No. 878,117. PATENTED FEB. 4, 1908.

M. & J. BURKE.

ADDRESSING MACHINE.

APPLICATION FILED NOV. 12, 1906.

4 SHEETS—SHEET 1.

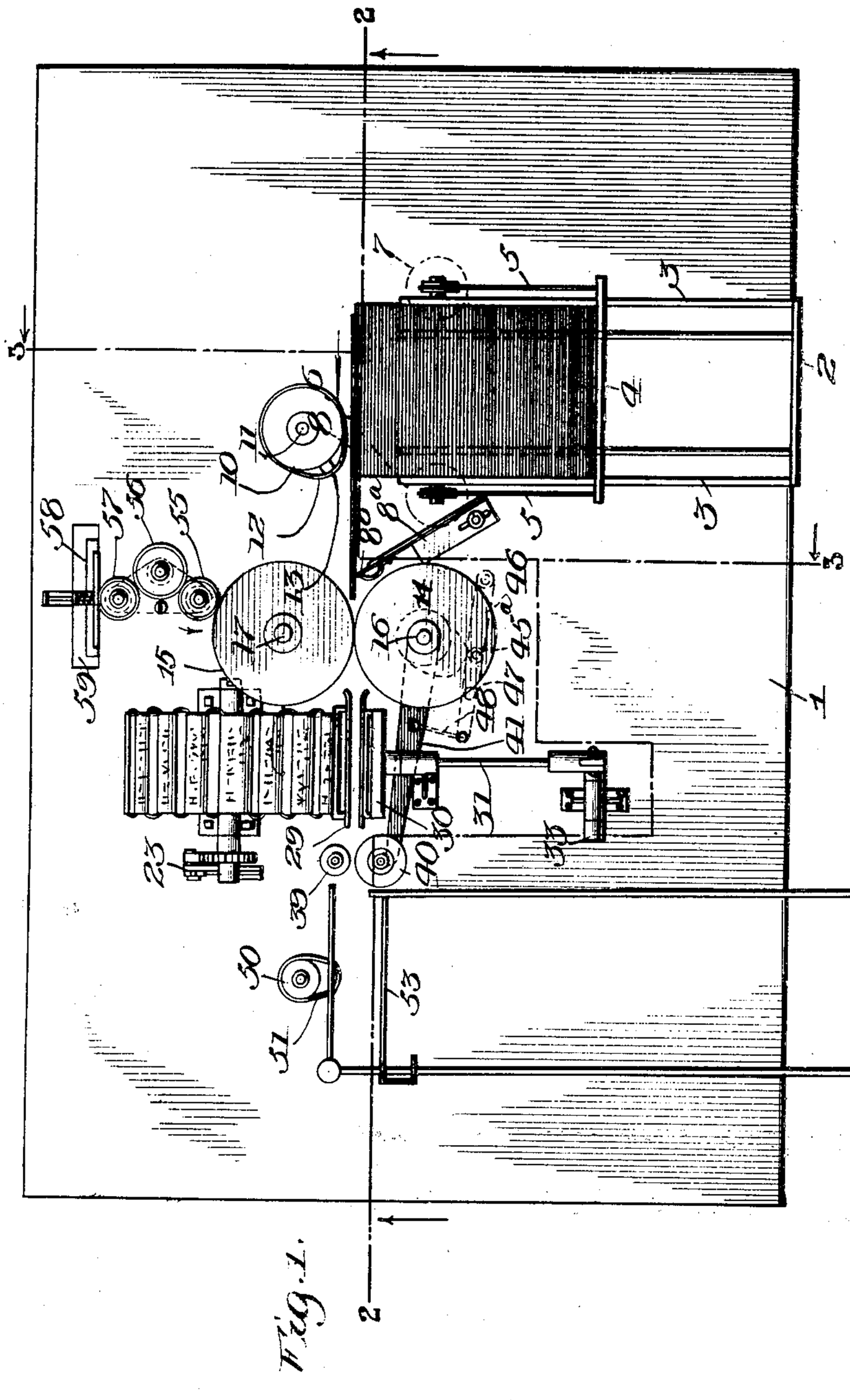

Fig. 1.

