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# Point Knox (Angel Island)

By George Worthylake

**Point Knox Lighthouse (on Angel Island) circa 1930. This photograph shows the original dwelling on top of a new (bottom) second story. The outbuildings from left are: oil house, privy, storage house, and wood shed. (U. S. Lighthouse Society archives)**

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The 1885 report of the Lighthouse Board reported, "By the Act of March 3, 1885 an appropriation of $4,500 was made for the establishment of a fog bell here [Ed. at Point Knox on Angel Island in San Francisco Bay]. A site on the western side was selected, plans and estimates made, and the work has been commenced. The bell and machinery are in readiness in San Francisco, but it was found necessary to change the plans in certain respects, thereby involving further expense. It is estimated that an additional appropriation of $550 is required to establish this fog signal and put into serviceable order."

At one point there were five fog signal stations in California, no light, merely a fog signal. The Point Knox station was established to assist vessels, especially ferries, navigate the narrow channel into Sausalito.

Work was continued on the Point Know station in 1886 until "violent storms destroyed the trail and steps which were built up the bluff, and caused other damage, which made the completion of the work with the funds available impossible."

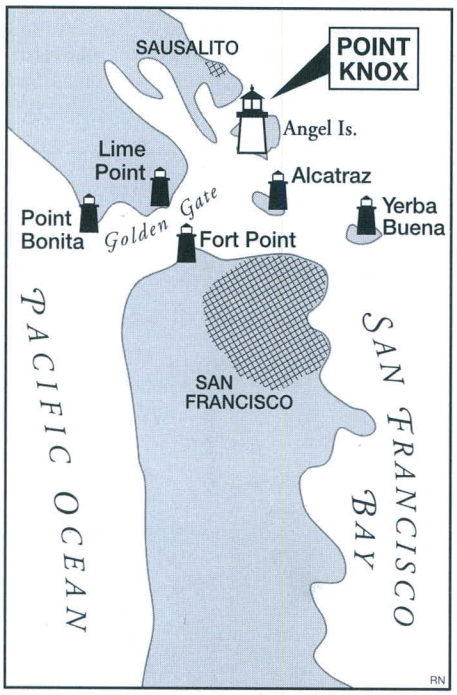
The fog signal finally went into operation on November 1, 1887. The small dwelling with an attached fog signal house was located at the bottom of a long flight of wooden stairs. A 3,000 pound bell was hung at one end of the fog signal building and was rung by a sledge hammer powered by a Gamewell Fire Alarm No. 3 clockworks. The clockworks had to be wound every two hours.

A water pipeline was connected to an Army water supply on another part of the island. Because of the steep nature of the cliff, landslides were a constant worry and the water pipe was carried away twice. Once in 1889 and again in 1890 when the stairway to the station was also destroyed.

In 1897 the Report of the Lighthouse Board mentioned that a fence was constructed around the dwelling, and the yard in front was covered in concrete. A small frame store house was built at the base of the hill to replace the one carried away by a landslide

In 1900 four of the five fog signal stations of northern California received small lens lanterns. Point Knox's lens was oil fueled and hung near the fog bell on the western end of the fog signal building. The small lens produced a fixed red light which probably had a range of about 3 miles. Even though there was now a light at Point Knox, it was considered a minor aid to navigation. The station's fog signal was the more important aid.

From January 1, 1904 until November 19, 1914 the keeper at Point Knox station was Juliet E. Nichols. Juliet's husband was Commander Henry Nichols, USN. He was assigned as Inspector of the 12th Lighthouse District from 1894 to 1896. While he was the Inspector, his father-in-law, Dr. M. W. Fish, died and he offered his mother-in-law the position of keeper of Point Pinos Lighthouse in Pacific Grove, California. Emily Fish took the position and was a keeper for several years.




In 1896 Commander Nichols was transferred to Dewey's Great White Fleet which steamed to Manila Bay to 'liberate' the Philippines. Cdr. Nichols died of heat prostration in the Philippines and, eventually, his wife, Juliet, was offered the position of keeper of Point Knox station on Angel Island. Both mother and daughter served as keepers at the same time. This must be some sort of record in the annals of lighthouse lore.

On July 2, 1906 Juliet reported, "[fog bell striking] Machinery disabled, worked by hand sent telegram to the Lighthouse Inspector and the Lighthouse Engineer." The next day she reported dense fog and the bell (signal) was struck by hand. "Machinery repaired at 10 a.m. by Mr. Burt from the office of the Lighthouse Engineer."

