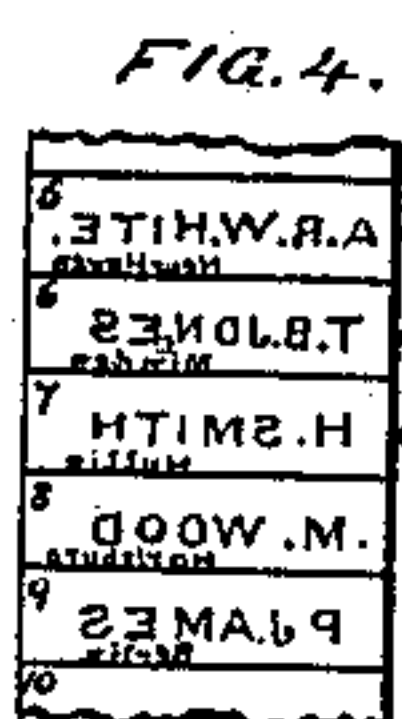
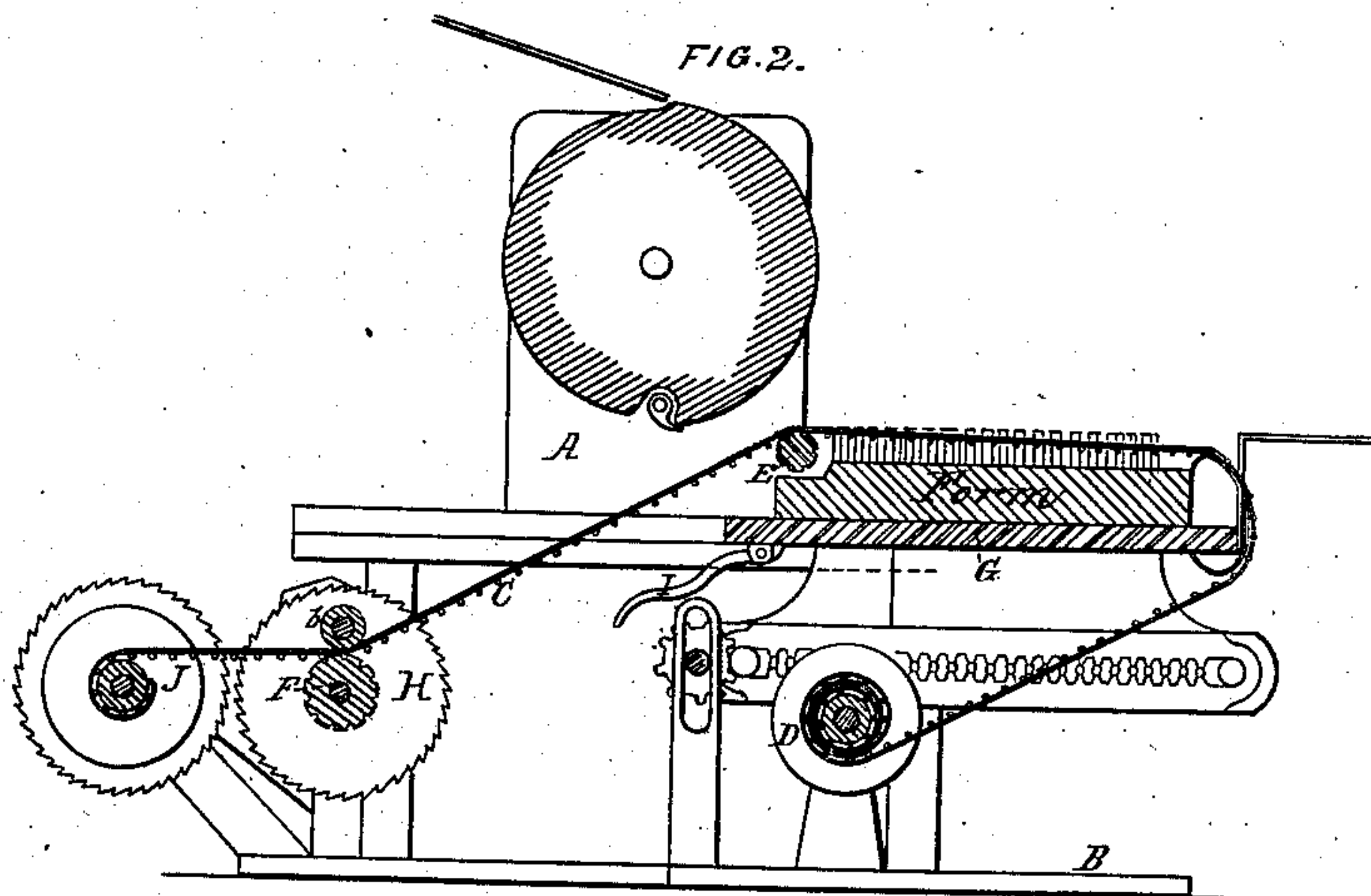
