

What Lies Beneath the Marina?

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What Lies Beneath the Marina?

If you answered rubble from 1906, you're certainly in the majority, but this article will prove you're absolutely wrong. One of San Francisco's most enduring myths is that rubble from the 1906 earthquake provided landfill for the Marina District. Extreme versions of this tale claim all the rubble was dumped there; others don't go quite that far, but all agree the Marina was a convenient dumping ground for the "damndest finest ruins." A large part of the Panama Pacific International Exposition would later stand on this man-made land—a triumphal symbol for a city celebrating its return from the ashes. It's a nice story, but completely false. Indeed, the truth turns this story on its head: No significant amount of 1906 debris was dumped in the Marina, and no new land was reclaimed from the tidelands of the bay there until 1912, long after the ruins of the old city had been cleared away and a new San Francisco born.

I intend to debunk the myth of earthquake rubble in the Marina with a history of Marina landfill, beginning in the years following California's admission to the Union and ending with the Panama Pacific International Exposition of 1915. This history will show that the Marina on April 18, 1906 had changed radically from its virgin state, due almost entirely to the effort and capital of one man, James G. Fair. By 1906, Marina geography owed nearly as much to James Fair as it did to Mother Nature. Yet despite all of Fair's "improvements," on April 18, 1906, the heart of the Marina was a gaping, 70-acre, watery hole. How all this came about will be the focus of this article. At the end of what I hope is not too long a journey, a clear picture of Marina geography before the Earthquake and Fire will emerge. With this "before" picture in mind, any of the numerous photographs taken in the Marina between 1906 and 1912 can be evaluated for evidence of landfill activity.¹ I will present but one of many possible "after" photographs documenting a long period of no activity and no change in the landscape.

Despite dire predictions, the city was cleaned up rather quickly. Within a year the flow of debris to dumping grounds had slowed to a relative trickle. A year after that, on May 6, 1908, when the Great White Fleet sailed into San Francisco Bay, the only 1906 rubble that hadn't been dumped or recycled sat behind wooden fences on what earthquake- and fire-ravaged lots remained to be redeveloped.

In contrast to the evidence I offer here, promulgators of the myth of rubble in the Marina offer nothing. No photograph of earthquake rubble being dumped in the Marina or any documented account of such activity has ever been produced.

A brief note regarding the term "Marina:" In the context of the era I focus on, it is an anachronism. The name did not actually come into use until the 1920s. When the Board of Directors of the Panama Pacific International Exposition Company proclaimed their choice for the site of the fair, it was known as "Harbor View," not "the Marina." The area was also referred to as "North End" or (strange as it sounds to us today) "North Beach"² as well as "Harbor View," though the latter name referred more specifically to a sandy peninsula once called Strawberry Island.³ It was there in the 1860s that Rudolph Hermann opened a tavern called Harbor View House. In ensuing years he developed his property on Jefferson between Baker and the Presidio, north to the bay, into the delightfully landscaped Harbor View Park, renowned for its hot and cold salt water baths.⁴ The area took its name from the park.

Early Marina Landfill

Most of the Marina District lies over an area of former bay tidelands⁵ encompassing a shallow cove, a large sandy peninsula, and adjoining marshes. On the east is Black Point. The original shoreline curved south from there. A white sandy beach extended all the way from today's intersection of Laguna and Beach to the vicinity of Francisco and Scott, where the mouth of a tidal slough draining an extensive salt marsh met the bay. The marsh spread in a northwesterly direction into the Presidio, and extended south as well, reaching part way to Greenwich in places between Scott and Divisadero. The sandy peninsula of Strawberry Island buffered the marshlands from the bay. From near the north end of today's "Little Marina Green" near the St. Francis Yacht Club, the shoreline curved like a finger pointing down to the mouth of the tidal slough at Francisco and Scott. Today's intersections of Broderick and Marina Boulevard and Divisadero and Beach were both on the eastern shore of Strawberry Island. Everything between this shoreline and Black Point was open bay. Three-quarters of all the blocks north of Lombard between the Presidio and Laguna were swamp, covered and uncovered by daily tides, or under water.



Sham Battle at Harbor View. Marina tidelands as they appeared prior to any meaningful landfill activity. Reproduced by Permission: San Francisco History Center, San Francisco Public Library.

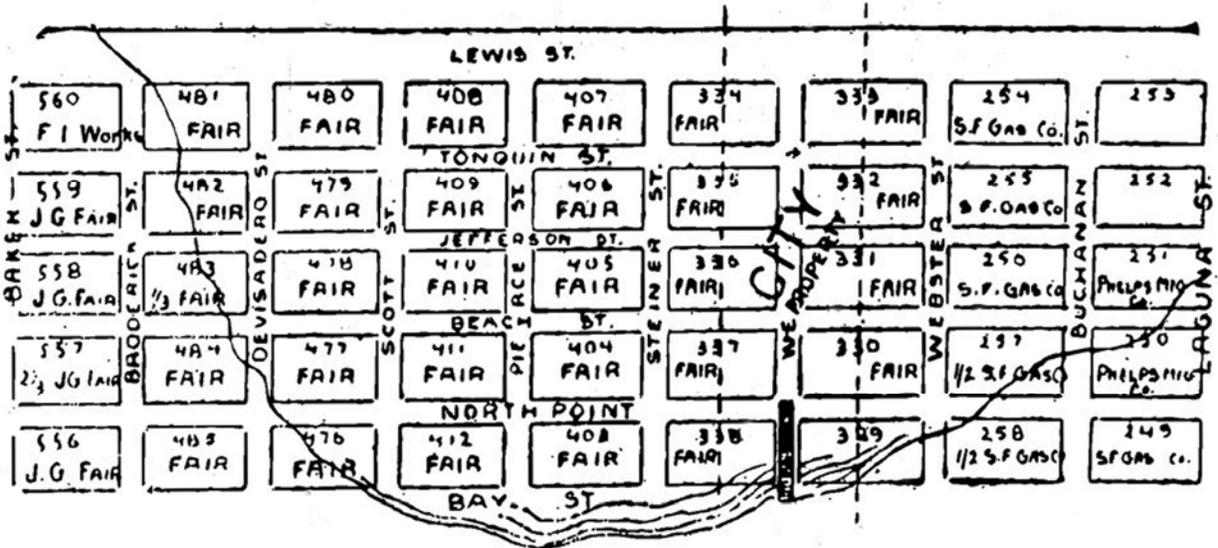
Adjacent to Black Point massive sand dunes spread south to Lombard. A July 3, 1876 photograph captures the geography I have been describing. It's late in the day, and though fog and smoke from the "sham battle" combine to reduce visibility over the bay, Black Point still

stands out against what passes for a horizon. The white sands of the dunes could be mistaken for a fog bank. As the shoreline of the cove curves south from Black Point toward us, it passes under the Fillmore Street wharf at Bay. The wharf approach emerges from a dune at the shore and dives down over the beach to the water fifteen feet below. The dark finger of the wharf proper extends into the bay beyond the line of North Point. In an era when water craft transported commodities locally, the Fillmore Street wharf was the district's lifeline. Authorized by an act of the state legislature in 1862, the wharf was constructed and operated under a franchise for twelve years. In 1874 the wharf and all rights associated with it reverted to the city, which promptly spent \$6,493.84 to repile and replank it.⁶ Nearer to the camera along the shoreline is the Scott Street wharf, spanning the mouth of the tidal slough that meanders into the Presidio. This private wharf was built to serve the Pacific Distilling and Refining Company, whose works on the southwest corner of Chestnut and Pierce were the largest on the West Coast in 1876 and for many years afterwards.⁷

The first significant reclamation of Marina tidelands took place in the late 1870s. Lobos Square, now known as Moscone Recreation Center, although it was officially city property, was nothing more than sand dunes until it was graded into a flat lot starting in 1878.⁸ Bay Street was graded through the sand at the same time. These projects took a couple of years to complete, since nearly all the work was done by hand. The biggest piece of construction machinery used would have been a scraper blade pulled by a team of horses. Over 162,000 cubic yards of sand were removed from Bay Street between Van Ness and Webster. The four blocks between Van Ness and Laguna were excavated an average of twenty feet. Most of this sand probably ended up on the shoreline around the Fillmore Street wharf. Webster, for example, was extended north about half a block to the line of North Point. Around this same time, a number of manufacturing plants, three of them quite large, sprang up on the shoreline between Laguna and Pierce. Factories require stable, preferably level soil. Thus in 1882, when Phelps Manufacturing Company built a new factory on the block where the Marina Safeway stands today, it didn't just plop its buildings down on the beach hoping for the best. No, the site was built up and made stable enough to resist damage by tide or wave. Likewise, in 1882 Pacific Gas Improvement Company opened a coal gasification plant on two blocks of mostly reclaimed land built up behind a bulkhead (think of a big retaining wall) along the line of Bay between Fillmore and Pierce. In this way the shoreline between Laguna and Pierce moved north somewhat. In total, about five blocks were reclaimed from the bay, but, in reality, the hand of man had barely altered 1880s Marina geography. That would soon change.

The Advent of James Fair

At the dawn of the Gay Nineties, marshlands and the open waters of the bay still dominated the Marina District's geography. Most of the real estate was in the hands of its original owner, the North San Francisco Homestead and Railroad Association. This entity acquired its holdings under a patent from the state legislature and at one time held title to nearly every city block between the Presidio and Webster, north of Lombard. Then James G. Fair entered the picture. Fair, one of the "Silver Kings" of the Comstock, was one of California's richest men and heavily invested in San Francisco real estate. He also had a penchant for grand schemes. In 1891 he began buying up the holdings of the North San Francisco Homestead and Railroad Association and would soon own or have a controlling stake in all but five of the forty-nine Marina blocks between Baker and Webster, north of Chestnut.⁹ Fair imagined this land, once reclaimed from marsh and bay, with its long frontage on relatively deep water, would be ideally suited for industrial and commercial use.



