

Making the North Star Powerhouse Into a Museum

By Gary Smith

How did the North Star Mine powerhouse go from a destroyed industrial building in 1959 to the beautiful restored rock building you see today? The powerhouse was built in 1895 to provide air for the machinery at the Massachusetts Hill and North Star Mines. This cutting edge, water powered, Pelton wheel driven, compressed air power plant ran until 1935.¹ On July 5, 1956 the combined Empire and North Star Mine, owned by the Newmont Mining Corp. since 1929, was closed due to a workers' strike. The mine was already operating at a loss and the strike was a death blow. Soon the dewatering pumps stopped and any underground equipment of value was hauled to the surface for sale. Gold processing on the surface continued, squeezing out every bit of gold from every crevice. Several thousand ounces of gold were retrieved from the stamp mills, concentrating table floor, cyanide plant and especially the piping connecting the stamp mill to the cyanide plant. Finally, on September 25, 1959 anything of value was auctioned off. The salvage sale of everything else commenced shortly thereafter.²

Salvage Begins

The Machinery and Salvage Company of Gilroy, California began working to salvage the remaining equipment and haul it away.³ To make it easy to use their crane to lift the equipment out of the powerhouse, they burned the wood roof off.⁴ Citizens became concerned that the 30 foot Pelton wheel constructed in 1898 was headed to the scrap heap. Phebe Cartwright and her husband visited the Powerhouse to talk with Salvage Manager Joe Perucca and learned that he would sell the wheel for \$1,000.⁵ Alarmed that another piece of Nevada County history was being carted off, she swung into action. Phebe formed a committee, wrote letters, talked to city leaders and knocked on doors trying to raise the money to save the Pelton wheel. She made a public appeal for the community to help save the wheel. Both Grass Valley Chambers of Commerce supported

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its preservation.⁶ People began showing up to watch the salvage operation. Grass Valley Mayor Arnold Thorsen and City Council Member John Hodge suggested that the wheel could be set up in newly acquired Condon Tract (Condon Park) to run in the stream. However, Dr. Elbridge J. Best, then President of the Nevada County Historical Society (NCHS), expressed doubt that the giant North Star wheel is of "real historical interest."⁷ Luckily his opinion did not prevail. Unfortunately there was no City of Grass Valley money to assist in the purchase. Knott's Berry Farm and Oakdale Park Resort showed interest in purchasing the wheel, and the purchase cost started climbing, eventually topping out at \$2,500.⁸ The Pelton wheel committee received a large anonymous donation of \$2,000 and now had the money to purchase the wheel on the last day.⁹ Just in the nick of time; the salvage crew had started cutting the mounting bolts, getting the wheel ready for removal.¹⁰



Cut mounting bolt on Pelton wheel base, Credit Author

There were 2 additional Pelton waterwheels in the powerhouse: the earlier 18 foot Pelton wheel with compressors from 1895, and a smaller Pelton wheel that powered the Westinghouse 110 generator, also from 1895, used to make electricity for the powerhouse lights. That



L to R Phebe Cartwright, Joe Perucca, Leonard Prisk, Claude Snellgrove, Courtesy *The Union* December 5, 1959

generator was installed on the powerhouse north wall by the east entrance.¹¹ Gilroy Salvage quickly recognized these Pelton wheels were worth more than scrap metal value and presumably were hauled off intact.

The Grass Valley Chamber of Commerce took title to the 30 foot wheel.¹² *The Union* newspaper reported that an additional 20 to 30 people in Grass Valley and Nevada City had a direct hand in saving the wheel, but the only person named is Leon Sanford.¹³ The New Verde Mines (part of Newmont Mining Corp) pledged to give the City of Grass Valley the powerhouse and property for a museum.¹⁴ All this happened in about a 3-week period. The *Nevada County Citizen* newspaper named Phebe Cartwright its Citizen of the Week.¹⁵ She was amazed her appeal to save the wheel started such a “fuss” and that it was actually saved. I consider her one

of the two founders of the museum. The community had come together in a big way and rallied to preserve its history. This theme runs throughout this article.

