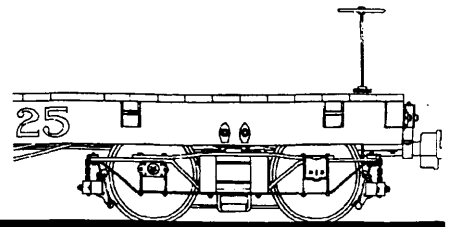


CARTER NARROW GAUGE CHRONICLES



The Newsletter of the SPCRR

September 1998

CARTER BROS.

Manufacturers of

Passenger and Baggage Cars

City, Freight and Hand Cars,
Logging Trucks, Lumber Cars, Turn-
tables, Water Tanks, Etc.

Office, 10 California St., S.F.

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Special attention given to Narrow
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The Directors and Managers
of the SPCRR for 1998

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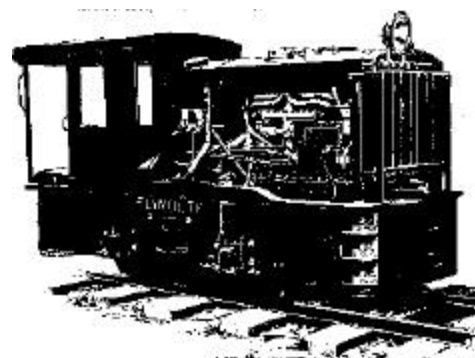
Newsletter Editor: Howie Zatt

September General Meeting

October 2nd in the Granary at
Ardenwood
7:00 p.m.

Featuring a program on

The Plymouth Locomotive Works



With Photos By Bill Whissel

*Along with information on this years Haunted
Train and how you can help*

Notes From Around the Museum

From the Curator's Work Bench: By Rich Hill

Eight o'clock Friday night, just starting to get dark. The interior of SP 1010 is lit by two oil lamps and a single candle. In the corner, a Confederate officer is writing up the orders of the day ... The era represented may have been a bit off, but the feeling inside the car that night was hard to describe. No boxes of sandpaper, no half-used cans of paint, no tools. Just the dim light and 1010 actually being used for something other than a restoration project. Incredible!

From the appearance of 1010 over the past few years, this would initially sound like pure fiction -- some lousy novelist's idea of what the car might have felt like when in use. Actually, that's what it felt like on August 14th of THIS YEAR! Ardenwood was the site of a Civil War reenactment on the weekend of August 15-16 and 1010 served as Confederate Headquarters (and was even guarded with bayonet -- made the workday on that Saturday interesting!)

We've made enough progress on the car that it is now suitable for limited use on occasions such as this. The exterior (one side and one end, anyway) is an even shade of green. The interior is clean and nearly ready for painting and staining, and maybe the most significant change -- there are endrails



Photo by Andy Cary

on both ends of the car. Not just any endrails, but real honest-to-goodness Miller-compatible endrails. With the exception of a small square hole in one endbeam and some details hidden below the car, there has been no evidence of Miller couplers on this car in decades. Now, there is no mistaking the ratchets that will soon engage the release levers. The remaining coupler parts are being fabricated and should make an appearance at the park in the next couple of months. Things are really starting to come together.

June of next year and Railfair 1999 still feel a long way off, but there is plenty of work to keep us busy -- and let's hope this winter is dryer than last. Next time you're out at the park, imagine 1010 at night, lit by oil lamps and a candle. We can't guarantee that it won't be full of tools and half-used paint cans, you'll just have to look over those and use your imagination.



Photo by Andy Cary

Incident Report: By Howie Zatt

For years we have had a rule, jokingly named the "Howie Zatt rule" after yours truly. The rule requires that the crew leave all switches in the "normal operating position." The rule exists because of our use of stub switches. Stubs, while historically correct, do not allow for errors. If a train approaches from the diverging direction, and

the switch is thrown against the train, the train will suddenly run out of track and derail.

On the Sunday, September 6th on the first run of the day, flat car 1725 derailed at the front switch. The switch had been thrown for the siding. All 8 wheels on the flat car came off the track. This is not the first time this has happened. (we will let you guess who the conductor of the last train to "stub" its toe this way... the rule is named after him) The good news is, The crew handled the emergency well, and through the efforts of SPCRR members and EBRPD staff Tracy Butler and Yvonne Provaznik and the Park's Massey tractor the car was rerailed, without damage, and service resumed by noon.