A MAP OF THE DISTRICT INVOLVED.

The Fillmore Street wharf is not drawn to scale, and marshlands are not indicated. *San Francisco Chronicle* June 2, 1893.

In February of 1892, with engineering complete and soundings taken, Fair initiated construction of a breakwater to enclose his underwater land. He contracted with E. L. Graves to drive piles on his property east from Harbor View Point toward Webster along the south line of Lewis.¹⁰ The piles were driven into the bay mud six to eight feet apart, with fascines (tied bundles) of grapevine and brushwood deposited between them to provide footings for the stone over which Fair and the State Board of Prison Labor were in rumored negotiations. Businesses in the area that relied on access to the bay for shipping or receiving anxiously watched the march of the piles. Pacific Gas Improvement Company, whose private wharf at the foot of Steiner was imperiled, and patrons of the Fillmore Street wharf convinced the city to sue to stop the work.

The city attorney argued that the rights to Fillmore Street and 200 feet on either side of it north from the shoreline to the city limit (a strip $468 \frac{3}{4}$ by 1850 feet) were vested in the city according to the 1862 act of the legislature authorizing construction of the Fillmore Street wharf. That act required a wharf be constructed at the foot of Fillmore out into the bay. Since the wharf was constructed, the argument went, and had been in continuous use ever since (indeed, the city rebuilt it in 1887 with solid rosewood piles and substantial planking), the city retained the rights to it and the overflowed lands on either side. Although the North San Francisco Homestead and Railroad Association acquired title to the same lands in 1864 via a patent from the legislature, any rights it had were subject to prior rights vested in the city by the act of 1862. Moreover, the Fillmore Street wharf served city interests by providing access to the bay. On the basis of these arguments, the Superior Court granted a temporary injunction. Work on the breakwater ceased, but the pilings were left in place.

Fair was stymied but not defeated in his plans to reclaim and develop his property. Opportunity knocked for Fair on May 29, 1892 when the Fulton Iron Works on Howard Street, a pioneering San Francisco company, burned to the ground, for the second time in five years. The principals of the firm had neither the capital nor the credit to rebuild, so in stepped James Fair, with capital and land. Thus, on March 13, 1893 the renamed Fulton Engineering and Shipbuilding Works

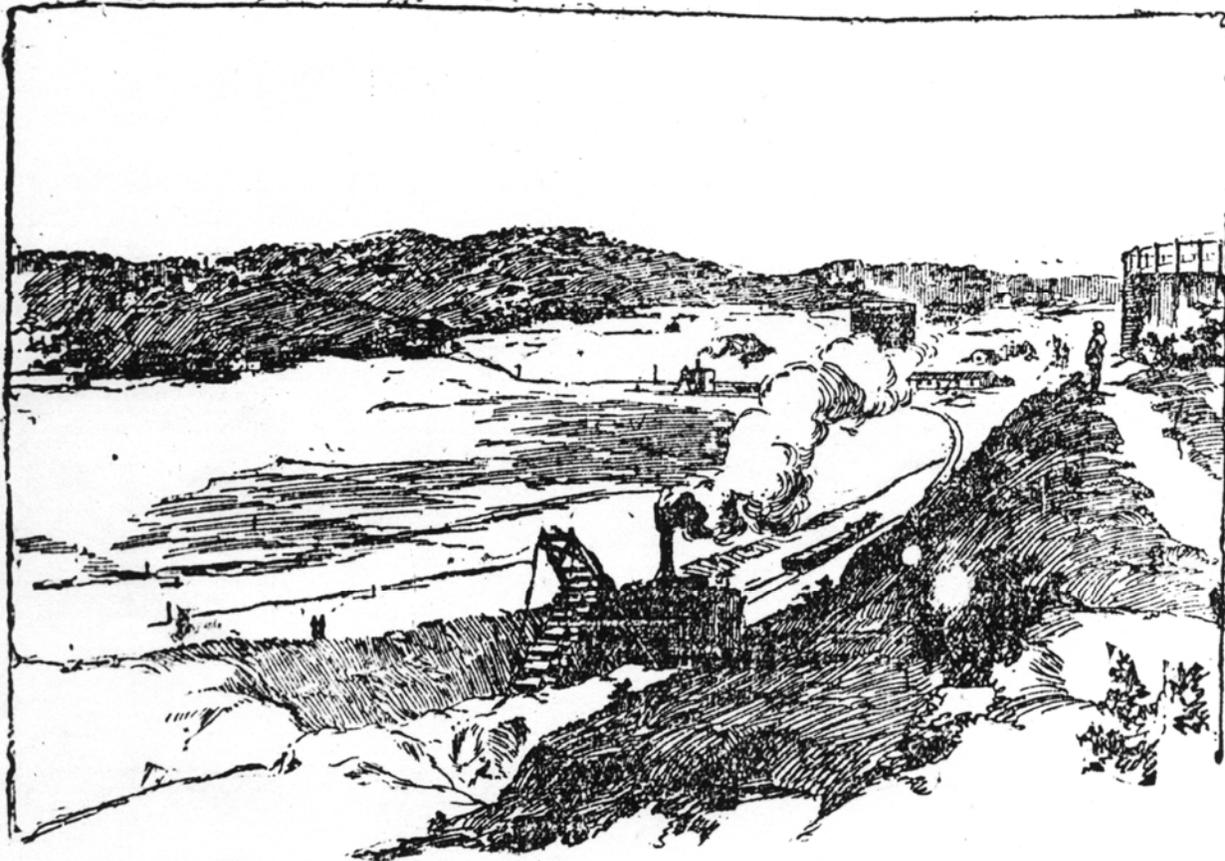
opened at Harbor View at the foot of Broderick. About five acres of the site were reclaimed from the bay.¹¹ Fair believed that Fulton would demonstrate the advantages of manufacturing in the district. Its success would attract tenants to his envisioned industrial park.

In April of 1893 Fair announced new plans for filling in his Marina tidelands. He would expend \$1,000,000, or more, and employ hundreds of men in a project lasting up to two years. This was an appealing prospect in 1893, a year of economic depression and unemployment. Fair asked the Board of Supervisors to fix the official grade (elevation) for his land at five feet above city base. A higher grade entailing greater expense might scuttle the project, he claimed, but if the Board accommodated him, he could begin filling the marshlands north of Chestnut by summer. Fair's request was approved. Then, in June, he successfully lobbied to place before the Board of Supervisors a resolution authorizing construction of a seawall on Lewis Street extending from Harbor View to Black Point.¹² Although Fair himself was still enjoined from building such a seawall, the Board of Supervisors wasn't. Fair would be paying for it though, since the cost would be borne by an assessment district in which Fair owned most of the blocks in question. This would be a great deal for James G. Fair, argued opponents of the resolution, but why contravene the 1892 action of the city attorney and approve a project rendering city property—the Fillmore Street wharf and its right-of-way to the bay—worthless? It would be “the rankest kind of folly” to do so, argued one of the supervisors. The principal businesses along the threatened shoreline—Phelps Manufacturing, San Francisco Gas Light Company, Black Point Packing House, and Pacific Gas Improvement Company—as well as patrons of the Fillmore Street wharf were just as united in their opposition to the proposed seawall as they had been to Fair's pile driving in 1892. But the political consensus in 1893 favored Fair in a way it hadn't in 1892. The Golden Gate Valley Improvement Club¹³ stood squarely behind the project, and such neighborhood luminaries as Frank Pixley voiced their approval. The depressed economic conditions of the time were surely on everyone's mind, and Fair was about to provide employment for hundreds. Local enterprises were struggling, too. Several patrons of the Fillmore Street wharf in 1892 were out of business. Even Black Point Packing House, a fixture on the shore at the northeast corner of Webster and Bay since the 1860s and whose principal owner, W. L. Merry, was the spokesman for the group opposing Fair's scheme, shut down for good by the end of the year. Not only did Fair's reclamation project mean jobs in 1893, but it promised future prosperity to the area once factories, warehouses, and workers' housing were established along the new waterfront.

Filling Marina Marshes

So perhaps it is not too surprising that on September 25, 1893 the Board of Supervisors awarded a contract for Lewis Street improvements to Warren & Malley, one of San Francisco's largest contractors. The contract called for building a seawall. Although the exact cost could not be fixed, due primarily to uncertainty about how far stone boulders would sink into bay mud, it was estimated at \$300,000. Work on the seawall did not begin immediately, since, as might be expected, suits were filed and a temporary restraining order issued against the contractors¹⁴. Since only construction of a seawall was enjoined, Fair hired Warren & Malley to commence filling in his marshlands and raising them to the official grade. He secured the right to remove sand from various locations in the area. The city awarded him contracts to grade streets through the sand dunes. Fair leveled off the dunes in the Black Point Military Reservation (Fort Mason) under a contract with the U. S. Army. Sand to an average depth of more than twenty feet was excavated there. Eventually, every block south of the reservation as far as Lombard was graded flat. Fulton Engineering and Shipbuilding built three steam-driven, bucket-conveyor-type

excavators for the project. (Mining equipment was one of its specialties.) The excavators would gouge sand from the dunes and load it into small dump cars, which were hauled by horses in six-car trains over two-foot gauge temporary tracks laid from the excavation sites to Fair's tidelands. Once the trains dumped their loads, men with shovels and wheelbarrows took over. This was where most of the workers toiled, at the end of the line—shoveling, carting, and spreading sand, hour after hour, day after day, for over three years. Streets were built up across marshes on city contracts. Francisco was filled in from Steiner to Divisadero. Steiner, Scott, and Divisadero were built up between Chestnut and Francisco. Chestnut was filled in from Steiner to Baker. Divisadero was extended across the slough separating Harbor View from the mainland, and North Point, which was part of the slough's main channel, was filled in and brought up to grade.¹⁵ Dump-train tracks laid along these streets and along embankments spanning the marshes brought sand to fill in Fair's lands. Photographs suggest Francisco was the main line. When the project was finished and all the sand dunes graded flat, the Marina's marshes, except for a pond south of Beach and west of Baker, had disappeared.

