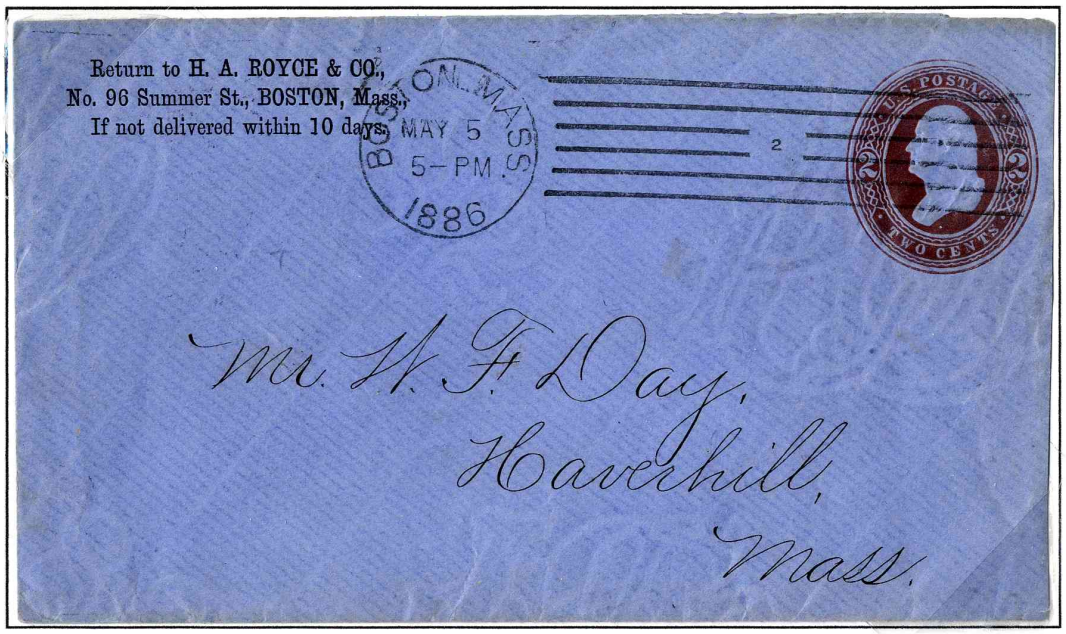
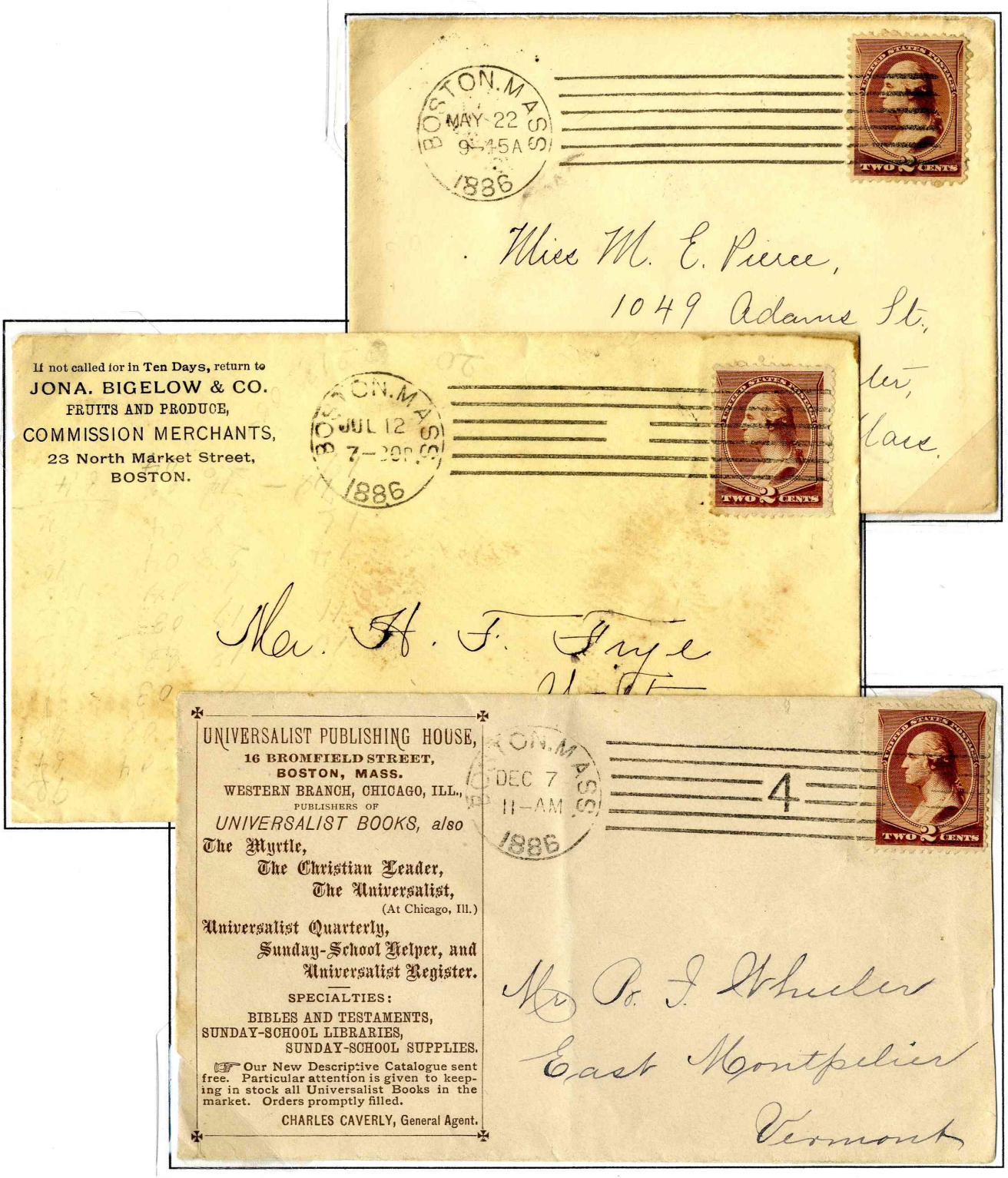
If there was ever a tiny number surrounded by lines for Machine 2 it has not been seen. Neither Machines 1 nor 2 are known with blank die spaces.



Tiny experimental number 2; known from April 28 to May 6. **Six copies recorded**

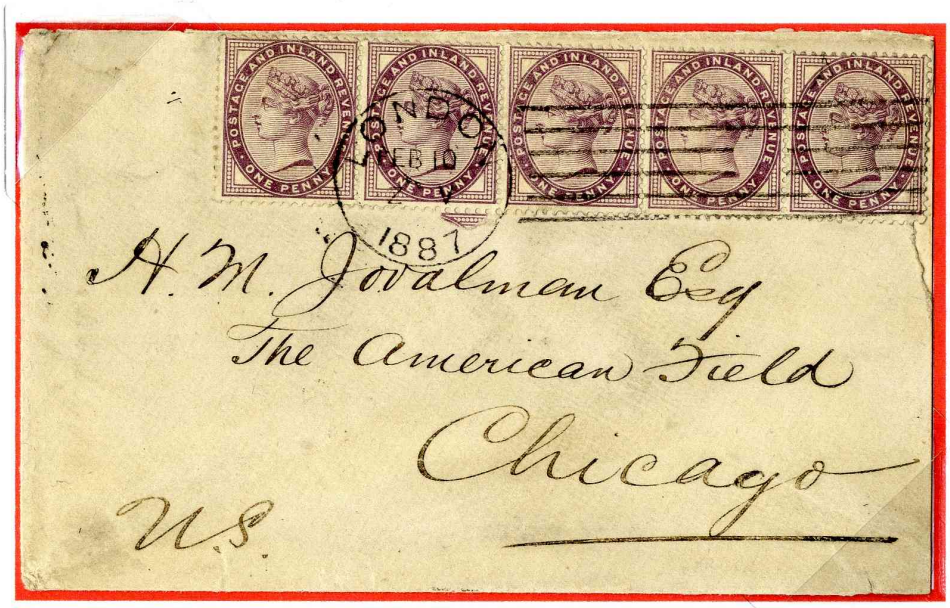
Approved design for Machine 2. In use from May 7 to the end of 1886

The remaining five machines exhibited a more typical transition from no die space to a numbered die space. Machines 4 through 7 were drilled in early June and received their numbers in late July.