Now that the Pelton wheel had been saved, efforts began to turn the old powerhouse into a museum. To remove the large machines, the salvage company used dynamite to free them up and reduce them into smaller pieces even though there were spectators watching and houses nearby. Besides a roof, the building needed all new custom-made windows, electrical, plumbing, etc. The existing concrete floor was in such bad shape due to the demolition that a 3-inch concrete slab was poured over the top of the existing floor.¹⁶ Phebe continued the fund drive for the museum as there was no money coming from the City of Grass Valley in the near term for restoration. There was only one bucket remaining



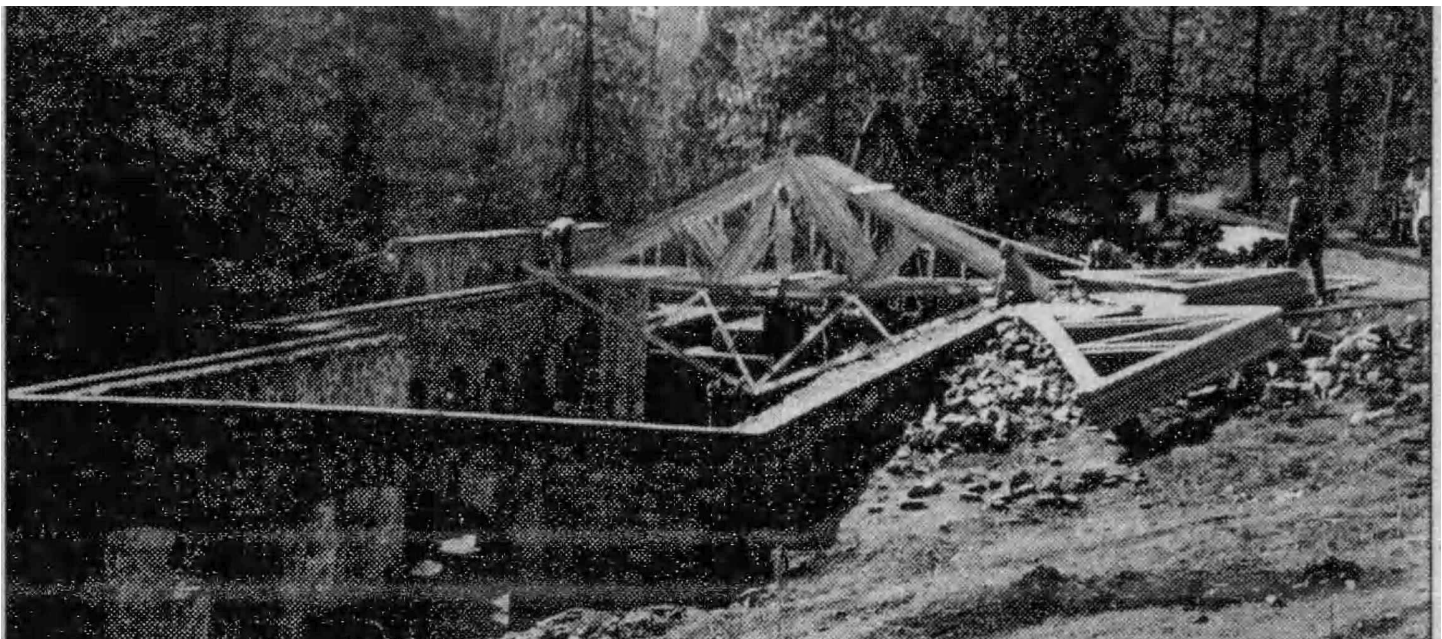
Powerhouse after roof fire, Courtesy Searls Historical Library Collection

on the 30 foot wheel. Phebe made an appeal to please return the buckets that had been unbolted and taken as souvenirs over the years. Possibly some of the buckets were salvaged after the fire. That appeal didn't go too well.¹⁷ The NCHS purchased 55 buckets from the Knight Foundry in Sutter Creek for \$1,080 to replace the missing buckets.¹⁸

