U. S. COAST AND GEODETIC SURVEY.

J. M. Thorne, Superintendent.

State: California.

DESCRIPTIVE REPORT.

Topographic Sheets Nos. 1825, 1826 & 1827.

LOCALITY:
San Pablo Bay.

1886.

CHIEF OF PARTY:
J. S. Lawson.
Captain and Mrs. John L. Chester, of Hyattsville, Md., the daughter of U.S. Navy Society, received the Oscar and the membership in the Chester Family Foundation. The Chester Family Foundation, established in 1946, has won numerous awards for outstanding student achievement, including the National Science Foundation Award, the E.E.K. Most Valuable Student Award, and the Outstanding Young American Award. The Chester Family Foundation also works at a California State School and at Catalina, California, where high school students in New Mexico, Maryland, Washington, and California are helping students in the state.
as operated, and total amount of each modification agent used.

The penalty for conviction of violating Public Law 92-205, and rules adopted under its authority, is a fine of not more than $10,000.

NOTE: For the next few months, space that ordinarily would be devoted to Length of Service Awards will be devoted to retirements. Award columns will be resumed as soon as possible.

Richard A. Wood, former Weather Service Specialist at the Weather Service Forecast office in Denver, Colo., is the new Official in Charge of the NWSO in Winnemucca, Nev.

He served earlier in Washington, D.C., Texas, and North Carolina, and was in the U.S. Navy from 1950 to 1953.
Report on

Topographical Surveys

Nov. 1, 3 and 4

Recovery of

San Pablo Bay, Cal.

1886-7.

Jno. K. Lawson

Assistant.
These sheets bear the same number as the previous sheet from the Office. One of these (No. 3) was defective, and a substitute therefore was made at the Sub-Office, San Francisco.

The work embraced in this survey is from Vallejo, thatward on North side of San Pablo Bay, including Mare Ida, Block of Sonoma, Solay and Petaluma Creeks, to Novato Creek, where operations were stopped on account of refusals of allotment.

Each sheet is described independently, in order of number.
Sheet No. 2

From town of Vallejo, Westward to Brush A
including Mare Is' Navy Yard.

The survey of the shore line of Napa
Ave. was made from nearly two miles N. and W. from
Vallejo, and Mare Is' Navy Yard to Carquinez Strait.
On the Eastern side very few changes have been made
since the survey of 1885 to save those necessary in
the growth of the towns of Vallejo and South Vallejo
by the building of wharves, boat landings, and
the construction of the Napa Branch Railroad.
At South Vallejo there are most prominent by the
building of the R. R. wharf, over a quarter of a
mile long, some lumber wharves North of the
R. R. wharf, and the erection of the Star Flouring
mill and wharves adjacent.

On the Western shore (Eastern face of
Mare Is'), there are a number of artificial changes
as in the construction of buildings, removal of ex-
terior dock, &c., and some slight natural ones
by the growth of the tide. Northward from the
Navy Yard a belt of this growth extends for three-
seconds of a mile, and 100 meters wide, outside of
the High Water Mark of the previous survey. A small growth of the same nature has made at the southern end the Navy Yard. The shore line of the fast land of the Island shows no material changes.

If the hydrography of this portion of Napa Creek had been explored, great changes would have been found at South Vallejo. Where formerly 30 ft. of water was found at end of wharves, dredging is now necessary to permit the docking of vessels; as also at the sides of these wharves, small tidal channels, to serve as bobs for discharging vessels, were dredged, outside of which bees the water was so shallow that any whaleboat would ground before low water.

At the entrance to Napa Creek from Carquinez Strait, the width is greatly contracted, shutted - by the extension of the Star Mill wharf on the Eastern, and the Naval Magazine wharf on the Western sides.

The shore line of the Western side of the fast land of Mare Isle shows little or no change. It is proper, however, to state that on account of dense fogs prevailing at the times of the lowest low water, it was impossible to obtain
the outline of the small reef near the mouth shore and parallel lines, and from three-quarters to one mile N. and W. of Shaen Sta. Light House. Unless this reef was fully developed in the hydrography of San Pablo Bay, I suggest that the full extent as shown in the original work by Assistant Cutts, be retained.

At a point on the shore line of San Pablo Bay, about a mile and a half N.W. from N. end of the first land of Wasm. Sta. it will be seen that the march shore begins to deviate considerably from the previous survey. This is the result of a washing away, a few years ago, during a very heavy stormy gale. At the western limit of the chart a difference of 120 meters is shown between the position of the former and present shore line.

No contours were run on this chart, as no apparent changes had taken place.
Sheet No. 3.

From Western limit of Sheet No. 2 to Mouth of Dolea Creek, including Mouth of Sonoma Creek.

The following remarks for Sheet No. 2 are to the changes of the Wreck line, hold good for Sheet No. 3 to the Mouth of Sonoma Creek, and thence S.W. to Dolea Creek, although the cutting has not been to extension. The western appearance of the marsh shore where the wreck has occurred is rather peculiar.