London Tests

With seven machines in service in Boston by the end of 1886 and attempts to gain contract approval from Washington underway, the American Postal Machines Company turned its attention to gaining a foothold abroad. A single machine was taken to London for tests in September 1886. By the time the final tests were held in early 1887, the London Postal Service concluded that the machine was technically superior to alternatives, but, due to staffing requirements and fluctuating volumes of mail, provided no savings in either manpower or space.



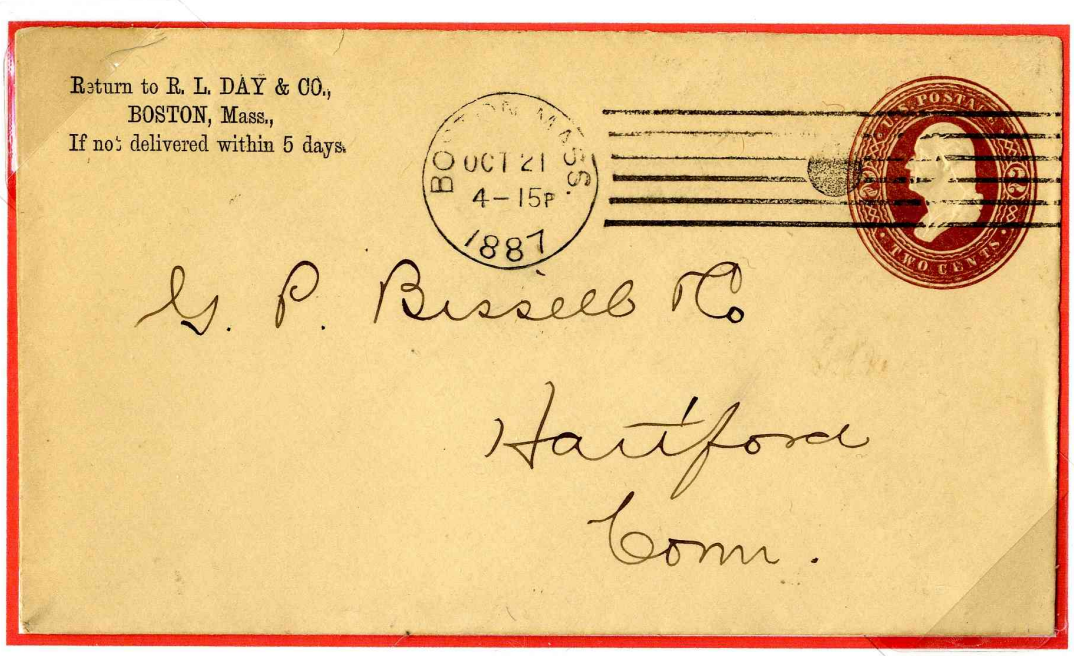
Few London covers are reported, despite testing over about five months. Aside from the London postmark, a familiar overall design

F. G. Floyd

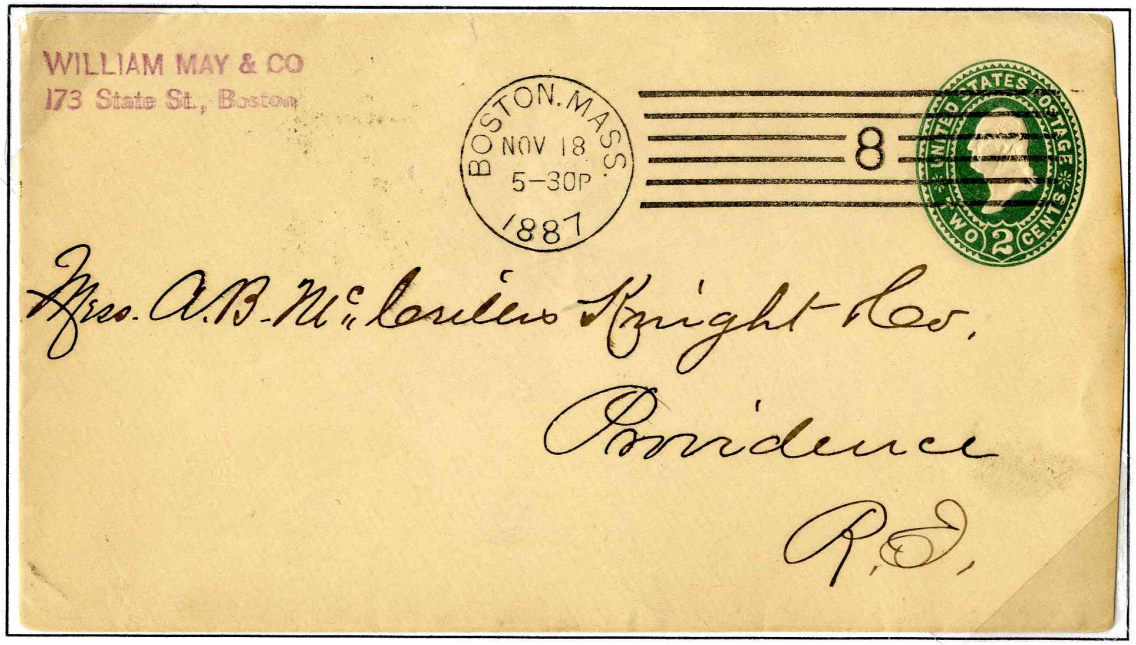
Before leaving the developmental decade of rapid machine cancellation in Boston, it seems appropriate to pay tribute to Frederick Gillan Floyd (1869-1941) whose pioneering article, *The Machine Commats of Boston, Mass. 1876-1886*, published in Volumes XII and XIII of Billig's Philatelic Handbook, represented the first serious study and comprehensive listing of any machine cancels. While others have been able to make corrections to many of his conclusions, his work has to be taken into account by anyone writing about the period.

Floyd's Type 36 cancel, as used for third-class matter [his Type 40 is the same cancel with date and time, and, had the second part of his work survived, he would surely have recognized this as the precursor to Machine 1]. This cover is addressed to Floyd's father, F. C. Floyd, publisher of the South Boston Inquirer. It bears F. G. Floyd's characteristic rulings on the cancel, used to differentiate dials and killer as well as the Bartell's number of the postal stationery in the upper left hand corner

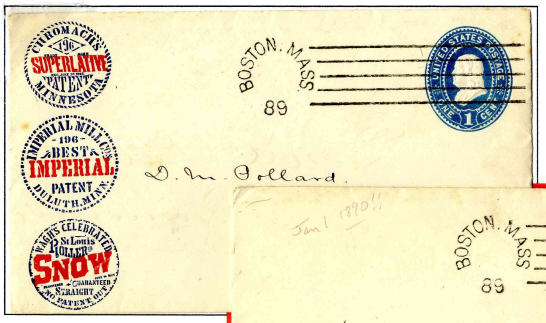
From 1887 to 1889 there was very little innovation other than the addition of a few new machines. Their introduction, however, occasionally led to some ephemeral varieties.



