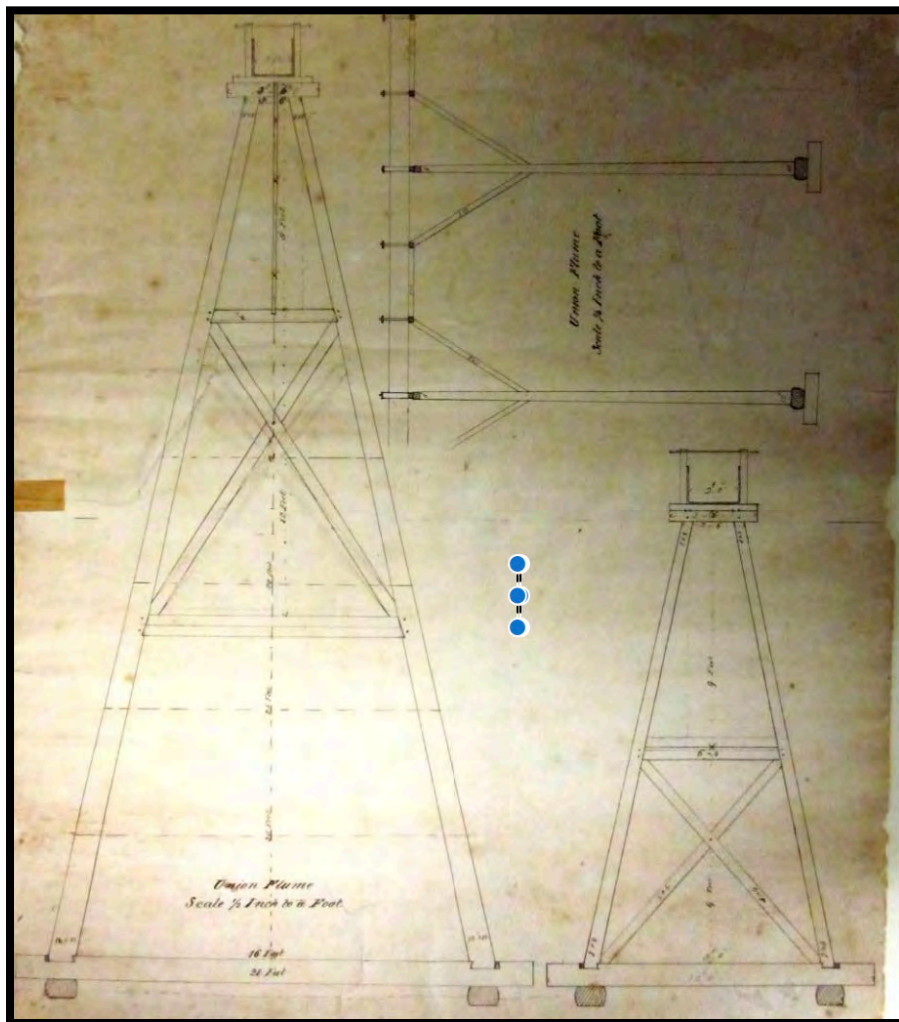


Flumes

Water was the lifeblood of mining, without it a lot of gold would have never been found. Bringing water to our area was imperative in the Gold Rush. John Knox's book "Dry Diggings and Water" chronicles the very lack of water in our area for mining and the attempts to bring water to the area. One of the earliest enterprises was the Bear River and Auburn Water and Mining Company that formed in early 1851 with the plan to take water from the Bear River and convey it by canal and flume to Wood's Dry Diggings (Auburn). Other ditch companies were forming at about the same time.

Ditch companies spent a huge amount of capital and used large numbers of men to build their canals and flumes. While there was plenty of unskilled labor available who needed day wages, the ditch companies also needed skilled workers like surveyors and master carpenters. To layout the routes, engineer the project and supervise the construction. Luckily, the California Gold Rush attracted such a variety of men that the needed workforce was available. Another factor that made such large scale projects feasible was the fact that at the time there were no restrictions on what property the ditches and flumes could cross. While much of the land was government owned, even private property was not protected from having a ditch or flume constructed through it. The subject of water and property rights in California is complex and not addressed here. Generally, the "first in time, first in right" was the norm. Often, in the early days of the Gold Rush, disputes were handled by miner's courts. There were a few laws governing how close the ditch or flume could be to a residence but little else stood in the way.



1850 sketch by English Engineer John Wallace for a flume in Tuolumne County

Moving water had a two different objectives; one was to bring water to dry areas to mine or wash dirt in the search for gold, the second was to move water out of the way to search for gold. Some of the largest and most elaborate flumes were literally draining the local rivers and streams to expose the beds of the river. Fluming and mining was a tricky business, high water could wash away months of work, storms could collapse the wooden structures, incorrectly built structures could fail. This article briefly covers the story of flumes in Auburn area and along the North and Middle Forks of the American River from 1850 to 1860.

Central to the work on flumes was the supply of cut lumber. Saw mills began appearing very early in the Gold Rush.

1849-1850 -Steven Tyler and Tom Teffingwell and five companies, Vermont Co., Buckner's Bar Co., Sailor Claim Co., New York Bar Co. and Murderer's Bar Co. form together to build a crude saw mill to produce lumber to build flume to drain river.