Inside the mouth of Sonoma Creek there has been comparatively little change, except that the northern half of a large muddy island between Sonoma and Dolea Creeks has been dug, though not sufficiently for perfect reclamation, that portion extending from Sonoma to Dolea Creek and fronting on the Delta Bay is not dug, on the north part of the said bank of Sonoma Creek, a little over a mile inside of the mouth, are shown some improvements belonging to Mr. A. S. Bums. At this place an artesian well was two 250 ft. deep, but instead of fresh water as was depicted a flow of natural gas appeared. This has been utilized for illuminating, heating and cooking.
purposes.

The survey of Poley Creek was continued beyond the limits of the former work to show its junction with Sonoma Creek.

The name "Poley" Creek seems to be a misnomer. It was adopted by Mr. Rodgers when he made the original survey, but for what reason he does not now recollect. It is a name, as applied to this slough, entirely unknown there even to "ye oldest inhabitant." There formerly existed a small, insignificant water course, emptying into the main slough several miles above the mouth, and which was called Poley Creek because it was the outlet of a small pond which was called Poley Lake. This having been drained, no longer exists. Whatever all "Poley Creek" is universally known as "Wildshipman Slough." For the reason that in the very early California days, two mid-shipmen went there murdered by the boat's crew.

The west shore of Poley Creek is dyked as far as shown on this sheet; and all the marsh land from where the salt land approaches close to the creek, has been reclamed and is under cultivation.
On the Western part of the sheet is shown a portion of the Sonoma Valley Rail Road, narrow gauge, which continues up the Valley, through the town of Sonoma, one of the oldest towns in the State, to the Village of Glen Ellen.
From Soley Auk to Petaluma Auk, and along the eastern shore of the latter, a large amount of marsh has been reclaimed by ditches and ditches, and is successfully cultivated. About three-fourths of a mile E. of the Entrance to Petaluma Auk is the Sonoma Landing, where steamboats from San Francisco connect with the Sonoma Valley R. R. This landing is connected with the main shore, 700 miles distant, by a track built on piles. At low water the flats are bare from the shore to the inner side of the landing.

Generally, the shore on North and East sides of Petaluma Auk presents no greater changes than might naturally be expected from the reclamation of the marsh, except in the greatly reduced area of a large slough on the East side and two and one half miles from mouth. Though this slough steamboats formerly passed at high water, now the slough has so grown by deposit of sediment that in places a boat can hardly be pulled through, and at its North end is dyked off.
On Western side of Petaluma Creek, 1/2 miles inside of Entrance, a considerable portion of the marsh between the shore line and fast land has been reclaimed, and part of it cultivated. Wherever the fast land is immediately contiguous to the shore, no marked change has occurred.

Formerly the marsh from Novato Creek (North side) extended Westward of the island of fast land called Petaluma Pt., and opened on the shore line of Petaluma Ck. This arm of marsh is now cut off by a dyke, and is reclaimed.

On both sides of mouth of Novato Ck. extensive changes will be seen from the great growth of the tule, or rather the Elymus Marinus; on the South side this has extended 1300 meters Eastward of the shore line of the former survey. The positions of the stations "N. Grass" and "S. Grass" give a good idea of the extent of this growth. South of the West of Novato Creek. It takes root and increases quite rapidly, and by retardation of the currents, causes a large portion of the muddy sediment held in suspension in the waters, to be deposited, thus forming new marsh, which, in the course of years, can be reclaimed and utilized for agricultural purposes.
As will be seen from the sketch a great amount of the
land on the side of the Creek has been dyked and
is under reclamation, and the owner proposes to
carry the work into the lake as far as practicable.

By instructions from Assistant Engineer I
was directed to continue the work described to include
the track of the San Francisco and North Pacific R. R.
but on account of the expense and loss of the allotment for
the reason this could not be done the work is
resumed, this can readily be readied and then also
the branch line now being built can be added.

This latter line, which was only under consideration
when I was at work in that locality, branches off
from the main line at a near the R. R. station
called "Pacheco" (not our Pacheco A), near Salinas,
crossing the Naves Creek and the railroad on its side
thereof, passes through the largest arms of the
marsh penetrating the hills W. of Petaluma R.
and will cross the Petaluma R. by means of a
bridge with a draw; then across the reclaimed
ground on E. side of Petaluma R. until it makes
a junction with the Sonoma Valley R. R. about
three-fourths of a mile Easterly from San D. Hike
on this branch of the R. R. had not been commenced.
at the time my operations closed, but is now going on, with the prospect of extending the line across the reach from Poley Cn to Atala Cn., and possibly to Benicia.

The determination of the Low Water Mark in connection with the work on San Pablo Bay, was found to be so unsatisfactory that I abandoned the attempt. The bottom varies so very gradually, that a change of a few miles on full of the tide would make a large change in the location of the N. Y. Mark, and in many places would be so far off as to be beyond the use of the tide meter and, at the same time the water would be so shallow that a boat could not reach the place I deemed it best, therefore, that the N. Y. Mark should be located from the hydrography.

Respectfully Submitted

[Signature]

Assistant A. H. Survey

San Francisco, Cal.
May 22, 1885.