This 'black ball' variety anteceded the installation of an 8 in the die space. How the mark was made is not known. **The earliest of two recorded copies**

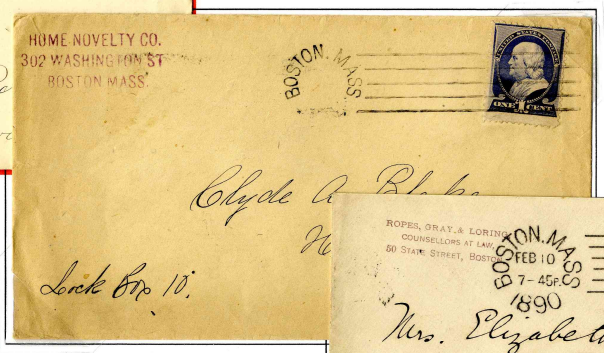


Installation of the 8 in the machine known from November 2, 1887



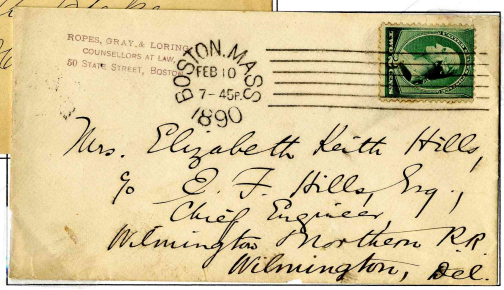
Enclosure dated December 12, 1889

Enclosure dated January 1, 1890. **The only recorded cover with an 1889 cancel datable to 1890**



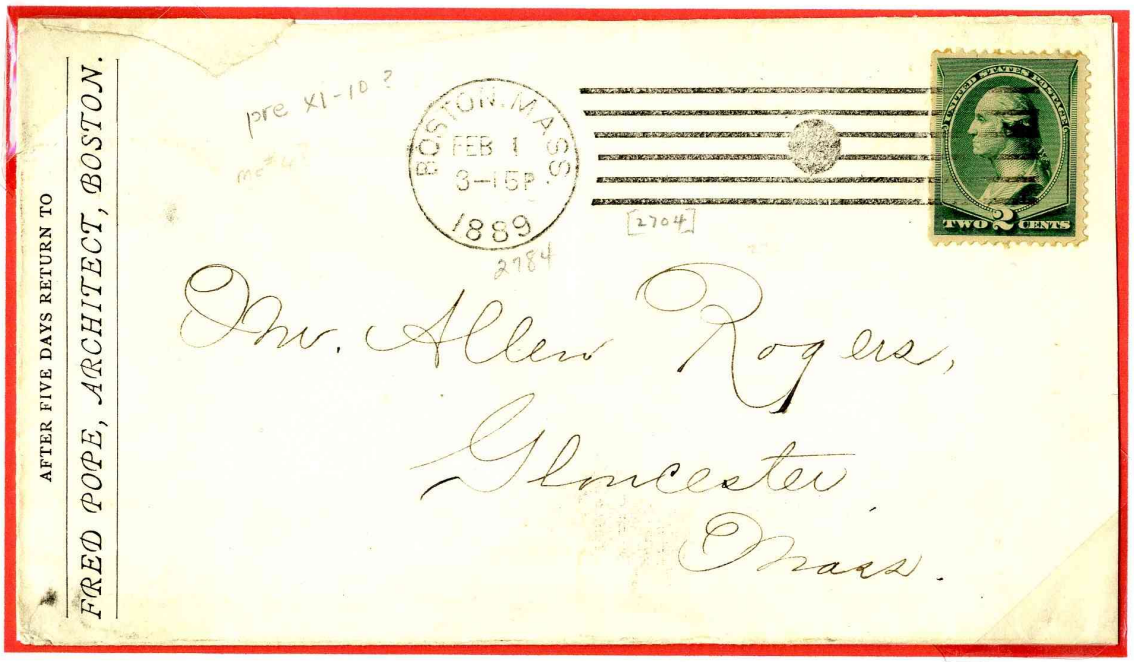
Showing remnants of erased 1889 with receiving stamp dated January 15, 1890. Apparent use from January 6 to 18. Six copies recorded of which three are datable

In the summer of 1889 a completely different dial was introduced, possibly on a newly designed machine, and used only on third-class mail. The cancel was also used in early 1890, first with an erroneous date and then with the date chiseled out, before being replaced for a brief period with a similar properly dated cancel. Attractive as these cancels are, they did not survive and were used nowhere else.



Replacement for the altered 1889 die with larger type and used on first-class mail. Known from January 24 to February 13

One other 'black ball' variety appeared when the killer on Machine 4 was changed in February 1889. The changeover was quick. The new killer has a distinctly deeper curve at the left end.



The new killer with 'black ball' dated February 1, 1889. **The only recorded copy**

Only a two-day gap exists between the old killer and the new killer with its number inserted

As the American Postal Machines Company faced competition for government contracts, a variety of different five- and six-bar cancellers were introduced beginning in 1890 for various periods. All of these cancels feature a smaller postmark dial. At the same time the first machines with a letter in the die space were introduced. The distinction between the lettered and numbered machines has never been clearly established.

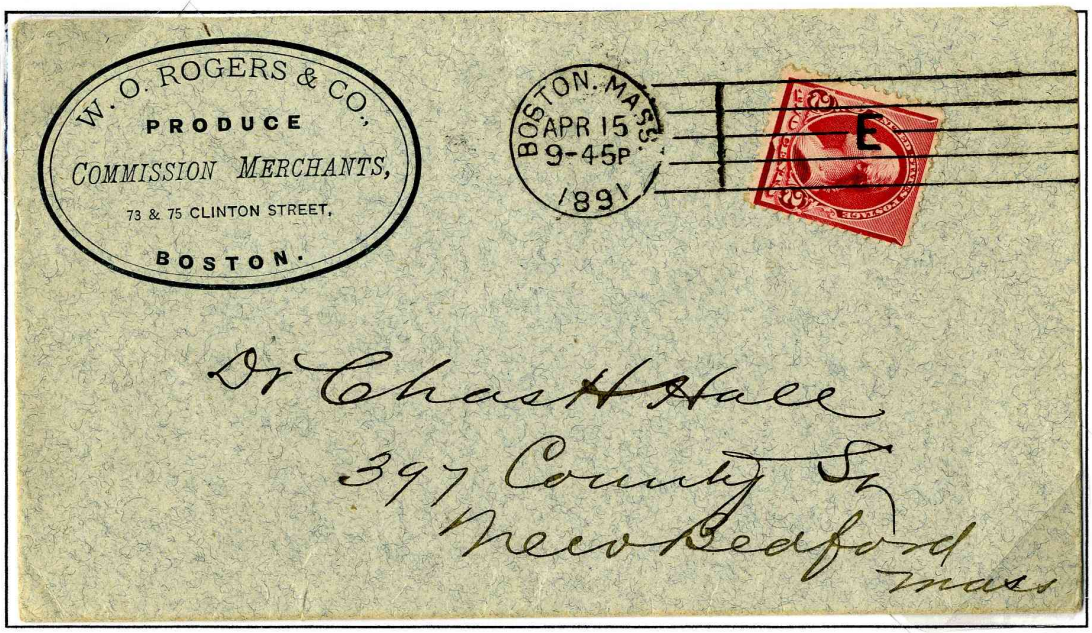
A five-bar killer and the first machine to have a lettered die space. Dated July 19, 1890 from the ad on the reverse.

Earliest recorded use for any lettered machine and the only recorded copy of this type.

Die transferred to Machine 14 by July 21, and no other lettered machines in use before late September 1890

Two varieties of five-bar killers were used in 1890: one with a separation between the bars and the dial and one without. Switching of dies between machines and changes of killers produced a number of varieties on most machines, some of them very short-lived.