Wilson p. 389, T & W. p. 72

1849-1850 The Egbert Brothers are making shakes in Illinoistown at their mill.

T & W. P. 357

1850 - By summer of 1850 , frames, clapboards, paint and plank floors made their appearance in Auburn.

T & W p. 365

1850 - 3 June - At Culloma, one year ago, there were two log houses and a saw mill. Now there are three saw mills, several large hotels and a number of other good buildings. The population of the place is estimated at near two thousand.

Sacramento Transcript

1850 - 15 Oct. - The saw mill at Coloma made several fortunes fo those who first engaged in it. At the Saw mill of Athearn & Vance a mile from Coloma is selling lumber from \$200 to 250 per M.

Sacramento Transcript

1851 - E. J. Brickell has a saw mill in Illinoistown.

Edwards, Guide to the Truckee Basin

1851 - May & Miller's Lower Saw Mill, later called People's Saw milll, operating since 1851, five miles from Auburn near Millertown.

Placer Herald 9-18- 1852

1851- 29 July - The North Fork is pretty effectually dammed from Mormon Island to the Middle Fork. Many of the water companies have already got to work in the bed of the river and the yield of gold has been rich beyond anticipation. The company at Beale's Bar, near the junction of the North and South Fork, have constructed two races, and also a flume leading from the South Fork across the to the North Fork, thereby draining a very large section of this stream. On the Middle Fork the greater work is on Murderer's Bar. The entire stream is drained for miles. The price of labor is rapidly advancing throughout the mining districts. Wages fare from \$20 to \$30 per week with board, but as soon as they can, they [miners] go off "prospecting" for claims, which they often never find.

Sacramento Daily Union

1851 - 4 December - The Bear River and Auburn Canal Company is now in process of constructing a canal forty-two miles in length, eight miles of which is flumed and the flumes are so substantially constructed that is it believed they will require little repairing for ten years. The company's saw mill cuts about five thousand feet of lumber per day.

Sacramento Daily Union

1851 - 11 December - A large amount of lumber will be needed in the mining country next season. The Presque Isle Fluming and Mining Company have complete their saw mill and are getting out lumber to be in readiness to commence the construction of a flume 1660 feet long in spring. The quantity of canvas which will be require for all the flumes constructed next season is almost incalculable.

There are a few accounts of the use of canvas, likely old sail material, being used for flumes.

