

(No Model.)

G. S. COUCH.
ADDRESSING MACHINE.

No. 475,755.

Patented May 31, 1892.

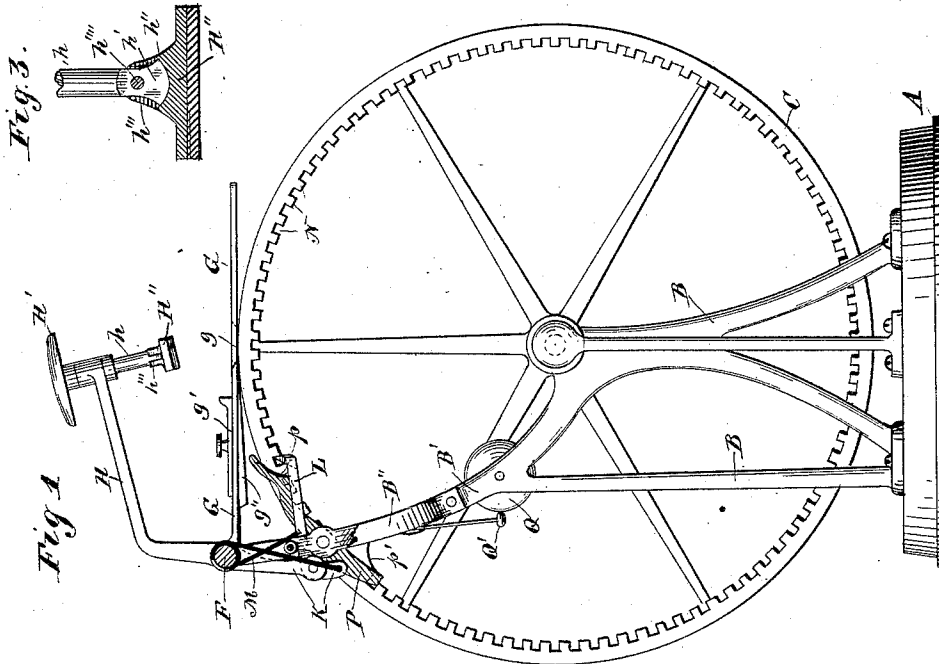
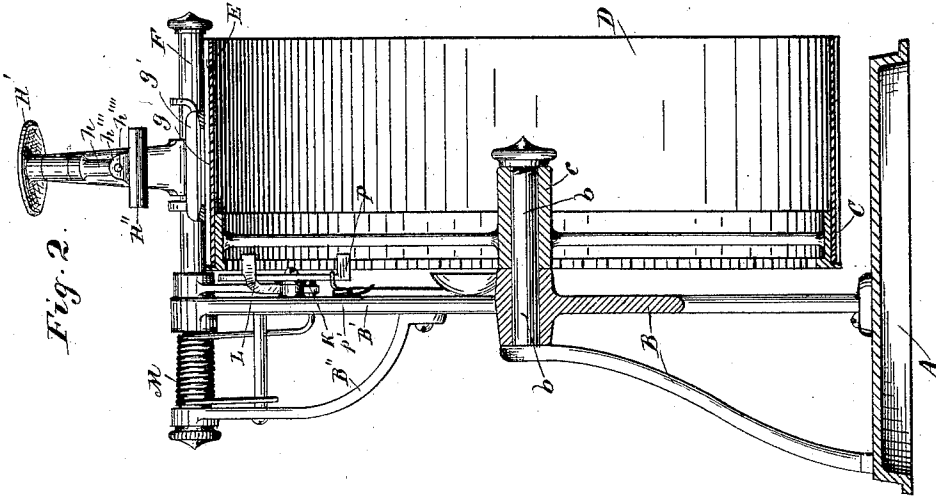


Fig. 3.

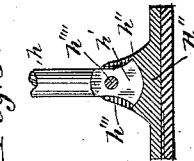


Fig. 4

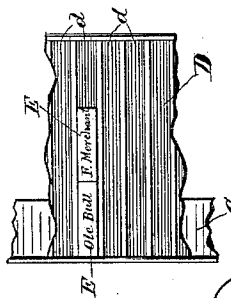


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE S. COUCH, OF MINNEAPOLIS, MINNESOTA.

ADDRESSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 475,755, dated May 31, 1892.

Application filed July 6, 1891. Serial No. 398,580. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. COUCH, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Addressing-Machines; and I do hereby 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 appertains to make and use the same.

My invention relates to addressing-machines, and is in the nature of certain improvements on the machine shown and described in my application filed July 19, 1890, under Serial No. 359,243, patented July 14, 1891, No. 455,814. As in the former application, I employ a type-wheel having the type-bars arranged on its face in cells or grooves parallel with the axes of the wheel or lengthwise of the cylinder. The type-bars are carried on a shell removably secured to the body of the wheel, so that an interchangeable series of shells containing different lists of correspondents may be employed on the same machine. The wheel is journaled in a bracket projecting from a suitable bed-plate, and in an extended arm of the bracket is mounted a shaft projecting over the face of the cylinder to the rear of its vertical center. On this shaft is pivotally mounted a table for supporting the envelope, paper, or other article to be addressed, which is provided with a suitable inking-pad and a transverse slot for exposing the type-bar containing a single address. To the same shaft is keyed a stamper, having its platen arranged to strike over the article and the said slot to effect the impression by pressing the article against the face of the type. The type-wheel has a rack of annular form on one margin, with which engages a pivoted pawl operated by the stamper to rotate the wheel. A locking-dog is pivoted to a support independent of the wheel for holding the wheel in any position in which it may be set by the pawl. The features so far described correspond in a broad point of view to the features shown in my former application; but in the present case I modify the construction of the stamper by pivoting the platen to the shank of the same, so that it will swing in a plane lengthwise of the cylinder or parallel with its axis, so as to effect a better impres-

sion by rendering the platen more adaptable to the face of the type-bar. I also effect an improvement in the relative arrangement of the driving-pawl and the locking-dog, the construction being such that the locking-dog lies in the path of the driving-pawl, so that the latter upon its return movement for the new stroke and by its engagement with a new notch will release the dog.

The improved machine is illustrated in the accompanying drawings, wherein, like letters referring to like parts throughout—

Figure 1 is a left-side elevation of the entire machine. Fig. 2 is a vertical section of the same on a plane through the axis of the type-wheel, looking toward the back of the machine; and Fig. 3 is a detail showing the joint between the platen and the shank of the stamper. Fig. 4 shows a part of the type-cylinder.

A is the bed-plate, and B B' B'' a bracket projecting therefrom, constituting the frame of the machine.

CD is the type-wheel, of which C is the body of the wheel, and D the type-carrying cylinder removably secured thereto. The wheel C has its hub *c* mounted on the spindle *b*, projecting from the bracket B.

E represents one of the type-bars located in one of the cells *d* of the type cylinder or shell D.

F is the shaft pivotally mounted in the upper ends of the bracket B' B'' with its free end projecting over the face of the type-wheel.

G is the table for supporting the envelope or other article to be addressed pivoted at its rear end to the shaft F and having its free end resting on the face of the type-wheel. *g* is a transverse slot in the same for exposing a type-bar, *g'* an adjustable gage for positioning the address on the article, and *g''* the inking-pad.

H H' H'' is the stamper secured by a feather to the shaft F, so as to be adjustable lengthwise thereof and held to turn only with the shaft. The shank *h* of the stamper is shouldered and provided with a tongue *h'*, curved at its outer end into convex form. The platen H'' is provided with a correspondingly-curved concave recess *h''*, and with a pair of projecting lips *h'''* on the opposite sides of the same to receive and effect a joint with the tongue of the shank. The parts are

pivottally connected by the pivot-pin h'''' . In virtue of this construction of the joint, the tongue of the shank surfaces with the recess of the platen in all positions which it may take, preventing any ill effects from lost motion, enabling a solid stroke from the hand-disk H' .