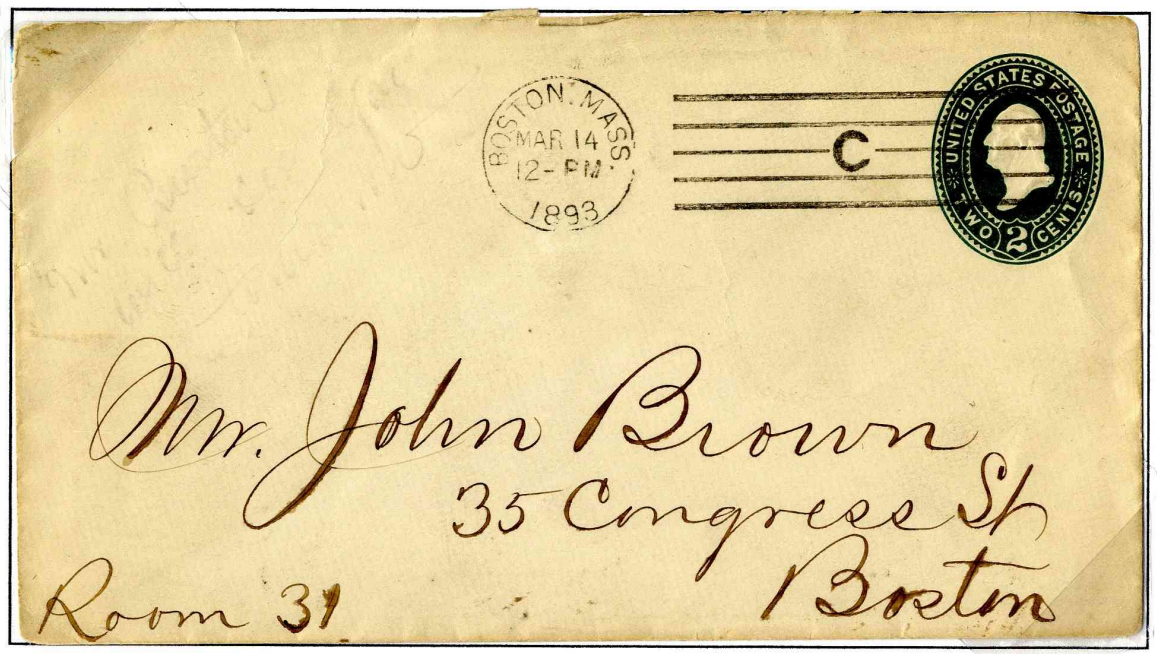
Three of the four five-bar varieties from Machine 5 in 1890. First, in use October 18 to November 26. Second, same killer-different dial, known from December 6 to 8 **(one of two reported copies)**. Third, same dial-different killer, known from December 26 to 29

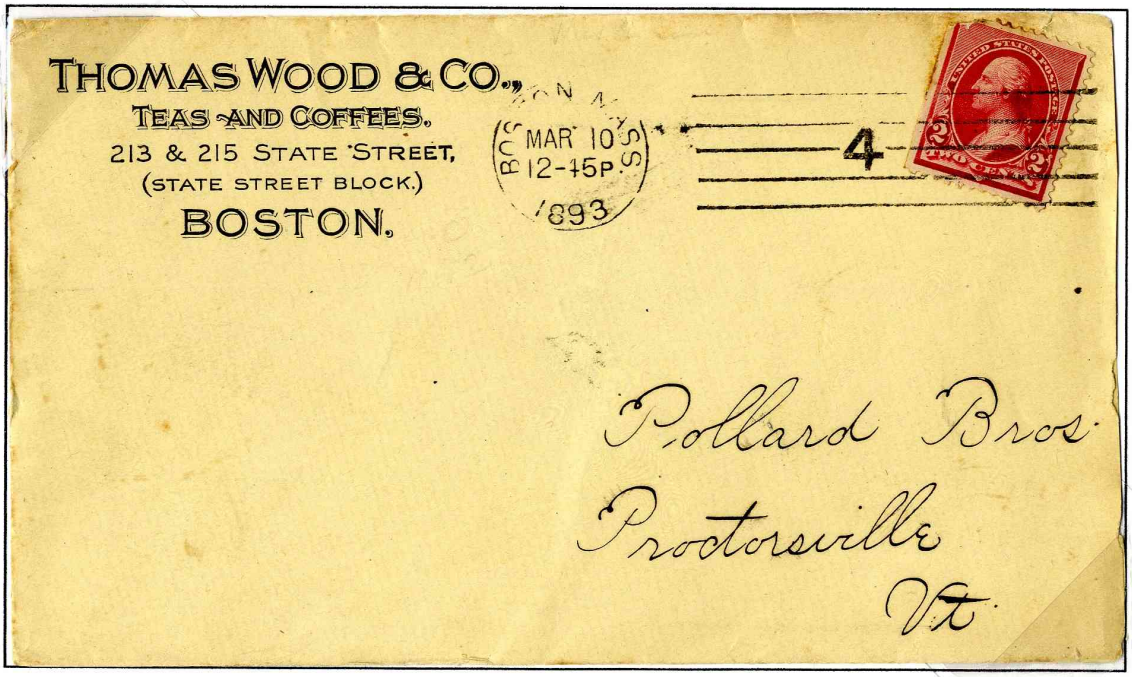


Five-bar type with vertical line, introduced in 1891. Used on five machines in Boston. Also used in Philadelphia and Washington, D.C.

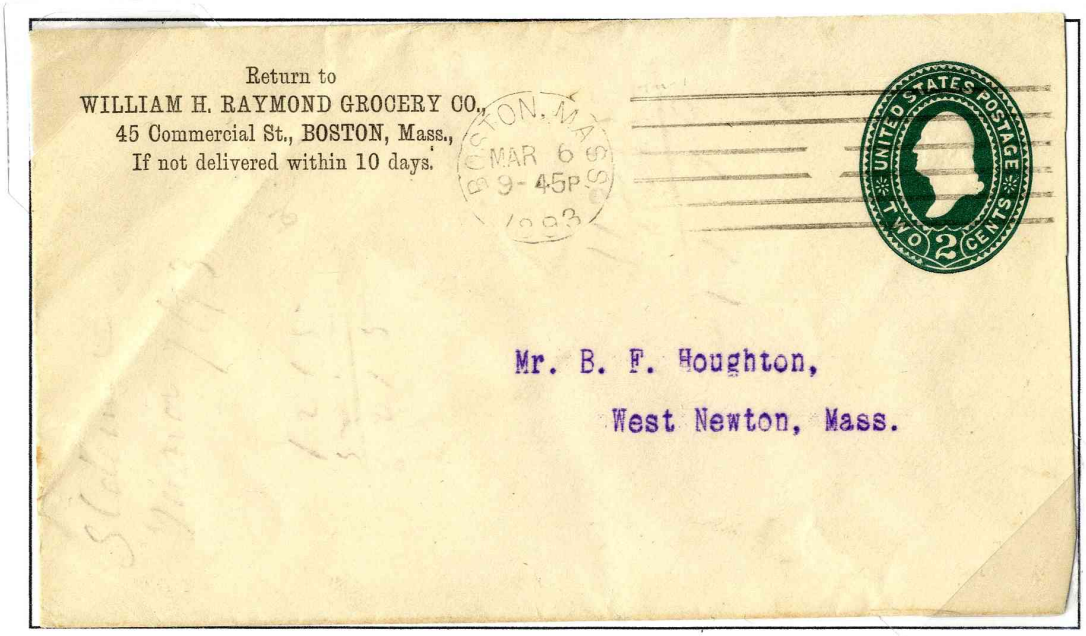
Variation with the bars cut short. Used only on machine H for seven months from August 1892

The final five-bar killer was installed on two numbered and four lettered machines in Boston, generally for two to three months in early 1893. Two varieties appear to exist. Both have bars cut straight and well away from the dial, but one shows distinctly heavier top and bottom bars.



