## The Carter Narrow Gauge Chronicles



The Newsletter of the Society for the Preserivation of Carter Railroad Resouces

Specializing in Narrow Gauge

## From SPCRR President Karen Blanor

## *News Flash...* **Construction Imminent for the Car Barn!**

After four years of planning and coordinating, after hundreds of hours from many of our members, and after raising thousands of dollars towards the Car Barn Project, the last technical drawings are being completed as you read this. Contractors are actively being sought for all aspects of the project. Bids are being acquired for actual construction costs of water and electrical services, building lighting and fire sprinklers, and building foundation and erection.

Project Coordinator, Karen Blanor will be submitting the entire drawing package by July 31, 2007, to E.B.R.P.D. staff at the Oakland offices for their review and approval. Once the package has their approval, E.B.R.P.D. will request that the City of Fremont issue a permit for construction. Building construction is expected to begin by October 1, 2007, and will be completed before the first winter rains!

Yard plans for the track layout are being drawn. Ballast is being located for use with the new track extensions. Brand new switch stands are waiting proudly to be installed along the new yard tracks. Hundreds of ties recently

acquired have been stacked at the Eastern Terminal ready to be laid. Spikes, rails, frogs, and other track hardware have been organized into stockpiles for easy access to track crews.

Excitement continues to mount as some S.P.C.R.R. members begin the very real conversations about which historic railroad car will enter the building first and upon which track each car will be placed. By now you should be seeing the cars rolling into the building!

In fact, close your eyes for a moment and imagine this... YOUR name on the memorial plaque of contributors and YOU in the official photograph taken on that historic day!



Switch Stands, head blocks and sliding plates recently arrived for track construction in the shop area



July 2007

## Arcata & Mad River No 1

By Randy Hees

In late November, the SPCRR moved three railroad cars which had been donated by Henry Sorensen to covered storage near Ardenwood farm. Included were two West Side Lumber Company flatcars, and Arcata and Mad River No. 1, a tiny 25' long coach.

For the time being, the cars are stored nearby inside a former barn. They will be moved to Ardenwood when the car barn is complete.

The SPCRR's newest passenger car presents a bit of Mystery. We can trace the car to the Arcata and Mad River railroad in via a 1916 Interstate Commerce Commission valuation, which lists five passenger cars owned by the line:



## Account 54 – Passenger Train Cars

#### Smoker

No. 1; wood body and underframe; length over end sills 25'-0"; 4 wheel arch bar trucks with 24" cast wheel; 3-1/2"x5" journals; oil lamps; stove; open platforms; purchased second hand. New cost \$1,250.

#### Coaches

No 2; Carter Brothers.; wood body and underframe; length over end sills 29'-0"; 4 wheel arch bar trucks, with 24" cast wheels, 3-1/2"x5" journals; oil lights; stove; open platforms; purchased second hand. New cost \$1,250.

Nos. 3 to 5; Jonas & Co.; wood body and underframe; length over end sills 28'-4"; 4 wheel arch bar trucks with 24" cast



Both photos, Bruce MacGregor Collection, SPCRR

wheels; 3-1/2'x5" journals; oil lamps; stove; open platforms; purchased second hand. New cost \$1,250.

The same report also lists 4 locomotives, 9 boxcars, 187 4-wheel flatcars and 11 8-wheel flat cars. As you can see, the report lists the car as having been purchased used, and provides no information on who might have built the car, or where it was originally used.

We strongly suspect the car was built by the Carter Brothers, based on the shape of the letter board, the carline style, and the way the car's frame is built (with side sill captured end beams) The bull nose roof shape is typical of Carter cars built after 1882. The car, at only 25' long is unusual. Given the cars unique length, one possible option for the cars origins would be a steam dummy line coach. Some in the LA and Portland areas were 42" gauge. The Charles Nelson Steam ship company, a later owner of the Northern Redwood Company owned a standard gauge steam dummy line in San Diego. Recent research into these lines hasn't yet shown a candidate, and are in fact, slowly eliminating possible lines.

A study of the A&MR railroad's history does suggest another possibility. The railroad traced its origin to The Union Wharf and Plank Walk Company, Founded in 1854. This company was founded to provide a deep water dock for the growing town of Union, (later renamed Arcata) located at the head of Humboldt Bay. The railroad's unusual gauge of 45 <sup>1</sup>/<sub>4</sub>" was probably the result of its origins as an industrial tramway, the gauge probably having been chosen because of the spacing of frame members on the wharf.

