

COSMOPOLITAN CHRONICLE

True tales from the annals of history, archaeology, construction, and restoration of the Casa de Bandini and Cosmopolitan Hotel.
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Electricity, Part 2

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The electric wires seen in a Cosmopolitan photograph taken between 1900 and 1910 were installed using a system called knob and tube. This type of wiring was commonly used from the 1880s through the 1930s. The knobs and tubes are made of porcelain, and the 2 wires, insulated with asphalt saturated cotton cloth, or cotton and gum-rubber -- an Edison design -- are attached to the knobs usually spaced about a foot apart. The tubes are used to go through wooden members such as joists, or studs. A hole was bored and the tube inserted the wire then strung through the tube. When needed, wire was spliced by twisting them together, soldering, and wrapping the splice with friction tape, made from asphalt saturated cloth, in the open, or in metal boxes. In the early photograph, it appears that tubes were not used; the wires going from room to room

were simply strung through the doorway, attached to knobs on the door jam. It is unknown if the power in the early 1900s was DC or AC current. The company first offered AC in 1902, but continued DC for several years after that.

When Coutts Jr. had the building rewired in 1930, he changed two important things. One was to hide the wiring in the walls and ceiling, and two, he added outlets.

Outlets would not have been needed much in the early 1900s for two primary reasons. One, electricity costs for lighting were often sold at a cheaper rate than other uses, and because there was very little one could plug into them. Most electrical devices of the time were designed to be attached directly to screws on the light fixtures. That allowed for use at the cheaper rate. Direct attachment to screw connections was seen by Harvey Hubbell—who had invented the on-off pull chain socket in 1896—as both a waste of time, and potentially dangerous, because connecting the wires to the wrong screw could cause a short circuit. In

1904 he patented the “separable plug.”

The plugs and outlets were two prong, although the 3 prong outlet was invented in 1928, by Philip F. Labre, their use did not become popular until the 1962 revision of the National Electric Code.

Although we do not have a sample, Coutts Jr.’s electrician may have also used Hubbell’s new light switches that replace the push button type with the type we know today. Hubbell invented them in order to get UL approval, a valuable endorsement for sale in his companies catalog. The company he founded is still in business today.



Coutts Jr.’s Cosmopolitan wiring.