The especial necessity for pivoting the platen, so that it will swing in a plane parallel with the type-bars lies in the fact that the shell or type-cylinder D is liable to be untrue on its face. The cells containing the type-bars are liable to be either depressed or bowed out of a straight line. Hence where a fixed platen is employed, as in my former machine, the face of the same would not surface or cover the entire face of the type and the impression would be imperfect. With this pivoted platen it will follow the face of the type regardless of whether the type-bar is perfectly parallel with the axis of the cylinder or not. In other words, the face of the cylinder does not need to be true. This is an important advantage or improvement securing a uniform impression.

The shaft F is provided with a crank-arm K , to which is pivottally connected at its rear end the pawl-lever L . A coiled spring M is wrapped around the shaft F and has one of its ends bearing against a fixed part of the brackets $B' B''$, as a base of resistance, and has its other end attached to a depending arm of the pawl L . This spring tends to hold both the stamper and the driving-pawl in their uppermost or normal position and to throw the pawl-lever forward.

N is the annular rack surrounding the inner left-hand margin of the body of the type-wheel C . The outer end of the pawl-lever is bent at right angles to the body of the same, and engages the teeth of the rack.

P is a locking-dog pivoted to the bracket B' and having its rear end bent at right angles to its body and in engagement with the rack. The front or free end of this locking-dog extends beyond and lies over the front end of the pawl-lever and is provided with a cam-surface p in position to be struck by the pawl-lever on its return movement for a new stroke. In virtue of the tension on the pawl from the spring M , this return movement of the pawl will unlock the dog coincidently with the engagement of the pawl with the new notch, and on the release of the stamper the spring M will raise the stamper into its normal position and throw the wheel forward one step, bringing a new type-bar in line with the slot g under the platen. As the pawl is thrown forward, moving the wheel one notch, the dog is again thrown into engagement with the rack by the spring p' , secured to the bracket B' .

Q is a gong and Q' a hammer, constituting an alarm-bell, indicating a complete revolution of the type-wheel.

The operation and usage of the machine is obvious. The envelopes or other articles are

placed one at a time on the table G , face downward, and the impression is effected from the type by a stroke on the hand-disk H' of the stamper. The same movement gives the throw to the pawl for a new stroke, and on the upward movement of the stamper under the action of its retracting-spring the wheel is moved forward another notch to align a different type-bar under the slot in the table and the stamper.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. In an addressing-machine, the combination, with a rotatable cylinder having cells for the type-bars on its periphery arranged parallel with its axis, of a stamper pivoted to a support independent of the cylinder and having its platen pivottally connected to the shank of the stamper, so as to swing in a plane parallel with the type-bars, whereby the platen will follow and cover the type regardless of the surface of the cells, substantially as described.

2. The combination, with a type-wheel having an annular rack, of a pivoted driving-pawl, a spring applied to place both the stamper and the driving-pawl under a common tension, and a spring-held locking-dog, whereby the operation of the stamper will operate the pawl and dog to effect the feed, substantially as described.

3. The combination, with a type-wheel having an annular rack, of a pivoted stamper and a pivoted driving-pawl engaging the said rack operated by the stamper, a spring applied so as to place both the stamper and the pawl under a common tension, and a pivoted spring-held locking-dog normally engaging the rack and having its free end projecting into the path of the driving-pawl, whereby the operation of the stamper operates the driving-pawl and the movement of the driving-pawl to engage a new notch will unlock the dog, substantially as and for the purpose set forth.

4. In an addressing-machine, the combination, with the type-wheel having an annular rack, of a supporting-bracket, the shaft F , supported from the said bracket and projecting over the wheel, the stamp-lever H , carried by the said shaft, the crank-arm K , fixed to the said shaft, the spring-held driving-pawl lever L , pivoted to said crank-arm, the spring-held locking-dog P , pivoted to the bracket, normally engaging the said rack, and having its forward or free end in the path of the driving-pawl, and the spring M , having its active end applied to the free end of the said pawl-lever, the said parts being arranged and operating substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE S. COUCH.

Witnesses:

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E. F. ELMORE.