

Metered mail – 1897-1922

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This exhibit presents the history of the development of mechanical postage. The period runs from 1897 to 1922, the first 25 years of postage meter use in the world. This period starts with the first live test of mechanical postage in New York City, USA, and ends with the acceptance of postage meter franking on international mail starting January 1, 1922. The postal reforms adopted in 1840, which standardized rates and introduced the adhesive stamp, democratized postal services. Not only individuals, but also commercial enterprises, industry and governments benefited. With the greater use of mail large mailers soon faced a bottleneck in the mailroom. Mechanization of the franking process was the solution.

1. Tribute to Count Detalmo Savorgnan Di Brazza, pride of Italian postal mechanization inventors. From his mind was born the first franking machine in the world 117 years ago.

This exhibit touches on the lives of two men who were in large part responsible for the development of postage meter usage in the world. Arthur Pitney in Chicago, USA and Ernest Moss in Christchurch, New Zealand probably did not know each other, but both were working closely on this grand endeavour.

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Stamps from Universal Postal Frankers (UPF) "Midget" meters demonstrated at the British Empire Exhibition at Wembley in 1924. All three values are shown here.

New York, USA -1897

First postage meter franking known in the world. This is the only copy known other than a proof in a museum.

Cover franked by the device invented by Italian Count Savorgnan di Brazza Detalmo. With the deposit of a 10 cent coin, the machine applied a stamp for registered mail. A receipt was issued to confirm receipt. The stamp (left) shows the city, state, date, machine identification number and transaction number. This cover was the 401st stamped by machine M4. At top right, is a notice indicating a new location for machine M4. Three other machines (presumably M1-3) were placed at different locations in the city: the "Registry Office of the General Post Office", the "Arcade of the Equitable Building", and a substation on Park Avenue at 42nd Street".

New York, USA -1897

Kristiania (Oslo), Norway - 1900

Only two covers of each value are known. The others are in museums.

A postal impression made by invention of Christian Kahrs, manufactured by Krag Maskinfabrikk, and installed in the entrance hall of the main postal station. Two rates were available, 5 öre stamp printed in green for domestic mail, and a 10 öre stamp in red for mail destined abroad. Adhesive stamps of equivalent value were affixed by the postal clerk (often on top of the Khars stamps) and cancelled the same day. This was done because of the unofficial and experimental status of the Khars stamps. The meter imprint was not considered a full postage stamp but rather a proof of payment. The advantage to the user was either to avoid a queue or the convenience of mailing the item outside the post office's business hours. The experiment lasted from August 24 to September 14, 1900.

Kristiania (Oslo), Norway - 1903

↗ This stamped impression illustrates Hermes, the messenger of the gods, in a post horn blowing under the Norwegian crown.

↑ A 10 öre impression was prepared, but never used.

A new experiment ran from June 15, 1903 to January 2, 1905 in Kristiania (Oslo), Norway. It included seven machines, of which five were situated in Post Offices and two were used by private businesses. This device was also the brainchild of Karl Uchermann and was manufactured at the Krag Maskinfabrikk works. This Krag company was a manufacturer and supplier of stamp cancelling machines used in Europe and elsewhere abroad. This experimental meter of theirs produced a 5 öre stamp in green. Postal workers checked all the machines every 15 days to collect postal charges due. The experiment ended in early 1905 following a dispute between the inventor and city treasury authorities. Norway did not again use mechanical postage until 1926.

Washington DC, USA -1903

Test of 1902, this device produced three values: 1, 2 and 5 cents. Eight copies are known.

Only two copies are reported to date. Both stamps bear the same license number, 264 .

One demonstration was presented to staff of the United States Post Office Department in Washington, D.C. in April 1903 by Arthur Pitney. From the report submitted to the Third Assistant Postmaster General: "We can consider adding this device as a viable option for the Postal Service and to our business customers."

←In the 1930s Charles W. Rummler, son of Eugene A. Rummler, patent attorney and partner with Arthur Pitney, made approximately 30 souvenir reprints of the stamp. The reprints had Rummler's initials in the spot where the control number was on the original. This copy is number 7.

