

No. 897,887.

PATENTED SEPT. 8, 1908.

E. H. FREY.

ADDRESSING MACHINE.

APPLICATION FILED MAR. 5, 1906.

2 SHEETS—SHEET 1.

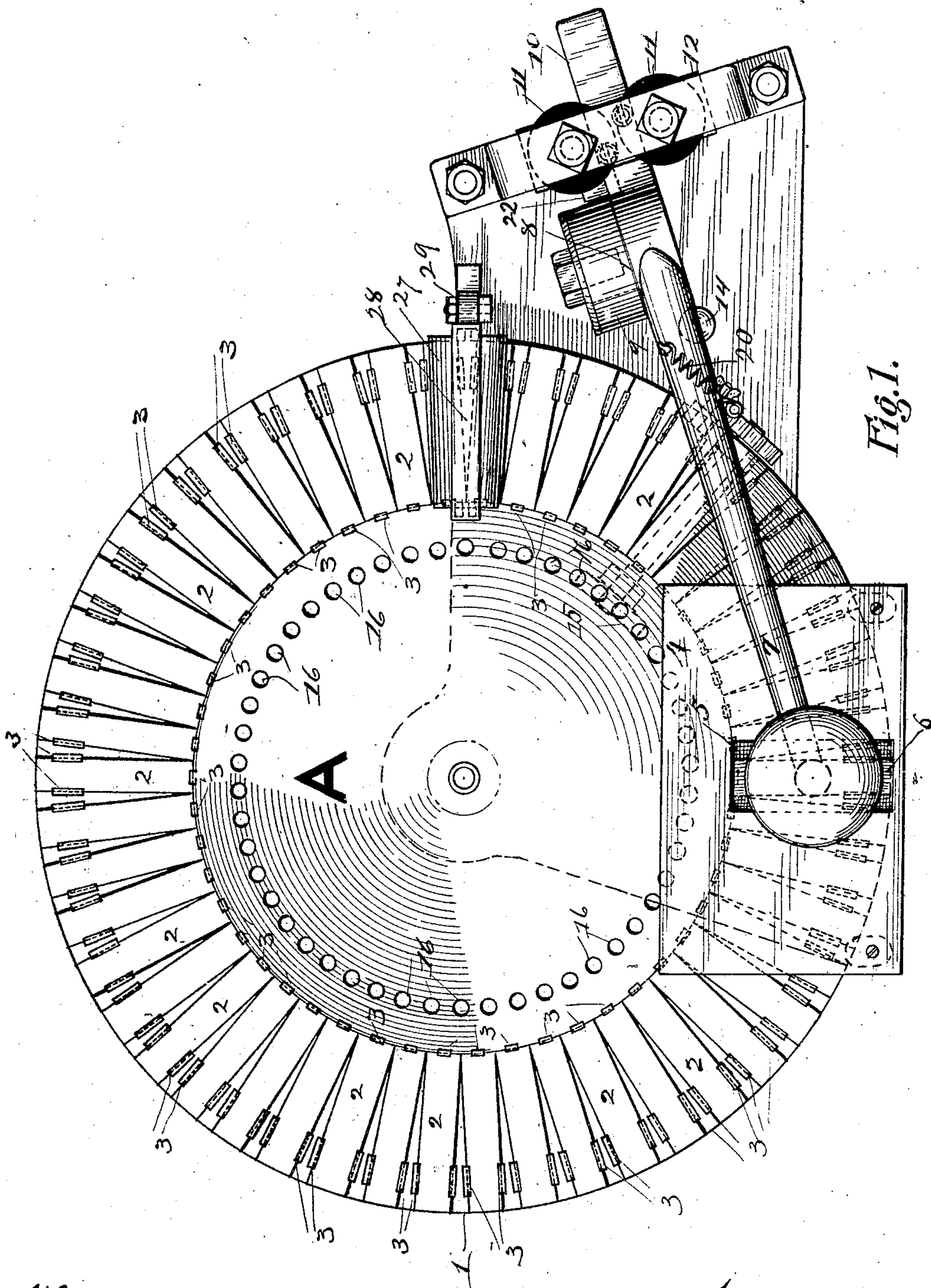


Fig. 1.

