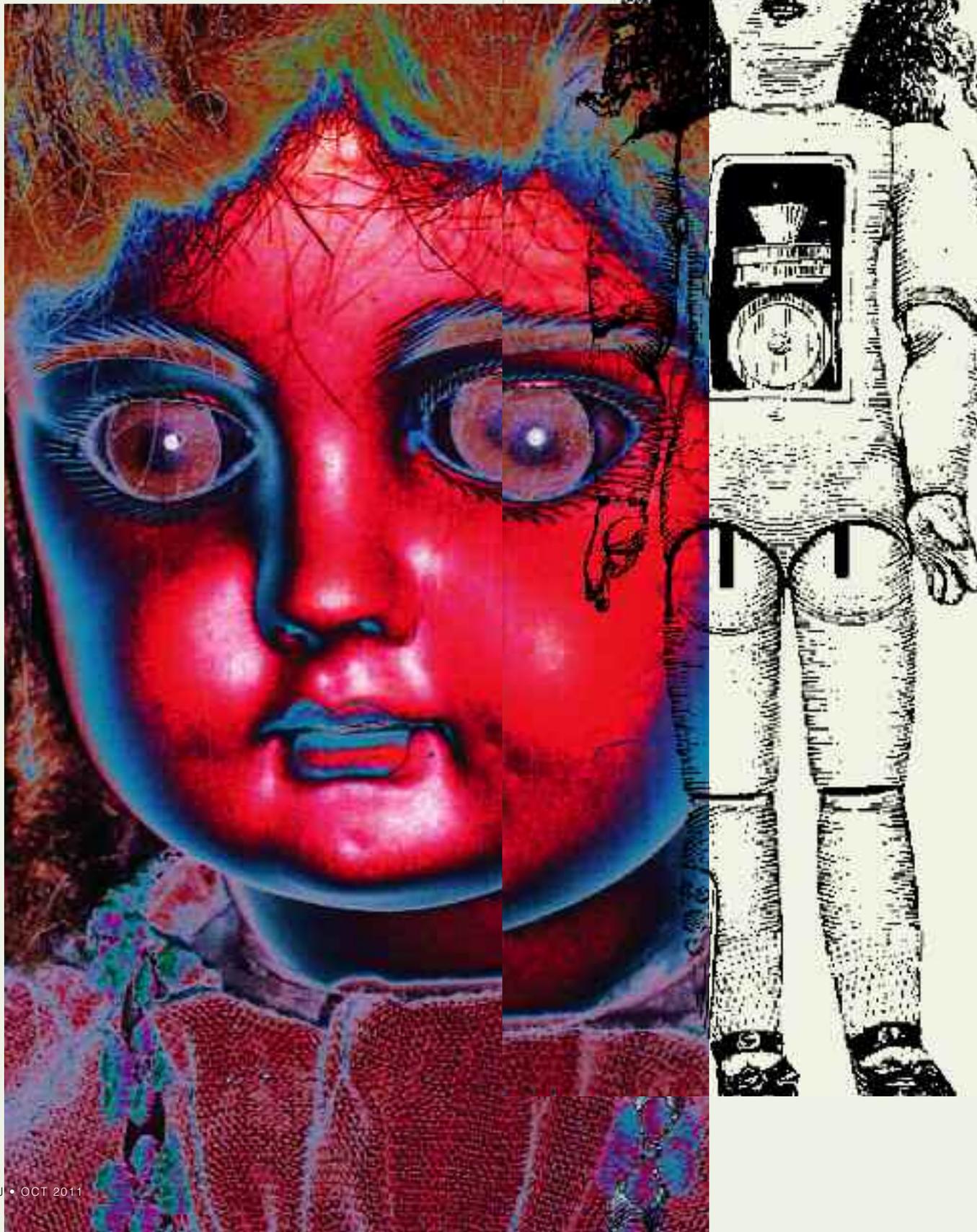


Weirdly Historic

# EDISON'S LOVELY LITTLE MONSTERS



by Joanne M. Austin

It was the winter of 1998 and I had just discovered *Weird NJ* in a *Star-Ledger* article. I immediately thought of a story that would be perfect for the magazine, about a strange, doll-covered house in Dover, NJ that had disturbed me since I was a little kid. Writing the story came easily because it was such a vivid memory, and Messrs. Scurman and Moran must have been happy with it, because it appeared in the very next issue: #10.

