No. 645,711. Patented Mar. 20, 1900.

F. C. OSBORN.

LETTER CANCELING MACHINE.

(No Model.) Application filed Feb. 5, 1900. 2 Sheets—Sheet 1

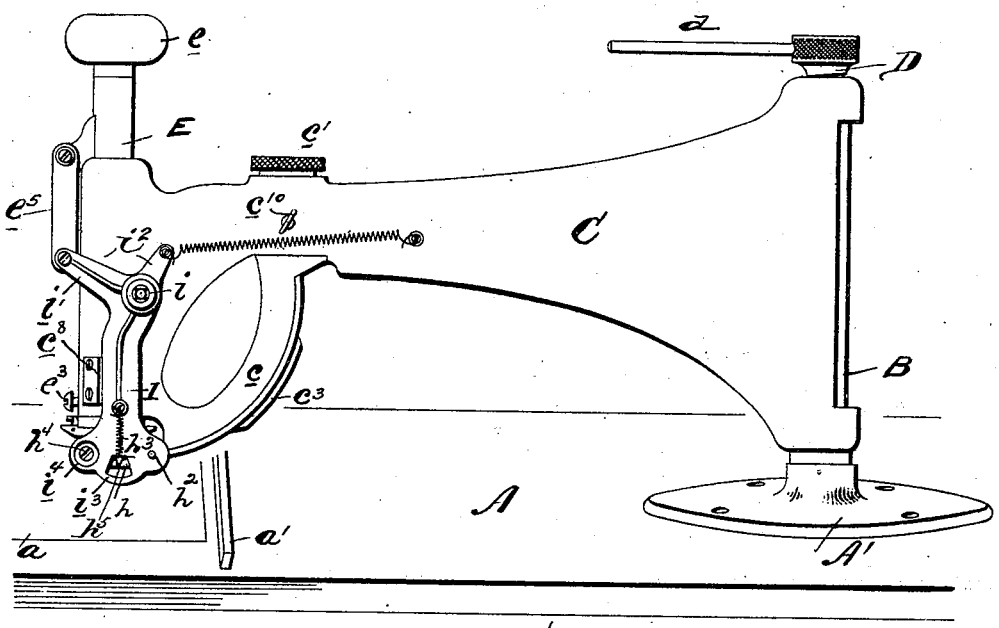

Fig. 1.

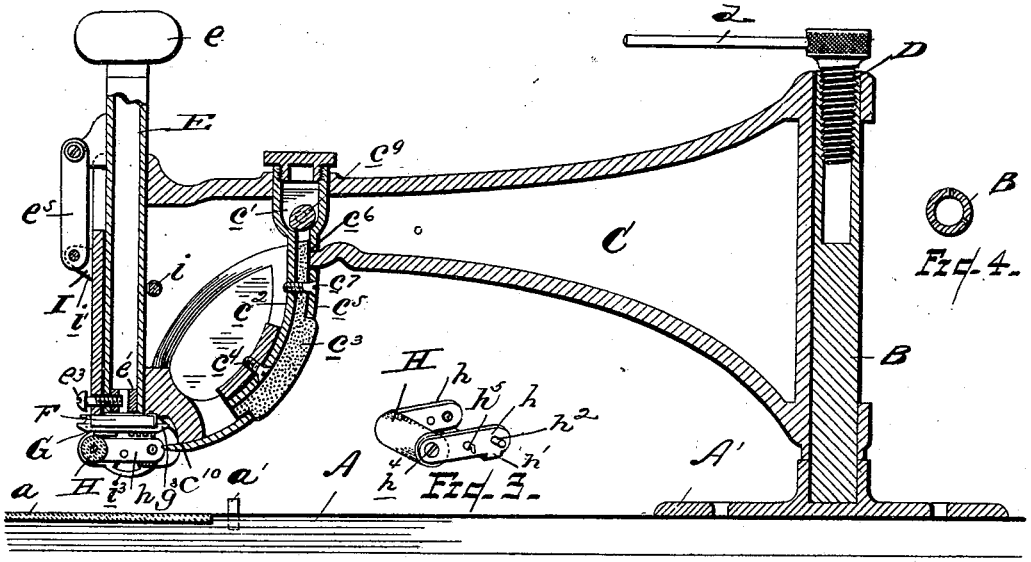

Fig. 2.

Fig. 3.

Fig. 4.

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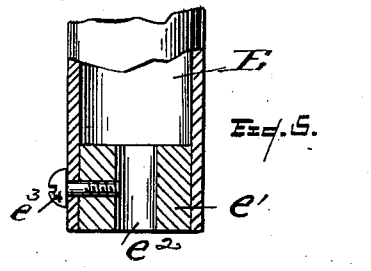


Fig. 5.

