

TIME TO SPEND A PENNY



Working models and coin-in-the-slot automata at the Rye Heritage Centre

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Photos by the author

Coin-operated automata, or “working models” as they were known, were popular in the UK from the late 19th century until the early 1970s. Each machine presented a scene in animation, which usually lasted no longer than twenty seconds. Inserting a coin into the machine would set it in motion.



The Penny Arcade at the Rye Heritage Centre, in the UK, has a wide variety of coin-operated arcade machines.



1. *The Drunkard's Dream* Working Model, by Bolland, c. 1952.

The automata were housed inside glass-fronted, freestanding cabinets. They had such exotic titles as *The Egyptian Tomb*, or *The Drunkard's Dream* (**photo 1**).

These automata were invariably presented at seaside venues throughout the country and were



2. Detail from *Drunkard's Nightmare*, by Kraft Industries, 1952. The figures are crudely made from papier-mâché.

typically located at the end of a pier. Many models were crudely rendered in papier-mâché and fabric (**photo 2**), although some had figures made of wax, with considerable detail (**photo 3**).

The idea of using automata to provide short, animated entertainments in fact originated much earlier. Exhibitions and shows were held throughout the 18th century and midway through the 19th. The public paid a small entry fee. An attendant would often escort the audience around the animated exhibits.

The next development was to enclose the tableau within a wooden case and add a coin-release mechanism to set the scene in motion. Machines were originally powered by clockwork but



3. A well-detailed figure from *Haunted House*, by Canova, c. 1910.

many were converted to run by electricity in later years.

Themes presented by automata in the dioramas were often somewhat grisly. Executions were always popular. An English scene depicts a prisoner being



4. *English Execution*, by Ahrens, 1930. The prisoner has just been hanged.

given the last rites by a nodding priest, after which a trap door is released by guards, and the unfortunate is hanged (**photo 4**). In a French scene—i.e., the one from Kraft's Automatics—after the tolling of a bell, the doors of the prison swing open to reveal the prisoner, his head bowed beneath a guillotine (**photo 5**). Again the last rites are administered by a priest, whereupon the blade falls and the victim's head drops into the waiting basket.



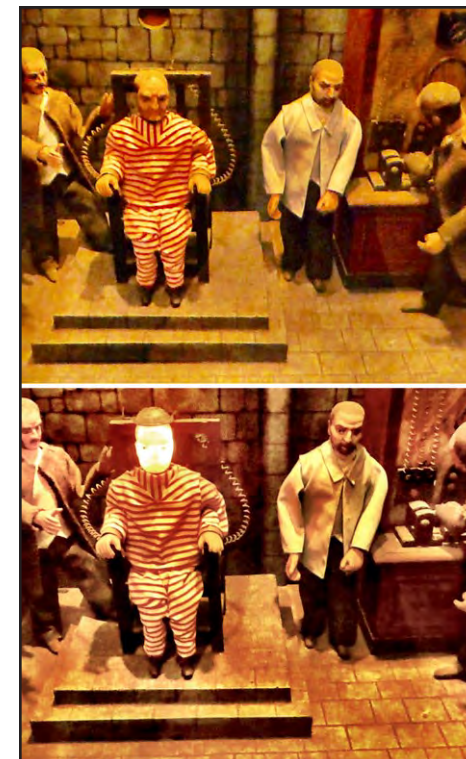
5. *French Execution*, by Kraft's Automatics, c. 1954. After the bloody blade falls, so will the man's head, into the basket.

Another grisly scene is the *American Execution*, by Vincent Canova. The prisoner in the chair, ready for electrocution, has a cap placed on his head. His head lights up upon the throw of the switch (**photo 6**). Other fashionable themes were haunted houses and churchyards. All sorts of ghosts and ghouls popped out of doors and cupboards, to the delight of the customers (**photo 7**).

