



# C&TS Dispatch

Vol. 24 No. 3

Fall 2011

Visit  
the Friends  
on the internet at  
[www.cumbrestoltec.org](http://www.cumbrestoltec.org)

## “Done”



*Friends' volunteers pose with the newly-painted sign for the Alder Gulch Railroad.  
L-R: Russ Hanscom on the ladder, Larry Jennings on the ground, Chuck Deuker in the  
white hardhat, and in the orange hardhat, Warren Ringer.*

On August 26, 2011, Friends' volunteers completed the three-year agreement of 'Will Work For UTLX Trucks' with the Montana Heritage Commission.

Our work was recognized and praised at a Heritage Commission pig roast, and perhaps most importantly, drew the attention of Tom Donnelley of RR Donnelley publishing, a strong supporter of Montana Heritage.

Montana Heritage sponsored a commemorative sign featuring the partnership between that organization and the Friends. Our final act was to return the newly-painted Alder Gulch Railroad sign to the front of the engine house.

Many thanks to all who worked so hard to reunite the UTLX trucks with their cars.

~ Ed Lowrance

## C&TS Dispatch

*Friends of the Cumbres & Toltec Scenic Railroad, Inc.*  
*William Lock, Founder*

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The C&TS Dispatch is published four times each year by the Friends of the Cumbres & Toltec Scenic Railroad, Inc., 4421 McLeod Rd. NE, Suite F, Albuquerque, NM 87109. The Friends of the Cumbres & Toltec Scenic Railroad, Inc., is a New Mexico nonprofit corporation.

The Friends is the official museum arm for the Cumbres & Toltec Scenic Railroad, a 64-mile-long operating railroad and museum of railroad history and technology between Antonito, Colorado, and Chama, New Mexico. The railroad is owned by Colorado and New Mexico. As the museum arm, the Friends is dedicated to the preservation and interpretation of the railroad. The Friends is an Affiliate Member of ARM (Association of Railway Museums) and a Member of TRAIN (Tourist Railway Association).

Family membership in the Friends is \$30.00 per year; outside the USA membership is \$40.00. All contributions are fully tax deductible and will be gratefully accepted. Please write us in Albuquerque or call us at (505) 880-1311 for information about the Friends. The Cumbres & Toltec Scenic Railroad is both a National and a State Registered Historic Site.

### Cumbres & Toltec Scenic Railroad



Denver & Rio Grande Railway—1880 to 1886  
 Denver & Rio Grande Railroad—1886 to 1921  
 Denver & Rio Grande Western Railroad—1921 to 1970  
 Cumbres & Toltec Scenic Railroad—1970 to 2011  
 © 2011 FRIENDS OF THE CUMBRES & TOLTEC SCENIC RAILROAD, INC.

## PRESIDENT'S COLUMN



### *Finishing up in Montana and Looking Ahead!*

During August the Friends conducted its final work sessions on the Alder Gulch Railroad in Nevada City, Montana. The Alder Gulch is owned by the Montana Heritage Commission. This year represented the third season that the Friends ventured north and performed volunteer work in exchange for tank car trucks that are now on the Cumbres & Toltec.

I'm not sure where the time has gone as it just seemed like yesterday when we were preparing to enter into this partnership arrangement. That was back in the fall of 2008, and the first sessions we held on the Alder Gulch were in August of 2009. I believe that all of us associated and close to the partnership agree that it was indeed a worthwhile endeavor and of mutual benefit to both organizations. These sort of partnerships need to happen more often in the historic preservation community and I believe they can in the future.

We were fortunate that these efforts did produce some first-time work session attendees. This in and of itself is just outstanding and hopefully it will lead to these individuals coming to Chama and/or Antonito to participate in future work sessions. We also had a good core group of people that participated all three years. Ed and Valley Lowrance led the charge and I want to thank them for all they did to make our work sessions away from home a productive and enjoyable experience. I truly believe we made an impact and helped the Heritage Commission focus on their rail asset portion of the operation.

From Montana, let's head back to Chama for a bit. This past season we entered into an arrangement with the Narrow Gauge Preservation Foundation relative to some

display space in the mall next to the radio station. The display area featured Sam Furakawa's Chama Yard model railroad module in Sn3. The space also has a number of television monitors playing DVD's filmed on the Cumbres & Toltec plus room for the Friends to sell merchandise and books.