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4 SHEETS—SHEET 2.

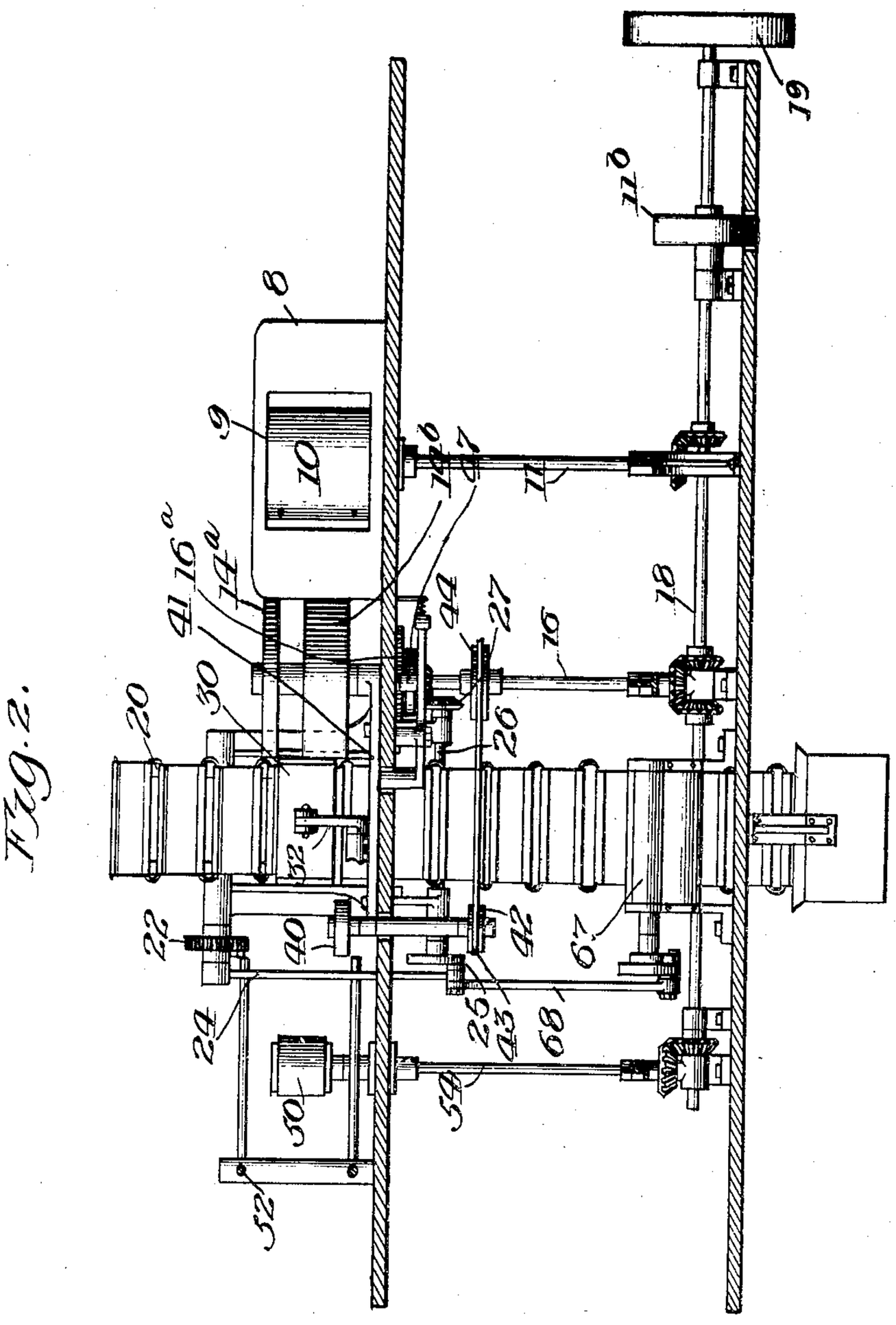

Fig. 2.

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4 SHEETS—SHEET 3.

