



# Barry Lawrence Ruderman Antique Maps Inc.

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## Map of a Survey of the Mokelumne Hill Canal and Reconnaissance of the Adjoining Country By George Goddard, C.E.

**Stock#:** 44787  
**Map Maker:** Goddard  
**Date:** 1853 circa  
**Place:** San Francisco  
**Color:** Uncolored  
**Condition:** VG  
**Size:** 12 x 22.5 inches  
**Price:** SOLD



### Description:

***The Earliest Printed Map of the Mokelumne Hill area and a Probable Source Map for H.W. Turner's Jackson (California) Portfolio for the US Geological Survey.***

Extremely early map of the Gold Regions, focusing on the progress of the construction of the Mokelumne Hill Canal in Calaveras County, California, printed by Britton & Rey. The map is an early California artifact of tremendous significance, both in terms of its maker (George Goddard), its publisher (Britton & Rey), the subject matter (earliest printed map of a California Canal) and its use and annotation by Henry Ward Turner, an important early California geographer, whose name appears in manuscript in two places on the map.

As noted above, Goddard's map is quite likely the earliest printed map of a completed and operating Canal in California and the earliest map attributed to Goddard, one of California's most important early mapmakers and surveyors.

The map is also one of the earliest maps printed in California and one of the earliest to include the imprint of San Francisco's most famous and important lithographer, Britton & Rey. Founded by Joseph Britton in late 1852 after Britton ended his partnership with C.J. Pollard on Merchant Street, Britton and Jacques Rey would become by far the most prolific early map lithographers working in San Francisco, with the firm enduring until the end of the Century.

Oriented with Northwest at the top and beginning just west of West Point, California, the map tracks the course of the Mokelumne River from Valentine Gulch and the Middle / South Fork Dam downward for approximately 50 miles and includes a number of other flumes and branches of the flume, totalling 106.5



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miles of flumes shown on the map, ending in the west in the vicinity of what is now the Camanche Reservoir.

The details on the map are quite remarkable, including Mines, Mining Camps, Ranches, Stores, Mills, Dams, "Rich Mining Ground," Roads, Reservoirs, etc. A number of early mines are also noted. The town of San Andre(a)s is shown.

One interesting feature is the second (incomplete) scale of miles, drawn in manuscript and labeled H.W. Turner, suggesting that Turner may have been attempting to correct the map's true scale. As noted below, H.W. Turner was an important late 19th and early 20th Century geologist, who spent a significant amount of time working and writing about geological and mining topics in this region.

The present map would seem to have been acquired by Turner in the 1880s, as part of his field work in Calaveras County, a significant amount of which is published. As the author of the US Geological Survey's Jackson (California) Folio, it is likely that Turner made use of the present map in connection with this folio, which was completed in 1894.

The map also notes the Wade, Hanson & Co proposed extension of the Canal to the Camanche Diggings. Wade, Hanson & Co. operated a store in Mokelumne Hill as early as 1854.

#### **History of the Canal**

The works of the Mokelumne Hill Canal and Mining Company were begun in 1852, and completed to Mokelumne Hill the following year. The ditch, with a capacity of 1000 miner's inches, was subsequently extended to Campo Seco, Camanche, and vicinities, a distance of 60 miles from the flume at the head of the canal on the South Fork of the Mokelumne River. Originally carried principally by flume, the enormous expense of upkeep caused the company to substitute a gravel ditch and iron pipe.

The ditch system consisted of a large storage reservoir in the mountains, distributing reservoirs, and a line or ditch and branches extending through Mokelumne Hill for town use, to Campo Seco and beyond, also serving intermediate places. The ditch enabled residents along the line to wash quartz and placer mines, to cultivate the soil by irrigation, or to run machinery by water power.

On January 23, 1854, the company entered into a contract with John Andrews and Allen Cadwaller to construct a canal to Campo Seco. The contract price was \$95,000, and the canal was completed in October of 1859. Soon thereafter, the company awarded another contract to Andrews and Cadwaller to build a reservoir about one mile northeasterly for the sum of \$5,000 (the Watertown Reservoir).