So what happened, how and why did it happen, and how can we prevent it from happening again? We have a set of operating procedures, and rules. Sometimes they seem silly, and tiresome, but they exist for good reason. In this case the accident could have and should have been prevented three times.

1) The work train crew working on Saturday afternoon, who threw the switch, left the switch thrown for the siding and unlocked, at the end of the day. Our rules call for all switches to be left in the normal operating position. In this case the normal operating position is for the mainline, The switch was left in the siding position, setting the stage for the later events.

2) Before each days operations, the crew must inspect the track, including all switches, and locks. The inspection should have found the miss aligned, unlocked switch, it didn't.

3) Train crews are expected to be alert and aware of track conditions. (Switch stands should be in the upright position, for normal operations.) In this case the crew did not notice the miss thrown switch until it was too late.

The result was a near miss, embarrassing situation... hey, let's be careful out their... Howie "stub switch" Zatt. By the way, we have definitely proved that one of our horses can pull a car without track. Andy Cary estimates that the car was 6 to 10 feet beyond the stub when it stopped.

SPCRR gets Exhibit Funding from City of Fremont: by Bruce MacGregor

During the first week in September, the City of Fremont informed SPCRR that it would fund a joint exhibit proposal, totaling as much as \$10,000. The funds provide for the creation of two exhibits, one for the new Centerville depot restoration in Fremont, the other for a refurbished and upgraded photo exhibit in SPCRR's boxcar 472 at Ardenwood. The impetus behind the proposal is that as much as 30% of both exhibits will overlap, providing a means of creating a number of "common" exhibit panels, thereby saving both projects money. 70% of the exhibit panels for each project will remain unique, and customized to the historic interpretation of each museum.

SPCRR will act as designers and project managers for both exhibits, turning out approximately 12 mural-size panels for each museum. The panels will be electronically composed and printed, providing museum-quality reproduction of photographs, as well as text and graphics, on permanent, large-scale wall panels. Historical themes for SPCRR's "half" of the project will cover a range of areas, from Carter Brothers, to the South Pacific Coast Railroad, to Ardenwood farm, to the restoration of 1010 and other cars. For the Centerville project, panel themes will include the restoration of the Centerville depot, other historic depots in the area, as well as the influence of the Southern Pacific on turn-of-the-century California.

SPCRR's "team" and production staff include Bruce MacGregor, Don Marenzi, Rich Hill and Randy Hees. Centerville depot's team will include Bill Wullenjohn and Henry Bender.

Cruel and Unusual Motive Power by Nate Shugars

Park visitors are frequently surprised by our use of horses to pull trains, and somewhat concerned for their well-being. While concern for the health and safety of horses may be historically justified, the mere fact of their use was so common that it should not be cause for comment. We now continue a series of the odd, the strange, the historically interesting and the out-and-out bizarre solutions to motive power needs.... [and we are *not* making these up]

Part Three: New York's First Subway--It Sucked!

Well, to be honest, it only sucked half the time--the other half, it blew. For inventor Alfred Ely Beach's 1870 demonstration line was powered by...air! It was a large pneumatic tube [figure #1]! Back in the first part of this series, we chronicled some early experiments in air power--notably, sail cars. there was a very early attempt at compressed air power [in response to questions: what I know about this device was in the article--anyone know more?]. But Beach's ingenious system not only was on a much grander scale, and it not only worked, it operated in regular service for over a year. And yet the most interesting part of the whole story may be not the invention itself, but how it came to be built.

In the 1860s, all of New York City was crammed into the lower third of Manhattan Island--more than 700,000 people. The streets were clogged with carriages and wagons, and the only public transportation were overloaded streetcars and omnibuses, pulled by six-horse teams. With heaps of animal waste added to industrial pollution, the air itself was considered poisonous [figure #2]-- "Modern martyrdom may be succinctly defined as riding a New York omnibus," one critic claimed. But the surface transportation was controlled by William Marcy ["Boss"] Tweed's Tammany Hall ring [figure #3], with a vested interest in maintaining the *status quo*.

Alfred Beach had first conceived the idea of a subway in 1849, which he detailed in an article in *Scientific American*: "The plan is to tunnel Broadway its entire length, with openings at every corner. There would be two tracks, with a footpath running between them, the whole brilliantly lighted by gas. The cars, to be drawn by horses, would stop ten seconds at every corner."