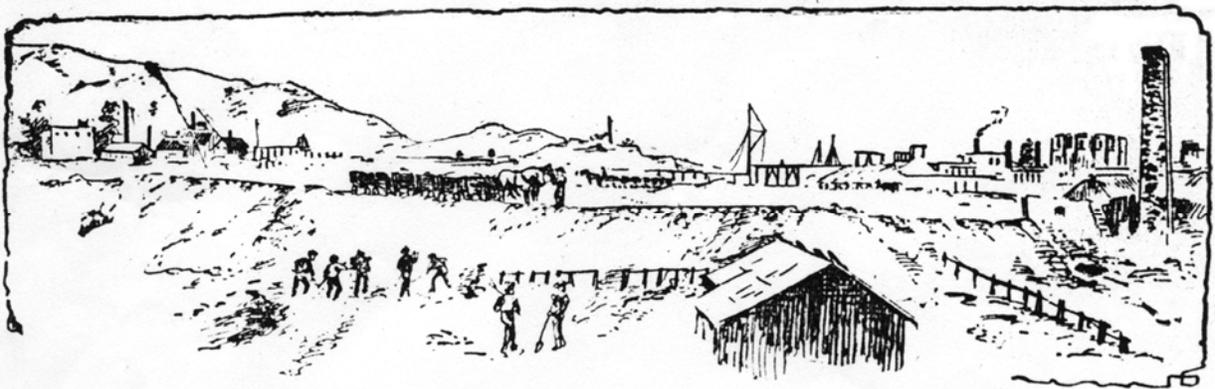


A PARTIAL VIEW OF THE IMPROVEMENTS BEING MADE ON THE FAIR PROPERTY AT NORTH BEACH.

An excavator at work. A man looks down on it from a hill in Fort Mason that will soon be graded flat. *San Francisco Chronicle* December 31, 1894.

Most of the men employed by Warren & Malley lived at the company's "temporary"¹⁶ corporation yard sprawling across the northeastern corner of Lobos Square and beyond, over Laguna Street and onto private property. So little esteemed was Lobos Square—hardly more than a sand lot—no public outcry arose over this occupation. The men lived in windowless bunkhouses fitted out with three tiers of bunks. The air was thick with smoke at night when the coal oil lamp was lit and the men lay about smoking their pipes and cigars, especially when it was cold and the door shut. Pigs roamed the site and grew fat on scavenged garbage. Then they

were slaughtered for meat. Something about the rough and tumble, mining-camp feel of the life appealed to the single men making up Warren & Malley's crew, according to one account,¹⁷ and they happily spent nights sealed up in their bunkhouses. Maybe it was the local whiskey.



SENATOR FAIR'S GREAT WORK AT NORTH BEACH WHICH HAS GIVEN EMPLOYMENT TO HUNDREDS OF MEN.

Men spread sand by hand below an embankment built up along the line of North Point Street. *San Francisco Chronicle* December 30, 1894.

As excavators whittled away at sand dunes and new land rose on the Marina's marshlands, the Lewis Street seawall case was working its way through the court system. Finally, on October 15, 1894 the United States Circuit Court¹⁸ decided the issue in Fair's favor, dissolving the temporary injunction, denying a permanent injunction, and instructing Warren & Malley to begin the improvement of Lewis Street. The State of California had a right to transfer tidelands to private hands, the court reasoned, and Fair was the successor in possession of the tidelands in question. Moreover, the article in the state constitution prohibiting any individual, partnership, or corporation from disrupting or obstructing free navigation did not prevent the state from establishing harbor lines and permitting landfill behind such lines back to the shore. The state could dispose of its tidelands free from any easement of an upland owner like Pacific Gas Improvement Company. The court also affirmed the state's right to grant jurisdiction over tidelands, as it had to San Francisco under the Van Ness Ordinances, thereby upholding the city's authority to order the improvement of Lewis Street. The city was now free to close up the Fillmore Street wharf behind a seawall. The decision was not appealed.

The way was now clear for Fair to reclaim the largest part of his Marina land—the water lots. The seawall would be built and made watertight with rock and sand. The area behind it, extending to the old shoreline, would be filled, not with sand from the nearby dunes, they would be exhausted by then, but by sand and mud brought up from the bay floor by a hydraulic or “suction” dredge—a new type of dredge only recently perfected. Then the reclaimed land would be leased and factories and warehouses would rise. Fair's grand plan would be realized.

Perhaps it would have come to pass as he'd envisioned, but on December 29, 1894 James G. Fair died. Fair's death had no immediate impact on the project—the administrators of his estate would honor all the contracts he'd signed—but it terminated future planning. In particular, plans for dredging had not been finalized and no contracts let. Although the administrators of Fair's estate¹⁹ had the power to do so, they never followed through with the final phases of the project, and they remained in control of the estate until it was finally settled in 1901.

Building the Seawall

Warren & Malley's contracts for filling marshland and building the Lewis Street seawall were both completed in 1898. One of Warren & Malley's final excavations providing fill for the Fair tidelands involved cutting Polk street through a spur of Russian Hill between Lombard and Greenwich. The two-foot gauge temporary tracks were extended to Chestnut and Polk. From there, the little dump cars were hauled up Polk to Lombard by a hoist of the type used in mines. Seawall construction began in 1896. Instead of building east from the tip of Harbor View as in the 1892 attempt, piles were driven along the south line of Lewis from Divisadero to Webster. Piles still in the water along the line of Lewis between Divisadero and Fulton Engineering's wharf were pulled out. The new seawall would turn south on Scott from Lewis and run to Tonquin, turn west on Tonquin and run to Divisadero, and turn south on Divisadero and run until it struck the shore at Jefferson.²⁰ Fulton Engineering would get a turning basin for its shipyard out of this alignment, and California Pressed Brick Company space for an enlarged wharf at the northwest corner of Divisadero and Jefferson. The new seawall would not run all the way to Black Point either, as was authorized in 1893. The waterfront had changed since then. San Francisco Gaslight Company had staked its claim to the navigable waters of the bay by transforming its meager wharf into a half-block wide, rock-lined, earthen mole, extending out into the bay as far as Tonquin—just a block short of Lewis. So the new seawall would turn south at Webster and run to the shore, thereby neatly enclosing Fair's water lots, as well as the Fillmore Street wharf property.

The Lewis Street section of the seawall was constructed first. Stone was quarried near San Bruno mountain and barged up, pulled by Warren & Malley's tugboat, the *Frolic*. Warren & Malley also engaged the services of the steam derrick barge *Tamalpais*. Nicknamed "the gunboat," the *Tamalpais* could raise twenty tons of stone from a barge and set it into place. The largest boulders went into the mud on the bay side of the pilings along the natural slope of the bay floor, facing and stabilizing it. Tracks were laid on top of the pilings to accommodate dump cars of the sort used to transport ore in mines. Barges loaded with rock-filled dump cars could arrive any time, day or night, and men had to be ready to unload the cars, dump them, and reload the empties. Men rowed over to the seawall to assist the *Tamalpais* in lifting and placing loaded dump cars on the tracks, perhaps with its powerful arc light illuminating the scene. Others worked the hoisting engines that pulled the cars to their destinations and dumped them. Once tracks were in place along the Webster Street segment of the seawall, dump cars full of sand could be run out from the nearby excavations. Indeed, once tracks were laid on the Webster segment, all filling along the shoreline ceased. The seawall became the destination for the remainder of Warren & Malley's neighborhood excavations.



Seawall near completion. Pile driver works west from Scott along Tonquin in 1897. Series 1, subseries 1, volume 4, item 63, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500—ALB. Courtesy of the Bancroft Library, University of California, Berkeley.

The proprietors of Pacific Gas Improvement Company watched with growing apprehension as the seawall neared completion. Finally, in late September, 1897 only a short segment along Divisadero between Tonquin and Jefferson remained to be constructed. The gas company could still bring coal to its wharf through the narrow gap. Then, in the space of a single day, Warren & Malley drove a double row of piles to close it.²¹ Notwithstanding the Circuit Court decision of 1894 against it, Pacific Gas Improvement sued once again and received a temporary injunction from the Superior Court stopping further work on the seawall.²² The gas company's complaint was essentially the same as before, alleging that the contractors had deprived the people of the State of California of the right to use a large portion of shoreline in a neighborhood where it was important that right remain inviolable. But this time, the state itself got involved. The attorney general waded into the case, declaring that the property claimed by the Fair estate was really state property. Pacific Gas Improvement was authorized to represent the state's interest in the matter, and another legal struggle over familiar territory loomed.

Pacific Gas Improvement's difficulty was more than merely legal. Its wharf was now cut off from the bay. The company considered options: shut the business for lack of coal and oil; go hat in hand to its chief competitor asking terms for wharfage; remove the obstructing piles. In choosing the last course, Pacific Gas Improvement initiated what has been dubbed "the only naval battle ever fought on San Francisco Bay." I prefer: The Battle of Harbor View.

The Battle of Harbor View

On the morning of October 9, 1897 a small flotilla—two tugs towing a floating pile driver accompanied by several small boats carrying fifty or sixty men—sailed into the small basin between Fulton Engineering and the new seawall, anchoring next to the piles driven into the bay along the line of Divisadero. On shore, the gas company’s president, Albert Miller, ordered the pile driver started up and soon one of the pilings had been pulled out of the mud and sent floating away. Meanwhile, the laborers in Warren & Malley’s seawall crew, who were having lunch at their camp at the foot of Webster when the pile driver went to work, had witnessed the activity and were now streaming on a dead run toward the scene. By the time Warren & Malley’s men arrived, the “enemy” had already removed four piles. Under direction of their superintendent of construction, H. L. Livingston, Warren & Malley’s men put out in their boats and scaled every piling they could. Soon, there was a man atop nearly every one in the double row of a hundred or more. To take out a pile, the gas company would have to take out a man, too. It was a ridiculous situation, and the men on both sides were laughing and carrying on.

