

SF BAY SALT INDUSTRY

How Alvarado played a role in the San Francisco Bay salt industry. From the early Indians, Spaniards and Mexicans, to the consolidation of dozens of small salt producers to the eventual winner, the Leslie Salt Company. This history will take us up to the year of 1957.

Much of this writing is taken from the booklet, "Salt in California" published in 1957 by the State of California, Department of Natural Resources, Division of Mines, by William E. Ver Planck.

Created By: Anthony Gualco

Alvarado Grammar School, Class of 1955

September 17, 2010

The salt industry of California may be said to have started in 1856 when a small quantity of natural salt was placed on the market. In those days the demand for salt in California was small. Not only was most of the salt fish and meat consumed shipped in, but much of the small amount of salt used as such was imported. Prior to 1850 the Spaniards, Mexicans, and Indians used to gather salt that they found in the tide pools on the marshes along the Alameda County shore. These pools were filled by the high tides of June and July but evaporated when the lower tides of August and September did not reach them. The natural salt that formed was of poor quality, and its harvest was uncertain. It was a simple step to increase the yield of salt by building levees to increase the capacity of the natural tide pools. A.A. Oliver, one of the Bay areas' early salt producers, recalled that John Johnson in 1854 was the first to improve the tide pools in this way. It is reported that the first crop sold for \$50 a ton. Within a few years, however, others, following Johnson's example, had taken up much of the suitable marshland, and the price fell to only \$2 or \$3 per ton.

Perhaps the discovery of the Comstock Lode was the greatest single stimulus to the California salt industry. Salt was one of the chemicals used in the Washoe process for treating silver ores and until 1862 all the salt used was shipped from San Francisco to Virginia City where it sold for \$150 a ton. With the discovery of salt deposits at Rhodes Marsh and Sand Springs, Nevada, shipments from San Francisco declined, but metallurgy remained an important market for salt throughout the 19th century.

With the growth of San Francisco a local food-curing industry developed. Salt-fish and meat formerly imported from the east coast were replaced by Alaska fish and California beef that were salted locally. San Francisco in 1860, however, considered the Bay salt to be an inferior product scarcely fit for use, and they much preferred imported salt. Crude salt came from Carmen Island on the coast of Lower California, from Peru, and from Asia, while from Liverpool came fine salt. Most of the salt, particularly from Liverpool, was shipped at ballast rates in vessels that came to load California cargoes.

The first attempt to improve the quality of the natural salt was made in 1862 by John Quigley, who built a salt works near Barron's Landing in the vicinity of Alvarado (then called Union City). The Quigley works was an independent operation until 1909. Plummer Brothers' Crystal Salt Works was built in 1864 near Mayhew's Landing west of Newark. This company, which in 1869 added the Turk Island Salt Works south of Alvarado, remained in the salt business until 1925.

The American Salt Company, of the Marsicano Family, was founded in 1865. By 1868 the number of salt works in Alameda County had increased to 17. These pioneer salt producers very soon evolved a salt making technique that in principle is followed today.

The Crystal Salt Works, in the late 1860's, contained crystallizing ponds preceded by concentrating ponds and receiving ponds. By discarding the bittern at the proper time, salt was produced that is reported to have contained 99.63 percent sodium chloride.

Much of the San Francisco Bay salt output was cleaned and ground in San Francisco. Gradually the quality of the salt improved, and about 1870 imports, especially of crude salt, began to decline, although fine salt from Liverpool was received through the middle of the 1880's. By 1880 the export of crude salt to Mexico, South America, and Asia had begun.

In the latter part of the 19th century the San Francisco salt industry was largely confined to the northern part of the Alameda County shore. The evaporating ponds extended from San Leandro Creek to the vicinity of Alvarado, and the only plant south of Alvarado was the Crystal Salt Works.

With little exception these plants were small family enterprises, some comprising as little as 20 acres operated by single men. They changed hands comparatively often, frequently at the death of an owner. Of 17 plants listed in 1882, only seven can be identified on a list of producers published in 1896.

Throughout the 19th century the salt industry seems to have suffered from chronic over production. The price of salt remained low, the cheapest of hand labor was employed, and little capital was available for improvement. The industry grew, nevertheless, from a production of 17,000 tons in 1868 to 30,000 tons in 1880 and nearly 100,000 tons by the end of the century.

Even as late as 1900, however, only four plants reported output of 10,000 tons or more per year. They were the Union Pacific Salt Company, the Carmen Island Salt Company, the American Salt Company and the Oliver Salt Company. The largest of the 19th century plants was that of the Union Pacific Salt Company which was in continuous production from 1872 to 1927. In 1882 the plant, which represented an investment of \$100,000 and employed 80 men, occupied 1,200 acres of marshland near the mouths of the Alameda Creek and the Mt. Eden slough, formerly called Union City slough.

The excess of plant capacity over the demand for salt inevitably leads to attempts to control production and stabilize the price of salt. In 1885 the Union Pacific Salt Company, following a meeting of the Alameda County salt producers, agreed to lease the other plants on San Francisco Bay. Although a number of the smaller plants did not join this combination, the Union Pacific Salt Company succeeded in controlling the production until late 1890.

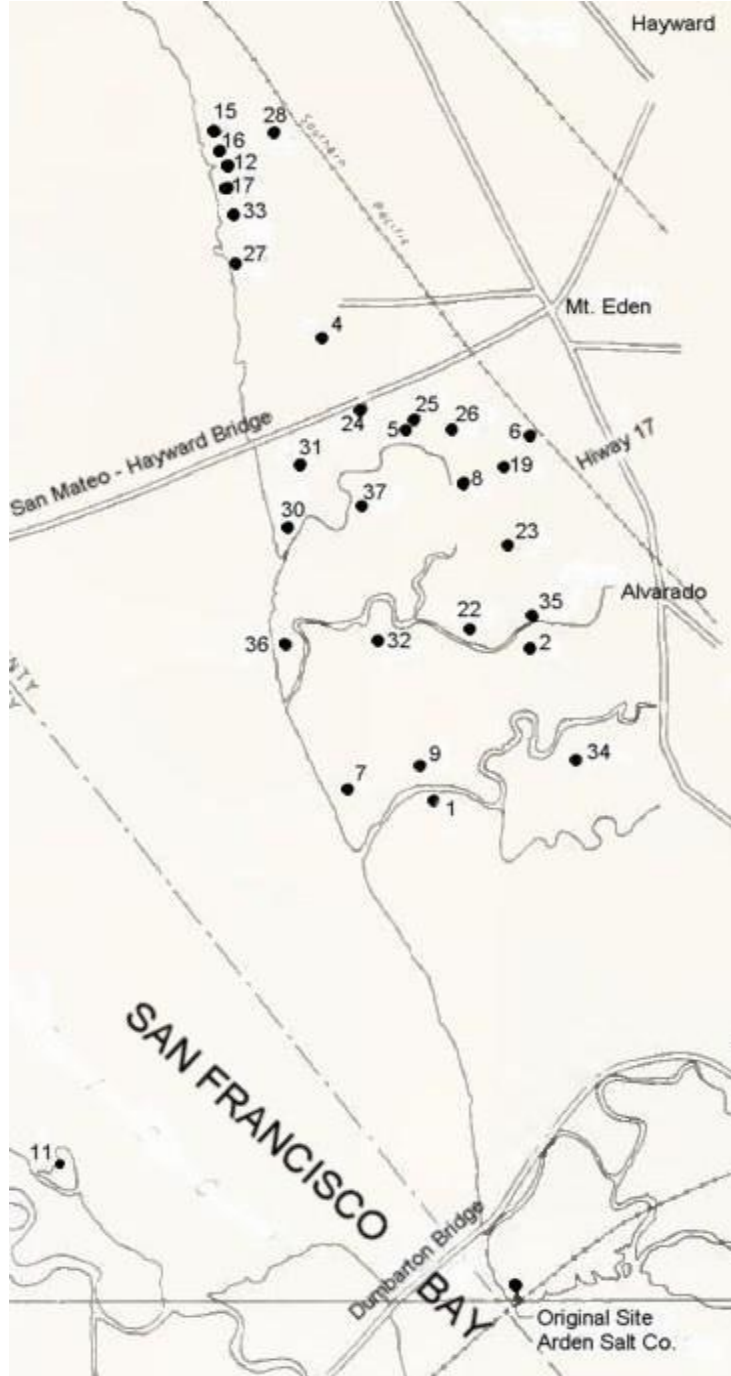
In 1900 New York interests formed the Federal Salt Company with the objective of gaining control of the entire San Francisco Bay salt crop. This objective was achieved in 1902, but the monopoly did not survive for another year.

The series of events that eventually lead to the consolidation of nearly all the Bay area's salt-producing capacity in the hands of one organization began with the founding of three new salt producers. They were the California Salt Company, formed in 1901, the Continental Salt and Chemical Co., organized in 1900, and the Leslie Salt & Refining, established in 1901.

The next three slides show:

1. The location of salt companies on the east side of the San Francisco Bay.
2. The consolidation of the Bay area salt companies into the eventual winner, the Leslie Salt Company.
3. A table (covering several slides) showing each salt company, its location, the principal(s) involved, and its eventual evolution.

(Remember this is as of 1957 and Cargill is not yet in the Bay area.)



