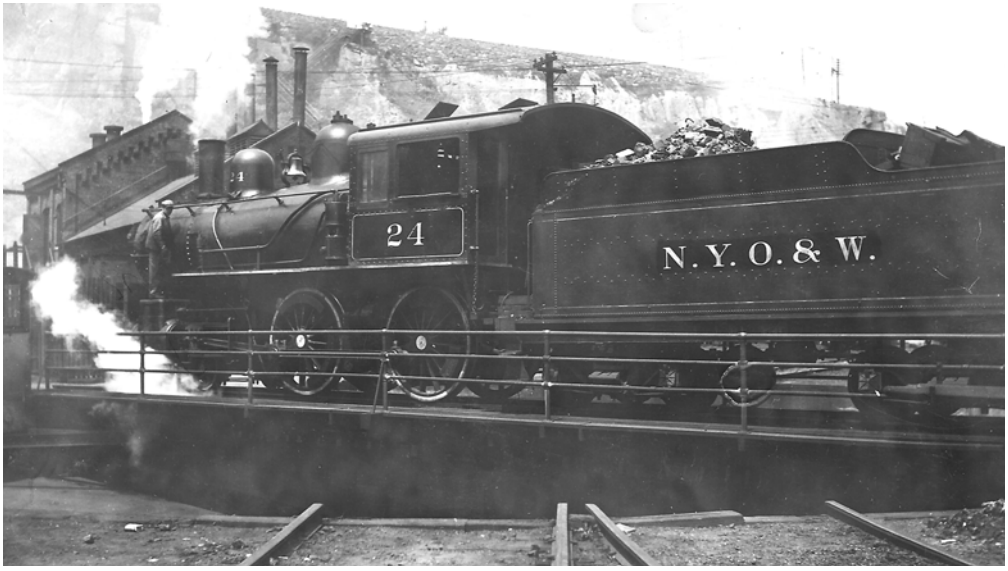
Modeling the O&W
American Standard
N.Y.O.&W Ry. Class A 4-4-0

A Model for the "Early O&W" – Part II
and
A Letter from a Friend
By
Mal Houck



Riding the turntable at Weehawken is Class A 4-4-0 No. 24 in this interesting shot provided by OWRHS member Steve Swirsky. Steve was kind enough, after reading the first part of this story of the Class A engines to send me a number of postcard images from his collection. The Weehawken "House," in the background bears the hallmarks of the decorative brickwork from a time when the materials for construction often accounted for a larger expense than the labor to build with such elaborate detailing.

In the first installment of this column I mentioned an earlier effort to create a Class A 4-4-0 model using a PFM brass import of many years ago as a starting point. That was the subject of an article in the "old" Observer (from a time when Editor Joe Bux efforted a new edition ten times per year -- fairly, however, in comparison to current OWRHS practice but then from a time when the only communication with members was the "Observer" which also served as a newsletter, and when the Observer had not evolved into its present character as an annual archival quality publication)…the cover scan following: --

Owen W. Lives !

O&W OBSERVER

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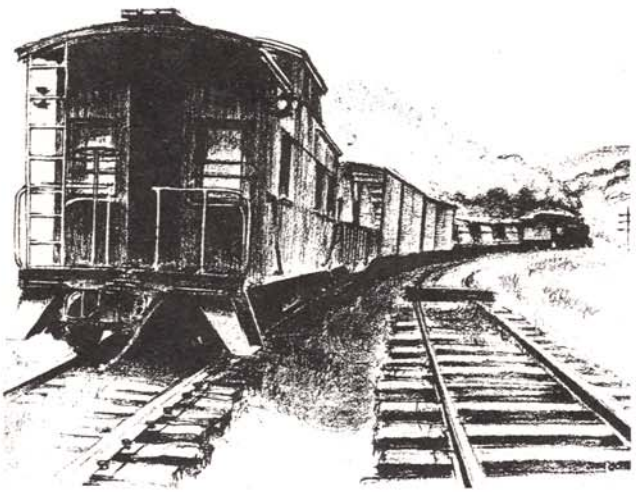
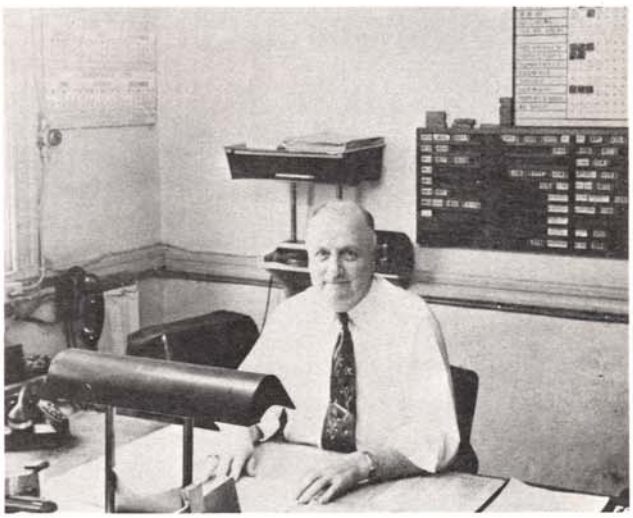
VOLUME XVII NO. 7 SEPTEMBER 1982

- JOE & LOIS MAHER'S O&W CABOOSE
- MORE MIDDLETOWN DISPATCHER'S REPORT
- NO. 22 AS MODELED BY MALCOLM HOUCK





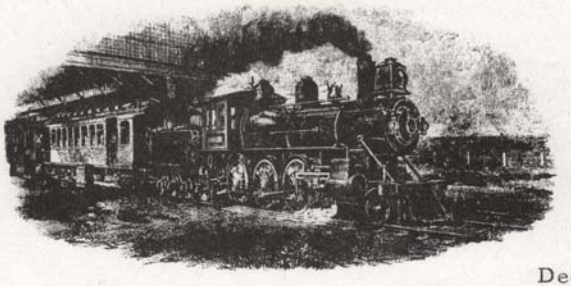
When this edition of the observer made it to the hands of the members, I received an interesting letter, which then prompted several exchanges of letters and cards (also

from a different era and time before the ease of E-mails, as now constituted, that make for nearly instantaneous and prolific communications). I have often observed now, with the decades passed since the O&W was of the present, many sources of “primary” information have left us. Those who saw the O&W in operation (as I did not) are fewer in number each year, and many are scattered at great distances, often at addresses unknown, and then the old O&W employees are fewer yet. Absent those primary sources much of what the O&W historians and writers can produce comes from research from the records, images and writings left behind. There is often no longer an opportunity to interview and speak with those persons who represent (“represented”) those primary sources.

