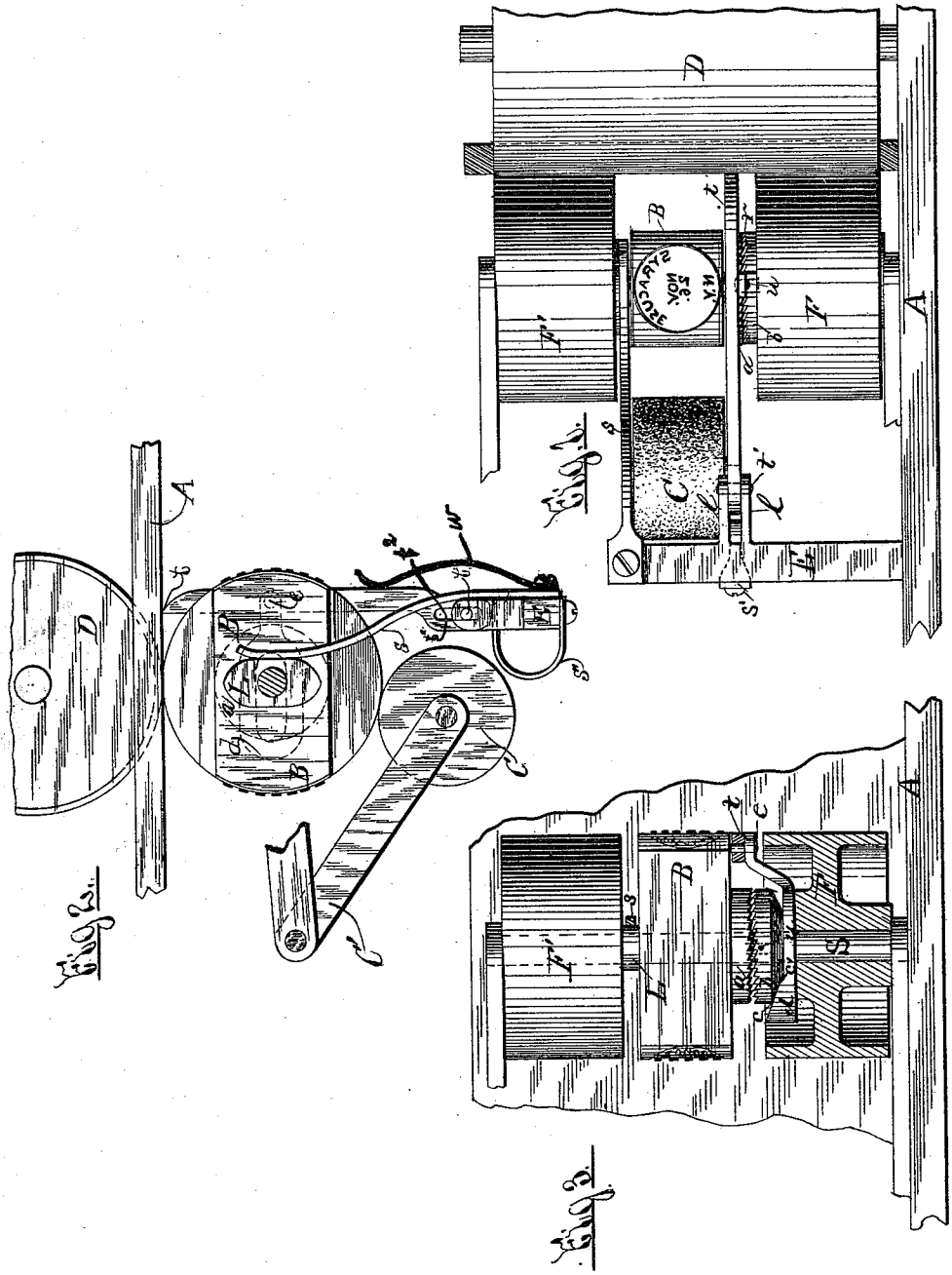
(No Model.) 2 Sheets—Sheet 1.

G. W. HEY.

STAMP CANCELING AND POSTMARKING MACHINE.

No. 408,411. Patented Aug. 6, 1889.