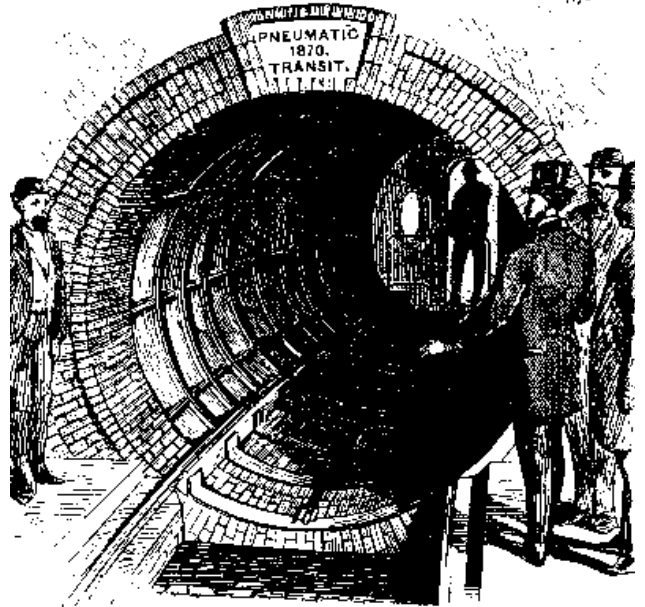


fig. 1

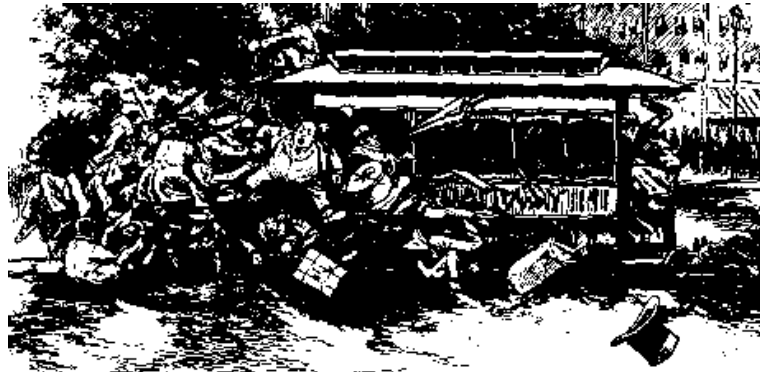


fig. 2



fig. 3

This original notion of Beach's failed to inspire anyone to start digging, but in 1866 he began experimenting with Pneumatic power, and when the American Institute Fair opened in 1867, it featured a 6-foot diameter plywood tube, containing a small car seating ten, running the length of the building-- a full city block. A ten-foot Helix fan, funneled down into the smaller tube, provided motive power. The exhibit was frequently greeted with spontaneous applause by the hundreds that rode it--but how to get one built underground in the face of Tammany opposition?

While working out details [including a hydraulic tunneling shield which could bore a tunnel without disturbing the surface], Beach also conducted experiments on pneumatic mail tubes. In 1868, a petition for an underground postal dispatch charter went before the state legislature



fig. 4

after crossing the desk of William Marcy Tweed without causing any concern. New York's first subway was about to be built in secret!

After sounding several areas of lower Manhattan, Beach decided on a sandy strata that had been found under Broadway between Warren and Murray streets. Accordingly, the basement of Devlin's Clothing Store was rented, and tunneling was furtively begun [figure #4]. Tunneling at night and removing the dirt in wagons with muffled wheels,

Beach's son Fred and his crew dug the tunnel in 58 nights, checking their bearings by pushing a rod up from the tunnel to the street [figure #5]. But nearly two years and \$350,000 of Beach's own money went into the equipment and the richly-appointed waiting room, complete

with frescoed walls, fine paintings, grand piano, bubbling fountain--even a goldfish tank! "A large and elegantly furnished apartment, cheerful and attractive throughout," according the *Sun*. For Beach was not without a flair for showmanship and early in February, 1870 he invited the press in for a tour.

"A FASHIONABLE RECEPTION HELD IN THE BOWELS OF THE EARTH!" trumpeted the *Herald*. What the journalists were shown, and over 400,000 tourists were to see during the next year, was a cylindrical tube, nine feet in diameter, fitting snugly around the single car [figure #6]. The track ran along the bottom of the tube for 312 feet under the center of Broadway. When the "Roots Patent Force Blast Blower" was turned on, it wafted the car down the track at speeds up to ten miles per hour. The car tripped a wire at the far end of the tube reversing the fan, which then "inhaled" the car back [figure #7]. Both press and public were excited.