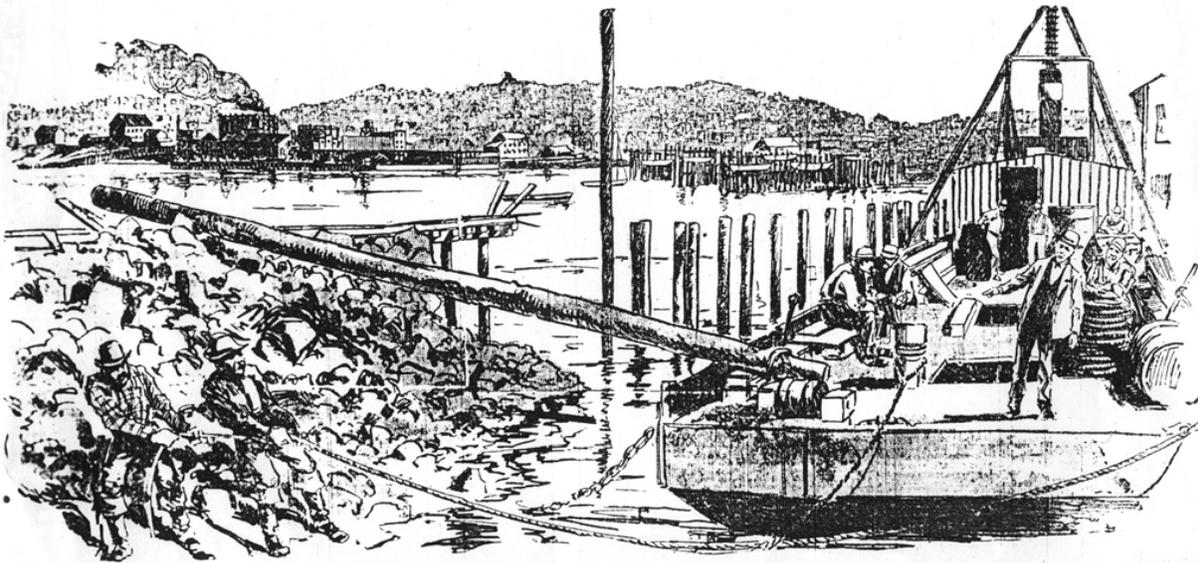


The Examiner October 10, 1897.

Five piles were now out, and if the pile driver could pull out a sixth, which it was grappling with, the gas company could send a scow schooner,²³ conveniently anchored nearby, into the breach and claim control of the waterway. However, the *Frolic* had towed the *Tamalpais* to the scene, and now the giant derrick barge had gotten up steam and was approaching the pile driver from the bayward side. James Angus, one of the administrators of the Fair estate, shouted the order, “Give it to ‘em! Get ‘em out of the way!” The *Tamalpais* rammed the pile driver, skewering the operator’s house with a steel beam in the process, and jammed the pile driver against rocks at the end of the seawall. Then the *Tamalpais* backed up and settled into the breach, the clear victor. At least on this occasion, the “gunboat” had lived up to its name.

On shore, Angus and Miller conferred, and when the latter agreed to “surrender,” the *Tamalpais* moved away to let the pile driver escape to the bay “with all the honors of war,” as the *Chronicle* put it,²⁴ leaving the sixth pile standing tall out of the water, tantalizingly close to full withdrawal. The *Tamalpais* then returned to the breach to stand guard against any future incursions. Warren & Malley’s men stood armed watch round the clock. The *Tamalpais*’s bright arc light burned all night.

THE TIDELAND EXTENSION OF DEVISADERO STREET WHERE THE REPRESENTATIVES OF THE FAIR ESTATE ARE MAINTAINING A SHOTGUN WATCH DAY AND NIGHT.



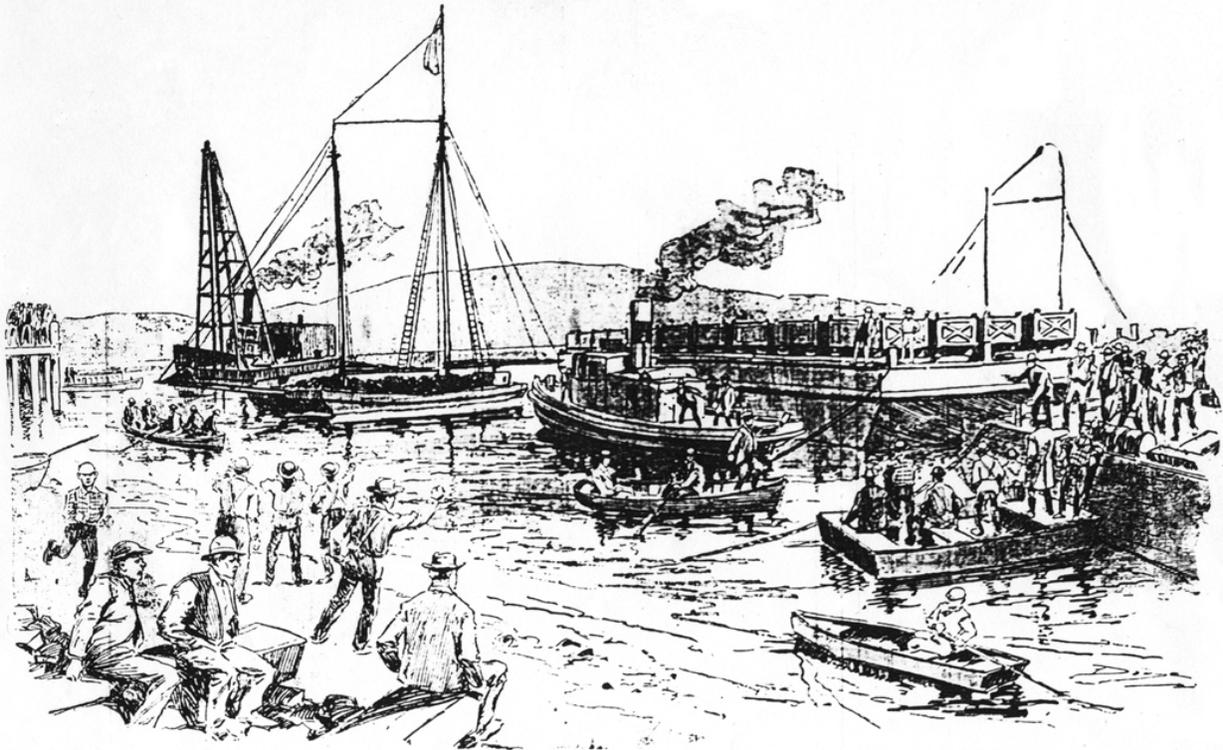
Both the Fillmore Street wharf and Pacific Gas Improvement’s coal wharf are accurately represented. Note track on seawall. Rowboats hang ready in the distance. *The San Francisco Call* October 16, 1897.

The State of California soon upped its ante in the struggle. Governor James H. Budd insisted that the piles be removed from the tidelands along Divisadero. He threatened to call out the state militia if necessary.²⁵ The Board of State Harbor Commissioners served written notice to both the Fair estate and Warren & Malley ordering removal within twenty-four hours. The Fair estate was defiant, however, declaring its intention to resist by any means, including force. Within a day it had a temporary injunction of its own, restraining the Board of State Harbor Commissioners, Pacific Gas Improvement Company, and a host of named others from removing any pilings or other material deposited in the inlet between Black Point and the Presidio and from interfering with the Fair estate’s possession of any of the lots inside the incomplete seawall. The estate also asked for \$20,000 damages. In the ensuing judicial hearings, the Fair estate would advance for the first time its claim to all the tidelands behind the seawall—a claim that was ultimately upheld.²⁶

On October 25, 1897, beginning early in the morning, a series of events unfolded that led to the final engagement in the Battle of Harbor View. By noon, the harbor commissioners had secured a modification of the injunction against them: They could now remove 100 feet of piles on the line of Divisadero, south of the seawall on Tonquin. By 1 o’clock, Governor Budd had signed an order instructing the harbor commissioners to do just that. The harbor commission voted unanimously to send a tug and pile driver out immediately, and by 3 o’clock the *Governor Markham* and Pile Driver No. 2 set out from the Howard Street wharf. On board the tug were nine state wharfingers²⁷ and a harbor policemen. At 4 o’clock the *Governor Markham* steamed toward the breach in the seawall where the *Tamalpais* was blocking the way. The *Tamalpais*’s

steam whistle shrieked and kept shrieking. Warren & Malley's men suddenly appeared, swarming over the shore and seawall. The *Tamalpais* was now anchored to the seawall, its heavy anchor buried under tons of rock. A barge full of empty rock cars was moored next to the pilings, and next to that a scow schooner full of charcoal not yet unloaded at Fulton Engineering. It was a mini-blockade. The Chief Wharfinger and his assistant rowed over from the *Governor Markham* and boarded the *Tamalpais* to serve the modified injunction. About 5:30, Charles Warren, senior partner in Warren & Malley, and H. L. Livingston arrived to receive it. The wharfingers were overmatched. Livingston and Warren blustered and threatened to fight. "We shall kill anybody who dares to dispute our right," Livingston hollered. Warren thundered, "Get out of here, I tell you, or blood will flow. Any man that touches a line here will be killed." The threats piled up until the encounter ended with Warren bellowing that the order permitted only removing piles. It didn't say anything about barges! By now, daylight was dying, so the wharfingers, knowing they had no chance of getting their tug anywhere near the piles, ignominiously retreated over the rocky seawall where they were rescued by their own men. The *Governor Markham* towed Pile Driver No. 2 back to the Howard Street wharf. Later in the evening the modified injunction was set aside. Thus ended the Battle of Harbor View.

OFFICIALS PARLEY, BUT THE PILES REMAIN.



