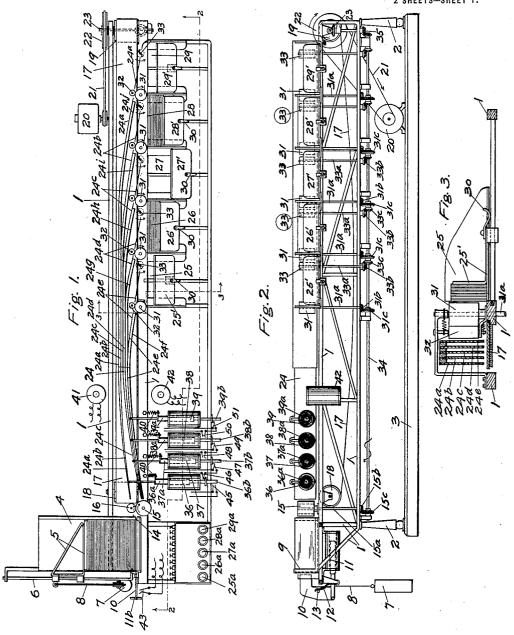
A. S. TREW.
DISTRIBUTING MACHINE.
APPLICATION FILED AUG. 25, 1913.

1,246,358.

Patented Nov. 13, 1917.



Witnesses.

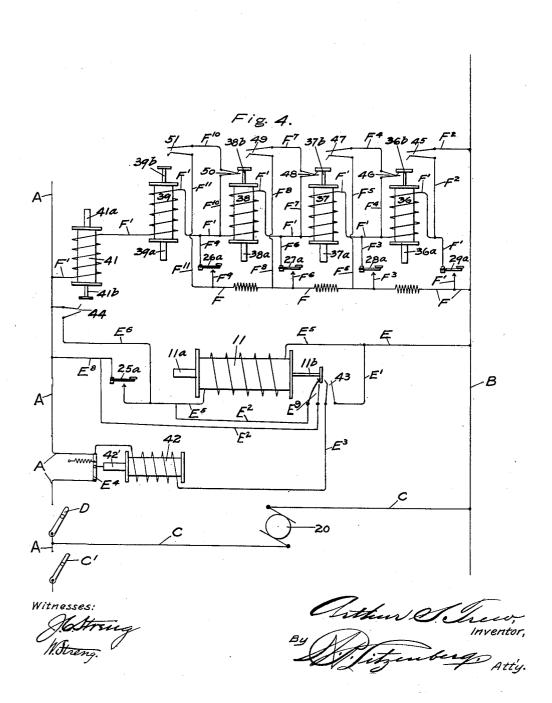
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## UNITED STATES PATENT OFFICE.

ARTHUR S. TREW, OF PORTLAND, OREGON.

## DISTRIBUTING-MACHINE.

1,246,358.

Specification of Letters Patent.

Patented Nov. 13, 1917.

Application filed August 25, 1913. Serial No. 786,546.

To all whom it may concern:

Be it known that I, ARTHUR S. TREW, a citizen of the United States, residing in the city of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Distributing-Machines, of which the following is a

specification.

My invention relates to distributing ma-10 chines, and more particularly to a machine for distributing cards, tickets, letters, and other matter, and comprises certain improvements in the machine shown and described in my pending application for Letters Patent, filed April 20, 1912, under Serial No. 692,146. In that machine the cards, tickets and the like are struck downwardly from a container, and are directed downwardly through vertical chutes or passageways into 20 suitable receiving pockets or apartments. In this machine, the matter to be distributed is ejected from a container and carried laterally by a conveyer to the various receiving pockets or apartments.

Broadly stated, therefore, the invention comprises a mechanism by means of which cards, tickets, letters and other matter, placed in a suitable container, can be ejected therefrom, one by one, and be carried by a 30 horizontally traveling conveyer and deposited into receiving pockets, there being a series of operating keys corresponding to said receiving pockets, whereby the manipulation of a certain key, ejects a card or letter 35 from the container, which is instantly car-

ried to and deposited in the pocket corresponding to the key struck.

In order that others may understand my invention, I have shown in the accompany-40 ing sheets of drawings one practical embodiment thereof, which I will now describe.

Figure 1 is a top plan view of a machine

embodying the invention;

Fig. 2 is a side elevation, partly in sec-45 tion longitudinally, as if taken on line 2-2 of Fig. 1;

Fig. 3 is a cross sectional view taken on

line 3—3 of Fig. 1;

Fig. 4 is a diagrammatic view showing 50 the circuit connections for operating the machine, this being an electrically operated embodiment.

