

by Sarah Weston

Once in a while in winter, the rains wash some unusual relics down from the hill-sides north of Paradise Park into the San Lorenzo riverbed. Massive artillery shells, some weighing up to 300 pounds, turn up amongst the piled driftwood

The Shelling of Felton

denly created when Confederate raiders blocked supplies being shipped from the East Coast.

The loss of the ubiquitous explosive was no small matter even for a non-combatant state like California. Besides serving as a propellant in ammunition, black powder was vital in the fields of construction and mining.

"Black powder was the mainstay

for the Powder Works from the time of its inception though to the end," said Barry Brown, who lives near the site of the old plant and has been researching its history for the past seven years. "They manufactured other kinds of powder later, but black powder was always the mainstay of the California Powder Works."

Every Powder from Squirrel Rifles to Battleships

Mainstay or not, the Powder Works did change with the times.

The other kinds of powders produced included guncotton (which Jules Verne used fictionally as a futuristic rocket propellant) and brown prismatic powder.

Of the brown powder, an 1896 report on Santa Cruz County noted that it "... is so much esteemed by the Government that it has delivered, at the company's proving ground, an equipment of modern guns for use in the testing of the powder before its acceptance for service."

In total, the U.S. government sent

four cannons to Felton, the first of which arrived in 1892. It was of 6" bore, and was sent as soon as the Powder Works finished development of the new brown powder. It was followed in June of 1894 by the biggest of the group, 20 feet long with an 8-inch bore, weighing more than 31,000 pounds. Its carriage and fixtures weighed another eight tons.

In the accompanying photos the 8-inch gun and its smaller sister, a replacement 6-incher that arrived in 1898, look anomalous next to the men who tended them.

The men's coveralls, derby hats and Wyatt Earp mustaches clearly date them to the 19th century, while the jewel-like gleam of the gun barrels looks more suited to a space shuttle than to antique artillery.

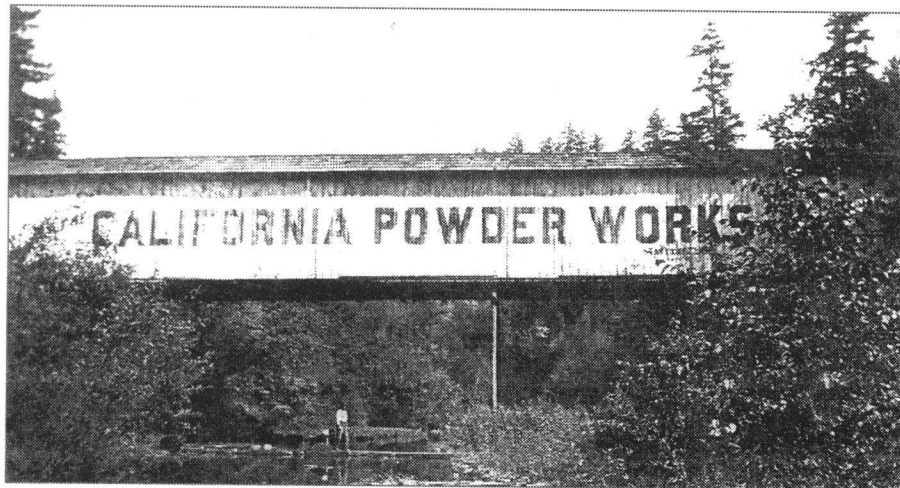
Coastal Defense Guns in the Forest

That modern appearance has led to some mistaken notions. It is sometimes said that the two big guns (there is also a 2-incher nestled between them, dwarfed by its gargantuan siblings) came from the decks of a battleship, perhaps even from the ill-fated *Maine*, whose sinking in Havana harbor precipitated the Spanish-American War. Neither story is true.

"They look like stock coastal defense guns," said Jim Petrie, an archive researcher at the U.S. Army's Aberdeen Proving Ground in Maryland.

Another expert at the U.S. Navy Museum pointed out that the American military was not able to so much as examine the *Maine* until 11 years after it exploded, much less recover any guns.

Petrie confirmed that the guns' dimensions are consistent with brown powder guns. Brown powder was a transitional development between black and smokeless powder. The heavy smoke from black powder had



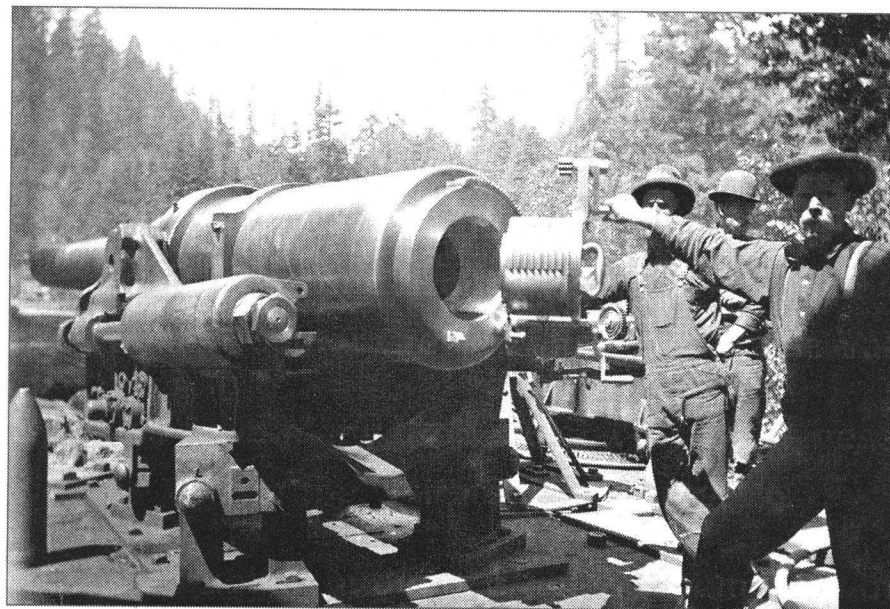
During its 50-year history, the California Powder Works was considered to make the very best gunpowder, from small arms to large military cannons.

and polished river rock. The spent ordnance is not the detritus of a forgotten military engagement, but evidence of a brief period a hundred years ago when the stillness of the valley was periodically broken by a roar of cannons so loud they were sometimes heard as far away as Monterey.

