

# 2206

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey *Topographic*  
Field No. \_\_\_\_\_ Office No. *2206*

### LOCALITY

State *California*  
General locality *San Francisco*  
Locality *Bay*

*1895*

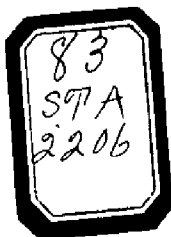
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### CHIEF OF PARTY

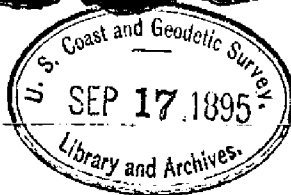
*A. P. Rodgers*

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2206



U. S. COAST AND GEODETIC SURVEY.

*Gen. W. W. Duffield*, Superintendent.

State: *California.*

DESCRIPTIVE REPORT.

*Topographic* Sheet No. 2206.

LOCALITY:

*San Francisco*  
*Bay.*  
*Hunters Point to*  
*San Bruno*

1895.

CHIEF OF PARTY:

*Aug. F. Rodgers*  
*Assistant*

Resurvey of San Francisco Bay,  
California, 1894.

Descriptive Report to Accompany Topographic Sheet,  
Extending from Hunters Point Southward to Point San Bruno.

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Triangulation.

Point Avisedera Station at the northern end of the limits of the sheet, was so far distant from Sierra Point Station 6280 meters to the southward, that I found it expedient to interpolate new trigonometric stations between the two for the use of the topography. Both Point Avisedera Station and Stony Hill Station, the latter at the extreme northern limit of the sheet, were recovered.

The bottle buried in 1850 or 1851 as the sub-surface mark at Stony Hill Station was uncovered and found intact.

At Point Avisedera Station two of the witness stones, described as placed six feet from the center, at surface of ground were not found, and from the description I was led to believe the single stone block in evidence was the center, and I occupied the position, but computation showed it to be one of the witness stones and gave direction and distance to the sub-surface center block which I then reoccupied. At Sierra Point Station only the fragment of a bottle, described as sub-surface center mark, could be found and whether that was in true position could only be proved by occupation and trigonometric determination. The evidence of computation showed it to be either entirely unmoved or so close as

to be within the limit of error determinable by any but elaborate observation. San Bruno Point Station has been occupied and remarked by Civil Engineers making a local survey, and there was no direct evidence that they had taken the trouble to exactly locate the station over the original one. The position is now destroyed by being selected as the site for an oil tank. I specially mention these details in order to emphasize the necessity of careful marking of stations; this cannot well be done in the progress of a rapid trigonometric survey where a new station may be occupied each day. The cost of the stone blocks for permanent marks and their transportation would make serious inroad upon allotments never more than large enough.

Topography.

The shore-line was resurveyed over the entire length of the sheet, the fast land shore was found unchanged but the salt-marsh shore-line had receded from ten to forty or fifty meters in extreme cases. Owing to improvements made and projected in the water frontage of the new town first called Baden and later South San Francisco, I made a careful resurvey of the sloughs or estuaries immediately south of Point San Bruno, finding some changes, but as these salt-marsh-lands are all destined to reclamation, and some of them already dyked to exclude the bay water, it does not seem of importance to closely determine the changing banks of the sloughs, and I therefore confined my attention principally to the bay shore-line. South of San Bruno Point the bay shore is fringed with salt marshes until about one mile north of San Mateo Point, and is generally described in

descriptive report for the San Mateo Point sheet.

County Roads, Railroads &c.

The principal wagon road upon the sheet is known as the San Bruno road from its rounding the eastern water-front of San Bruno Mountain, it is the main wagon road from San Francisco leading to connections at San Mateo, Redwood City, San Jose, and intermediate villages. The other principal road paralleling the San Bruno, is known as the old County road; it was surveyed in the San Frances Peninsula Survey and its location has remained the same.

The same description applies to the Central Pacific R.R., a new part of the road is shown in the southern portion of the sheet until it is brought into junction with the margin of the Peninsula Survey above mentioned.

Towns &c.

