

# GEO. A. DAVISON.

## Addressing Machine.

116567

PATENTED JUL 4 1871

FIG. 1.

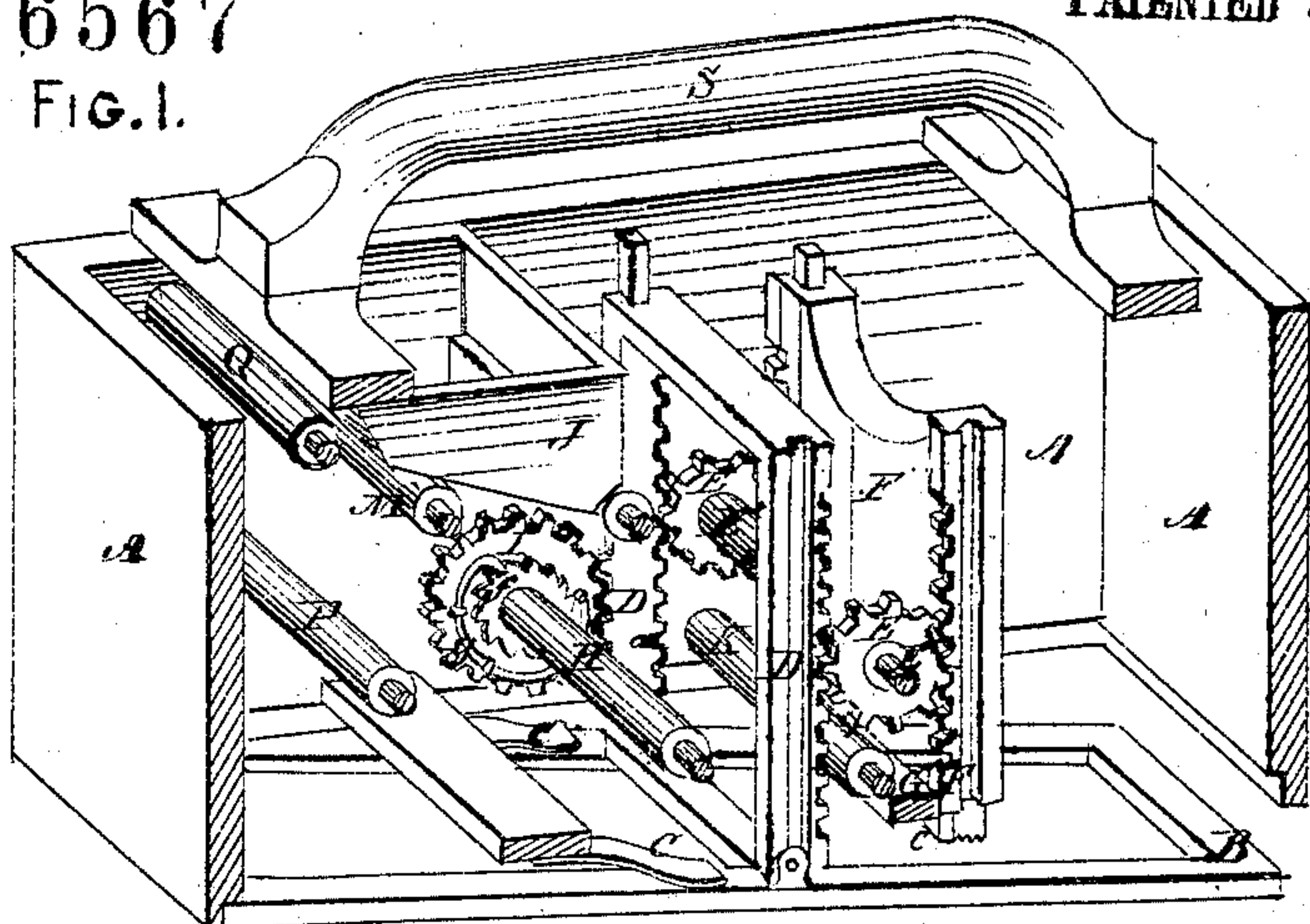


FIG. 2.