From November 1903 to March 1904, a live test of the Pitney stamp was held in the Office of the Third Assistant Postmaster General. The mail item was approved by this imprint in red. The stamp is actually a restricted administrative approval for use. A control number is printed in the rectangle.

Christchurch & Wellington, New Zealand -1904

One of the few existing first day covers.

New Zealand also was a location where experimentation with mechanized postage was conducted. Ernest Moss was an inventor and entrepreneur, and passionate about mechanization. Born in London, England he made his first postage franking machine in his adopted country. It was a public access, self-service device located in the lobby of the Main Post Office in Christchurch. It was tested for two weeks from March 31 to April 14, 1904. By the insertion of a penny (1d), a black imprint was made. 3425 prints were produced during this first test.

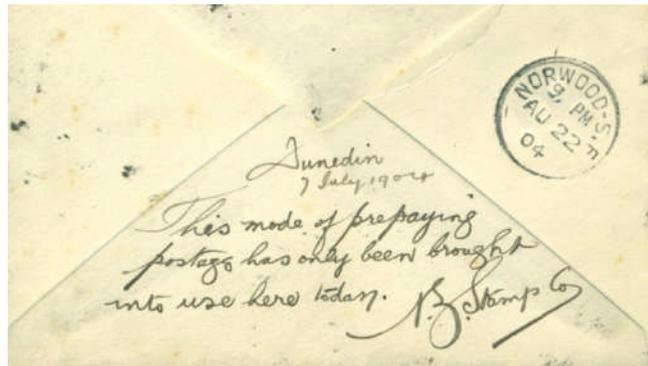
The machine was moved for a second experiment trial which was performed in Wellington, New Zealand. It was also placed in the entrance hall of the Main Postal Station of Wellington. The experiment continued for nearly three weeks, from May 4 to 23, 1904 and used the same rubber frank die that was used in Christchurch. The machine was trialed a third time, again in Wellington, using a slightly larger 19 mm steel die. This test lasted from June 23 to November 4, 1904. In New Zealand, all postage prepaid in this way had to be obliterated. A total of 4321 prints were produced.

Dunedin, New Zealand - 1904



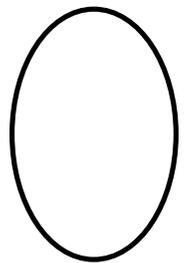
↑ Originally, the adhesive stamp almost entirely masked the meter stamp impression.

This First Day Cover met all postage Administration's guidelines. An announcement by the New Zealand Stamp Co. in *Evans Weekly Stamp magazine* informed its readers about the new postage technique. Mailed on July 7, it arrived at Norwood, England on 22 August 1904.



↑ Annotation and receipt stamp on the back of the letter.

A second company offered a competition to Mr. Moss. An engineer named Robert Wales of Dunedin, New Zealand adapted a device originally designed by W. Hollingworth of Brisbane, Australia. The Wales machine was also a public, self-service device. Its trial took place from July 7, 1904 to February 7, 1905. There were two versions of the stamp. The first version was a double vertical oval shape containing the abbreviated name of the country and included "1d" at both left and right plus "ONE PENNY" at the bottom.



Dunedin, New Zealand - 1904

The second version appeared at the beginning of October 1904. It shows the country name in full and eliminates the two "1d" marking but added the word "PAID" in the centre. A total of 47,024 impressions of both versions of the Wales stamp were vended.

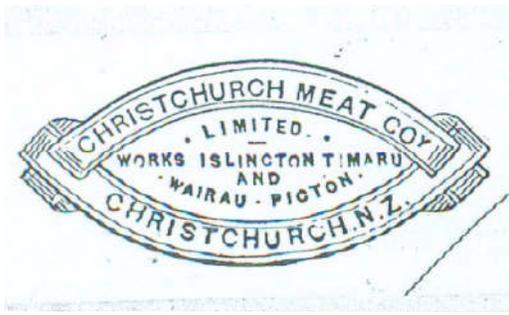
← Second mailing from Mr. Wales to the Postmaster General. The double stamping and sharpness of the stamp impressions make it a unique cover.