Chief Wharfinger Root Was Not Appreciated When He Tried to Serve the Court's Order. He Was All But Told to Get Off the Earth.

The Blockade. Note the barge loaded with rock cars and the scow schooner carrying charcoal. Spectators on the extreme left stand on the wharf of Fulton Engineering and Shipbuilding. *The San Francisco Call*, October 26, 1897.

It ended in a stalemate: Pacific Gas Improvement Company had no access to its wharf and Warren & Malley couldn't finish the seawall. The courts moved with some dispatch in the matter. First, the injunction restraining the harbor commissioners from removing piles from Divisadero was sustained. Then, on February 11, 1898 the Fair estate's title to the overflowed

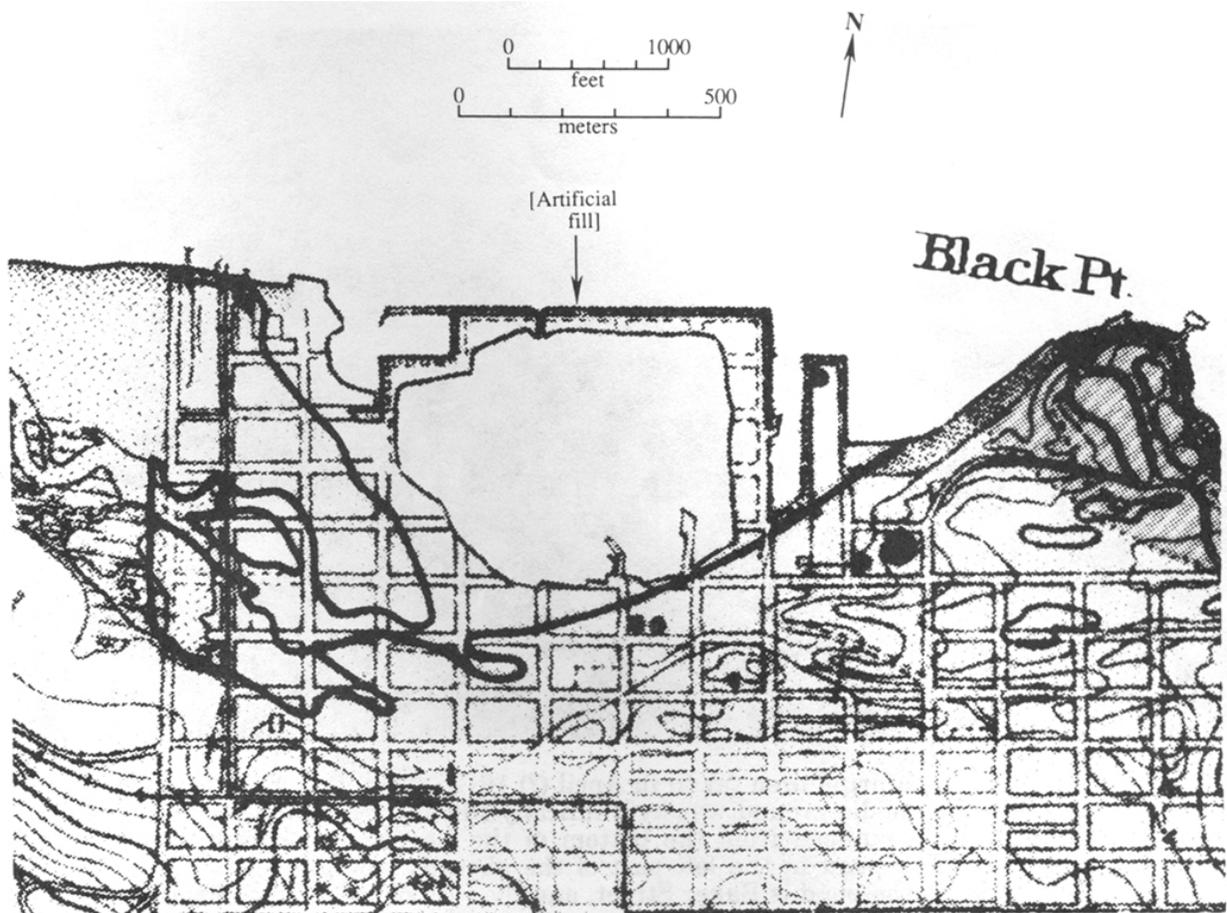
lands in question was confirmed. The state's jurisdiction over the water lots and the seawall was denied, and Warren & Malley was released to complete what work it was lawfully authorized to perform. The decision was appealed but eventually upheld.

Work on the seawall was finished by the summer of 1898, but the local supply of inexpensive sand was exhausted. Filling in behind the seawall ceased. The administrators of Fair's estate, who had fought so hard to complete the seawall, now seemed to lose interest in the grand reclamation project, despite all the capital already expended on it. Hydraulic dredging, which Fair himself had planned for, was never undertaken. How do we make sense of all this?

The desire to confirm the Fair estate's title to all the overflowed lands in the Marina best explains the tenacity the administrators exhibited in fighting for the seawall. They also hoped to deny any private party an easement or franchise over their land. They didn't want Pacific Gas Improvement Company or anyone else establishing a right to navigate across it. As for their failure to push the reclamation of Fair's tidelands to completion, we can only speculate: The estate's title to the overflowed lands might be overturned on appeal and the state's authority confirmed. The state might demand the public waterway be restored. It would be a simple matter to breach the seawall—a rather more complicated and expensive one to dredge out acres of reclaimed land. The administrators were also locked in legal battle with Fair's three surviving children. They were the trustees for a trust established in Fair's will²⁸ and the children were challenging the trust. The administrators did not want to be responsible for authorizing expensive work that might be challenged—prudence counseled delay. Finally, did anyone but James Fair himself ever think the Marina would be a good site for an industrial park? There was no rail service to the area worthy of the name. To reach downtown San Francisco, the commercial and industrial heart of town, a railroad tunnel would have to be constructed.²⁹ Any anchorage north of the seawall could be problematic in the winter months with their rough seas, given the seawall's sloping, rocky contour. These deficiencies taken together made the industrial park scheme seem very risky indeed. Perhaps this explains why the reclamation project was abandoned.

It surely wasn't the cost. In 1893 Fair announced he would spend \$1,000,000 reclaiming his Marina tidelands. A little more than half of that had been spent when reclamation ceased. The cost of Warren & Malley's grading contracts was about \$250,000. At eleven cents a cubic yard³⁰ that's 2,272,727 cubic yards—a fair estimate of the amount of sand available in the dunes.³¹ The seawall contract was estimated at \$300,000; it may have been completed under budget. Even if the Fair estate had pushed the project to completion, the cost would not have reached the \$1,000,000 level. Hydraulic dredging to fill the basin behind the seawall would probably have cost about \$250,000.³² Although \$800,000 is a lot of money, especially in 1890s dollars, Fair had anticipated spending more. Furthermore, in January of 1898, after the grading contracts and most of the seawall contract had been paid off, Fair's estate was appraised at over \$12,000,000, with more than half of that in liquid assets.³³

James Fair was responsible for reclaiming more than sixty acres of the Marina District from marsh and bay. His seawall, albeit with some modifications, still stands today as a bulwark against the bay. On April 18, 1906 about seventy acres of the Marina District, enclosed by Fair's seawall, lay under water.



The Marina in 1906. This is part of a map published in the report of the State Earthquake Investigation Commission in 1908. The Marina's original shoreline and marshlands are delineated in dark ink. The extent of Fair's reclamation work: The tidal slough and marshlands east of Baker filled; Strawberry Island extended east; the seawall constructed. Reproduced from: M. G. Bonilla, *The Marina District, San Francisco, California: Geology, History, and Earthquake Effects*, Bulletin of the Seismological Society of America, Vol 81, No. 5, pp 1958-1979, October 1991, (c) Seismological Society of America.

After the Earthquake and Fire

When the Great Fire finally burned itself out, San Francisco found most of its downtown streets covered with rubble. Thousands of brick buildings were shattered, ruined hulks. This rubble had to be cleared away somehow before reconstruction could begin. Over Russian Hill out by Harbor View was a big, seventy-acre, watery hole, just begging, one might think, to be filled in with broken brick, mortar, and stone. But no 1906 rubble was ever dumped there. The basin out by Harbor View remained a big, vacant hole throughout the years of San Francisco's reconstruction. The photographic evidence is incontrovertible. Indeed, in February of 1907, the business agent for Theresa Oelrichs and Virginia Vanderbilt, the surviving Fair heirs, suggested that, if it were up to him, he would dredge out the seawall and build docks and wharves on the old shoreline. The owners of the remaining Marina tidelands no longer contemplated filling them.³⁴



Great White Fleet entering San Francisco Bay, May 6, 1908. The Marina is unchanged since 1906. Reproduced by permission: Library of Congress, LC-USZ62-13410 DLC.

George Lawrence captured the Great White Fleet steaming into San Francisco Bay in one of his panoramic photographs taken from a captive airship.³⁵ The whole Marina District spreads out beneath the camera. Two years after the Quake and Fire San Francisco has been cleaned up and is well on its way to reconstruction. Meanwhile, the basin enclosed by Fair's seawall is still a brackish, saltwater lake.³⁶ The whole area is essentially unchanged since 1898. Obviously, no earthquake rubble has been dumped there.