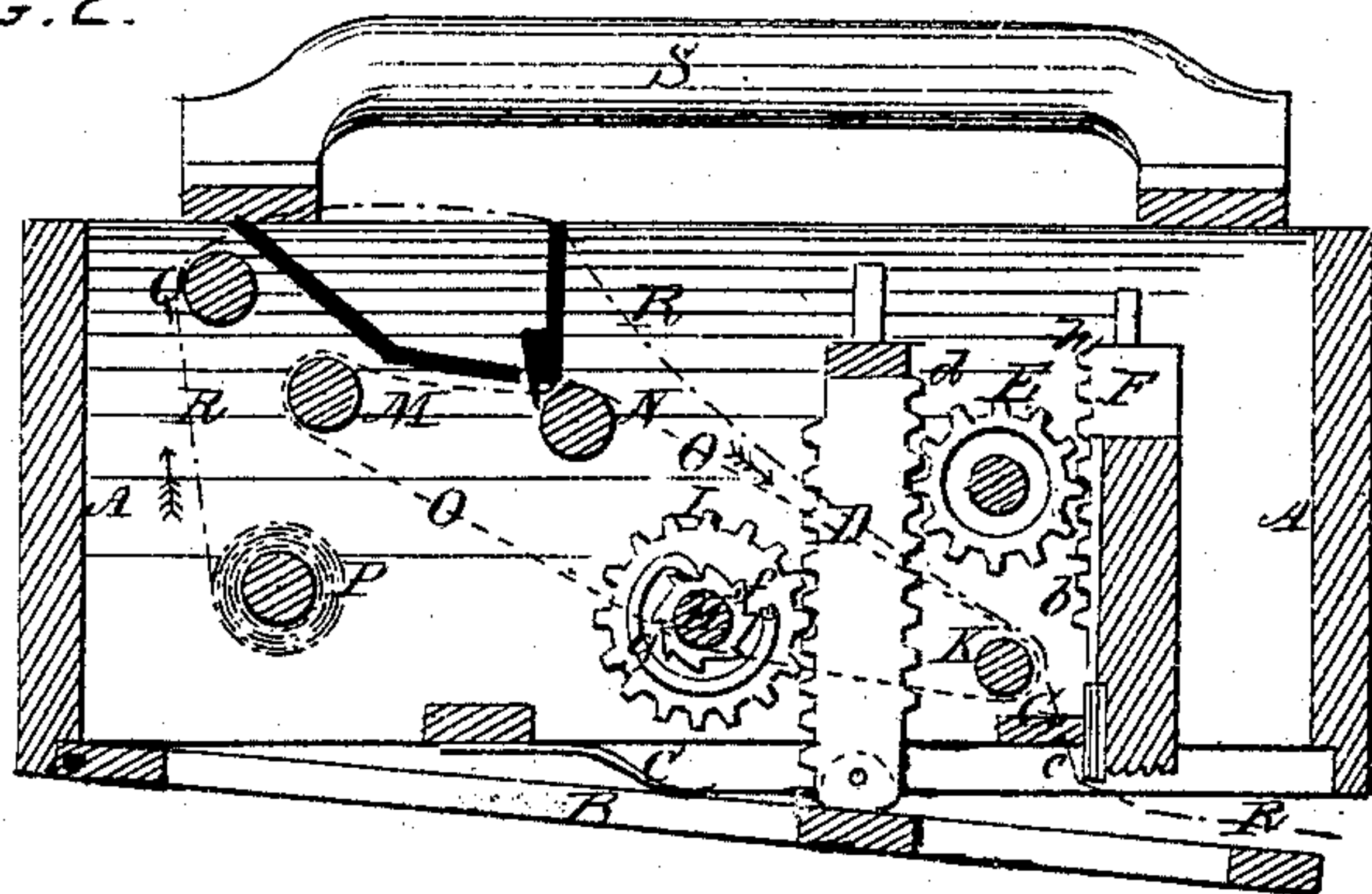


FIG. 3.