This has been a great opportunity and we have received a host of wonderful comments from the many visitors. Among others, it has been staffed by Bob & Holly Ross and Geoff & Nancy Gordon. I want to thank them and all who have helped to staff the display during the season.

I believe though that we have an opportunity in 2012 to staff the display for more hours on a weekly basis. The display has proven to be an outstanding interpretive tool in addition to providing the Friends with a great location to sell merchandise and memberships. To increase the hours in which we have the display open is basically a product of finding more people. The more volunteers we have to staff the display the more hours we can afford it to be open to the public. If a work session in Chama is in your plans for 2012 or you spend other time around the area, please consider this opportunity. You certainly have the chance to meet a lot of tourists coming through the community and the opportunity to tell them about the Friends and the railroad!

The last item I want to mention here relates to railroad operations for 2012. As most of you might be aware, C&TS Management Corporation will finish their stint at operating the railroad on December 12, 2011. This will end six years that the railroad has been managed by this entity. The Commission has issued an RFP (Request for Proposal) and as I compose this column a number of interested parties have come forth. You will hear more as this process moves forward with the objective being to have a new entity onboard to take over on January 1, 2012.

Exciting times ahead! So as you think about next year I hope a work session in Chama or Antonito is in your plans. If you can't make a work session, certainly give some thought to staffing a model train or collectable show near you during the off-season. Just let me know of events in your area and we can work on logistics.

Thank you all for everything you do and for the support you provide the Friends and the Cumbres & Toltec, Inc.

~ Tim Tennant

### ***Dispatch Deadlines***

To establish a dependable schedule for mailing the C&TS Dispatch, the following deadlines for material to be received at the Friends' office will be observed:

#### **Spring Issue 2012 - Mail on March 31**

All materials must be received by February 17.

#### **Summer Issue 2012 - Mail on August 10**

Work Session "A" and "B" reports and photographs must be received by June 15.

All other materials must be received by June 22.

#### **Fall Issue 2012 - Mail on October 12**

Work Session "C" and "D" reports and photographs must be received by September 3.

All other materials must be received by September 10.

#### **Winter Issue 2012 - Mail on December 14**

Work Session "E", "F", and "MT" reports and photographs must be received by October 19.

All other materials must be received by October 26.

**NOTE:** The Dispatch wishes to identify photographers whenever possible. *If a name is not included with a photograph, the photographer is unknown.*

## HISTORIC PRESERVATION

### 2011 Work Session Reports

#### Job 1003 – Cook Car 053 Restoration, Part II

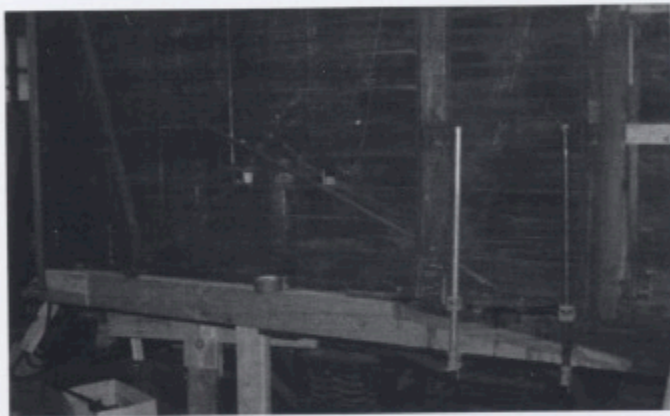
**Objective:** To continue the restoration of Cook Car 053.  
**Team Leader, Session C & D:** Michael O'Nele  
**Team Members, Session D:** Jim Florey & Warren Ringer

**Session C:** Replaced eight feet of the outside sill with a new laminated beam. This involved raising the tenons above the mortises with a 20-ton hydraulic jack. The new sill piece was epoxied in place, the end sill mortises were repaired, and the outer gaps were filled with epoxy putty.

