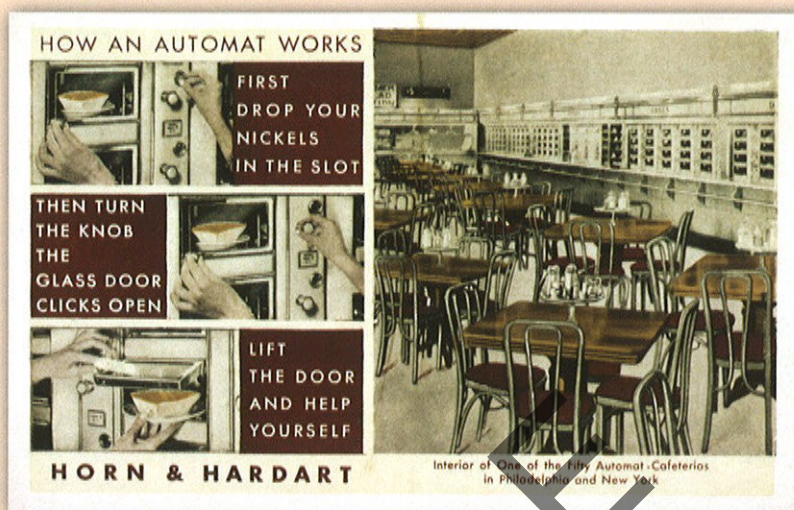


Reinventing the Vending Machine

by Karen Clymer



- 1 The heyday of the lowly vending machine began in the 1940s. Factories and plants began to sell packaged snacks to workers who labored for up to twelve hours per day. They worked tirelessly in order to build up U.S. defense resources prior to World War II. After machines began to dispense coffee in 1946 and then refrigerated soft drinks in later years, they became ubiquitous. They appeared not only in factories but in offices, hospitals, and other health-care facilities, and schools and colleges all over the United States.
- 2 The self-service concept was developed in 1902 by Joe Horn and Frank Hardart in their Philadelphia Automat. It grew into a huge commercial success. It inspired the rise of vending machines around the country. The popularity of vending machines waxed and waned over the years. Recent attempts to bring the machines into the twenty-first century have not been entirely successful.
- 3 Vending machines have a long and interesting history. About A.D. 62, a Greek mathematician and inventor named Heron (or Hero) utilized his knowledge of mechanics to devise what historians now believe was the first vending machine. The clever device had an opening at the top. A person would drop a five-drachma piece into the slot. The coin would fall into a pan, pushing it down. This action caused a valve to rise upward and allow water to flow out into the hands of those visiting the religious site where the machine was located. As it was lowered, the pan tilted and caused the coins to fall out of the pan. It then returned to its original position. The valve simultaneously moved back down to its original position, shutting off the water flow. The machine was ready for the next person.
- 4 The first vending machines of the modern era appeared in London in the early 1880s. They featured postcards for sale. Richard Carlisle, a British publisher and bookseller, invented a coin-operated vending machine to sell books in a place other than his bookstore. Then in 1888 in New York City, vending machines were set up to sell Tutti-Fruiti chewing gum. Machines dispensing gumballs appeared in 1907. Soon a variety of merchandise, including stamps, coffee, soft drinks in cups (and later in cold cans), and candy, was available in the machines. Vending machines in Great Britain and Europe sold candy beginning in the 1880s. Early in the twentieth century, two enterprising men in Philadelphia, Pennsylvania, developed the vending-machine concept into an idea that greatly expanded and popularized the industry.
- 5 The Automat was a cafeteria with a wall of vending machines that sold almost four hundred menu items. It became a part of American social history. In the late 1800s, Horn and Hardart opened several lunchrooms in Philadelphia. After the partners' initial success with their lunchrooms, Hardart traveled to Berlin, Germany, and visited