Witnesses
C. H. Oles.
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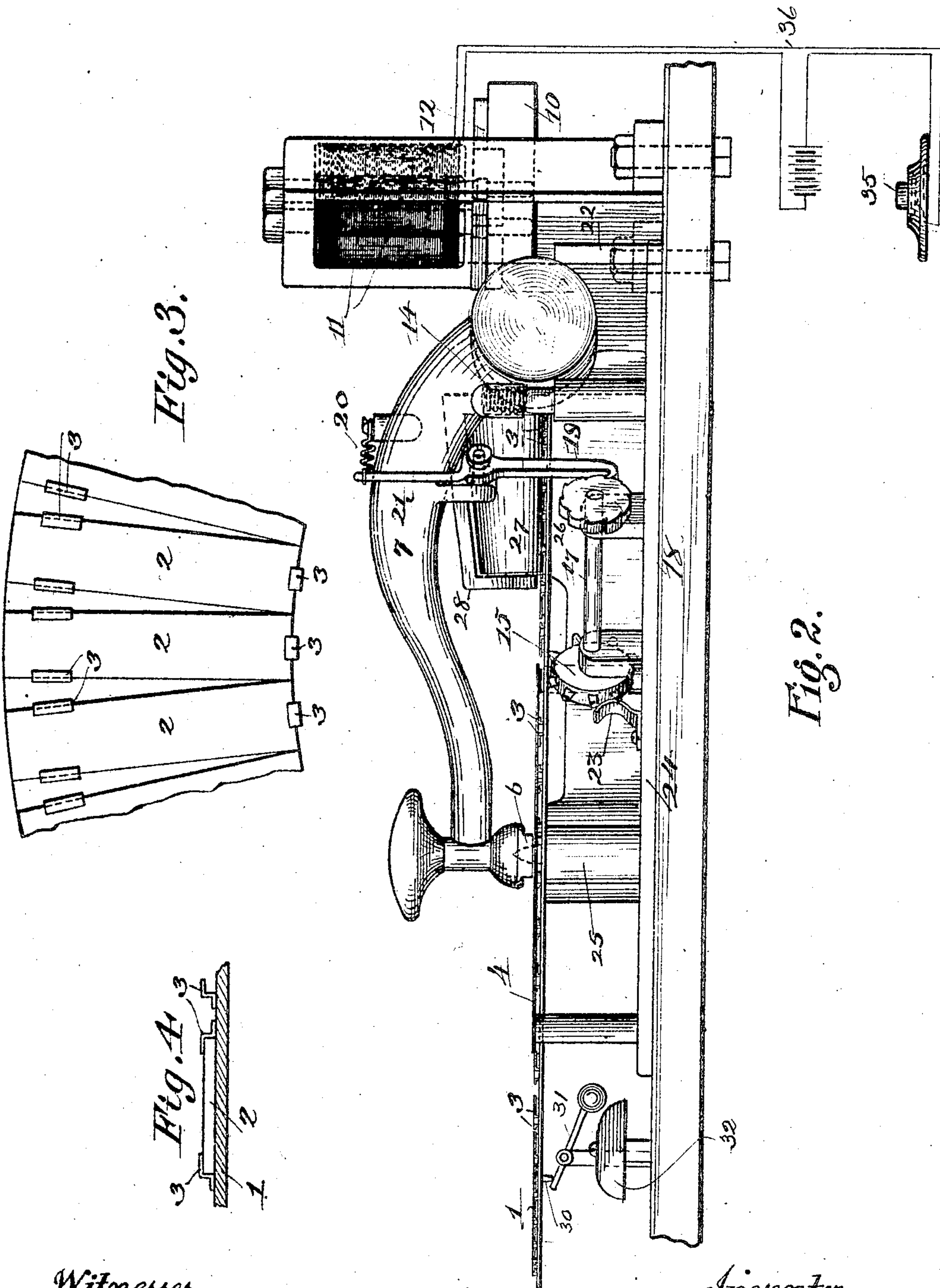
Inventor
Ernest H. Frey
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Attorney.

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ERNEST HARMOUNT FREY, OF CLEVELAND, OHIO.

ADDRESSING-MACHINE.

No. 897,887.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed March 5, 1906. Serial No. 304,166.