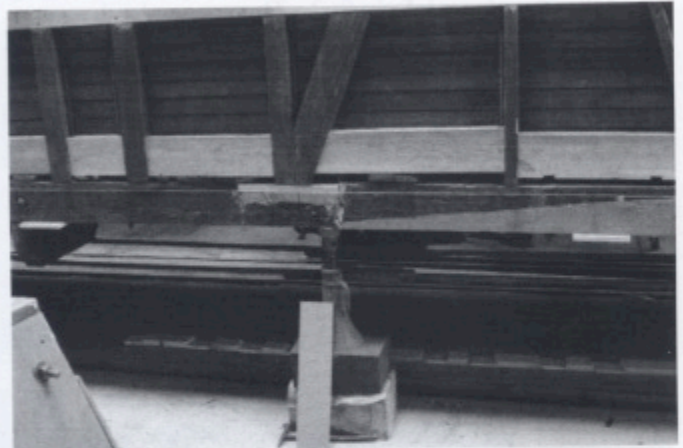
The team also made a new crank for drill press table, installed a modified damper for the Osier station stove, and cleaned up and moved old paint.

**Session D:** Rotted carlines and beams, and window jambs and casings were replaced; the car center was prepared for steel reinforcement of two repaired areas on the sill.

**Project Status:** Additional work needed.



*New sill section in, end sill repaired, epoxy applied.*



*Sill area to be reinforced with steel.*

#### Job 1099 – Pole Barn Construction: Session D

The Pole Barn report for Session D is awaiting the Team Leader's input, but in the meantime, here's a photo of "Woodhenge" on the north side of the CRF.



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### **Locomotive 463 Update**

The 463 has had her boiler set on the frame, and alignment of the boiler is currently taking place. Fabrication and repair of spring rigging, brake rigging, and other components is in progress, installation of front-end components is being performed, and painting of the locomotive cab is targeted for October.

More updates are available online at the Friends website ([www.cumbrestoltec.org](http://www.cumbrestoltec.org)). Simply click on the drop-down menu under "Locomotive 463" on the Friends' home page.

#### **More Locomotive 463**

Care to make a donation to the 463 project – or would you like to add to the contribution(s) you've already made? Just visit <http://www.cumbrestoltec.org/463.html> (a clickable link if you're reading the on-line edition of the Dispatch) and follow the instructions there.

#### **463 Litigation Resolved**

"After having litigated the issues between them, the Friends of the Cumbres & Toltec Scenic Railroad, Inc., and Ground Zero Fabrication, Inc. ("G-Force Choppers"), have reached a resolution of all claims asserted by and between them, and have entered into a Settlement Agreement which recognizes that the contract between the parties was terminated as a result of mutual misunderstandings, and not as the result of the wrongdoing of either party."

### **Annual Report - Richard L. Dorman Collection of Narrow Gauge Railroad Historic Photographs**

The past year was a significant one for the Dorman photographs. Many more catalog entries were converted to digital, and a few months ago, the digital catalog pages were placed on the internet along with image ordering information.

Since the receipt of the Dorman collection, more than 17,000 prints have been digitized consuming some 387 GB of disk space, and approximately 250 prints remain to be processed. More than 7600 slides have been processed using 434 GB of disk space, and there are around 700 slides yet to be processed.

The on-line web page work now features database and catalog information up through Volume #123, thus completing the D&RG(W) section.

Visit: [www.cumbrestoltec.org](http://www.cumbrestoltec.org) and look for the drop-down menu on the home page.

Thanks for this effort go to Friends volunteers Wes Pfarner, Dave Ryerson, Carol Haller and others associated with the Friends' website.

*~ Vernon Glover*

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### **Friends Fall 2011 Banquet & Board Meeting**

The Friends' fall Board Meeting will be held on Friday, October 21st at the Colorado Railroad Museum in Golden, Colorado. The banquet that same evening will begin at 6:00pm at the Table Mountain Inn located at 1310 Washington Ave., Golden, CO 80401. For banquet reservations ~ at \$42/person ~ please call the Friends' office at 505-880-1311, *no later than* Friday, October 14, 2011. A block of rooms has been set aside for Friends members desiring to attend. The room rate is \$139/night and room reservations can be made by calling the Table Mountain Inn at 800-762-9898 or 303-277-9898.

A tour of the Colorado Railroad Museum will be offered on Saturday October 22nd for Friends members. Additional information will be posted on the Friends web site at [www.cumbrestoltec.org](http://www.cumbrestoltec.org)

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## Soot & Cinders: A First-Person Account of the June 2011 C&TSRR Fireman/Engineer Class

~ by Dick Pennick

(Friends' member and author Dick Pennick is a locomotive engineer on the San Diego-based Pacific Southwest Railway Museum Association.)