Suppose for the sake of argument that Fair's daughters were willing to have rubble dumped on their property. Would it have happened? The Marina was hardly a convenient place to dump rubble. In 1906 very little in the way of heavy construction equipment existed. Internal combustion was in its infancy. The diesel engine had not been perfected. There were no bulldozers, no front loaders. Any truck had wooden wheels and was pulled by horses. Needless to say, there was no Broadway tunnel. There was also no rail service to the Marina, and no Fort Mason tunnel. The Union Street cable line of the Presidio & Ferries Railway traversed hills too steep for hauling rubble-laden trains. Its track, as well as that of the Sutter Street Railway's line on Polk, was five-foot gauge, not standard gauge; freight cars from the mainline railroads couldn't run on it. Though the Fillmore line with its famous counterbalance cars connecting Broadway to Bay was standard gauge, the Fillmore hill posed an insuperable barrier to rubble transport. Debris carried by barge would need to be unloaded somehow and dumped into the area behind the seawall—a time-consuming, dangerous, and above all, expensive method of disposal. Cost of disposal was the principal factor driving decisions about where the rubble went. The city was cleaned up by private contractors, for whom time was money. Since horse or mule teams hauled most debris at least part of the way from its source to its final resting place, wear and tear on animals needed to be minimized. Dumps closer to the heart of downtown than the Marina or those accessible over equidistant but level routes would always be preferred. It is roughly 2 ½

miles from Montgomery and Market to Bay and Webster on the most level routes around Russian Hill. A team could make two or three round trips a day to the Marina, but that would not be competitive with a closer-in dump with the possibility of six or eight daily trips. Such closer-in dumps existed.

Filling the Marina—the Final Phase

The Panama Pacific International Exposition Company leased Fair's tidelands from his two daughters and in 1912 filled in the lake behind the seawall, much as Fair himself had envisioned in 1893. The suction dredge *John McMullin* worked 146 days pumping sand and mud up from the bay floor. It was joined for 46 days by a second dredge, the *Oakland*. The dredges worked about 300 feet off the seawall and pumped up a mixture of sand and mud. If the mixture grew too "fat" or too "lean" on the mud, the dredge was repositioned. The slurry dredged from the bay was carried inland in 22 inch canvas pipe, supported on pontoons. The pipe, constructed in sections, varied in length from 600 to 2000 feet. Its outlet was on the shoreline, which slowly moved north to meet the seawall. The sand and mud mix coming out of the pipe displaced water and a semi-fluid sludge covering the bottom of the basin through a breach or "waste gate" in the seawall. Mud would sometimes harden in the waste gate and would have to be dynamited out. After 1,300,100 cubic yards of sand and mud went into the basin, James Fair's Marina tidelands were finally reclaimed.³⁷

James Fair had dreamed of being the Marina's landlord, but when the land reverted to Fair's daughters at the end of the exposition, they did not pursue any development schemes. In 1924, San Francisco realtor George E. Belvel persuaded the sisters to sell their land. The Marina Corporation, a group of builders and developers, acquired the holdings of Virginia Vanderbilt and proceeded to improve the property with sewers, utilities, and a novel street layout. The resulting "Marina Vanderbilt Tract" proved to be a hit with the public. Within two years all 634 lots in the subdivision had been sold.

Although I have laid to rest the myth that the Marina District was built on 1906 rubble, I feel there is something left to explain: If they didn't dump rubble in the Marina, what did they do with it? I will endeavor to answer that question and tell the story of how San Francisco cleaned up the big mess in a subsequent article.

Footnotes

- 1 The Appendix lists notable photographs accessible on the Internet.
- 2 San Francisco Gaslight Company's gas plant on Buchanan and Bay, completed in 1893, was officially known as North Beach Station. "Black Point" had been the name of the area in earlier years. Beyond the gas works to the west was the site of the Black Point Packing House, for example.
- 3 The wild strawberries that grew there gave the peninsula its name.
- 4 He also developed property that wasn't his. Hermann's National Shooting Gallery was constructed west of Harbor View Park on the alignment of Lyon street, which was part of the Presidio Military Reservation until it was deeded to the city by an act of Congress in 1876.

5 “Tidelands” is the generic name given to all lands in San Francisco Bay. More specifically: Submerged lands are always under water, even at low tide; tidelands are covered and uncovered by daily tides, bound by the mean high tide and mean low tide. Overflowed lands, also called “swamp” and “overflow lands,” are above mean high tide but are subject to extreme high tides, so marsh grasses grow on them and they are commonly called “marsh lands.” Gerald Dow’s *Bay Fill in San Francisco: a history of change* is the source for these definitions.

6 It was the only wharf actually owned by the city. The state owned the waterfront within the “red line” fixed by San Francisco’s official boundaries in 1850, the year of its incorporation. Waterfront lands west of Larkin were outside the red line.

7 Unfortunately, details of this complex, as well as the swampy nature of much of the land in its vicinity, do not show up well in the photograph. See the “The Cows of Cow Hollow,” by William Kostura, in the *Argonaut*, vol 9, No. 1, Spring 1998, page 41, for a better picture of the distillery works. Also, see entry for “Cow Hollow 1870s” in the Appendix.

8 On March 11, 1858 the state legislature endorsed the so-called “Van Ness map,” which laid out streets, blocks, and public squares in the Marina east of Divisadero, including Lobos Square. It also authorized the city to open those streets for public use—by filling in tidelands if necessary. In an August 3, 1878 editorial, the editor of the original *Argonaut*, Frank Pixley, whose gracious home occupied the whole block bounded by Union, Green, Fillmore, and Steiner, opined: “I live in the suburb of the city; have lived in the same house for 23 years. My neighbors are, many of them, poor, industrious workingmen, who would gladly toil for two dollars per day.” He went on to describe work on nearby Lobos Square as shoveling and removing sand, which men from out of town using horses (men paid \$4 per day) were doing instead of deserving locals using hand carts alone.

9 The amount Fair paid for the Marina tidelands is uncertain. The figure most often cited for the North San Francisco Homestead and Railroad Association property is \$300,000; however, Fair may also have purchased additional lots in the area from other parties.

10 See the Appendix: Harbor View Cove with 1892 piles.

11 Fulton Iron Works was founded in 1855. The west end of the current Marina Yacht Harbor opposite the St. Francis Yacht Club was excavated from Fulton’s Harbor View site.

12 A short segment of Laguna was to be filled in with rock and earth or sand.

13 At the time, the area north of Broadway between Divisadero and Gough was known as Golden Gate Valley. The name survives today on the branch library at Octavia and Green, originally a Carnegie library, and in the Golden Gate Valley Neighborhood Association.

14 Pacific Gas Improvement Company was in the unenviable position of suing its landlord. Its coal wharf ran out into the bay on a lot leased from James Fair.

15 Most of these streets were simply brought up to grade. Francisco stands out in photographs because it was macadamized (paved with small broken stones consolidated by tamping or rolling).

16 It would remain for nearly ten years. See the Appendix: Blowing Up Arch Rock, 1901.

17 This is according to the oral recollections of Howard Livingston, son of Warren & Malley's superintendent of construction, accessible at the library of the San Francisco Maritime Museum.

18 Pacific Gas Improvement Co. vs. Ellert (64 Fed. Rep. 421). Opinion by Judge McKenna.

19 They were also trustees of a lifetime trust for Fair's children. The children successfully challenged the trust in the protracted battle over Fair's estate.

20 Leaving a narrow breakwater of pilings and broken rocks on Lewis running to Divisadero. There was a short segment west on Jefferson too.

21 Sub-contractor Darby Laydon & Co. actually drove the piles.

22 Attorneys for Pacific Gas Improvement felt that a recent Supreme Court decision in the so-called "Oakland waterfront cases" favored their interests.

23 A shallow-draft, flat-bottomed vessel, widely used around the bay and delta.

24 The local papers milked the story for all the hilarity they could, referring to the principal players with such naval titles as "admiral" and "commodore."

25 Governor Budd eventually denied making such a threat, but reports of it sent representatives of the Fair estate into a tizzy.

26 A series of court decisions established that Fair and his heirs held title to the Fillmore Street wharf property and that the city had only franchise rights to it. After a final decision on April 6, 1908 went against it, the city finally surrendered its claims, removed the Fillmore Street wharf property from the list of city property, and assessed it to Theresa Oelrichs, the legal owner.

27 Wharf managers.

28 See *The Fair Will Case*, Kenneth M. Johnson, Dawson's Bookshop, 1964 for details about the sensational and protracted battle over Fair's estate. Oscar Lewis's *Silver Kings, the Lives and Times of Mackay, Fair, Flood, and O'Brien, Lords of the Nevada Comstock Lode*, A. A. Knopf, 1947 has a solid chapter on Fair's life.

29 Fort Mason tunnel was dedicated October 31, 1914 along with a Jefferson Street extension of the belt line railroad through it to the Army transport docks at the foot of Laguna.

30 The eleven-cent figure is reported in the *Examiner* October 17, 1897. The article relates the Fair estate's concern that 400,000 cubic yards of sand, at eleven cents a yard, already deposited in the basin formed by the seawall on Lewis and Webster would be carried away by the tides and heavy sea of the rainy season if the seawall wasn't completed promptly.

31 Most of the sand removed by Warren & Malley came from the dunes north of Lombard between Laguna and Van Ness. The sand hills in the Black Point Military Reservation were

excavated approximately back to the line of Beach, so I calculate the core area where sand was removed as twenty blocks. Sand was removed from other areas as well—from Lobos Square and between Chestnut and Lombard west of Laguna to Fillmore—but twenty blocks is a nice, round figure. Each one of these blocks measured to the centerlines of the surrounding streets is 481.25 feet by 343.75 feet, which equals 165,430 square feet or 18,381 square yards. Twenty blocks is 367,620 square yards. 2,272,727 cubic yards at eleven cents a yard covers twenty blocks to an average depth of 6.2 yards—almost nineteen feet. This accords well with the figure for the depth of sand removed by grading Bay Street and the hills in the Black Point Reservation as reported by the Chronicle on December 31, 1893. It's more difficult to make the figures come out quite as neatly on the “landfill” side of the equation. There is no clear figure for the number of square yards reclaimed in the area. Although figures for cubic yards of fill are available for some of the streets—Chestnut took 100,671 yards of fill in the five blocks from Steiner to Baker, roughly 5.5 yards (nearly eighteen feet) average depth—the topography such streets traversed was too varied to admit of easy generalization to the depth of fill. My guess is that around eighteen blocks were filled. Even if many were filled to a depth of eighteen feet as the Chronicle also reported in the article cited above, the total for all would be less than 2,000,000 cubic yards. However, since I like round numbers, I'll take 2,000,000 cubic yards for the volume of sand removed from the dunes and deposited on Fair's Marina tidelands.

