

KENTUCKY CAMP CHRONICLE



Newsletter of the Friends of Kentucky Camp

April 1998

Mining Water at Kentucky Camp

By Bill Gillespie

Although Kentucky Camp may now be the best-known feature of the Santa Rita Water and Mining Co., the heart of the Company's enterprise – and a much larger investment of time and money – was the water system. It's not an accident that the word "Water" was placed before "Mining" when the company incorporated in September 1902. Their plan was to revitalize the placer mining in the Greaterville District, and maybe also to grow abundant fields of cotton in the valleys below the District, by constructing a water system to bring water from small permanent streams on the east side of the Santa Rita Mountains to the dry gulches of the Greaterville area.

When we first started tracing out and recording the water system, we had only vague notions of what all was involved and how the system was designed and built. When I first saw a segment of the 24" diameter pipeline, I'd never heard of the Santa Rita Water and Mining Company and their hydraulic mining venture. It was hard for me to imagine what this large and obviously old pipe was doing up on the mesa north of Gardner Canyon. But after a lot of walking, and a lot of looking, by a lot of people, and after a number of pertinent historic documents had been found, we now have a much better idea of how the water system was built and how it worked.

Soon after the company was formed, laborers were busy building the system. Open ditches, often cut into solid rock, were used to contour across hillslopes, and

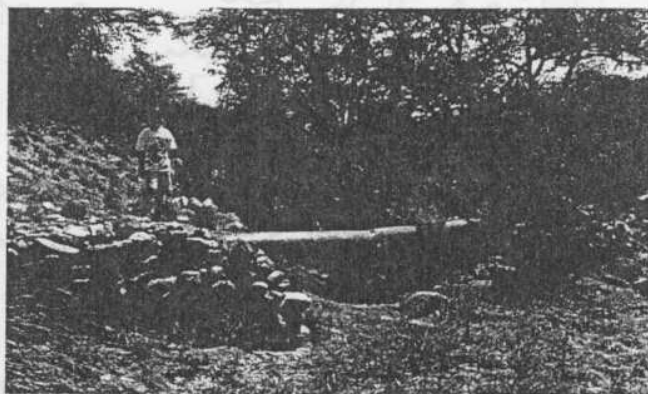
two tunnels were carved through intervening ridges. But to cross stream valleys where ditches were not a viable option, enclosed pipe was needed. By 1904, the Company constructed the ditches, laid the pipe, and installed all the other features necessary to deliver water to the placer fields in Boston Gulch.