Here is an initial letter from such a primary source of O&W information (as the contents following will clearly reveal) all of which was in reply of this early Observer article. Although this source, and later developed correspondent and friend, is well known as an historian, and interesting insight is that he too was a modeler! I guess, if one scratches the historian deep, there may be a modeler lurking within. . .

So, in image form, that letter prompted by the first O&W Class A locomotive modeling article; --

Gerald M. Best
511 North Sierra Drive
Beverly Hills, California
90210



December 6, 1982

Dear Mr. Houck;

I read your article in the September O&W Observer with great interest, for in the year 1939 I built a model of Southern Pacific 245, ex Houston & Texas Central 406, Schenectady 1895 with 69 in. drivers, 19x24 cyls., 120950 total for the engine and 19,210 T.E., with 180 lbs. BP. I rode behind this engine in 1932 on a local out of Houston; it was in its last years and lasted until 1938 though it was retired several years earlier. This engine except for the crosshead was a dead ringer for the O&W Class A; domes the same shape as those of the O&W, bell in back of the steam dome even after electric headlights were installed, and I built the O gauge model to haul my business car, as I had an extensive O gauge railroad in my 4-car garage building from 1935 to 1957. I still have the engine as a decorative piece.

First became interested in the Class A engines in 1908, when I rode from Port Jervis to Eaton, N. Y. with my sister, to visit a college chum of her's for several days, and then she would go on to Chicago and Los Angeles to her new job at L. A. High, and I returned home all by myself, which though it might be unusual for a 13 year-old, was in my case a regular occurrence as I had been riding Erie trains free, out of Port Jervis from the time I was ten, without a guardian.

At any rate, we rode the Valley Jct. shuttle, then the Monticello-Kingston local to Summitville, and boarded the westbound through day train to Oswego. I had ridden the O&W as far as Cadosia with my grandfather and we had walked down to Hancock to catch the Erie to Port Jervis, but from Cadosia north it was new territory. We had engine 68, one of the New York group of 66-69 which almost exclusively ran trains from Middletown to Norwich at that time. At Norwich we changed to engine 21, with its Wabash type ventilator on the cab roof and while in Eaton I saw No. 20 come through with Train 6. These two engines, based on a series of six pictures each of the engines at various times in their lives, both had split handrails; that is, the main hand rail stopped at the rear of the smokebox, and about a foot below was a short section of handrail probably placed there to help the enginemen step down from the running board to the steam chest. No. 21 used an extension of the main handrail by bending it down about a foot, then forward to the front of the smokebox. This engine remained this way throughout its life. You can see it in your picture on Page 7. I never saw #22; this engine according to Supt. of MP B. P. Flory was working from Norwich north throughout its existence; usually it worked the Utica branch after it was replaced on the trains #5 and #6. I have a good shot of #21 with #6 on the trestle at Munnsville; it came from Samuel H. Reeder, Jr., Main St., Munnsville, NY 13409 but I dont know if he is still around or not. Yet my last picture of #21 was at Ellenville Aug. 26, 1923, looking just the same as it did in 1910 when the late Karl Schlachter photographed it at Norwich. Incidentally, he took the picture shown on Page 7, at Middletown 12/16/1931, not Norwich. It was in the same spot when I saw it during my visit to Mr. Flory in mid-1932. Both these engines had their generator in back of the bell which was back of the steam dome. When the 23 and 24 got electric

headlights the bell was moved forward between the domes, and all my pictures of these engines were taken at Weehawken or Middletown as that was their regular run. #23 used to haul the president's private car on the annual inspection as #26, the inspection engine was no good for overnight stands and long runs. #24 photos I have pins the conversion to outside admission and Baker gear early in the 1920s. This engine was sent to Norwich for the Utica local about 1930, and as you know was sold from there to the Middletown & Unionville, in July 1935. I was over at Unionville in August with my father, while on a visit with my parents in PJ and I had the engine set out with rods down and cleared away some weeds. Apparently they let the engine just sit there, for the late Ted Gay wrote me a month later and told of driving into Unionville and seeing the new 4-4-0 sitting there with rods down, so he photographed it and an employee said a man from California had just left after talking them into setting the engine out. It was a small world as Ted and I were old friends.

So much for the A class and their wanderings. In 1932 when I started preparing a roster of the O&W, I wrote B. P. Flory and set up a date convenient to him during a ten-day visit I was making to Port Jervis, so Mr. Flory very kindly checked the data I had, went to a vault back of his office and came out with a ledger in which several pages were devoted to purchases and sales of locomotives in the 1890s and 1900s. He sent them up the hall to be photostated, but he failed to tell me about some renumberings which took place among the odd-ball 4-4-0s and 2-6-0s and so the paper I wrote for R&LHS lacked some of the renumberings.