WITNESSES:
A. E. Parsons
H. E. Chase

INVENTOR
George W. Hey.
BY Hey & Gibbs
ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

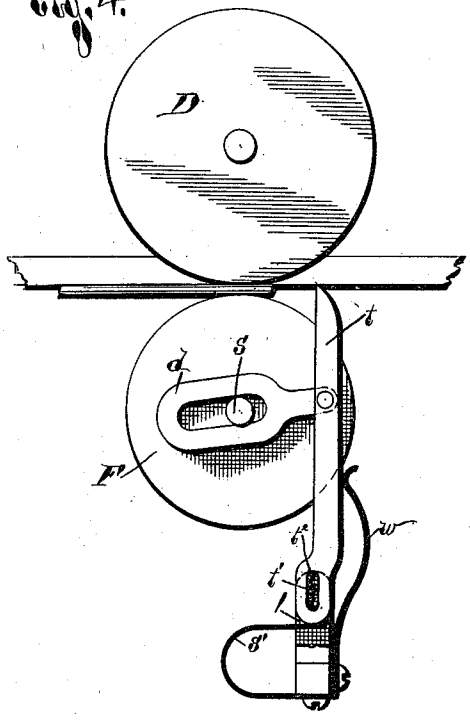
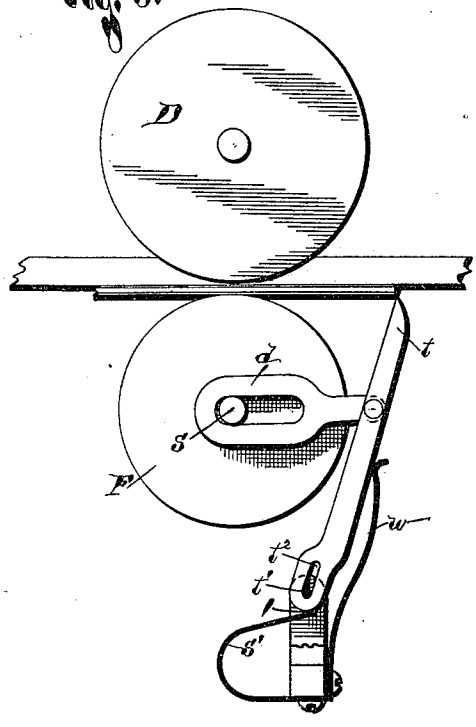


Fig. 5.



Witnesses.
H. E. Parsons
H. C. McAuthur

Inventor.
Geo. W. Hey
by Hey & Gibbs

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. HEY, OF SYRACUSE, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE INTERNATIONAL POSTAL SUPPLY COMPANY OF NEW YORK.

STAMP-CANCELING AND POSTMARKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 408,411, dated August 6, 1889.

Application filed April 14, 1887. Serial No. 234,835. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HEY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Stamp-Canceling and Postmarking Machines, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in automatic letter-marking machinery; and it consists, essentially, in an automatic letter-marking mechanism comprising a type-carrying roller normally at rest, a continuously-revolving roller detachably connected to the type-carrying roller, both being mounted on a common shaft, and a stamp-trigger connected by intermediate mechanism with the marking-roller and adapted to be actuated by contact with the letter, fed over the letter-supporting bed to the mechanism, and bringing the marking-roller into action, as more particularly described hereinafter.

It also consists in the detail construction and arrangement of the parts, all as hereinafter more fully described, and pointed out in the claims.

In specifying my invention reference is had to the accompanying drawings, like letters of reference indicating corresponding parts in all the figures, in which—

Figure 1 is an end view of my improved letter-marking mechanism, illustrating the general arrangement of the parts. Fig. 2 shows a top plan of the same, illustrating the normal position of the marking-roller and stamp-trigger, and Fig. 3 shows a view of the marking-roller and feed-rollers mounted on the same shaft, one of the continuously-revolving feed-rollers being in section for the purpose of better illustrating the construction and arrangement of the clutch and intermediate mechanism for bringing the marking-roller into action. Figs. 4 and 5 are detail views illustrating the action of the letter upon the trigger and the motion of the latter in returning to its normal position after the printing-die is started and before the letter has fully passed.

A is the letter-supporting bed, which may be constructed in any suitable manner.

B is the marking-roller, which is loosely mounted on a shaft S, Fig. 3, journaled in bearings in the letter-supporting bed A. The object in loosely mounting this marking-roller B will be presently explained.