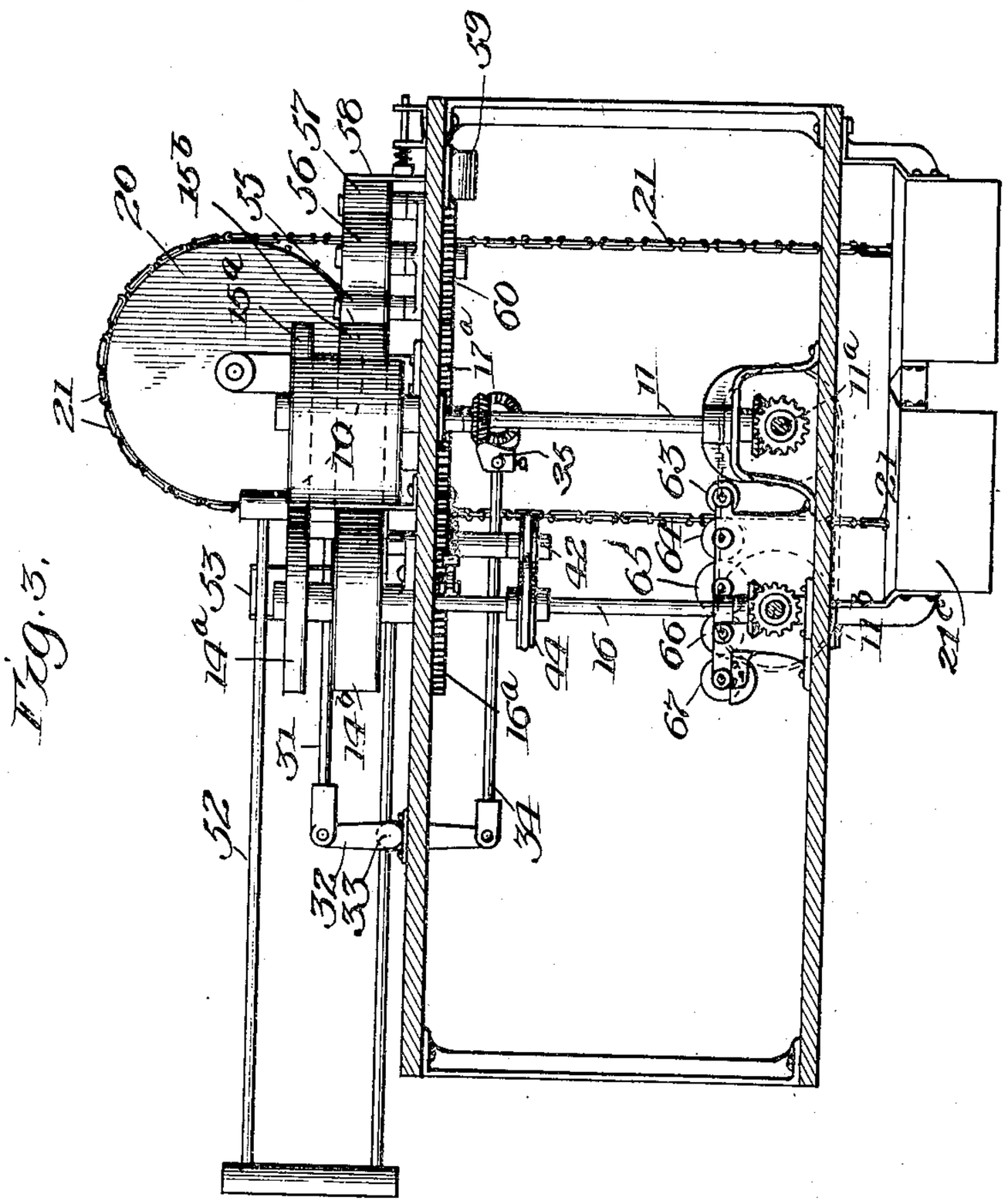

Fig. 3.

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APPLICATION FILED NOV. 12, 1906.

4 SHEETS—SHEET 4.

Fig. 4.