I commented on the A class and wondered why they bought Nos. 20 and 21 in June 1899 and Dec. 1899, when they were up to their ears in Mother Hubbards from Cooke and Dickson. He said that the through sleeping car train which began in 1881 and ran from Weehawken or Jersey City (1881-84 for JC) had grown in size so that they were having trouble in the late 1890s with the Brooks 4-4-0s in making the grade up to Eaton and down again, and frequently required a helper just for that little section of steep grade. So they bought two soft-coal burning engines, single cab, for the Norwich-Oswego run and for years Nos. 20 and 21 operated the Limiteds until they ceased to exist around 1917, having changed the route to the N&C branch at Randallsville to Syracuse and eliminated the long run from Oswego to Buffalo on the old RW&O. In 1908 , #22 ordered in 1907 having been successful on the Weehawken Middletown runs, was follwed by #23 and #24 in 1908 and these were used as general utility engines on the main line as far north as Norwich until they replaced the Rome engines on the Kingston-Summitville runs; also to Monticello. #24 was stored at Norwich when I talked to Mr. Flory, and as it hada lot of miles left in the flues, it went to the M&U in due time.

The ventilator on the roof was a Wabash idea and for years their 4-4-0s and big 4-6-0s had these ventilators, which were very useful in hot weather. Well, I have probably tired you out with all this dissertation on the A class; would that I could produce a picture of #22 in service, but in all my 50 years of collecting O&W photos I have never seen a shot of #22 in service. Harding was never able to find a shot of it during all the years I corresponded with him, but he worked miracles with some of the old classes when he got into the records of the Norwich shops in the 1940s. Am sending this % the Chapter as I do not have your address. Best wishes for many successful runs of #22.

Sincerely,

Gerald M. Best

Gerald M. Best

All rather interesting, (though he missed the engine number of the model in the Observer article) and in re-reading this letter I found an amusing insight into O&W research. I've often written of O&W "mysteries" where information has either been lost or was simply unrecorded. . . especially concerning the re-numbering of equipment; -- and then when other (conflicting(?)) information comes to light after authorship and publication is complete! It seems that author and historian Best also ran his ship of

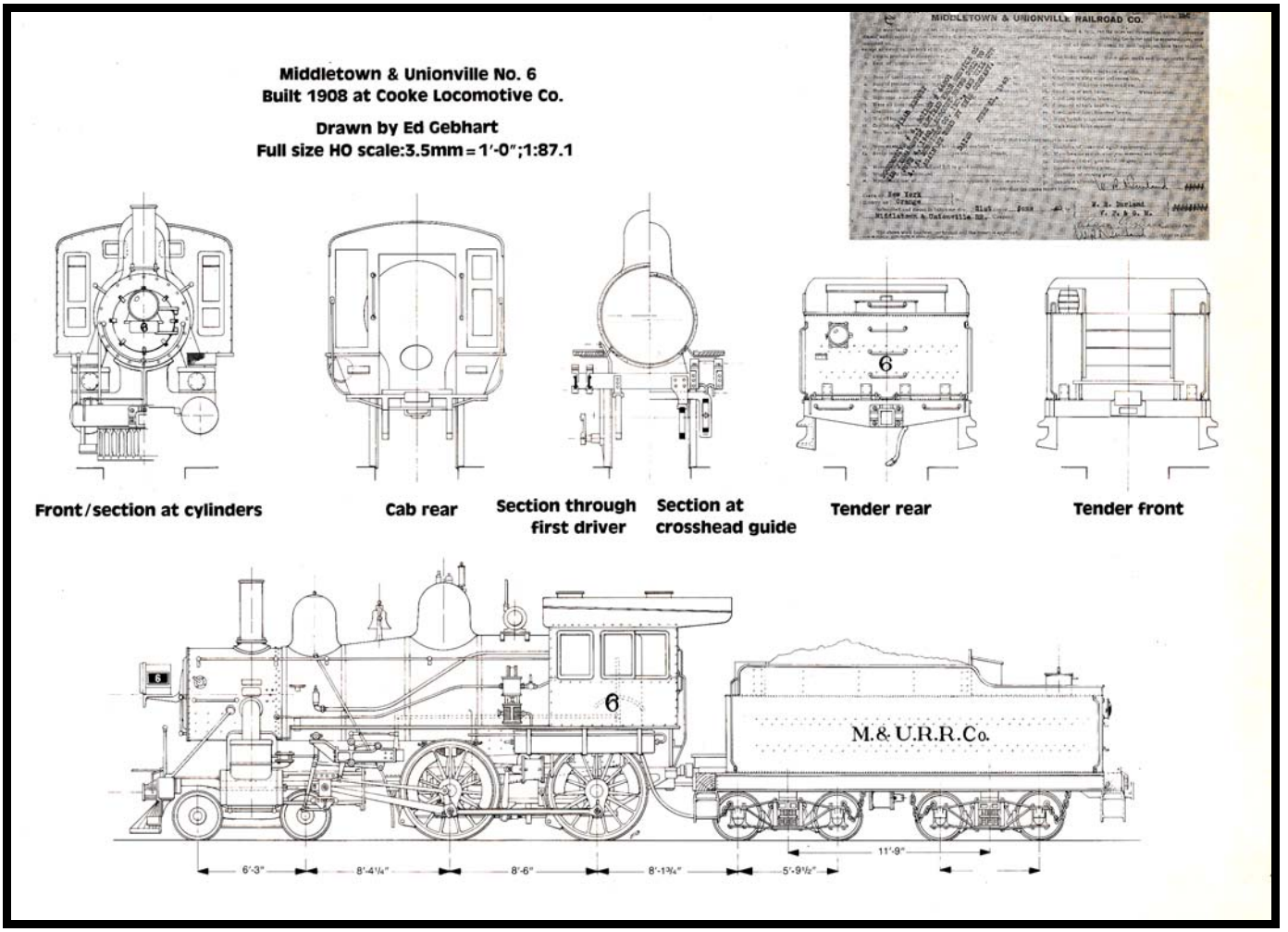
research onto this "shoal" when Mr. Flory ". . .failed to tell me about some re-numberings. . " This one letter tells a good deal about the Class A 4-4-0's and adds more fully to the lore of the O&W. . .