- the city's famous Quisisana Company Automat. The restaurant, which employed no waiters or waitresses, had equipment that dispensed drinks along with hot and cold food. Hardart saw a good business opportunity. He was able to buy the same equipment used by the Quisisana Company. He brought it back to Philadelphia. In 1902 he and Horn opened the first Automat in the United States. H & H, as the Automat was known, soon began preparing millions of servings of pie, soup, sandwiches, and other meals every year in its enormous kitchen.
- 6 The hundreds of delicious menu items in the Automat were displayed to diners in windows. They opened after coins were dropped into the slots. Fresh food arrived on conveyor belts and was placed into the dozens of vending machine windows along the wall for customers. Diners purchased their selections and took their food to tables in an open area in the center of the Automat. At one time it was estimated that two thousand pies an hour came out of the oven onto the conveyor belts to be placed in windows for hungry customers.
- 7 When the first Horn and Hardart Automat opened in Times Square in New York City, the popularity of the company increased to the point where the Automats were serving up to 800,000 meals every day. Located near Broadway and the theater district, the New York H & H attracted visiting celebrities. Movie personalities like W. C. Fields, Jack Benny, and Jean Harlow came to the Automat to sample the famous selections. Items included coffee, as well as classic American dishes such as baked beans, macaroni and cheese, and blueberry pie.
- 8 Customers who might not have ventured into an Automat previously came in for an inexpensive, hearty meal following the stock market crash in 1929. Other companies suffered after the economic disaster, but Horn & Hardart Automats increased their sales and hired new employees to handle the additional customers. The Automat became a symbol of the times, where people gathered to socialize and to comfort themselves with good food.
- 9 The New York City Automat appeared in movies and continued to be a popular spot for native and visiting celebrities. Famous politicians, writers, and actors seeking publicity, a good cup of coffee, or to satisfy their curiosity often paid visits to the Automat at Broadway and 46th Street. Madam Chiang Kai-shek, Tennessee Williams, Dick Clark, and Gregory Peck were among the luminaries who stopped in at the Automat.
- 10 When life changed in the United States in the 1960s, so did the Automat. Several factors were responsible for the demise of the once-famous cafeteria. The social upheaval of the sixties, a new generation that desired different dining experiences, the emergence of more restaurant chains in cities and towns, and regular customers who moved out of the city or simply changed their eating habits contributed to the Automat's decline. Expenses began to exceed income, and although efforts were made to change some Automats, their decline continued until 1991 when the last Automat in New York closed its doors. The Automat remains part of the country's cultural history in the Smithsonian Institution's National Museum of American History, where part of the first Automat is on permanent display.
- 11 The concept of a "wall of vending machines" surfaced again in the United States in 2002, when several TikTok Easy Shops opened in the Washington, D.C., area. A completely automated convenience store, TikTok Shops, renamed Redbox, contained machines that were eighteen feet wide and offered more than 130 items, twenty-four hours per day. The complex was opened by a fast-food chain, which maintained a support staff in nearby Bethesda, Maryland, to restock merchandise as soon as an e-mail communication was received from a vending machine about low supplies of goods or coins. Dispensing specialty items such as gourmet sandwiches and disposable cameras, the vending machines were shut down in November 2003. Business analysts concluded that operating expenses were probably too high and consumer demand too low for the company to cover its costs. Other ideas from people in the industry included the belief that consumers might prefer a drive-through automated store like the SmartMart stores, or that the right technology had been implemented in the wrong way.
- 12 Vending machines differ from other coin-activated machines. When customers insert their money into a vending machine, they expect to get something tangible in return—cold drinks, candy bars, newspapers, or tickets, for example. When customers insert their money into other automatic machines, they might do so to play a game or to hear music. Video arcades remain popular in some areas, but after experiencing a resurgence in the 1990s, vending machines have lost sales volume annually since the year 2000. Today's health-conscious consumers may be wary of food obtained in a vending machine and are perhaps hesitant to purchase more

expensive goods via machine rather than in a store where they can pick up and examine the merchandise.

13 Whether Americans are ready for new trends in vending remains to be seen. Japanese consumers, on the other hand, have become accustomed to obtaining a variety of merchandise from their vending machines. Automatic retailing, as the vending-machine industry is often called, began in Japan in the 1960s and has become an important distribution system in that country. Rice and even underwear are available in vending machines in Japan. In a country where real estate prices are very high, there is reported to be one vending machine for every twenty-three people. Many

consumers and industry experts believe that vending machines have an important place in America's future as well. In a society that demands convenience in almost every aspect of life and in a world where technology drives innovation virtually on a daily basis, vending machines will undoubtedly play a significant new role. With machines that dispense vendible items such as snacks, newspapers, tickets, coffee, soft drinks, water, stamps, and even live bait, the future may very well be full of automated, cashless machines that fulfill many of a consumer's needs twenty-four hours a day, seven days a week.

