This fine glass plate photo of Cottoneva Lumber's Globe geared loco was taken by A. O. Carpenter in 1897 at Rockport, Mendocino County, California. The negative is from the large collection glass plates housed at the Sun House in Ukiah, California. Robert Lee is printing the collection for the Sun House, and made this print for the collection of the Mendocino County Historical Society at the Held-Poage Library.
The Globe Iron Works Company apparently did business in San Francisco for just a short time. The company was incorporated in the "City" on the 16th of December, 1882, with a capital stock of $200,000 for the express purpose of manufacturing all kinds of machinery, with all kinds of materials. One of the products they built was a small gypsy type locomotive. Specifically, the Dolbeer patent locomotive, though several machines were probably constructed before the company incorporated, and before Dolbeer had received his patent. It is yet to be determined whether the company was working under license from John Dolbeer, or without his sanction. Dolbeer patented his logging locomotives on December 25, 1883, and the Globe locomotives, if nothing else, were certainly derringers for Dolbeer's design. It seems safe to assume that Globe was working with Dolbeer's blessing.

The first mention of the company in the city directory appears in the edition of 1883 with a display ad featuring a listing of their various products and services, including the manufacture of locomotives. The company

However had no listings in the individual product directories under locomotives, engines, or railroad supplies. In the year 1885, their display ad was modified to the extent that the locomotives built were specifically identified as "Lumbennen's Locomotives". By 1888 the ads are gone, and Frank R Bacon, president of the firm is now listed as secretary of a land and water association. The company must have fallen on hard times and liquidated the business. Marchutz & Cantrell was building gypsy type locos during the early 1880's, though their machines did not follow the Dolbeer design, as closely as did Globe. One wonders if M & C were bucking the John Dolbeer patent, or if they were paying royalties only on the concept, rather than on the complete design.

Unfortunately, there are no known "As Built" specifications or builders photographs upon which to base our research. About all one can do is to make some assumptions based on what appear to be the earliest photos extant, and what we can see in them.

Frames were constructed of wood, (composite wood and metal), and structural iron shapes. The frames of the geared locos all appear to have been trussed. The rod type locos all appear to have had structural iron frames, with out a truss. In the (Tichnor #1) rod loco the frame is of ('I') beam section, while the atypical Minor Mill & Lumber #1 geared loco had an iron frame of ('Z') section, though is also trussed. The wood frames all had an iron strap on top of the timber that the machinery is fastened through.

Disc type wheels appear on the earliest model machines, 1881-1882. In 1882-1883 a few spoked wheels appear with no counterweight. From 1884 onward, the wheels had a counterweight cast in between three spokes opposite the crank. The wheels were probably just chilled cast iron, though many later had steel tires shrunk on, on both disc and spoke type wheels. There were side rods to power the rear axle.

The cylinders of the geared engines are of the donkey engine type, for lack of a better nomenclature. The bottle type crosshead guide and cylinder was cast in one piece, with a flange below the crosshead portion for mounting to the frame, and an annular flange at the front of the cylinder for securing the head. It also appears that a large cast iron extension reached forward to form the journal for the jackshaft. This casting was probably all of one piece as one would find in a single cylinder bottle engine. Later, the engines had an annular ring cast on the rear of the cylinder also, so that both ends of the cylinder could be opened for repair work. Minor M & L. #1 differed from the other geared machines in that its cylinder was mounted to
the frame, and a heavy square bar type crosshead guide was used. Whether this was a factory innovation, or an after market change is unknown. The valve chests all faced inward as on a donkey engine. The bore and stroke of the geared loco is usually described as 8" X 12" (Carranco & Sorensen). The NWP RR's one Globe loco had cylinder specifications of 6" X 12". Possibly, both sizes were available.

The rod type locos had conventional cylinders mounted forward with valve chests on top, though there was no cylinder saddle utilized, the cylinders being mounted to the frame, instead. An upper, bar type, crosshead guide again being used. The gypsy spool engine on the rod locos was arranged much like the geared engine except that the cylinder appears smaller in size, and the bull gear appears to be bigger (84 T). The valve motions in all cases appear to be of a standard "Stephenson" design. The company name is cast into the side of the valve chest on Tichenor #1.

The Dolbeer geared loco utilized a four gear train for transmitting power to the front axle. A small pinion on the jackshaft meshed with the bull gear, which meshed with an idler gear on the same plane as the front axle, and the idler meshed with the driven gear on the front axle that had a grooved collar on the right end. A forked pitman lever rode in the groove so that the driven gear could be pulled out of mesh with the idler gear when the gypsy spools were to be used. Two levers were mounted to the right rear of the boiler. The outer lever controlled the shifting of the driven gear, and the inner lever was the forward-reverse lever. Patent drawings show a 12 T spur gear and a 42 T bull gear, while Vance #2 had a 66 T bull gear.