To all whom it may concern:

Be it known that I, ERNEST HARMOUNT FREY, a citizen of the United States, and resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Addressing-Machines, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of the invention are to provide a rotating plate or disk upon which a series of addresses in raised type can be secured and simple rotating means therefor, and means for forcing the envelopes severally into contact with the several addresses in such a manner that the hands may be free to place and withdraw the envelopes as fast as the device can be operated.

The invention consists in the detachable disks and inking and operating devices and in the simple and efficient forms of construction hereinafter described, shown in the accompanying drawings and specifically pointed out in the claims.

In the accompanying drawings Figure 1 is a plan view of the device showing a disk shaped plate centrally pivoted for rotation, and provided with radial and transverse keepers by means of which slips or type bars on which the raised type are formed, are retained upon the disk in a circle. A pivoted lever having a striking plate, is adapted to impress the type upon the envelop and the disk plate is provided with a circular row of holes in which the teeth of a sprocket wheel engage. This disk rotates as the lever is raised to register another type bar with the striking plate. In this figure electric magnets are shown to operate the striking lever, the circuit for which is closed by a push button accessible to the foot of the operator; Fig. 2 is a side elevation of the device, showing the same features and the ratchet and pawl device employed to rotate the disk, and also the support or bed plate upon which the disk rests. Fig. 3 is an enlarged portion of the disk-shaped plate and keepers thereon; and Fig. 4 is a transverse section showing two of the keepers inclosing a card between them.

In these views 1 is a disk upon which the short type bars 2 are secured by slipping them under the keepers or retaining edges 3. 4 is a table upon which the envelop or wrapper

is laid. This table 4 is provided with a slot 5 registering with each type bar in turn as it is brought into position by the rotating of the disk at regular intervals. Over this opening is shown the striker which consists of a smooth oblong plate 6 of the approximate size of the type bar. This striking plate is secured to the outer end of the lever 7 which is pivoted at 8 upon a pedestal 9, and has a rearward extension 10 which is provided with an armature for the electro-magnet or magnets 11. A soft metal plate 12 upon the end of the lever forms this armature. These magnets act directly upon the armature to raise the inner end and to depress the outer end of the lever to form the impression, and the circuit is closed by means of the switch or push button 35 upon the floor or wherever accessible to the foot of the operator. A spring 14 elevates the striker after every stroke.

The mechanism by means of which the disk is rotated to bring the several type bars in succession underneath the striker is shown to consist of a toothed wheel 15, which engages a series of holes 16 circularly arranged in the disk. This wheel is mounted upon a shaft 17 and a ratchet wheel 18 is secured thereon. The rotation of this ratchet is obtained by means of the latch 19 which engages with the ratchet teeth, one at a time, and is pivoted upon the striking arm or lever so that at every elevation thereof the ratchet turns the distance of one tooth and the toothed wheel 15 acts to move the disk through a corresponding distance and serves to present a fresh type bar each time underneath the opening in the envelop plate. A spring 20 attached to the arm and to an extension 21 of the latch keeps it in engagement with the ratchet wheel. A stop 22 prevents the lever from raising too far. A spring 23 engaging the toothed wheel steadies and prevents it from turning irregularly or beyond the position in which the type bars will register with the striking arm. The bed plate 24 upon which the pivoted support of the disk is secured rises again at 25 to form an anvil underneath the striking arm upon which anvil the disk rests, and a third elevation 26 underneath the disk receives the weight of an inking roller 27 which is mounted in a frame 28 pivoted at 29 so that the roller can be raised to permit of withdrawing the disk.

35 is a push button which can be operated by the foot and 36 is the circuit and magnet battery.

If an electric current is inaccessible the lever can be pressed down by hand or a foot pedal could operate it.

The disk can be provided with any convenient number of type-bars having addresses of suitable size for mailing envelopes, and since the capacity of one disk is limited a large number of disks can be stored away conveniently for immediate use, each disk bearing upon its surface a number of addresses, which may be alphabetically arranged. For instance one disk as in the drawing may be marked A and contain only addresses beginning with A another may contain only addresses beginning with B and C.

When a complete series has been printed a signal may be given such as by ringing a bell. As shown a lug 30 on the disk engages a tripping lever 31 and strikes the bell 32.