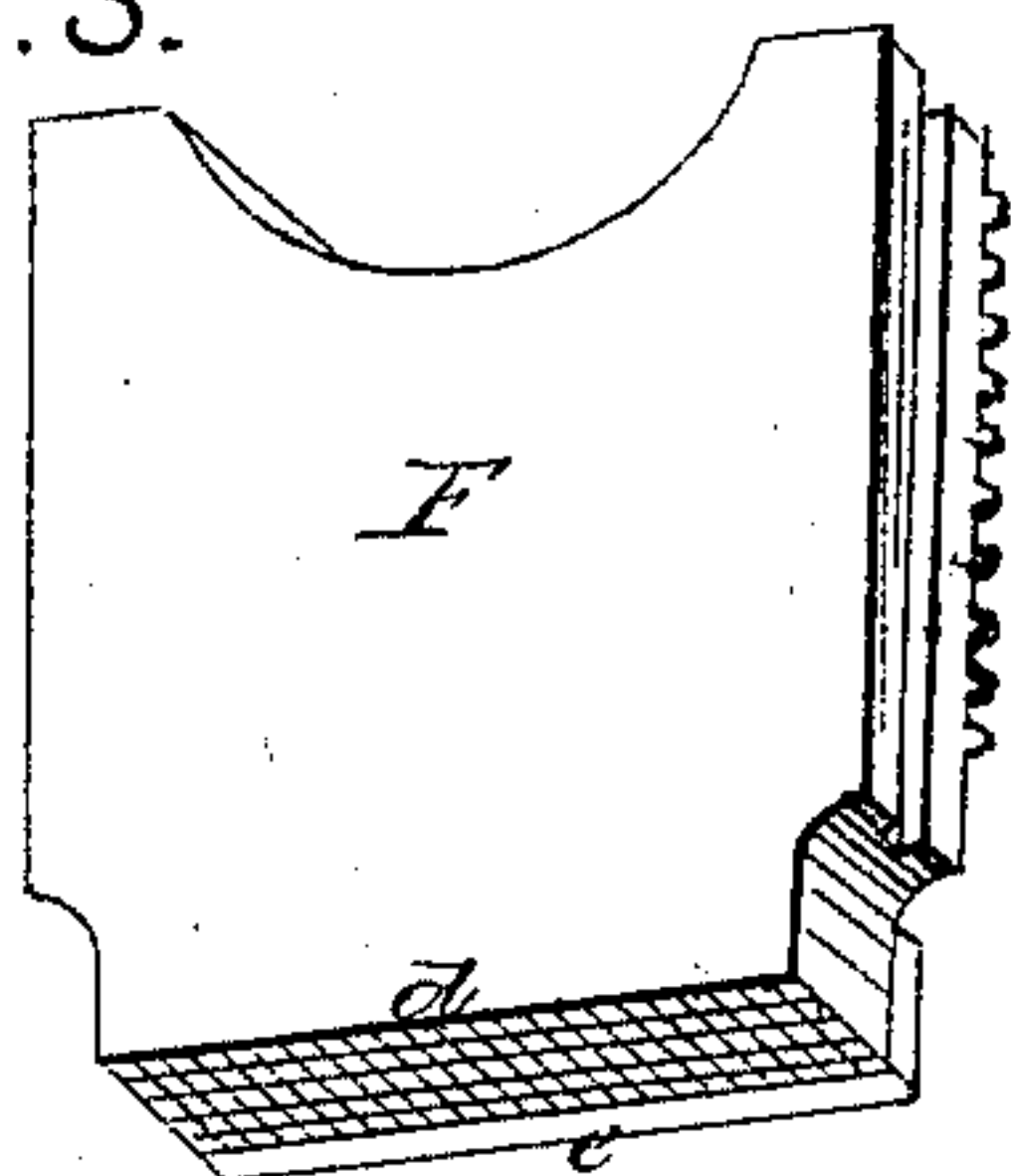
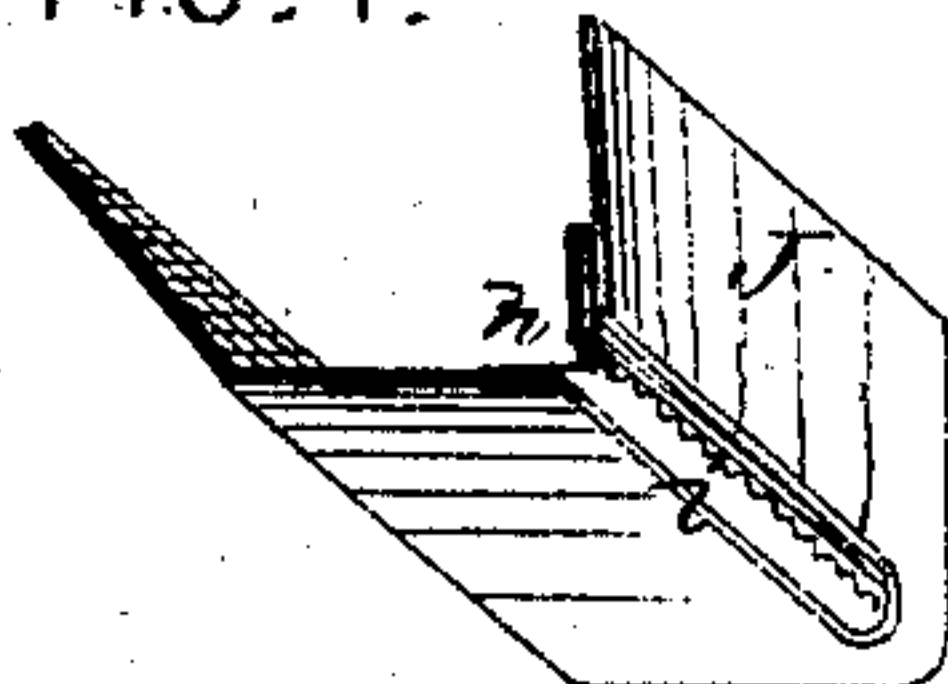