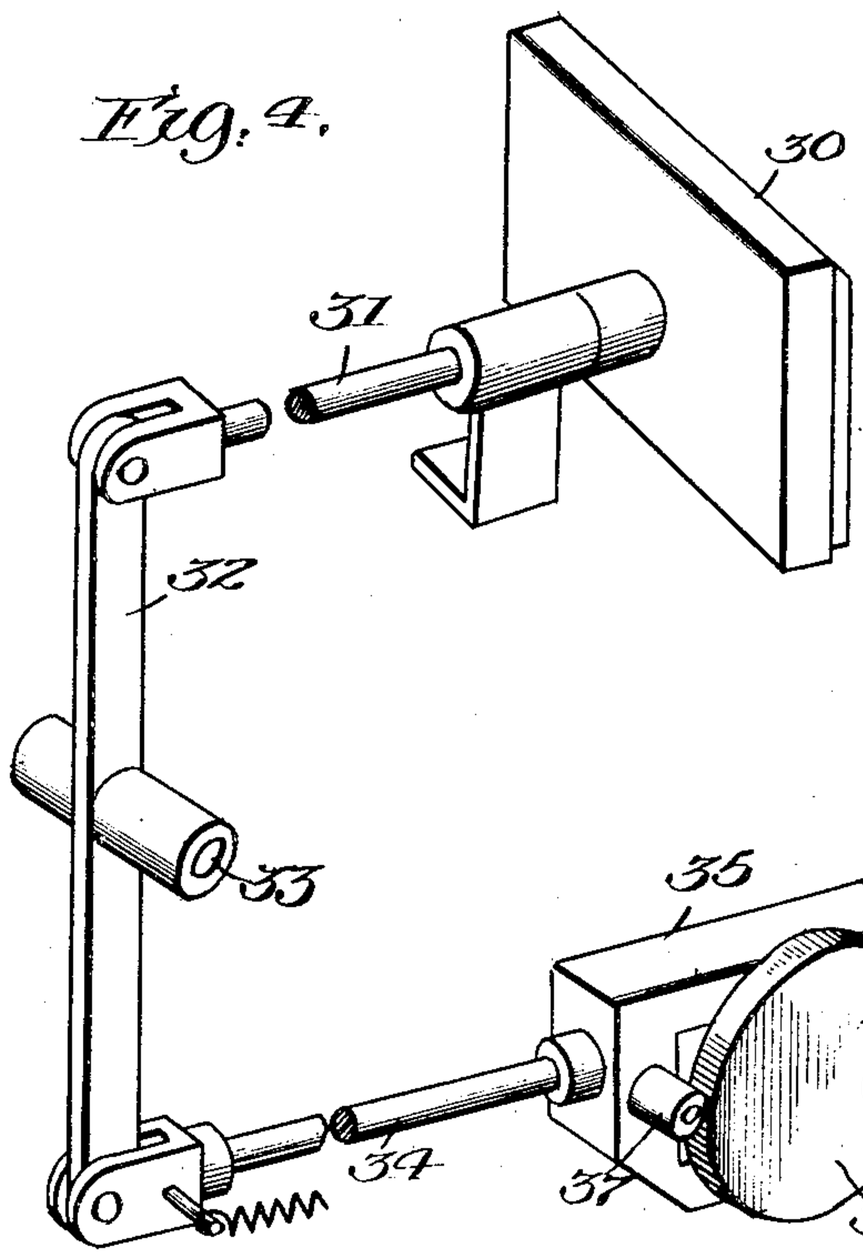


Fig. 6.