### Part One

I have been a member of the Friends for a number of years and have enjoyed some truly fascinating and educational restoration/maintenance projects over that time, including telegraph booth restoration, the successful Jordan Spreader restoration, the tree-trimming crew, and others.

For some reason, I was unaware that the railroad had been providing an opportunity to learn the rudiments of hand-firing and running a K-36 steam locomotive over the spectacular sixty-four miles of this 131-year old narrow-gauge mountain railroad.

Late last year, I stumbled onto an announcement of the 2011 fireman classes and immediately showed it to my wife with the declaration: "I want to do this before I kick the bucket!" - which was really more of an entreaty than a conversation starter. To her everlasting credit, she consented, and I secured my reservation for the June class.

Each class is normally restricted to no more than six participants, although my class turned out to be seven. (Additional four-day classes were scheduled for August and October.)

To give the reader some perspective, I should provide a little personal background and my motivations for engaging in this unique, archaic activity.

I've been a train buff since I was a kid, and once tried to get employment with the Southern Pacific as a steam fireman when I graduated from high school in the mid-'50s, a time when the SP was eliminating steam locomotives - and the jobs that went with them - as fast as they could in favor of diesels.

Over the years since then, I've ridden in steam cabs from Massachusetts, to Central America, and everywhere in between. I even tried to bluff the old engineer of an aging Mogul in Alabama that I actually knew something about hand-firing a coal-burner! When we had to stop for 30 minutes while he shook the grates, broke up the clinkers, and rebuilt my poor excuse for a fire, it was clear this brash 25-year old didn't know squat! After that, he said "Why don't you go ahead and run the engine and I'll fire." With a slight smile, he added: "Maybe you're a better hogger than a fireman!"

In the nearly 50 years since that day, I have been compelled to someday right that wrong and learn how to do it with some authority. The C&TS program was perhaps my last opportunity, and I latched onto that like a tick on a coyote.

I have fired and run oil-burning steam locomotives over the years - from Shays to Ten-wheelers - and for the past twelve years have run vintage diesel-electrics for a non-profit railroad museum near San Diego, CA that operates on a 14-mile portion of the San Diego & Arizona Eastern Railway mainline in the mountains east of the city. I also assisted in the rebuilding of a former SP steamer, pretty much from the ground up, so I figured I at least knew my way around a steam cab.

My familiarity with Chama and my week on the Friends tree-trimming crew taught me that the rarified air at altitude can be a significant factor for "flatlanders" like me, especially when exertion is involved. I was to test that lesson again later when our class was introduced to "The Hill" - the nearly continuous 4% climb up, up, up for 13.5 twisting miles to lofty Cumbres Pass at 10,015 ft., a tilt of 156 feet to the mile! This stretch makes for exciting action photos, but it can chew up and spit out unwary interlopers like me.

At the last minute, the original class date was changed from June to July to allow for the completion of the repairs to the Lobato bridge, and I should have known that this was a harbinger of more to come. The good news was that our class would be the first to fire "the Hill" since the bridge was damaged by fire in June, 2010.

The bad news? Thanks to the resourcefulness of the C&TS staff, there was no "bad" news, but more about that later.

Although the class size was supposed to be limited to six for the firemen and the same for the engineer students, seven aspiring firemen showed up on Sunday morning at the Chama depot, and one engineer student arrived a day late on Monday. Due to the changed date, this class had to begin on Sunday rather than Monday because the weekly "Cinder Bear" special train was already scheduled for Thursday.

We adjourned to the Chama Town Hall for our initial orientation, steam firing video, safety and rules familiarization, and for copies of the C&TS rule book and operating timetable. Each of us had already been provided copies of steam firing and running treatises originally published by the Reading Railroad in the early decades of the 20th century.

At one point, we were asked to give a short personal snapshot of our backgrounds, and it was interesting to note how, given our varied backgrounds, motivations, expectations and widely-disparate locations throughout the U.S. - we all ended up in this small room deep in the heart of the San Juan mountains of northern New Mexico. Amazing what hand-fired, narrow-gauge steam locomotives in their natural habitat can accomplish!