Originally the line used wooden rails, with horses providing the motive power. By the early 1870's passenger service was being offered from Union (later Arcata) to the end of the dock. In 1875 the line changed its name to the Union Wharf and Railroad Company, and purchased its first steam locomotive, a unusual upright boiler locomotive of unknown origin called the *Black Diamond*. In 1878 the line became the Arcata Transportation Company. Finally, in 1881 the company was again reorganized and renamed the Arcata & Mad River Railroad. The original locomotive was re-



Arcata and Mad River ticket, Author's collection

placed by a Small Porter 0-4-0 (similar to the Sacramento Brick locomotive that has visited Ardenwood.) With the arrival of the new locomotive, the wooden rails were replaced by conventional iron "t" rail.

In 1882, the Korbel Brothers started to purchase land along the Mad River. The brothers, originally from Bohemia, owned lumber and vineyards along the Russian River in Sonoma County. They organized the Humbolt Lumber Mill in April 1883. By 1884 they had purchased the A&MR to provide a way to ship their lumber. The brothers made significant improvements to the railroad including track and wharf repairs, and the purchase of two additional locomotives. At the same time the Humbolt Lumber Mill Company purchased its own locomotive, also 45-1/4" gauge.



In 1903 the Korbel brothers sold all of their Humbolt county holdings, including the A&MR, the Humbolt Lumber Mill Co. and timber lands to the Northern Redwood Lumber Company.

Both under the Korbel's and later under Northern Redwood Lumber ownership, the logging railroad and the A&MR shared tracks and equipment. Photos of A&MR trains show disconnect log trucks, but none are listed on the ICC valuation survey. A 1910 report lists 4

Body of smoker 2 being moved to Henry Sorensen's Humboldt Northern Railroad, 1956. Note the cupola added when the car became a caboose. Henry Sorensen Photo

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locomotives, 175 sets of disconnect log trucks and 18 flatcars owned by the NRLCo.

The Korbel brothers are known to have purchased equipment from the Carter Brothers. The California State Railroad museum holds a number of original Carter Brothers drawings, among them, one dated Dec 1883, for "Castings for 60 Kemble car trucks, California Redwood Company." (CSRM record ID # 532). There is a May 1887 Carter invoice for 10 22' x 6' 3" flatcars, lists the buyer as Messr F Korbel and Bros.

Finally, there is the following, found in the Oakland Tribune, March 29 1884

#### Newark Items

Messrs. Carter Brothers are now building several cars for the SPRR Co which are a decided improvement on those now in use. They are much wider and the seats get the benefit, which will give more comfort to the passengers. They are also building more logging-cars; those built and in use are giving great satisfaction. They have an order from Kimball Brothers for a caboose, all of which makes it lively around the shop.

I suspect the car is a circa 1885 "caboose" built by the Carters for the Kimball (sic: Korbell) Bros., owners of the Northern Redwood Lumber Co, the Logging company with interlocking ownership (after 1882) with the A&MR. It is possible that this car was built for the Korbels, for the Northern Redwood Lumber Co, and only later transferred to the A&MR. The wooden side seating and short length would be consistent with a Carter caboose, designed to carry loggers into the woods.

By 1914 the standard gauge North Western Pacific railroad had reached the area, crossing the tracks of the A&MR. A connection was established between the two railroads in 1925, and resulting in some dual gauge laid to serve the mills. Initially the woods trackage was still narrow gauge. The line abandoned passenger service in 1931, and our car was converted to a caboose, but the addition of a cupola. When the narrow gauge was scrapped in 1941/1942 our car was stripped of all its under gear and set on a standard gauge flat car to continue in use as a caboose. Henry acquired the car body in 1956.

## Sources for his article included:

Lynwood Curranco & Henry Sorensen, Steam in the Redwoods, (The Caxton Printers, Caldwell, Idaho, 1988)

Interstate Commerce Commission Records, National Archive, College Park, Maryland

Various issues of the Oakland Tribune.

Carter drawings and invoices from the California State Railroad Museum library

Photographs from the Bruce MacGregor Collection, SPCRR.

## **Publisher's Notice**

The **Carter Narrow Gauge Chronicles** is published by the Society for the Preservation of Carter Railroad Resources which is solely responsible for its content.

The Society for the Preservation of Carter Railroad Resources (SPCRR) is a 501(c)3 non-profit educational corporation charted in the State of California to "... *locate, preserve, restore and interpret the products of the first industry of the City of Newark, the Carter Brothers, for the historical and educational benefit of the general public...*" Our mailing address is PO Box 783, Newark, CA 94560. Our museum and railroad are located on the grounds of Ardenwood Historic Farm, an East Bay Regional Park. 34600 Ardenwood Blvd, Fremont, CA, 94555. The organization's web site is located at www.spcrr.org.