FIG. 4.



Witnesses.

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# UNITED STATES PATENT OFFICE.

GEORGE A. DAVISON, OF MONTANA, IOWA.

## IMPROVEMENT IN ADDRESSING-MACHINES.

Specification forming part of Letters Patent No. 116,567, dated July 4, 1871.

*To all whom it may concern:*

Be it known that I, GEORGE A. DAVISON, of Montana, in the county of Boone and State of Iowa, have invented a new and useful Improvement in Addressing-Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my improved machine, with one side broken away to show the interior arrangement thereof. Fig. 2 is a vertical longitudinal section. Fig. 3 is a bottom perspective of the knife or shear. Fig. 4 shows in perspective a portion of the paste-box at the discharge opening.

Like letters refer to like parts in each figure.

This invention relates to an improvement in the construction of that class of mailing-machines wherein the printed addresses on a mailing-strip are successively cut therefrom and affixed to the copies of the papers or publication; and consists in the novel and peculiar construction and arrangement within a proper case of the paste-supplying and feeding mechanism, with relation to the shear or cutter, and in the novel and peculiar arrangement of a rack and pinions for operating the above-named devices in such a manner that the mailing process is greatly expedited, each paper addressed requiring but a single movement of the case in the hand of the operator, leaving the other free to remove the addressed publication.

