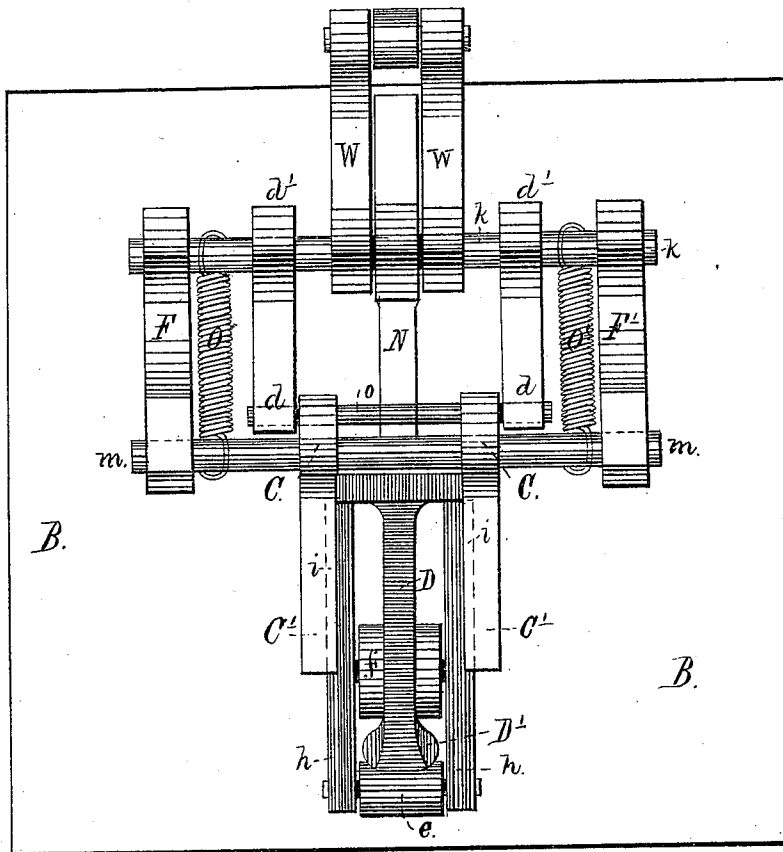


W. LIVINGSTONE
STAMP CANCELING MACHINE.

No. 174,734.

Patented March 14, 1876.

Fig 1.



Witnesses,
Lewis Wilkinson
Jno. H. Manning

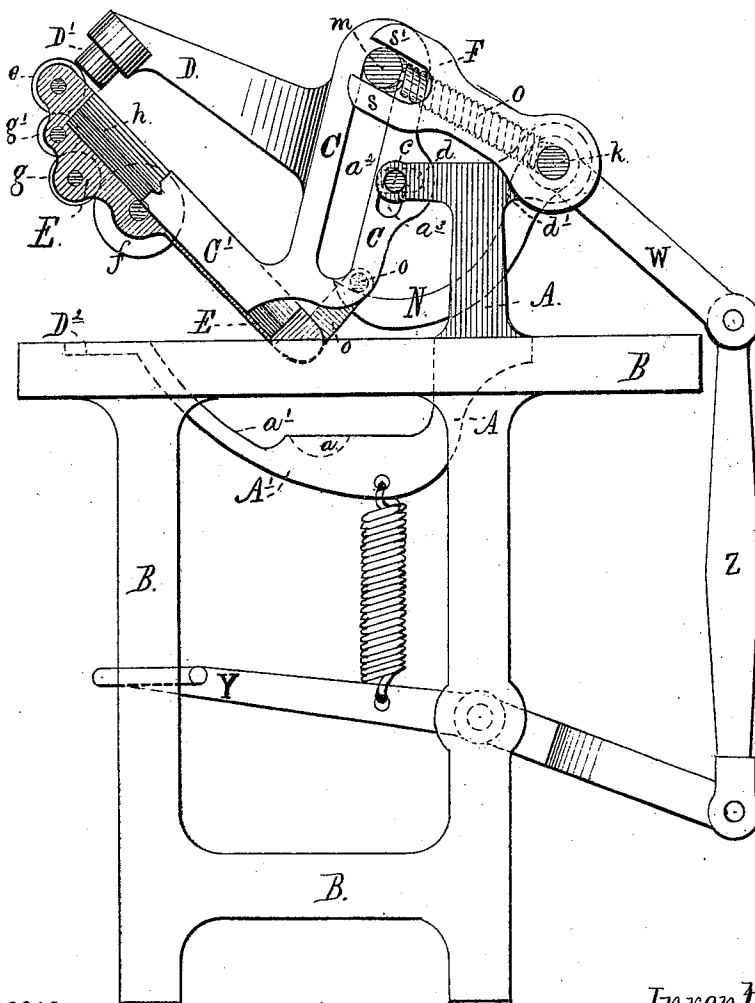
Inventor,
William Livingstone
By O. L. Thompson,
Attorney.