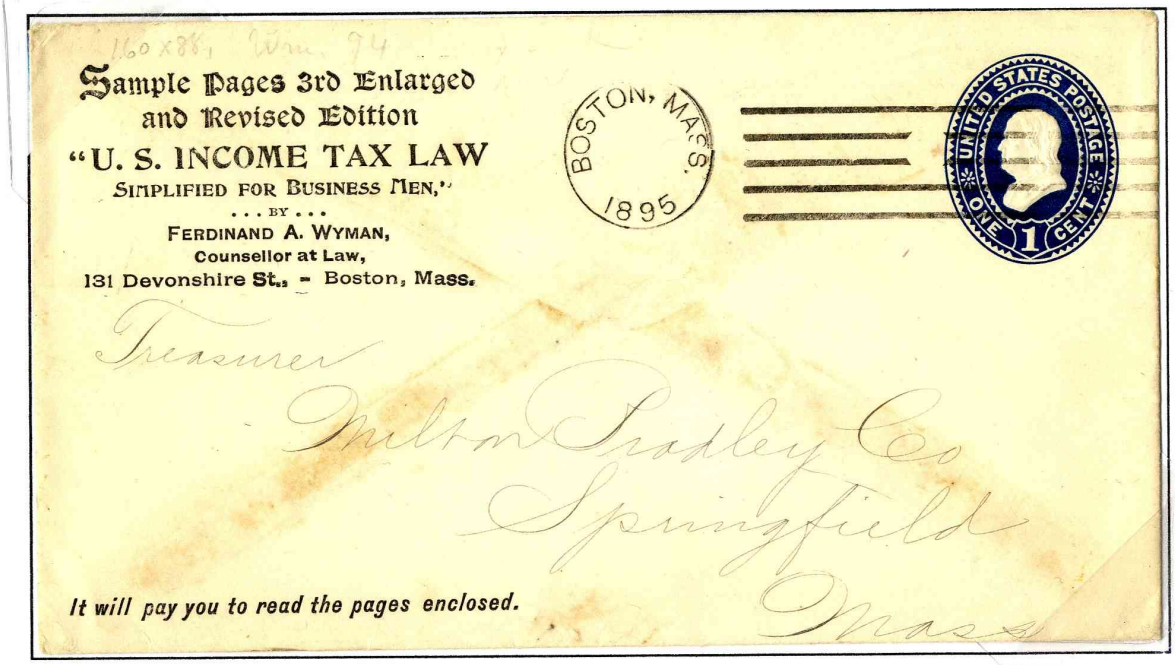


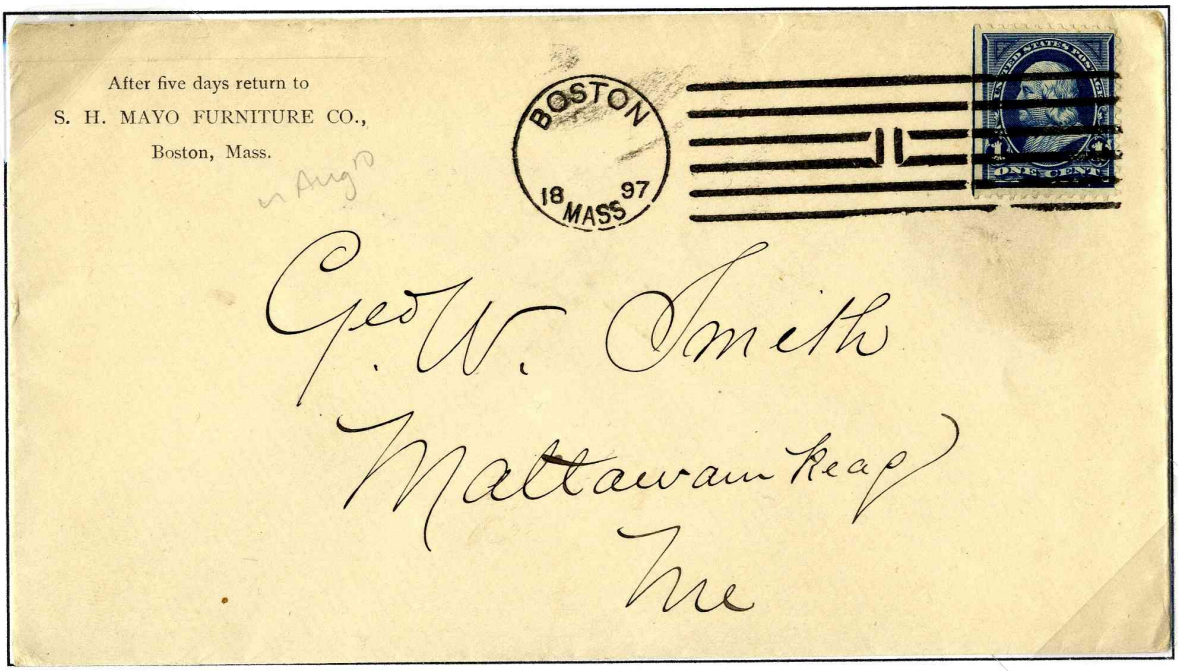
A six-bar killer was reintroduced in early 1893 and became the most widely used American bar cancel. It was installed on all fourteen numbered and eight lettered machines in Boston. The design was also used in several Boston Stations, on numerous machines in Chicago and Philadelphia, and in more than a dozen other cities.



Early uses of the new killer were with blank die spaces. Cover dated March 6, 1893, more than two weeks earlier than any previously recorded

The six-bar cancellers continued in use through 1897 either until they were replaced or converted to flag dies or as supplementary machines with numbers or letters removed from their die spaces. The majority of these late usages are on third-class mail.