COMPREHENSION

- 1 The first vending machine was probably invented in
 - a 200 B.C. by Hippocrates.
 - b 62 B.C. by Heron.
 - c the first century A.D. by Heron.
 - d the second century A.D. by Heracles.
- 2 The first vending machines in the United States appeared in
 - a 1907.
 - b 1888.
 - c 1932.
 - d 1880.
- 3 The TikTok Easy Shops opened in
 - a Washington, D.C., in 2002.
 - b Bethesda, Maryland, in 2000.
 - c Baltimore, Maryland, in 2001.
 - d None of the above.
- 4 In which decade did the Automat begin to decline in popularity?
 - a The 50s
 - b The 60s
 - c The 70s
 - d None of the above
- 5 The food at the Automat was
 - a simple and predictable.
 - b moderately priced and good.
 - c elaborate but tasteless.
 - d expensive but excellent.
- 6 The fact that H & H Automats succeeded after the stock market crash while the economy failed is an example of
 - a fantasy.
 - b metaphor.
 - c irony.
 - d destiny.
- 7 The Smithsonian chose to exhibit part of the Automat because it
 - a symbolizes a particular period in modern history.
 - b was a cultural oddity of the country's early years.
 - c remains of interest to everyone in the world.
 - d represents a significant business failure.
- 8 The Automat declined in popularity due to
 - a the emergence of fast-food restaurants.
 - b younger people wanting to eat elsewhere.
 - c Both a and b
 - d reasons no one can explain.
- 9 Modern consumers in the United States will continue to demand
 - a fresh food in vending machines.
 - b easy access to certain vendible items.
 - c servers to wait on them.
 - d unique items and jewelry in vending machines.
- 10 In the future, vending machines most likely will
 - a slowly disappear.
 - b make use of new technology.
 - c play an important role in society.
 - d Both b and c

LEARN ABOUT WORDS

- A** Often you can tell the meaning of a word from its context—the words around it.

Find the word in the paragraph that means

- 1 period of popularity (1)
- 2 venturesome (4)
- 3 well-known people (7)
- 4 undertook (8)
- 5 notable individuals (9)
- 6 end (10)
- 7 made to be thrown away (11)
- 8 put into effect (11)
- 9 capable of being touched (12)
- 10 something newly introduced (13)

- B** A word may have more than one meaning. Its meaning depends on the way it is used.

Decide which meaning fits the word as it is used in the paragraph. Write the letter.

- 11 **rise** (2)
 - a stand up
 - b increase
 - c hill
- 12 **top** (3)
 - a highest point
 - b toy
 - c highest pitch
- 13 **belts** (6)
 - a regions
 - b flexible bands
 - c encircles
- 14 **center** (6)
 - a group holding moderate political views
 - b gather around one point
 - c middle
- 15 **change** (10)
 - a make different
 - b coins
 - c exchanges

WORD STUDY

- C** The prefix *syn-* comes from the Greek word *syn* meaning “with.” It is used with many English words to lend them the meanings “with; together”; “at the same time”; and “by means of.” *Syn-* changes to:

syl- before *l*
sym- before *m, p,* and *b*
sys- sometimes before *t*

Use the correct form of the prefix *syn-* to complete the words in Column II. Then write the word that fits each definition in Column I.

Column I	Column II
16 letters pronounced together	___metry
17 regulate mechanisms to make them agree	___tematic
18 chemical mixture; not natural	___onyms
19 conference for discussion on one particular subject	___chronize
20 exact correspondence in size and form	___lable
21 condition that is indicative of a disease	___phony
22 long composition for a full orchestra	___thetic
23 orderly; methodical	___posium
24 words with the same or similar meanings	___ptom

- D** An idiom is a phrase or expression that has an accepted meaning that is different from its literal meaning. Idioms have various origins; many have entered current speech from a specific subject area.

The idioms in Column II have come into accepted usage from food and cooking. Write the idiom that best fits each definition in Column I.

Column I	Column II
25 difficult situation	half-baked
26 very similar or identical	piece of cake
27 the best part of a good situation	in a pickle
28 not thinking about the task at hand	peas in a pod
29 easily done	butter up
30 point at which a crisis occurs	stew
31 to flatter	out to lunch
32 not well planned	icing on the cake
33 brood; worry	boiling point

Comprehension

- | | |
|------------|-------------|
| 1 c | 6 c |
| 2 b | 7 a |
| 3 a | 8 c |
| 4 b | 9 b |
| 5 b | 10 d |

Learn about Words

- | | | |
|----------|-----------------------|----------------------|
| A | 1 heyday | 6 demise |
| | 2 enterprising | 7 disposable |
| | 3 celebrities | 8 implemented |
| | 4 ventured | 9 tangible |
| | 5 luminaries | 10 innovation |
| B | 11 b | 14 c |
| | 12 a | 15 a |
| | 13 b | |

Word Study

- | | | |
|----------|-----------------------------|----------------------|
| C | 16 syllable | 21 symptom |
| | 17 synchronize | 22 symphony |
| | 18 synthetic | 23 systematic |
| | 19 symposium | 24 synonyms |
| | 20 symmetry | |
| D | 25 in a pickle | |
| | 26 peas in a pod | |
| | 27 icing on the cake | |
| | 28 out to lunch | |
| | 29 piece of cake | |
| | 30 boiling point | |
| | 31 butter up | |
| | 32 half-baked | |
| | 33 stew | |