EXPLANATION OF NUMBERS

- | | |
|---|---|
| 1 Alvarado Crude Salt Plant
(Calif. Salt Co. Et. Al) | 20 Newark No. 1 Crude Salt Plant
Arden & Leslie |
| 2 Alvarado Salt Works
(Quigley) | 21 Newark No. 2 Crude Salt Plant
(Arden & Leslie) |
| 3 Alviso Salt Co. | 22 Occidental Salt Works
(J.W. Sinclair) |
| 4 American Salt Co. | 23 A. Ohlsen |
| 5 R. Barron | 24 Oliver Bros. Salt Co. |
| 6 Baumberg Curde Salt Plant
(Leslie Salt Co.) | 25 Oliver Bros. Salt Co. (ruins) |
| 7 Carmen Island Salt Works | 26 Paradise Salt Works
(F. Lund) |
| 8 Commercial Salt Company
(Baumberg) | 27 C. Pestdorf |
| 9 Continental Salt & Chem Co. | 28 D. Pestdorf |
| 10 Crystal Salt Works
(Plummer Bros.) | 29 Redwood City Crude Salt Plant
(Leslie) West Bay |
| 11 Greco Salt Co. | 30 Rocky Point Salt Works
(J. Michelson) |
| 12 Hayward Ldg Crude Salt Plant | 31 Rock Spring Salt Works
(Mary Nielsen) |
| 13 San Mateo Plant (West Bay)
(Leslie Salt Refining Co.) | 32 Solar Salt Works
(B. F. Barton) |
| 14 Leslie Terminal Co. (West Bay)
(Site of Stauffer Chem. Co. Plant) | 33 Tuckson Salt Works |
| 15 Chris Moosen | 34 Turk Island Salt Works
(Plummer Bros.) |
| 16 H. Mathiesen | 35 Union City Salt Works
(Putnam Bros.) |
| 17 P. J. Mathiesen | 36 Union Pacific Salt Co. |
| 18 Morton Salt Co. Refinery | 37 L. N. Whisby |
| 19 Mt. Eden Salt Works
(Liquori) | |

SAN FRANCISCO BAY

Original Site
Arden Salt Co.

122°00'

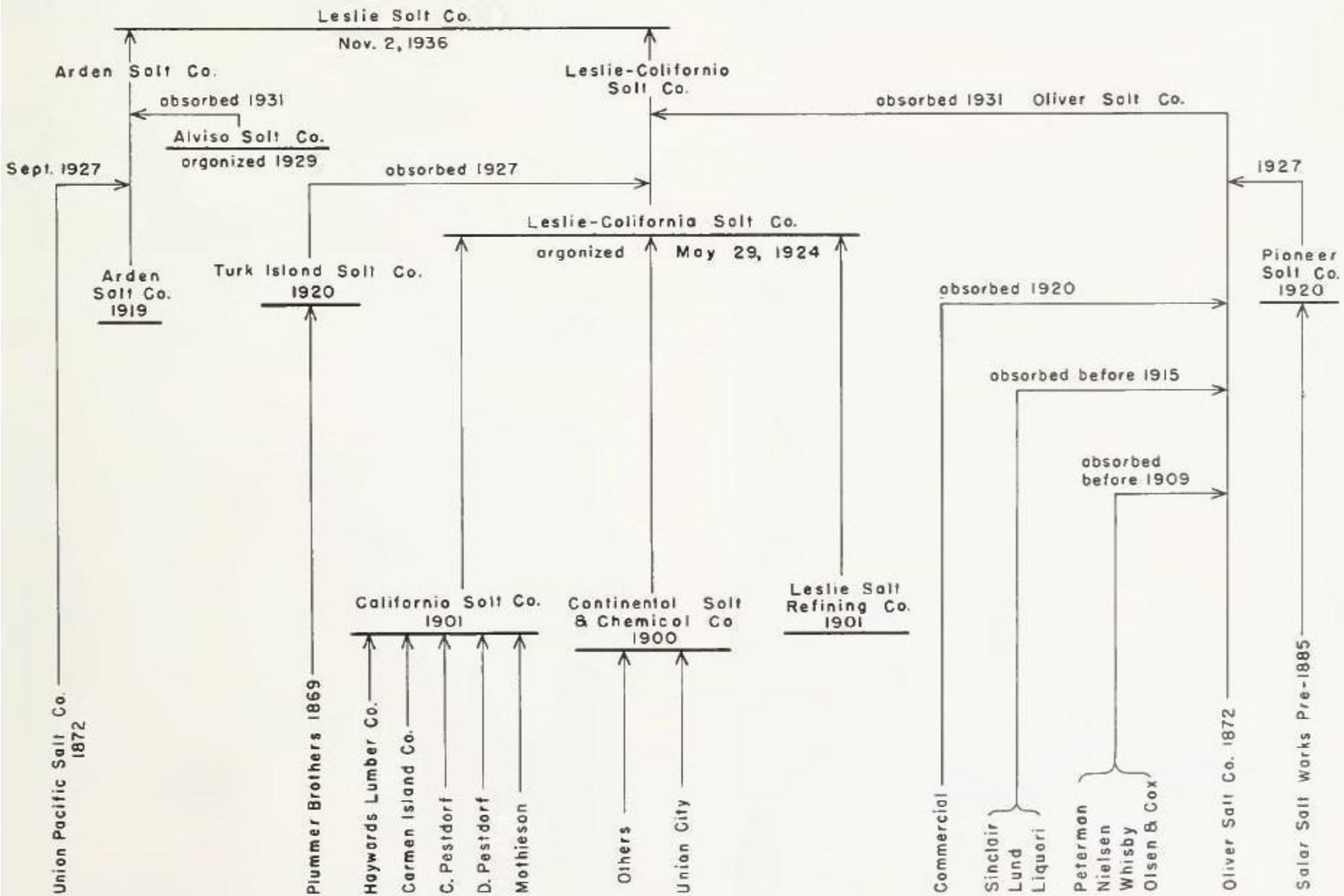


Chart illustrating consolidation of San Francisco Bay salt industry.

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
1	Alvarado Crude Salt	Leslie Salt Co.	Alvarado, south of the Coyote Hills Slough	Built in 1901 by the California Salt Co., expanded about 1927 by the Leslie-California Salt Co. Abandoned in 1940; pond area combined with Newark No. 1 and Baumberg plants.
2	Alvarado Salt Works	John Quigley	Alvarado	Built in 1862, production was reported in 1895, 1896, 1898, 1907. It was sold in 1908 to West Shore Salt Co., which reported production through 1919.
3	Alviso Salt Co.		Alviso (Santa Clara)	Production 1929. Sold in 1931 to Arden Salt Co. and ponds later joined with Newark No. 2 plant.
4	American Salt Co.	Marsicano Family	Mt. Eden	Founded in 1865. Production 1895 to 1903, 1908 to 1927. Leased 1931 to 1937 to Leslie-California Salt Co. for maintenance. Rebuilt in 1938; in operation at present (1957).
	Arden Salt Co.	A Schilling & Co.	Newark, South of Dumbarton Bridge.	Production from No. 1 plant began in 1919 and from the No. 2 plant in 1928. Arden Salt Co. and Leslie-California Salt Co. merged in 1936 to form Leslie Salt Co.
5	Richard Barron		Barron's Landing Mt. Eden	Active 1882. Land sold to Oliver Salt Co. between 1900 and 1910.
	B.F. Barton	See Solar Salt Works		
	John Barton			President of the Union Pacific Salt Co. before 1900.
	W.F. Barton			President the Union Pacific Salt Co. 1907 and after.
6	Baumberg Crude Salt Plant	Leslie Salt Company	Baumberg	Built about 1931 by Leslie-California Salt Co. when the Oliver Salt Co. was absorbed and consolidated with other plants in the area.
	James Baumberger, see Continental Salt Co. and Golden State Salt Corp.			
	J. Block, see West Coast Salt Co.			

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
	California Salt Co.		Alvarado & Hayward Landing	Formed in 1901. H.C. Coward, Mgr. Built new plant, also absorbed Carmen Island Salt Co. (Alvarado), Haywards Lumber Co., and numerous small plants. In 1917 had two crude salt plants and vacuum refinery near Alvarado plus a crude salt plant near Hayward's Landing. Merged with Leslie Salt Refining Co. in 1924 to form Leslie-California Salt Co.
7	Carmen Island Salt Works	Carmen Island Salt Co.	North of Coyote Hills Slough on the shore near Alvarado.	An important 19th century plant. Abandoned by California Salt Co. in 1901.
	Capt. John Chisolm		Near San Lorenzo	Active 1876, property not identified.
	Peter J. Christensen		Hayward's Landing	Active 1882. Estate of in 1897. F.J. Mathiesen supt. 1898, 1899, and owner after 1902.
	Comet Salt Co.		Mt. Eden	Listed in 1902, unidentified.
8	Continental Salt Co.	James Baumberger	Baumberg	Production 1898, 1899, 1903, 1907 to 1920. Sold to Oliver Salt Co.
9	Continental Salt and Chemical Company		Alvarado, north of Coyote Hills Slough	Organized in 1900. Land included Union City Salt Works, sold to Leslie California Salt Co. about 1925.
	H.C. Coward, see the California Salt Co.			
	A. Cox, see Anna Ohlson; Ohlson & Cox			
10	Crystal Salt Works	Plummer Brothers	Mayhew's Landing west of Newark	Founded 1864 by Plummer Bros. Last worked in 1925. See also Turk Island Salt Works.
	Mrs. A. Droste		Mt. Eden	Production 1899. Not identified.
	Dumbarton Land & Improvement Co.	A. Schilling & Co.	Alameda County marshes south of Alvarado.	Salt land purchased as a speculative investment. Most of it turned over to the Arden Salt Co. Company dissolved in 1929. Salt production reported in 1922
	Federal Salt Company			Active 1900 - 1902. Obtained control of the entire Bay area crop.

