The ability to detect whether or not someone is telling a lie is a vital tool for law enforcement. The lie detector, or polygraph machine, has its roots in the early 1900s when changes in a subject's blood pressure were used to determine truthfulness. John Larson, a police officer in Berkeley, California, coined the term polygraph in 1920 when he invented a machine that tested both breathing and blood pressure. The term referred to the "many writings" or various methods of measurement used in this system as opposed to just blood pressure. When a polygraph examination became part of the evidence in a 1923 court case, the case was appealed all the way to the Supreme Court, which ruled that the scientific evidence did not yet support polygraph results as valid evidence. This ruling was later upheld in a 1998 Supreme Court case as well.

Despite these rulings, investigators continued to use the machines to procure confessions and aid in investigations. For many years the Pittsburgh Police used the county examiner to conduct tests; he also ran polygraph tests for attorneys, corporations, and even private couples. Starting in 1966, the Pittsburgh Police decided to have its own trained polygraph examiner on staff and sent Detective Joseph Modispacher, who had been with the force since 1955, to be trained in Chicago. In his first case using the machine he discovered that a rash of fires at a local hospital was set by a nurse's aide who craved the attention of saving the day when she "discovered" the fires.

Each test took about two to three hours to complete. Modispacher familiarized himself with the case and then interviewed the suspect to determine if they had any medical issues. He then stated all the questions that would be asked: four "hot" and four "spacers." These questions were asked several times and in different orders. Modispacher claimed that in his experience the tests were 97 to 98 percent accurate. For 10 years, Modispacher served as the sole staff polygraph examiner for the...
Pittsburgh Police, conducting more than 3,500 tests. In 1976 the police sent two more detectives for polygraph training and they joined Modispacher in his investigations, although he remained the lead examiner. Modispacher retired from the force in 1988 as a Detective Sergeant but continued to conduct polygraph exams for local attorneys and corporations. In a 1994 interview with the New Castle News, Modispacher claimed that although the tests were not admissible as evidence, they were “a tool used specifically to eliminate people. It’s used for investigation purposes.”

In 2011, the Pittsburgh Police Historical Association donated its collection to the History Center. That same year, Joseph Modispacher also made a donation of his personal collection to us. Included in both donations were examples of polygraph machines.