T. G. PALMER & H. F. CLARK.

MACHINE FOR CANCELING POSTAGE-STAMPS AND POSTMARKING LETTERS.

No. 182,698. Patented Sept. 26, 1876.

Fig 1

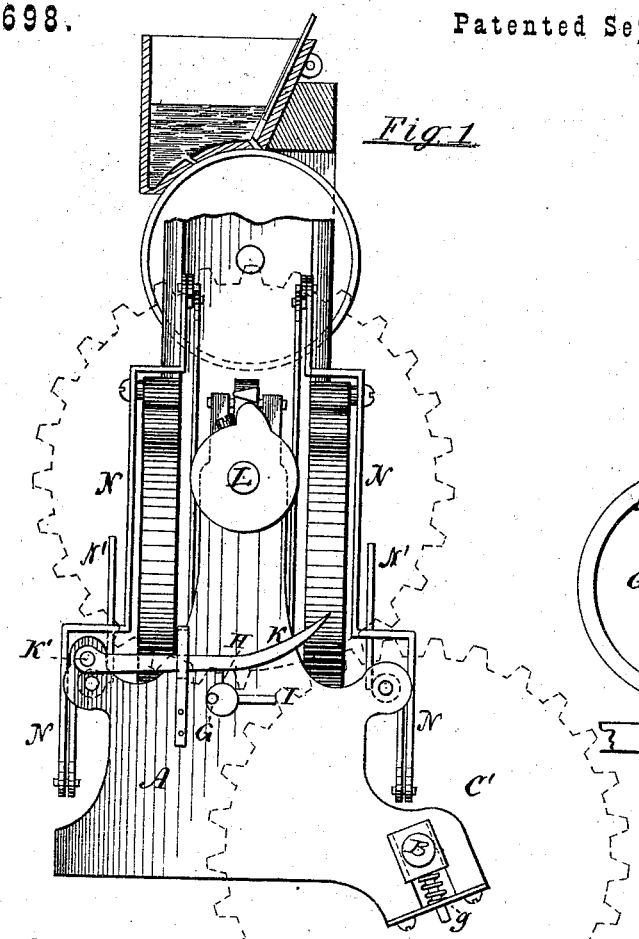


Fig. 2

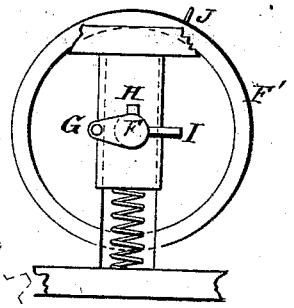


Fig. 3

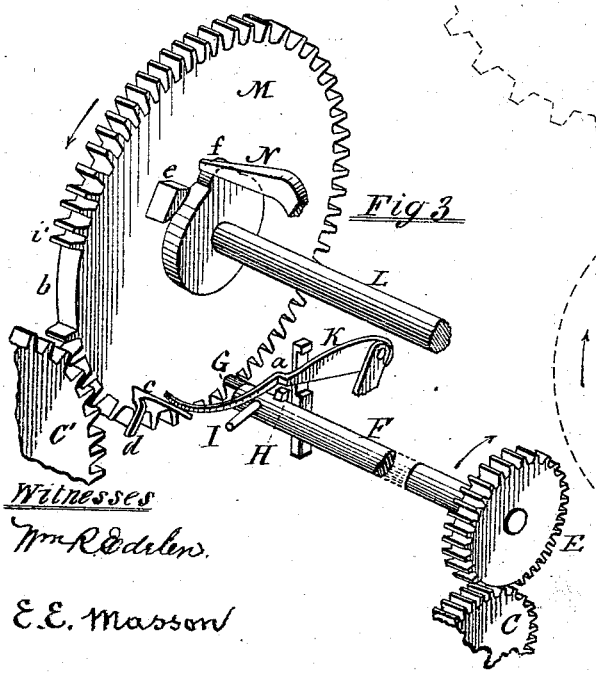
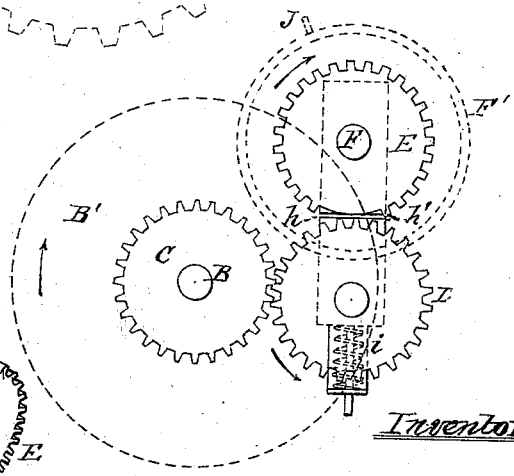


Fig. 4.



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2 Sheets—Sheet 2.

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MACHINES FOR CANCELING POSTAGE-STAMPS AND POSTMARKING LETTERS.