One of the earliest creators of

these attractions was John Denison, a mechanic from Leeds. He was soon joined by a number of other manufacturers, as the launch of coin-op machines for amusement purposes became popular in Britain. Many of these names have not survived the passing years, but among those that have are Nelson and Leonard Lee, Markie Kraft, and Charles Ahrens.

One of the most diverse ranges of working models emanated



6. *American Execution*, by Canova. The victim's head lights up as he's given the juice.

from the Bolland family. Frederick Bolland came from Peckham, London, and established a successful business in dealing and operating amusement machines. His younger brother Arthur assisted Fred in purchasing old cabinets that had previously housed the once popular claw "grabber" machines. After WWII, merchandise to stock these machines was in short supply, so the machines became useless and their cabinets were readily avail-

able. The Bollands used them, already fitted with coin-in-the-slot mechanisms. They also cannibalized some of the innards to manufacture and house the working models that they developed.

Over 400 machines are believed to have been built by the Bollands, between 1948 and 1975, with a wide range of themes and high-quality animation. Many were one-offs. Machines with the same title often had differences in the dioramas. Unfortunately, many were lost or scrapped, or had their scenes altered or replaced. Those that remain today are mainly in heritage museums and small collections.

Other types of automata were larger and featured more lifelike figures, often with voice or musical accompaniment. The *Laughing Sailor* or *Clown* were particularly popular, as was *The Gypsy Fortune Teller*.

I decided to take a trip down memory lane, to revisit the machines that I had enjoyed as a boy. I chose the Rye Heritage Centre, in East Sussex, to view the large collection of coin-in-the-slot machines. These were previously in operation on the pier but have long since been replaced by arcades filled with video games and pinball machines, fed by pound coins, rather than pennies.



7. A ghost appears from the closet, in Bolland's *Haunted Room*, c. 1950.

The Old Penny Arcade is on the first floor of a converted 19th-century sail loft and contains over thirty working models, designed and built by a number of 20th-century constructors (see the **lead photo**).

The thrill of seeing so many

wooden cabinets, with exotic names like *The Haunted Graveyard* or *Davy Jones Locker*, was mind boggling. Before I could put them into action, I first needed to get some old pennies. These were dispensed from a change machine with the rather inflated

exchange rate of seven pennies to the pound. For my investment of £5, I received a fistful of coins that weighed a ton and made a serious bulge in my pocket.

The first machine that I remembered well was the ubiquitous *Drunkard's Dream*, by Bolland



8. In Bolland's *Drunkard's Dream*, c. 1952, the drunkard (upper left) stares around as demons emerge from beer barrels, and a skeleton appears from the cellar in the door under the stairs.

(photo 8). The drunkard is in his beer cellar, about to experience his recurring dream. I selected a grimy penny from my stash and pushed it into the slot. The well-oiled figure, in a rather smart suit, is surrounded by crates and barrels of beer. He lifts a bottle to his lips several times, as a rat scurries across the floor. The door under the stairs swings out, revealing a skeleton. Several demonic figures then appear from the barrels, one by one. Finally, the fourth barrel swivels to reveal that Beer is Best, printed on the side of the barrel, has been replaced by Left Alone.

Another machine that I spotted was *Our Firefighters*, manufactured by Charles Ahrens. As soon as I dropped a penny into the slot, the three-story building appeared to go up in smoke, with the flames simulated by lights flashing on and off at the windows. There is apparently a baby trapped inside. The noise of the fire engine can be heard but one of the firefighters has already shot up the stationary ladder before the fire engine has even driven out through the doors of the fire station, conveniently located alongside the burning building. In double-quick time the rescuer slides back down with the baby



9. *Our Firefighters*, by Ahrens, 1930. No worries—the baby is rescued by a fireman who happened to be fortuitously on the spot at the right time.

in his arms, and the fire engine reverses back into the station (**photo 9**).