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
	Golden Gate Salt Co.	James Baumberger	Marin County	Production 1906. Exact location not determined.
11	Greco Salt Co.	Vic C. Greco	Greco Island near Redwood Creek, San Mateo County	Production 1905 to 1922.
12	Hayward's Landing, Crude Salt Plant	California Salt Co.	North of Hayward	Built about 1901 when Hayward's Lumber Co. consolidated with adjoining small plants. Last worked about 1925.
	Hettrick Salt Works	S.F. Salt Refinery	Alameda County	Production reported 1913, 1914. Not identified.
	A.P. Jensen		Mt. Eden	Active 1898. Not identified.
	A. Jones		Hayward's Landing	Production reported in 1906. Property sold to California salt Co. in 1907.
	A.L. Johnson		Mt. Eden	Production 1912 - 1918, 1922. Sold to F.L. Lemos. Property now owned by Oliver Brothers Salt Co..
	F.L. Lemos		Mt. Eden	Purchased A.L. Johnson property. Production 1929, 1930. Sold to Oliver Brothers Salt Co.
	Leslie Salt California Co.		Alvarado, San Mateo	1925 - 1935. Consolidation of Leslie Salt Refining Co., California Salt Co., and Continental Salt & Chemical Co. Merged with Arden Salt Co. in 1936 to form Leslie Salt Co.
	Leslie Salt Co.		Newark, Baumberg, Redwood City & Napa	Incorporated Nov. 2, 1936 as a consolidation of Leslie-California Salt Co. and Arden Salt Co. Still in operation (1957)
13	Leslie Salt Refining Co.		San Mateo	Organized in 1901. Vacuum refinery in operation 1910. Merged with California Salt Co., May 29, 1924. Last production from San Mateo plant in 1930.
14	Leslie Terminal Co.	Leslie Salt Co.	Port of Redwood City	Operates facilities for the bulk loading of ships. Still in operation (1957).
	Alice Ligouri		Mt. Eden	Production 1897, 1898. Called the Mt. Eden Salt Works.

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
	G.L. Ligouri			1900, superintendent of the Mt. Eden Salt Works. 1901 - 1906. Supt. of the Redwood City Salt Works.
	R.E. Ligouri		Mt. Eden	Small production 1906, property sold.
	Sebastion Ligouri		Mt. Eden	Production, 1895, 1898, 1900. Called the Mt. Eden Salt Works in 1900.
	A. Lindenberg		Hayward's Landing	Production reported 1908 - 1920. Supt. of C. Pestdorf Works 1897, 1898 and Peter Mathiesen Works 1899.
	F.F. Lund, see Paradise Salt Works			
15	Chris Madsen		Hayward's Landing	Production 1896 - 1900, 1904 - 1917. Chris Madsen and Sons after 1907. Sold to California Salt Company.
	Marsicano, see American Salt Co.			
16	Hans Mathiesen		Hayward's Landing	Production 1895 - 1904. Sold to California Salt Company.
17	P.J. Mathiesen		Hayward's Landing	Supt of P.J. Christensen estate works 1897 - 1901. Production as owner to 1920. Sold to Leslie-California Salt Co., about 1926.
	Peter Mathiesen		Hayward's Landing	Production 1899 to 1901. Estate of Hans Mathiesen, Mgr. in 1902.
	John Michelson, see Rocky Point Salt Works.			
	Miss Mary Michelson, see Rock Spring Salt Works.			
	Peter Michelson, see Rock Spring Salt Wrks			
18	Morton Salt Co.		Newark	Refinery completed Oct. 1926. Still in operation (1957).

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
19	Mt. Eden Salt Works	Ligouri Family	Mt. Eden	Leased 1901 - 1904 to J. Block (West Coast Salt Co.). Operated in 1904 by H.L. Petermann, leased 1905 to Oliver Salt Co., and purchased by Oliver Salt Company in 1907.
	Napa Crude Salt Plant	Leslie Salt Co.	Napa County, south of Buehli	Construction began in 1953.
20	Newark No. 1 Crude Salt Plant	Leslie Salt Co.	Washer on Jarvis Road	No. 1 plant of the Arden Salt Co., first production 1919. Still in Operation (1957).
21	Newark No. 2 Crude Salt Plant	Leslie Salt Co.	Washer off Central Avenue	No. 2 plant of the Arden Salt Co., first production 1928. Refinery in operation in 1941. Plant is still in operation (1957).
	Nielsen Salt Works, see see Rock Spring Salt Works			
	Mrs. Mary Nielsen, see Rock Spring Salt Works			
	Oakland Salt Works		Alvarado	Salt works closed before 1901.
22	Occidental Salt Works	J.W. Sinclair	Alvarado	Production 1895 - 1899. Sold about 1901 to Oliver Salt Co.
23	Anna Ohlsen			Estate of F. Ohlsen., A. Cox, Mgr. Also called Ohlsen and Cox, and Cox's Works, 1895 to 1900. Leased 1903 to Oliver Salt Co. and owned by Oliver in 1909.
	Ohlsen & Cox, see Anna Ohlsen			
24	Oliver Brothers Salt Co.	A.E. Oliver and A.A. Oliver Jr.	Mt. Eden	First production 1939. Property bought from F.L. Lemos estate. Still in operation (1957).
25	Oliver Salt Co	Oliver Family	Mt. Eden	Established in 1872. Leased to Leslie California Salt Co. in 1927 and purchased in 1931.
26	Paradise Salt Works	F.F. Lund	Mt. Eden	Production 1895 - 1913. Absorbed by the Oliver Salt Co.

SAN FRANCISCO BAY SALT PRODUCERS

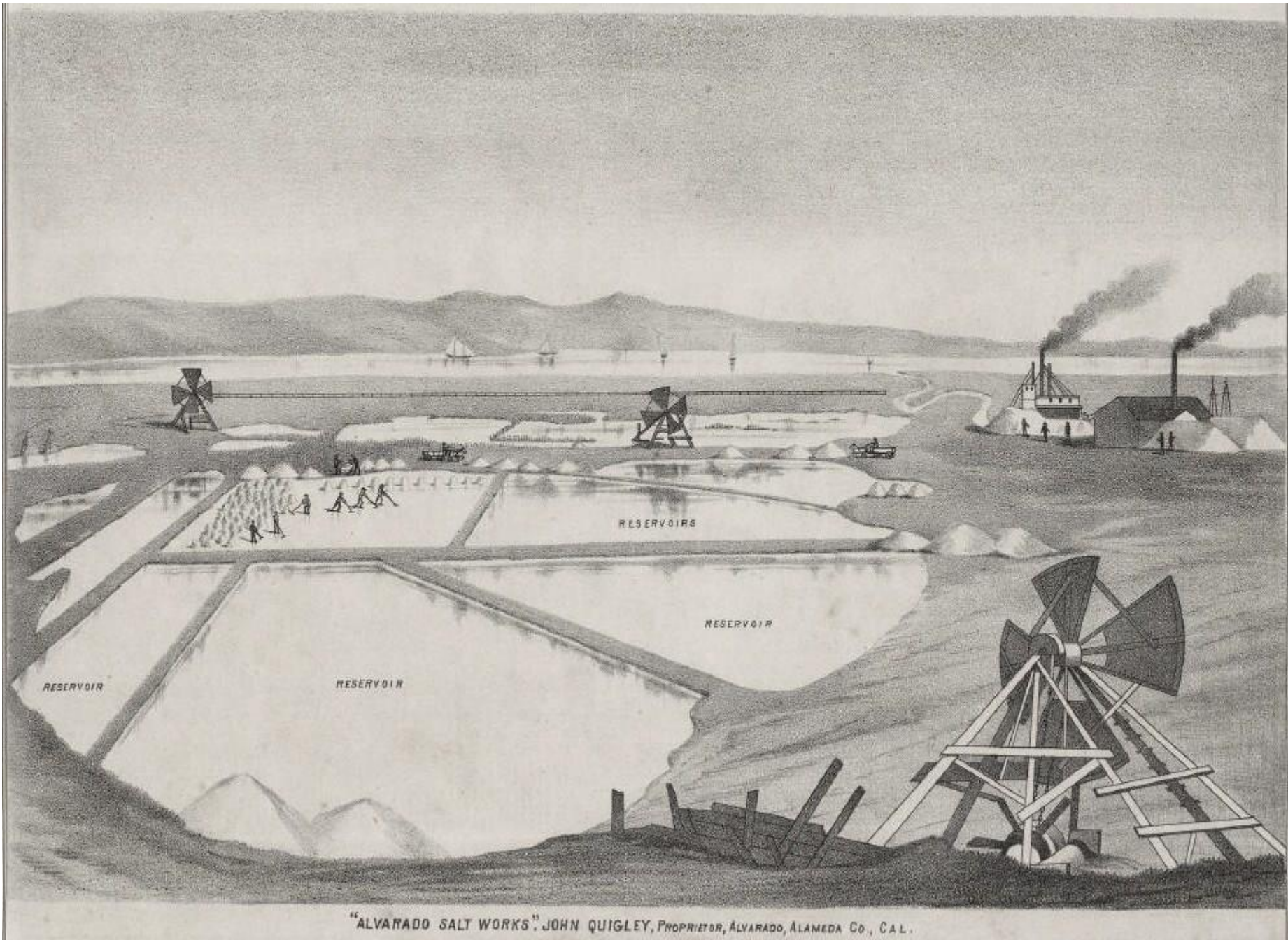
Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
27	C. Pestdorf		Hayward's Landing	Production 1895 - 1896. Estate of A. Lindenberg, Supt., 1898 - 1905 and D. Pestdorf, executor 1908, 1909. Absorbed by the California Salt Co.
28	D. Pestdorf		Hayward's Landing	Production 1896 - 1898. Absorbed in 1903 by the Hayward Lumber Co. See also C. Pestdorf.
	H.L. Petermann		Mt. Eden	Production 1898 - 1900. See also Mt. Eden Salt Works.
	Pioneer Salt Co., see Solar Salt Works			
	Plummer Brothers, see Crystal Salt Works and Turk Island Salt Works			
	Putnam Brothers, see Union City Salt Works			
	John Quigley, see Alvarado Salt Works			
29	Redwood City Crude Salt Plant	Leslie Salt Co.	Port of Redwood City	Land purchased from Stauffers Chemical Co. Construction began about 1943, first full scale harvest obtained in 1953. Still in operation (1957).
29	Redwood City Salt Works	Ligouri Family	Redwood City	Production 1901 - 1909. Sold to Stauffer Chemical Co.
30	Rocky Point Salt Works	John Michelson	Mt. Eden	Production 1895 - 1899, 1903 - 1905. Estate of in 1905. Absorbed by the Oliver Salt Co.
31	Rocky Spring Salt Co.	Mary Michelson Nielsen	Mt. Eden	The Peter Michelson property. Production 1895 - 1900, 1902, 1904 - 1906. Called Nielsen Salt Works after 1903. Absorbed in 1907 by the Oliver Salt Co.
	A. Rossow		Mt. Eden	Production 1906.
	San Francisco Salt Refining Co.	Stauffer Chemical Co.	Redwood City	Production 1912 - 1925. Absorbed by the West Shore Salt Co. Also operated a vacuum refinery in San Francisco.
	J.W. Sinclair, see Occidental Salt Co.			