As one might expect also, Gerry Best (as a contemporary) was not only acquainted with Burton P. Flory of the O&W, but also with others who have sought to preserve the legacy of the O&W; -- Sam Reeder and Ted Gay, as he named them in this letter.

It is also of some interest that recollections of No. 24, which went to the M&U are recounted in this letter, from time shortly after its arrival on M&U property; -- and being spotted at Unionville. . . no less!

Due in part to the circumstances of the initial contact, this letter may seem quite formal; -- but then it was an opening communication between strangers with no prior contact. Gerry Best was from an "Old school" and very much the gentleman. I do fondly treasure the few letters and communications we exchanged.

As a last bit of prototype information here I am including a drawing of M&U No. 6 (Ex-O&W Mo. 24 as mentioned and described in Part I of this article). This was published in the September 1989 issue of Railroad Model Craftsman, and is reproduced here with the kind personal permission of Hal Carstens, in his own right and on behalf of his Carstens Publishing Company.



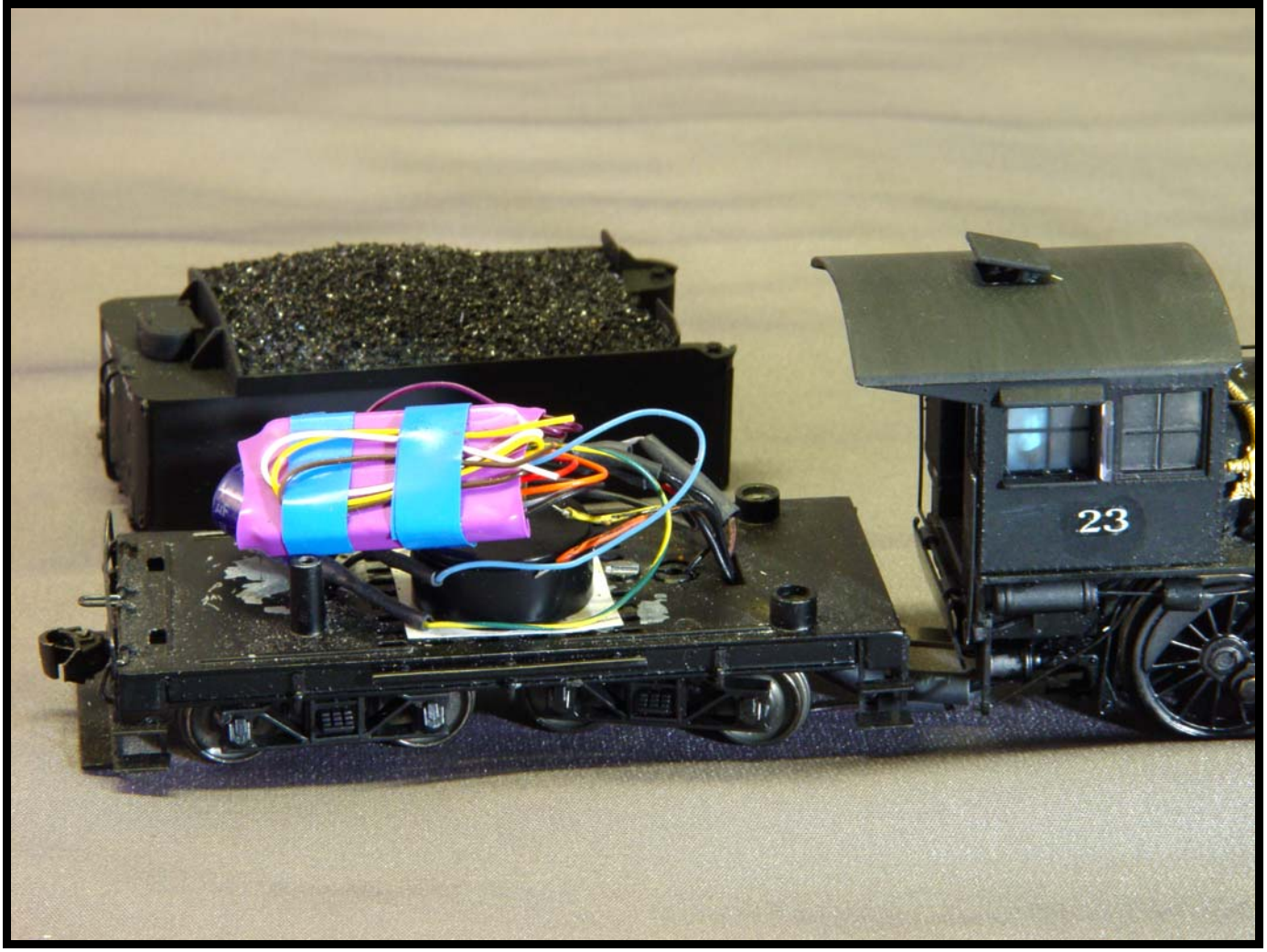
While altered from an "original" appearance, especially with the addition of Inside Admission Baker Valve Gear and the "top story" of an enlarged valve chamber to accommodate revised slide valves for operation under Superheat, this is nearly the configuration of the other Class A engines as they appeared in O&W service.

Modeling a NYO&W Class A 4-4-0
from a
Bachmann Richmond Works 4-4-0
For the "Early O&W"

As mentioned in the preceding portion of this article the Bachmann model, as one of the prototype products of the several Locomotive companies consolidated into the American Locomotive Works ("ALCo") ca. 1900, it nicely bears a "family resemblance" to the Cooke Works 4-4-0's of the O&W. A wonderfully performing and smoothly running model, it comes equipped for operation with DCC. Removal of the tender shell reveals a printed circuit board, mounted on "standoffs" cast to the tender floor, with all of the electrical features needed for DCC control and headlight control. A closer examination of the tender floor casting exposes the floor with cored slots in the center, where a DCC sound speaker would be mounted, for that additional enhancement of sound!