Wellington, New Zealand - 1904

Letter posted on 15 August, 1904.

A new 21 mm steel slug replaced the earlier rubber version. This new one was used from June 23 to November 4, 1904 in Wellington, New Zealand. Following this third test, the device was removed permanently with a total of 4585 impressions produced. This number may seem high, but in fact, only a small fraction of these envelopes has survived to today.

Moss Machine type 2 :



This first test of a meter machine by a private company occurred from March 1904 to February 1905. The Christchurch Meat Company was chosen for this experiment. This new device offered a choice of two values; ½d and 1d. The impression produced was identical in every way to those in the earlier public vending machine tests. Only envelopes showing the return address of the company and/or a postmark date can validate the stamp. To date, only two covers are known to exist. This first private trial was considered a great success by both the Christchurch Meat Company and the postal administration.

Christchurch, New Zealand - 1906

Registered mail with a 5d rate posted on May 18, 1904 and delivered the next day.

Following the private company trial of 1904-1905, in February 1906, Moss's Model No. 3 machine was approved for trial. Three machines were tested. One again went to *Christchurch Meat* and one was assigned to *Payne and Company*, also of Christchurch. The third machine was used only as a demonstration unit. Operation of the Model 3 required the insertion of a sovereign (£1) coin. Seven different postage values could be selected. Inside the apparatus, a disk with 240 teeth would rotate one notch for each penny of postage generated. After a complete cycle, a new sovereign coin had to be inserted. The smallest possible value was a ½ penny stamp, two of which would advance the disk one notch.

All values but the 3d are present in this example from the third demonstration machine.

Christchurch, New Zealand – summer 1906

Cover sent to London, England via Suez on January 9, 1908. It arrived February 17, 1908 and then was redirected to Dorking, England on the same day.

The Model “C” machine was innovative due to its mode of use. Instead of inserting a sovereign coin a counter recorded the postage usage. This change was required by Postal authorities who were concerned about the possible theft or temptation risk of theft created by a device containing a number of gold coins. A Postal Supervisor would regularly visit meter users and take readings of the indicator dials to determine the amount of postage used. The appearance of the Model “C” stamp is similar to Model 3 but is slightly smaller (17.5 mm). A black ink ribbon was used most often but purple was also used. Very rare imprinted in red, blue and green are known.

Depending on the destination, the Post Office handled metered mail send outside the country differently:

- Mail for Australia required a cancellation showing the date.
- Mail for elsewhere in the British Empire a postmark containing the word "PAID" was necessary.
- For anywhere else in the world adhesive stamps of equal value to the meter stamps had to be affixed to the mail piece.

This regulation was dropped after the UPU recognized the validity of meter stamp on the international mail (1 January 1922).

New Zealand – summer 1907

A letter addressed to the company of Ernest Moss, the *Automatic Stamping Company* in 1912.

In mid-1907, Model “C” meter stamps acquired a new look (Type 2). The widespread distribution of franking this machine throughout the country required changes. The old double circle stamp was replaced by a single circle. The originating city's name was placed at the top of the circle (usually followed by “NZ”) and “POSTAGE PAID” was at the bottom. The postage value was in the centre above a machine identification number. Five different values could now be selected; ½d, 1d, 3d, 6d and 1s. The machine identification number started at “1” in each city. Except for some early impressions in blue and in purple, all stamps were applied in black ink. These dateless meter stamp required a postmark. This practice is still common in New Zealand where meter stamp often do not include a town/date mark.

Early meter stamp used on parcels are very rare as meter tape did not exist then. Here is a label used by *Milne & Choice* of Auckland. Apparently the label, with two 1 shilling and two 1d stamps, was fed into the meter before being applied to the parcel. It was posted on November 21, 1910.

Proof stamps of 3d and 1 shilling values.

New Zealand - 1908

A third revision of the Moss Model "C" machine took place at the end of 1908. Each of the five available postage values was given a different design (Type 3). The name of the country was omitted since little metered mail was sent outside the country. The stamps were larger than previous, now between 21 and 22 mm.