After lunch, the shop crew had the 488 (Baldwin, 1925) hot on the main in front of the depot with a full tender of Hesperus coal. Our "work freight" student train, consisting of a pipe gon full of steel pipe sections, two idler flats, two stock cars, three other gons, an open sightseeing gon, and long caboose 0503 that was originally built in 1886 was made up on a siding near the coal tipple. We would not use it this first afternoon. Out of curiosity, I poked my head into the crummy to note where the "crapper" was located. I was surprised to find there was none!

Our C&TS instructors this first morning were Ronnie Lopez, Road Foreman; Jim McKeel, fireman/engineer; and Alan Loomis, student coordinator, conductor and brakeman. Roger Hogan, a Chama businessman and C&TS supporter, was the official photographer.

My fellow students were an interesting mix from all over the map and representing a varied business and professional background. What we all had in common, though, was a genuine fascination and curiosity about

the tasks we were about to learn. There was a 63-year old from Newport, Oregon; a tall, lanky 66-year old from Denver; a 64-year old from Arlington, Texas; a 58-year old father and his 19-year old son from Great Falls, Virginia; another fellow (whose name I unfortunately didn't write down); and a 72-year old Nebraska railroad CEO - the engineer student who arrived late. He and I tied as the two oldest students in the class, but I was surprised at the 55-year average age (not including the 19-year old).

Some were railroad modelers, at least one was a professional railroader, and a few, like me, were associated with a local railroad museum. Several of us were retired - I retired in 1999 from the civil engineering/construction management field.

The railroad had not been too specific in its instructions about what to bring with us to the class, so we had some students without gloves, without bib overalls, without steel-toed boots, without long-sleeved cotton shirts, etc. There was somewhat of a scramble the first day while these students attempted to properly equip themselves in the absence of a large department store.

As a student of the history of railroaders' clothing over the different eras, and being familiar with the very traditional clothing worn by C&TS engine crews from my many visits to the railroad over the years, I had no problem with the correct couture, including my coveted Hamilton "Railroad Special" gold pocket watch. In fact, it has been the human element responsible for getting the trains over the road, as much as the mechanical one, that has enhanced my fascination with railroading as an industry over these many years, and I covet my modest library of oral history interviews with former engine crews and other railroad workers, most now long-deceased.

After a walk-around introduction to the 488 by Road Foreman Lopez, we split up into teams of two or three and tried our hand at the throttle and brake valve, running the light engine back and forth for several hundred feet in the yard. Not surprisingly, one or two of our class were a little heavy on the throttle the first time and the 44" drivers responded with a little "rotation-in-place."

*(continued on page 10)*

## **Friends Expand Interpretive Initiatives**

The Friends of the Cumbres & Toltec, a non-profit organization dedicated to the historic preservation, restoration and interpretation of the Cumbres & Toltec Railroad, has long been nationally recognized for its award-winning work in restoring the historic stock and buildings that make up the "living museum" that is the railroad. Within the recent past, the Friends have also been expanding the third part of its mission: programs designed to inform and educate the public about the rich legacy of the C&TS.

**Oral Histories** - Most recently, the Friends have launched an oral history program designed to capture the voices, memories and experience of the people who are part of the railroad's history. The primary categories of oral history interviews include:

- **Rocky Mountain Railroad Pioneers** – The people who built, managed and operated the Denver & Rio Grande - San Juan Extension.
- **The Living Museum** – The Cumbres & Toltec Scenic Railroad – The individuals and their families who transitioned the D&RGW to the C&TS and have operated and maintained it ever since.
- **The Friends' Founders** – The people who formed and led the C&TS museum support group since its inception.
- **Rural Rail Communities** – The people in northern New Mexico and southern Colorado whose lives have historically and currently intersected with the railroad.

This project will significantly supplement the written history that now exists about the Denver & Rio Grande – San Juan Extension and will provide digital recordings and abstracts which will be available in an archive widely available to scholars, researchers, and the general public.

**Docent Program** – The Friends' major interpretive initiative, the Docent Program, now has 40 volunteers who are well trained and provide facts about the railroad and the surrounding region to the thousands of visitors who ride the train each year. At least one docent is present on each daily train trip to provide riders with information covering the history, geology and wildlife of the 64-mile museum.