The Beauty Contest, a rare machine from 1950, by Peerless Enterprises, was also on display (**photo 10**). Four different ladies individually appear, as the stage rotates. The heads of the judges turn to inspect each one. The last contestant is bent over, showing her underwear, and the judge raises a sign indicating that she's won first



10. In *The Beauty Contest*, by Peerless Enterprises, 1950, four ladies display their charms on a revolving carousel. That last one, who shows her undies, is the winner, of course.

prize—"1,000 Nicker" (£). Considered non-PC in our present era, the reference is an example of typical 1950 British humor!

A number of Bolland machines are included in the display. In *The Burglar*, from 1952, a man in bed, with oversize feet, awakes to find a burglar with an oxyacetylene torch, opening his room safe. The man waggles his feet in distress while the burglar reveals a stash of money in the safe. This rather





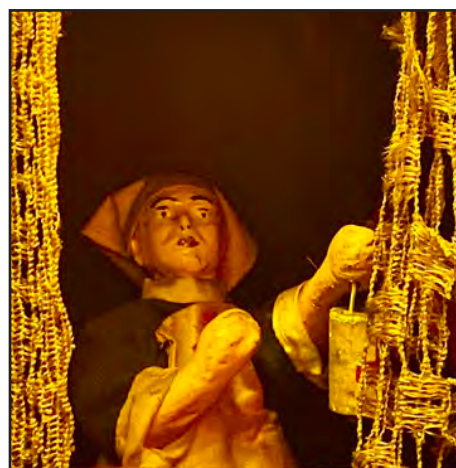
11. *The Burglar*, by Bolland, 1952. A man with prominent feet lies terrified in bed, while a felon burgles his safe. A pair of enormous handcuffs is conveniently waiting in the cupboard. Then a policeman shows up in the nick of time.

bizarre scene continues with a cupboard door swinging open, to reveal oversized handcuffs inside. Then a policeman appears at a side door (**photo 11**).

Another offbeat model was *The Miser*, who is seen in a rather dilapidated room and is counting his money. The safe swings open to show more bags of cash. Suddenly a nurse appears at the window, collecting for charity.

The miser turns, his expression indicating his annoyance and that she had better hop it. Then, at the same window, the Devil appears, waving a bag of gold, for which the miser sells his soul. The safe reopens, but this time it is empty (**photo 12**).

The exhibition, including additional automata from Ahrens and Lee, finished with some larger, more realistic models: Cry



12. *The Miser*, by Bolland, 1952. As the miser counts his money, a nurse asking for a charitable donation appears at the window. She is replaced by the Devil incarnate, to whom the miser sells his soul.

Baby, from Modern Enterprises (c. 1950, **photo 13**), and the same company's ever-popular *Laughing Sailor* (**photo 14**). The sounds of the crying baby and chuckling sailor originally came from 78 RPM records but have now been converted to 8-track tapes.

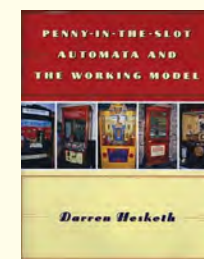
I invested my final penny to hear the crying baby and was heartened by the note on the cabinet indicating that, in order to save the wear on the cams and model, the time cycle for the animation had been reduced from the original to only thirty seconds. Even with this restriction, the noise was incredibly annoying in the confined space. Dumbstruck, I decided to leave the sailor and I moved on to another area, which contained non-moving displays.

The Rye Heritage Centre's museum provided a really comprehensive peek into vintage arcade machines from yesteryear. It was reassuring to see so many machines on display without a single "Out of order" sign anywhere. This museum is one of around twenty in the UK that displays working models that are actually still working, which proves, I think, that nostalgia is not just a thing of the past. 



LEFT: 13. The annoying *Cry Baby*, by Modern Enterprises, c. 1950.

ABOVE: 14. *Barnacle Bill*, *The Laughing Sailor*, a popular automaton by Modern Enterprises, 1950.



More about working models

Penny-in-the-Slot Automata and the Working Model, a book by Darren Hesketh, published in 2005 by Robert Hale, London, is the reference for all enthusiasts of the topic. Included are details of the makers plus over 300 color photos of coin-operated models from the 1860s to the 1970s.