½d : Simple circle

3d : Stained Glass

6d : Circles and lines

1/-: Shield

1d : Diamond
encircled



↑ Detail of ✓ prepaid marking

Rare set of impressions from of the demonstration unit.



Letter posted on May 27, 1910 to Detroit, Michigan, USA transiting Though San Francisco and Chicago (June 22). A 1d meter stamp is covered by two ½d adhesive stamps applied by the Foreign Mail Bureau (FMB). Presumably it was an educated, and lucky, collector who suspected a meter stamp might be under the adhesives and found it!

New Zealand - 1910

A fourth revision to the Model « C » in a new stamp design appearing in 1910. The new stamp is a vertical rectangle with rounded corners (Type 4). The name of the city of origin is shown in a diagonal band. The country designation "NZ" was returned to the stamp (below "POSTAGE PAID" at upper left).

This registered letter to Germany is a good example of a mixed use cover, a practice in use before the agreement of the UPU. It was posted on February 23, 1912 in Christchurch, New Zealand and left Wellington the next day. It arrived in Wiesbaden, Germany on April 6, 1912.

Test of 1d stamp.

Washington DC, USA – May 1912

Following discussions with Postmaster General Hitchcock in October 1911, a five-day experiment took place starting May 9, 1912. The *National Tribune* was the venue for this test. Stamps of 1 cent and 2 cents were used. The outline of the stamp contributed to its "Washington Shield" nickname. Because postal regulations in the United States at the time did not allow for non-adhesive stamped first class mail this frank was use on 3rd and 4th class mail only which was rarely retained by collectors. Thus the Washington Shield is an exceeding rare stamp.

← Eight stamps are reported, including three envelopes. This is from the first day of the test and is notated by Arthur Pitney himself.

Chicago, USA – January 1914

Not long after the trial in Washington, an expanded experiment took place in Chicago from January 20 to May 28, 1914. Eight machines were distributed to eight companies, all large mailers. During the test a total of 853,925 pieces of mail were processed, mainly as fourth class catalogues. The stamps were largely similar to those of Washington and are known as the “Chicago Shield”. A total of only one hundred Chicago Shields are known to exist today, only five of which are found on commercial covers.

← Above: An imprint of the 1 cent stamp on an envelope addressed to Fitchburg, Massachusetts, USA.

↓ Below: One of only three copies of an envelope with a 2 cents Shield imprint used by the Adressograph-er Company.

London, United Kingdom – January 1912

Letter to the inventor.

In Britain, Frederick Wilkinson, a gentleman-farmer in Essex, offered his invention to the British Post Office. The device was a mailbox combined with a franking system. With the insertion of one penny the positioning of a letter or postcard into a slot, and the turning of a crank, a postage frank would be applied. The machine was located opposite the Main Postal Station on King Edward Street in London. From January 25 to August 31, 1912 a total of 8491 items were franked and deposited in this unique mailbox. All such franked mail were also given a dated postmark "LONDON. E. C /172". The experiment ended due to lack of use. Later in 1925 Wilkinson was still trying to promote his invention, but without success!

Christchurch, New Zealand – May 1914

Late in 1912, a Postal Supervisory Committee decided that the fraud was a possibility with the Moss model "C". In response the Moss team developed a replacement device, revolutionary in that it could print all values between ½d and £1, not just limited 5 or 7 postage values. The stamps were printed in two colors: purple for the frame and green for the postage value. The test was conducted in the offices of the Main Post Office in Christchurch from 18 to 27 May 1912. To manufacture the machine, a new facility was necessary, but the start of World War 1 interfered. No new plants were allowed to be built for civilian production. This project was not be resumed after the end of the war. Four impressions are preserved in the mail archives.

Proposal for experiment at Wellington, NZ.

Proposal for experiment at
Christchurch, NZ.

Black print, probably made in 1968
by C.R. Hawkins

Essay prepared for use in
Melbourne, Australia.

New Zealand – July 1915

In July 1915, an increase in the domestic postage rate of $\frac{1}{2}$ pence for the war effort required changes. This 3d value was replaced by a new $1\frac{1}{2}$ d (Type 4) with wavy edges.