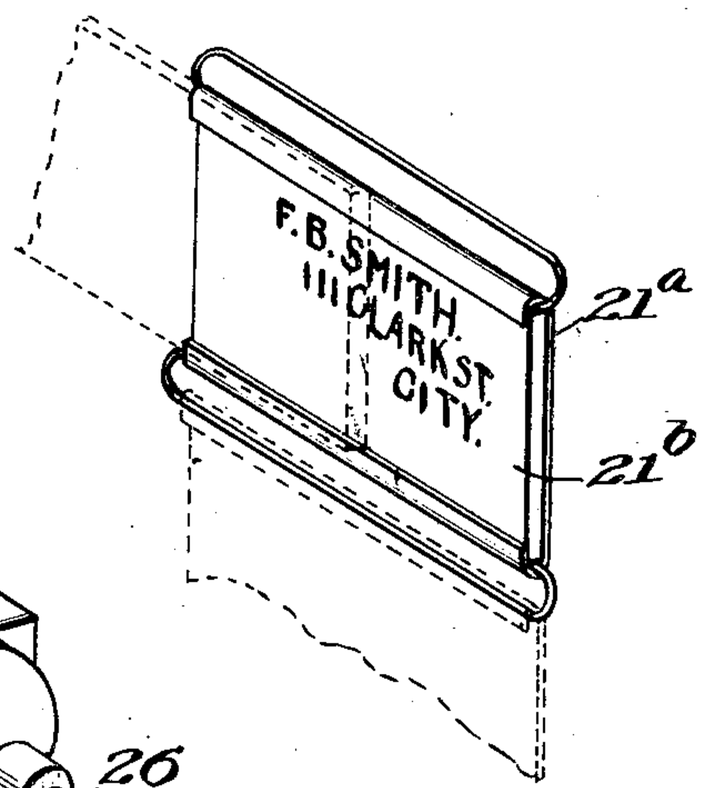
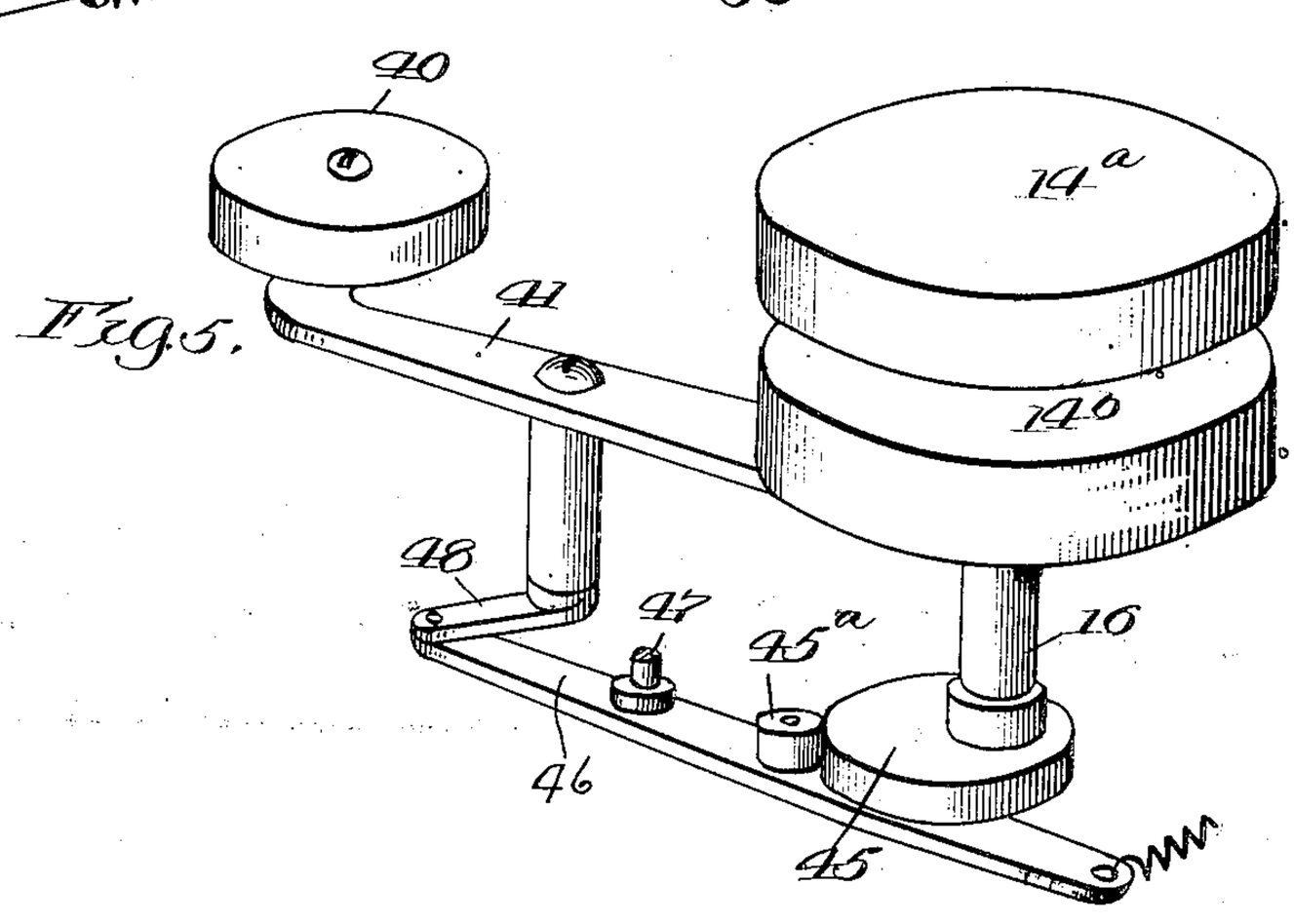