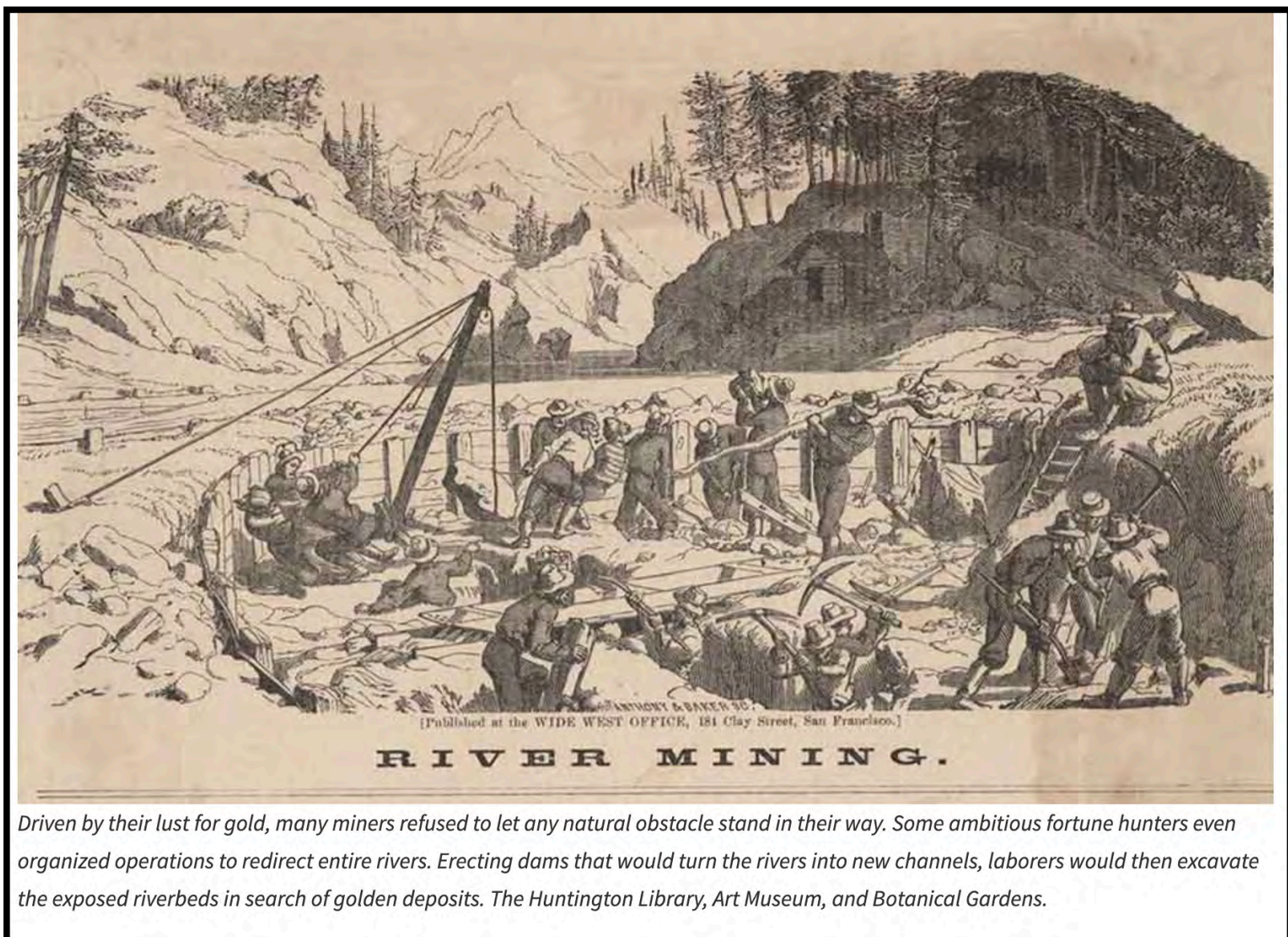
Sacramento Daily Union

1852- 20 April - There are two saw mills near Auburn, producing a good supply of lumber for dams.

Sacramento Daily Union

1852 - 11 June - On the North Fork, near Long Bar, the Eureka Company composed of 43 members with a claim 2400 feet in length has been organized for two years. The prospects for this company are certainly high, all the timber for the flume are on the ground and they are now only awaiting a lower stage of the water to commence grading preparatory to put together the flume. They will commence operating in the bed of the river before the 20th of August.

Sacramento Daily Union



1852 - 23 June - On the Middle Fork at Dutch Hollow, immense quantities of lumber are already prepared and ready to be formed into flumes as soon as the water is sufficiently low in the river. A continual succession of dams with a continuous flume will, in a few weeks, reach ten or twelve miles upwards from Spanish Bar. The labor is performed by companies of from ten to twenty or thirty men. Each conducted by a Captain chosen from among themselves.

Sacramento Daily Union

1852- 7 July - Mountain Saw mill Mendenhall buys interest in 1852

Deed Book a P. 281

1852 - 12 July - On the North Fork, there are four racing and fluming companies, The Oregon Company claim, extends from their dam down the river 2200 feet. The dimensions of their flume are 15 feet wide and 3 feet deep, the number of shares are twenty-five and are held from \$100 to \$1200 each. The Ohio Company connects with the flume of the above mentioned company and extends it to the New York Company's race, length **1200 feet**. The number of shares is eight and held at \$200 each. The next is the New York Company's race and flume extending **1200 feet** to the Georgia Company's claim. Shares 6 held at \$100.

The Georgia Company's flume is carried from the end of the above flume, 800 feet down the river, seven shares in the company held at \$800 each.

These four companies will build but one dam which will be at the head of Oregon Bar on the site of the old dam of '49.

Sacramento Daily Union

1853 - 13 August - Sugar Pine Saw Mill on Bear River - Sheriff's Sale

Deed Book A p. 348

1852-11 September - Spring Garden Saw mill on Auburn-Michigan City Road near Todd's Valley.

Placer Herald

1852 - 18 September - The Mammoth Saw Mill is six miles from Auburn it is undoubtedly among the largest in the State. It is owned by Messrs. Holt and Perkins. The mill is capable of 15 thousand feet of lumber and ten thousand laths. Employs twenty hands.

Placer Herald

1852 - 25 September - The Bear River Water and Mining Company conveys water of the Bear River into the placer mines of Auburn, Ophir, Secret Diggings and Gold Hill. The water is introduced into a flume six feet by three and one half at a point some three miles above Illinoistown.

