



Fire Alarm Boxes

Before the invention of the alarm box, the threat of fire was announced either by the verbal warning of “Fire, fire, fire!” or, later, by watchmen stationed in bell towers. This system was hardly efficient in directing firefighters to the scene since once the firefighters heard the warning, they often had no idea where the fire was located. In 1852, a Boston doctor named William Channing successfully fixed this problem using the newly invented telegraph technology to create an alarm system. Channing’s invention was a series of alarm boxes, each assigned a number sequence and located at specific locations throughout a city. When the box was pulled, the number would be transmitted telegraphically using a code wheel inside the box which contained a grouped number of teeth. As the wheel turned, the teeth caused the telegraphic circuit to open and close, transmitting the alarm and the box number to the firefighters. Based on the number of the box, the firefighters would then know the approximate location of the fire. For example, the alarm box shown here was numbered 1765, meaning it was zone 1, sector 7, box 65. The teeth on the coded wheel inside the box corresponded to that number and would cause the alarm to ring once, then seven times, then six times, then five times. Through this numerical transmission, the firefighters knew to respond to 1642 Lawrence. The first alarm struck on an alarm box such as this one took place on April 29, 1852. By 1883, the rights to Channing’s system had been purchased by John Gamewell and the new Gamewell alarm box systems were installed in 250 cities in the United States and Canada, including Denver, as the silver Gamewell manufacturer’s mark on the top of this box indicates.



The earliest alarm boxes were made of wood and activated by cranking a handle to turn the code wheel. Many kept the activating handle behind a locked door which required a key carried by a fireman, policeman, or other trustworthy citizen to open the panel and sound the alarm. As a result, alarms were often delayed until the appropriate person could be found, but in return, the locked panel prevented many false alarms. In 1875, a keyless door was invented for the boxes but activating the alarm also meant triggering a bell to ring. The noise was thought to discourage false alarms but was not always effective. Later boxes were also made more durable through new materials: first iron and then herculite, a light but strong silicon-aluminum alloy, were used. Many rested on iron pedestals that served to hide underground wires but also were a source of pride for many cities and were often decorated with ornate finials.

Denver's first eighteen alarm boxes were installed July 4, 1876 and were originally wired to the bell tower at Central Station, causing the large 2100 lb bell to ring whenever a box was pulled. By July 12, 1876 the first alarm was sounded on one of the new boxes located at the Mint Building. The box displayed was patented in 1924 and is a red metal lamppost style alarm box. It was activated by pulling the handle on the outside which in turn revealed a lever to be pulled down. The word "Fire" painted in red against a white background on either side of the box announces its purpose. The box rests on a concrete pedestal painted red and white. It was one of 500 boxes in service in Denver by 1938. However, with the growing popularity of the telephone and the advent of the two way radio in the twentieth century, it became easier to contact the alarm office and fire stations directly. Furthermore, alarm boxes often caused problems due to

maintenance issues and the large number of false alarms transmitted. As a result, the alarm boxes were gradually taken out of service, with the last box in Denver being decommissioned on December 19, 1982.

The featured podcast includes an interview with retired Denver firefighter Jerry Michals in which Jerry discusses the first fire alarm boxes in Denver, their problems, and why Denver ultimately got rid of them.