This marvelous invention was not without its drawbacks--a duct from the fan led to a ventilator grate at the corner of Murray Street close to a

fountain, and when the fan was reversed a spray of water was blown two stories high. The fan's intake was just as powerful--letters, parcels, handkerchiefs were yanked from people's hands, hats were pulled from their heads, and all the refuse in the neighborhood was sucked against the grate. A moment later all would be blown sky-high again as the little car below made its return journey. It was a corner that pedestrians soon learned to stay clear of.

But there was no staying clear of Boss Tweed--enraged at having been duped, he and his cronys successfully blocked the project in the state legislature for the next two years, even though in 1872, Tweed himself had been indicted for fraud. Closing the subway after the first year, Beach nonetheless spent a fortune keeping lobbyists in the state capitol. In 1873 the Beach Transit Bill finally passed the legislature and was signed by the new Governor--but it was too late. Prices had risen, Beach was personally exhausted as was his fortune--gone into the invention itself, publicity and lobbyists. Then the Panic of 1873 crushed any hope of outside investment. The project was dead. Beach himself died on New Year's Day, 1896.

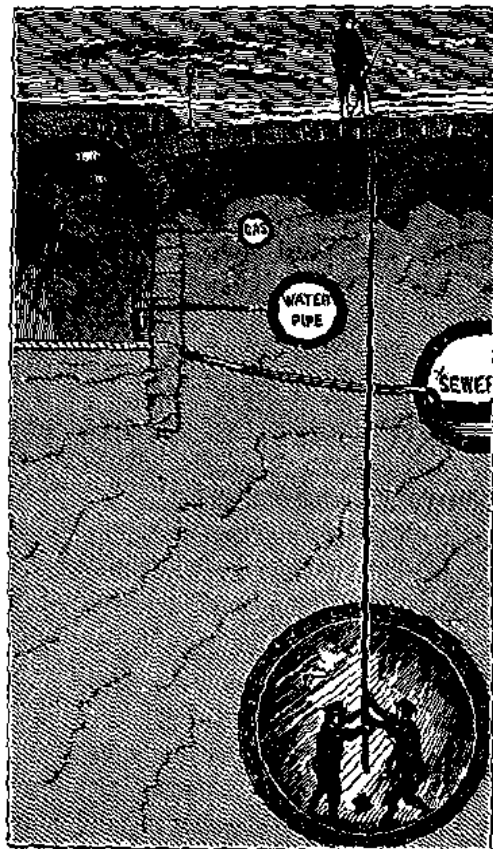


fig. 5



Passengers were wafted to and fro in comfort.