The Museum Building Is Restored

After surveying the 1.1 acre property, the City of Grass Valley took possession on July 6, 1961.¹⁹ The restoration could begin. The first time the museum shows

up in NCHS Board Minutes is on February 26, 1962 when cleaning up the powerhouse site was discussed. On April 5, 1962 the Board discussed getting the California State Parks involved in making the North Star Mine powerhouse into a state park. Spoiler alert! They later chose the Empire Mine. On May 27, 1963 the board discussed a plan to restore the north end of the building and leave the south end with the Pelton wheel in the open. In January 1964 The City of Grass Valley crews were grading the site and repairing the rock walls in preparation for the roof being put on.²⁰ At the April 27, 1964 board meeting it was reported the Nevada County Builders Exchange (today's Contractors Association) and Carpenters Union Local # 1903 had the roof on, closing in both ends. Among the people who donated their labor for the roof are the following: contractors Steve Chileski (project supervisor), Walter Jensen, Louie Droivold, Jay Wallen, and Curt Smith and carpenters Oroville Olson, Elwood Buchler, Carl Craig, Carl Varnell, Clement Berg and Cy Solace. Some donations came from Yuba River Lumber [the trusses], Bear River Lumber [4500 board feet of sheeting, which B&C planed], Caffey and Rice [200 board feet of 2 X 6 lumber], and Hansen Bothers [100 used bricks]. This community spirit still lives today with Jason White of Sierra Fabricators donating thousand of dollars worth of metal fabrication for museum exhibits and Shawn Estey of Estey Electric giving the museum a big discount on electrical work.



Powerhouse roof being installed, Courtesy Bob Wyckoff, *The Union* May 8, 2004

I can't find any information from May 1964 to May 1967 on the restoration; what happened? In 1967, the NCHS still had the lead on the restoration, according to the board minutes. The October 26, 1967 minutes list museum donations of \$500 from Lita Brockington Shanley and November 2, 1967 minutes list \$500 from The Rotary Club of Grass Valley.

Enter the second founder of the North Star Powerhouse Mining Museum, Glenn Jones, called "Jonesy" by some. Glenn came from a family of Cornish immigrants. Glenn volunteered with the Rotary Club of Grass Valley, City of Grass Valley, Grass Valley Merchants Association and as the first North Star Powerhouse Mining Museum Director (1975 - 2002), to name a few of his contributions. By all accounts he was kind, generous, very hard working and a terrific civic leader. He and his friend Warren Creswell had been involved with the City of Grass Valley and its Parks and Recreation Department in the recently acquired Condon Tract. In addition to the Mining Museum, Glenn wanted a park on the opposite side of Wolf Creek across from the powerhouse.²¹ NCHS and The Rotary Club of Grass Valley had worked on that park across Wolf Creek for years since the powerhouse restoration began.²² The City of Grass Valley finally dedicated the park on August 25, 1993 and wanted to name it after him. Glenn refused, not wanting the recognition. His wife Pearl convinced the City otherwise and surprised him at the dedication ceremony.²³ He also has one of the few stars embedded in the sidewalk at the corner of South Auburn and Main streets in Grass Valley, honoring his civic contributions. Glenn is first mentioned in the NCHS board minutes in August 1967 with his involvement in the temporary mining museum on Mill St. (more on that museum to follow), though he may have been involved with the North Star Powerhouse Mining Museum earlier.

NCHS bought the shuttered Golden Center Mine on June 16, 1967, buildings and equipment included.²⁴ There were stamp batteries, compressors, pumps, etc. The new Golden Center Highway 49/20 Freeway was to go through the mine property and the old equipment needed to be moved. That project was spearheaded by NCHS President Robert Gates and Arlie Hansen. The powerhouse property was prepared to store it all. The Grass Valley Lions Club pledged 300 hours of labor to the project and the restoration of the power-

house. Hansen Brothers moved the equipment to the powerhouse at a discounted price, right before the November 1967 deadline from the California State Highway Dept. for the freeway construction. I doubt that everything fit at the powerhouse; some must have been stored elsewhere. NCHS donated one of the mine buildings to the community of Rough and Ready for the restoration of the historic blacksmith shop.²⁵