W. LIVINGSTONE
STAMP CANCELING MACHINE.

No. 174,734.

Patented March 14, 1876.

Fig 2.



Witnesses;

Lewis Wilkinson
John Manning

Inventor;

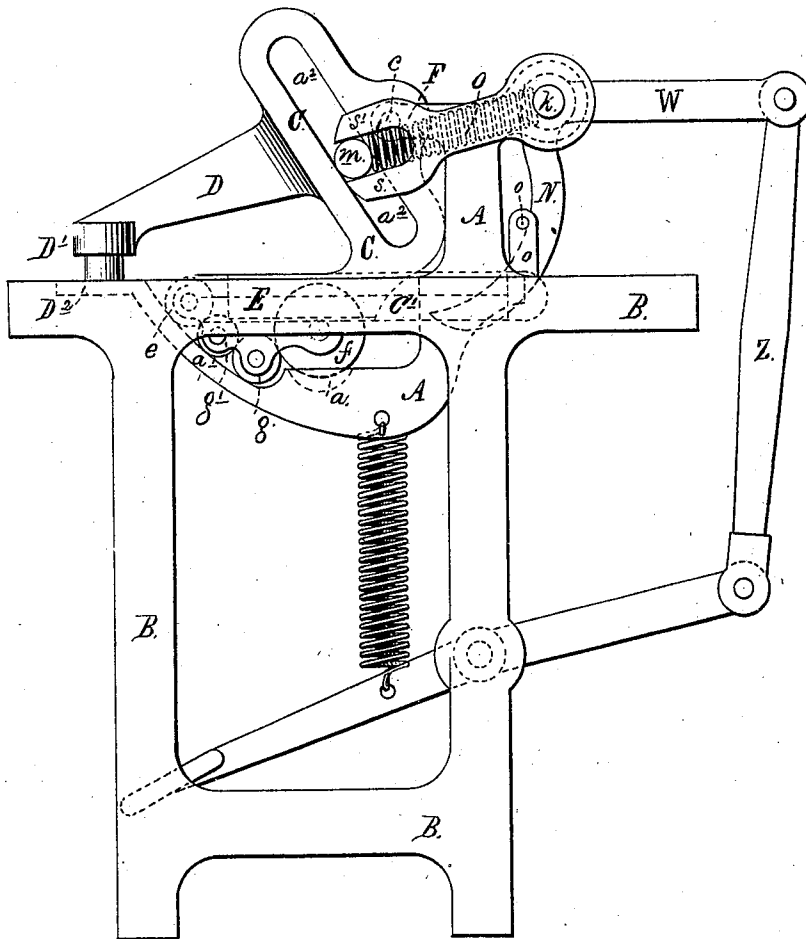
William Livingstone
By *A. L. Gordon*
Attorney.

W. LIVINGSTONE
STAMP CANCELING MACHINE.

No. 174,734.

Patented March 14, 1876.

Fig 3.