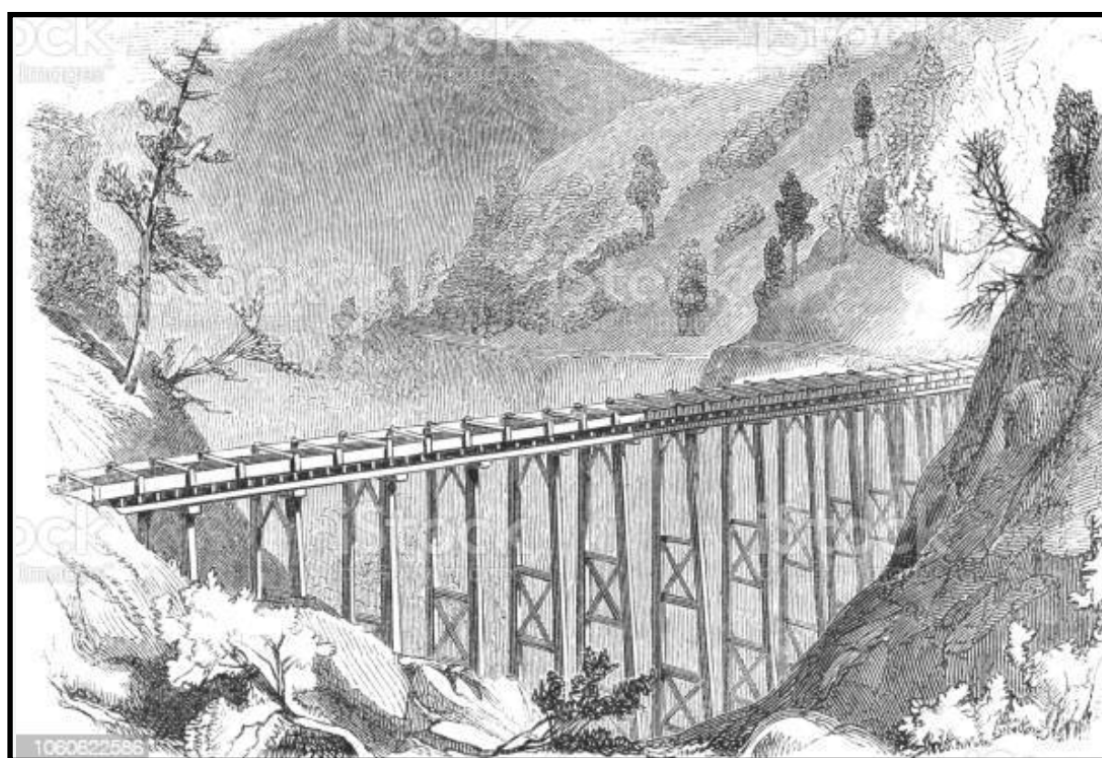
Sacramento Daily Union

1852 - 9 Oct. - The El Dorado and American Slide Water companies are progressing rapidly in their operation. The water of the El dorado canyon is to be conveyed by canal, or rather flume, for such it is to be, for ten miles to the American slide and its course will include a most extensive mining region: Doty's and Drummonds' diggings, Ticehner and Dutch Gulch, Michigan Bluff and slide, the rich area surrounding Birds Valley. They are erecting a saw mill and have a large number of hands at work. 6 months ago there was one house in Michigan Bluff, now it is quite a town.

Placer Herald

1852- 20 October - Empire Saw Mill, eight miles from Auburn on Illinoistown Road at Phelps Ranch. Later called Empire State Saw Mill.

Deed Book A pg. 351 & Deed Book B p. 127



1852 - 13 Nov. – 250,000 feet of lumber contracted for delivery, now receiving proposals for grading the line and erecting a flume, eight miles long. Bottom three ft., staunchens 3 feet high, sides 16 inches. El Dorado and American Slide Co. Yankee Jim's.

This is the article that started this investigation by John Knox and I. The Eldorado Company is fascinating and this article will be followed up by another one on the company. The company included a Yale man coming in 49 and Auburn's own John Q. Jackson, the young Wells Fargo agent.

Placer Herald

1852- 13 November - Gwynn and Co. have a saw mill on the Bear River. The National Hotel in Auburn was built from the lumber from this mill before 1852.

Placer Herald - also see Fellows in the Republican 4-6-1916

1852 - 20 November - Large amounts of lumber are being hauled from Sacramento to the mines.

Placer Herald

1852 - 20 November - Assessor's List for Placer County. 12 saw mills, 7 water, 4 steam, 1 water and steam. last year 5,000.000 feet cut. the sugar pine is getting scarce, mills will move up the mountain.

Placer Herald



Near Secret Town

1852 - 20 November - Investments in races, ditches, canals and flume in the county.

Bear River and Auburn Water and Mining - 70 miles in length	\$350,000
Gold Hill and Bear River Canal - 32 miles long	\$100,000
Shirt Tail No. 1 - 22 miles	\$ 62,000
Shirt Tail no. 2 - 12 miles	\$ 6,400
El Dorado & American Slide - 12 miles	\$ 22,000
Yankee Jim Tunnel - 7 miles	\$ 6,000
Indiana Hill Canal - 7 miles	\$ 5,600

Bushey Canon - 5 miles	\$ 1, 500
Devils Canon - 2 miles	\$ 1,000
Ophir & gold Hill - 4 miles	\$ 1.500
Total length 166 miles cost	\$556,000

Placer Herald

1852 - December - May's Saw Mill near Missouri House (Applegate area).
Deed Book A P. 142

1852 - December - Springer's Saw Mill at Owl Creek, sale.
Deed Book A p. 248

Maine Bar on Middle Fork



1853 - 26. Feb. - The Empire Canal Company of the North Fork give notice that they have surveyed the route of their canal and commencing their works as soon as practicable by digging a canal or building a flume at or near a point known as the New York Bar on the North Fork extending through Manhattan Bar, Lacey's Bar, James' Point, Rattlesnake Bar and Flats, Horse Show Bar, Smith's Bar, Dotan's Bar, Empire Flats, Condemned Bar, Beale's Bar, Big Gulch Bar, Mississippi Bar and the agricultural and mining districts below. A. W. Lomas Pres.

Placer Herald

1853 - 19 March - The Ditch of Loving and Co. (Dr. O. K. Levings) at Humbug Flat is five miles in length and has been constructed at a cost of about \$8,000, on the route there is one flume which is over 1300 feet in length.

Placer Herald

1853 - March 19 - The Rock Creek Water Company completed their ditch by means of a flume **1500 feet long** to convey the clear stream of water to the highest point of Gold Hill. Much praise is due to Sloat, McMartin and Co. for getting this work through.