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## The Sorensen Collection moves to Ardenwood

In November of last year, the group moved three railroad cars donated by Henry Sorensen of Arcata California. Included were two West Side Lumber Co. flat cars and Arcata & Mad River RR Smoker No 1, a 25' long coach, later converted to a caboose.

Ken Underhill and Craig Hoefer traveled to McKinleyville to load the cars, then chase the truck as it traveled south. The caboose was over-height, and the cars traveled slowly arriving mid day the next day.

Once in Fremont they were met by the unloading crew including Karen and Steve Blanor, Gene Arrillaga, John Stutz, and Barbara Culp.









Photos by Craig Hoefer and Karen Blanor





## The Box Car Roof Problem, part II - by Randy Hees Other wood roofs plus Tar Paper and Painted Canvas

Author's note: Last time we looked the box car roof problem, and the most common roof design, the double board roof. This month we will look at some of the alternatives. There was no shortage of roof designs, but apparently most had problems, either they didn't work, or they cost more than the railroad companies were willing to pay.

## The Plank Roof

One alterative to the double board roof seems to have been the plank or single board roof. To make this design water tight the boards were tongued and grooved, The roof was covered with tin or iron sheet and the seam between the boards was covered, with a "roof cover strip." This design apparently solved the problems of splitting seams found on the soldered iron roofs. But still was subject to damage by trainmen walking on the roof, and was little used.

# Inventing a Solution: Canvas, Iron or other waterproof material.

The 19<sup>th</sup> century railroad literature is full of possible

solutions, many patented, others variations of one of several themes. Most of them were trying to move away from a wooden board as a waterproof material by adding an additional layer, either iron or some other water proof material. Kirkman divides these into two categories, The first "*with felt, tar paper or asphalted canvas*" and the second the various iron roofs.

#### Tar paper and other flexible roof membranes

The simplest solution was to add a layer of painted canvas, or a tar or rubber impregnated paper to the existing roof. Experience had shown that any material on the outside was subject to damage from trainmen. This was not an issue on passenger cars, many of which used painted canvas. The 19<sup>th</sup> century was a time of invention and innovation. By the 1830's tar impregnated paper or cloth was available. Patent searches located several patents for improvements for this material, several of which specifically mention railroad cars as a possible application.



Illustration: Single board plank roof, from the 1888 Car Builder's Dictionary, page E169





Still this material was much more fragile than today's roofing felt. This presented two challenges, how to attach it to the car roof, and how to protect it from the trainmen working on the roof.

I located two attachment systems; the first, simply titled *Flexible Cement Roofing* was presented as part of a 1874 Master Car Builders study, simply used battens to hold the roofing down. The second was much more creative, involving a system of dovetails cut into the roof boards to capture a key holding the roofing felt down. The article did specify the use of lots of paint. The 1883 article noted that is was being tested on the Cincinnati and Lexing-



ton Railroad.

A. P. LaGross keyed roof system, National Car Builder, Dec. 1883, p 135

Car builders tried to protect the membrane car builders added a layer of boards over the membrane. Concerned about damage and nail holes from the upper layers they devised a variety of patent roofs, with boards, followed by a layer of asphalt cloth, followed by a framework of light stingers, then over that a second board roof. The 1888 Car Builders dictionary offers one such solution, the **Hutchin's car-roof**. It is described as "A patent form of roof consisting of two layers of boards with a species of dovetail joint to connect them, and separated by a continuous sheet of thin painted canvass."



Apparently Charles Hutchins the inventor was not satisfied with this system, and would later patent two variations using iron in place of the roofing felt, in the late 1890's.

from White, The American Railroad Freight Car, p 229

## The MCB roof.

By 1908 The Master Car Builders association adopted the standard MCB roof board, illustrated below. While the roof board now was standardized, it use was not.. Several options are offered in literature, in one case depending on the tongue and groves to seal the roof (with liberal use of paint of course) in the other by sandwiching a layer of roofing felt between two layers.