**Master Interpretive Plan** – The Friends, supported by a grant from the Institute of Museum and Library Services, has completed a Master Interpretive Plan for the entire railroad which includes concept exhibit designs for the proposed Railroad Visitor Center in Chama. It was produced by a nationally known exhibit design firm in Santa Fe, NM – Merriell & Associates. You can access that document on the Friends' website:  
<http://www.cumbrestoltec.org/images/documents/rvc%20interpretation%20master%20plan.pdf>

**National Historic Landmark** – The Friends, in partnership with the Commission, is now completing the application form for national Historic Landmark status. This is the highest historic designation by the U.S. Secretary of the Interior and should increase the number of visitors and opportunities for fundraising. A determination will be made in early 2012.

**Educational Programs** – Two very successful educational programs involving some 500 elementary school students from Chama Valley have been sponsored by the Friends, in partnership with the local school district. This was funded by a grant from Los Alamos National Laboratory.

**Museum Display Car** – This is now open to the public at the Chama rail yard and work is underway to complete an interpretive display for the 1923 snow plow.

**Cumbres Display** – An informational kiosk at Cumbres Pass was designed and built by Friends' volunteers, depicting the site's rail history. As outlined in the Master Interpretive Plan, other activities are underway to further develop this site, as well as at Osier and Antonito.

**The Railroad Visitor Center** – Planning for the RVC, to be located at the north end of the Chama rail yard, is well underway. A detailed business development plan is now



finalized. The conceptual design of the exhibits is complete, and the architect-engineering design for the building will begin in early 2012 thanks to a \$400,000 award from the New Mexico Department of Transportation. The building A&E work should be completed by fall/winter 2012.

The Friends' organization has had a very successful five years of fundraising for its restoration, interpretation and education projects. At the end of calendar year 2010, the organization raised approximately \$1.3 million in contributions and pledges through its capital campaign, "Another Century of Narrow Gauge Steam II." In addition, the Development Committee has written grant proposals for Federal, State and private foundation funding that has produced well over \$1 million for specific projects – some now in progress, others successfully completed.

The Friends' success is directly attributable to the outstanding support of the membership and the communities served by the railroad, a dedicated Board of Directors who contribute generously and outside donors who are committed to the sustainment of this national treasure.

~ Tim Tennant

### New Docents in 2011

The docent leadership trained several new members this year, and their names and pictures are below.

Congratulations to all!



*L-R: Instructor Bob Ross, Tom and Carol Anderson of Albuquerque, NM, Ann Dixon of Midland, TX, and Docent Coordinator Bob Hey.*



*Judy and Gary Schaad of Utah and Director Warren Smalley from Albuquerque qualified as docents in 2011.*

Over the previous few days, I had made a point to watch how the C&TS engineers handled the throttle when starting their eastbound trains. Generally, with the Johnson bar down in the corner, this consisted of opening the throttle slightly, letting the steam expand in the cylinder for an instant, closing the throttle, repeating this several more times until the train began to move slowly but surely eastward. Once underway, the Johnson bar is notched back toward the "Company notch," reducing the valve travel. It takes some practice, to be sure, and was not something to be mastered in one afternoon.

These old engines have the No. 6 Westinghouse brake valve, which, for the uninitiated, takes some getting used to. Most of my early locomotive engineer training was with this brake, but for the last seven or eight years, I have been spoiled with the more modern 26L brake on the diesels. When my turn came, I was unable to resist the urge to blow a "long-long-short-long" crossing warning at the barely-discernible dirt crossing leading to the roundhouse and shop. I was politely scolded for that one!

By the time everyone had taken their turns at the throttle, it was time to box it up for the day, shower, get some supper and some sleep, and prepare for our first day "on the road."

Monday morning, July 11th, was another beautiful, clear high-country day. After breakfast, I donned my denim bib overalls and well-worn Kromer cap, fitted my welder's goggles on my head, tucked a neckerchief into my shirt collar to keep the cinders out, grabbed my grip, camera bag and water jug and headed for the depot. After stashing the grip, camera and water in the crummy, I joined my team-mates for our day's instructions and team assignments.

Alan Loomis was to be our conductor; Ed Beaudette wielded the brake club; Ronnie Lopez would be our fireman instructor, and Jim McKeel would run the 488. When I had brought up the subject of the lack of a toilet the previous day, we were informed that since we were all "guys," we should be prepared to find an appropriate bush or tree during the periodic stops to switch firing teams. So, to my grip's inventory this morning, I added a roll of toilet paper.

Pete Dahlberg, a locomotive engineer at a theme park in Texas, and I were picked for the first leg up the mountain. We tossed our gear into the K-36's cab and prepared for our first assault on the thirteen miles of 4% to Cumbres.

