Glaser 359 Blaine Avenue West Berlin, NJ 08091
13647	George F. Furmanchin 204 West Main Street Weatherly, PA 18255	13666	Mark G. Kassey 48 Ronald Road New Britain, CT 06053	13684	Michael P. Williams 1 Crocus Court Webster Groves, MO 63119	13703	William A. Olsen 467 Tortoise View Circle Satellite Beach, FL 32937
13648	Lauren E. George 706 North Fifth St, Rear Steubenville, OH 43952	13667	William J. Prescott 3013 West Stolley Park Rd Apartment 77 Grand Island, NE 68801	13685	Donald B. Bock, II 137 Arnhym Drive Orlando, FL 32835	13704	Robert B. Anthonyson 30 Lovejoy Lane P. O. Box 198 Sunapee, NH 03782
13649	Mario J. Tricoci 608 Marengo Avenue Forest Park, IL 60130	13668	Richard A. Grey 504 Mellwood Drive Piedmont, SC 29673	13686	Steven C. Larson Route 5, Box 270 Albia, IA 52531	13705	Robert F. Moeller 8828 Wanderingway Baldwinsville, NY 13027
13650	Douglas M. McWilliams 430 Spruce Street Berkeley, CA 94708	13669	W. Greber Via Coghetti North 9 47037 Rimini Italia PO	13687	Richard C. Farnau 3605 Marlin Drive Louisville, KY 40299	13706	Joseph P. Lopez 259 Washington Street Tappan, NY 10983
13651	Dave R. Shobe 2441 Bayshore Drive Newport Beach, CA 92663	13670	Peter Caderas 500 Lunaillo Hm Road Apartment 14-B Honolulu, HI 96825	13688	Michael J. Lohrberg 80 Baird Street Rochester, NY 14621	13707	Leonard J. Tamagnini 32 Meadow Road Clark, NJ 07066
13652	Eugene L. Tenney 17835 E.Gen Forreast Ave Baron Rouge, LA 70817	13671	Paul J. Grieger Star Route, Box 25 Claverack, NY 12513	13689	Ted A. Best 2255 Pineway Street Sanford, FL 32773	13708	Tom Tomaskovic Route 1, Box 1525 Milford, PA 18337
13653	S. Louise Holder 2420 Laurel Lane Plano, TX 75074	13672	Douglas C. Housenick Box 703 Ridgeview Danville, PA 17821	13690	Matt M. Sporer Box 193 Diveron, IL 62530	13709	Michael W. Roberts 1821 Swiss Oaks Street Jacksonville, FL 32259
13654	Robert A. Black 3504 Cimmaron Trail Fort Worth, TX 76116	13673	Charlie E. Massey 27 Montavista Avenue Nepean, Ontario Canada K2J 2P2	13691	Randall L. Case 3585 Heartwood Lane Melbourne, FL 32934	13710	Keith H. Berndt 30050 Euclid Avenue Apartment C-4 Wickliffe, OH 44092
13655	Ernest R. Guy, Jr. 3308 Trailview Haughton, LA 71037			13692	Donald L. Miller 2210 South Fifteenth St. Philadelphia, PA 19145		

# Smoke! DOUBLE WORM DRIVE! NEW 20-WHEEL PENNSYLVANIA STEAM TURBINE LOCO!



(No. 2020 LTS)

## The Newest LIONEL!

This powerful 20-wheel steam turbine locomotive, a scale-detailed counterpart of the famous Pennsylvania Railroad S-2, is the sensation of 1946! And it's driven by the newest development in model railroading — the exclusive Lionel double worm drive, that permits the loco to crawl along the track without stalling or race away with a heavy load of cars. Watch it perform! See how this new Lionel 20-wheeler gets off to a smooth, easy

start, just like a real steam engine. Notice how it slows down gradually. Here's realism — and power!

Each of these handsome locomotives puffs smoke — clean, white, odorless smoke — synchronized with the driving rods to PUFF. And the tender carries a two-toned whistle that railroad men say has perfect tone fidelity. Don't miss this new Lionel!

# LIONEL TRAINS