Witnesses:
Lewis H. Kneass
Geo. H. Manning

Inventor:
William Livingstone
By A. L. Kneass

UNITED STATES PATENT OFFICE.

WILLIAM LIVINGSTONE, OF NALLEY STREAM, ASSIGNOR TO UNITED STATES POSTAL STAMP MACHINE COMPANY, OF NEW YORK, N. Y.

IMPROVEMENT IN STAMP-CANCELING MACHINES.

Specification forming part of Letters Patent No. **174,734**, dated March 14, 1876; application filed November 20, 1875.

To all whom it may concern:

Be it known that I, WILLIAM LIVINGSTONE, of Nalley Stream, Queens county, and State of New York, have invented certain new and useful Improvements in Stamp Canceling and Printing Machines, which improvement is fully set forth in the following specification:

This invention relates to that class of machines designed for the purpose of stamping letters with the name of post-office, dates, &c., and at the same time defacing the stamps thereon; and it consists in certain novel arrangements of parts, the application, construction, and operation of which will be herein fully pointed out and described.

In the drawings, which form an essential part of this specification, Figure 1 is an end elevation of a machine in which is fully embodied my invention, showing the operating parts in their normal position ready for stamping. Fig. 2 is a plan view of the same; and Fig. 3 is also an end view, showing the operating parts when giving the impression.

Similar letters of reference used in the various figures of the drawings will indicate corresponding parts.

Many endeavors have been made from time to time to produce a machine which shall perform the twofold duty of canceling the stamps upon letters, circulars, &c., effecting the complete cancellation thereof, and at the same time imprinting upon the letter the name, dates, &c., as is done by the usual post-office hand-stamps. Such machines have proved cumbersome, and, owing to complication of parts, practically useless for the purpose designed.

In order to fully and practically prove successful, such a machine must be rapid in execution, adjust itself instantly to any increase or decrease in the thickness of the letters to be stamped, and be adapted for operation by power as well as by hand or foot.

In the present invention I have aimed to produce such a machine, and constructed in such manner as to obviate all the difficulties heretofore met with; and it consists in a compensating arrangement of mechanism producing by their combined action a quick and sharp motion for the stamping or printing

and canceling devices, (imitating to some extent the present hand-stamping operation,) instead of using a direct and even pressure of the stamping-surface upon a platen, as in the usual process of printing. This enables me to stamp upon letters or papers of any thickness, the operative arrangements being so applied that the stamp adjusts itself for that purpose.

Another part of my invention consists in the peculiar arrangement of a self-acting inking apparatus, which operates in unison with the stamping devices.

A is the frame of the machine, to which is affixed the various operating parts. It is attached to a table, B, or other suitable stand, and on its lower end is provided with a recess, in which is placed an ink-fountain, *a*. This lower end A' also forms a circular table, *a'*, upon which the ink-rollers ride, as will be hereinafter fully described. C C is a bifurcated rocking carriage, provided with slots *a*² and *a*³, and swinging from a center or fulcrum formed by the shaft *c*, which is mounted in bearings in the arms *d d* of the frame A, and passes through slot *a*³. Projecting from the face, near the apex of this carriage C, is an arm, D, which at its forward end carries the stamp canceling and printing devices D'. At the base of the rocking carriage C are two projecting arms or guides, C' C', on the inner side of which are formed suitable V-shaped grooves or guides, in which the inking-carriage E reciprocates. This inking-carriage is provided with inking-roll *e*, take-up roll *f*, and distributing-rolls *g* and *g'*, all of the usual construction and operation, as in printing-presses. This inking-carriage is shaped on the outside of the frame to form bearings *h*, which fit into the V or other suitably shaped grooves or slides *i* formed in the arm C' of the rocking carriage, and in which the inking-carriage reciprocates. This latter operation is performed at the stated time by means of a lever, N, attached to shaft *k*, said lever at its forward end being connected with and operating under a small shaft fixed in the upper end of two short arms, *o o'*, projecting from the base of the inking-carriage E.