SAN FRANCISCO BAY SALT PRODUCERS

Map Number	Claim, Mine or Group	Owner, Name Address	Location	Remarks
32	Solar Salt Works	B.F. Barton	Alvarado	Production 1905 - 1927. Plant owned by Pioneer Salt Co. after death of Barton, about 1916, plant sold to Oliver Salt Co.
(14)	Stauffer Chemical Co.		Redwood City	San Francisco Salt Refinery plant operated 1929 - 1940. Land sold to Leslie Salt Co.
33	J.P. & Martin C. Tuckson		Hayward's Landing	1895 - 1920. Property leased to Arden Salt Co. in 1931.
34	Turk Island Salt Works	Plummer Brothers	Alvarado	Built 1869. Plant leased to Turk Island Salt Co. about 1920 and combined with Baumberg plant of Leslie-California Salt Co. about 1927. See also Crystal Salt Works.
35	Union City Salt Works	Putnam Brothers	Alvarado	Production 1895, 1897 - 1900. Absorbed by the Continental Salt & Chemical Co.
36	Union Pacific Salt Co.		Alvarado/Mt. Eden	Established in 1872. Plant sold in 1927 to Arden Salt Co and last operated in 1929.
	West Coast Salt Co.	J. Block	Mt. Eden	Acquired Mt. Eden Salt Works. In production at 1904. Defunct in 1907.
	West Shore Salt	Stauffer Chemical Co.	Redwood City, Alvarado and Mt. Eden	Production 1906 - 1910. Purchased Alvarado Salt Works in 1908, and had a third plant near Mt. Eden. Disbanded in 1911 and Redwood City plant taken over by the San Francisco Refining Co.
37	L.N. Whisby		Mt. Eden	Production 1895 - 1898. Absorbed by the Oliver Salt Company.

JOHN QUIGLEY'S ALVARADO SALT WORKS

A drawing from Thompson & West's 1878 Atlas of Alameda County shows the Quigley Salt Works west of Union City. It gives a good idea of how early salt production was achieved. Note the windmills (more on this later).



"ALVARADO SALT WORKS." JOHN QUIGLEY, PROPRIETOR, ALVARADO, ALAMEDA CO., CAL.

TWO FAMOUS ALVARADO SALT WORKS

A Google aerial view of the Alvarado marshes showing the location of Old Union City, the Alvarado Salt Works and the Turk Island Salt Works. The Alvarado Salt Works ruins is located 1.1 mile west of the Veasy Street turnaround. The Turk Island Salt Works (no ruins remain) is located 1.3 miles west of the intersection of Dyer Street and Union City Boulevard.



OLD UNION CITY

JOHN QUIGLEY'S
ALVARADO SALT WORKS

TURK ISLAND
SALT WORKS

880

Alvarado Niles Rd

Smith St

Alvarado Blvd

Dyer St

Union City Blvd

Lowry Rd

The Alvarado Salt Works

The old Alvarado Salt Works lies along what once was a channel of the Alameda Creek west of today's Veasy Street in Old Union City. An old trussed bridge that crosses what appears to a minor ditch, was found to be the old channel of the Alameda Creek. This was once the old navigable channel of the Alameda Creek before massive flood control projects straightened Alameda Creek and bypassed this small elbow.

This once held a landing for the transportation of refined salt. The following pictures shows the ruins of the Works at a time of exceptional low water level, thus revealing the ruins.







Alvarado Salt Works ruins

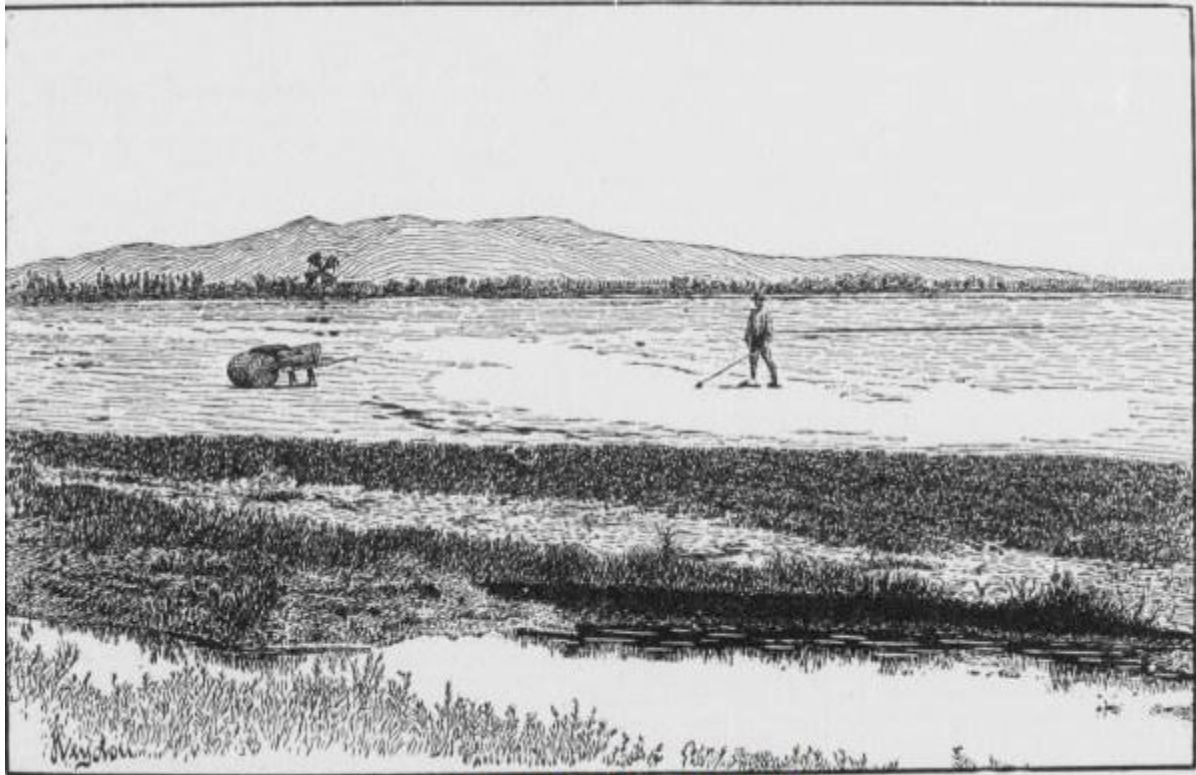


A dilapidated bridge crosses an even more dilapidated creek.