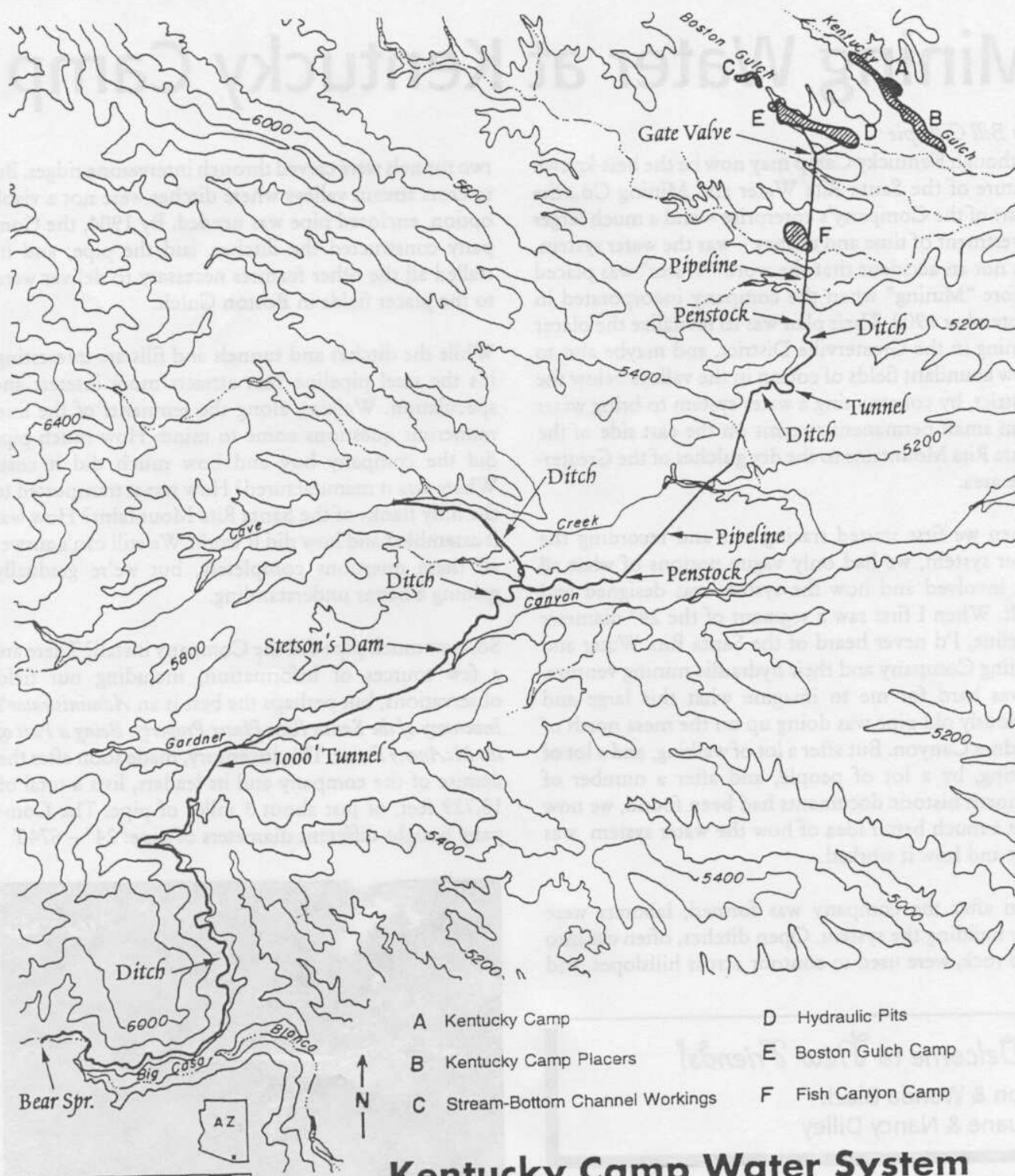
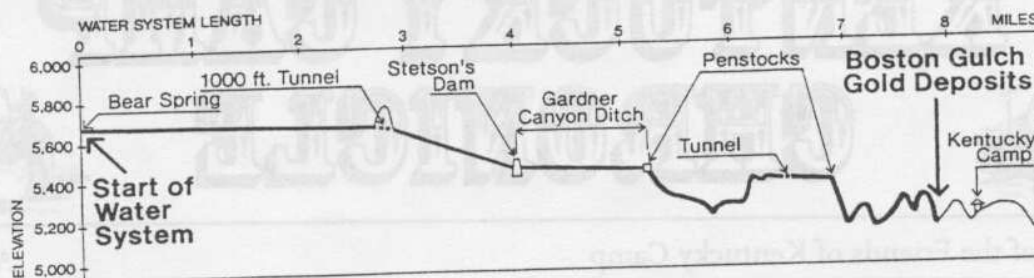
While the ditches and tunnels and fills are interesting, it's the steel pipeline that attracts more interest and speculation. Walking along the remnants of the line, numerous questions come to mind. How much pipe did the company buy and how much did it cost? Where was it manufactured? How was it transported to the hilly flanks of the Santa Rita Mountains? How was it assembled and how did it work? We still can't answer all these questions completely, but we're gradually gaining a better understanding.

So, how much pipe did the Company install? There are a few sources of information, including our field observations, but perhaps the best is an *Administrator's Inventory of the Santa Rita Placer Property, Being a Part of the McAneny Estate*. This inventory, made soon after the demise of the company and its leaders, lists a total of 15,729 feet, or just about 3 miles of pipe. The Company bought different diameters of pipe: 24" – 6740'

Welcome to New Friends!

