



## *Thomas Edison's Dream*

### *His Concrete Homes in New Jersey*

*In 1912, Edison owned a cement company, and is given credit for major improvements in the manufacture and use of cement and concrete. One of his patents would build homes with a single pour, with steel forms that were bolted together, (and very expensive). This story is about the building of one home, which is still standing firmly today. He also supplied the cement and built the concrete walls for the first Yankee Stadium, which I believe is in this article:*



*The 1912 poured concrete home of Thomas Brennan. Photo credit: John Lee:<http://blacktieandflipflops.blogspot.com/>*



More than your typical suburban home, it stands as tangible evidence of Edison's big idea: a single pour, easily constructed concrete house that could withstand a bomb or fire, be insect proof and easy to keep clean. Most importantly, Edison saw his concrete house to be an answer to the inhumane housing shortage in New York City's slums, which were bursting at the seams trying to accommodate all the newcomers from every corner of the globe. His homes could be easily and cheaply mass produced. His idea even included inexpensive furnishings, too, such as pianos, phonographs and even beds. But he first had to try it out.

303 North Mountain Avenue was built in 1912 with reinforced concrete. A giant mold was erected, steel rods set in place, and floor by floor, the concrete was poured, dried, and stripped of its mold to reveal a complete house. The process would only take a few weeks and everything could be included in the molds: even shingles, bathtubs, and picture frames. Brennan's home features a molded concrete fireplace and a basement resembling a grotto with its arched, swooping ceiling. A strip of wood into a molded concave groove at the edge of every room was in the original mold, to allow for carpeting installation, or in his case, hard wood floors.

Revolutionary for its time in design and practicality, it was ahead of its time in price, as well. The first molds, complex in the number of parts required, set the builder back \$175,000, making it more than undesirable at the time. The average price of constructing a new home at the turn of the century was in the neighborhood of \$4,000, and Edison advertised his houses of the future to be a mere fraction of that: \$1200 to be exact. The overhead cost to the builder was simply too



high; they weren't sure the demand for such homes would exist. The prototypes that are still standing 100 years later are proof that the structure was sound, yet the dream of mass production never materialized, although certainly not for lack of effort.

The Edison Portland Cement Company opened in 1899 in New Village, New Jersey in the Delaware Valley, but concrete or cement (that which binds concrete) is hardly an Edison invention. Evidence of the Assyrians and the Babylonians using clay as cement in their structures, and the dome of the Pantheon in Rome is made of concrete; but the British were the first to come up with portland cement, coined so because he claimed the finished product would be as attractive as Portland stone. A mysterious concoction of limestone and clay and processed by baking at a certain temperature in a specially-designed kiln, the finished product is a beautiful, strong concrete with which to build. (Source: Bryson, Bill. *At Home: A Short History of Private Life*. New York, NY: Anchor Books, 2010.)

Edison scored a big contract with those building Yankee Stadium, which stood from 1923 until 2008 as an example of the finest Edison portland concrete; but his big idea of concrete homes was clearly premature. Brennan says that Henry Ford, who struck it rich providing the average American with an affordable automobile, was a contemporary and friend of Edison. He believes that Edison thought he could create the architectural equivalent to the Model T: a well built, affordable home, as well as concrete home furnishings, accessible to most. Thomas Alva Edison was certainly a brilliant mind, bringing the light bulb, the phonograph and the movie camera to fruition. But his dreams of being a mass producer of affordable, well built, beautifully sculpted homes he was not. It was a decent idea, with too much overhead cost to take off.