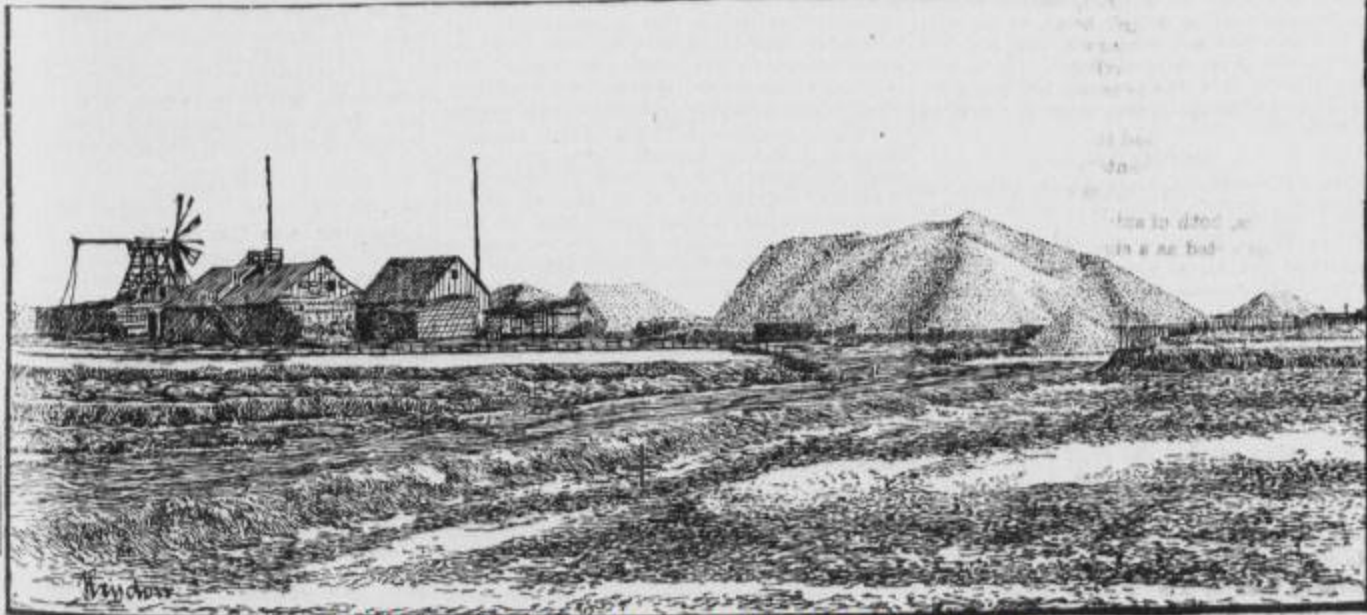
Alvarado Salt Works ruins



**SCENES OF SALT PRODUCTION FROM MT. EDEN
TO NEWARK**



SALT POND AT ALVARADO



CALIFORNIA SALT WORKS, ALVARADO CALIFORNIA



SALT WORKS, ALAMEDA COUNTY



SALT WORKS, ALAMEDA COUNTY



SALT WORKS, ALAMEDA COUNTY



**American Salt Co., Mt. Eden:
A winter view with an empty crystallizing pond in the foreground.**



CAPITOL SALT WORKS, ALVARADO 1885



CRYSTALLIZING VATS, SALT WORKS, ALAMEDA COUNTY



GATHERING SALT FROM THE VATS, ALAMEDA COUNTY



Photo: L. Watt, October 2004

Figure 39: Shack, Union City Salt Works



Photo: L. Watt, October 2004

Levee Gate, Union City Salt Works



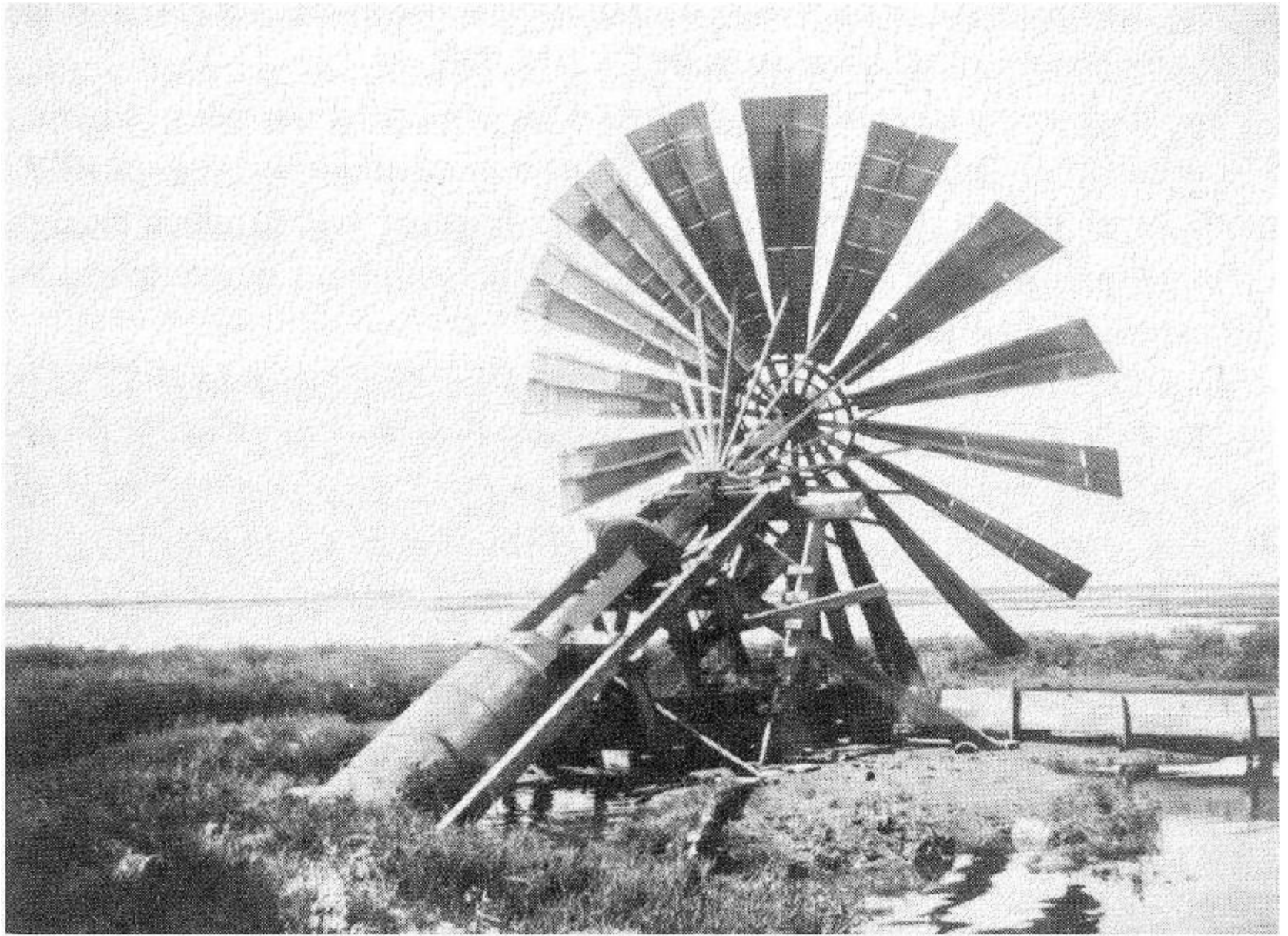
American Salt Co., Mt. Eden:

A windmill used for grinding salt in the 1870's. The mill stones have been removed.



American Salt Co., Mt. Eden:

Old windmill pump used before 1900. This type of pump was displaced by the Archimedes screw pump, a few of which survived well into the 19th century.