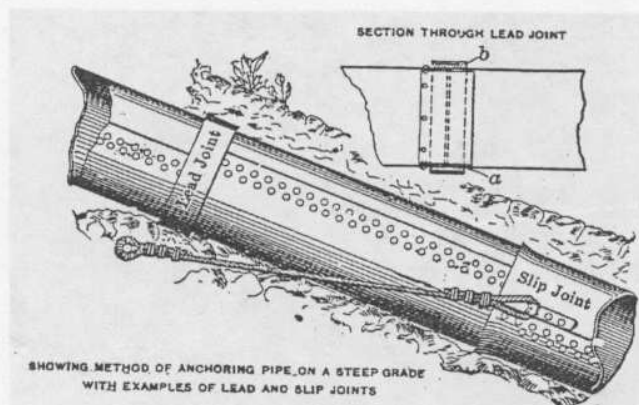
Don & Wanda Black
Duane & Nancy Dilley





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| A Kentucky Camp | D Hydraulic Pits |
| B Kentucky Camp Placers | E Boston Gulch Camp |
| C Stream-Bottom Channel Workings | F Fish Canyon Camp |

Kentucky Camp Water System



(this could be a typographical error, since other sources indicate 5750' is more accurate); 20" – 4809'; 15" – 2640'; and 9" – 1540'. The pipes were installed so that diameters decrease as water moved toward the hydraulic mining operation in Boston Gulch.

The largest pipe (24" diameter) was used in the largest and southernmost valley crossing, the mile-plus stretch over lower Cave Creek just above its confluence with Gardner Canyon. The 20" pipe was used mainly to traverse Fish and Lower Fish Canyons, just south of the placer fields. Sections of 15" pipe were used both as placer pipes, to deliver water under high pressure to monitor nozzles at the hydraulic pits, and to cross a small tributary of Cave Canyon. All of the smallest pipe, 9" in diameter, was used as placer pipe in Boston Gulch.

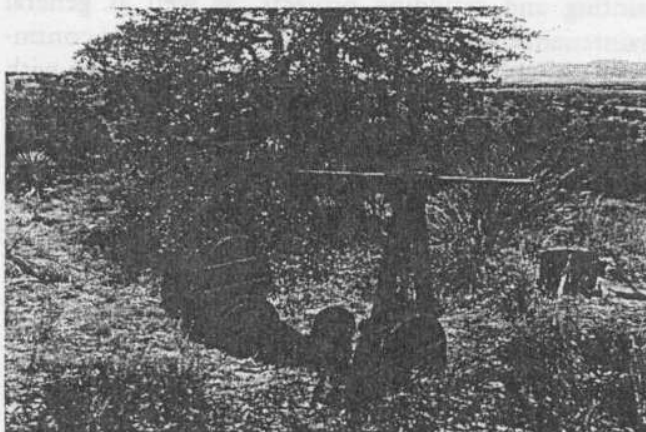
Our field examinations of preserved pipe indicated that prefabricated sections of pipe were brought to the area. These sections were made by riveting together, end to end, 5 to 8 individual sheets of metal that had been bent and riveted into tubular form. The number of sheets, their size (most are about 3' long), and length of the segments (most are 15' to 18') varied with the diameter of the pipe.

There is no evidence that pipe segments were riveted together in the field; instead, the pipe sections were fitted together with simple slip joints. This was the common method of laying pipe in the early twentieth century. A contemporary observer of placer mining in Alaska, Chester Wells Purington (*Methods and Costs of Gravel and Placer Mining in Alaska*, USGS Bulletin 263, 1905), noted that although engineers recommended against this method of using only slip joints between prefabricated sections, it was "nearly universal among hydraulic miners."

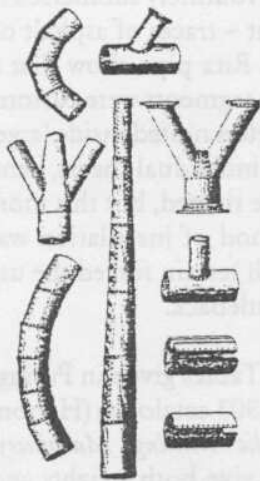
Prefabricated sections were also routinely submersed in an asphalt bath before shipment – traces of asphalt on protected surfaces of the Santa Rita pipe show that it was similarly treated. These pipe segments were customarily shipped with smaller diameters nested inside larger pipes. Pipe makers also sold the individual sheets, bent, with holes punched, ready to be riveted, but this more costly and labor-intensive method of installation was evidently used only where rough terrain forced the use of single pieces imported on muleback.