Fig. 5.



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UNITED STATES PATENT OFFICE.

MARTIN BURKE AND JOSEPH BURKE, OF CHICAGO, ILLINOIS.

ADDRESSING-MACHINE.

No. 878,117. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed November 12, 1906. Serial No. 343,091.

To all whom it may concern:

Be it known that we, MARTIN BURKE and JOSEPH BURKE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Addressing-Machines, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to addressing machines and especially to machines for addressing envelops.

The principal object of the invention is to provide a simple, practical and effective construction of addressing machine.

In the addressing machine which we herein show for carrying out our invention, we arrange to feed the envelops one by one to the addressing frames, where the addresses are automatically printed, and also arrange to print a return card on the envelop if desired, and then the envelops are fed from the printing mechanisms.

In the accompanying drawings, Figure 1 is a plan view of an addressing machine embodying our invention; Figs. 2 and 3 are vertical sections taken on lines 2—2 and 3—3 in Fig. 1, certain parts being omitted in Fig. 2 and other parts being shown in full lines for convenience of illustration. Figs. 4, 5 and 6 are details of construction.

Referring first to Fig. 1, the machine is provided with a horizontal top or table 1 on which is mounted a receptacle 2 for the envelops to be addresed. This receptacle conveniently consists of horizontal bars or rods 3, 3, and a sliding plate 4 which is arranged to slide along the rods 3, 3 and force the envelops out of the receptacle, and to such end is connected with cords 5, 5 which pass over pulleys 6, 6 and are provided with weights 7, 7 which hold the slide 4 against the envelops and exert pressure thereon. An abutment 8 is also mounted on the top 1 and arranged opposite the mouth or opening of the receptacle 2, so that the envelops are pushed against it and this abutment is provided with an opening 9 (Fig. 2). A cam 10 is mounted on a rotary shaft 11 and provided with a rubber band or covering 12, and a pin 13, and arranged to rotate so that the cam 10 will enter the opening 9 in the abutment 8 and the pin 13 will engage the same and move it along the abutment 8. The shaft 11 is driven by miter gear connections with a rotary shaft 11^a (Fig. 3) which is in turn connected by a belt and pulleys 11^b with the main driving shaft 18. A guide 8^a with a spring finger 8^b is arranged with its end near the end of the abutment 8 to guide the envelops and hold the same against said abutment.

A pair of rolls 14, 15 are arranged at one side of the cam 10, and provided with upper portions 14^a, 15^a which are rubber covered and serve as feed rolls for the envelops, and are also provided with lower portions 14^b and 15^b, whereof the portion 15^b is provided with types or an electrotype indicating the name and address of the party sending the envelops, and the portion 14^b is provided with a pad adapted to coöperate with said electrotype to print said address on the envelop. The rolls 14 and 15 are mounted on rotary shafts 16 and 17 respectively. The shaft 16 is driven by miter gear connections with a main driving shaft 18 having a pulley 19. The roll 14 is driven by gears 16^a and 17^a respectively on the shafts 16 and 17. At the left of the rolls 14 and 15 is a wheel or sprocket 20 suitably mounted on a rotary shaft and carrying a chain 21, consisting of a series of frames 21^a each provided with type representing a name and address. The types of each frame are preferably of rubber glued to the holders 21^b (Fig. 6) which are preferably made of pasteboard, and arranged to slide into and out of the frames 21^a, as shown in Fig. 6. The frames are made detachable from one another, as shown in said figure. The ends of the chain 21 are deposited in boxes 21^c, Fig. 3. The wheel 20 is automatically rotated in a step-by-step manner by a ratchet wheel 22 and ratchet 23 operated by a crank 25 on a shaft 26 which is driven from the shaft 16 by miter gears 27. A plate 29 having an aperture is arranged in front of the wheel 20 so that the types on said wheel come one after another into position behind said plate 29, and a reciprocating plunger 30 is arranged opposite the aperture of plate 29 with space between it and said plate for one of said envelops. The plunger 30 is provided with a pad adapted to act as platen and force the envelop against the type which happens to be in position behind the plate 29. The plunger 30 is mounted on a reciprocating shaft 31 connected with a rocker arm 32 which is mounted on a pivot shaft 33 (Figs. 3 and 4) and is in turn connected with a link 34 the shaft 33 and link 34 being omitted from Fig. 2 for convenience of