I was thrilled to see the story in print, and thought the image they had picked to illustrate it—a naked doll with its torso windowed open to reveal its inner mechanical workings—was creepily fitting. But I never took the extra step to ask what the source of the artwork was.

Time passed, and one day a friend sent me a link to a blog called *Morbid Anatomy*. The link featured information on a talking doll created by Thomas Edison, and I was shocked to see that among the photos and schematics that were posted was the same illustration that had been used with my Doll House story over a decade earlier.

*Weird NJ* has roots in West Orange, and the magazine had even been headquartered for a brief period in Edison's former battery factory, which is located on Main Street near the Thomas Edison National Historic Site. Were the publishers aware that the illustration had an Edison connection? When I asked, Mark Scurman said it was just a random clipart image they had chosen to use with the story. Mark Moran knew of the doll from a trip to the Historic Site, but also hadn't made the connection.

Knowing this, I had to further investigate the origins of this doll. Just listening to a rare recording the doll's voice that I found online was intriguing: it's a squawky version of "Little Jack Horner" that instead of bringing back cozy memories of early childhood, gave me a tiny chill, instead. I was hooked.

That's what led me to the Thomas Edison National Historic Site, which had recently re-opened in an expanded format beyond what many people (myself included) will recall from class trips. Theresa Jung, assistant superintendent, met me at the factory's front door early one morning, and I followed her as she took me into the main building, through hallways, and up staircases, to the third floor. We passed by many examples of Edison's phonographs before coming to a case that held the object of my quest: the Edison Talking Doll.

She was rather cute: auburn-haired, brown-eyed, and wearing a light green dress trimmed with Christmassy ribbon. Just under the neckline, however, I could see the top of the doll's torso. It was made not of a soft and huggable cotton or even wood or porcelain, but metal. An example of the toy phonograph that provided her voice was next to her in the case.

Teresa patiently flicked on and off different lights in the case to help me get some photos and we talked a bit about the doll's history. She later sent me home with some information from the Historic Site that, combined with my interview with Robin and Joan Rolfs, authors of the book, *Phonograph Dolls and Toys*, and information from another book by Gaby Wood called *Edison's Eve: A Magical History of the Quest for Mechanical Life*, provides the history that follows. It's a history that combines beauty and innovation with frustration and even a bit of local legend.

## Patent, patent, who's got a patent?

Thomas Edison, according to Robin Rolfs, had come up with the concept for a toy phonograph shortly after he invented his larger cousin in 1877, but didn't move forward with the creation of a phonograph doll until October 1887, after William Jacques and Lowell Briggs approached him about their own talking doll on which they had a few patents. The Edison Phonograph Toy Manufacturing Company was formed, and one of Edison's assistants, Charles Batchelor, spent the next few years working to improve the doll's phonograph mechanism and recording materials. Between



PHOTO COURTESY OF THE THOMAS EDISON NATIONAL HISTORIC SITE.

Batchelor and Jacques, about 14 different patents were filed on the doll—before production even started, says Joan Rolfs.

Edison filed another patent for the phonograph doll in 1889, and thus began its manufacture.

## Assembly definitely required.

The dolls were assembled in the West Orange factory from April 1889 to mid 1890, according to the Historic Site, and Gaby Wood writes that in 1890, both a *Scientific American* article and a local newspaper confirmed the production scale: it involved "...A new building measuring 40 feet by 210 feet," and plans for another building. "Five hundred people were employed at the phonograph works, and it took half of them to make each doll." The *Scientific American* article, Robin Rolfs says, also reported that Edison's patent said that 500 dolls could be produced in one day: that's 12,000 in a month.

The toy phonographs were made in West Orange, as well as the torsos that contained them. Yes: that little peek of metal I saw under the doll's collar was just the tip of an impressive tin plate torso that Joan Rolfs says was made from six different pieces, all formed on presses that involved 45 different operations. Gaby Wood further explains that the doll's torso was perforated with sound holes in the front, and there was a door in its back that allowed for placement of the phonograph. There was also, "a handle sticking out of its spine, which had to be cranked to make the doll talk." A spring made the phonograph jump back to the beginning again so the cylinder could be played again (and again).