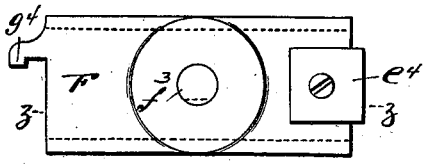
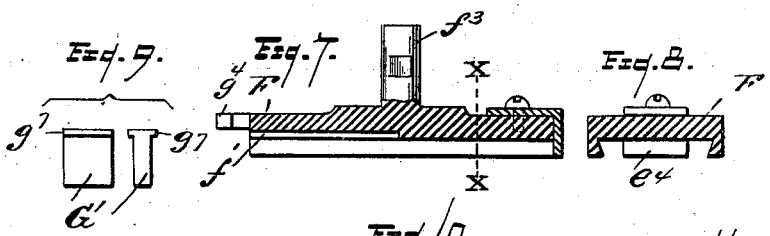
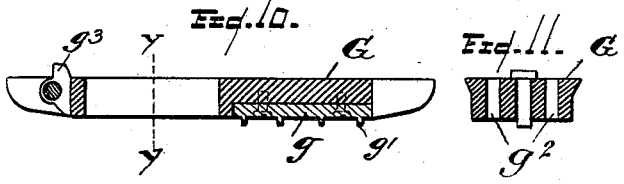
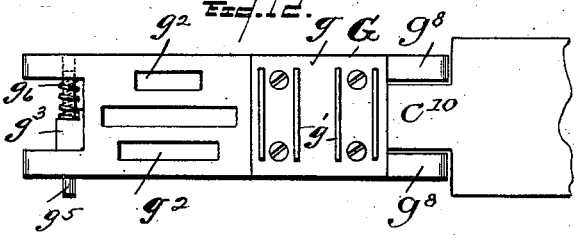


Fig. 6.







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UNITED STATES PATENT OFFICE.

FRANCIS C. OSBORN, OF DETROIT, MICHIGAN, ASSIGNOR TO THE PERFECTION HAND STAMP COMPANY, OF SAME PLACE.

LETTER-CANCELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 645,711, dated March 20, 1900.

Application filed February 5, 1900. Serial No. 4,067. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS C. OSBORN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Letter-Canceling Machines; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in hand canceling-machines for use in post-offices and is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail showing the inking-roll. Fig. 4 is a horizontal section of the expanding standard. Fig. 5 is a sectional view of the lower end of the plunger. Fig. 6 is a plan view of the plunger-head. Fig. 7 is a sectional view of the head from line $z\,z$, Fig. 6. Fig. 8 is a cross-section of the head on line $x\,x$ of Fig. 7. Fig. 9 represents a side and end elevation of the type used in the device. Fig. 10 is a longitudinal section of the canceling-die frame. Fig. 11 is a cross-section of the die on line $y\,y$ of Fig. 10, and Fig. 12 is a bottom view of the canceling-die frame without the removable dating-type, showing part of the frame.

In the drawings, A represents the bed of the machine, made, preferably, of wood, upon and to which is attached the round iron base A′. In this iron base is rigidly supported the standard B, which is made expanding at the upper end by boring and splitting.

C is an arm forming the main frame of the machine, sleeved or pivoted at one end upon the standard B.

D is a tapering screw arranged to be run into the upper and split end of the standard to expand and set it in the sleeve of the arm C to fix the arm against rotation. When the screw D is loosened, the arm can be freely rotated around the standard. This construction provides for swinging the stamp to different positions on the stand for any purpose desired.

d is a hand-lever for operating the screw D.

In the outer end of the arm C is mounted the hollow plunger E. This plunger is provided at the upper end with the knob e and at the lower end with the plug e', in the center of which is an opening e^2 to receive the stem f^3 of the head F. When once assembled, the plunger and head remain fixed together and are held so by the screw e^3. The head F is milled out on the under side with a dovetail, as shown in Fig. 8.

G is the die-frame and is provided with beveled edges to fit the dovetail channel in the under side of the head F, with which it is assembled by entering it from one end through the head and against the stop e^4.

g is a removable plate forming a part of the die G, on which are canceling-bars $g'\,g'$. When the canceling-bars are worn, the plate is replaced by a new one.

$g^2\,g^2$ are openings through the die in which the type G′ G′ are supported. The type are provided with shoulders g^7 to keep them from dropping through. To provide space for the head of the type, the head F is milled out at f'. The die-frame is held in the head by means of the lock g^3 and the locking-lug g^4. The lock g^3 is attached to the cross-pin g^5 and is held normally in position to lock with the lug g^4 by the spring g^6.

To remove the frame from the head, the end of the frame is taken between the thumb and finger, with the pin pressed in against the action of the spring, when the frame can be drawn out, as the lock will be then free from the lug. To change the type for the date or hour, the die is removed from the head and the type lifted out and changed. When the frame is returned, the type are held firmly in place by the locking of the head of the type between the die and the head of the plunger.