This is a shipping label depicting mixed use postage impressions. The Auckland device, registration No. 50, had two kinds of imprinted stamps. Here, the rare round matrix 1sh (Type 2) is found alongside three stamps of $1\frac{1}{2}$ d (Type 4) with wavy edges.

Registered letter mailed from Christchurch on November 1, 1915. It arrived the next day in Dunedin with 3 imprinted stamps. It presents another variety of mixed use: the first two stamps are $1\frac{1}{2}$ d (with wavy edges) and a third stamp of $\frac{1}{2}$ d (with straight regular edges).

New Zealand - 1916

The potential for fraud with the Model "C" was not forgotten by the postal service. Moss created a new, more secure, machine, the Model "D" in 1916 that is considered his masterpiece. To produce a stamp, two turns of the crank were necessary. The first printed the frame, and the second printed the postage value in the center circle. This process eliminated the possibility of fraud that was potential with the Model C. The model D was so well designed that some units were still in use in the 1960s. In 1967, decimalisation of the New Zealand currency finally ended their use. The Model "D" offered a choice of five different values: ½d, 1d, 1½d, 6d and 1sh. Originally, all stamps were printed in black, followed by maroon, then dull red, and finally pink.

First pencil sketch for
Model D machine.

Specimen impression without machine number.

Letter posted November 9, 1917 from Wellington, New Zealand to London, England.

USA – November 1918

Walter Harold Bowes drew the essays shown.

First sketch in lead pencil of Walter Bowes stamp.

Green impression on envelope with "Universal Stamping Machine Company" corner card, the company led by Mr. Bowes.

Red imprints of the 1 cent and 2 cents values used on envelopes of the new company formed by Mr. Pitney and Mr. Bowes in 1918.

USA – December 1919

Sketch by Arthur Pitney for prototype stamp.

... preliminary sketches were prepared and submitted for approval by the Post Office Department. I also had the idea at the time to make a modification by inserting the words "certified postage" in the stamp ...
Text extracted from unpublished memoirs of Arthur Pitney.

Stamford, USA – December 1920

Stamford, USA – December 1920

Envelope franked by Pitney-Bowes 10 cent stamp. It contained a brochure promoting the postage meter. The Pitney-Bowes stamp had two parts, the frank at right and the date-town mark at left. This practice eliminated the need to cancel the stamp.

Stamford, USA - 1920

The Pitney Bowes Postage Meter Company (PB) was created on April 23, 1920 from the merger of Pitney's American Postage Meter Company and Bowes' Universal Stamping Machine Company. Each company contributed what the other company was missing.

A decree of the United States Congress dated April 24, 1920 authorized the Postmaster General to amend the "postal law & regulation" to allow first-class mail to be franked by machine. On December 10, 1920, at 6:30 pm, the first American first class mail was franked by postage meter. Two Pitney Bowes machines were used. Meter number "M-1" was used to frank 2 cent letters, and meter "M-2" was used to frank a heavier promotional brochure with a 10 cents stamp.

This promotional envelope was addressed to the Commercial Travelers Mutual Accident Association of America at Utica, New York, on the third day of use.

USA - 1921

A postal regulation amendment dated December 8, 1921 required a change in the meter stamp design. This square design was considered too similar to common permit postage imprints which differed only in that there was no meter number present. The new approved meter stamp had an entirely different oval shape.

These two envelopes are from the same user and franked by the same meter (M.1044). They illustrate the change of the stamp from a square to an oval. The first, dated December 22, 1920 was made on its day of original installation. The second was made after the day after the required modifications of April 18, 1921.

New Zealand - 1922

During its 1920 Congress in Madrid Spain the Universal Postal Union agreed to the conditional use of postage meter stamps on international mail starting January 1, 1922. The conditions were as follows:

- The meter stamps had to be applied in red ink
- The country of origin had to appear in the stamp design
- The amount of postage had to appear in Arabic numerals
- The postage marking had to appear on the upper right corner of the front of the mail piece

This cover was mailed on Wednesday January 4, 1922 — the third day meter stamps were available for use on international mail. The cover is currently the earliest known approved use of a meter stamp on an international cover. It was mailed from Wellington, New Zealand to Germany. No adhesive postage stamps were added since they were no longer necessary to 'prove' that postage had been paid.