F F′ are rollers secured to the shaft S, so as to turn with the shaft, while the marking-roller B is normally at rest. These rollers F F′ are employed for the purpose of carrying feed-belts, or serving to feed the letters past the pressure-roller D, Figs. 1 and 2, and either one or two such rollers may be employed.

In this example of my invention I have illustrated two rollers mounted upon the same shaft with the marking-roller, as stated.

In order to detachably connect the marking-roller with one of the continuously-revolving rollers, so as to bring the marking-roller into action, I provide the following means, viz: On the marking-roller B, I attach rigidly a clutch-disk *a*, provided with teeth *r*, which interlock with similar teeth formed on a movable clutch *b*, pinned to the shaft S by a pin *u*, which enters a slot (indicated by the dotted lines in Figs. 1 and 3) in the shaft, allowing the clutch *b* to have a vertical movement on the shaft sufficient to engage and disengage with the clutch-disk *a*, secured to the marking-roller B. The movable clutch *b* has an inclined or conical portion *c′*, against which bears the link *d*, Fig. 3, provided with the wedge-shaped surface *c*, and this link *d* serves to push up the clutch *b* into engagement with the clutch-disk *a* by contact of the letter with the stamp-trigger in the following manner: The link *d* is pivoted to the stamp-trigger *t* at *e*, as best shown at Figs. 2 and 3, and the stamp-trigger *t* is journaled yieldingly between the lugs *l l* of the standard E, Fig. 1, by means of the pin *t′*, which passes through the slot t^2 in the stamp-trigger *t*. A spring *s′*, Figs. 1 and 2, secured to the standard E, bears at its free end on top of the trigger *t* between the lugs *l l* and serves to hold this trigger yieldingly in contact with the letter-supporting bed A, as best seen in Fig. 2. A second spring *w*, also secured to the stand-

ard, bears against the back of the trigger and serves to return it to place after being pushed aside by a letter in its passage.

It will be observed that as the letters are fed over the supporting-bed the ends thereof collide with the stamp-trigger *t*, which obstructs their passage. Such collision moves the stamp-trigger forward, carrying with it the link *d*. This movement of the link *d* causes the clutch *b* to move up on the shaft S into engagement with the clutch-disk *a*, and the interlocking of the clutch-sections or clutch-disks brings the marking-roller B into action and impresses the mark thereof onto the letter as it passes between the marking-roller and the pressure-roller D. When the impression has been made, the trigger returns to its normal position and releases the clutch from the die or marking roller, in order to allow the latter to be stopped at a particular point, as presently explained. In accomplishing this it will be noted that the action of the trigger is as follows: When a letter passes in between the rollers, as in Fig. 4, and forces the yieldingly-journaled roller back to the thickness of the letter, the trigger is not drawn back, but is held out in the letter-path by reason of its slotted connection with the standard or frame and the action of the spring *s'* behind it. The letter passes on, engages the trigger, and pushes it forward till it has reached the forward extreme of its movement, as in Fig. 5. This movement of the trigger draws with it the wedge-link to which it is connected and forces the clutch members into engagement, so that the marking-die is revolved and properly marks the letter in its passage. When the limit of motion of the trigger is reached, the end of the letter forces its way past the point of the trigger and pushes the latter back the thickness of the letter, so that its point lies against the face of the passing letter. At this point, and before the letter is fully passed, the influence of the return-spring *w* is felt, this spring pressing the end of the trigger back to its normal location, and this movement is possible by reason of the slotted connection of the trigger, which permits it to slide back against the spring *s'* as it is swung to place. This motion also frees the clutch to permit the marking-die to be stopped at its proper point. All this will fully appear by reference to Figs. 4 and 5, which clearly illustrate the action described.

In order to define the impression—that is, to secure an even and perfect registry of the type-die formed on the marking-roller—it is necessary to have a starting and stopping point accurately defined.

When the marking-roller is brought into action by the engagement of the clutch, as described, the impression commences; hence if the marking-roller is stopped at the end of the impression the result will be an accurate registry of the type, and this result I secure by securing to the shaft S the cam L, Figs. 2 and 3, and provide the flat spring *s*, Figs. 1 and 2, which bears with its free end against the broad surface of the cam L, this spring *s* and cam L forming a stop device for the marking-die, as will be understood.