As I had learned from an old SP steam fireman friend years ago, the first thing I checked entering the cab was the boiler water level in the water glass, then glanced at the single steam gauge - located so that both the engineer and fireman could read it. Two #4 firing scoops hung by their D-handles from hooks provided for that purpose on the front of the tender, one on each side of the coal gate. A small 2 lb. sledge hammer also hung nearby, and we discovered its function later.

We needed to "get out of Dodge" (a reference to the old "Gunsmoke" TV Western series) ahead of the regular morning passenger train, so we couldn't dally long. Instructor Lopez opened the firebox door and gave us our first introduction to the unforgiving "enemy." It was much easier to look at the fire while the engine was at rest, without the exhaust turning it into a white-hot inferno.

Lopez latched the butterfly doors open with the handle, and proceeded to point at various spots on the firebed. "See that thin spot over there?" he would say. We would peer in and nod in that gesture of complete understanding while I said to myself: "What thin spot?" Our instructor went on: "Need to keep plenty up in the front. And don't forget the back corners. We'll take it easy starting out until you get the hang of it. Just do the best you can, and have fun!" (Easy for HIM to say!)

We finally got under way with our "school extra." As Engineer McKeel whistled off, the remaining students were back in the caboose or in the sightseeing gon just ahead. Lopez had shown us how to dress the fire prior to departure, so we were good until we crossed State highway 17 just north of the yard.

Then the fun began! Lopez gave us the sign that the time had come to meet the enemy. I grabbed one of the scoops off its hook, and being a right-hander, I positioned myself to the left of the firebox door with my left foot next to the pedal that actuated the air-operated doors. I filled the scoop with about 12 pounds of coal and, trying to steady myself on the shifting cab deck, I stepped on the pedal,

the doors opened, and I flung that scoop of million-year-old vegetation into the blazing inferno, hoping at least some of it would find its way to that mystical "thin spot." I forgot to drop my goggles into place this first time, and the glare of a brilliant fire under load left me with an oval orange spot in front of my eyes the shape of the door opening. It went away after a minute or two, but I didn't forget the goggles the next time!

We soon discovered the principal function of the small sledge hammer (if you had time to use it!). Although the C&TS orders its coal graded to a certain maximum size - a lump about the size of a grapefruit - a few lumps somehow made it through the screen the size of a loaf of bread. One or two of those on your scoop was pretty much a shovel-ful. But one well-placed whack with the hammer, and suddenly it was a more manageable size! There was also a lot of "slack" - fine particles of coal and dust - in spite of the crew washing down the coal pile with the cab squirt hose before we left.

The #4 scoops used by the C&TS are 43" long from the tip of the blade to the top of the D-handle. The "scoop" part is 11 1/2" wide and 16" long. The shop crew has chamfered the front corners of the scoop about 3" to help it navigate more easily through the 18"-wide firedoor opening. It's eight feet from the firebox to the front of the grates, so to get the coal to the front corners and the front middle spot takes a healthy, and accurate, toss.

Standing on the ground, this exercise would be pretty simple. But on a pitching engine deck, the machinery wants to knock you on your butt while you attempt to shoot a "swisher," with accuracy, through that small opening.

The other part of this equation is the altitude. Things a flatlander can do with ease at sea level can become an exhaustive, oxygen-sapping exercise at 8,000-10,000 feet. Fortunately, we had teammates to share the load with, and our instructors would not have allowed us to exert ourselves to the point of collapse. They generally were watching us as we fired to see how well we were dealing with the altitude. To the C&TS crew's credit, I was not aware of any incidents, despite our ages.

In order to give each team a decent opportunity to fire the Hill, we made two round-trips to Cumbres Pass. The team on the engine when the train arrived at Cumbres

would take water from the standpipe, and over the next several days, every student had an opportunity to perform this time-honored ritual.

Taking water from a standpipe is mostly the same as from a tank, except that the engineer's stop doesn't need to be quite so precise. (There are standpipes at Cumbres and Sublette.) The fireman climbs down from the engine on the standpipe side, drops a hinged steel lever on the standpipe down to the horizontal position, and uses that lever to rotate the spout assembly to a position directly over the tender's water hatch.