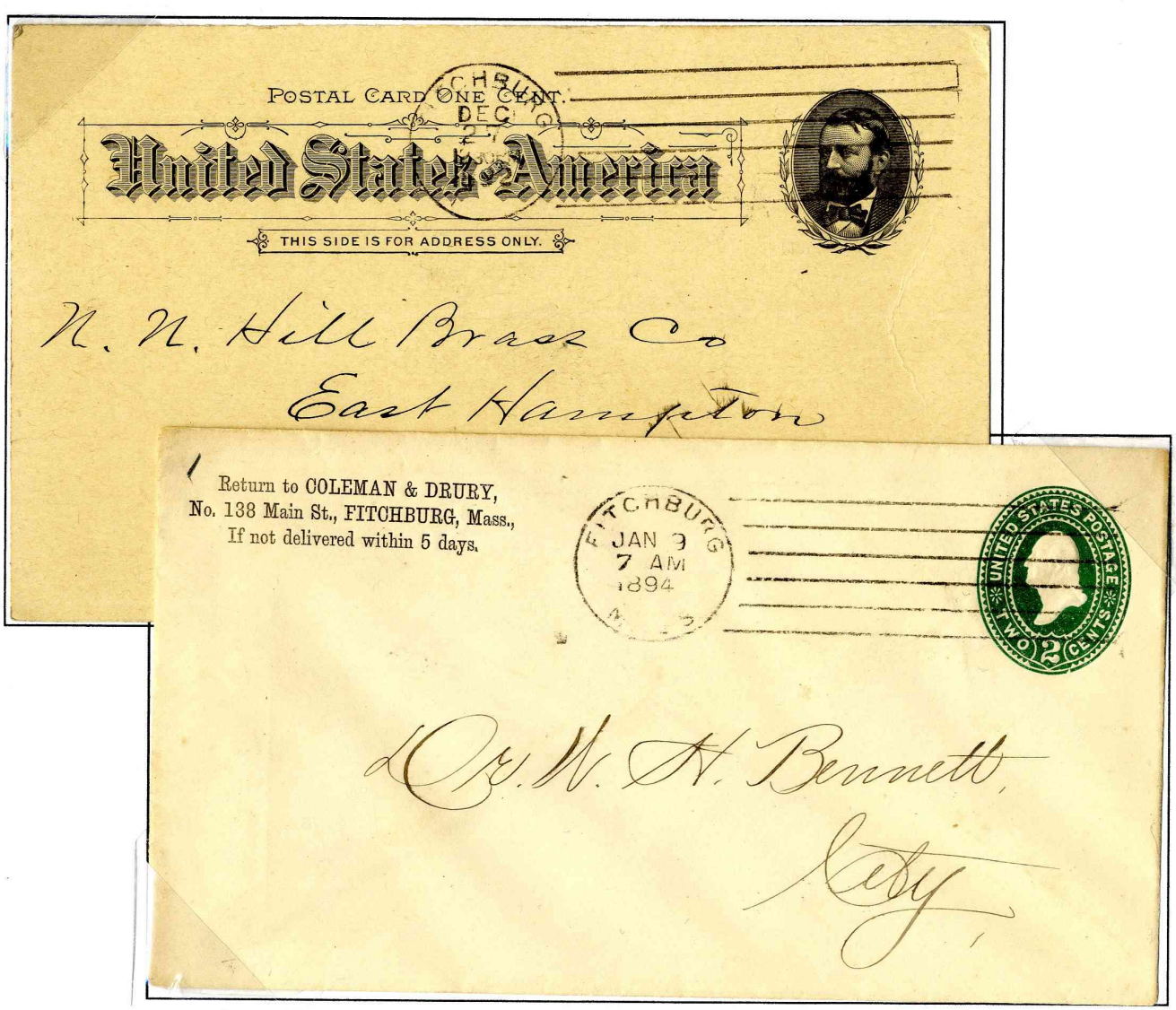




Machine 11 with a new type of dial. Last six-bar machine to bear a number or letter (through 1897), apparently concurrently with Machine 11 using a flag cancellation

GEORGE E. BARNARD

George Ezra Barnard invented and developed a hand-powered cancelling machine. A resident of Fitchburg, Massachusetts, he first tested the machine there; and the prototype is known to have been in use by November 2, 1892. The American Postal Machines Company had been successful with their large, electric-powered machines, but their use was confined to large-city electrified post offices. Recognizing the need for a small hand-powered machine, the American Postal Machines Company acquired the Barnard patents in 1894.



Cancellations from the first machine (at top), in use until early 1893, lack the two inked impressions left of the dial which, on the reworked machine (immediately above), helped pull the cover forward

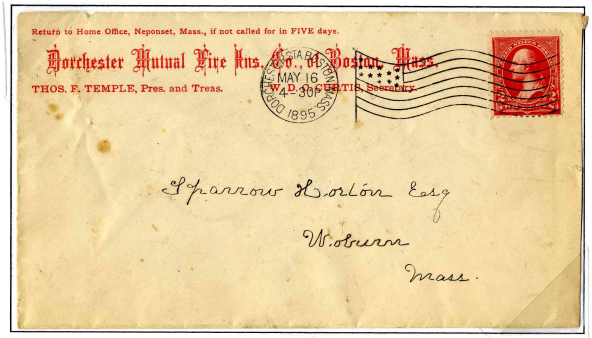
Before the end of 1894 machines developed by the American Postal Machines Company using Barnard patents had been introduced in Fitchburg and two Boston stations.

Charlestown Station received a unique wavy-line cancel with five lines by June19, 1894

Cambridge Station got its American-Bernard machine by October 20, 1894

Fitchburg retained its wavy-line cancel through most of 1897, long after flag cancels had been installed on all other American-Barnard machines

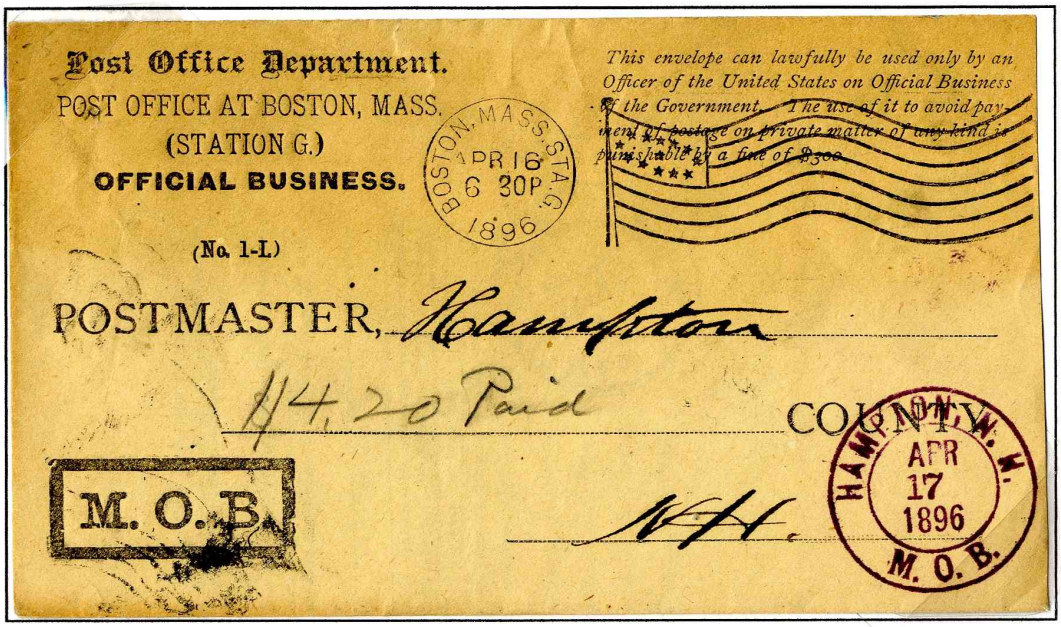
The Dorchester Station (Station K) was among three stations that received an American-Barnard machine in January 1895. Before the end of February 1898, when these machines were replaced, the Dorchester Station featured five different combinations of postmarking dials and flag dies–more than any other Boston station.