Then on July 4th and 5th, 1906 the fog bell striking machinery failed again and Juliet wrote in her Log —

"July 4 - Flags flying, calm, distant fog. After 7:00 p.m. dense fog banks, machinery striking. 8:00 p.m. machinery went to pieces — great tension bar broken in two — dense fog — fresh SW with heavy mist — bell struck by hand with a nail hammer, standing out on the platform until 4 p.m." She noted that she had struck the required characteristic of two blows every 15 seconds (with the nail hammer) for 20 hours and 35 minutes. She was later commended for her actions by the Commissioner of Lighthouses.

Two Years later Juliet was still at the helm and still having problems with the bell striking machinery.

Nov. 19, 1908 — Dense fog all night. Steel pin portion of machinery called "Quadrant" broken. Sent telegram to the Lighthouse Inspector and the Lighthouse engineer for assistance. Bell struck by hand from 5 a.m. to 9:15 a.m. until the end of fog. Sent letter to the office of the Lighthouse Inspector reporting the accident. Sudden return of dense fog at 10:00 a.m. Bell struck by hand forty minutes more until the end of fog. At noon the lighthouse launch came with Mr. Luine...temporary repairs were made in San Francisco, the launch going and returning here.

Jan, 16, 1909 — Calm, rain with fog. Bell struck at intervals. Great tension bar broken at 3:00 p.m. Bell struck with nail hammer standing on the outside of the platform until the end of fog — 2 hours and 15 minutes.

March 11, 1910 — Dense river fog 3:15 a.m. great tension bar broken. Bell struck by hand 5 hours and 15 minutes...new great tension bar placed and machinery regulated at 8:30 a.m.

June 26, 1911 — Hammer spring broken at 7:00 a.m., dense fog, Bell struck, by hand for two hours. New hammer spring placed.

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Oct. 12, 1912 — Hammer spring of fog signal broken at 2:45 a.m. bell struck by hand from 2:45 a.m. to 5:25 a.m., 2 hours and 40 minutes. New hammer spring placed and machinery regulated.

Feb. 13, 1913 — Rope attached to weights of the bell broke at 11 a.m., struck bell by hand for one half hour.

March 4, 1913 — At 1:00 a.m. hammer spring broke — bell sounded by hand from 2:45 to 3:00 a.m. and from 5:15 to 6:50 a.m.

Nov. 19, 1914 — Clear to N. Mrs. Juliet Nichols retired, relieved by Mr. P. S. Admiral.

Some time after the Department of Commerce was formed and took charge of lighthouses, an information booklet (Form 60) was sent to all light stations. Keepers were to supply the information requested in this booklet. Juliet Nichols' 1907 information described her dwelling as consisting of three rooms and an enclosed porch, with a wood and coal shed. She listed the grounds as being 30 by 30 feet and that she had two small flower beds. She stated access was made "By government steamer (USA Quartermaster) Gen. Mcdowell [to Angel Island] then by road crossing military reservation [for which she needed a pass], then descending a long flight of steps (151) crossing to the rock." What a way to bring groceries home!

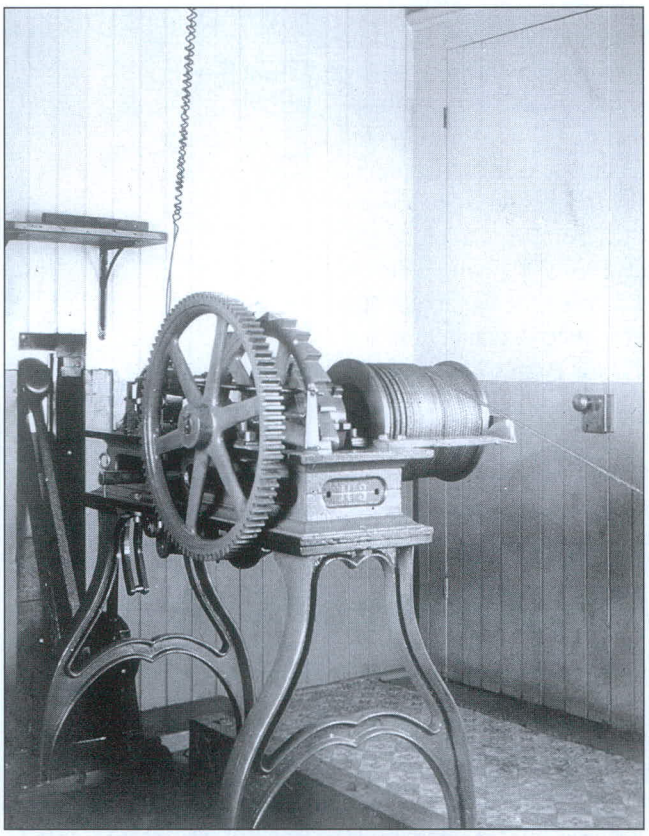
After the Coast Guard took over lighthouses in 1939, the local District decided the Point Knox dwelling of three rooms was just to small for modern standards. The house was elevated and a new floor constructed underneath.