How much did the pipe weigh? Tables given in Purington's book, and in a December 1903 catalogue (Harron, Rickard & McCone, *Hydraulic Mining Machinery, Catalogue No. 5*, San Francisco) give both weights and prices for various sizes of pipe. Accepting that all pipe is 14 gauge (the figure given in the Estate Inventory), a linear foot of 24" pipe weighed 27 1/4 pounds. So an 18' section would have weighed some 490 pounds, and the 5750' pipeline across lower Cave Canyon would have used nearly 156,700 pounds of pipe. Altogether, using the figures given in the Estate Inventory, some 353,300 pounds of hydraulic pipe were brought in for the Santa Rita Water and Mining Co. water system.

How much did the pipe cost? Unfortunately, we have not found any Bills of Sale or comparable documents that would tell us the who, when, where, and for how much of the pipe purchase. At that time, it appears that most if not all of the pipe used by hydraulic miners in the western United States was manufactured in San Francisco. There is a substantial difference in the prices given in the Harron, Rickard & McCone Catalogue and the US Geological Survey review, even though both give costs of pipe in San Francisco in circa 1904. For example, the USGS geologist reported that the going rate for 24" diameter pipe was \$1.00 per foot. The commercial vendor gave a price of \$1.80 per foot, but



Gate valve above Boston Gulch.



did note that prices were given "for the purpose of enabling parties to make an approximate estimate of costs" and that "net prices will be quoted on application." So perhaps "discounts" were extended when customers got down to negotiating purchases.

Based on the values given in the Estate Inventory and the Harron, Rickard & McCone Catalogue, the total bill would have been over \$24,000 for

the asphalt-coated pipe. On top of that would have been the shipping costs, presumably by rail to Sonoita, and by wagon the last 6-8 miles from there. Then there are the labor costs for laying the pipe, in an excavated trench covered by earth, trestles or rock and earth fills to cross streams, plus the miscellaneous gates and valves and other pipeline features. All tolled, it's clear that installing the pipeline was the major expense of the Santa Rita Water and Mining Company.

PRESERVATION PROGRESS *by Jack Glenn*

February weather was not kind to our work schedule. Arnold measured 4 inches of rain and snow, and the temperature at night was below freezing most of the month. Still, intrepid volunteers carried on: hours and miles contributed in February: Arnold: 262 hours and 300 miles and other *Friends*: 90 hours and 1040 miles. More hours and many miles were contributed by our *Passport in Time* (PIT) caretakers Peter Margolin from North Carolina, Ken & Marge Winter from Michigan, and Rick & Molly Smith from Oregon, who worked on painting and mudding projects, as well as general maintenance and greeting visitors. Arnold has continued to work on the door and window projects with help from Jack Glenn and Tom Tompkins. Tony and Joan Bratosh continue to work on their painting projects in spite of the weather. Mary Farrell, Arnold Franks, and Jack Glenn attended a meeting at the Douglas Ranger District to facilitate the formation of a Friends of Ft. Rucker volunteer group, which may join our "Coronado National Forest Heritage Society" parent organization, astutely set up by our first president Billee Hoornbeek to save other volunteer groups the trouble and expense of incorporation.



Don Black repairing the road. Don & his wife Wanda, from Provo, Utah, were the PIT caretakers January 3-10. During their stay they also helped repair the Forest Service trailer and did restoration work on the historic buildings.

March weather came in like a lamb. Ed Philpot our PIT volunteer for the beginning of March, drove all the way to Kentucky Camp from Minnesota, but had to return home due to an accident by a family member. We send our hopes that all goes well for his family and thank him for his effort to be a PIT volunteer. Later in March PIT caretakers Bob Guetzlaff from Florida and John Kiel and John Bernier from Wisconsin glazed windows and repaired ceilings, as well as repaired some problems with the Forest Service trailer. Friend Dick Lord re-shot the National Register Nomination photographs so we could monitor restoration progress (and check for problems), and photographed the historic photos that Arnold acquired from Linda Roslund. Mary Pacholke from Colorado has accomplished a great deal of mudding in Room 2, the future visitor room.

CLIPPINGS by Lew Orrell

"What's in a name?" From the time old Will S. first posed this question to the present, pundits and wannabe writers have groped for profound answers. Don't expect anything earthshaking here, but we can uncover some juicy tidbits by applying the question to the geographic features surrounding Kentucky Camp.