Kirkman offers the following specification:

Specification	for	construction	of a	new	boxcar roof	
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Roofing.- Is dry white pine, free from sap, dead knots and shaky places. The under course is of "B" "first common" grade, 27/32 of an inch, thick by 5 1/4 inches wide, surfaced on both. sides, matched and grooved; each piece is nailed, to the fascia board, plate, purlines and ridge pole with not less than three 8-penny cut nails at each place, one nail may,: be driven blind. One heavy coat of No.1 mineral paint is then to be applied to the top of roof, over which will be placed a layer of plastic roaling paper which will be furnished by the Railway Company. The top course of boards is first-class sid-ing, 27/32 of an inch thick by 5 1/4 inches wide, matched, and grooved with two half round grooves worked in top face. It is to be nailed with three 10-penny cut nails in the same manner as the lower roof and must be cut off to project 1% inches over the fascia boards on the side. The plastic roofing must be laid in such a manner as to have it cut off with the boards. Care must be taken in securing the roof, not to drive any bf the nails so that they will -miss plates, car-lines or ridge poles. The quality of lumber as indicated in these specifications will be found in Judson's Revised Edition of the Lumbermen's Hand Book of 1891, "Chicago Yard Grading of Pine."... "Long leaf Southern pine must be used in all instances where Southern pine is mentioned." (Kirkman, p 145, 146)



Standard MCB roof board, from Kirkman's Science of Railways, p 27

Interestingly, the "plastic roofing paper" was one of only 5 items which Kirkman thought should be provided to the builder by the railway company (the others being the draw-bar springs, automatic couplers, air brakes, and paint stocks) (Kirkman p.145)

With this specification we can assume that a double board roof with a layer of roofing paper was becoming a standard acceptable design, but it appears that by the time they worked out the details, the era of wooden bodied freight cars was coming to an end, and iron roofs by Murphy and others were fast coming do

dominate new car construction.

In our collection at Ardenwood, box car SP 10 has a double board roof with roofing paper between the layers similar to that described by Kirkman. The roof seems to work where it has not been exposed to the weather, rotting the upper layer of boards and exposing the roofing paper, The design has some significant advantages. It is cheap. Wooden roofs were always the cheapest alternative, and with the addition of the roofing paper, lesser quality boards can be used, further lowering the cost.

**Next Time:** We will look at various iron roof systems, including a local variation used by John Hammond on our Pajaro Valley box car.

## Sources used for this article include:

<u>The Railroad Car Builder's Pictorial Dictionary</u>, (Original edition by Forney, Matthias The Railroad Gazette, New York, 1879) (reprinted by Dover Publications, New York, 1974), additionally we used the 1888 and 1906 versions, both from the Gregg reprints

Kirkman, Marshall M., <u>The Science of Railways</u>, <u>Cars Their Construction</u>, <u>Handling and Supervision</u>, (two books in one volume, Book 1, - The Railway car, its Construction and Handling, and Book 2 – The Car Service Department) (Edition 1908, The World Railway Publishing Company, New York and Chicago, 1908)

National Carbuilder, 1874 to 1895, Van Arsdale Press.

Voss, William, <u>Railway Car Construction</u> (R. M. Van Arsdale, New York, 1892)

United States Patents, accessed both via the Patent office web site, as well as Google patent search.

## A little side project – Pullman 14, *The Devon Belle*

Last summer the SPCRR (along with other area groups) received an email from Kyle Wyatt of the California State Railroad Museum, looking for volunteers on behalf of a British railroad Museum, the Swanage Railroad Preservation Society to help move a British railroad car stranded in downtown San Francisco.

The car, an observation lounge had been part of a British train that had toured the US behind the *Flying Scotsman* steam locomotive in the late 1960's and early 1970's. At the end of the tour, the organization was nearly bankrupt, and as a result, only the locomotive was returned to the UK.





Many of the stranded cars were sold to Victoria Station restaurant chain who incorporated many into their restaurants in both Northern and Southern California. Car 14 had be used as the conference room at the restaurant chain's headquarters near Fisherman's wharf in San Francisco.

In September several of us, from various railroad groups met with a representative from the Swanage Railway. The car was in very good shape. It was along side the building, a pre-earthquake brick building that had once housed a flour mill, but was converted to boutique office space in the 1970's. The car was protected by a glass solarium roof. Access to the area was good, at least on weekends when there were fewer cars.