**Workers in West Orange ready toy phonographs to be placed in Edison's talking dolls. The shelves behind them hold boxes of dolls ready to be shipped: up to 500 dolls could be made in one day, or about 12,000 in a month. Photo Credit: The Thomas Edison National Historic Site.**

Of the rest of the body the Historic Site says, "The upper parts of the arms and legs were made of wood." Joan Rolfs adds that in some dolls, the wrists were rigid; while in others, they could bend. The lower parts were "made of paper mache, covered with a thin layer of gesso, painted and varnished."

The heads were made in Germany, and according to Rolfs, they came from two different manufacturers. She says you can tell the difference, too: "One, to me, has a fuller face, a more baby face than the other, which is more refined." The hair on the heads was human.

Rolfs says that buyers had a choice of the outfit: either a "simple chemise dress," or a more elaborate costume involving a "wonderful Victorian hat with a wide brim and a feather plume...Even if this doll didn't talk, it was absolutely gorgeous."

All told, a dressed doll containing a toy phonograph weighed about four pounds and was 22 inches long.

What price do you put on a doll like this? The basic model was \$10, and the more elaborate model, Rolfs adds, sold for \$20 to \$25, depending on the dress chosen. A quick Internet search provides evidence that the average weekly wage in 1890 was under \$10, so you can see that this doll was not within most people's price range.

## Her Dolly's Voice.

The toy phonographs were made in one room, adjusted in another, and then sent to the recording room, where, Wood writes, "Eighteen young girls, each with her own cubicle, sat speaking into the machines, recording

Not long ago, the Thomas Edison National Historic Site announced that another cylinder—this one made of metal, not wax—had been discovered in the Historic Site's collection. "Scientists at the Lawrence Berkley National Laboratory in Berkley, California," the Historic Site reports, "recovered sound from an artifact that historians believe is the earliest surviving talking doll record." The record was made in the fall or winter of 1888, and the verse recited is "Twinkle Twinkle Little Star." Many more records of this type were supposedly made (the women who recorded them may very well be the first paid recording artists), but this is the only surviving one, and because it was damaged, scanning technology was used to recreate the recording. Edison would eventually choose wax cylinders over these metal ones to use with the dolls—the reason is not known, but the fragility of the wax cylinder is. Would the phonograph dolls have been more successful if these metal cylinders had been used instead?

**While I was talking with Theresa Jung, she mentioned a rumor, now thought to be untrue, that the remaining parts were buried near the white water tower that is still on the Laboratory Complex property. Gaby Wood also mentions this rumor in her book, adding that metal detectors never found a single metal doll torso on site. The Rolfs say that whatever didn't sell by 1895 was buried in a landfill or landfills somewhere in West Orange, but where this happens to be is not known.**

the words the dolls were to say." She also writes that the author of the *Scientific American* article was a bit jarred by the cacophony, reporting that the noise produced by the girls was "beyond description."

The Historic Site says the women recorded their voices onto three-inch wax cylinders. Each recording lasted about half a minute. Joan Rolfs says the women recorded 12 nursery rhymes, including Mary Had a Little Lamb, Old Mother Hubbard, and Hickory Dickory Dock.

The phonographs and their cylinders were installed in the dolls, which were then boxed up and carefully labeled with the recording the doll contained. According to Rolfs, you ordered the doll based on the nursery rhyme you wanted. "Once you had a doll with Hickory Dickory Dock," she says, "That's all you heard from her wonderful voice."

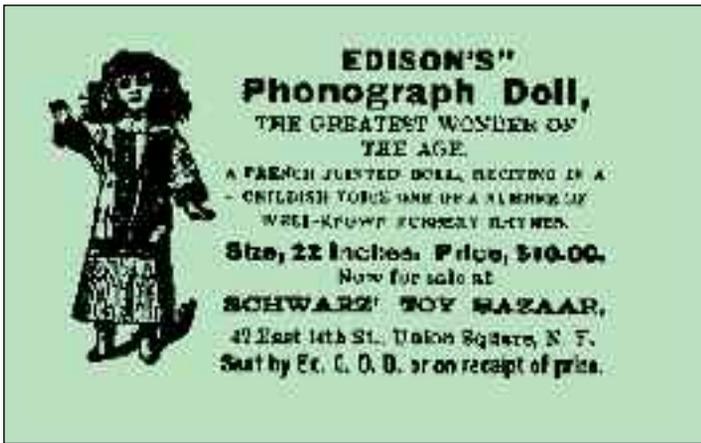
Based on my own ears, that voice could get tiresome pretty quickly: the young ladies who made the two recordings available for online listen-



PHOTO COURTESY OF THE THOMAS EDISON NATIONAL HISTORIC SITE.