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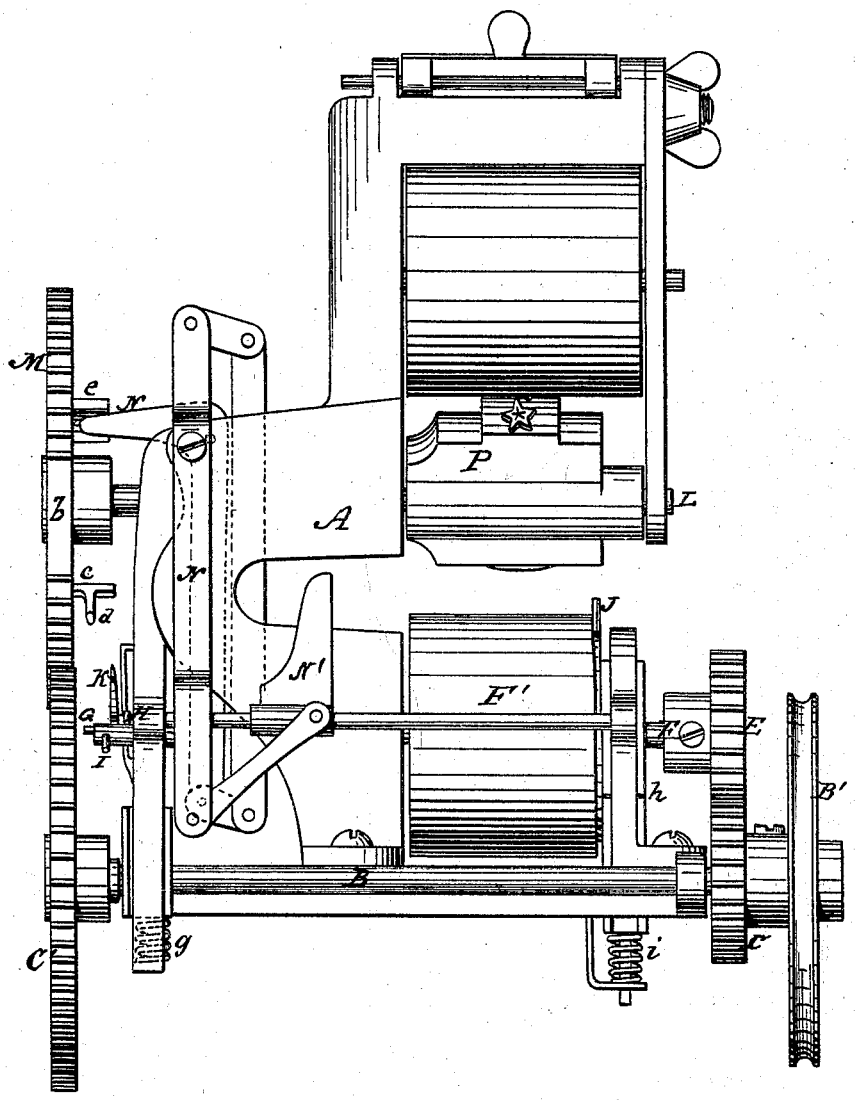
Fig. 5.



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UNITED STATES PATENT OFFICE.

TIMOTHY G. PALMER, OF SCHULTZVILLE, AND HENRY F. CLARK, OF POUGHKEEPSIE, NEW YORK.

IMPROVEMENT IN MACHINES FOR CANCELING POSTAGE-STAMPS AND POSTMARKING LETTERS.

Specification forming part of Letters Patent No. **182,698**, dated September 26, 1876; application filed March 18, 1876.

To all whom it may concern:

Be it known that we, TIMOTHY G. PALMER, of Schultzville, in the county of Dutchess and State of New York, and HENRY F. CLARK, of Poughkeepsie, county and State above named, have invented new and useful Improvements in Machines for Canceling Postage-Stamps and Postmarking Letters; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an end view, and Figs. 2, 3, and 4 are detached views, and Fig. 5 is a front view.

Like letters refer to like parts.

The nature of our invention relates to such a construction of the machine that the master-wheel shaft may be in continuous motion, while the pressure-type and inking-rollers have intermittent motions, and are dependent for their action upon the act of inserting a letter or other paper for cancellation.

A, in the accompanying drawing, represents the frame of the machine. This is made, preferably, of cast-iron, and secured to a convenient table for use. B represents the shaft of the driving or master wheels, and B′ represents the pulley of the master-wheels. C and C′ represent the master-wheels upon the shaft B. D is a pinion, having an equal number of teeth with the master-wheel C, and is introduced to give the required direction to the rotation of the pressure-roller, hereafter to be described. While the machine is being operated, the master-wheels and the wheel D are in continuous motion. E represents a mutilated gear-wheel upon the end of the pressure-roller shaft F. F′ represents a pressure-roller. Upon the left-hand end of the pressure-roller shaft is an eccentric wrist, G. (Shown in Figs. 1, 2, and 3.) A little distance from the eccentric end of the shaft F rises a short pin, H, and at right angles, about midway between the pin H and the end of the shaft, projects another pin. (Seen at I in Figs. 1, 2, and 3.)