Placer Herald



Flume on Mormon Ravine

1853 – 26 March – The El Dorado Water Company is receiving proposals for completing the grading of the line for their flume, 32 x 24 and eight miles long.

1853 - 13 April - New England Saw mill - Near Bear River House on Auburn-Illinoistown Road . Lumber for the old courthouse in Auburn in 1853 came from this mill.

Deed Book A p. 278, 368, 386, 60, Placer Herald - 7-30-1897 Argus

1853 – 7 May – Proposal for construction of a flume 18 ft. deep, 600 feet long at Rattlesnake Bar on the North Fork.

Placer Herald

1853 - 14 June - Mammoth Water project at Rattlesnake Bar. The miners plan to take the river from its bed at the head of New York Bar and leading it through a flume down past Lacy's , Mormon, Rattlesnake, Horseshoe, Smith's Doten's and Condemned Barts to Beal's for the best dry diggings in the county lie on the high flats of the river side and some of these same flats we intend, with the help of some water from this great flume aforesaid, to achieve a comfortable fortune for your old friend. Longobardus.

Sacramento Daily Union

1853 -2 July – Lumber is cheaper this year than last, many flumes going up.

By this time there were a multitude of sawmills up and running.

Placer Herald

1853 - 4 July - A short walk from Auburn are the diggings of Reyburn, Coulter & Co. on the east side of Prospect Hill at the head of rich Ravine. The site is yielding remarkable well. The Bear River Company's flume is supplying the water for washing.

Sacramento Daily Union



1853 - 15 July - Murderer's Bar, about 50 miles from Sacramento on the Middle Fork has been celebrated for its rich diggings. A company of three sailors used out the cradles, as high as 29 pounds of gold in one day in 1849, and then averted a high as 11 pounds a day but the Bar was worked out and for the last two years, men have been engaged in working the bed of the river which is doubt as rich as the Bar. Last year about \$100,000 was taken from the river bed. They only mined six weeks before the flume broke down some half a dozen times. The claims have been so good that the stockholders will construct the dam and flume again this spring. The flume will be cut through solid limestone, it is thirty-six feet wide at the mount and six feet high, fall one foot each hundred feet, the whole distance which is **five hundred fifty feet**. The whole

race is well timbered with bed pieces and stanchions three feet apart and is to be planked in order the better to facilitate the progress of the water through it. The whole cost of the dam and flume will be close to \$22,000.

Sacramento Daily Union

1853 - 18 July - The North Fork Water Company has been organized. The dam to this place (Rattlesnake Bar) is not more than 3 1/2 miles and the flume will not exceed double that distance. The estimated expense of this part of the work is fifty thousand Dollars.

Sacramento Daily Union



Flume near Gold Run

1853 – 30 July – At the junction of the North and Middle Fork the Badger Co. have nearly got their flume completed. On the North Fork above Oregon Bar 29 Chinamen are turning the river. Ten Americans who have a claim just above and join their flumes with the celestials. They expect to be in the river in about a fortnight. Three miles above Rice's ferry, 17 Chinamen have nearly completed their flume, two miles above this point a party of Americans have their flume completed and will soon be washing out gold.

Placer Herald

Interesting account of white men and Chinese working together.

1853 – 13 Aug. – North Fork is flumed nearly the entire length, from junction to El Dorado Canyon, miners working the bed, yield remarkably good. On the Middle Fork from Volcano to Spanish Bar bridge, a great many flumes are in course of construction. From the bridge to Yankee Bar, one entire string of flumes a distance of five

miles. At Poverty Bar near 1,000 men are engaged in construction of flumes, when the river is drained, they expect to employ about 4,000 hands.

Placer Herald

The size of flumes could vary from narrow ones moving small amounts of water for washing dirt to immense ones that ran huge wheels and pumps to drain the river and expose the river bed for mining.

1853 - 9 September - Brushy Saw mill - sale , near Yankee Jim's.

Deed Book A pg. 426

1853 - 24 Sept. - The river at Murderer's Bar has been flumed about six hundred feet at the expense of \$15,000.

Placer Herald



Flume at Hidden Treasure Mine

1853 - 15 October - Preble and Co. Saw Mill, also called Bear River Saw Mill, on delinquent Tax list in 1853.

Placer Herald

1853 - 22 October - Todd's Valley Saw mill on Delinquent Tax List.

Placer Herald

1853 – 22 Oct. – Constable's sale – York Auganny Mining Company – 600 feet of flume and mining claim on the river on the North Fork, two miles from Auburn.

Placer Herald

1853 - 22 October - Both the Rice and Dickson Saw mill and Rockwell's saw mill on county delinquent tax list.

Placer Herald

1853 - 10 Nov. - For sale: One high pressure engine, the flume of the Placer Company containing about 6 M running feet of timber and 25 M feet boards. All to be sold at public auction. Levi Cutter, director.

Sacramento Daily Union

1853 – 19 Nov. – Mining suspended for the season, miners taking out their flumes.

Placer Herald

1853 - 24 Dec. - Miners meeting in Ophir - Just one of a multitude of meetings in which miners try to lay out rules governing the use of water.