Having described the invention what I claim as new and desire to secure by Letters Patent is:

1. The combination with a bed plate, of an elevated horizontal rotatable disk having type bar attaching devices and type-bars upon its flat upper surface, a central pivotal support for the disk upon said bed plate, an inking device arranged to engage the several type-bars in succession, an envelop support or table mounted upon the said bed plate, outside of the disk, and extending over the flat surface of the disk, said table having an opening arranged to register in succession with the several type-bars as the disk rotates, a depressible lever pivotally supported upon said bed plate exterior to said disk, and a striking plate thereon, means for rotating said disk to bring each type-bar in succession underneath said opening, and an anvil raised upon said bed plate and located underneath said disk and envelop table.

2. In combination, a detachable and rotatable disk, a circular series of detachable type-bars thereon, a central pivoted support therefor, an envelop support, adjacent to said disk, and having an opening registering with each type-bar in turn as said disk rotates, a striking arm or lever opposite said opening, an anvil block to support the disk and receive the stroke, mechanism for rotating the disk to bring the several type-bars in succession underneath the striking lever, said movement being coincident with the raising of said lever, an electro-magnet, an armature upon said lever adapted to engage said magnet, whereby said lever is depressed, a return spring therefor and pedal operated means for closing the circuit to said magnet, substantially as described.

3. In an addressing machine, the combination with a detachable disk, having a series

of detachable type thereon, and provided with a circular set of engaging means therein, of a bed plate and central pivotal support thereon upon which said disk is rotatably mounted, a table for envelopes mounted upon said bed plate and extending over one side of the disk, said table having an opening registering with each type-bar in succession as the disk is rotated, a striker arm pivoted on said bed plate and adapted to press said envelopes into contact with said type-bars, means for operating said striker arm, and means for rotating said disk coincidently with the raising of the arm in such a manner as to bring the type-bars in succession under the striker arm, consisting of a toothed wheel adapted to engage the circular set of engaging means, a ratchet wheel adapted to move in unison with said toothed wheel, and a spring pressed latch upon the arm adapted to engage said ratchet wheel, substantially as described.

4. The combination with a disk having a rotating means therein, and a central pivotal point of support, of a series of radially disposed keepers, arranged in pairs thereon, and a series of circularly arranged keepers thereon, and a series of type-bars or plates, upon the disk, each type-bar being included between one pair of keepers and abutting against one of the series of circularly disposed keepers at its inner end, but free for insertion and removal at its outer end, substantially as described.

5. In combination in an envelop addressing device, having a horizontal bed plate, a horizontal disk elevated thereover, and centrally pivoted thereon, the said disk having type-bar retaining devices and type-bars therein, an inking roller in the path of the said type-bars, a support therefor pivoted for removal of the inking roller upon the said bed plate, an envelop support or table above the disk, mounted upon the bed plate outside the disk upon an elevated support and provided with an opening, a pivoted striking lever mounted upon said bed plate outside of the disk, and a return spring therefor, and means for rotating the said disk coincident with the elevation of said pivoted lever, substantially as described.

6. The combination with a rotating disk, provided with type-bars and type-bar securing devices thereon, of an elevated anvil thereunder, an elevated central pivotal support, a bed plate on which said support and anvil are mounted, an elevated table or envelop support mounted upon the bed plate outside of the disk, extending over the flat surface of the disk and having an opening, a pivoted striking lever, having a plate registering with said opening, means for depressing said lever, and means for automatically raising said lever and simultaneously rotating said disk, when the lever is released, and a

signal giving device arranged to operate when the disk has made one complete rotation.

5 7. In combination in an envelop address-
ing device, having a horizontal bed plate, a
horizontal disk elevated thereover, and cen-
trally pivoted thereon, the said disk having
type-bar retaining devices and type-bars
therein, an envelop support or table above
10 the disk mounted upon the bed plate outside
the disk upon an elevated support and pro-
vided with an opening, a pivoted striking

lever mounted upon said bed plate outside
of the disk, and a return spring therefor and
electrically operated means for depressing 15
said lever, and means for rotating said disk
simultaneously with the elevation of said
lever.

In testimony whereof I hereunto set my
hand this 2 day of February, 1906.

ERNEST HARMOUNT FREY.

Witnesses:

GEO. S. COLE,

WM. M. MONROE.