In the drawing, A represents a suitable case, open at the top and bottom. B is a light frame hinged at its rear end within the bottom of the case. C are light half-leaf springs, so secured to a cross-bar in the bottom of the case as to press downward the free end of the frame B. D is a vertical rack-bar at each inner side of the case, toothed on both edges, connected by cross-bars at top and bottom, and pivoted at their lower ends to the frame B. These rack-bars are guided in their vertical movement by feathers or studs on the inner faces of the case, projecting into a groove in the back of each, or in any convenient manner. By pressing down the case the frame B and racks move up into it. E are intermediate gears at each end of a shaft, E', transversely journaled in the case, which gears mesh

with the rack-teeth *a* on the front edges of the rack-bars, and with the rack-teeth *b* on the rear edges of a transverse slide, F, having a vertical movement in the front part of the case, and which is guided in a manner similar to the rack-bars. The lower end, at least, of the slide should be of properly-tempered steel, with its rearmost edge sharpened as a shear, *c*, while the rest may be serrated at *d*, to hold and press the mailing-strip. G is a shear-bar, preferably of steel, transversely secured in the bottom of the case in such a manner that when the slide F is pressed down the shear *c* will slide in contact with its face to clip off projecting end of the strip. H is a drum transversely journaled in the case, and carrying at one or both ends a loose pinion, I, which meshes with the rack-teeth *a'* on the rear edge of the rack-bars D. On the drum H is a ratchet, *f*, with which engages a spring-pawl, *g*, pivoted to the pinion I, giving the drum H an intermittent rotary motion at each movement of the rack-bars. J is a paste-box secured in the rear upper part of the case, with an opening in the lower front edge thereof to permit the outflow of the paste contained therein, the lower edge of the front plate of the box being serrated to prevent the paste from clogging and to insure an even distribution, as shown at *h*, Fig. 4, in which the opening in the box is shown at *i*. K is a drum transversely journaled behind the shear-bar G. M is another under the lower rear edge of the paste-box, and N is another a little in front and above the plane of the bottom of the paste-box. O is an endless paste-belt of cloth passing around the drums H, K, M, and N. P is a removable cylinder transversely journaled in the lower rear part of the case, on which is wound a strip, R, having printed thereon the addresses of the subscribers and such other matter as is required. The strip passes up from its spool or cylinder P to a guide drum, Q, at the upper rear end of the case, thence forward over the paste-box, thence directly to and under the shear *c* of the slide F, projecting the width of an address beyond the shear-bar G, on which it rests. The under and unprinted side of the strip R rests on the upper side of belt O, carrying a coating of paste, and is drawn along by it in the direction shown by the arrows.

The operation of the device is as follows: The machine rests on a table, the springs throwing upward the case, as shown in Fig. 1. The mail-



clerk introduces the paper between the case and frame with his right hand; with his left he quickly presses down the machine, which is provided with a handle, S, for that purpose. The upward movement of the rack-bars forces down the slide F, whose knife-edge cuts the projecting end of the strip and presses on the paper introduced under the case; when the pressure is removed the springs throw up the case, bringing down the rack-bars, when the pawl *g* of the pinion I engages with the ratchet *f* of and partially rotates the drum H, carrying the belt and strip forward a distance equal to the width of an address, and so on until the addressing of a mail is completed.

The machine, it will be seen, requires the use of but one hand to operate it, leaving the other free to handle the papers, which enables the operator to mail with great speed. With this machine he can mail with either hand, changing about when tired, which is not so frequent as with others of that class which are carried on one arm.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction and arrangement of the hinged frame B, spring C, double-gear rack-bars D, with the relation to the case A for operating the endless paste-belt O and slide F, substantially as described.

2. In mailing-machines, the paste-box J, provided with opening *i*, and serrated distribution-plate *h*, as and for the purpose set forth.

3. The construction and arrangement of the case A, frame B, spring C, rack-bars D, intermediate gears E, shaft E', shear-bar G, drums H, K, M, N, and Q, pinion I, paste-box J, endless belt O, and cylinder P, for pasting, feeding, cutting off and affixing the address-strip R, as herein described and set forth.

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Witnesses:

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