1854 - 21 January - volcano Saw mill in Volcano Canyon near Michigan City - sale

Placer Herald

1854 - 28 January - Mayflower Saw Mill 4 miles from Auburn. sale.

Placer Herald

1854 25 March - Clipper Gap Saw Mill, O. N. May - sale

Placer Herald

1854 - 29 April - Mt. Pleasant Saw Mill near Wisconsin Hill - cutting common pine and spruce.

Placer Herald

1854 – 25 June – As the waters fall, miners hastened in their preparation for turning the rivers. On all the streams in our county, flumes will be built.

Placer Herald

1854- 19 Aug. – On High Bar on the North Fork quarreling miners tore out a flume. Men were arrested but soon returned to camp. Upon their return, other miners gathered, one of the criminals was hung and two others were killed in the melee. Report not confirmed by the *Herald*.

Placer Herald

1854 - 2 September - Sole Trader Notice, Mary Hildreth, teaming and selling lumber. Miner's Meeting, miners from Auburn, Spanish Fast, Gold Hill, Virginia, Ophir, Doty's flat, Frytown, Civil Usage, Millertown and Humbug Flat assembled at Mr. McDaniel's store in Auburn regarding the rights of miners to use and control the ravines in their districts.

Placer Herald

1854 - 19 October - Flume at Poverty Bar is nine⁸⁷ yards , three feet high and fourteen feet wide. The work of putting in the flume was partly let out upon contract and the expense born by the different companies. Smith & co. 840 ft., Martin & co. 75 ft., Poverty Bar Co. 1420 ft., Union or French Co. 628 ft. All new material at \$4.75 per foot.

Sacramento Daily Union

1854 - 24 October - Forward's Saw mill at Devil's canon near Yankee Jim's.

Deed Book A p. 63

1854 - 23 February - Davis' Saw Mill - Hamlet Davis owner at Dutch Flat.

Deed Book B p. 103

1855 - August - Robert Fisher in Auburn advertising a large assortment of sluice lumber. He is also an undertaker.

Placer Herald

1857 – 7 Nov. – The North Fork rises fifteen feet and below the junction it rises 6 feet, all works are carried off, flumes, wheelbarrows, shovels, picks, the rise was very sudden, heavy losses.