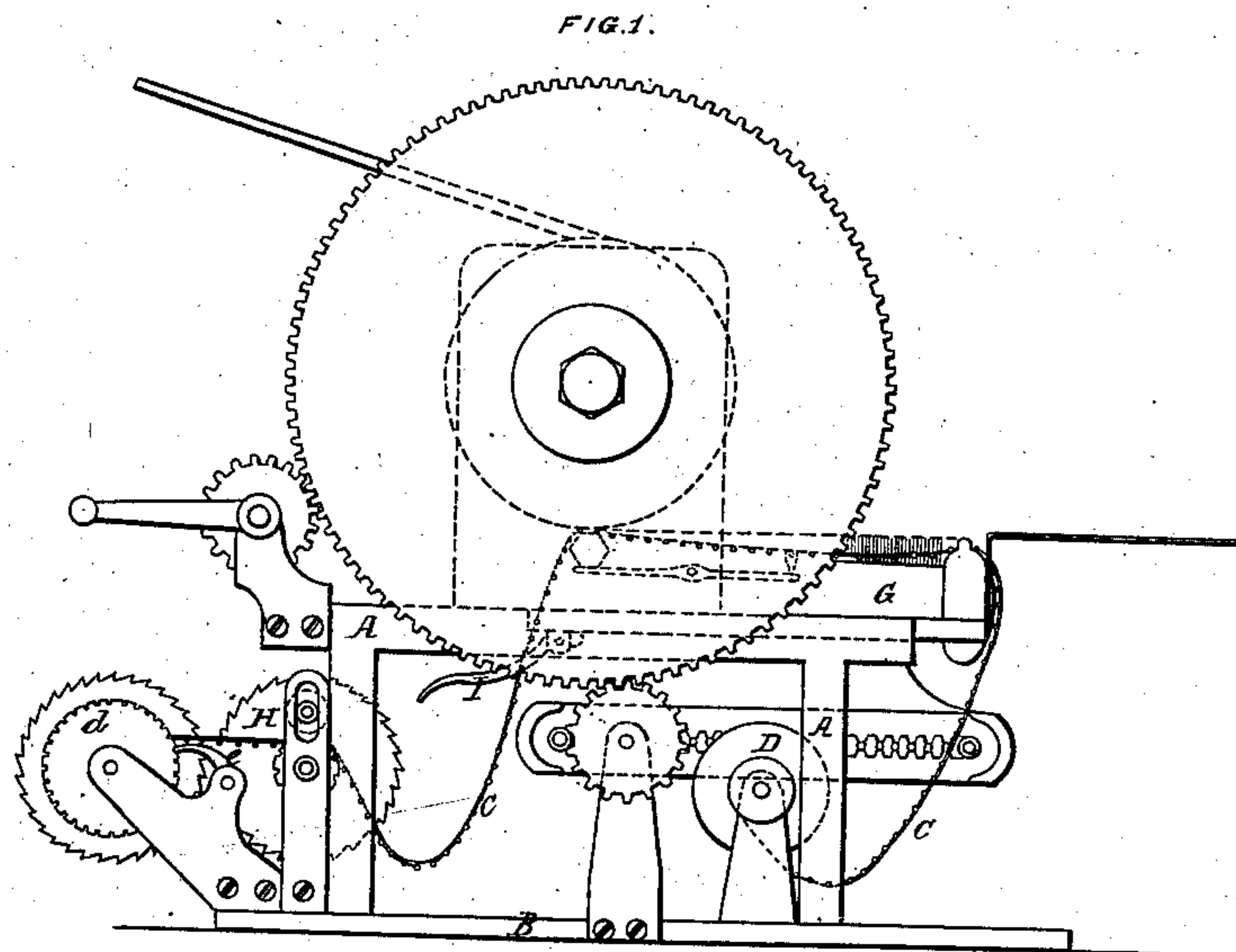


