

Killer Pop Machines

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ABSTRACT: Abuse and misuse of soda vending machines has resulted in a considerable number of injuries and deaths. The machines fall forward when rocked or tilted and crush those in front. These accidents are all preventable by a simple and cheap device. There should be a law compelling safety requirements for these machines. This is a report of a recent case in which a young man was crushed to death.

KEYWORDS: pathology and biology, vending machines, accidents, soda vending machines

Soda pop machines, also known as soda vending machines, can kill people. These machines have been part of the American scene for many years [1].

In a recent article, Cosio [2] reports 15 injury cases, including 3 deaths among military personnel, occurring over a period of 26 months. All of these cases were preventable with minimal effort and expense.

The following is an account of another recent, also preventable, case in which a soda pop machine at a recreation facility fell forward causing the death of a high school student.

Case Report

The body of an 18-year-old student, working as a custodian at a suburban recreation center, was found on the floor in mid-afternoon, with a Coca Cola vending machine across his chest (Fig. 1).

The maintenance supervisor who found the body attempted to raise the pop machine using a 2 by 4 for leverage, but was unable to do so. In an attempt to get help, he then ran out of the building and flagged down a passing motorist. The two men lifted the pop machine off the body; however, the young man had already expired.

According to the manufacturer's specifications, the pop vending machine is 79 in. (201 cm) tall, 38 in. (97 cm) wide, and 2 ft (0.6 m) deep. It weighs 715 lbs (324 kg) empty. When fully loaded, the machine weighs in excess of 1000 lbs (450 kg). The lower one third of the machine contains the refrigeration unit, while the upper two thirds holds 475 12-oz (0.35-L) cans of pop (20 cases). The machine has 8 columns and is capable of offering 7 different selections. When money is deposited and the selection is made, a column vend mechanism releases a can of pop which drops into the dispensing shoot. The machine is versatile and easily adjustable to vend cans or bottles.

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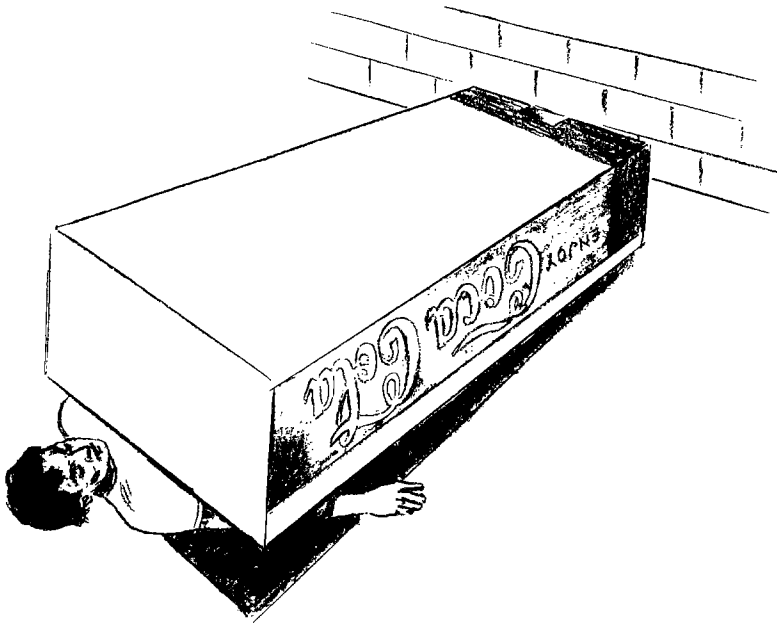


FIG. 1—Young man crushed by tipped over soda pop vending machine. The body had been removed before the arrival of the police. This illustration represents a reconstruction based on testimony of witnesses and the pattern of injuries.

According to the police report, the machine was loaded with 14 cases of beverage (336 cans) at the time of the accident. A footprint was noted in the can shoot, and fingerprints of the deceased were found on the glossy painted surface of the top of the machine near the front. The presumption by police investigators was that the machine was rocked.

There were no coins found lodged in the money drop of the machine; however, this is no indication that money had not been deposited.

The autopsy revealed that the death of the young man was caused by asphyxiation as a result of immobilization of the chest by the heavy load of the tipped-over machine. The face and neck were markedly bluish purple, with pinpoint hemorrhages in the eyelids and sclerae. Extensive hemorrhages were found at the insertions of the accessory respiratory muscles of the chest and neck and in the walls of the esophagus and airway. Hemorrhage was also found in the tissues of the chest walls which were crushed by the machine. Abrasions and bruises of the back of the shoulders were the result of pressure of the body against the floor.

The police officer who investigated the incident was informed that it was common knowledge among the students at the local high school that tilting the vending machine releases cans of pop. In an attempt to verify the information, the officer rocked the machine himself by placing his right foot in the dispensing shoot while holding both top corners of the machine and tilting the machine 1 ft (0.3 m) forward. This maneuver caused the machine to release two cans of pop.

Reenactment of the incident, in the presence of others, indicated that the soda machine was controllable until it reached its point of equilibrium. The angle of tipping to reach this point would vary depending on the number of full cans in the machine. Beyond the point of equilibrium, an average-sized, young adult male was unable to prevent the unit from tipping over. We noticed that a can of pop was not released until the machine was tipped beyond the point of equilibrium.

Comment

It is surprising that, in spite of public interest and the litigious climate in which we live, nothing to date has been undertaken to avoid a costly, yet easily preventable tragedy. The magnitude of the problem may be evident from the fact that 15 injury cases, which included 3 deaths, occurred in a relatively short time in a selected group [2]. Also, the National Injury Information Clearinghouse reports 44 cases of injury and death involving soda vending machines from 1986 to the present. The accident subject of this report occurred on 19 Dec. 1988, less than 4 months before the preparation of this manuscript, and already fingers are pointed at who may be responsible and talk of litigation abounds. Shortly after this accident, this particular machine was secured by means of a heavy chain attached to eyebolts in the wall and a padlock.

This was certainly not the last soda pop machine to tip over and injure or even kill someone. Also, this was not the last pop machine to be rocked.

Fastening the vending machine to the wall with a heavy chain or bracket would prevent rocking and tipping of the unit. Bolting the unit to the floor would serve as an additional precaution. Anyone of these measures should cost less than \$10 or 12 to install.

Is this not a perfect example of the old adage whereby an ounce of prevention is worth a pound of cure?

Interestingly, in a letter dated 1 Sept. 1987, the Vendo Company of Fresno, California, the largest manufacturer of soft drink vending machines in this country, informed the various soft drink bottlers in the United States that it was making available free warning decal labels and a safety kit to secure the machine at a cost of \$3.75.

The issue of injury, even death, by beverage vending machines is brought to this forum with the hope of stimulating other such publications. The subject of vending machine safety may eventually come to the attention of those in authority.

References

- [1] Colmer, M., *The Great Vending Machine Book*, Contemporary Books, Inc., 1977.
- [2] Cosio, M. Q., "Soda Pop Vending Machine Injuries," *JAMA*, Vol. 260, 1988, pp. 2697-2699.

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