The typical smoke box front consisted of a flat sheet iron round with a horizontal hinge at about 1/3 down from the top. The upper 1/3 section appears to have been riveted to the smoke box ring, while the lower 2/3 appears to be sealed to the ring with studs and wing nuts, presumably with some kind of gasket between. The hinge leaves were mostly short and wide, though some were long and thin. In both cases, the upper leaf was to the inside, and the lower leaf was to the outside. It is probable that the full length hinge pin was removable so that the lower part could be removed completely for maintenance. Some units had "0" handles affixed at top and bottom of the lower piece for ease of handling. An oval builders plate can be seen on several machines, mounted in the center of the upper segment of the smoke box front, while McKay & Co. #1 had a builders plate on the rear of the fuel box, at times.

Chimney and spark arresting gear varied to a considerable extent on these wood burners, as one might expect, though most early photos tend to show characteristics similar to the patent drawings, a tall stack of conical shape of about 28 degrees,
with a short vertical section at the base, and a short vertical section at the top, with a visible cinder screen. In later years, stacks ran the gamut between the sublime, and the ridiculous. The Hobbs-Wall, Holmes-Eureka, and Isaac Minor #1 had straight stacks as all appear to have been converted to oil burners in later years.

Steam domes were universally placed at the extreme rear of the boiler, over the crown sheet. The throttle valves used on the geared locos appear to have been a rotary affair, like those used on donkey engines. Steam was piped from the top of the dome and elbowed down the back of the dome to the throttle valve thence downward and forward, to the left of the steam dome, to a tee in a crossover pipe connecting each cylinder. Exhaust steam was piped forward to the smoke box, for draft. No clear view of the back head of the rod locos is available, though, photographs of McKay #1, Hobbs-Wall #2 and the Gurne & Murphy machine suggest they had a conventional dome mounted throttle valve with a lever for propulsion steam, and a rotary valve to the right of the steam dome for those that still had a gypsy spool engine. Various steam appliances can be seen in the photos of these little lokeys. Blowers and injectors, of course, were common, and an early shot of the Vance machine shows a steam powered water pump mounted to the left of the firebox. Crosshead type feed water pumps seem not to have been used. Boilers were lap seam riveted and carried a pressure of 120 pounds. Size, length, and number of tubes are unknown, as is the grate area. Not all operators appear to have kept their boilers lagged properly.

Because cabs are absent from machines shown in early photographs, and because there is no uniformity amongst the cabs that are depicted later on, one might assume that no cabs were constructed by Globe.

Sand boxes (domes) varied greatly in size and placement, and no two were exactly alike, though all but one were cylindrical. The earliest appear to have been very small and placed between the steam dome, and the steam crossover pipe. They stood up off of the boiler on four legs to provide access to the control and delivery mechanism, and then had a sheet metal wrapper around the base to make a neat looking fit. Later the boxes appear all over the top of the boiler in various sizes and styles, and on some machines, they are absent. The one rectangular sand box, mentioned above, (Dolbeer & Carson), was mounted over the smoke box, where a headlight would normally be placed.

A later day view of the former Vance L. Co. #2 shown here on Hammond L. Co. operations. This loco once sported a fine cab, and a four-wheel tender. The disc wheels date the machine as an early model, though there are some later additions. Mallory Hope Ferrell collection Part II.
Saddle tanks were apparently supplied with all the known rod locomotives, on the theory one might suppose, that the rod locos would be working in train service to a greater degree than the geared machines. There is only one geared loco depicted which had a saddle tank fitted, and that one is probably an after-market affair. There doesn’t seem to be any good reason for the geared machines not to have a saddle tank. One would think that the extra weight over the drivers would have worked to the operator’s advantage. Several machines sported home built tenders to increase their range.

According to the whims and dictates of the various owners, and to the various types of service the locos performed, other bits of locomotive “furniture” was utilized. Footboards and running boards came and went. A few machines had lights of various types. Some had bells, either on the boiler, or on the roof of the cab. Cabs themselves came and went, varying from simple canopies to full wooden affairs, some of which extended back to encompass the water tank and, or, fuel bin. The design drawings of geared locos show a brake beam to the rear of the rear axle, and two (brake hand-wheels) just forward of the rear tank.

On the rod locos, a brake beam was placed to the rear of the front axle. Brakes of some nature would appear to have been of a decided advantage in the gullies of the Redwood region, though some photographs show no discernable brake gear of any kind. Only the NWP #99 had knuckle couplers.