In the early 1960's the Point Knox light was automated and the keepers removed. In 1963 the old station was considered an attractive nuisance and was burned to the ground. Only the 3,000 pound bell remains on the site, still bearing the hammer marks made by Juliet's hammer during those foggy nights at the beginning of this century.

Foggy nights – the mournful sound of a ferry's fog horn as it plies the waters under Point Knox making for Sausalito — the ringing of a fog bell by a common nail hammer sending the characteristic out over the calm waters, two blows every 15 seconds ...and it seems like only yesterday.

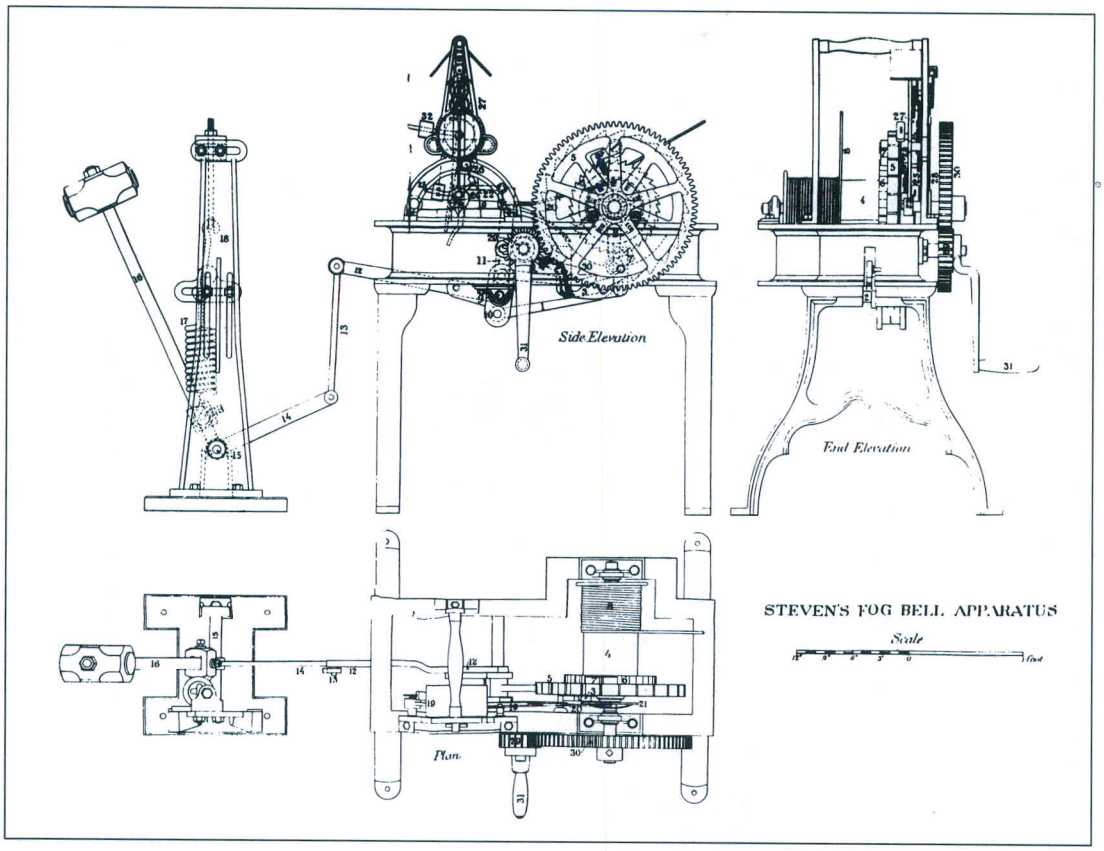


**The original Point Knox Fog Signal Station. A water cistern is at left. The 4,000 pound fog bell was located on the end of the platform. In 1900, a small lens lantern was hung next to the bell, but the station couldn't be classified a lighthouse as its primary purpose was to provide a fog signal. (Courtesy of U. S. Coast Guard circa 1910)**