For those who wish to remain with the time-tried-and true analog control, the circuit board connection to the DCC decoder is the conventional six pin socket connector, so a replacement with a DCC "Bridge Plug" returns the locomotive model to direct DC control; -- the choice being only of preference.

After seeing the possibilities of sound operation I replaced the Bachmann DCC decoder with a Micro-Tsnumai sound decoder from Soundtraxx. Initially I crammed a thin speaker beneath the existing circuit board, but the speaker membrane had not enough clearance to operate properly and emitted, from time to time, an horrendous screeching sound. I backtracked, cut away the cast stand off posts used to mount the factory circuit board, removed the circuit board by unsoldering all connections, and then traced out what wire went to which operational function; -- the task then being only to solder up hard connections from the Soudtraxx decoder to the appropriate wires. The tender to engine connections still then use the Bachmann plugs; -- a plus and a tidy feature.



With the tender shell removed, here is the "rat's nest" that is the wire jumble attendant to a hobbyist installation (contrasted to a "factory" installation that generally makes use of far more compact and neatly arranged wiring and a printed circuit board) of a DDC sound decoder. Fortunately, I was able to trace out each of the wires, at stub ends after un-soldering them from the original Bachmann DCC decoder, and then connect the Tsunmai decoder output wires with splice connections. This allowed the continued use of the multi-pin Bachman plugs between engine and tender.

As with many modeling efforts, as soon as a certain solution is reached a manufacturer comes to the market with exactly that which was worked out at the hobbyist's bench. The solution then becomes a solution for a problem which does not exist! The Bachmann Richmond 4-4-0 is no exception; -- now (and making use of that feature anticipated by the slotted tender floor casting) Bachman offers this very engine, from the box, with a DCC sound decoder! I've not examined any of these latest offerings of the Richmond 4-4-0, but I'd suspect that Bachmann has found a way to use the space between the tender floor and a printed circuit board mounted on the cast stand offs as originally equipped; -- all where I was not successful!

As an aside, I suspect that DCC sound decoder equipped engines (of this modern sort of "composite" locomotive construction [see below]) will become the norm, rather than the exception such that it will be less and less likely for a modeler to easily find a "new" offering equipped only for "bare bones" analog DC operation; -- and then similarly unlikely even find one set up for "soundless" DCC operation! To some degree manufacturing, sales

and marketing follow demand (despite what one might think when something you WANT is not made or ready to go). The demand seems to be for DDC ***and*** sound.

An old Michigan classmate, as an engineer deep within the auto industry, once told me; -- when a certain automobile accessory or option comes to be ordered by a certain percentage of new car buyers the manufacturers then make that [former] option a standard manufacturing inclusion (and with the corresponding price increase(!)). Some years ago I recall reading that at least one European model manufacturer (and whereas in Europe DCC originated and took hold earlier than on this side of the "pond") noticed that when a new locomotive was offered with both DCC and ("decoder-less") analog DC operation, close to two-thirds of new orders were for the DCC version! The business decision then being considered was to make ONLY DC equipped engines in the future. I don't know if that ever came (has yet come) to pass, but the trend seems clear; -- just as, and similarly, virtually all ["Ready to Roll" – and kitted] rolling stock models are now equipped with Kadee, or Kadee compatible, couplers. Even those few importers bringing over locomotive models from Asia are importing models [including those brass models still assembled and made up in that "traditional" way] painted, lettered, DCC equipped and many now with DCC sound;- so far as a DCC-sound suite is becoming that standard. However, those who wish to stick to analog DC operation have not been made "orphans" since some manufacturers (Athearn and MTS; -- as they immediately come to mind) are now offering DCC sound equipped new locomotives, but also with a dual capability (with battery powered wireless controllers) to operate on straight DC; -- albeit with some decoder functions unavailable in analog DC operation. Well, enough for industry musings, and so back to O&W No. 23. . . .

The balance (beyond fuming over decoder and speaker installation) of what I did to model O&W No. 23 is simply the addition of some detail parts, and rearrangement of some others, in a chore lasting not more than an additional couple of hours! The result, while not necessarily spot on, is a satisfactory and credible presentation of an O&W Class A 4-4-0. Having the benefit of images made during the final detailing process I'll simply list some "bullet points" of changes and alterations I made to the original Bachmann model, and then let those photos, along with captions, tell the rest of the tale.

First, I'll begin with a small description of how the Bachmann engine is constructed, as it comes from the factory. This method of construction and assembly has bearing upon how changes or modifications are made and modeling techniques that must be learned. "Modern" steam engine models are of a "composite" construction and manufacture. The older "Pioneering" steam locomotives were all kits, and nearly all were made of pieces and parts that were cast in an alloy metal known as "Zamac," or "Pot metal," (though a few were composed of castings in either a brass or bronze alloy]. The Zamac models were all assembled with screws, with much of the "detail" cast on and in place. This was true even of appliances such as air pumps (which then often only vaguely resembled what was supposed to be represented and more often were largely poorly defined "lumps"). Due to the need for "draft" in order to remove castings from their molds, details such as piping had little relief and were also more to the resemblance of lumps.

All of the early steam engine kit models fostered an entire "sub-industry" for the manufacture of lost wax detail parts; -- made by such firms as Kemtron, Lindsay and Max Gray, and then later by Cal-Scale, Precision Scale, and Cary Locomotive Works (the latter also making "bare" boiler castings [from a much more "friendly" material of some form of pewter] to allow different prototypes to be modeled and also excusing the modeler from having to file, sand, grind and abrade cast on details off an original casting). Kemtron, Max Gray, and then later on Cal-Scale and Precision Scale supplied lost wax detail castings to the Far East brass model manufacturers as those brass models matured and moved from

the use of lesser defined screw machine made detail parts to the finer cast detail parts from these firms; -- and with vastly more detail parts included.