The antique artillery shells are also reminders that on at least one occasion, these massive shells rained down upon the town of Felton.

The projectiles were fired not for target practice but as so-called "correlation tests," part of an ongoing quality control program conducted by the California Powder Works for the benefit of the U.S. Navy.

Founded around the beginning of the Civil War, the Powder Works was the brainchild of a group of San Francisco entrepreneurs seeking to fill the need for black powder sud-



The breech of this gun identifies it as an 8" bore BLR (Breech Loading Rifle) Model 1888 Modification II weapon, according to experts at the U.S. Army's Aberdeen Proving Ground. It fired shells weighing up to 300 pounds, as seen at left.

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the disadvantage of marking the shooter's location on a battlefield, whether land or naval, and its corrosive residue required frequent cleaning.

Smokeless powder overcame these two disadvantages, but burned more slowly than black powder. Brown prismatic provided the ideal burn rate to power a large shell but still minimize stress on the barrel.

Guns Used to Test Velocity

The test guns at the Powder Mill were fired not for accuracy, but to test for consistent velocity. Nor did they have to be specially made for testing.

"The important thing when you're testing is not what gun you're using, but that it's the same gun," said Petrie.

The shells were fired through two sets of wire screens placed a certain distance apart, and through an electromechanical device their velocity was measured. As consistent velocity is an essential component of accuracy, being deemed "the best [powder] for ammunition purposes of any made in the United States" was no small thing.

The 8-inch gun was fixed into place, as testing required firing level through the screens every time. But the second, replacement 6-incher arrived with its elevation adjusting screw in place. No one knows for sure why, but it was delivered to the testing grounds just two months after the advent of the Spanish-American War, and the Powder Works was working around the clock to keep up. The needs of the war effort may simply have overridden the nicety of designing a rigid carrier.

The Day Felton Was Attacked

Nor can anyone say exactly what went wrong on the afternoon of Aug. 18, 1899. Barry Brown thinks that with that elevation screw in front of their noses day after day, the time just inevitably came when the gun crew decided to play with it, not realizing



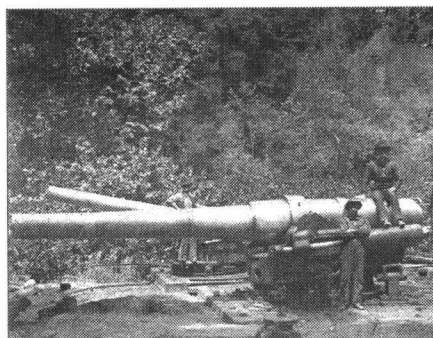
On the left the 6-inch gun, in the center the 2-inch gun, peeking out from behind the massive 8-inch gun on the right.

the extent of the consequences.

Those consequences were that two 100-pound shells skipped over the hills and struck Felton nearly three miles downrange that day.

"There were two badly frightened men from Ben Lomond near the old Felton toll house Friday afternoon when a cannon ball [sic] came screaming through the air and fell close to them," reported a Santa Cruz newspaper. "Another ball landed somewhere close to Hihn's mill near Felton. The next time any flying balls go off on an exploring tour the Ben Lomondites want to be miles away from where the balls land."

The incident only merited a single brief paragraph in the *Mountain*



Above: Note the elevated position of the 6-inch gun (rear).

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Echo newspaper. It intriguingly reports "Two more cannon balls... struck Felton," not just "Two cannon balls," which raises the ques-

tion of whether such a thing had happened before. Surely Felton residents did not take such attacks as a matter of course?

Brown recalled that the Powder Works, far from being a pariah to the

community, constituted much of the heart of it, and people took its dangers in stride.

The Powder Works Almost Voted Official Town

For 40 years the mill had its own school, was its own voting district, and came very close to being voted an official town.

"But most important, the Powder Works paid relatively well," he said. "If you were unskilled, if you didn't speak English very well, if you were a migrant or just not educated, it was a place where you could make enough money to raise a family. It was attractive for that reason; it paid more than cutting timber, tanning hides or boxing lime. That's why more than one generation from a family worked there."

Plant Closes

In the end, it was political pressure from the south rather than downrange Feltonites that nudged the Powder Works towards its demise.

A horrific explosion in 1898 destroyed most of the plant, killing 13 people and shaking the very streets of Santa Cruz. But the plant's days had already been numbered.

For one thing, with electrical power now commonplace, the water power supplied by the San Lorenzo River was no longer necessary. The once-plentiful timber which had provided fuel and material to make charcoal for gunpowder was now gone. And much of the company's manufacturing capability had been moved up to Hercules in the East Bay area, where both rail and sea shipping were readily available.

The testing guns were some of the earliest casualties in the dismantling process of the Powder Works. In the transitional phase to the mechanized warfare of the 20th century, brown powder would prove to be a loser, and the guns were obsolete in less than a decade. They were sent back to the ordnance depot in Omaha and scrapped.

"In 1914 they closed the gate, put a padlock on it and left the night watchman there for 10 years," said Brown. "For 10 years it just sat. In 1924 the Masons bought it, and life began to come to the place again." ■