The sheet embraces the southern suburb of San Francisco near Hunters Point, and the only other town is Baden or South San Francisco shown upon the sheet. This was started as a speculation, the nucleus being the capital invested in an elaborate abatoir and beef and pork packing establishment. The brick chimney of the abatoir proved an excellent signal for the survey and was trigonometrically determined under the name "Baden Chimney Station."

The town has never grown beyond the character of a scattered village, although many expensive and excellent buildings were erected in expectation, not realized.

Please note that a collection of Chinese shrimp fisher-

buildings surveyed within limits of the sheet herein described, have been moved, land lease having expired, from Point San Bruno to a location on the shore-line two miles west of San Mateo Point.

San Bruno Mountain, 1300 feet elevation, is a marked geographic feature within the area of the sheet, and was included in the Peninsula Survey published in 1869; to this date its abrupt slopes and rugged outlines have prevented attempts at improvement and it remains unchanged.

Streams &c. There are no streams beyond the size of rivulets within the area of the sheet.

Respectfully submitted,

*Aug: S. Rogers*

Assistant U. S. C. & G. Survey.

Write me at:

San Francisco, California

Telegraphic at:

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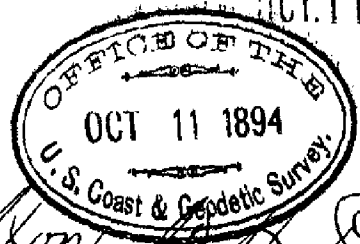
My Express Office is:

U. S. Coast and Geodetic Survey,

OCT. 11. 1894 012899

San Francisco

10. 11. 94



13<sup>th</sup> October, 1894

Hon. C. H. Pugh  
Acting Superintendent W.C. Survey  
Washington D.C.  
Sir

Hyd. Survey 95 100  
W.W.C. 10/11/94

Dr. D. W.  
92 M. 85  
10/13/94

In forwarding the accompanying tracing from the United Topographic Sheet, a re-survey of the shore line of San Francisco Bay from Point Alvarado on the south, I desire to show in advance of the general extension of the work, the character of the changes which the re-survey will exhibit.

I had expected to be able to add the changed features of the topography by interpolation but found it impracticable to make an acceptable margin between the old & new work & finally in every way more satisfactory to re-survey <sup>the</sup> the shore line de novo.

It is a question how much

in addition to the shore-line shown to be embraced by the present re-survey — whether County roads and Rail Road adjacent to the shore-line or within the limits of the several sheets. For Military purposes these features have great value when emergencies occur & in modern warfare with rapid movements afloat & ashore, comprehensive chart data are more than ever requisite.

I have the wish to suggest extra work in this re-survey and yet I am anxious to avoid the omission of any feature which may be readily included and add to its usefulness.

I have the honor to append to this letter such remarks, in the form of notes as occur to me in comparing the former & recent surveys.

Yours Respectfully  
 Alg. O. Hodges  
 Assistant



OCT. 11. 1894. 012899

Notes to accompany tracing of uninked sheet showing resurvey  
of Shore-line of San Francisco Bay, California, from Point  
Avisadera (Hunters Point) Southward.

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Commencing at Point Avisadera (commonly known as "Hunter's  
Point" from the name of its earliest <sup>AMERICAN</sup> owner) a comparison of old  
and new surveys shows little if any change in the fast-land shore  
line. I call attention to the removal of the floating dock shown  
in former surveys, adjacent to the Hunters Point Dry Dock. The  
floating dock referred to has been moved northward along the San  
Francisco City-front.

Marsh Shore-line. In the bight or indentation approximately  
one and one-half miles westward from Point Avisadera, a radical  
change has taken place. The marsh-land area in the bight, which  
had at one time been reclaimed from the flow of the tides by the  
building of a bulk-head and was the site of a race-track, has been  
eroded and degraded below its former level, so that at high-tide  
it is, except in a few small detached spots of higher level, en-  
tirely submerged, and <sup>of</sup> the track alluded to, a well known feature  
shown upon our publication entitled "Peninsula of San Francisco",  
hardly a vestige remains.