The embodiment of the invention here shown for purposes of illustration, comprises 55 a double rectangular frame, 1-1. with legs 2-2, set upon a suitable base 3. At the end

of the supporting frame is mounted a boxlike container 4, adapted to receive cards, tickets, letters and the like, which are moved forwardly therein by a follower, as 5, slid- 60 ably mounted upon a rod, as 6, and drawn against the cards by means of a suspended weight 7, at the end of a cord 8. The front of said container is open sufficiently to display the matter upon the foremost card, as 65 at 9, and may be provided with a glass front. An ejector 10, arranged to be oscillated across the front of said container by means of a solenoid, as 11, ejects the foremost card laterally from said container, in a manner 70 well understood. Said ejector is returned to its normal position, as soon as the solenoid is demagnetized, by means of a spring, as 12, which bears outwardly against a pin, as 13, carried by said ejector. Adjacent the 75 side opening 14, in said container, and through which the cards, tickets, or letters, are ejected one at a time, are two feed rollers, as 15 and 16, between which the card is directed from the container by the ejector, 80 and by means of which it is drawn and directed laterally, in an edgewise position, to a horizontally traveling conveyer, as 17, extending along the machine from said container and around suitable pulleys, as 18 85 and 19, the pulley 19 driving said conveyer or belt and being itself driven by means of a motor, as 20, connected by means of a belt 21, running over a driving pulley, as 22, upon the shaft 23 of said pulley 19.

Mounted immediately above said conveyer, in the present form of the invention, and set edgewise therealong, is a series of flexible guide members or vanes, as 24, comprising in the present showing six different vanes, designated 24<sup>a</sup>, 24<sup>b</sup>, 24<sup>c</sup>, 24<sup>d</sup>, 24<sup>e</sup> and 24<sup>t</sup>, the outer leaves 24<sup>a</sup> and 24<sup>t</sup>, being fixed in the president above 11.11.24<sup>t</sup>, real-sections in the positions shown, while the ends of the other vanes or members, adjacent the feed rollers 15 and 16, are movable by means 100 hereinafter described, to open different guideways therebetween to the receiving pockets or apartments. Said vanes or members are spaced apart along their middle portions, as indicated in Fig. 3, and at their 105 delivery ends they are turned laterally so as to successively terminate at receiving pockets or apartments, of which I have shown five, designated, respectively, 25, 26, 27, 28 and 29, provided with suitable followers designated, respectively, 25', 26', 27', 28' and 29', each yieldingly held in sliding

position by means of a spring, as 30, illustrated in Fig. 3, whereby as the cards are discharged into the pockets or apartments, said followers are gradually forced out-

5 wardly.

At the pocket or delivery end of each of said guide vanes or members, I have shown rotatably mounted a pair of feed rollers, as 31 and 32, which facilitate the deposit of 10 the cards, said vanes each being cut away, if necessary, whereby to receive the rollers 32, as illustrated in Fig. 1. Fixed vane 24<sup>f</sup> and a companion strip 24<sup>e</sup> form a guideway therebetween leading to the first pair of 15 rollers 31—32 and the first receiving pocket 25. Vane 24<sup>d</sup> with its short companion vane 24<sup>g</sup>, forms a guide-way leading to the feed Vane 24°, with a short rollers at pocket 26. companion vane 24h, forms a guideway lead-20 ing to the feed rollers discharging into pocket 27. Vane 24<sup>b</sup> with its companion vane 24<sup>t</sup>, forms a guideway leading to the pocket 28, while vane 24a, with its companion vane 24<sup>j</sup>, forms a guideway leading to 25 the feed rollers which discharge into pocket 29.

The short companion vanes or strips, 24g, 24h, 24i and 24i, as shown in the drawings, are short strips which extend, respectively, 30 parallel with their respective vanes from points where said main vanes commence to turn laterally to their respective pockets, whereby to form a card channel or passageway to the feed rollers which facilitate the 35 deposit of the cards into the pockets.

In order to further facilitate the proper discharge or deposit of the cards into their respective pockets or apartments, I provide a revoluble element, as 33, positioned at the 40 opposite side of each pocket and adapted to strike the cards or letters back into the pocket as they are delivered by the rollers

As a means for continuously driving said 45 feed rollers, 15 and 31 and said revoluble elements 33, said rollers and elements are mountd on vertical shafts, designated, respectively, 15a, 31a and 33a, and are provided at their lower ends with beveled gears, 50 as 15°, 31° and 33°, respectively, which mesh with other beveled gears, as 15°, 31° and 33°, upon a shaft 34, extending longitudinally of said machine, and being driven by means of a shaft and beveled gear connection to the 55 shaft 23, as indicated at 35, Fig. 2. The small rollers, designated 16 and 32, are driven by frictional contact with the rollers 15 and 31.

The movable ends of said vanes or mem-60 bers 24, are adapted to be moved singly or in groups to open the different passageways to the respective receiving pockets or apartments, by means of a series of magnets or solenoids, designated as 36, 37, 38 and 39, 65 the armatures or cores 36a, 37a, 38a and 39a,

of which are connected, respectively, with the movable vanes or members 24b, 24c, 24d and 24e, as indicated, said cores having coiled springs, as 40, attached to the frame 1, for drawing them outwardly into their 70 normal positions when the magnets or sole-noids are demagnetized. As illustrated in Fig. 1, solenoids 37, 38 and 39, are energized and their armatures or cores 37a, 38a and 39ª are drawn thereinto, thereby pulling the 75 members 24°, 24d and 24°, inwardly, whereby to open the passageway between vanes 24<sup>b</sup> and 24°, to receive the next card or letter from the container, between rollers 14 and 15, and leading to pocket or apartment 28. 80 In the present construction, with the circuit connections, hereinafter described, solenoids 38 and 39 are also energized so as to pull their respective vanes 24d and 24e inwardly with the member 24c, hereinbefore re- 85 ferred to.