The “composite” construction of which I speak is a recent and later development. Here the frames and running gear(s) use cast frames with many separate molded plastic or “engineering plastic” parts then added as detail parts. The superstructures have returned to pot metal castings, but then also with many, many separate and added on details; -- some assembled with ACC type adhesives and in some cases simply with lugs molded onto detail parts that’re forced into cored or drilled holes. The use of ACC adhesives is fairly common on current models; -- and a far cry from early attempts to “cement” detail parts on early kit engines using household cements such as the old standby of “Duco” cement (which never held well and insured that parts attached using it would eventually fall off and be lost)!

The Bachmann model is composite, with a cast boiler and cab and separate cast pot metal and molded plastic detail parts. A 4-4-0 model is really nothing more than a sort of an off balance 0-4-0, since the lead truck bears no weight at all. Whereas Bachman has utilized heavy castings, especially a heavy cast cab, and quite well balanced the weight of the model over the drivers, the result is a well running engine with very satisfactory performance in pulling a reasonable number of cars (for an engine of its size). Since it is of composite manufacture there are a few “tricks” that must be learned to work easily with this sort of model.

Detail parts to be removed have to be carefully pried loose, but only after having applied an ACC “De-bonding” agent to the attachment points in order to soften and dissolve the ACC adhesive. Those parts to be reused can be re-attached, and new detail parts bonded on with ACC when completing the model. My long time friend, and well known New Haven modeler, John Pryke has written a number of hobby press articles about working with these newer sorts of composite constructed locomotives. Those recent articles are well worth reviewing to learn some of John’s methods in this new era.

So, a list (as promised) and steps taken to cast the Richmond 4-4-0 from Bachmann into a representation of a Cooke O&W Class A 4-4-0 follows:

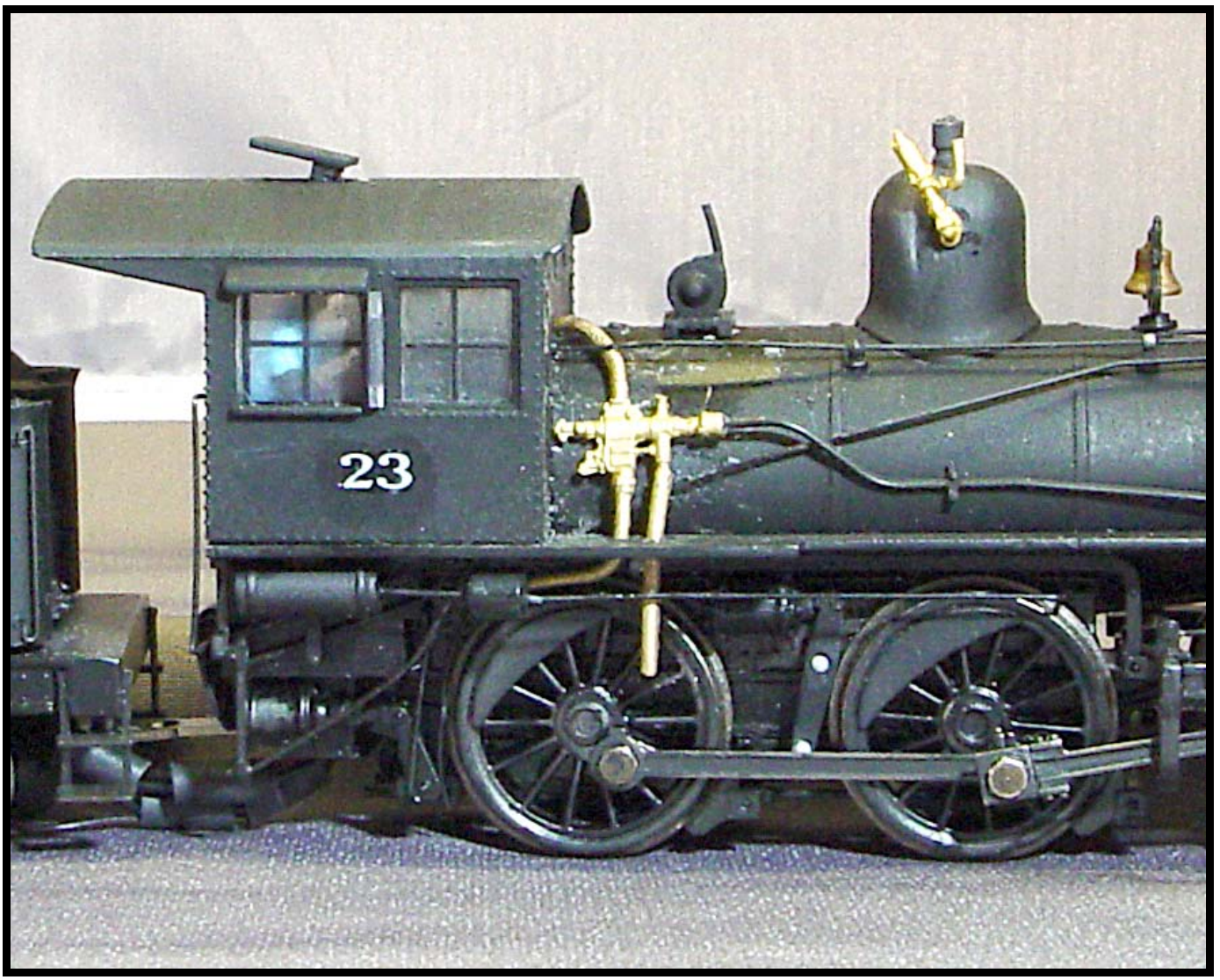
- ***The odd spoked lead truck wheels (simulating cast iron wheels of the era) are replaced with ReBoxx wheels (the O&W Annual Reports contain entries year after year reporting the costs of changing out cast iron wheels and locomotive tires to steel) ;***
- ***The bright shiny plated side rods and crosshead guides and main rod are "blackened" with P-B-L Dura-Lube;***
- ***The turbogenerator, originally located virtually touching the cab front, was carefully loosened with de-bonding agent and the relocated to the former location of the bell, and affixed with ACC;***
- ***The bell, first located in the present revised location of the turbogenerator in this image, was also pried loose after a de-bonding agent application at its base;***
- ***A new shallow hole for the lug in the bottom of the bell casting was drilled between the domes to relocate the bell (as indicated by period photo images and as mentioned by Gerry Best in his letter);***
- ***The turbogenerator and bell are ACC bonded in place in their new locations, as shown in this image;***
- ***Some drilling and fitting is done to the cab front and running board for running the steam inlet (through the cab front; -- being a feed from within the cab atop the boiler), cold water feed and waste exhaust plumbing of the Sellers Type N lifting injector;***
- ***The injector is fixed in place with careful application of tiny drops of ACC on the steam feed, cold water feed and waste piping (the injector body then being well held in place without any specific attention directed to it);***
- ***The cold water feed pipe (a separate Bachmann "add-on" plastic molding) to the check valve is carefully clipped short and fitted into the feed water outlet of the Sellers injector;***
- ***The Bachmann whistle casting is removed from the left (fireman's) side of the steam dome, a new hole drilled in the engineer's side of the dome; -- and a new Precision Scale whistle casting is bonded in place.***
- ***An array of chains and loops, running from end to end along the bottom of the tender floor, were included on the Bachmann model, and they're of questionable purpose; -- all being much, much more than safety chains for the tender trucks. . .so those were removed and discarded.***