Cairo, Egypt – February-march 1922

With the aid of British investors, several Moss Model D machines were advanced for use outside New Zealand. One machine was trialled for one month by the National Bank of Egypt in Cairo from February 27 to March 31, 1922. Each of its five Egyptian values of 2, 4, 5, 10 and 50 milliemes featured a different design.

After the trial, the meter was returned to London. Proofs, printed in a red salmon colour, rather than the fuchsia used in Egypt, were produced on January 19, 1925. Here, four of the five values are included.

This registered letter was sent to Zurich, Switzerland on March 25, 1922 franked with three 10 milliemes stamps. It arrived on April 2, 1922 and was delivered the next day.

Calcutta, India – June 1922

India also experimented with a Moss Model D machine. Four units were shipped to Calcutta and installed in the offices of:

- #1 — Englishman Pages;
- #2 — King, Hamilton & Co.;
- #3 — Jessop & Co.
- #4 — Andrew Yule & Co.

Although the meters could print five different postage values ($\frac{1}{2}$ a (anna), 1a, 4a, 8a and 1 rupee), only the two lowest values are known postally used.

Specimen set of all five values of these imprints from machine #1.

Stamped envelope with two imprints of 1 anna dated March 23, 1922.
These were created on machine No. 2 in a mailing to London, England.

London, United Kingdom – October 18 1922

PB and Universal Postal Frankers fought for the honour of being the first company to provide meter franking in the United Kingdom. Although PB received the first government authorization to distribute the machines, the first meter franking of mail was done by Universal on covers used to mail "The Philatelic Magazine" of London, 18 October 1922. The stamp was applied in two steps: first the frank was imprinted in red at right and next the date/town mark was imprinted in black at left. Because of this rudimentary method, the distance between the two parts is not fixed but varies. The Editor of The Philatelic Magazine was Albert Harris who was an early promoter of postage meters in Great Britain. Later he authored one of the first meter stamp catalogues known in the world.

The Prudential Assurance Co., Ltd. was the first commercial enterprise in Britain to receive a license to use the Model A2 machine.

A First day cover of the use a meter mail machine dated October 18, 1922. It was used on wrapper band for newspapers. This item was mailed is to Mr. M. Ohlman in New York City, USA.

Canada – September 1922

Canada, along with Germany and Switzerland, joined the club of pioneer postage meter users in 1923. On September 17, 1920, the Deputy Minister of Posts for Canada attended a meeting in England that promoted the Moss model D meter.

In September 1922, Pitney-Bowes provided three different essays. The version shown with a 4 cents value was adopted, minus the wavy lines more or less.

In August 1923, Canada approved the use of meters to frank mail. The Timothy Eaton chain of department stores and catalogue sales, installed PB machines in its offices in Canada.

Christchurch, New Zealand - 1922

This cover was released as part of the World's first promotional use of a postage meter.

The New Zealand Industrial Exhibition ran from November 18, 1922 to January 6, 1923 in Christchurch. Moss's Automatic Franking Machine Co. presented visitors with a Model D meter impression for free to promote this relatively new way of franking mail. Two other demonstration devices, manual and electric, were offered outlining the benefits from these machines.

Epilogue:

Although New Zealand is not the first place on earth where postage meters were used, thanks to Ernest Moss it was the only country on the planet where meters were used actively and continuously before 1922. Moss and Arthur Pitney in the United States both developed meter technology in their own way. Time united the destinies of these two entrepreneurs who never met nor knew of each other. In 1922, the Universal Postal Frankers acquired the worldwide rights to Moss's technology for use outside New Zealand. Pitney Bowes later bought Universal. Ernest Moss died in 1932. Arthur Pitney, feeling marginalized and overwhelmed by the personality of Walter Bowes, resigned from PB in 1924. A simple notice in the company's newsletter announced his death in 1933. Bowes grew weary of the management hassles of his company and gradually withdrew leaving his step-son, Walter Wheeler Jr. in charge. Bowes died in 1957.