G. GIBBONS.
ADDRESSING MACHINE.

No. 93,527.

Patented Aug. 10, 1869.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE GIBBONS, OF MERIDEN, CONNECTICUT.

Letters Patent No. 93,527, dated August 10, 1869.

IMPROVEMENT IN ADDRESSING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE GIBBONS, of Meriden, county of New Haven, and State of Connecticut, have invented a new and useful Improvement in the Method of Mailing or Directing Newspapers, Periodicals, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a common cylinder printing-press, with my improved directing or mailing-device attached; in

Figure 2, a longitudinal section of the same, to more clearly illustrate the operation of the chain; in

Figure 3, a side view of a portion of the chain enlarged; and in

Figure 4, a top or plan view of the same.

Similar letters of reference, where they occur in the separate views, indicate like parts.

My invention relates to an improvement in the method of mailing or directing newspapers or other periodicals, and consists in providing the press or printing-machine with a series of hinged links, each link bearing the name of a subscriber. This chain is so constructed and arranged as to be carried over a roll or hexagonal revolving block at the head of the form. The roll or block over which the said chain is carried is of the proper size and shape to bring one of the links up to the level of the surface of the type in the form, so that when an impression is taken of the said type, the impression of the link will also be taken, and, by a suitable feeding-device, a new link of the chain is advanced on to the said roll after each impression.

The object of my invention is to supply the want long felt among publishers for some means of rapidly directing newspapers and periodicals. The common mode of directing has been either by writing or printing the name of the subscriber upon the paper, or by pasting or otherwise fastening a slip, with the name printed thereon, to the said paper. All these ways necessitate a separate operation, and take nearly as much time as to print the whole paper. All this trouble is obviated by the use of my invention, by which a paper or periodical is automatically directed, ready for mailing, simultaneously with the printing of the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction and operation of the same.

A is the frame of a common cylinder printing-press, furnished with a bed-plate, B, which supports the several parts of the press, and to which the operative parts of my improvement are attached.

O is a chain, consisting of a series of hinged links, *a a a*, the joints being formed entirely upon the under side, so that the upper side is left perfectly flat and smooth, as shown in fig. 3.

Upon the smooth surface of each of these links a name is either engraved, sunk by means of dies, or otherwise affixed, in the manner shown in fig. 4. These links, *a a a*, are each made exactly of the same size, and are connected together by pins in such a manner that a link can be readily taken out and replaced by another, or a new link added, as the case may require.

After this chain O is finished, one end of it is attached to a reel, D, which is held in proper bearings upon the bed-plate B of the press. The chain from this reel is carried up over the end of the slide G, which holds the chase, through the ledge of the inking-bed, along the side of the said chase and over the hexagonal revolving block E, at the head of the form. At each corner of this block, and running lengthwise across the same, a groove is placed, for the reception of the hinge or joint which connects the links *a a a*, in order, that as they pass over the said block, they may lie solid and firm upon the surface of the said block, between the said grooves.

Just outside the bearings which support the revolving block E, a hexagonal disk is placed, the sides of which exactly correspond with those of the block E. This disk is operated upon by a spring, which is held to the side of the slide G, as shown in dotted lines in fig. 1. The object of this disk and spring is to hold the block E and links *a a a* in their proper positions while an impression is being made.