illustration. The latter is provided with a box 35 through which the horizontal shaft 26 is passed, and said box is also provided with a roller 37 adapted to coöperate with cam 36 on said shaft 26. At the left of the printing mechanism, consisting of the reciprocating plunger 30 and rubber type addresses, are located a pair of rolls 39 and 40, whereof the roll 39 is a stationary idle roll suitably mounted on the machine frame, and the roll 40 is on a vibratory or rocking arm 41 which extends to the right (Fig. 1) and is mounted upon the shaft 16. The spindle on which said roll 40 is mounted is extended down and provided with a pulley 42 from which a belt 43 extends to another pulley 44 on said shaft 16, whereby the rotation of said shaft induces rotation of the roller 40. A cam 45 is also mounted on the shaft 16 and arranged to act against a lever 46 pivoted at 47 and connected by a link 48 with the lever arm 41, whereby the roller 40 ordinarily coöperates with the roll 39 to advance the envelops from the printing mechanism, but is automatically withdrawn temporarily to permit a stoppage of said envelop during the printing operation.

Another feed roll 50 is provided at the left of the rolls 39 and 40 and provided with a rubber covered cam 51 adapted to act upon the envelops coming from the printing mechanism. A receptacle 52 for the addressed envelops is located at the left hand side of the machine, the same conveniently consisting of rods or bars having a slide 53 against which the envelops are pressed. The roll 50 is mounted on a rotary shaft 54 gear connected and driven by the main driving shaft 18.

The card electrotype or stereotype on the roller 15^b is automatically inked by inking rollers 55, 56 and 57 coöperating with an inking disk 58 working in an ink fountain 59. The first roll 55 is driven by gear wheel 60 meshing with gear 17^a.

A feed roller 63 and inking rollers 64, 65 and 66 are provided for inking the rubber types 21, 21, and these rollers coöperate with an ink fountain roller 67. These inking rollers are driven by a rod connection 68 with the crank 25.

The operation of the device is as follows: A quantity of envelops are put in the receptacle 2 and the machine started, as a result of which the rotary member 10 will revolve and its cam 12 will engage the envelops one by one and feed them out of the receptacle to the rollers 14 and 15. By these rollers a card containing the name and address of the party sending out the envelops, will be printed upon one corner of each envelop. The envelops are then automatically fed to the left and come into position opposite the large wheel 20, and each one is stopped there and plunger 30 is operated to cause a name and address of rubber type to be printed upon the envelop. During this operation the feed roller 40 is withdrawn so that the envelop remains stationary in printing position. The roller 40 is then returned and operates to feed the envelops to the left and into the receptacle 52. This operation is repeated time after time, each envelop being printed with a card and then an address and then fed into the receptacle 52. The different addresses are brought into printing position by the intermittent or step-by-step movement of the wheel 20.

It will be understood that changes and modifications may be made without departing from the spirit of the invention.

What we claim is:—

1. An addressing machine comprising a pair of coöperating rollers, one of which is provided with types for the card of the party sending out the addressed articles, and addressing mechanism comprising a series of connected type-bearing frames, means for advancing said frames into printing position, a reciprocating plunger to coöperate with the type-bearing frame in printing position, and means for actuating said plunger and said card printing rolls.