We already know that the two linchpins of the western skyline were named to honor William Wrightson and Gilbert Hopkins. A bit further south and much lower on the horizon are the Grosvenor Hills, named for H. C. Grosvenor. All were Easterners managing silver mines on the western slopes of the Santa Ritas. Each was a victim of a green West Point officer who stupidly pushed Cochise over the edge by murdering Apache hostages.

Ever wonder how a feature gets its name? Often it's a simple case of local usage first working its way onto a map. If subsequent issues and more sources of the map repeat the name, it may become accepted officially. The situation with the twin peaks (Wrightson and Hopkins – be sure to visit the Smithsonian Observatory on this peak) was a bit of a sticky wicket as "common" usage had graced them with several names. For example, Old Baldy, Santa Rita Peak, a very early Spanish name, and another name which today would be politically incorrect although within the bounds of the four-letter garbage which our dumbed-down society now tolerates as socially acceptable.

On the eastern slopes it was Mt. Baldy; on the western, Mt. Wrightson. Some maps showed one; some the other and the twain wouldn't meet until there was lots of huffing and puffing before the United States Board on Geographic Names. There the arguments on behalf of Wrightson's contribution to the formation of the Territory of Arizona prevailed. Old Baldy, however, did not originate just for the peak's likeness to a hirsute anomaly, but came from the nickname of Capt. Richard S. Ewell, an officer at Fort Buchanan from 1857 to 1860.

It would be fitting to be able to say that Wrightson's "were a name great in story" (Byron) but, unfortunately, not much has been written about his contributions to the Territory. This is in contrast to the reputation of Charles Poston (a mining colleague of Wrightson's in Tubac and the Santa Ritas) who is acclaimed as "The Father of Arizona." A possible reason for this inequity

could be that Poston chose not to be an object of vengeance for the Apaches, leaving the area and gaining thereby many years for horn tooting.

Another major contribution of Wrightson's was his establishing the first newspaper in what became Arizona. In 1858-9 he hauled a printing press overland from Cincinnati, Ohio, to Tubac.

There he published the *Weekly Arizonian* with the help of his editor, Edward Cross. A frequent visitor to Tubac at this time was Sylvester Mowry of Patagonia silver mine fame. Both he and Cross favored more autonomy for the region (it was part of New Mexico Territory and administered from Santa Fe) but differed on the form it should take. They argued frequently until their vehemence escalated to personal insult and a challenge.

In the resulting duel in a high wind, each fired at the other three wild rifle shots. According to one account, on the fourth try Cross's gun misfired and Mowry, the honorable "southern gentleman," discharged his rifle into the air, refusing to fire at a defenseless man. Honor thus satisfied, the antagonists shook hands and convened the populace of Tubac at the company store where "42 gallons of prime Monongahela whisky" were made to vanish.

William's life was not the only sacrifice made to the Arizona frontier by the Wrightson family. His younger brother, John, was murdered by employees of the mining store he operated near Tubac. What's in a name? In this case, a great deal, perhaps the difference between a favored son and a black sheep. John's body still lies somewhere around Tubac while William's was later exhumed, shipped to the west coast, then around the Horn to New York, then up the Hudson River to Albany, there to be reinterred in the family plot.

What's in a name? Sometimes a terrible irony. Somewhere it is written that, in addition to Josephine Peak (southeast of Mt. Wrightson) there is a Josephine This, That, and The Other scattered about. How come? Well,



Sylvester Mowry.

a chap named Roskrige did much map surveying in southern Arizona in the early 1890s and there wasn't anyone to argue when he put "Josephine" on anything in want of a name.

Josephine was a member of the Pennington family that dropped out of an emigrant train at Fort Buchanan in 1857 because of illness. Three years later an aunt, Larcena, was abducted by Apaches in Madera Canyon while her husband was off cutting wood. When she became unable to maintain the pace after a day of travel, the impatient Apaches took her clothing, jabbed her several times with lances, pushed her over a cliff, and left her for dead. Incredibly, she crawled through the Santa Ritas for two weeks until found and lived to die of old age in Tucson. So, it seems that the name for a pretty face will be more remembered by posterity than that for an iron will.