fig. 6

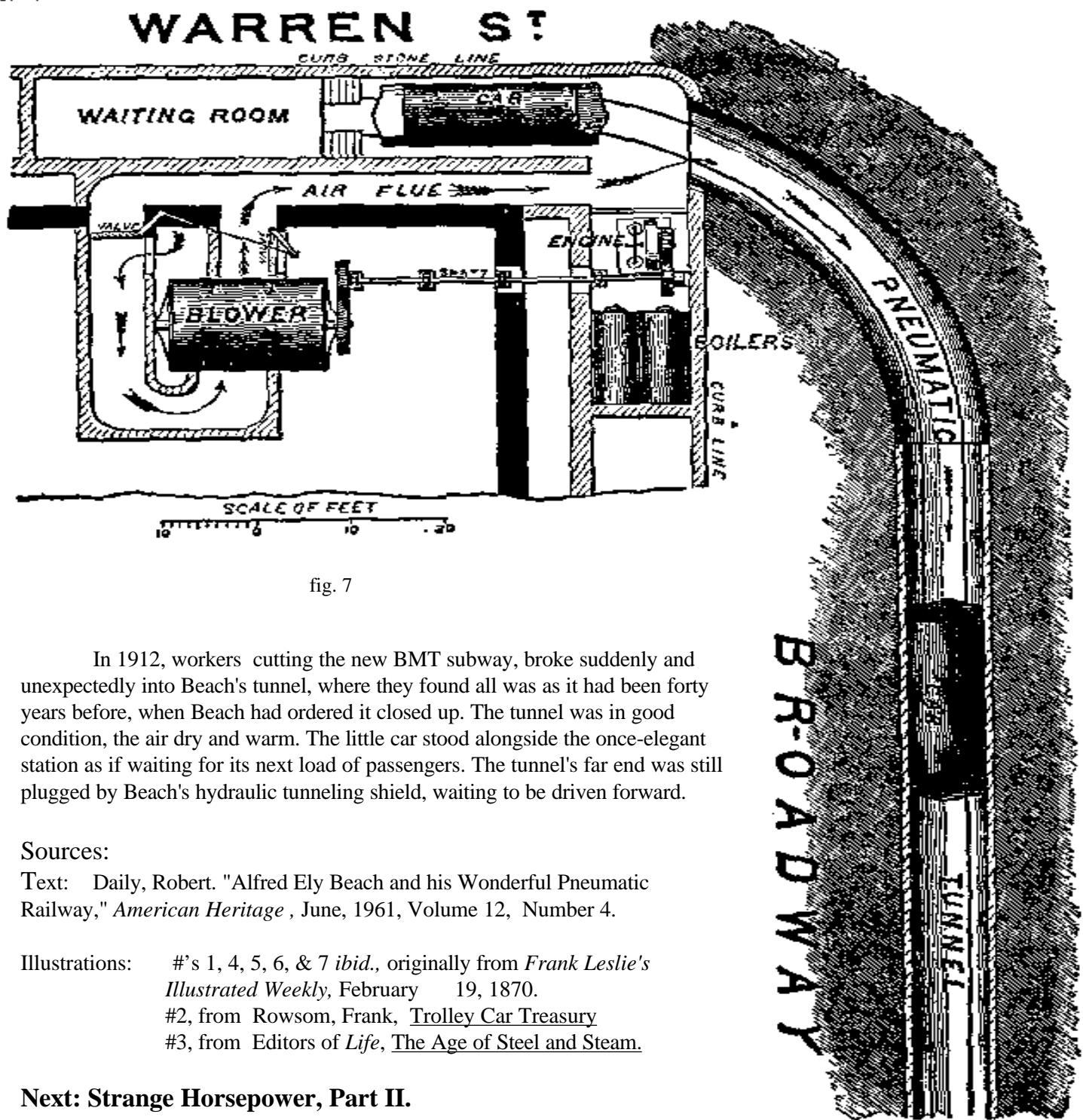


fig. 7

In 1912, workers cutting the new BMT subway, broke suddenly and unexpectedly into Beach's tunnel, where they found all was as it had been forty years before, when Beach had ordered it closed up. The tunnel was in good condition, the air dry and warm. The little car stood alongside the once-elegant station as if waiting for its next load of passengers. The tunnel's far end was still plugged by Beach's hydraulic tunneling shield, waiting to be driven forward.

Sources:

Text: Daily, Robert. "Alfred Ely Beach and his Wonderful Pneumatic Railway," *American Heritage*, June, 1961, Volume 12, Number 4.

Illustrations: #s 1, 4, 5, 6, & 7 *ibid.*, originally from *Frank Leslie's Illustrated Weekly*, February 19, 1870.
 #2, from Rowsom, Frank, *Trolley Car Treasury*
 #3, from Editors of *Life*, *The Age of Steel and Steam*.

Next: Strange Horsepower, Part II.

Continued from page 3...

The deadline for the work is April 1, 1999, in time for the opening of the restored Centerville depot, and for Railfair, where SPCRR's 1010 and boxcar 472 will be used to display the new panels. After Railfair, the panels become part of SPCRR's permanent exhibit at Ardenwood.

The first proof sheets should be available at the General Meeting in December. Thoughts, feedback and additional ideas would be welcome.

Building Railroad Cars in Northern California... Part One

by Randy Hees

We all know about the Carter Brothers and the railroad cars they built, but they were not alone. Northern California was the center of a railroad supply industry. We had no shortage of home grown carbuilders. Most were small specialty shops, turning out a few cars at a time. For some, carbuilding was a side line to their main business of carriage or farm equipment construction, but a few had aspirations to join the big boys back east. Most worked out of San Francisco, but some were located in the East Bay, San Jose, and as far away as Stockton. In addition to the Carbuilders there were Iron Foundries, Machine shops, Lumber mills, and importers, who supplied the materials necessary to built this equipment and the railroads it was used on.

