

COSMOPOLITAN CHRONICLE

True tales from the annals of history, archaeology, construction, and restoration of the Casa de Bandini and Cosmopolitan Hotel.
Old Town San Diego State Historic Park

VOL. I. No. 18

SAN DIEGO, ALTA CALIFORNIA, JULY 11, 2008

PRICE: FREE

Tools and Materials, Now and Then.. Part I WILLIAM F. MENNELL San Diego Coast District District Services Manager

In today's world with Home Depot, Ace Hardware, and pickup trucks, it is easy to forget construction was not always done the way it is now. The "Skilsaw" wasn't invented until 1924, and they made only six of them that year. The first factory assembled pickup, the "Ford Model T Runabout with Pickup Body," made its debut the following year. The gasoline powered chainsaw was not invented until 1926. The spring tape measure wasn't widely used until the 1940s.

So how did they build in the 1800s? Many of the tools we take for granted today were not available when Bandini build his casa, or even by the time Seeley transformed it into the Cosmopolitan. Although adobe was readily available, wood needed for lintels, doors, and vigas (roof beams) was not. Timber was felled by ax or cross-cut (whip) saw. Large orders of lumber were shipped down the coast—sometimes by towing huge log rafts—or around the horn of

South America.

Orders shipped by boat took months, even longer. In 1828, for example, Bandini ordered *palos colorados* or redwood posts from an American merchant in Monterey. He did not receive the shipment until sometime after November 1829—over a year-and-a-half after he placed the order.

Logs were made into lumber at large mills usually set up near the timber. The mills were powered by water-wheel or steam, or had saw-pits. Sawpits? A saw pit is just what the term indicates: a pit, usually shored with timbers, about 7 feet or deeper. The pits were dug by hand since the first backhoe wasn't built until 1953. Sawing was a two-man job. One sawyer operated the saw—up to 7 feet long—from above, the other, in the pit, helped pull the saw down, then helped lift up the saw in the kerf, and up for the next cut. The saw did not have set, which is an alternating angle

put on the teeth. Set increases the kerf to be wider than the blade and help prevent pinching. On average, the two-man team could cut about 200 feet per day. So, if you needed 10' long beams cut flat on all 4 sides, it would take all day to cut 5.

For smaller quantities, local timber was felled, and then turned into lumber using a broadax or adze. Shingles were hand cut with a froe. The lumber was then transported by horse-drawn carreta, wagon, or dragged to the building location. Depending on its use, it may have been finished on-site using a drawknife or plane. In California, the first person to be granted permission to harvest timber in the public domain was Juan Bandini, in 1839, for use on his Rincon Rancho.



Broad Ax



Adze



Cross cut or whip saw



Froe



Draw knife