KENTUCKY CAMP 2004 *by Jack Glenn*

Wish List:

- 1 Full time caretaker, living history, demonstrations, visitor tours, meeting rooms, gift shop, and overnight camping accommodations.
- 2 Public facilities, all-weather road, parking area, picnic area, and caretaker quarters.

What Kentucky Camp should offer the public:

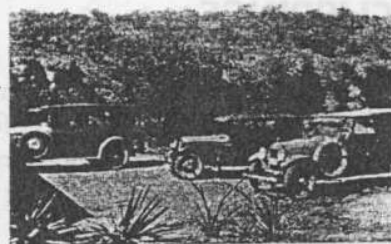
- 1 The history of the founders of Kentucky Camp and of the ranchers who later acquired it.
- 2 An historical prospective of what finding gold meant to the "good seekers" in the late 1800's.
- 2 Why placer mining was so attractive to them, tools of their trade, daily lives and who they were in southeastern Arizona
- 2 Information about mining claims, assaying and selling their gold and "water rights."
- 2 Information about ranchers and towns in the mining area and their relationship with the miners.

What the *Friends of Kentucky Camp* can offer:

- 1 Provide an organization to bring public aid to the Forest Service.
- 2 Provide money and work to restore the buildings.
- 2 Provide maintenance of the grounds, caretakers, research history of the area, perform living history and demonstrations, conduct tours and assist new "Friends" groups to restore other historical sites in the Coronado National Forest.

VISITING VOYAGERS

Some 40 members of the Voyager RV Resort withstood high winds and rough roads to tour Kentucky Camp on



March 28. Jack Glenn presented Dick Sabad a Life Membership for the Park, in gratitude for Dick's arranging the donation of the deluxe *Friends'* caretaker trailer from Ralph Leeseberg last July. The *Friends of Kentucky Camp* and the Forest Service extend a heart-felt welcome to all Voyagers, and hope you can return when the weather is more cooperative! It is clear that the Voyager group contains a wealth of talent, skills, energy, and good humor.

We have even more reason now to be thankful for Dick and Barbara Sabad's generosity. You may have noticed in the past few issues of this newsletter how much of the *PIT* caretakers' and *Friends'* time has been spent working on the Forest Service trailer. Although the FS trailer is now mighty pretty and cozy (w/ special thanks to the Bratoshes, Fishers, Blacks, Arnold, and Jack Glenn), some of its basic utilities are worn out and downright troublesome. Dick Sabad is coming to the rescue once again, arranging a donation of a very excellent 1982 Champion RV from Voyager RV Resort resident Joe Paloni. Mark South and other Nogales Ranger District folks will arrange towing and work on the engine to get it ready for its new home. (And don't worry, we don't expect KC to get too crowded! Once the replacement is ready, the current FS trailer will be removed and used for other worthwhile district projects.)



WINDOWS AND DOORS

Remember the three-step rule of historic preservation? First, preserve the existing material. Second, if necessary, repair it. Third, if it can't be repaired, replace it with the same kind of material. Jack Glenn has spearheaded a most careful and beautiful implementation of these guidelines in the preservation of the Kentucky Camp windows and doors. Every historic sash or door part was catalogued before it was removed for work; every salvageable piece was re-used, and these original pieces were supplemented with carefully constructed replacement parts where necessary. Some things, like



much of the outside window casing, were completely missing and had to be replaced, but many of the architectural elements you'll see today, and more that will be completed in the coming months, are the original historic fabric. In addition, cleverly designed plywood window covers and more modern doors have been used where necessary for security's sake. Jack's most recent project report will be posted in the visitors' room. Jack's recruited an able and talented crew, including Arnold, Jack Mutchler, and Tom Tompkins; if you'd like to help in this exacting and meticulous task please call Jack.



OPPORTUNITY KNOCKING

(pleading, begging, hoping)

Elections draw near! Tap those underutilized leadership qualities, diplomatic suavities, and ability to forge win-win solutions! A new board for the *Friends of Kentucky Camp* will be elected in May; trouble is, we don't have enough candidates to fill all the posts. Current board, which has done a tremendous job, *really* wants a break—although many board members will continue to help in various roles, we need more good people to help out. We promise not to pry into candidates' private lives,

there will be no reporters at your door, just call any of the current officers below and volunteer. Several positions only require a few hours a month. *Especially* if we have enough board members to share the load!