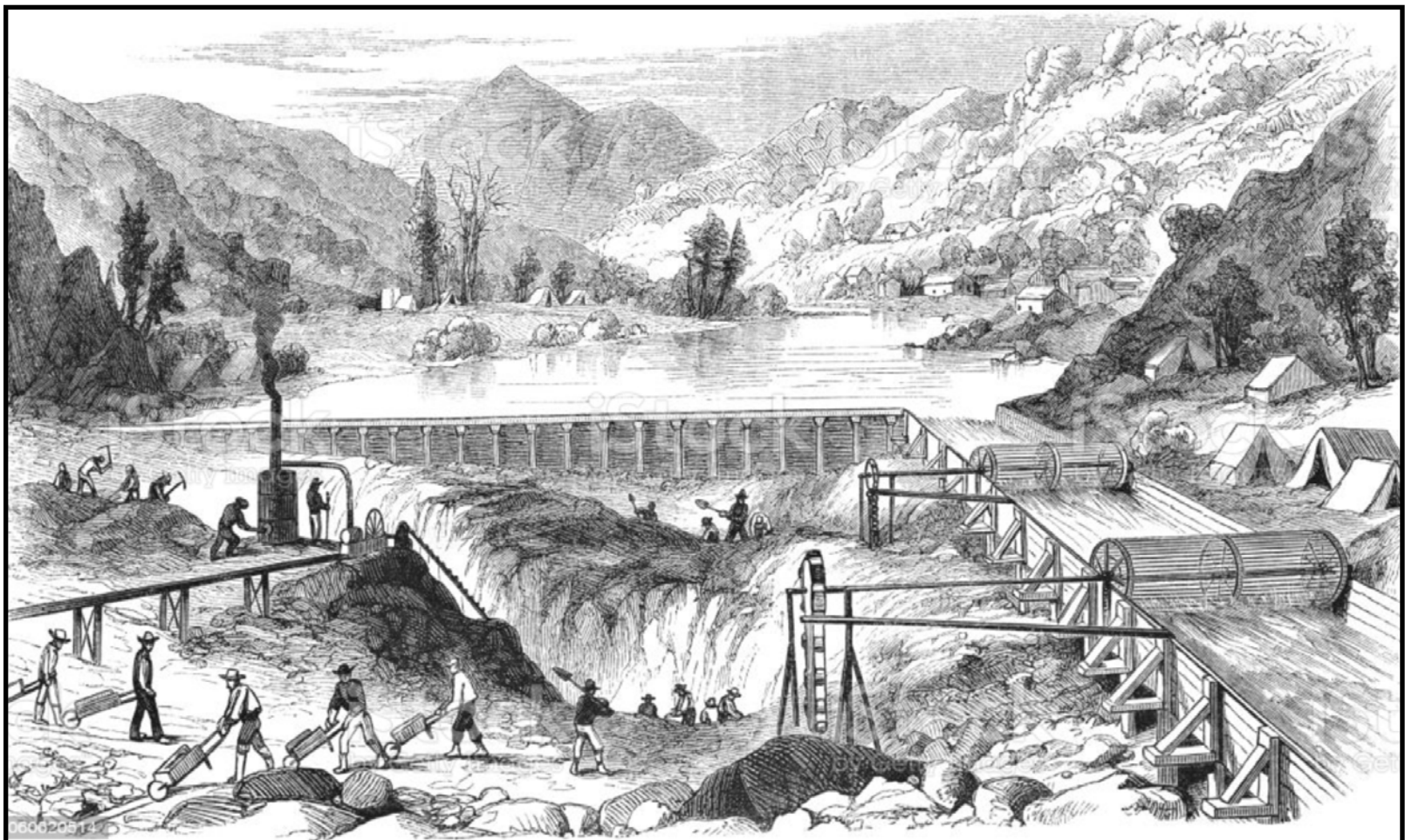
Placer Herald

1858 – 27 Nov. – River operations closed on the American River. Miners are taking out their flumes to save them from being washed away. The Little Rattlesnake Bar Fluming Co., one and one half miles from Auburn, has cleared their expenses from the summer and have paid over \$2,000 clear to each of the five shareholders. They put in a flume at the cost of nearly \$6,000, the lumber from which they have saved and will use again next season.

Placer Herald

1859 – 20 Aug. – Portions of the American River are being abandoned by white miners and passed into the hands of the Chinese. On the North Fork from Yankee Jim's turnpike bridge to the mouth, nearly a mile is elusively worked by the Chinese. They have turned the river by means of a flume. 300 to 400 at work within this mile. On the Middle Fork several flumes owned by the Chinese have been completed, the workmanship compares with the best of those erected by American miners.

Placer Herald



This is the flaming operation at Murderer's Bar on the Middle Fork that drained the river for mining.

1860 – 15 Dec. – Galvanized iron pipe is coming into use instead of flume by the ditch companies for crossing ravines and canyons.

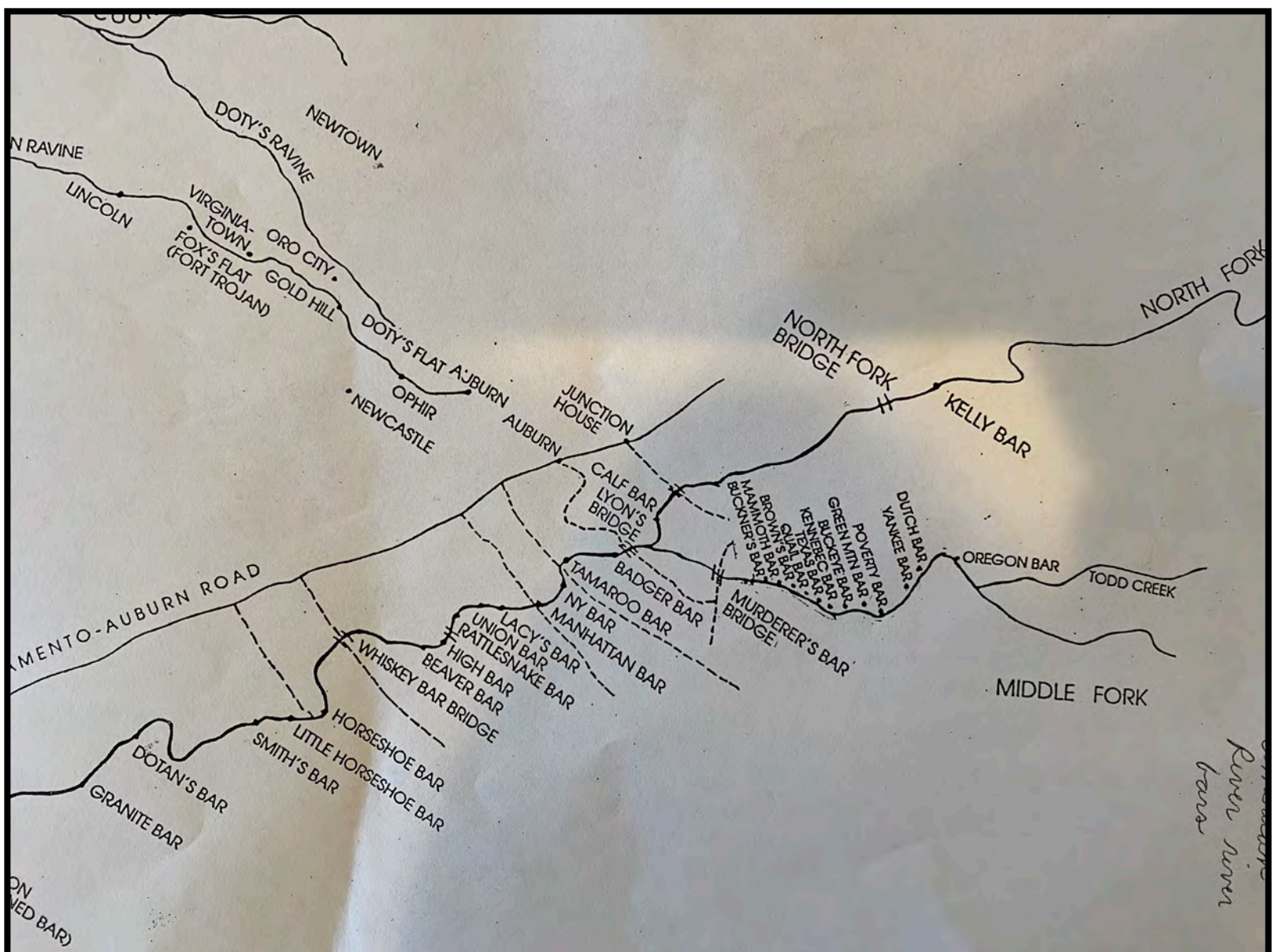
Placer Herald

Fluming continued to be used on a massive scale for moving logs out of the high country.