We know little about many of these companies... and more about others, but the research continues. Starting with this issue we will look at some of these other builders, what they built, and how it relates to our heroes (the Carters of course)

D. McLean & Co.

One of the least known of the San Francisco car builders is Duncan McLean. His business is only listed in a single issue of the San Francisco Business Directory. Happily the directory includes an ad.

The first reference I have found to McLean, is for his brother, John, who is working as a carriage trimmer, in the 1863/64 directory. Duncan

appears the following year listed as a Forman at Henry Casebolt's car works (subject of a later article) while John was a conductor with the Central Railroad. After three years with Casebolt, in 1867, Duncan McLean forms his own company. The following year, Duncan and his company are missing, and John is back at work as a conductor. this time for the North Beach and Mission Railroad.

We can assume he mostly produced horse cars, but we just don't know that much about him. It appears that his main business was as a carriage depot, a combination parking garage, rental and sales center for wagons. One interesting note, his location on 4th between Brannan and Bryant would later be site of Kimball Carriage and Car Company (again, we will look at Kimball later).

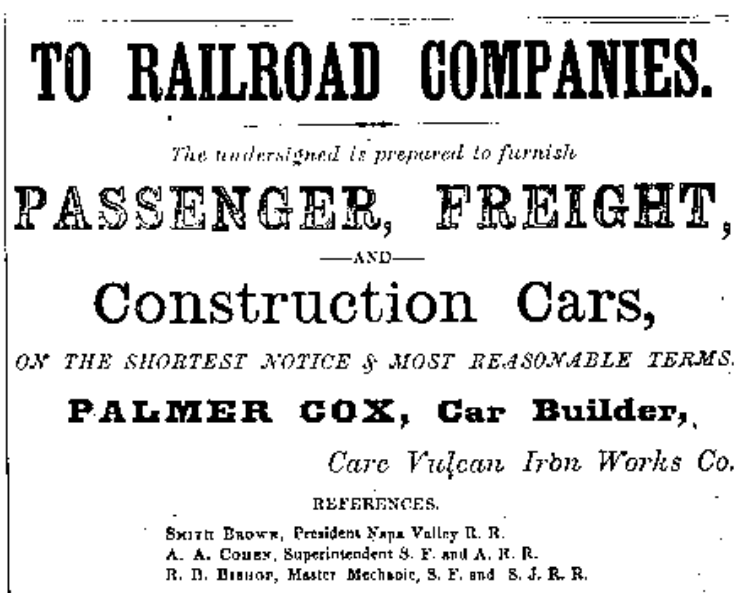
Palmer Cox

Although only active for a short time, Palmer Cox was active, building equipment for at least three lines. His workshop was located at the Vulcan Iron works, an important foundry, locomotive builder, and supplier of the castings Cox would use to build his cars. This contemporary newspaper report summarizes his activities and background well. "Mr.. Palmer Cox, late of Wasson (sic) & Co. carbuilder, of Springfield Mass., came to San Francisco with patterns and is now with



San Francisco R. R. Car Factory.
D. McLEAN & CO.
Manufacturers of
R. R. CARS AND CARRIAGES.
Fourth Street, between Bryant and Brannan,
SAN FRANCISCO.
Carriage Work of All Descriptions Repaired at Low Rates.

fig. 1



TO RAILROAD COMPANIES.
The undersigned is prepared to furnish
PASSENGER, FREIGHT,
—AND—
Construction Cars,
ON THE SHORTEST NOTICE & MOST REASONABLE TERMS.
PALMER COX, Car Builder,
Care Vulcan Iron Works Co.
REFERENCES.
SMITH BROWN, President Napa Valley R. R.
A. A. COOPER, Superintendent S. F. and A. R. R.
R. D. BISHOP, Master Mechanic, S. F. and S. J. R. R.

Vulcan Iron Works building cars, Several for Oakland and Alameda railroads, and Napa railroad... On his own (Cox) built a car for San Rafael & San Quentin Railroad, shipped last week, (it) seats 50, is 45 feet long, 10'6" wide and 8' high... slatwork seats run lengthwise, another seat can be placed in the center of the car to seat a total of 75 persons. He is building several others for the SR&SQ." (SF Alta, Jan 31, 1874) Other reports suggest the patterns he carried had been "highjacked" from his previous employer. Cox's relationship to the Vulcan Foundry is another of our uncertainties... It's not clear if he was an employee with freelance work, independent of the foundry, or a contractor.