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During the 1850s and 1860s, the Mokelumne Hill Canal and Mining Company was the largest supplier to the miners, but financial troubles led to foreclosure in 1859 and a major reorganization in the 1860s. Under Samuel L. Prindle, the renamed Mokelumne Hill and Campo Seco Canal and Mining Company completed extensions to Chile Camp and Spring Valley (near Valley Springs and Burson today). The demise of hydraulic mining in Calaveras County in the early 1900s, however, brought the prosperity of the independent water companies to an end. Some simply shut down, while others converted to agricultural and domestic uses.

#### Rarity

The present map is recorded in only a single reference work, the University of California List of Printed Maps of California, published in Berkeley in 1887, and compiled by J.C. Rowell. The entry for this map was reported to Rowell by H.W. Turner, whose name appears on this copy of the map, along with an annotation in Turner's hand noting "Please return this when you are through with it." Turner apparently later gifted this copy of the map to the Bancroft Library in December 20, 1899.

Of this map, Warren Heckrotte notes that

*This map is one of the few large scale printed maps at this time of a part of the mining region. The canal was built 1852-1853... The canal was first constructed with wooden flumes. The wood did not stand up and was replaced with a gravel ditch and iron pipes.*

OCLC locates 2 examples of the map (UC Berkeley and UC Davis). The OCLC entries provide an estimated date for the map of 1855, whereas HW Turner and Rowell apparently left the map as undated. The records in the Calaveras County archives (photo only), suggest a date of 1853, as did the Warren Heckrotte cataloging of the map.

#### George Goddard

Born in Bristol, England in 1817, George Henry Goddard studied architecture at Oxford and worked in London until 1844, before joining the California Gold Rush. Goddard came to California in 1850, settling in Sacramento. He prospected for gold but earned a living as an artist, selling sketches of California scenes. With Edgar Mills, he helped found the mining camp of Columbia in Tuolumne County.

Goddard was originally an architect and surveyor and surveyed the first railroad line in California, the Western Pacific, extending out of Sacramento. In 1861, he became a land examiner for various banks in Sacramento. He assembled a large collection of minerals from California mines and more than 1000



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sketches of places he had surveyed. Goddard also surveyed most of the important passes of the Sierra Nevada Mountains. Mount Goddard still bears the name of this important early surveyor.

#### **Henry Ward Turner**

The present example bears the signature of Henry Ward Turner, one of California's most important geologists of his era, and a long time resident of Oakland, California. The Collected Papers of Henry Ward Turner reside at the University of California at Berkeley.

H.W. Turner was a mining engineer and geologist, was born at Silver Lake, Pennsylvania on August 22, 1857. Turner attended Cornell University for three years, and one year at the University of Leipzig, before graduating from George Washington University in 1875. In 1881-82, he was an entomologist in the U. S. Department of Agriculture, and during 1882-1901 a geologist on the U. S. Geological Survey.

Beginning in 1901, Turner was engaged in examining and operating mines and ore deposits. In 1905 he was superintendent of the Marfa & Mariposa Quicksilver Mine, in Texas, and during 1906-07 was consulting engineer to Charles E. Ladd, capitalist and mining operator of Portland, Oregon. He was geologist to the Kyshtim Corporation, London, in 1911, and geologist to the Russian Mining Corporation of London during 1914-15. During 1915-20 he served as vice-president of Oroville Dredging, Ltd., of California.

Turner was the author of two important papers on the geology of the Sierra Nevada, published in the 14th and 17th annual reports of the director of the U. S. Geological Survey, as well as the author of the following works:

- Downieville, Bidwell Bar, Jackson, Big Trees, and Sonora geological folios in California of the U. S. Geological Survey
- "Origin of the Yosemite Valley" (Proceedings California Academy of Sciences)
- Numerous papers on geology and ore deposits in scientific journals

Turner was a fellow of the Geological Society of America; corresponding member of the Natural History Society of Madrid, Spain; member of the Uralian Society of Natural Sciences, Ekaterinhurg, Russia; The American Institute of Mining Engineers; the Institute of Mining and Metallurgy of London; the Mining and Metallurgy Society of America and the Sierra Club.

Provenance: Warren Heckrotte Collection. Gifted by H.W. Turner to the Bancroft Library, December 20, 1899 and subsequently withdrawn (stamped in lower right corner).



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**Detailed Condition:**

Laid on linen, with some annotations and minor soiling.