1999 - May 21 Article by Janice Dice lists the bars now covered by Folsom Lake: Dry Bones Br, Beals Br, Massachusetts Bar, Condemned Bar, Carlton's Bar, Dotan's Bar, Granite Bar, Horseshoe Bar, Whiskey Br, Quartz Ravine, Willow, Patricks', Mormon, Lacy's, Oregon, Poverty, Mammoth and Murderer's Bar.

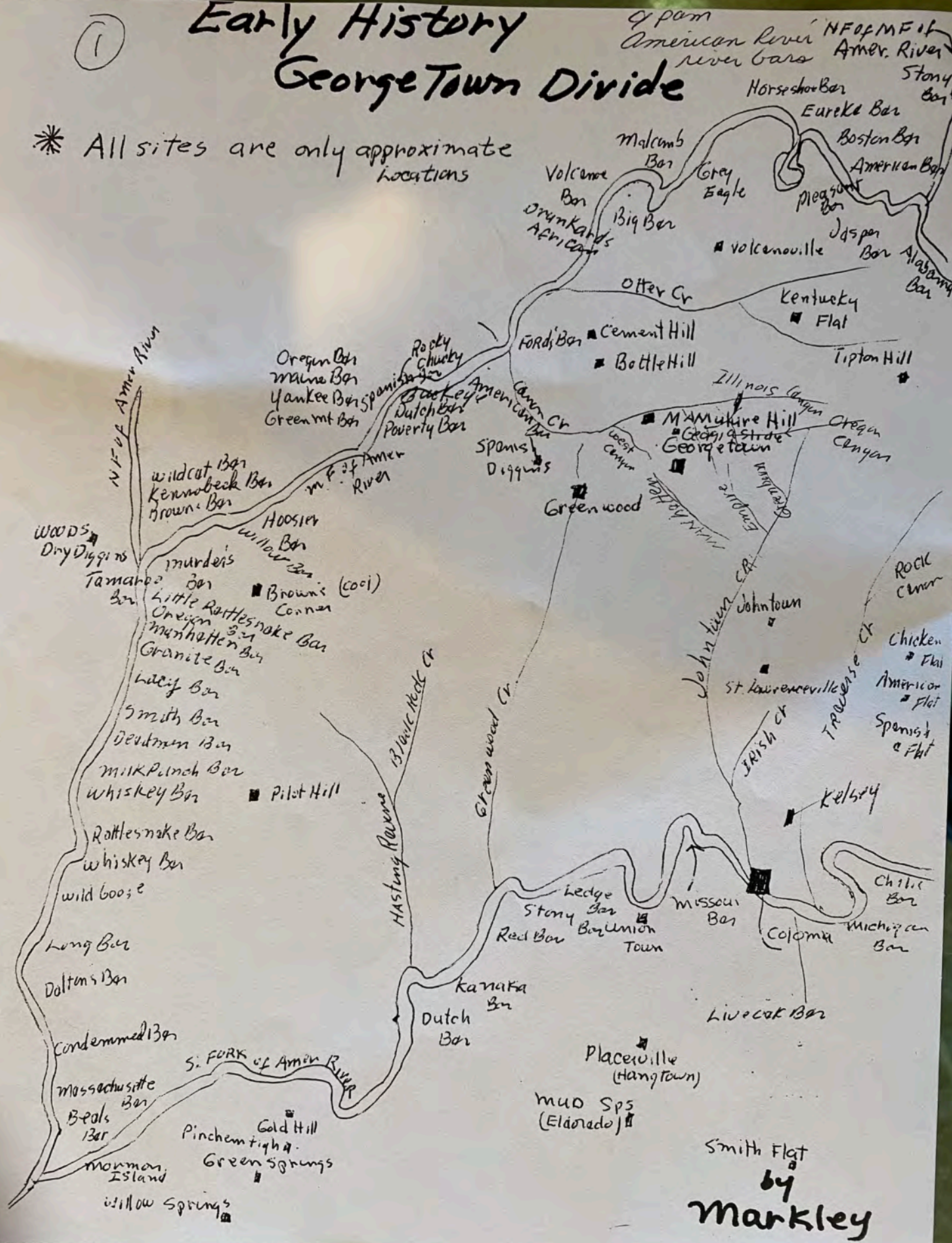
Auburn Journal

Map of Bars on the North and Middle Fork of the American River



George Town Divide

* All sites are only approximate locations



This could be a photo of building a railroad trestle but the structure is much the same as for a flume.



All photos courtesy of Placer
County Museums