A Temporary Museum

About the same time NCHS got an offer to display Arthur Dowdell's 483-piece mining artifact collection if there was a suitable location to display it.²⁶ Dowdell had worked at the Empire Mine for 47 years and was an assayer as well as the cyanide plant superintendent.²⁷ An agreement was finalized on March 12, 1968, which provided that the City of Grass Valley would own the collection and NCHS would display it. This sparked NCHS to plan for a temporary mining museum. It leased the former Golden Rule Clothing Store at 150 Mill St. in downtown Grass Valley, with cooperation from the City. The building was in poor shape and the owner leased it to NCHS for \$100 a month.²⁸ Work started on the temporary museum on November 1, 1967, while restoration of the powerhouse was ongoing.²⁹ NCHS sent out an undated letter signed by Robert Gates, Glenn Jones, and Isabel Hefelfinger asking for mining artifact donations for the temporary museum. I love the closing line from this letter. "So many things to our great regret are leaving the county. We know the people here are just as appreciative of our wonderful heritage as those who would take it from us."³⁰ The Grass Valley Merchants Association and NCHS members and their spouses worked on repairing the building and making the temporary museum. The Merchants Committee was led by Chairman Glenn Jones and Ray Dorn, Jack Henderson, Dick Merritt, Fred Conway, Dale Boothby, Arletta Douglas, and Leah Pengally. The Rotary Club of Grass Valley took on the temporary mining museum as their main project of the year for 1968.³¹ Their members and their spouses worked at the site; a community effort to preserve and show our history. The museum would only exhibit mining artifacts and they had to be from Nevada County, though this changed in later years. Glenn took great satisfaction in designing the mining dioramas showing the donated mining tools in action.³²



Temporary Museum on Mill Street 1968, Courtesy Searls Historical Library Collection

The letters “Mining Exhibit” on the building in the picture sure look like those on our museum today. The temporary Mill St. museum opened in June 1968.³³ The community had been talking about opening a mining museum preserving their heritage for at least 20 years and it finally happened. NCHS Mining Exhibit Committee Chairman Glenn Jones sent out a letter in September 1968 to 41 organizations asking for volunteers and donations for the museum. I don’t know the results but I bet he got both. The museum charged 50 cents for admission and averaged 1,000 visitors a month. More information on the first mining museum can be found in the NCHS Bulletin for October 1968. After seeing what a good job everyone had done restoring his building, the owner raised the rent to \$300 a month when the 1-year lease was up.³⁴

Completing the Restoration

Attention now turned to the powerhouse restoration, with a goal of completing it by March 1969.³⁵ The records of what was happening at the powerhouse are spotty. Jack Evans donated about ½ acre of land north east of the powerhouse to the City for the museum in February 1969. The plan was to use the new land for storage, rest rooms and a picnic area.³⁶ The North Star Powerhouse Mining Museum north end building opened on June 7, 1969 but there still was plenty of work to be done.³⁷ Glenn Jones applied to the California State Department of Parks and Recreation in May 1969 to have the “Pelton Wheel powerhouse” designated a State Historical Landmark. He received a rejection letter dated August 28, 1969 stating that “the application of compressed air to run a mining operation was not

widespread and was quickly replaced by other forms of power.”³⁸ The second try succeeded and the North Star Mine Powerhouse become California Historical Landmark #843. Marian Foote Conway got the bronze plaque from State Parks for the dedication ceremony held on May 15, 1971; they only put out 2 plaques a year. The granite for the plaque’s base came from the Rockland Quarry.³⁹ I suspect Marian had a hand in getting the second application approved.



North Star Mine Powerhouse Plaque, Credit Author

Repairs to the powerhouse were still ongoing and a big concern was the aqueduct bridge crossing Wolf Creek, which holds the pipeline coming into the powerhouse. Called “The Chinese Bridge,” the aqueduct was built by Italian stone masons in 1895.⁴⁰ The aqueduct had been recently capped with concrete and vertical metal uprights had been installed to make it into a walking bridge. Volunteers still had to install the horizontal railings and metal screens for pedestrian safety. NCHS President Gates had questions whether the bridge was structurally strong enough to support foot traffic. The Nevada County Road Department helped with that assessment which must have been satisfactory.⁴¹

While the closing of the old museum and opening of the new museum was going on, NCHS was in the planning stage for finishing the south end of the museum and enclosing the 30 foot Pelton wheel. On