32 It cost 16.5 cents per yard to dredge 1,300,100 cubic yards from the bay in 1912 (\$214,516.50), but the basin filled then was smaller than in 1898 due to fill extracted from Fort Mason. See note 34.

33 See the *San Francisco Chronicle*, January 17, 1898.

34 According to the recollections of Howard Livingston (see note 17), material excavated during construction of the Army transport docks at Fort Mason in 1909 ended up behind the seawall.

35 The “captive airship” was a system of kites. For more information on George Lawrence and his method consult “Dr. Simon Baker on George Lawrence,” on the Internet at: <http://robroy.dyndns.info/lawrence/intro.html>.

36 And since two sewers dumped into it, perhaps “open cesspool” describes it better. See Livingston's recollections for other historical nuggets.

37 Ten to eleven million cubic yards is the figure typically cited for the amount of rubble created by the Earthquake and Fire. (Gerald Dow in *Bay fill in San Francisco: a history of change*, page 134, is just one source.) The Marina could not have accommodated that much. Site preparation for the Panama Pacific International Exposition required more than hydraulic fill. See entry for “Hydraulic Fill Complete” in the Appendix for details.

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Note: Photographs from this collection are available in an uncompressed TIFF format.

Appendix

The Marina's geographical history is surprisingly well documented in photographs. Many have been digitized and placed on the Internet. I present but a sample here. I recommend downloading these images and using a viewer with a zoom feature to examine them. Most of the URLs are case sensitive.

The Marina District in Pictures 1858-1915

Early Days

Washerwoman's Lagoon 1858

<http://cdn.calisphere.org/data/28722/3k/bk0003d3k3k/files/bk0003d3k3k-FID4.jpg>

Miscellaneous mammoth plate prints by Carleton E. Watkins ca. 1859-1890, from the Francis Farquhar collection, BANC PIC 1996.072:01, The Bancroft Library, University of California, Berkeley.



Carleton Watkins' classic view of the Presidio, Fort Point, and the Golden Gate looks out over Loveland's cottage at Larkin and Greenwich. Washerwoman's Lagoon has a surface area of nine acres. Strawberry Island actually looks like an island in this view. It also seems covered with vegetation—probably dune strawberries (*Fragaria chiloensis*). The area's great sand dunes are captured in their virgin state. Some are stabilized by vegetation. The Presidio House dominates

the short, steep ridge marking the eastern boundary of the Presidio from its perch adjacent to the Presidio Road. The US Army constructed this road during the years immediately following the American occupation of California to facilitate wagon travel between the Presidio and Yerba Buena cove. No proper streets existed in the vicinity of the Presidio Road until 1865 when the grading of Union Street commenced. The long board fence (black in this photograph) on the line of Octavia west of Washerwoman's Lagoon is a windbreak to keep blowing sand off clothes drying at Easton's Steam Laundry. Below the laundry on the southern shore of the lagoon stands a cluster of buildings—the Lagoon tannery. Although names and ownership would change, both the laundry and the tannery would remain in operation on these sites until the early 1890s.

Cow Hollow 1870s

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0012482A.jpg>

Series 1, subseries 1, volume 1, item 72, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



This is a wider version of what appeared in “The Cows of Cow Hollow,” by William Kostura, in *The Argonaut* Vol. 9, No. 1, Spring 1998, p. 41. In the 1870s Van Ness Avenue ended at Vallejo Street on top of a small bluff overlooking an area then known as “Spring Valley.” The edge of that bluff appears at the bottom of this image. In the valley below the bluff the principal creek feeding Washerwoman's Lagoon snakes its way north at the bottom of a steep ravine. The ample freshwater in this area would be used for irrigation well into the 20th century. Pacific Distilling and Refining Company's works on the southwest corner of Chestnut and Pierce employed only thirty men but had the capacity to produce 1,500 gallons of whiskey a day, with a typical yearly output between 500,000 and 1,000,000 gallons. The four story brick main building flanked by a substantial smokestack was a neighborhood landmark. The company also constructed the Scott Street wharf to handle its shipping and receiving. A scow schooner is tied up there in this photograph. Strawberry Island, known as Harbor View by the 1870s, has been developed since

Watkins' 1858 view. Baker Street crosses the tidal slough that meanders into the Presidio. The conical mound at the north end of Harbor View Park near the water is a backstop for the National Shooting Gallery, Rudolph Hermann, proprietor. This rifle range is west of the park on the right-of-way of Lyon Street. California Powder Company found Harbor View an excellent location to store blasting powder. Its storehouse and L-shaped wharf occupy Harbor View Point. Powder would be stored here until the 1890s. A sand hill blocking our view of the cove as well as of the Fillmore Street wharf peaks near the intersection of Webster and Francisco, west of today's tennis courts. The small houses atop the dunes stand along the line of Magnolia Street.

In this image, Thomas Bareilles' dairy farm house at 2960 Octavia, identified in the article above, is not cropped as it was there. Some pioneer structures behind and below it sit on the shore of Washerwoman's Lagoon. The long building beyond Bareilles' near the dunes is the Legallet & Steinbach tannery. The squat brick building with the tall chimney closer to the camera is part of the Lagoon tannery. The pair of white two-story buildings on the property surrounded by a white fence is the Occidental Laundry—successor to Easton's Steam Laundry. The laundry's white pump house stands near the intersection of Octavia and the Presidio Road. Other notable structures near the Occidental Laundry include the four-room Spring Valley Primary School, constructed in 1857 to replace a one-room schoolhouse dating from 1852, the Octagon House in its original location, the Allyne house at the northwest corner of Gough and Green, and Henry Casebolt's streetcar and carriage manufactory at the northeast corner of Union and Laguna—where San Francisco's famous balloon cars were made. A tall flagpole rises above Casebolt's factory.

Sham Battle at Harbor View

<http://webbie1.sfpl.org/multimedia/sfphotos/AAC-1153.jpg>

San Francisco History Center, San Francisco Public Library.



The small building in the center of the photograph is the Presidio House, a fixture on the Presidio Road since the 1850s. The Presidio Road is no longer the only route into the Presidio in this neighborhood. Grading Greenwich and opening a new Presidio entrance at Greenwich and Lyon has rendered the old Presidio Road obsolete. Lyon itself has only recently been deeded to the city. The Presidio's boundary fence has not yet been moved west to reflect this. Pacific Nursery, north of the Presidio House, has occupied the two blocks flanking Chestnut between Baker and Lyon since 1869. It will continue there until the late 1890s. The two ranches on the shore are north of the line of Chestnut. A small landing extends from one of them into the main channel along the line of Divisadero. Baker Street is bordered on the east by what appears to be a low white fence or wooden sidewalk. A single track horse car line turns off Lombard and runs along Baker to Harbor View. Balloon cars served this line. The July 4, 1876 *Chronicle* had this to say about the ride: "The Sutter Street Railway is a miserable institution at best, consisting of balky mustangs and crazy cars, but yesterday's experience conclusively convinced many people of the utter inefficiency of that wretched apology for a street railroad, as some of the cars consumed nearly an hour and a half in making the trip from the ferries to the Presidio."

Mount Tamalpais and the Golden Gate

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0030352A.jpg>

Series 1, subseries 4, volume 10, item 217, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



This mid-1880s photograph shows how the landscaping around Harbor View Park has matured. Baker Street is still the only street crossing the tidal slough. Steam engines haul carloads of fun-seekers along Greenwich and Baker to Harbor View Park from the terminus of the Presidio and Ferries cable car line at Union and Steiner. Pacific Distilling and Refining Company is still in business at the corner of Chestnut and Pierce, but the sand hill behind it, depicted in the “Cow Hollow 1870s” image above, has all but disappeared. Local sand was used extensively for street grading and backfilling sewers and storm drains. The company’s Scott Street wharf appears to have rotted away. (The useful life of plank and pile wharves was about twelve years. The Fillmore Street wharf was completely rebuilt twice during its thirty-five year life.) A two-masted ship is tied up at Pacific Gas Improvement Company’s coal wharf, although the wharf itself is not visible in this photograph. Part of the company’s gas works is visible. This photograph was apparently taken from the home of Cow Hollow pioneer Charles H. Killey.

View from Webster and Green, May 1886

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0014992A.jpg>

Series 1, subseries 1, volume 6, item 39, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



In this dated photograph, probably taken the same day as the previous one, and from Killey's house as well, we see Pacific Gas Improvement's works and some of the roofs of the Black Point Packing House complex as well as the original works of the San Francisco Gaslight Company at Bay and Buchanan. Between 1891 and 1893 this gas works would be rebuilt from the ground up into North Beach Station. Note that the grading of Lobos Square (hidden by a thirty-five foot tall sand dune rising north of Lombard) has eliminated the hill at Francisco and Webster seen in earlier photographs. In the 1850s the area around Webster and Green was known as Gulliver's Hill and was reputed to have the best quail, duck, and rabbit hunting in San Francisco.

Fair's North Beach Improvements

Harbor View cove with 1892 piles

<http://webbie1.sfpl.org/multimedia/sfphotos/AAB-9209.jpg>

San Francisco History Center, San Francisco Public Library



In 1892, contractor E. L. Graves under the direction of James Fair drove a double row of piles eastward from Harbor View point to form a breakwater. The piles followed the south line of Lewis Street, turning south along Scott for one block, before turning east again on Tonquin (now Marina Boulevard). An injunction halted pile driving near the line of Steiner. After 1893, San Francisco Gas & Electric Company (formerly San Francisco Gaslight Company) drove another line of piles out into the bay, perpendicular to the shore, as the first step in constructing a mole on the west side of Buchanan. That situation is depicted here. Fulton Engineering and Shipbuilding Works and California Pressed Brick Company occupy the west shore of the cove. Near where the cove is cropped on the left side of this image, the coal tramway on Pacific Gas Improvement Company's wharf sticks out into the water. Nearby is the approach to the Fillmore Street wharf. Workers in Warren & Malley's grading crew slept in the twin barn-like bunkhouses adjacent to the sand hills they are flattening. The "quarried out" look to the area near the bunkhouses shows the project is moving along. Although this photograph appeared in the May 22, 1897 S. F. News Letter, it was taken in 1894 or 1895. San Francisco Gas & Electric

Company's mole is shown on U.S. Coast and Geodetic Survey Register No. 2205, surveyed in 1895, part of which appears as figure 7 in M. G. Bonilla's *The Marina District, San Francisco, California: Geology, History, and Earthquake Effects*. Had the mole existed when this photograph was taken, it would have been captured in the image.