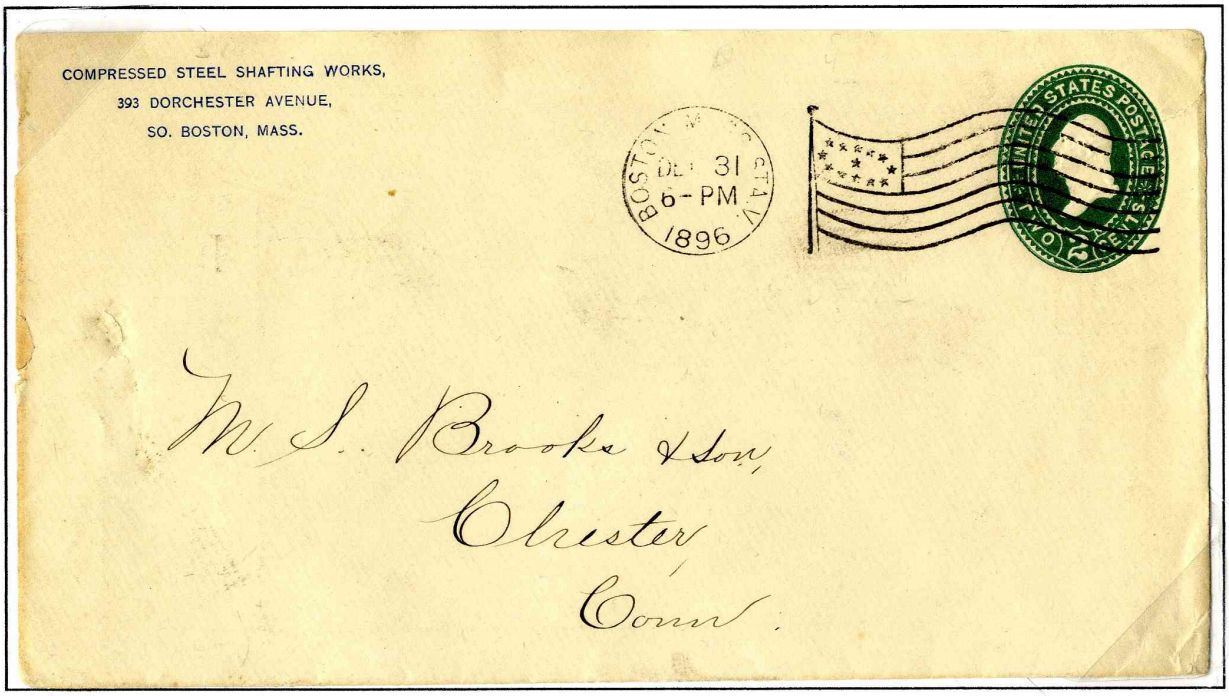
The earliest flag type without a halyard. Dorchester did not receive a wavy line cancel.

Progression from a flag with halyard, used to the end of 1895; to the same with Station K in the dial, used in early 1896; to a no-halyard flag with Station K dial, used through the end of 1897; to a redundant Dorchester Station in both dial and flag, used only a few weeks in early 1898

Two Boston stations used flags with the thirteen stars in a oval arrangement for several months. The ovate flags were in utilized in the Boston Main Office until as late as 1909.



Ovate flag at Charlestown Station (Station G). Middle of1895 through April 1896

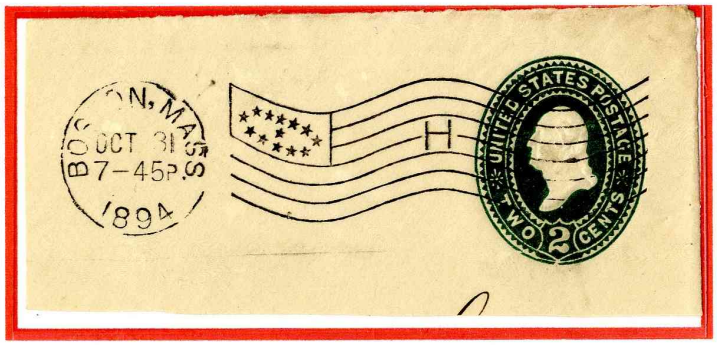


Ovate flag at South Boston Station (Station V). Late 1896 into August 1897. Shorter overall length of die typical of many American-Barnard machines

As with many other American machines, Boston and its stations were the principal users. The only usage of American-Barnard machines outside of Massachusetts was at Station B in Washington, D.C. Three flag dies were used there: an ovate from August 1895 to the following March; a spread-field flag with halyard for a few weeks into May 1896; and a flag without a halyard until early 1899.

AMERICAN POSTAL MACHINES COMPANY
FLAG CANCELS

The flag cancel is arguably the most distinctive and popular machine cancellation ever produced in the United States. The American Postal Machines Company, which had been supplying cancelling machines since 1884, fitted the first flag die into one of its existing machines in the Boston Main Office on October 31, 1894. The last flag machine was retired at Sidney Center, New York in 1941. In the intervening years some 7,000 varieties were created in more than 3,000 cities in all 48 states. Of those varieties, about 250 were issued by the Boston Main Office and an additional 115 were used in that city's various branch offices. Boston was, by far, the most prolific user of the flag machines.



The first flag cancel on the first day of use.
Four examples from this date are recorded

Variant Dials of the First Flag

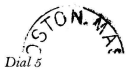
Generally a flag die remained with a single machine throughout its life. Dies for dials, which had to be regularly removed, were often interchanged in offices with several machines. Five different dials have been associated with the earliest flag die, the first of which was apparently used only from October 31 to midday November 1, 1894. Differences in the shapes of some letters, position of the comma, and rim damage distinguish the variant dials.

Dial 1

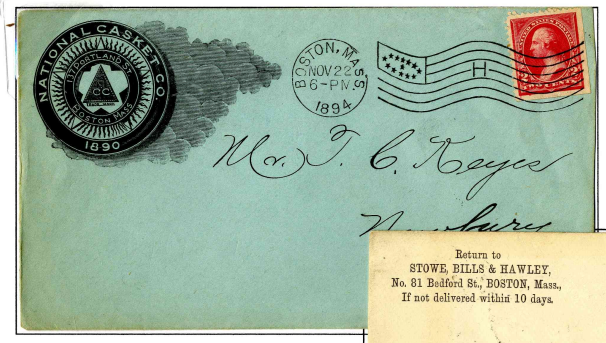
Dial 2

Dial 3

Dial 4



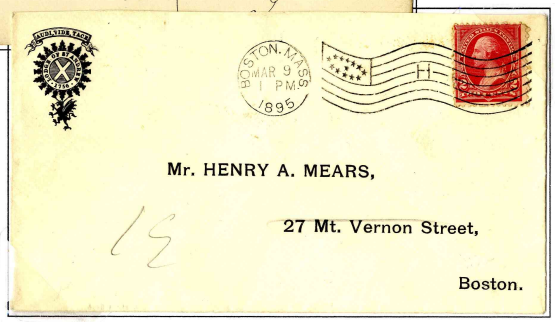
Dial 5



Dial 2, used November 1 to December 31, 1894.

Dial 3 (below), used January to late February 1895

Dial 5, used April through July 1895. Seen exclusively on Third Class mail, making specific dating difficult. Accidental cancellation with a 6-bar die dates this in April 1895. Machine B had a flag die before the end of April



Dial 4, used late February through March 1895

Ovate Flags Without Diespace

Cancellation dies used in the major cities such as Boston, Chicago and New York, generally used letters or numbers identifying individual machines. Only one ovate no-diespace flag is recorded in Boston. A candidate for a second such die is not what it appears.

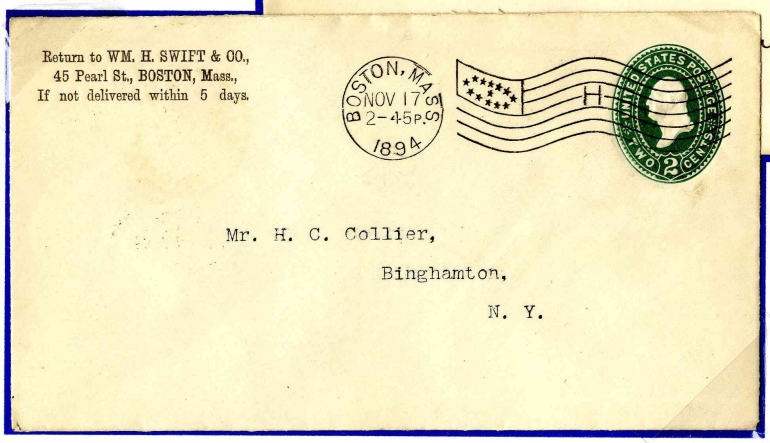
Top cover, the recorded Boston no-diespace. *In use:* February to July 1898. Bottom cover, despite a long-time collector's pencilled assertion, a fabrication. The flag is from Machine 9, which here did not print well and was altered. Early flag collectors made such 'improvements', usually for aesthetics rather than deception