September 23, 1969 NCHS and Glenn Jones in co-operation with the City of Grass Valley, applied for a Economic Development Grant through Nevada County.⁴² NCHS figured they would need \$40,815 for the south building restoration. Not waiting on grant approval, NCHS once again turned to the community for help. Glenn solicited donations of \$5,000 each from 10 of the major organizations in town. He did not get \$50,000, but every one of these 10 organizations gave money to the project.⁴³ NCHS also received \$10,000 on December 11, 1969 in an anonymous donation now known to have come from James Hague, grandson of former North Star Mine owner James D. Hague.⁴⁴ In January 1970, the Nevada County Builders Exchange once again volunteered; this time to put the roof on. The Grass Valley Lions Club also provided labor. The City of Grass Valley has blueprints dated January 8, 1972 showing the plans for the south building. The plans show the wooden bridge that crosses Wolf Creek by the back door on the south building already in place. Board minutes from April 28, 1971 state that a bridge, likely the wooden bridge, was donated by Bob Gates and that Tom Leland and Jim Penaluna repaired it. Who has a spare bridge laying around to donate? The restoration of the south building stalled in 1972 due to lack of funds. Finally in March of 1973 the Economic Development Grant grant for \$28,000 was received and the board minutes show that construction started on May 31. I especially like this board minutes entry in September 1973; NCHS purchased 2 “mine skip cars” from the Spring Hill Mine for \$300, worth about \$7000 today.

On July 18, 1973 the Rotary Club of Grass Valley approved a project to improve the North Star Powerhouse Mining Museum.⁴⁵ The crew leaders were John Carruthers, Ray Doran, Orton Goodwon, and Willard Schultz. A few of the projects from GV Rotary Club website are: leveling the dirt in the park across Wolf Creek, setting up the man skip display by the front door on the north building, dirt work making a ditch to protect the south building. The Rotary Club has contributed to improving and maintaining the museum many other times as well. Here are a few that I know about: it had an improvement day in 2010, in 2019 it rebuilt the Pelton wheel enclosure on the Cornish pump and did landscape maintenance and improvements.



Rotary Club of Grass Valley chicken dinner, August 1973, Courtesy Rotary Club of Grass Valley

The museum finances improved. NCHS got \$3,500 from the Bechtel Corp. and \$3,500 from the American Institute of Mining Engineers.⁴⁶ The museum south end restoration happened in two stages with the Pelton wheel portion happening first.⁴⁷ On September 26, 1974 NCHS received \$16,398, which Lita Brockington Shanley had given to the City of Grass Valley to finish off the south building and 5 other unnamed projects. NCHS also agreed to display the mining artifacts that she donated. Lita was the daughter of Charles Brockington, owner of the Golden Center and W.Y.O.D. Mines in Grass Valley.⁴⁸ On February 27, 1975 Glenn Jones reported to the Board that the museum was fully covered. The history goes on but this is where I stop. There is so much more. For example; in October 1974, the museum obtained the Southern Family Stamp Mill that sits next to the 30 foot Pelton wheel. How did they get the mill into the finished building and set it up?

The Community Did It

The answer to the question in the opening sentence is the community turned the compromised industrial building into a functioning mining museum with hard work and determination. Here is what they accom-

plished with donated money and mostly volunteer labor. Fundraised and purchased the 30 foot Pelton wheel at the last minute from the salvage company. Obtained the powerhouse land and an adjacent piece of property. Cleaned up the mess left by the salvage company. Repaired and reinforced the rock walls. Reinforced the powerhouse building footing against Wolf Creek undermining it and changed the creek channel away from the building. Removed trees and brush around the powerhouse. Repaired the drain tunnel. Poured a 3-inch concrete slab to repair the entire floor. Removed engine mounds. Planned and installed new top plates, trusses, and roofing. Installed all new custom windows. Installed new electrical and plumbing. Built new bathrooms. Graded and paved the parking lot. Made a concrete driveway to the front door. Repaired and turned the pipeline aqueduct into a pedestrian bridge. Graded and installed picnic benches on other side of creek for a park. Installed a sprinkler system in the park. Got fill dirt and made a pad at the back of the south end building to display mining equipment on concrete pads, picnic benches, etc. Obtained a donated bridge, repaired and installed it across Wolf Creek.⁴⁹ In addition to the building, they took a bunch of old mining artifacts and turned everything into a museum. To put it mildly, this was a huge community effort to remember our mining heritage. Hardrock underground mining had been around for over 100 years and was the economic engine of our community. The mines permanent closing was traumatic to the community. The volunteers themselves may have worked in the mines. Their fathers and grandfathers may have worked in the mines. The community wanted to preserve their history; they knew mining was never coming back. Also interesting are the plans that didn't

happen. Newmont Mining in December 1969 had given NCHS permission to move the underground model of the Empire Star Mine presently on display at the Empire Mine State Park to the North Star Powerhouse Mining Museum on loan.