The weight figures given for the geared machines, where any is given at all, are all 18,000 pounds (Carranco & Sorensen), whereas the Marchutz & Cantrell machines seem to run from four tons to twelve tons. The one figure given for a Globe geared loco which seems likely to be the most accurate, is the one by the NWP RR for their #99, 11,000 pounds. The author feels that the 18,000 lb. figure suggested above would be more appropriate for the rod loco with a gypsy spool engine and a saddle tank.

- Part II continued in the next issue.

LETTERS TO THE EDITOR
The Western Railroader issue #661 has on its cover a rather poor but still interesting photo of a Pacific Coast locomotive on a “football special” in, I presume, San Luis Obispo.

It may interest the readers to know that I have been able to identify the locomotive as 4-6-0 #111 from several photos of that locomotive in various services at various times. I have a special interest in it as I watched it being scrapped in 1949 in Honolulu after its rather unsuccessful wartime service on the Oahu Railway.

- Robert A. Ramsay

If you would like to send your ideas, comments or suggestions please forward to: Mark Vandercook at 1566 Bruister Street, Mobile, AL 36604 or via email at msvandercook@earthlink.net.

WE NEED ARTICLES
Please consider a contribution to the PCC and your fellow members. If you have an interesting photograph or story, send it to the new editor Mark Vandercook at 1566 Bruister Street, Mobile, AL 36604 or via email at msvandercook@earthlink.net.

Los Angeles Railroad Heritage Foundation
To Present “Santa Fe Railway Retrospective 2005”

The Retrospective will includes a program of interactive events, focused on the Burlington Northern Santa Fe Railway (BNSF) and its historical Atchison Topeka & Santa Fe Railway (AT&SF) precedent.

The Foundation has planned a four-event retrospective that promises excitement, education and historical insight in the famed railroad and it current incarnation. The dates are as follows: Thursday, March 31st (day-long event followed by a dinner at Philippe’s French Restaurant); Saturday, April 9th (day-long event); Tuesday, April 26th (Dinner and panel discussion); and Saturday, April 30th (steam locomotive operation).

For information about these events, call 626-458-4449, email jlatSF@earthlink.net. All reservations must be received 2 weeks in advance.

MEMBERSHIP INFORMATION
Membership in the Pacific Coast Chapter includes all National R&LHS publications, and the bimonthly Western Railroader, which is available only to Pacific Coast Chapter members. Dues are $42 per calendar year. Checks payable to PCC, R&LHS should be sent to Bill Lugg, Jr., P.O. Box 292927, Sacramento, CA 95829-2927. Editorial material should be sent to The Western Railroader, 12625 Palomino Dr., Calhan, CO 80808-9308, or via email to Bill Lugg, III at wlugg@falconbroadband.net.

CHANGE OF ADDRESS FORM
Name: ____________________________
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The early 1930s found US railroads trying to regain passenger travel after the havoc wrought by the Depression and the increasing use of the automobile. Their answer was lightweight trains that could operate at higher speeds and at less cost. Union Pacific took delivery of its first lightweight train, the M-10000 on February 12, 1934 at a cost of $230,997. The train, powered by a 600 hp Winton distillate engine, immediately made a tour of the western states to promote the new concept to the public. In the photo above, the M-10000, the "City of Salina" is seen picking up speed as it passes the 23rd St. Station, 5:45 pm on March 19, 1934. Note the vacant hillsides at that time and the searchlight signal.

The second train, M-10001, the "City of Portland", was delivered on October 2, 1934. The third, the eleven-car "City of Los Angeles", M-10003, was the first UP streamliner to have a booster unit (900 hp Winton) to supplement the 1200 hp cab unit. It was also exhibited in most large Western cities. It is seen below being washed down at Oakland prior to display in early April 1936. Robert H. McFarland took these historic images. A resident of the Bay Area, his documentation in that era not only gives us a look at railroading, but also "what was" in the area. Prints from the negative collection of Arnold Menke.
NEWS FROM FOLSOM
By Bill Anderson

2005 is going to be an exciting year in Folsom, California starting with the 14th Annual Folsom Handcar Derby to be held May 14 & 15. The Folsom, El Dorado & Sacramento Historical Railroad Assn. will be partnering with Sacramento Regional Transit District to have the Derby as a kickoff celebration for the completion of light rail service to Folsom from Sacramento. The Derby will take place on the new ribbon rail. The system is expected to open to the public in October of this year.

Imagine, February 2006 will mark the 150th birthday of the first railroad west of the Rocky Mountains, the Sacramento Valley Rail Road. It will be only 4 months away from the proposed opening of modern light rail service on the same right-of-way as the first railroad. A great celebration is planned.

Be sure to visit our web page at www.mp1.com!

The PCC is offering excess copies of past issues of the Western Railroader for sale at $3.00 per issue, postage paid. These include any issues published by the PCC only. Non-members $4.95.