It will be observed that when the letter causes the clutches to engage, the continuously-revolving roller F brings the marking-roller into action, and the positive movement of the marking-roller B, while thus engaged, causes the cam L to turn in contact with the spring *s;* but when the letter passes under the stamp-trigger *t* the clutches disengage as the stamp-trigger springs back to its normal position and rides on the letter, and the clutch *b* drops out of engagement by gravity as the link *d* resumes its normal position, and the spring *s* simply stops the momentum of the marking-roller, and thus defines the impression on the letter.

It will be observed that I utilize a half-revolution of the marking-roller to register an impression of the die; hence it is desirable to use two dies arranged oppositely on the marking-roller, and to so arrange the cam L in relation thereto as is best illustrated in top plan view, Fig. 2, which for the purpose of illustrating this arrangement has the upper roller F' removed, the shaft being in section. The dies on the marking-roller are supplied with ink from an inking-roller C, Figs. 1 and 2, mounted in the yoke-frame C', Fig. 2. It will also be observed, owing to the fact that the marking-roller is normally at rest, that the letter is marked without stopping the same by simply bringing the marking-roller into action as the letter comes up to the stamp-trigger in the manner described. It will also be apparent that the marking-roller B can be provided with a series of stripes to cancel the stamps, and also with the postmarking-die illustrated in this example of my invention.

The operation of my invention will be readily understood from the foregoing.

The letters are fed over the letter-supporting bed either by belts on the rollers F F' and on the pressure-roller D or the pressure-roller D may be rubber-faced and the letter fed directly to the stamp-trigger by the rollers F F' and pressure-roller D. When the letter collides with the stamp-trigger *t*, the marking-roller is brought into action, as described, and upon making a half-revolution is stopped by the spring *s* bearing against the cam L.

It will be evident that, if desirable, only one die may be supplied to the marking-roller and a full revolution of this marking-roller made at each impression.

Too great stress cannot be laid upon the fact that the stopping of the marking-roller is positive and occurs exactly at the point from which the next start must be made to properly register with and mark the next letter as it passes, and that the starting, the ex-

tent of motion, and the stoppage of the marking-roller are all under perfect automatic control.

I do not restrict myself to the specific construction of the clutch mechanism herein shown and described, since any form of clutch may be substituted so long as the clutch mechanism is used in connection with a marking-roller and a feed-roller mounted on a common shaft and a stamp-trigger in the letter-path connected with the clutch by intermediate mechanism to bring the marking-roller into action when a letter fed over a letter-supporting bed collides with the stamp-trigger.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a marking-roller normally at rest, a continuously-revolving roller mounted on the marking-roller shaft, a clutch between the two rollers, and a trigger in the letter-path connected to the clutch and actuated by letters fed over the letter-supporting bed, substantially as and for the purpose set forth.

2. The combination of the marking-roller with the revolving roller, both mounted on a common shaft, a clutch for connecting the two rollers, and a trigger for operating the clutch, substantially as and for the purpose set forth.

3. The combination, with a marking-roller and a revolving roller, both mounted on a common shaft and detachably connected together, of a stop for stopping the marking-roller after it has registered, substantially as and for the purpose set forth.

4. The combination, with a marking-roller and a feed-roller both mounted on a common shaft, of a clutch for connecting the two rollers, a trigger for operating the clutch, and a stop for stopping the marking-roller, substantially as and for the purpose set forth.

5. The combination, with an intermittently-revolving marking-roller, a trigger projecting into the letter-path, and a connection, substantially such as described, between the trigger and roller for starting the latter, of a stop for engaging and holding said roller at the proper point for registry with the next letter, substantially as and for the purpose set forth.

6. The herein-described trigger, consisting of the pivoted adjustable lever extending into the letter-path, provided with springs for resetting it to its normal position after the letters have passed its end, said trigger through a suitable connection, substantially as described, transmitting motion from the letters to the marking-roller, substantially as and for the purpose set forth.

7. The combination, with the rollers F F′, mounted on the same shaft S, and the pressure-roller against which they rotate, of the marking-roller B, normally at rest, and means, substantially as described, for bringing the marking-roller B into action when the letter in transit encounters the trigger, and the trigger *t*, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 2d day of April, 1887.

GEORGE W. HEY.

Witnesses:
FREDERICK H. GIBBS,
E. C. CANNON.