Development of the Ovate Flag Dies

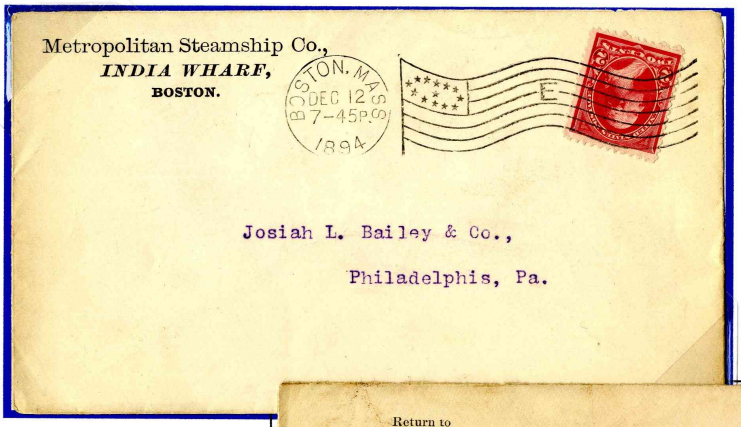
The 'ovate' flags, with twelve stars are arranged in an elliptical pattern around the thirteenth star, are the earliest flags. Over sixty varieties are recorded from the Boston Main Office. The initial form, with open stripes below the star field, quickly acquired a solid end, a staff, a ball at the top of the staff, and, finally, a halyard. Ovate flags lacking the halyard are unique to Boston. The three ovate dies used in 1894 are bordered in blue.

Same die with a ball atop the staff; diespace blank. *In use:* April 1 to 4, 1896

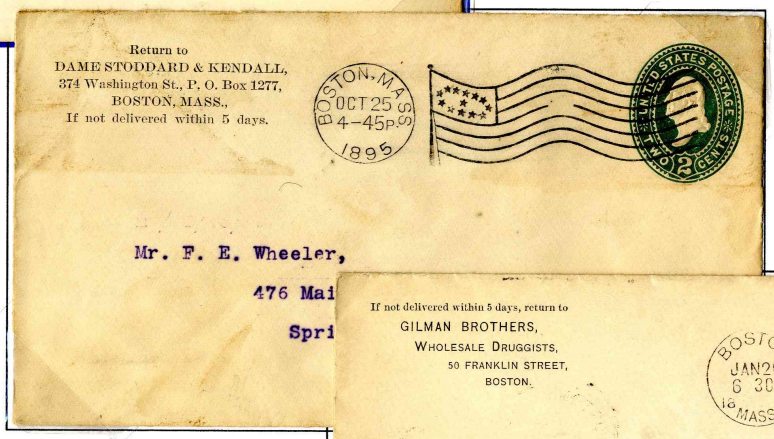
New die on machine F with solid left end. *In use:* 1894–1895



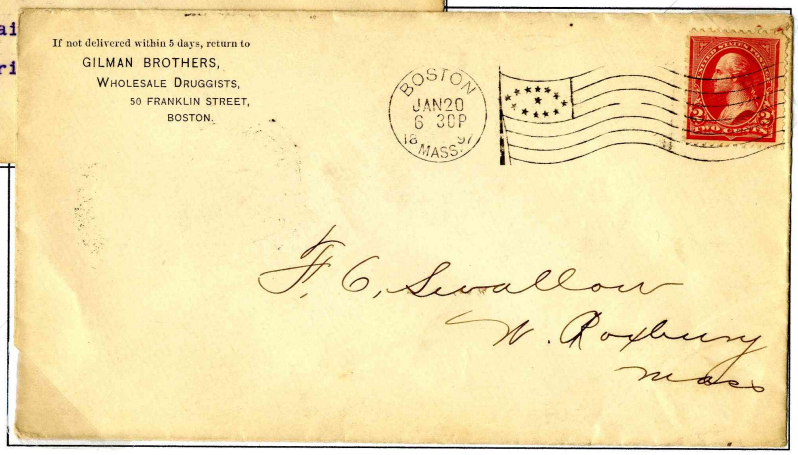
First die with open stripes at left used only on machine H. *In use:* October 1894 to July 1895



New die on machine E with full staff. *In use:* November 24, 1894 to 1895



Earliest Boston die with halyard. Blank diespace of machine 3. *In use:* October 1895



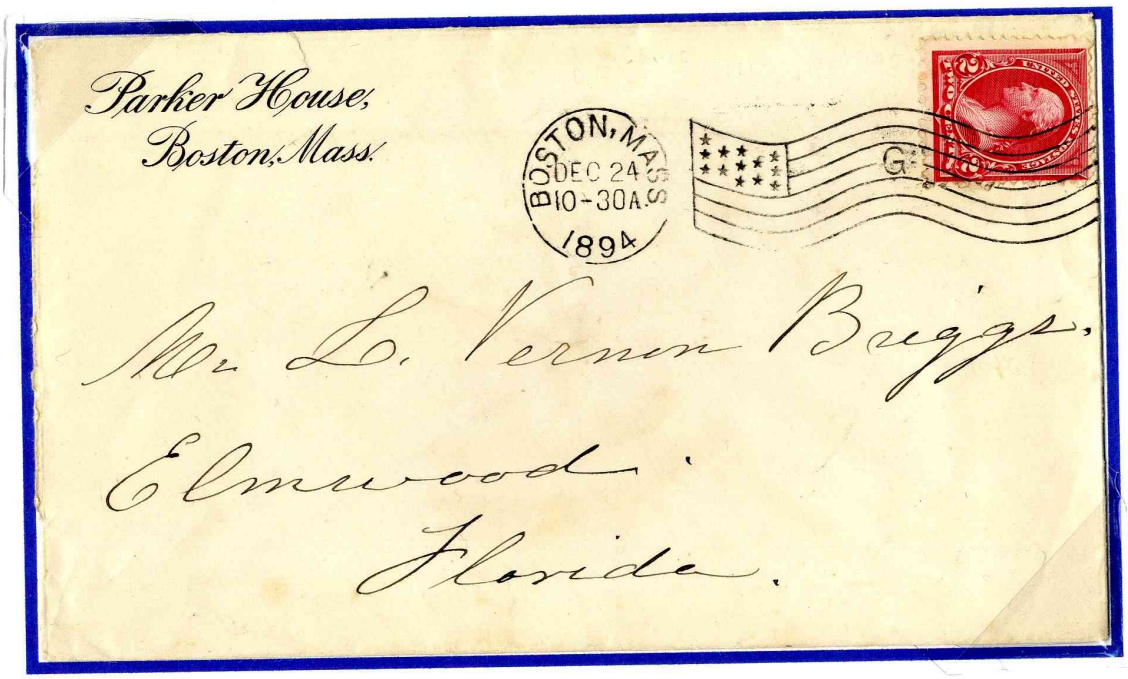
Prototype of later less-steeply-pitched dies. Blank diespace of machine 4. *In use:* January 1897

Ovate Flags in Other Cities

Forty varieties of ovate flags were produced outside of the Boston Main Office using only twenty different dies, some of which either came from or later went to Boston. These three ovates from Chicago used a single flag die, with machine numbers changed over sixteen months of use. Number 5 was in use for about three weeks; 9 for three more weeks; and 15 until the end of January 1900.

The Spread-Field Flag: The Dominant Style

Less than a month after the introduction of the ovate flag, a new type appeared, with the thirteen stars arranged in alternating columns of three and two. These spread-field-type flags became the most common type, used first in Boston, and quickly followed by Washington, D.C. and Chicago, the only other cities to have flag cancels in 1894. The first machine to display the new type of flag was Machine G in late November 1894.



First spread-field flag, without a full staff and lacking halyard and top ball