In some compromise to absolute modeled accuracy I decided to leave "well enough alone" the Laird style multi-bearing crossheads and crosshead guides. The O&W used "Alligator" type crossheads and guides; -- but so far as the Bachman engine is a delightfully smooth runner in its original set up I decided not to "mess with success!" To change out the crossheads and guide requires a significant disassembly of the engine superstructure and running gear and then all the attendant filing-fitting-fussing that will go along with returning the mechanism to smooth operation without the hitches that inevitably result when this sort of work is done! My intention here was to accomplish a tidy and timely conversion of an already close representation into a credibly appearing model of a Class A 4-4-0. I made the decision that additional work, with perhaps uneven results wouldn't remarkably alter the credibility of overall finished appearance.

I also decided to leave alone the Bachmann headlight. Examination of period photo images of O&W Class A engines in service showed me that there was a variety of treatments rendered by the AV and NH shops to the headlights of these engines (and period O&W Annual Reports continually mention expenditures for "electrification(s)" of both cars and locomotives). Originally the Class A engines came from Cooke equipped with the huge oil headlamps mounted atop the smokebox. Later on those were replaced with smaller carbide headlamps, and then later on these engines were electrified; -- all in that variety of treatments. Some images show headlamps entirely replaced, while other images seem to show older headlamps wired and converted to electrical illumination; -- all making it just hard to tell exactly what happened or what was done. . . or when. . . to any one specific engine!

In the case of this model, the factory operation is via the use of an LED and I decided, again, just not to mess with it. At some point later I may attempt to nibble away the plastic canister style headlight molding, carve up a lost wax carbide lamp casting and effect some sort of replacement; -- or I may replace the headlamp and LED altogether, but

just not now. Again, I don't feel that this offends or compromises the modeling effect I'm trying to achieve, and I've built plenty of other engines with lesser or greater compromises made or left intact; -- some or all or any of which sometimes prompt the remark by an observer of either "Gee,. . . I wouldn't have known unless you pointed it out. . ." or "Well,. . . only you will know. . . " The effect is still there. . . and it all works!