**The fragile mechanical guts, including the wax cylinder on which nursery rhymes were recorded, that gave the dolls their voice.**



ing spoke in a manner that must have passed for great elocution at the time but today sounds a little affected. And according to Gaby Wood, people weren't crazy about the voices at the time the dolls were made: even Edison himself. There's a quote by him included in the display case with the doll at the Historic Site that says, "The voices of the little monsters were exceedingly unpleasant to hear."

### Success is relative.

Information provided by the Site says the doll was successful, and there are many positive letters dating from 1889 in the Edison archives "from parents and children all around the world."

But the novelty of having a talking doll is tempered when said doll has problems talking. Early on, Wood writes, another Edison assistant, A.B. Dick, would write to his boss from Europe, complaining that the toy phonograph he was showing to toy manufacturers didn't work well. And this was reinforced during production: Robin Rolfs says that of the over 10,000 dolls that were made from January through April 1890, "Only about 2,500 were approved for shipment. They must have had a tremendous failure rate."

Even the approved dolls had problems. The public got its first chance to buy them at an Edison Exhibit at the New York City Lenox Lyceum on April 7, 1890, but Rolfses says that, "By mid-April, the complaints started rolling in from the distributors that had ordered these dolls. The customer complaints were not of shoddy workmanship but the fact that the dolls arrived with parts broken. The records were broken, they wouldn't play correctly." The wax cylinders were too fragile.

The broken dolls were being shipped back to the factory, and by the end of April, Rolfses, says, all dolls were withdrawn from sale. By October 1890, Edison had completely suspended all manufacturing operations. It's likely that less than 500 dolls with the phonograph mechanisms in place were sold.

Another problem: the dolls were not user friendly. Rolfs says, "For the child to play the doll was pretty daunting. Turning the crank, the child was instructed to count one...two...three...four...and to keep the crank turning at a steady speed. Otherwise the sound would be either too fast or too slow."

The Historic Site also lists "manufacturing and retailing difficulties" as responsible for the dolls' downfall. Plus, they add, Edison had "other more pressing interests and obligations...the electric light."

The Rolfses say the talking dolls were an expensive and frustrating venture for Edison and he probably didn't view it as a success, but the dolls did pave the way for future recording technology. Joan Rolfs enthusiastically ticks off three reasons: "The doll contained the first automatic record playing mechanism. This is before the phonograph was produced and marketed. The first phonograph records sold to the public under the name Edison were made for the talking doll. And the doll had pre-recorded cylinders...in February 1889 they were the first entertainment cylinders. When we think of all the music today, it began in a doll!

### Wherefore art the parts?

What do you do with a lot of talking dolls that don't talk, plus parts to make more of them? The Rolfs say the phonograph mechanisms were removed from the dolls and the company tried to liquidate the remaining stock. There are examples of these "non-talking" Edison dolls in collections

today (and only 12 of the talking variety that they know of). But the remaining stock didn't turn over that quickly, and that's where a weird legend falls into place.

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### Postscript: an error, illustrated

Not long after I finished this story, I received a copy of *Phonograph Dolls and Toys* that I ordered from the Rolfses. I eagerly opened it, read the section on Edison's dolls, and paged ahead to see what else they included in the book. On page 25, I was surprised to find the illustration that started me off on my quest, but used here (correctly) with another talking doll manufactured shortly after Edison's: the Bebe Jumeau Talking Doll. This doll, made in France, used a different phonograph mechanism that could be accessed through the doll's chest—just as depicted in the illustration you see here in this article. Alas, my Edison/*Weird NJ* coincidence fell apart. It's not the first time I've seen this happen with the weird variety of stories when they are further investigated, and at least the legend of the buried doll parts remains.

Thanks to Theresa Jung, the National Park Service, and Robin and Joan Rolfs for sharing their time and expertise in the development of this story.