F and F' are two levers or arms attached

to the shaft k , which is mounted in bearings in the arms d' , projecting to the rear and from frame A. The forward ends of these arms are slotted or forked-shaped, the two forked arms s and s' encircling a shaft, m , which also passes through the slots a^2 formed in the rocking carriage C, and it is moved up and down therein by means of action imparted to and by the levers F and F'. These levers or arms are operated by motion imparted to treadle Y, connecting-rod Z, and levers W, which are rigidly attached to the shaft k .

O and O' are two spiral springs, which control and give power and motion to the rocking carriage and its projecting arm D, for striking the blow giving the impression. Motion being imparted to the lever W by means of the treadle and connecting-lever, the shaft k is turned in the bearings, giving the forked arms F and F' a downward motion, carrying with them the shaft m in the slot a^2 of the rocking carriage C. At the same time the lever N, also attached to the shaft k , retreats, drawing the inking-carriage E down in the slides i i formed in the arms C' C', until the inking-roller e is below and clear from the stamping devices D¹. During the retraction of the inking-carriage the arms F and F' continue to move, carrying the shaft m down in the slots a^2 until it passes the center of and below the shaft-bearings c c . The springs O O' at this point are extended to a sufficient tension so that, when the shaft m has passed the shaft centers c , they at once instantly retract, causing the rocking carriage C to swing quickly on its shaft-bearings c , (the shaft m retreating in between the forked arms s s' of the levers F and F'), and the arm D to fall until the stamping device impinges on the letter which is to be stamped, which rests on the platen D². The rocking carriage C, at its fulcrum-point e , may be provided with a slot, a^3 , in order to permit its center of motion to change position, in order that the stamping devices may always strike perfectly true, the fulcrum center changing its position according as the letter to be stamped varies in thickness. The swinging movement of the rocking carriage C carries it and the inking-carriage into the position as shown in Fig. 3, the ink-take-up roll f reaching into the ink-fountain a , taking up a supply of ink in the usual manner. In this latter part of the motion of carriage C the ink-rollers will ride on the circular table (see Fig. 3) a^1 , which action will aid in the equal distribution of the ink upon their surfaces, and remove any surplus that may have been taken up.

It is plainly obvious that the described arrangement for actuating the rocking carriage C is compensating, and adjusts the blow given by the arm D and stamping devices D¹ according to circumstances—that is, if a thin letter is placed beneath the stamp it will receive a full impression, and if a thick letter or a paper is to be stamped the strength of the blow is the same, although the motion of the rocking carriage is shortened and ceases at the moment the blow is given in both cases. The return of the rocking carriage C and other operating parts to their original or normal position is caused by the reverse movement of the levers, &c., the ink-carriage E and rocking carriage C returning in unison, the action of the shaft m in the slot a^2 and the lever N commencing together, the carriage C finishing its movement first, the movement of the inking-carriage continuing until the ink-roll e has passed across the face of the stamping devices, inking them for another impression.

It is obvious that the lever W can also be operated by means of a crank or cam, which may be driven by power, or by any of the well-known mechanical movements used in conveying an intermittent movement to a lever, or the motion may be continuous.

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

1. The swinging and reciprocating carriage C, provided with slots a^2 and a^3 , arm D carrying stamping devices D¹, and arms C' at its base carrying inking-carriage, and operating from a compensating-fulcrum, as and for the purposes as herein shown and set forth.

2. The reciprocating ink-carriage E, provided with one or more ink-rolls, in combination with the rocking carriage C, and the operating-lever N, arranged and operating substantially as and for the purposes as herein shown and set forth.

3. The combination of the compensating swinging rocking carriage C, inking-carriage E, shaft m , forked operating-levers F and F', and actuating-springs O and O', arranged and operating substantially as and for the purposes as herein shown and set forth.

In testimony whereof I have hereunto set my hand this 30th day of October, A. D. 1875.

WILLIAM LIVINGSTONE.

In presence of—

A. S. MUNSON,
E. G. WARD.