The fireman then climbs up on the rear tender coupler beam and uses the ladder to access the top of the tender. Once on top, he opens the water hatch cover and makes any final adjustment necessary to center the spout over the opening. After pushing the spout down into the opening, he places his foot on the spout to hold it down against the force of the water, then reaches up the spout and actuates the lever that opens the water valve on the cistern, allowing water to flow into the tender. When the tender tank is full, the fireman closes the water valve and raises the spout high enough to clear the tender and any adjacent car roof. He then closes the hatch cover, climbs down to the ground, swings the spout clear and re-enters the cab to continue his duties.

*(When Dick's story continues, we learn about his experiences in the cabs of the K-36's, and the surprise that was in store for all the students on Day Three of the class.)*

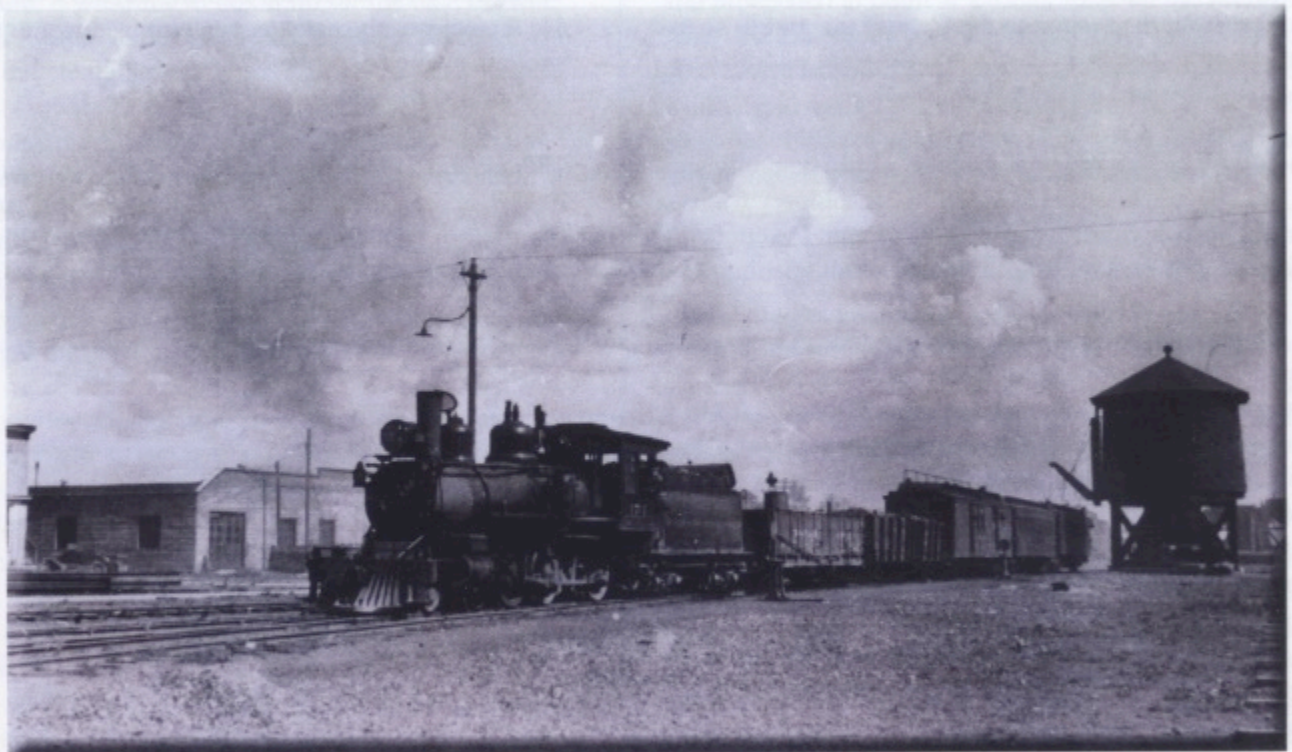


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*RD085-005 Photographer Robert L. Grandt made this view of the Chili Line train to Santa Fe, seen at Antonito, Colorado, circa 1920. The car behind the locomotive is a water car with a built-up rectangular wooden tub, and the customary two passenger cars appear to be followed by an office car. Photo from the Richard L. Dorman Collection of Narrow Gauge Railroad Photographs, Friends of the Cumbres & Toltec Scenic Railroad, Inc.*