After the chain has left the block E, it passes downward and over another grooved roll, F. This said roll F is held in standards upon the bed-plate B. The object of this roll is to act upon the chain as a feeding-device; and in order to prevent the hinges or joints upon the links from slipping out of the grooves, on the roll F, I place another small roll, *b*, (which travels loosely in sliding bearings,) just over the said roll F. Between these two rolls the chain is passed, and by the action of the roll *b* the hinges or joints are pressed into the grooves in the roll F, and held in their proper positions while the chain is being fed. Upon the shaft of the said roll F a ratchet-wheel, H, is placed, which is operated upon by the pawl I, attached to the slide G. This pawl is arranged to turn the ratchet H and roll F such a portion of one revolution as to advance the chain one link upon the said roll F.

A short distance back of this feeding-device, and held in proper bearings upon the bed-plate B, I place another roll, J, to which the end of the chain is attached, and which serves as a reel to wind the chain upon after it has passed through the press. This roll J is also provided with a ratchet similar to that upon the feed-roll F, which is operated by the same pawl I, upon the slide G. The object of this is to provide a means of taking up the slack chain as fast as it is advanced through the feeding-device.

I also provide the roll or reel J and its ratchet with a friction-clutch, to prevent the chain from being

broken, for as the chain increases upon the roll, the less part of a circle will have to be described in order to take up the slack. The stroke of the pawl being of a certain length, the intermittent revolution of the reel (by the operation of the said friction) is governed by the chain. The ratchet is revolved the full stroke of the pawl I, while the reel J will be stopped when the slack chain is taken up. I also provide this reel J with another ratchet *d* and pawl *e*, acting thereon to prevent the said reel and chain from receding.

This completes the construction of my improvement. The operation is as follows:

The chain is first placed in the machine, attached to the several rolls, as before described.

The first operation, after motive-power is applied to the press, is that of inking the type, which is done in the usual manner. The plain surface of the link is also inked by the same operation. The sunk letters in the surface of the said link will remain clear. Where raised letters are used upon the link, they will be prepared in the same manner as ordinary type. After inking, the slide G advances under the cylinder, carrying with it the chain, the link which has been inked being held in position upon the block E. The sheet of paper, having been previously placed upon the surface of the cylinder, is pressed down by the said cylinder upon the link and the type, and an impression is taken, first of the link, and afterward the remainder of the type.

As the slide G advances, the pawl I comes in contact with the ratchet H, (which operates the feed-roll F,) and carries it forward. When this ratchet has performed a sufficient portion of a revolution to cause a new link to take the place of its predecessor upon the feed-roll, the pawl I is thrown out of the ratchet H by an incline, placed for that purpose. The pawl I is afterward carried along by the advancing slide G, and brought in connection with the ratchet upon the reel J. This ratchet also, caused by the stroke of the pawl, describes a certain portion of a revolution, and the reel J revolves with it sufficiently to take up all the slack chain which there may be between the said

reel J and the feeding-device F. If there is an amount of chain wound upon the said reel, the chain, when straightened, will hold the roll stationary without breaking the link, while the friction-clutch will allow the ratchet to pass on the full stroke of the pawl.

When the chain has all been passed through the machine, and all the names printed, the pawl I, is raised so that it will not operate upon the ratchets. The spring is thrown off from the disk connected with the block E, and the chain is wound back on to the reel D, ready for starting with the next issue.

In printing a large number of papers there will occasionally be one spoiled. In order to readily ascertain which one is missing, I place a number after each subscriber's name, and by glancing at these numbers, as the papers are folded, I am able to detect it if one is missing, and by turning to that number upon the list the corresponding name is found. This, however, seldom occurs, so that it is no detriment to my method of directing.

I have now described one method of attaching the chain to a press. I do not confine myself, however, to this particular mode or mechanism for applying my improvement, as I am aware that there may be other ways of producing the same result in a better and cheaper manner; but

What I claim as new and useful, and desire to secure by Letters Patent, is—

1. The mode of mailing or directing newspapers or periodicals simultaneously with the printing of the same, substantially in the manner and for the purpose as herein set forth and described.

2. The hinged links *a a a*, each bearing a subscriber's name, in combination with the block E and feeding-device F, when applied to any hand, cylinder, or revolving-type printing-machine, in the manner and for the purpose substantially as herein described.

GEORGE GIBBONS.

Witnesses:

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