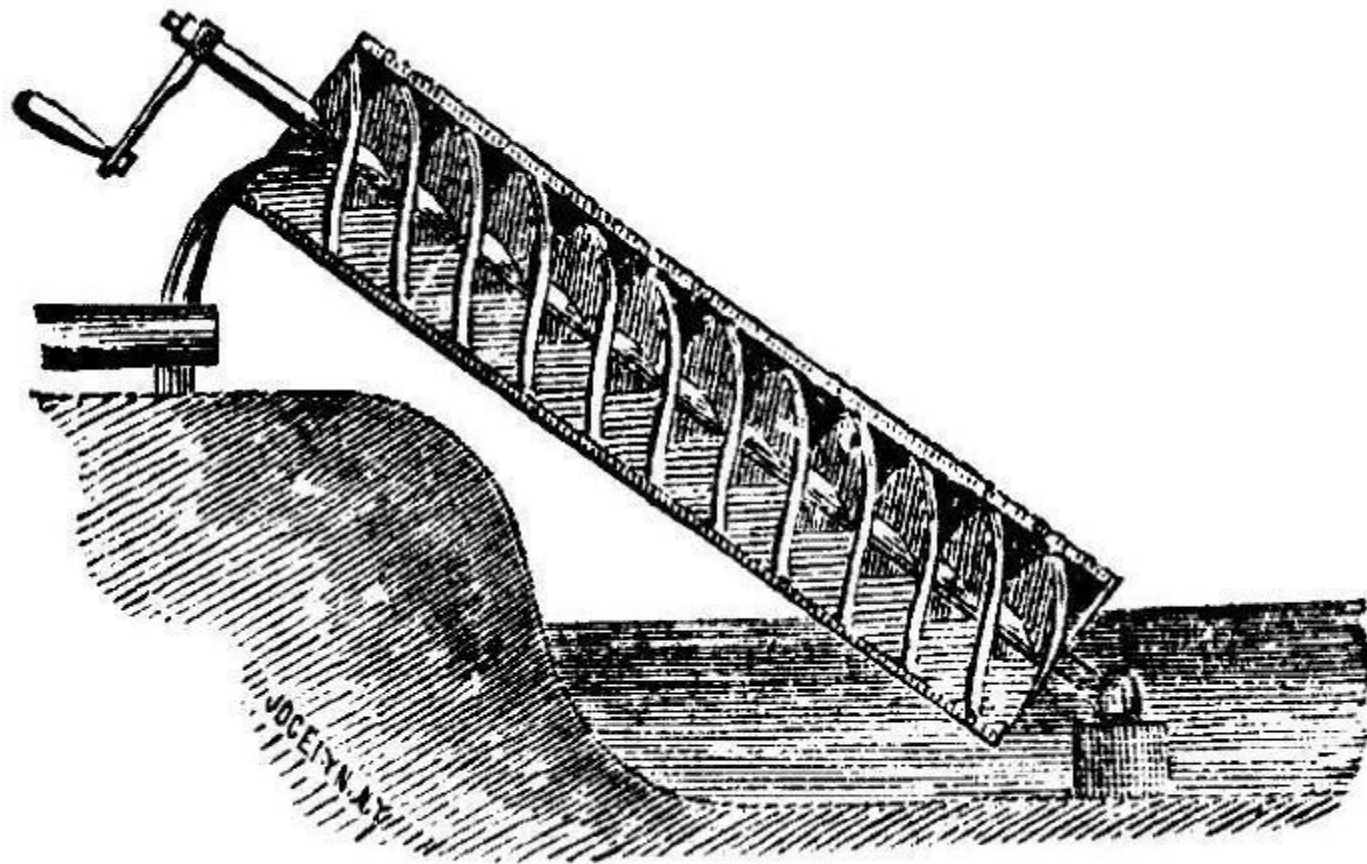
Source: Leslie Salt Company, circa 1900

Archimedes Screw Pump



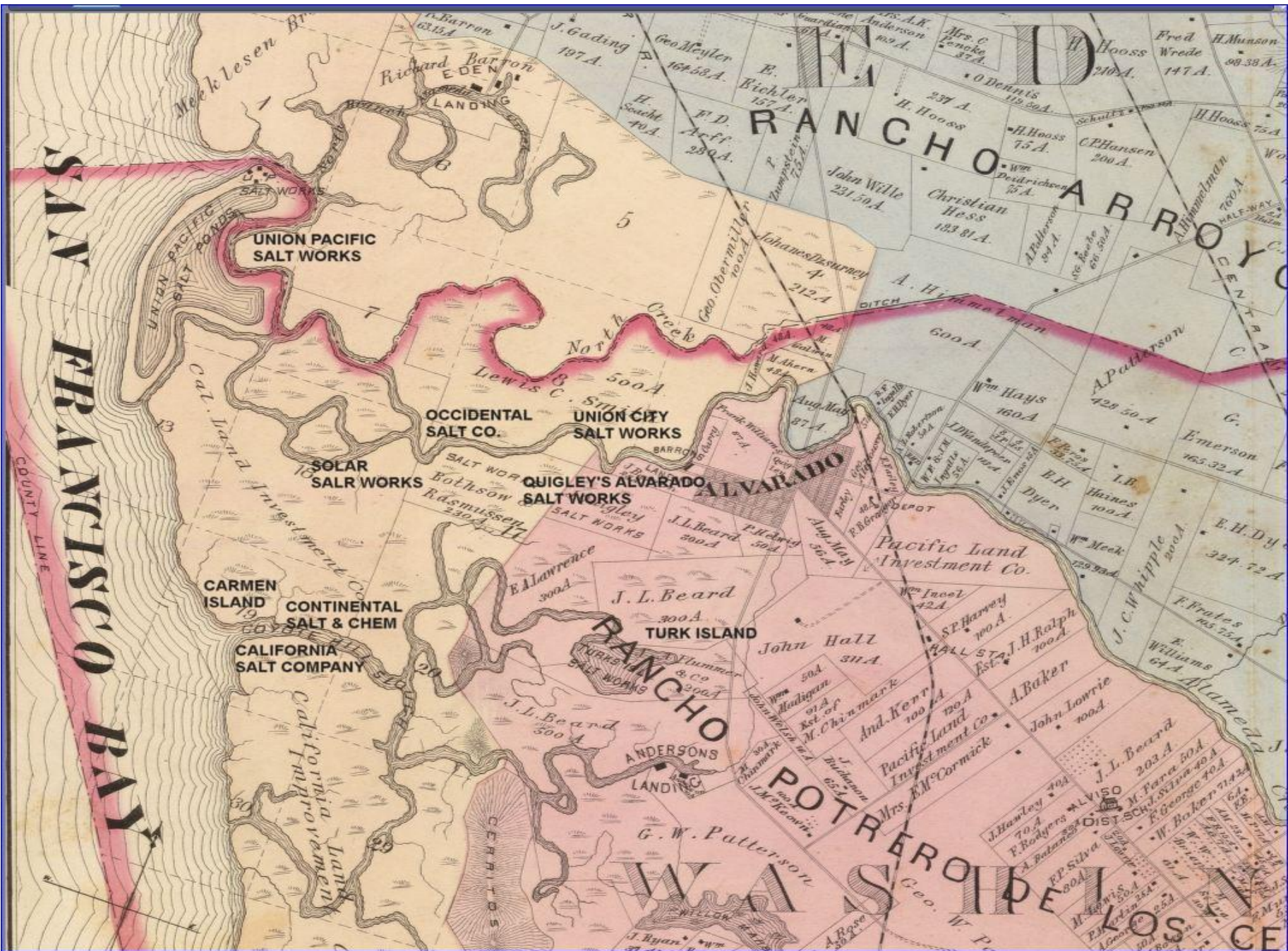
Source: Leslie Salt Company, 1984

Archimedes Screw Pump



Profile of Three-Bladed Archimedes Screw

THE UNION PACIFIC SALT WORKS, UNION CITY , CALIFORNIA



SAN FRANCISCO BAY

RANCHO ALVARADO

RANCHO POTRERO Y PAJAROS

UNION PACIFIC SALT WORKS

OCCIDENTAL SALT CO.

UNION CITY SALT WORKS

QUIGLEY'S ALVARADO SALT WORKS

SOLAR SALT WORKS

CARMEN ISLAND

CONTINENTAL SALT & CHEM

CALIFORNIA SALT COMPANY

TURK ISLAND

ANDERSONS

Pacific Land Investment Co.

A. Baker

J.L. Beard

M. Para

F. George

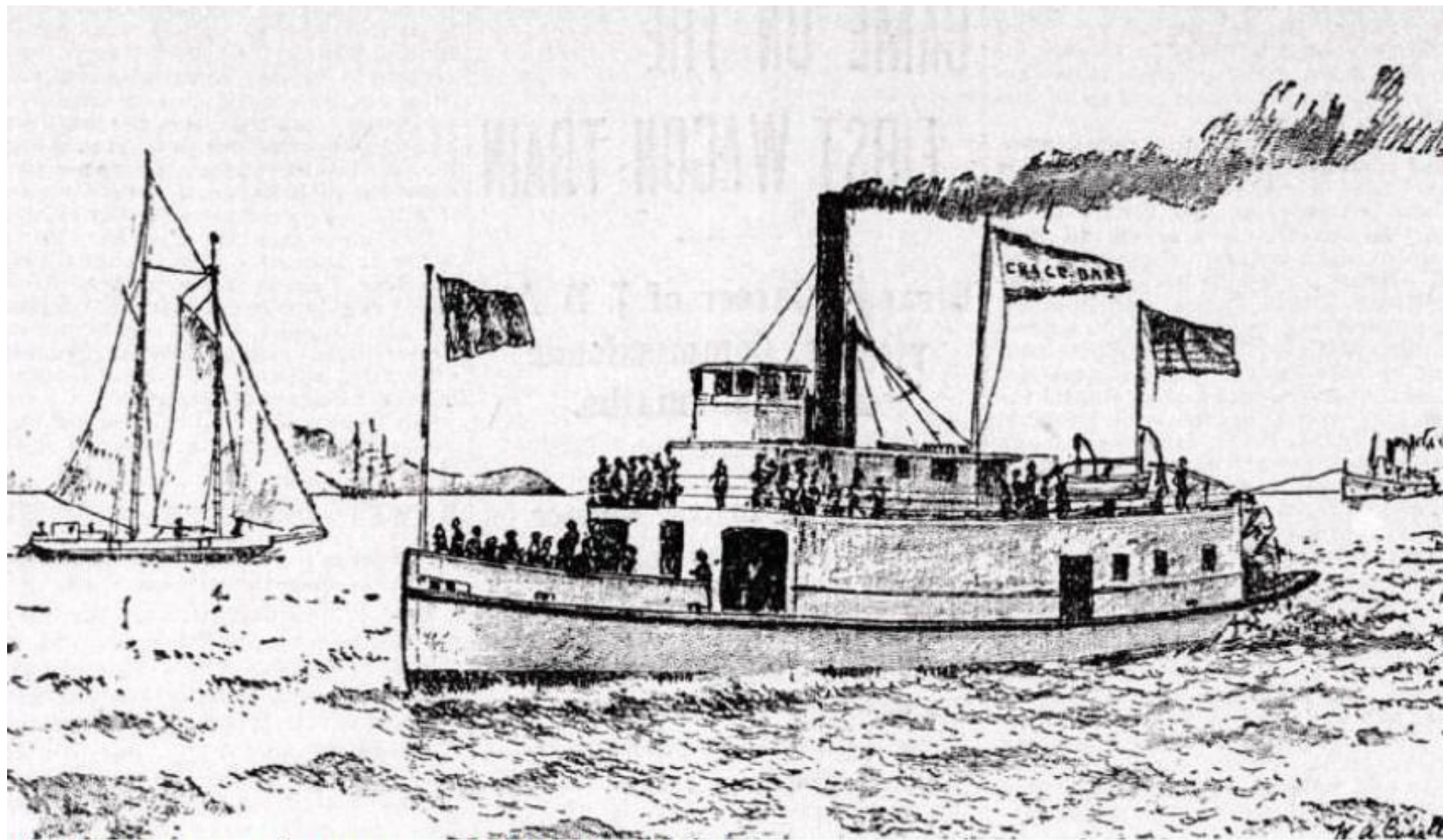
W. Baker

Geo. W. P.