Palmer Cox retired after a short time to become to become a famous author and artist, inventing the "Brownies" small elf like characters, for whom the girl scout group would take its name.

Coming next issue, The Vallejo Foundry

Sources: The information in this series comes from a variety of sources, including San Francisco (and other) Business directories, newspaper reports as well as some limited business correspondence. Many have contributed the information provided here including; Susanne Todd, Nate Sugars, Bruce MacGregor, Kevin Bunker, and Kyle Wyatt.

Illustrations:

- figure 1: Langley's San Francisco Directory, 1867/68, p. xiv
- figure 2: San Francisco Directory, 1868, ad section p. 62
- figure 3: San Francisco Directory, 1868, ad section p. 15

ADVERTISING DEPARTMENT. 15

VULCAN IRON WORKS CO.

ESTABLISHED, 1850.
FIRST, NATOMA, FREMONT AND BEALE STS.
SAN FRANCISCO, CAL.

IRON FOUNDERS, STEAM ENGINE AND LOCOMOTIVE BUILDERS,

Boiler Makers and Workers in Sheet Iron, Brass and Copper.

These Works have lately been increased by the addition of new shops on Fremont Street, doubling the capacity of the original establishment. Their facilities for turning out machinery promptly and efficiently are now unequalled in the State. Their Boiler Works have also been enlarged correspondingly.

MINING,

Steamship and Steamboat Machinery,
RAILROAD MACHINERY,
LOCOMOTIVES, CAR TRUCKS, CAR WHEELS,
Flouring Mills, Quartz Mills, Sugar Mills, Saw Mills,
MANUFACTURING MACHINERY OF EVERY KIND.

SOLE MANUFACTURERS OF
*Hepburn & Peterson's Reducing Pan and Amalgamator,
Beath's Amalgamator, Hesse & Moore's Improved
Howell Quartz Crusher, Baux & Guioed's Amalga-
mator and Separator, Jonval's Improved Water
Wheel, Stevens' Piston Packing Rings.*

PARTICULAR ATTENTION IS CALLED TO OUR
First Class Engines.

Reference can be given to Mills and Mines where a saving of from thirty to fifty per cent. of Fuel has been effected over other Engines.

IMPROVED SAFETY STORE HOISTS,

Fitted with MOORE'S FRICTION PAWLS, unequalled for safety, convenience and cheapness. The Friction Pawl can be applied to existing Hoist-Ways of any kind, either for hoisting in stores or in mining shafts.

HESS'S CONTINUOUS GRINDER AND AMALGAMATOR,

Capacity Ten tons per day.

QUARTZ STAMPERS, SHOES and DIES of a New Process of Casting,

Guaranteed to give double the wear of the usual White Iron Shoes.

They have also a large assortment of Patterns for Pumping and Hoisting Machinery, Gearing, Pulleys, Water Mill Irons, Hydraulic and Screw Presses, Rotors, Furnaces, Grate Bars, House Fronts, Ornamental Fence Posts and Tying, Stove Bangs, etc., etc.

QUARTZ SCREENS OF RUSSIA IRON PUNCHED TO ORDER.

fig. 3

Notices and other items of interest

-We are currently preparing a slate of nominees for Board of Directors, if you are interested please call Randy.

-If you have volunteered for at least one year, and are a dues paying member, but are not yet a voting member, you are now illegible to petition to become a voting member please contact Randy or another board member for details

-Donations and other aid... The group has would like to thank those who have helped us recently...

George Pierson sent a collection of SPC and Pacific Coast photos, one of which can be seen to the right.

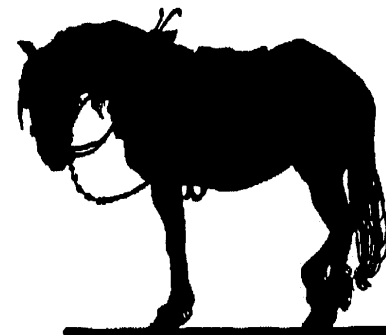
Mel Evett made a donation of \$250.00.