Lewis Street seawall under construction

<http://webbie1.sfpl.org/multimedia/sfphotos/AAB-9210.jpg>

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Pacific Gas Improvement Company sits on the old shoreline facing the Lewis Street seawall in this 1896 view. Soon construction will begin on the segment along Webster connecting the seawall with the shore. Pacific Gas Improvement has thoroughly blackened its site north of Francisco between Fillmore and Pierce. Note the remnants of the 1892 piles. Construction on San Francisco Gas & Electric Company's mole, just beginning in the previous photograph, is shown completed here. Sand hills in Fort Mason and immediately east of Lobos Square have been graded away. The gasometer (storage tank) nearest the camera belongs to Pacific Gas Improvement Company. It stands adjacent to Chestnut Street on what today is the playground of the Marina Middle School.

Pile driver at work on Tonquin 1897

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0013168A.jpg>

Series 1, subseries 1, volume 4, item 63, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



The seawall is nearly complete as a pile driver works west from Scott along the line of Tonquin (Marina Boulevard). The Presidio & Ferries cable line runs on Union and Baker before turning west on Greenwich to enter the Presidio. The “steam motor” line still serves Harbor View Park, but it runs on Baker only from Greenwich to the bay shore. The wooded property with the windmill is Pacific Nursery. Fair’s marshlands are filled in. The main grandstand of the Presidio Athletic Grounds is on Baker at Bay. A twelve-foot tall board fence surrounds the athletic grounds enclosing the blocks bounded by Francisco, North Point, Baker, and Broderick. Harbor View Park, Germania Gardens, Fulton Engineering and Shipbuilding, and California Pressed Brick Company occupy most of the area once known as Strawberry Island.

Blowing up Arch Rock 1901

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/cook/figures/I0050069A.jpg>

Volume 16, Group 2, Item 17b, Jesse Brown Cook Scrapbooks Documenting San Francisco History and Law Enforcement, ca. 1895-1936, BANC PIC 1996.003--fALB, The Bancroft Library, University of California, Berkeley.



Down near Bay Street, Warren & Malley's corporation yard still occupies public property in Lobos Square and on Laguna. A machine standing beside Bay Street between Laguna and Octavia may be one of the bucket-conveyor excavators that cut down the great sand hills. Fill along Webster inside the seawall is about 200 feet wide. Black smoke billows from the stack at North Beach Station. Many in the coal gas industry considered North Beach Station to be the finest gas works in the world. Its large gasometer remained a fixture in the Marina District until the late 1950s.

Quake and Aftermath

Many photographs were taken of the Marina in the aftermath of the 1906 earthquake. Refugees flocked to the Marina from the burned district. Permanent camps were soon set up. The rowdy Harbor View camp was situated on former marshlands filled in by James Fair. Lobos Square was home to hundreds of earthquake cottages.

Refugee Camps in the Presidio and Marina District 1906

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0014460A.jpg>

Series 1, subseries 2, volume 9, item 56, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



The perspective here is similar to Watkins' classic, Washerwoman's Bay 1858. Refugee tents are tightly packed on Lobos Square. Both of the Marina's gas plants are ruined. They will never make gas again. Of the gasholders only Pacific Gas Improvement's big one west of Lobos Square can still hold gas. West of there and north of Francisco tents in the Harbor View camp dot the reclaimed marshland. The top half of the smokestack for the Sierra and San Francisco Power Company's "steam plant" broke off during the quake and smashed through the roof of the plant itself. Miraculously, the power generating machinery wasn't badly damaged and the plant began pumping out power to the trolleys of United Railroads on May 7, 1906.

Marina District 1908

<http://sunsite.berkeley.edu/FindingAids/dynaweb/calher/graves/figures/I0014950A.jpg>

Series 1, subseries 1, volume 5, item 69, Roy D. Graves Pictorial Collection, BANC PIC 1905.17500--ALB, The Bancroft Library, University of California, Berkeley.



This view and Watkins' of 1858 were taken within one hundred feet of each other. Earthquake cottages have recently been removed from Lobos Square. They await disposal on a lot once occupied by Warren & Malley's corporation yard. San Francisco Gas & Electric's big gasholder is sound again, but it stores gas now produced on the south side of town. The ruins of the Marina's gas plants have been cleared away. On the southwest corner of Filbert and Gough stands the new carbarn complex of the Presidio & Ferries Railway, constructed in 1908 to house trolleys for the rebuilt Union Street line. There is no sign of any filling in the area behind the seawall. Buildings on the west side of Larkin north of Greenwich did not burn in the fire.

Great White Fleet Entering the Golden Gate

<http://memory.loc.gov/pnp/pan/6a34000/6a34600/6a34639r.jpg>

Library of Congress, LC-USZ62-13410 DLC.



Sixteen new battleships of the Atlantic fleet were painted white, thus giving rise to the famous designation. Dispatched on a round-the-world tour by President Theodore Roosevelt on December 16, 1907, the Great White Fleet steamed into San Francisco Bay May 6, 1908. Hanging from one of George Lawrence's captive airships (see footnote 35), the panoramic camera looks west, out the Golden Gate. At the lower left corner a white sandy beach in Fort Mason is visible. In 1909 the Fort Mason transport docks will be constructed out from this area. Nearby is the electrical generating plant of the Sierra and San Francisco Power Company—the “steam plant”—located where the Marina Safeway stands today. Built to provide back up electrical power for the streetcars of United Railroads, the plant came into its own in 1906 and continued to generate power from that site until the 1950s. Beyond the steam plant lies a rock-lined, earthen wharf or “mole” used by San Francisco Gas & Electric Company until the earthquake ruined its gas works. The mole is half a block wide and runs along the west side of Buchanan. The northern end of the mole reaches as far as Marina Boulevard. West of the mole James Fair's seawall encloses a sizable body of water—about seventy acres. Inside the seawall the Fillmore Street wharf and the coal wharf of Pacific Gas Improvement Company stick out from the old shoreline. The distinct white street near the old shoreline is Francisco. In 1908 Francisco ran uninterrupted from Webster to Baker. Beyond the west end of Francisco lies a large pond, a remnant of the saltwater marsh that once extended through the area. North of this pond, in an area thick with vegetation, two old-time resorts live out their twilight years: Harbor View Park and Germania Gardens. Harbor View Park extends all the way to the bay. Adjoining it, nearer the camera, the derelict Fulton Engineering and Shipbuilding Works, which recently

ceased operation, molders away. West of Harbor View along the shore the Presidio's main wharf extends into the bay.

May 6, 1908 from Webster and Green

<http://webbie1.sfpl.org/multimedia/sfphotos/AAB-9248.jpg>

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There is nothing but open water between the old shoreline and the Lewis seawall.

Panama Pacific International Exposition

Exposition Site

<http://memory.loc.gov/pnp/pan/6a35000/6a35700/6a35707r.jpg>

Library of Congress, from the Whitelaw Reid Collection.



This panoramic photograph was taken sometime between fall of 1911 and spring of 1912. In 1909, material excavated during construction of the Fort Mason transport docks was dumped behind the seawall beside the fill previously deposited along the line of Webster street. Aside from this, there has been no discernible change in the Marina's geography. Note the lack of development on the marshlands reclaimed by James Fair. The rotting piles of Pacific Gas Improvement Company's coal wharf protrude from the water; the plant itself has disappeared. The Bus Stop bar, 1901 Union Street, San Francisco, has a full-sized print of this photograph hanging from the wall above the juke box.

Hydraulic Fill Begins

<http://webbie1.sfpl.org/multimedia/sfphotos/AAE-0666.jpg>

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Charles C. Moore, president of the Exposition Company, stands on the deck of the suction dredge *John McMullin* on April 13, 1912. Soon Moore will pull the lever to start up the dredge, and sand and mud will flow through the pipe and spill out into the artificial lake behind James Fair's seawall. Spectators crowd the seawall around the intersection of its Webster Street and Tonquin Street sections.

Hydraulic Fill Complete

<http://webbie1.sfpl.org/multimedia/sfphotos/AAB-9249.jpg>

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The camera looks north from the partially constructed James Leary Flood mansion at 2222 Broadway between Webster and Fillmore. Although hydraulic fill is complete, site preparation for the Panama Pacific International Exposition isn't. The tip of San Francisco Gas & Electric Company's mole—just beyond the small, black oil tank near the bay—will be connected to the seawall on Webster, and the body of water thereby enclosed will be filled in back to the shore. At Divisadero and Tonquin, site of the Battle of Harbor View, the seawall will be extended west to Broderick for a boat harbor and the small basin south of that filled in. Part of that area appears at the extreme left center of this image. In all, the Exposition Company will use 475,000 cubic yards of dirt and sand fill throughout the Exposition site, most of it acquired by further grading down the area Warren & Malley graded in the mid 1890s under contract to James Fair.

Aerial View of Cleared Exposition Grounds

<http://webbie1.sfpl.org/multimedia/sfphotos/AAB-9213.jpg>

San Francisco History Center, San Francisco Public Library



The future will bring changes to the Exposition boat harbor, and the ferry slip will disappear, but the Marina district's current geography is not much different from what appears here.