Los Angeles



UNION PACIFIC SALT WORKS, ALAMEDA COUNTY



The Grace Barton - Salt Cargo Steamer (Shown here in 1896)

Built in San Francisco in 1890 to carry salt for the Union Pacific Salt Works west of Alvarado/Mt. Eden on the Bay, it made runs from San Francisco to Union City. Soon after the ship was refitted as a passenger ferry boat and made trips from Alviso (Santa Clara County) to San Francisco. After the turn of the century it became part of the Key System ferrying between San Francisco and Oakland. In 1916 it burned to the waterline and sunk near Rio Vista during the filming of the motion picture "Jim Bledsoe." The Grace Barton was named after the daughter of John Barton, President of the Union Pacific Salt Works.



The old waterway with the "Grace Barton" in the background.



The Union Pacific Salt plant at work, note the "Grace Barton" to the left.



The old Pacific Salt Building, note the salt steamer "The Grace Barton" in the background.



Men Shoveling Salt, Union Pacific Salt works.



Leslie Salt Refinery, Newark: Practically all grades of kiln dried and vacuum salt salt are produced.



Leslie Salt crude plant at Baumberg (south of Mt. Eden). The pond area, which includes most of the important 19th century salt works, is 4,630 acres. The washer (center) has a design of 180,000 tons a year. Bulk shipments only are made from the bunker (right).



Leslie Salt harvesting machine in operation. Each harvesting machine is served by four trains of 12 to 14 cars. Permanent tracks are laid on the levees and temporary tracks on the salt.



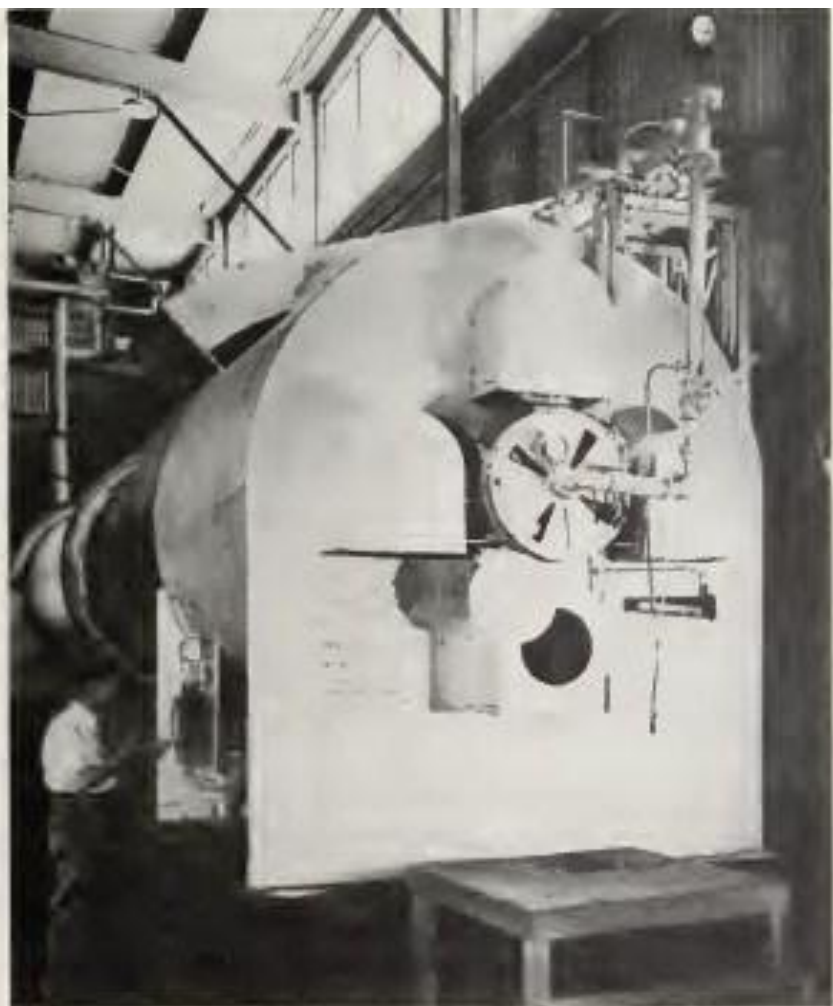
Leslie Salt Co., Newark: Dumping salt at the washer. The cars contents are discharged into rectangular brine filled pits beneath the tracks.



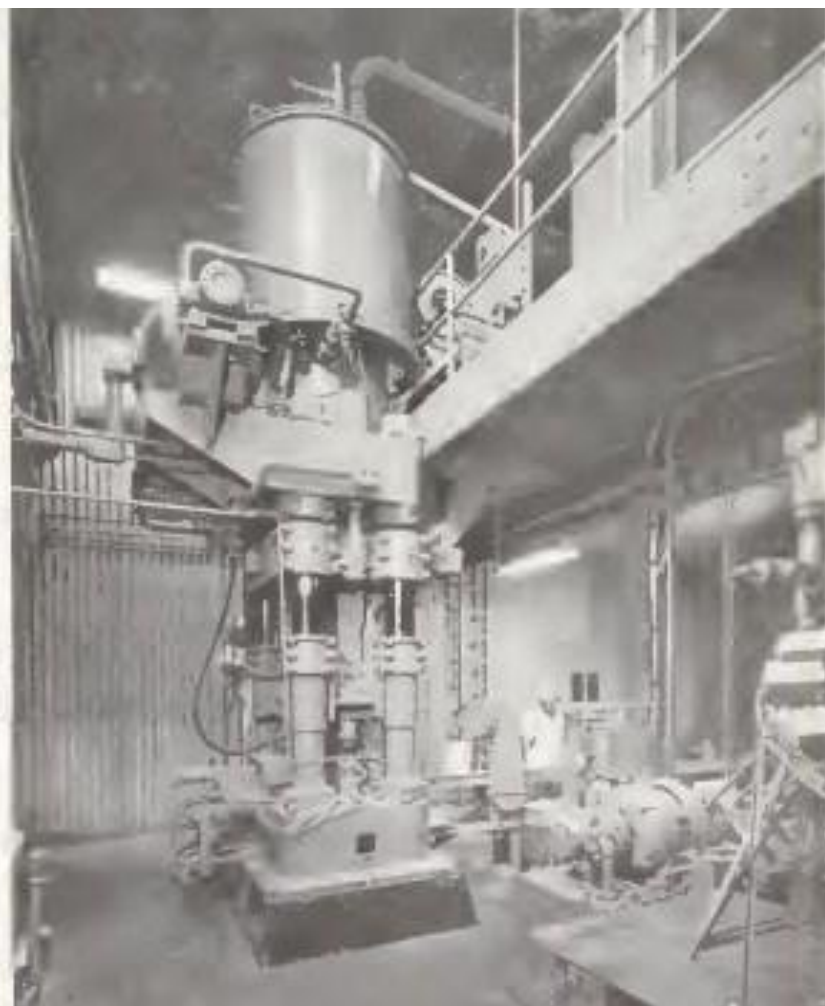
Leslie Salt Newark, evaporators, upper floor
The refinery contains four Swenson basket type evaporators, three of which are used at a time in triple effect. As brine is boiled under vacuum within the evaporators, salt crystallizes in nearly perfect cubes.



Leslie Salt Newark, evaporator house lower floor.



Leslie Salt Co., Newark, kiln drier for producing kiln dried salt. Crude prewashed salt is heated to 325 degrees F in a gas fired drier to produce a moisture free product.



Press for producing cattle blocks (licks). Salt blocks, which range from 50 pounds blocks to the small pet-licks are made by compressing salt dust.



Leslie Salt Co., Newark: Filling and capping rounds at the Newark refinery. Machines fill the rounds with a measured amount of salt, cap them, label them, and prepare them for packing in boxes.

MAJOR BAY AREA PRODUCERS OF SALT:

California Salt Company: The California Salt Company with W.G. Henshaw as President and H.C. Coward as Manager, built a plant south of Coyote Hills Slough and west of the Coyote Hills where salt had never been produced before. The land was obtained from the Dumbarton Land and Improvement Company, a subsidiary of A. Schilling & Co., which had purchased most of the marshland between the Coyote Hills Slough and the Santa Clara County line as a speculative investment.

In addition to the new plant, which produced its first crop in 1902, the California Salt Company acquired a number of existing works. They included the Carmen Island Salt Company on the bay shore north of Coyote Creek, which employed 71 men in 1899, the Hayward Lumber Company's works north of Hayward Landing, and small parcels of salt land near Hayward Landing that belonged to D. Pestdorf, C. Pestdorf, Peter Mathiesen and others. In 1917 the California Salt Company had 6,000 acres in production and employed 90 men. The operation included two crude salt plants southwest of Alvarado, a third near Hayward Landing, and a vacuum refinery of 100 tons daily capacity 3 miles southwest of Alvarado on Coyote Slough.

Continental Salt & Chemical Co.: The Continental Salt & Chemical Co. was organized in 1900 and built a salt works north of Coyote Hills Slough. It included the former Union City Salt Works of the Putnam Brothers as well as additional land to the west. With 1,100 to 1,200 acres in production in 1919 the plant had a yearly capacity of about 30,000 tons. Although there was no vacuum refinery, the plant contained a number of unusual features, including storage for an entire year's crop. The salt may have received a preliminary wash at harvest time, but the principal treatment was carried out in a plant of 200 tons per day capacity, as it was required for shipment. The processing included washing with cold and hot brine, drying, and screening. Another innovation, which has played a key role in the modernization of the Bay area salt industry, was the revolving pick loading machine.