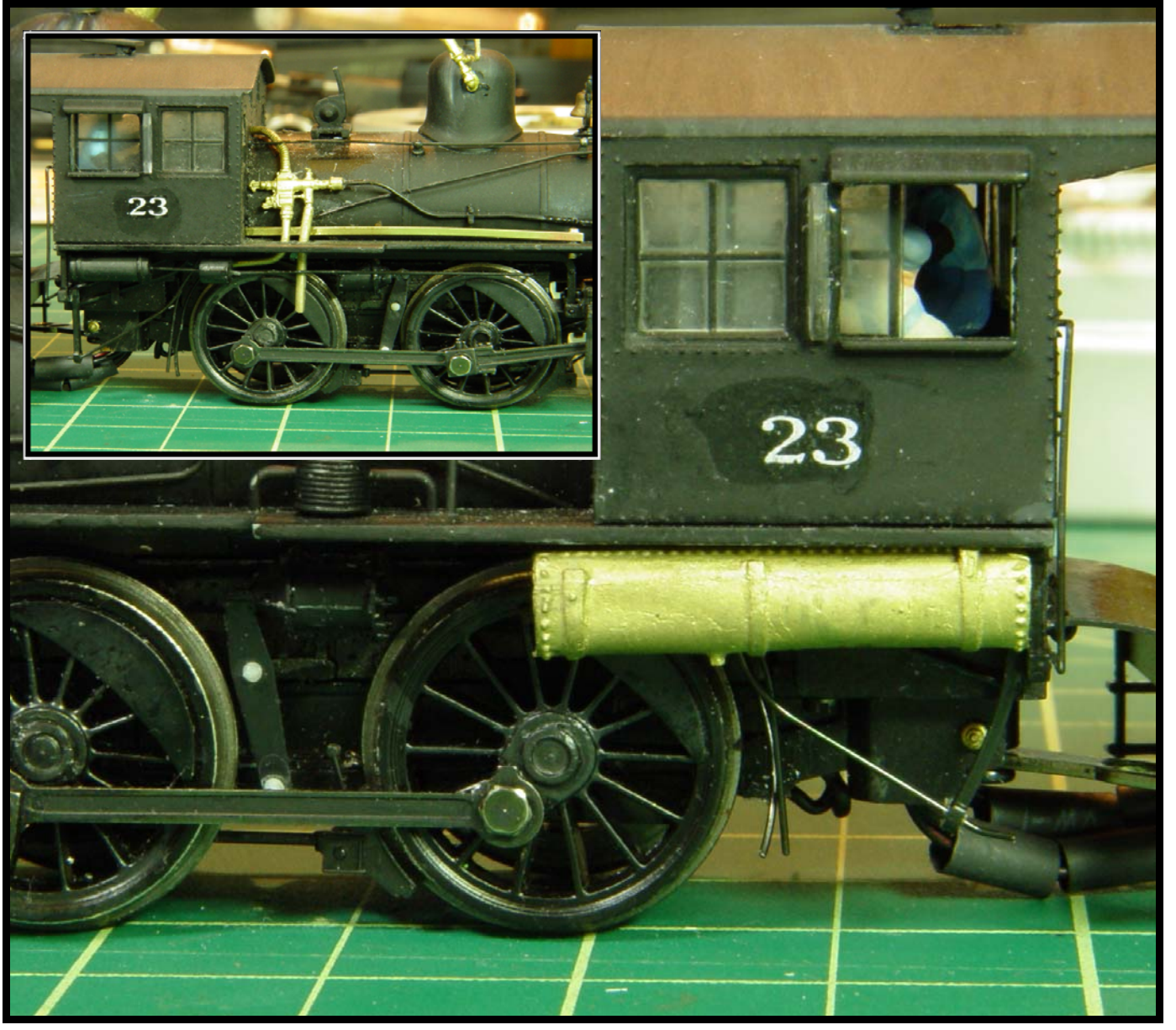


This "in process" image shows more closely some of the detail modifications made to the Bachmann model to effect its change to a representation of an O&W Class A engine. The cold water feed pipe to the Sellers Type N injector is simply bent around and stuffed behind the engine brake equalizing reservoir. The tender feed pipe (original to the Bachmann model) is intended to enter the cab in back of the same reservoir; -- but in this rendition even the closest examination defies any conclusion that the two pipes do not connect! Both are close enough in location to suggest the do indeed connect to one another.

A signature detail of the O&W Class A engine is the engine brake cylinder and toggle bar situated between the drivers. Here, I've simulated that detail with some parts from a Cal-Scale freight car AB brake set; by shortening the brake cylinder piston, drilling a new hole in the end of the cylinder and re-inserting the long brake piston. The toggle

lever is also from the Cal-Scale detail set, and cored holes in the lever are "covered" with Tichy n-b-w castings. I made no attempt to connect the lever to the brake shoe, or to model any other details of this engine brake arrangement; -- all to the satisfaction that the effect is gained with no further enhancement by additional detailing; -- all again, with proper components in their approximate correct location. I used the plastic detail parts and filed the back of the cylinder so that it would clear the rod as it traveled around its path in motion; -- all finally to my satisfaction after a test track run (not without some trepidation) to insure that there was not any interference between rod(s) and brake cylinder(s).

A careful observer will note that the original Bachmann brake cylinders are still in place beneath the end of the cab in this image. Well, with the aforesaid "trepidation" and uncertainty prior to a successful test run, I wasn't sure if the added brake detail between the drivers was going to be a very troublesome problem, or at all even successful! Had it been that the new detail was a problem in operation interfering with moving side rods, I was fully prepared to omit the brake gear between the cylinders and (again) "leave well enough alone" and remain with the original brake detail; - in spite of it not being the truest representation of Class A brakes, if left alone. As it is, and though the two brake sets appear in this image, the Bachmann brake cylinders and levers (nicely done one piece pot metal castings ACC'd into cored holes in lugs at the frame bottom) were de-bonded and pried loose and off. A hole in the frame was filled with a brass n-b-w casting (there always being a place for bolts and bolts heads in or on any sort of 1910 "pre-welding era" product of industrial manufacture, on any machine), and the lugs for the original brake levers clipped off; -- but only after I was satisfied that all would work as modified!



In this composite the inset image shows the addition of the "Reach Rod" for the reverse gear. As mentioned in the first part of this article, the O&W Class A engines never received power reverse gear, so the valve settings (under way, and against the steam pressure (and expansive properties of the steam) being admitted to the valve chambers) were adjusted purely by the muscle power of engineer. The background image shows the addition of the distinctive and large air tank reservoir below the fireman's window.

Here in a nearly completed form is the "converted" Richmond engine, made over into the Cooke Works O&W locomotive. For this image I've left the details yet unfinished and unpainted so that they may be more clearly seen by the reader.

In contrast the Bachmann engine, with its heavy cast metal cab and cast metal boiler, all well balanced, allow this engine to pull a more reasonable train of 4-6 (lightly constructed) full sized passenger cars! At least now, the extra hours of rebuilding are unneeded, and the HO scale Train No. 6, the "Night Line" – "Chicago Limited" – "New York Limited" can roll along with a reasonable consist. . . maybe even as a money maker!

In a finished form No. 23 has been touched up with Modelmaster flat black paint and a light spray of Dullcoat; -- any weathering is yet to come. In testing operations I found that

even the relatively limber wire connections between engine and tender gave a few problems, so I removed the extra sheathing and then pulled the wires up and back into the tender. The drawbar seemed never to want to stay in place and would disconnect and flop about. With no need to separate engine and tender on any regular basis I rolled both onto one side and filed a small flat on the drawbar trunion pin on the tender floor casting. I was able to drill a #76 hole clear through the trunion pin. With the drawbar in place on the pin I slipped a #2 washer underneath, and then pushed a "bobby pin" bent from 0.0125" phosphor bronze wire through the hole in the pin. Now the drawbar stays put, and if ever I need to separate engine and tender I can extract the P-B wire pin with some tweezers.

In this image it glides easily through the picturesque countryside serviced by the O&W and its ambitious predecessor – the "Midland." On the point of the "Night Line" – "Atlantic Limited" – "Chicago / New York Limited" No. 23 exercise the task for which it was purchased . . . and making time here. . . running Northbound. . .

More Later. . .

Mal Houck