2. An addressing machine, comprising a rotary wheel carrying a chain composed of connected frames each provided with an address, and ratchet mechanism for intermittently advancing said wheel, a rotary shaft for actuating said ratchet mechanism, means for rotating said shaft, a reciprocating plunger to coöperate with the address in printing position, a reciprocating link operating said plunger, a pivoted lever 32 operating said link, a link 34 connected with said lever 32, a cam on said rotary shaft, and a pin on said link 34 for reciprocating the latter.

3. In an addressing machine, the combination of two rolls 14 and 15 arranged side by side and in contact with one another, the roll 14 having an upper section 14^a and lower section 14^b, and the roll 15 having an upper section 15^a and lower section 15^b, whereof the sections 14^a and 15^a coöperate and contact with one another and the sections 14^b and 15^b do the same, the upper sections 14^a and 15^a being adapted to feed the articles to be printed upon, and one of the lower sections being provided with printing devices and the other being adapted to coöperate therewith, whereby said lower sections print upon the article fed by the upper sections, rotary shafts carrying said rolls, means for driving one of said shafts, gear connections between the same and the other shaft, and inking rollers coöperating with said type-carrying roll.

4. The combination with the printing mechanism, of feed rolls 14 and 15 arranged to feed the articles to be printed upon to the printing mechanism, a pair of rolls 39 and 40 to feed the articles away from the printing mechanism, a swinging arm 41 carrying the

roll 40, and mechanism for swinging said arm to withdraw the roll 40 from the roll 39 during the printing operation.

5. The combination with the printing mechanism, of feed rolls 14 and 15 arranged to feed the articles to be printed upon to the printing mechanism, a pair of rolls 39 and 40 to feed the articles away from the printing mechanism, a swinging arm 41 carrying the roll 40, a cam rotating with the roll 14, a pivoted lever 46 arranged to be actuated by said cam, and a connection between said lever 46 and arm 41 whereby the latter is actuated to intermittently withdraw the roll 40 from feeding position.

6. The combination of a pair of feed rolls 14 and 15, printing mechanism, a pair of feed rolls 39 and 40, a rotary shaft carrying one of said rolls 14 and 15, gear connections to the other roll, a swinging arm 41 carrying the roll 40, a flexible connector between the shaft of the roll 40 and the shaft of the roll 14 for continuously turning the former, and mechanism actuated by the shaft 16 of the roll 14 for swinging said arm 41 to withdraw the roll 40 intermittently from feeding position.

7. An addressing machine, comprising a receptacle for the articles to be addressed, an abutment, and means for forcing said articles against said abutment, said abutment being provided with an aperture, a rotary feed member 10 having a cam 12 with a pin 13 for feeding said articles from said receptacle and arranged to operate through the opening of said abutment, a pair of feed rolls 14 and 15 to receive said articles from said receptacle, said rolls being provided with printing mechanism, means for rotating said rolls, a rotary wheel carrying an endless chain of connected frames having addresses and ratchet mechanism for intermittently turning said wheel, means for actuating said ratchet mechanism, a reciprocating plunger for printing said addresses, means for reciprocating said plunger, a pair of rolls 39 and 40, and means for withdrawing the roll 40 intermittently during the printing operation.

8. An addressing machine, comprising a receptacle for the articles to be addressed, an abutment, and means for forcing said articles against said abutment, said abutment being provided with an aperture, a rotary feed member 10 having a cam 12 with a pin 13 for feeding said articles from said receptacle and arranged to operate through the opening of said abutment, a pair of feed rolls 14 and 15 to receive said articles from said receptacle, said rolls being provided with printing mechanism, means for rotating said rolls, a rotary wheel carrying a chain of connected frames having addresses, and ratchet mechanism for intermittently turning said wheel, means for actuating said ratchet mechanism, a reciprocating plunger for printing said addresses, means for reciprocating said plunger, a pair of rolls 39 and 40, means for withdrawing the roll 40 intermittently during the printing operation, and a receptacle and feeding device 50 for feeding the articles into said receptacle.

In witness whereof, we hereunto subscribe our names this 3rd day of November A. D., 1906.

MARTIN BURKE.
JOSEPH BURKE.

Witnesses:
CONRAD D. FOUTE,
BENJ. L. GATES.