The inking mechanism consists of the traveling ink-roller H, mounted in a frame consisting of the ends $h\,h$ and the cross-bar h'. This frame is pivoted on the trunnions h^2 between swinging frames I, which are pivoted to the opposite sides of the head at i. The frame carrying the ink-roller swings freely between the lower ends of the frames I, and to provide for conveniently removing the roll I provide an opening i^4 through the ends of the swinging frames, through which the shaft h^4, on which the roll is mounted, can be unscrewed and removed.

c is a portion of the arm C, formed on the

arc of a circle to correspond with the arc of the travel of the ink-roller.

c' is an ink-well having a flat arc-shaped extension c^2 open at the back to receive the ink-pad c^3. The extension c^2 is fastened to the arm by the screw c^4.

c^5 is a removable section of the wall, which is put on after the ink-pad is placed and serves both to hold the pad in place and to regulate the flow of ink through the neck c^6 by increasing or decreasing the pressure of the plate on the pad in the neck by means of the screw c^7. The swinging frames I are operated from and by the plunger E through the arms i' on the frames and the link e^5. As the plunger is pushed down the link forces the arm i of the frame down, causing the lower end of the frame to carry the ink-roller over the ink-pad. At the same time the stamp is forced down upon the letter or package to be marked or canceled. The parts are brought back to their normal position by the spring between the arm i^2 and the frame. The ink-roller is given the proper pressure on the type and ink-pad by the spring h^3, which is engaged at one end to the swinging frame and at the opposite end to the hooks h^5 on the roller-frame. To prevent the ink-roll from jumping on the quick action of the stamp, I provide the bar i^3 to limit its downward movement.

In the bed of the machine is fixed the pad a, on which the mail rests while being stamped. This yielding support brings the surface to be stamped into contact with the die throughout its whole surface. a' is a guide for the letters at the back.

To arrange for the smooth running of the ink-roll to and from the ink-pad, I so construct and place the die G and the end c^{10} of the ink-pad support that they will break joints as the die passes down by the support. To accomplish this, the die is bifurcated, the two arms $g^8\,g^8$ being arranged to pass up and down on the opposite sides of the end c^{10}. The movement of the parts is so timed that when the ink-roll is about to pass off from the body of the die onto the arms $g^8\,g^8$ the arms and end c^{10} are in approximately the same plane, and the roll consequently passes from the die to the end c^{10} without jar or resistance.

C^9 is a valve for regulating the flow of ink from the well, as well as to close off the flow entirely when the machine is not in use.

What I claim is—

1. In a canceling-stamp, the standard the swinging arm pivoted on the standard, the plunger arranged to move up and down in a way in the free end of the arm, swinging frames I pivoted on the free end of the arm, a link connecting the plunger and the swinging frames above their pivots, and an ink-roll mounted in the lower end of the frames I, substantially as described.

2. The plunger-head and die having a dove-tail connection, the cross-pin, the spring and the locking-lug, substantially as described.

3. In a canceling-stamp, the combination of the standard B, the arm C, pivoted on the standard, the hand-plunger E, mounted and arranged to move in a way in the free end of the arm C, the swinging frames I, pivoted to the arm C, and provided with the arm i' the link e^5, the ink-roll mounted between the swinging frames, the ink-pad c^3, and means for inking the pad, substantially as described.

4. In a canceling-stamp, the swinging arm pivoted on the vertical standard, the plunger and die the traveling ink-roll operated by and from the plunger, the ink-well in the arm and the ink-pad, substantially as described.

5. The arm, the plunger and die, the traveling ink-roll operated by and from the plunger, the ink-well entered in the arm and having an arc-shaped neck over which the roll travels and the pad located in the neck, substantially as described.

6. The arm, the plunger and die, the traveling ink-roll operated by and from the plunger, the ink-well having the arc-shaped neck, the pad located in the neck and the pressure-plate arranged to regulate the flow of ink, substantially as described.

7. In a canceling-stamp, the combination of the plunger, the swinging frames I, the ink-rolls, the frame carrying the ink-roll mounted between the swinging frames, and the removable shaft for the ink-roll, substantially as described.

8. In a canceling-stamp, the arm the expanding standard and the tapering screw, substantially as described.

9. In a canceling-stamp, the plunger, the swinging frames provided with the openings i^4, the ink-rolls, the frame carrying the ink-roller mounted on trunnions between the swinging frames and the removable shaft for the ink-roll, substantially as described.

10. In a canceling-stamp, the supporting-frame, the vertically-movable plunger mounted in the frame, the die, the swinging frames I mounted on the frame and operated by and from the plunger, the frame for the ink-roll provided with trunnions h^2 on which the frame is pivoted at the rear edges of the frame I, the ink-roll mounted in the forward end of the ink-roll frame, the ink-pad, a spring to hold the ink-roll against the die and pad, and the hooks h^5 extending through an opening in the frames I to limit the vertical swing of the ink-roll frame, substantially as described.

11. In a canceling-stamp, the combination of the traveling ink-roll, the die and the frame, said die and frame so interlocked as to break joints whereby the roll will run smoothly from one to the other, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FRANCIS C. OSBORN.

Witnesses:
F. E. THOMAS,
FRANK DUWE.