Following the bay shore from the point first mentioned southward, past Double Rock  $\Delta$  Candle Stick Point  $\Delta$  and South Point  $\Delta$  there seems to be but little change except in the marsh land margins, and these seem to have invariably receded, from erosion.

This holds true between South Point  $\Delta$  and Clam Point  $\Delta$ , the only change being in the salt-marsh shore line or in added buildings on the shores.

Between Clam Point  $\Delta$  and Oyster Point  $\Delta$  no changes have taken place in the shore-line and no new features occur except the buildings on piles over the water-line, belonging to "Ewells Dairy".

Under Point San Bruno, a company of Chinese have for several years established a "shrimp fishery". The tracing shows their wharves and building, both of which are frail, cheap structures; a similar company of fishermen is established a quarter mile westward from Point Avisadera. Each of these fisheries employs about ten men who appear to devote themselves exclusively to shrimp fishing and drying. As many as half-a-dozen boats are daily employed in catching these diminutive crustacea, which are landed in huge Chinese baskets and spread in a thin layer over the drying ground, and after numberless turnings to ensure proper curing, they are hulled and sacked for transport to China.

Point San Bruno and the Salt marsh area adjacent and westward from it, now form the water-front of South San Francisco, known at one time as "Baden."

"The Chicago Western Refrigerated Meat and Packing Company" and the "South San Francisco Land and Improvement Company" projected quite extensive changes on this water-front, but most of them are still in the future. The changes actually made by bulkheading, excavating a dock and channel, and by pumping dredge material over the salt marsh area to raise its level above tide are shown by the tracing.

From South San Francisco southward to the southern limit of the topographic sheet as shown by the tracing, no changes have occurred in the shore line except that <sup>the</sup> marsh margin has been eroded and receded from its position thirty years ago. The only explanation of this recession of marsh shore line is that it occurs upon a shore exposed to the winds and seas of our southeast storms, to which it is a "lee shore". Assuming that both the earlier and recent surveys were close and accurate, the inference to be drawn from this recorded fact is that although in the general lapse of years salt-marsh areas increase and encroach upon adjacent water areas, it is not always by a regular and uninterrupted progress from year to year. That the negative statement is true there are notable instances in other portions of the Bay of San Francisco.

Within the southern limits of the original sheet as shown by the tracing, is embraced a portion of the buildings and enclosures of the Moraghan and Mergan Company's Oyster-beds. The western shore of the south arm of San Francisco Bay is quite largely devoted to oyster culture and the buildings and staked inclosures form quite a conspicuous feature whether seen from the waters of the Bay or from the adjacent land. This industry gives employment in office and on the oyster beds to about 150 men.

The buildings and enclosed beds continue for about two miles south of the limit of the sheet from which the accompanying tracing is made and are embraced on the next sheet. It is a notable fact that although the south arm of San Francisco Bay is filled with dead shells of oysters, the diminutive native oyster of the Pacific Coast is practically extinct in the waters of San Francisco Bay, and the only oyster occupants of the present beds are those imported by rail from Connecticut and New York shores.

These oysters are brought across the continent when about half grown, are planted in San Francisco Bay and kept about three years before sufficiently developed for market, it is stated that although the normal increase from the oysters imported and planted in San Francisco Bay, would in Eastern beds mount up to forty or fifty millions annually, it has never exceeded about three hundred thousand here, and these not available for transportation owing to

thinness of shells making it necessary to market them in San Francisco or in towns near by.

The oyster-beds of San Francisco Bay with close-staked enclosures, "sting ray tight" to protect the bivalves from their natural enemy the "sting-ray", form a somewhat prominent factor in hastening the shoaling of the waters of the south arm of the Bay, one of the many factors which seem to be the inevitable accompaniment of settlement, increase of population, business enterprise and so called "improvements". While such improvements are inevitable they should still be under some Governmental supervision and regulation. The shore-line has been resurveyed within the limits of a second sheet as far south as Point San Mateo, where as before reported, I found it imperative to carry forward triangulation to support the topography.

Respectfully submitted,

*Alg. F. Rodger*

Assistant U. S. C. & G. Survey.