Upon the outer end of the pressure-roller, as shown in Figs. 2 and 4, rises a small stud, J, the office of which will appear in due time.

K, in Figs. 1 and 3, represents a crooked lever, the end of which is pivoted to the frame, (as shown at K′, Fig. 1.) About the middle part of this lever is a shoulder, *a*, against which the pin H impinges by the rotation of the shaft F in the direction of the arrow, and arrests the rotation of the shaft until the lever is released from contact with the pin H. L represents the shaft of the type-roller P, and M represents a mutilated gear-wheel upon that end of the shaft opposite the type-roller. (Shown at P, Fig. 5.) The wheel M has a vacancy in its series of cogs by about five, as shown at *b*, Fig. 3. Upon the inner face of the wheel M is a horizontal stud, *c*, located just forward of the space *b* in said wheel, and radially therefrom is a short arm, *d*, which, in the rotation of the wheel M, forms contact with the eccentric G, and stops the rotation of the wheel M, and with it the printing-roller P. *e* is a cam upon the wheel M, and attached thereto. N is a compound lever, which operates two deliverers, N′, arranged one on each side of the printing-rollers for throwing the letters out of the machine at the instant the stamping and canceling process is completed. The cam *e* depresses the end of the compound lever, which gives a sudden horizontal motion to the deliverers, throwing out the letter, and the cam *f* as suddenly returns the deliverers to their normal position, where they remain at rest until the cam *e* again acts on the levers. The gear-wheel E has a sufficient number of teeth removed to allow the free rotation of the wheel D, when the printing-roller is locked by the contact of the stud H with the shoulder *a* in the lever K. Beneath the journal-box of the master-wheel C′ is placed a spring, *g*, to avoid any possible damage that might occur from the interference of the cogs of the wheels C′ and M, when brought into gear by the contact of the arm I with the stud *c*.

The journal-boxes of the wheels E and D are divided, as seen at *h*, and beneath the box of D is a spring, *i*, which supports said boxes, by means of which any interference of cogs is avoided, and the printing of letters of varying thickness allowed.

The compound levers for the discharge of

letters may be duplicated—that is, one set upon each side of the machine, as shown in Fig. 1.

The type-roller is cut away upon the side opposite to the type, so as to give free space for the introduction and discharge of letters.

The operation of the machine is as follows: Suppose the wheels C, C′, and D to be in constant motion, as represented in the drawing; the wheel E, with the pressure-roller F′, are locked by the contact of the pin H with the shoulder *a* of the lever K. The wheel C′ carries the wheel M forward in the direction of the arrow until the space *b* is reached, and simultaneous contact of arm *d* with pin G, brings it to a state of rest, the master-wheels C and C′ and the intermediate wheel D continuing in motion. Now, by inserting a letter into the open space between the pressure-roller F′ and the printing-roller P, the pin J is pushed forward by the act, giving the pressure-roller F′ one-quarter of a revolution before the type-roller P begins to move, thus giving time for the adjustment of the stamp (on any part of the envelope) for cancellation, and thus engaging the cog *h′* with the cogs of the wheel D, (the lever K having been raised by the stud *c* from contact with pin H.) The arm I in its rotation strikes the stud *c*, and throws the wheel M forward so as to engage the cog *i′* with the cogs of the master-wheel C′.

A single revolution of the printing-cylinder brings the open spaces in the wheels E and M into proper relations for the insertion of another letter.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The pressure-roller F′ and its shaft F, provided with the mutilated gear E, and the stud H, in combination with the pivoted lever K, to arrest the revolution of said roller, substantially as described.

2. The stud *c* and arm *d* on the mutilated gear M, in combination with arm I and pin G, attached to the shaft F, to stop and set in motion said mutilated gear M, substantially as set forth.

3. The mutilated gear E on the pressure-roller shaft F, combined, by mechanism substantially as described, with the mutilated gear M on the type-roller shaft L, to allow the gears E and M to remain at rest at each revolution, as and for the purpose specified.

4. The spring *i*, in combination with the journal-boxes of the mutilated gear-wheel E, of the pressure-roller F′, and of the driving-gear D, to allow the gears D and E to separate at each revolution, if necessary, and to admit various thickness of papers between the pressure-roller and type-roller, as specified.

5. The pin J, attached to the pressure-roller F′, in combination with the mutilated gear E, and the gears D and C, to advance said mutilated gear before motion is transmitted to the type-roller, as and for the purpose specified.

6. The cams *e f*, in combination with the double compound levers N N, and the deliverers N′, arranged on either side of the printing-rollers, as and for the purpose specified.

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