Leslie Salt Refining Company: The Leslie Salt Refining Company, one of the first salt producers on the west side of the Bay, was established June 25, 1901. The principal plant was about a mile south of San Mateo in an area that following WWII has been filled in and covered with houses. A second plant near Redwood City was in operation in 1908 but was closed in 1909. A vacuum refinery began production in the San Mateo plant in January 1910. In 1919 the production was about 25,000 tons per year, mostly refined salt, obtained from 1,850 acres of marshland.

The California Salt Company, the Continental Salt & Chemical Co., and the Leslie Salt Refining Co. joined forces on May 29, 1924 and were reincorporated as the Leslie-California Salt Company. As part of a continuing program of increasing efficiency by modernization and expansion, two important contiguous salt plants were acquired in 1927. These were the Turk Island Salt Company and Oliver Salt Company.

Turk Island Salt Company: The Turk Island Salt Company was the name applied in the 1920's to the Alvarado plant of the Plummer Brothers, which was east of the California Salt Company refinery near Coyote Hills Slough. The Plummer Brothers, it will be recalled, were pioneer producers who built the Crystal Salt Works west of Newark in 1864 and the Turk Island plant in 1869. The Crystal Salt Works was operated continuously by the Plummer family, after 1918 by the Plummer Estate, until it was closed in 1925. The Turk Island plant, however, was leased in 1920, possibly to the California Salt Company, and operated until 1927. In that year the Leslie-California Salt Company leased the plant and combined it with its other operations.

Oliver Salt Company: Among the few large 19th century salt producers was the Oliver Salt Company whose plant was about 2 miles southwest of Mt. Eden. It was founded by Andrew Oliver, who was born in Sweden in 1834 and went to sea at the age of 15. He came to California about 1854, and in 1872, after a period spent at mining and farming, purchased 120 acres of salt land near Mt. Eden. Here he settled and brought his family. In the years following, Oliver gradually increased his salt holdings and twice rebuilt the original salt plant. When he died in 1890 his estate included not only the salt works of 15,000 tons annual capacity, but a lumber yard, a grist mill, an interest in dairy farming and poultry raising. These enterprises Mrs. E.A. Oliver, his widow, carried on for many years with the oldest son, Adolph A., as general manager of the salt works. The three younger sons held other positions.

The salt works continued to prosper. In 1909 the E.A. Oliver Salt Company included in addition to the original holdings the neighboring Mt. Eden Salt Works of H.L. Petermann, the Rock Spring Salt Works of Mrs. Mary Nielsen, which she had inherited from her father, Peter Michelson, the L.N. Whisby Works of J.W. Sinclair, the Paradise Salt Works of F. Lund, and salt land that had belonged to the Ligouri family. About 1920 the Commercial Salt Company of James Baumberger was absorbed. All were small salt works that dated from the pre-1900 period.

In September 1927 the Oliver Salt Company purchased the Pioneer Salt Works of B.F. Barton that had been in operation at least as early as 1885. This plant, near the mouth of the Alameda Creek, was originally known as the Solar Salt Works, and it was not until some years after Barton's death that the name Pioneer Salt Works was used. After 1920 the owner was the Pioneer Salt Company, an organization that previously had marketed the output of the Solar Salt Works. The Oliver Salt Company in the 1920's had an annual capacity of about 30,000 tons of crude salt produced from 1,400 acres of marshland.

The Leslie-California Salt Company leased the Oliver Salt Works late in 1927 and purchased the property in 1931. The company was now able to consolidate its widely scattered operations. The separate units around Alvarado were combined and rebuilt into two crude salt producing plants, the Baumberg plant north of Coyote Hills Slough, and the Alvarado plant south of it.

These two plants included the greater part of the land occupied by the 19th century salt works. Thereafter all refining was done at the Alvarado plant, which had been rebuilt in 1924 following a fire, and no salt was produced at San Mateo after 1930. The small and isolated Hayward Landing plant was closed about 1925.

Arden Salt Company: Meanwhile, A. Schilling & Co., organized the Arden Salt Company and produced the first crop in 1919. Like the California Salt Company in 1901, the Arden Salt Company built a new plant in virgin territory, and a comparable expansion of the salt industry followed.

Land was obtained from the affiliate, Dumbarton Land & Improvement Company. The first comparatively small plant was at Dumbarton Point, and the evaporating ponds probably did not extend north of the present Dumbarton highway. Expansion, however, was rapid, and about 1923 the crystallizing ponds and washer were moved to the vicinity of Jarvis Landing. This salt work, with 4,000 acres of evaporating ponds extending from Dumbarton Point north along the shore to the Leslie-California property, is today, with some addition area to the north, the Newark number one crude salt plant of the Leslie Salt Company. Late in 1926 the Arden Salt Company built a second crude salt plant, initially of 5,000 acres, south of Newark and obtained the first crop in 1928. In September 1927 the Union Pacific Salt Company was purchased. This old plant seems to have changed but little since the 1880's and the wooden floored crystallizing ponds were in use as late as 1920. The Arden Salt Company did not operate it after 1929. Another addition to the Arden Salt Company came in 1931 with the purchase of the Alviso Salt Company. Owned by the same interests that had been back of the Continental Salt & Chemical Co., it occupied the marshes of Santa Clara County from Alviso to Mayfield. The plant with its belt conveyors and barge for transporting the salt and washer at Alviso was used for a single year in 1929. Eventually the washer was dismantled and the pond system was joined with that of the Newark number two plant. By 1935 the Arden Company's Salt output approximated the combined production of all the other salt producers in California.

On November 2, 1936 the Leslie Salt Company was incorporated and took over the assets of the Leslie-California Salt Company and the Arden Salt Company. A further consolidation of the salt plant was now possible. The ponds of the old California Salt Company at Alvarado were joined with those of the Newark number one plant, while the old Union Pacific Salt Company land was in part added to the Baumberg plant. With the completion of a new washer and refinery at Newark in 1941, the Alvarado refinery was closed and dismantled. Some of the equipment, including three vacuum pans, was moved from Alvarado. Today there is little of the salt industry to be seen near Alvarado, except a vast expanse of evaporating ponds. The sun and the wind silently at work give but little hint of the salt works that once clustered in this area nor of the modern salt industry carried on at Baumberg and Newark.

A number of independent salt works that survived well into the period of consolidation remain to be account for. Of these only the American Salt Company is in operation today (1957).

American Salt Company: The American Salt Company was founded in 1865 by Patrizio Marsicano. For three generations the plant at the end of Depot Road in Mt. Eden has been owned and operated by the Marsicano family. During the 19th century it was among the largest of the Alameda County salt producers. This plant may well be the one called the "California Salt Works" in the 8th report of the State Mineralogist. An accompanying illustration shows a windmill and a group of buildings almost identical with some old structures still standing on the Marsicano property. The Marsicano windmill at any rate dates back to the earliest days of the salt industry and was used for the grinding of salt. In the 1870's and 1880's however, the American Salt Company owned a mill in San Francisco to which a fleet of schooners brought the salt for drying and grinding.

After 1900 when the new generation of salt companies was beginning to take over the industry, the operations of the American Salt Company dwindled almost to the vanishing point. Upon the death of Patrizio Marsicano about 1912, his widow, Mrs. Mary Marsicano, carried on the business. Only six men were required to harvest the 1917 crop. Frank Marsicano, who became manager in 1921, operated the plant through 1927. Then for a number of years the plant lay idle except for maintenance, which was performed by the Leslie-California Salt Company.

Ten years later when the lease to the Leslie-California Salt Company had expired, A.F. Marsicano, son of Frank Marsicano and the present manager, reopened the plant. Marsicano may well have been encouraged by the fact that the Oliver Brothers Salt Company was building a new plant in the vicinity. The old warehouse and landing on the bay shore were abandoned and replaced with new facilities on the landward side of the property. At the same time a modern washer was constructed and mechanized harvesting instituted. Beginning in 1938, the American Salt Company was again producing a modest tonnage of crude salt.

Oliver Brothers Salt Company: It will be recalled that the old Oliver Salt Company was sold to the Leslie-California Salt Co in 1931. A.E. Oliver and A.A. Oliver Jr., younger members of the Oliver family, decided to re-enter the salt business and purchased some salt land from F. Lemos. Lemos, who produced but little salt, had in turn purchased the property from A.L. Johnson who operated a small plant from about 1900 to 1924. Oliver Brothers Salt Company built a new plant on this land in 1937 and obtained the first crop a year later.

Hayward Landing Plants: Two small salt works near Hayward Landing were never incorporated into the plant formerly operated there by the California Salt Company and Leslie-California Salt Company. One, the Peter Mathiesen works had belonged to P.J. Christensen before 1903. A few hundred tons of salt were produced each year through 1920. Some time after 1926 the property was sold and now belongs to the Leslie Salt Company.

Tuckson's Works: Containing only 47 acres of land, it was operated by J.P. Tuckson from at least as early as 1895. Martin C. Tuckson, who inherited the property in 1907, worked his small holdings single handedly through 1920. The property was leased to the Arden Salt Company in 1931.

The Quigley Works: John Quigley, who built the first salt works on San Francisco Bay, seems to have all but retired from the salt business by 1900. Maintenance was performed at the plant between 1899 to 1907. About that time the plant was sold to the West Shore Salt Company with principal operations in San Mateo County.

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