The SPCRR agreed to sponsor the project, in the process extending our volunteer insurance coverage to the project. San Francisco Trains, a new organization preserving a San Francisco Belt Ry. steam locomotive became the "shipper of record". Details of shipping (both across the Atlantic, but also via land to Long Beach where it would be loaded on the ship) were worked out. The building owner removed the glass cover. Finally in mid-January we held several workdays to cut away any utility lines, chip away the building's floor extensions, drop various brake rods and board up the openings in the car body. With the car ready Randy Hees and Cris Hart (from SF trains and a This Old Flatcar Volunteer) spent a long Saturday (along with two trucks, three large forklifts and a good size crew) loading the car for shipment. Several days later it was loaded on the ship (the trucks, loaded on the second truck almost didn't make the boat, they were stuck in the snow on the grape vine, north of LA.

The car arrived in Southampton in late February. It was immediately reassembled and moved to a restoration facility. The initial restoration is nearly complete and the group is currently choosing carpet and lounge furniture.



Of course, it's not really over. Somewhere in Southern California is a British Railways baggage car that carried Churchill 's body in his funeral train. It's a storage building for a golf course. It too is bound for Britain....

Reports on the car and its progress can be found at www.swanagerailway.co.uk in the *news* section of the website.



## Membership

A contributing membership in the S.P.C.R.R. is \$20.00 (US) per calendar year and entitles you to the newsletter, calendar and direct mailings regard ing special events. You also have the satisfaction of knowing you are helping conserve and restore our collection. Life memberships are available for \$250.00 (US).



Requests for membership or information should be sent to SPCRR, P.O. Box 785, Newark, CA 94560 or to membership@spcrr.org. A membership form is on our web page at www.spcrr.org.

The Society for the Preservation of Carter Railroad Resources is a registered 501 (c) 3 non-profit organization. Membership dues and contributions are tax deductible.



*The Crew* Railfair 2006 Photo by Andy Cary

## Volunteer notes

Member and volunteer Gene Beyeler passed away on June 16<sup>th</sup>. He has helped us at both Rail Fair and Haunted Train as well as at occasional emergency work calls when a corral post failed, and just an all around great person, doing what ever he could to help everyone. His wife, Bev is a house docent and manages the Historic Patterson House Foundation cookie table at haunted train. He passed away early Saturday morning, June 16<sup>th</sup>

John Stutz was involved in a nasty accident while riding his bike on June 10<sup>th</sup> breaking his collar bone and a number of ribs. He spent nearly 2 weeks in the hospital, where they installed a steel plate in his shoulder. He is now out of the hospital, but will be on 'light duty" for at least 3 months and possibly longer. John has already visited the farm since the accident, planning the projects for our next several work days, but will not be able do any heavy work... That leaves more for the rest of us



Finally our long time member and Treasurer, Trudy Frank is recovering from a case of Shingles which she says was a totally miserable experience!!

Ad from Oakland directory, c 1887, for Oakland Planing Mills showing a cable car, with a Bombay style roof. It is believed that Burnham, Standeford & Company built cars under contract to Mahoney Bros. a road contractor who was then building the Ferries and Clift House Railroad in San Francisco. Mahoney has been credited with the cars construction in error. Mahoney has also been credited with Oakland cable cars believed to have been built by the Carter Brothers. Mahoney is spelled a variety of

#### The General Manager's Corner... or Workers Wanted by Barbara Culp, General Manager



We are having workdays on July 14 and August 11. We need a lot of help on

both work days plus Rail Fair weekend, September 1, 2 & 3. July, we have trees and shrubs to trim, track to lay besides giving hand car rides. We need a train crew (possibly the ladies) to drive park employees while they prune the trees, then we will pick up trimmings. We need people to help lay track for John as he can not do heavy work. We will be adding 30' of track at the stub siding at Arden, and building a new stub switch at Patterson. During August, we need people to finish cleaning the track and yard areas, plus help John check equipment for use and safety. We will need certified Brakemen for train crew, so we may need to certify more people. We will have a meeting with the Porter steam crew and our crews so we are all on the same page of rules, signals and safety measures. Additionally we need to operate the pump car both days for the public.

Our two big special events are coming, Rail Fair, September 1, 2, and 3, and Haunted Train, October 19, 20, & 21, and 26, 27, & 28. We need lots of volunteers for both events.

For **Rail Fair** I will be putting together schedules for shifts and lunch breaks so let me know as soon as possible which days you will be able to work. For information, contact Barbara at general\_manager@spcrr.org or 510 785 1343 or Trudy 408 739 9633.

**Haunted Train manager** (*desperately*) needed. Christina Gendreau, who has managed the haunted train for the last several years can't be the manager of the Haunted Train this year due to a personal commitment (for those of you who don't know, she got married over Memorial Day weekend, and is officially a blushing bride)

Please Forward



SPCRR P.O. Box 785 Newark, CA 94560