DONATIONS

Duane & Nancy Dilley – Cash contribution.

Jeff Burton – Framed picture of George McAneny.



MARK YOUR CALENDARS!

Because the *Passport in Time* project is scheduled for April 20-24, the work day on **Saturday, April 11**, will be spent in final preparations for that, including some pre-painting of the porch wood. May 9 will be a regular work day, with the usual fun chores to choose from, including:

- ☞ finish Cabin C porch
- ☞ sand, paint, and install restored doors
- ☞ clean and paint ceiling molding
- ☞ patch and repair adobe walls
- ☞ plus many other important activities



The *Friends of Kentucky Camp*, a chapter of the Coronado National Forest Heritage Society, is a non-profit organization established to help in the preservation and interpretation of Kentucky Camp. *Friends* sponsor work days, coordinate volunteer activities, and conduct and supervise stabilization and preservation, in cooperation with the Coronado National Forest.

President: Arnold Franks (520) 294-9783

Vice-President: Jack Mutchler (520) 889-2500

Secretary/Editor: Chip Llewellyn (520) 885-8099

Treasurer: Arlene Franks (520) 294-9783

Director at Large: Tom Gordon (520) 325-2973

Coordinator: Jack Glenn (520) 625-5102

Forest Service Liaison: Kathy Makansi (520) 670-4522

Forest Service PIT Coordinator: Mary Farrell (520) 670-4564

Nogales Ranger District Contact: Mark South (520) 670-5496

Visit Kentucky Camp on the internet at <http://www.Azstarnet.com/public/nonprofit/coronado/Intro.htm>.

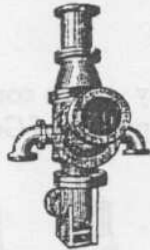
Visit the *Friends of Kentucky Camp* Homepage at <http://www.rtd.com/~arclight/fkindex.htm>.

See past issues of the Kentucky Camp Chronicle (in color!) at <http://www.azstarnet.com/~patish/chrondx.htm>.

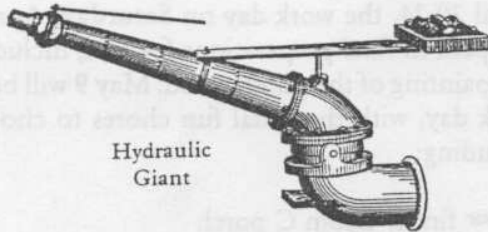


SANTA RITA WATER & MINING COMPANY

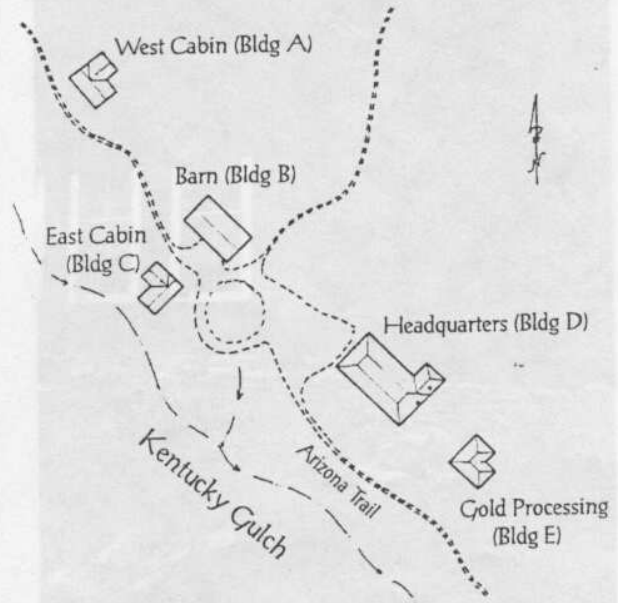
KENTUCKY CAMP, ARIZONA



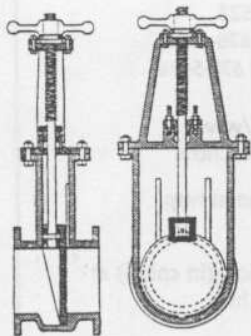
Hydraulic Elevator



Hydraulic Giant



Coronado National Forest
Supervisor's Office
300 W. Congress St.
Tucson, Arizona 85701



Water Gate

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