SPC No. 24

The Locomotive Report

(ALL THE LOCOMOTIVES)



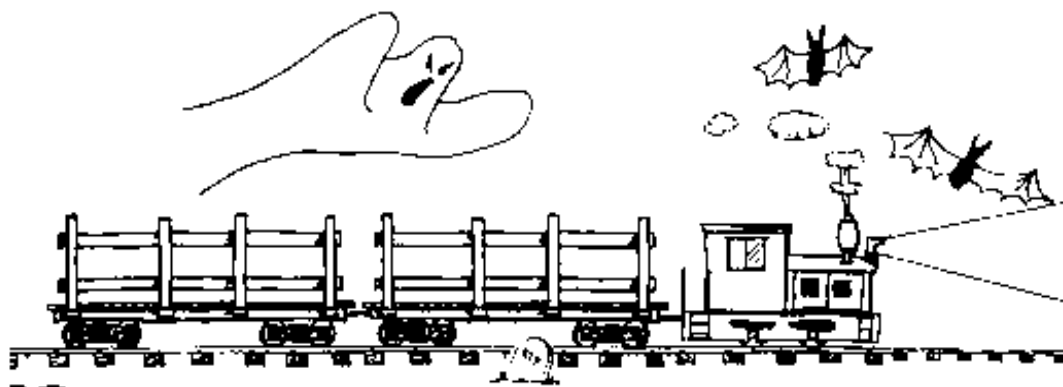
On the horse side of the fence the boys are doing well. Tucker has gotten over the hoof bruise, and is back at work. The boys set a new record for the number of runs on July 4th.

Our corral fences continue to be a problem. They are now 15 years old, and are about worn out. In addition years of cleaning the corrals have lowered the corral floor (try to clean up horse %\$#@ with a shovel with out getting some gravel and dirt in with the load) so it will be necessary to bring in several loads of gravel to bring them up to grade. Complicating the issue is construction of the new park office in what was our pasture. As a result a work day was called September 5th to salvage the old fence material. The crew, consisting of Andy Cary, Randy Hees, Bob Tupper, Barbara Culp and the entire *** family. We were able to tear down nearly 120' of old fence, saving all the material including most of the fence posts... it seems they don't rot as badly when they aren't standing in water. While the fence crew was working, other crews were working on car 1010 and on the Plymouth so we could ballast later that day... over all a good work day. Expect another "Big Work Day" later this fall as we work on the corral and pasture fences.

On the locomotive front, things are not going as well. The Plymouth, while running, is not running well. We have learned how to adjust the clutch, but, we seem to need to adjust the clutch too often. We can only assume that the clutch is too worn out to save. The problem is that replacing the entire clutch requires removing the engine... a really big heavy engine... This is not a good idea when you are working outside... so some of us are working on building a building... At our last board meeting the Board of Directors chose to offer the Whitcomb (the Blue engine) for sale or trade for a smaller running engine.

The Haunted Train Returns

This years haunted train is scheduled for October 23, 24, 25, 29, & 30. This is our most important fund raiser of the year. It takes at least 15 people each night to run the train, the spooky displays (you haven't lived until you get a chance to hit the President of the group in the head with a shovel before burying him in a shallow grave in front of 65 train passengers) as well as crowd control, making popcorn and running the store. In addition we need to add displays to our haunted woods. We will be signing up volunteers at the general meeting... or call Randy for more information at (650)347-5055.



SPCRR
PO Box 783
Newark CA 94560

First Class

SPCRR Calendar

September

- Saturday, September 19, Restoration Day
- September 26 & 27, Cajun-Zydeco Festival, Special Event Schedule

October

- October 2, 7:00 p.m.,
General Meeting at Ardenwood,
- October 3, Restoration Day
- October 17 & 18, Harvest Festival and Restoration Weekend
- October 23, 24, 25, 29, & 30,
Haunted Train, "All hands on deck"

Note the new date for the General Meeting

Remember—Tuesday night work calls at the farm, 5:00 p.m. or so until dark (or sometimes later) and (there is always an "and") we need volunteers for Saturday operating crews. Call Randy or Mary Jane.

WANTED!
Twenty-Five Carpenters
TO WORK ON
CAR BUILDING,
At Monterey.
—
APPLY TO
THOMAS CARTER, Monterey.
jy4-lt

In 1874 Thomas Carter needed 25 carpenters to build cars for the Monterey and Salinas Valley, today we need you to keep it alive... Please volunteer.