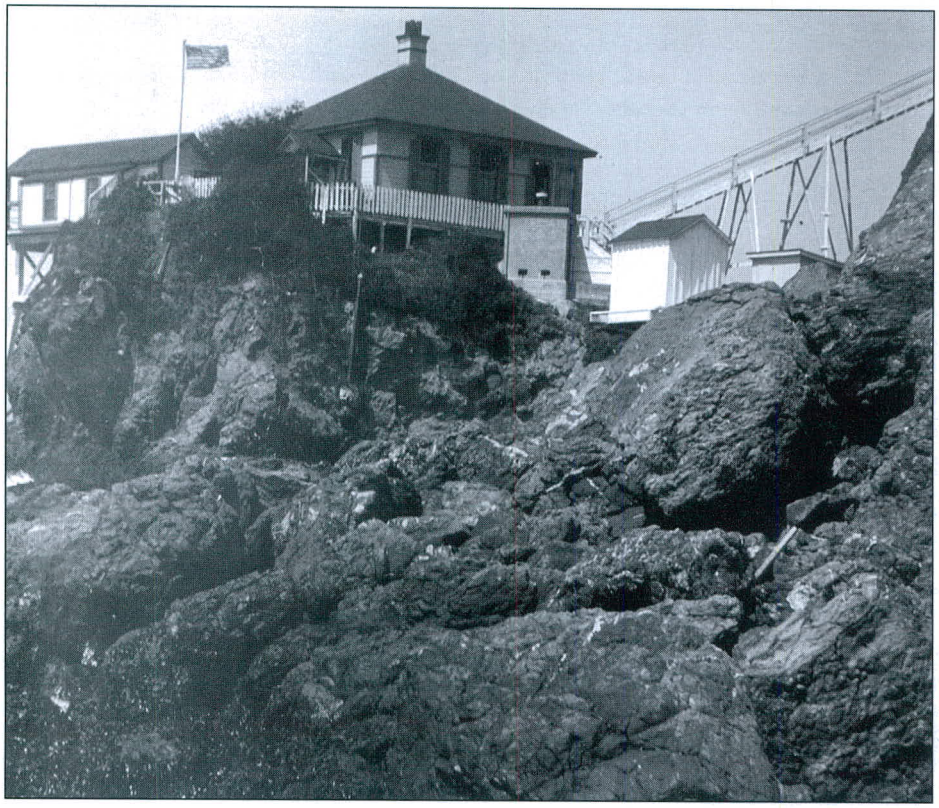


**Typical fog bell striker that would have been located inside the fog signal building at Point Knox. At far left, you can just make out the sledge hammer, which, when released, swung through a hole in the wall and struck the bell. (U. S. Lighthouse Society archives circa 1908)**

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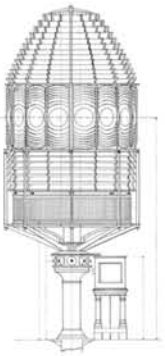



**A typical automatic bell ringing machine. These were manufactured by the Daboll, Stevenson, and Gamewell companies. In addition to bell fog signals, these machines were used to ring town tower clocks and fire alarms. At left is the sledge hammer that strikes the bell when a cam dictates. Hanging down center is the crank to wind up the weights. The wire rope drum is behind the large geared wheel and the wire to the weights can be seen leading off the large wheel to the right, at about "two o'clock."**



**Point Knox looking northwest. The structure in the upper right is the long staircase to the road and trail at the top of the cliff. (Courtesy of U. S. Coast Guard circa 1910)**

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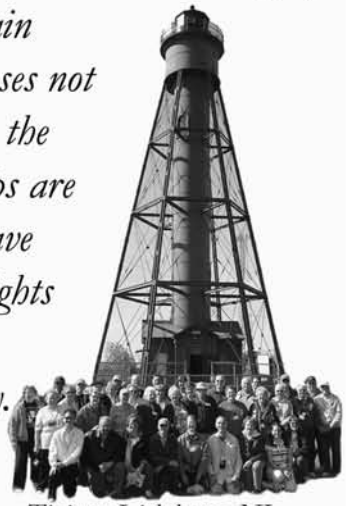
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