Researching the North Star Powerhouse Mining Museum history, I was shocked how sparse the information left behind is. They worked so hard on its restoration, but recorded little. Sometimes we forgot that what we do today will be history in the future. Also the quantity of artifacts that have been donated to the North Star Powerhouse Mining Museum through the years is staggering. Typically we are told during the donation it's to preserve history. Throughout the museum's history, docents have gotten some of the mining equipment operational, making the museum a unique experience. We are 100% volunteer run. Come on over for a free tour. We are open May – October, Thursday – Sunday, 12 to 4.

Glenn Jones Park dedication ceremony, not surprising Glenn dug the holes for the sign.



Glenn and Pearl Jones, August 26, 1993, Courtesy *The Union* Chris Harada

Endnotes

1. The author is a long time volunteer docent at the North Star Powerhouse Mining Museum. Except where specific sources are cited, the source for much of the information in this article is the knowledge he has gained from 10 years of studying hardrock mining in the West and information from exhibits at the North Star Powerhouse Mining Museum.
2. McQuiston, F. W. Jr, *Gold: The Saga of the Empire Mine, 1850 – 1956*, p. 77.
3. *The Union*, October 27, 1959.
4. Oral History of Glenn Jones published June 18, 2004 by the Nevada County Historical Society and available at the Searls Historical Library or at <https://archive.nevadacountyhistory.org/search/?q=glenn+Jones+Oral+History&Id=17706&Mode=Thumbnail>
5. *The Nevada County Citizen*, November 25, 1959.
6. *The Union*, November 9, 1959.
7. *The Nevada County Citizen*, November 11, 1959.
8. See note 5, supra.
9. Carman, William E., *The North Star Power Plant*, Nevada County Historical Society *Bulletin* (Nov. 1963) Vol. 17, # 4, p. 5.
10. See note 1, supra.
11. See note 9, supra, p. 2.
12. *The Union*, November 21, 1959.
13. See note 3, supra.
14. See note 12, supra.
15. See note 5, supra.
16. See note 4, supra.
17. See note 12, supra.

18. All references to meetings of the NCHS Board of Directors are supported by the minutes of that meeting, which are available at the Searls Historical Library. Minutes for March 7, 1968.
19. See note 9, supra, p. 5.
20. *The Union*, January 17, 1964.
21. Oral Interview by author with Susan Jones Bartel, October 30, 2024.
22. *The Union*, August 26, 1993.
23. See note 21, supra.
24. *The Union*, July 25, 1967.
25. *The Union*, November 3, 1967.
26. See note 25, supra.
27. See note 1, supra.
28. See note 4, supra.
29. NCHS Board Minutes for November 1968.
30. NCHS letter in the NCHS board minutes sent to community organizations presumably in the fall of 1967.
31. Rotary Club of Grass Valley History for 1967-68 available under About Us tab at <https://gvrotary.org/> viewed October 5, 2025.
32. See note 4, supra.
33. *Nevada County's Historical Mining Exhibit Located On Mill Street*, Nevada County Historical Society *Bulletin* (Oct. 1968) Vol. 22, #3, passim.
34. See note 4, supra.
35. See note 29, supra.
36. NCHS Board President Robert Gates report December 1, 1969, available at the Searls Historical Library.
37. *The Union*, June 6, 1969.
38. Letter from John H. Michael, Supervisor Interpretive Services, Department of Parks and Recreation, dated August 28, 1969, to Glenn Jones found in NCHS Board Minutes for September 25, 1969.
39. NCHS Board Minutes for October 29, 1970.
40. See note 1, supra.
41. NCHS Board Minutes for April 23, 1970.
42. Letter attached to NCHS Board Minutes for February 3, 1972 from Glenn Jones to Elizabeth George, Chairman, Nevada County Public Works Task Force, dated September 23, 1969.
43. See note 4, supra.
44. Permission to disclose granted by the Hague family to Gage McKinney.
45. See note 31, supra, History for 1973-74.
46. NCHS Board Minutes for September 25, 1973.
47. Oral Interview by author with David Comstock, November 15, 2024.
48. Agreement between the City of Grass Valley and NCHS attached to NCHS Board Minutes for September 26, 1974.
49. Taken from the NCHS President's Report in 1970 summarizing the work completed, along with the work I have outlined in this article.

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