A series of operating keys, as 25<sup>a</sup>, 26<sup>a</sup>, 27<sup>a</sup>, 28a and 29a, corresponding with the receiving pockets, or apartments, 25, 26, 27, 28 and 29, are provided, which keys are manu- 90 ally operated to control the proper circuits to open the proper passageways to the respective pockets or receiving apartments. These keys, it will be understood, and as hereinafter pointed out, are connected into 95 the different circuits and when moved by the finger they complete the respective circuits necessary to energize the operating

solenoids.

I provide a magnet or solenoid, as 41 for 100 controlling a circuit through the ejector solenoid 11, and another, designated 42, for operating a main circuit breaker. The operation of a particular key, therefore, completes a circuit which includes one or more 105 magnets or solenoids which operate the vanes or members forming the guideways to the receiving pockets or apartments, there being a pocket corresponding to each key. Connected into the circuit, also, is solenoid 110 41 which controls the circuit through the ejector magnet 11, for operating the ejector immediately following the movement of the vanes which open the desired passageway to the desired pocket. At the finish of the 115 movement of the armature or core of said magnet or solenoid 11, it operates to complete a circuit through the solenoid 42, which immediately acts to break the main circuit, thereby permitting all parts to be 120 returned again to their normal positions.

These circuit connections and their oper-

ations are believed to be new and novel, and are most effective in the successful opera-

tion of the machine.

Referring now to the diagrammatic view, Fig. 4, showing the circuits and their connections, I will describe their operations. A and B designate the main lines of a main circuit. The motor 20, for operating the 130

125

1,246,358

machine, is connected into said main circuit by means of a connection through wires C—C, controlled by a switch C', whereby when said switch C' is closed, said motor circuit is completed and the motor started. A switch D, in the main line A, is used to make and break, at will, said main line circuit at a point beyond the motor circuit C, and whereby to connect said main circuit 10 through the machine, in order that its various operating circuits, which are controlled by manually and mechanically operated contact members, can be instantly put into action, in a manner now to be more par-15 ticularly described.

If it is desired to eject a card from the container and the foremost card is to be transferred to, and deposited into the re-ceiving pocket, leading to which the guide-20 way is normally open, as when all the parts are in their normal or neutral positions, it is only necessary to strike key 25<sup>a</sup>, which operates to complete a circuit from B to A through connections E, E<sup>5</sup>, key 25, and E<sup>8</sup>, 25 which energizes solenoid 11, and causes a movement of its core 11a, which operates the ejector 10, hereinbefore described. The circuit thus established by pressing key 25° is maintained, though the key be struck and 30 released, by a circuit established around the key, through the lines E2 and contact points E9, normally standing apart, but allowed to move together to establish said circuit by the movement of the core or armature 11b, 35 caused by the energizing of solenoid 11, which movement also moves contact points 43 together, and completes another circuit from B to A through wires E, E' and E<sup>3</sup>, thereby energizing solenoid 42, which oper-40 ates a main circuit breaker, as at E4, which may be of any desired form, but preferably operated in oil, whereupon the parts are all returned to their normal positions by means of the usual springs.

If the next card in the container indicates on its face that it belongs in receiving pocket 29, key 29° is struck, thereby completing a circuit from B to A, through F, and F', and energizing solenoids 36, 37, 38, 39 and 41, the latter being the controlling solenoid for the circuit through the ejector solenoid. With the movement of the core 36a of solenoid 36, its opposite end, 36b, moves together two contact points 45 and at the same time 55 permits contacts 46 to open, thus establishing a circuit from B, through F<sup>2</sup>, contact members 45, and F<sup>2</sup> to F', which makes it possible to release key 29<sup>a</sup> without breaking the circuit on the key, which would cause a 60 spark at the key, which would be objectionable. In other words, by striking a key, the circuits mentioned are established, the functions are performed, and the circuits are afterward broken and all parts returned to 65 their normal positions. There is one of these

retaining circuits provided for each of the solenoids 36, 37, 38 and 39, connecting line F with F', and designated, respectively as follows:

For solenoid 37, it comprises F4, with con-70 tacts 46 and 47, and F5. For solenoid 38, it comprisese F7, with contacts 48 and 49, and F<sup>8</sup>. For solenoid 39 it comprises F<sup>10</sup>, with contacts 50 and 51, and F<sup>11</sup>. These connections between line F and F' operate, respectively. tively, when their respective keys are pressed, to establish a circuit around the key, in order to permit the instant release of the key. Each of the solenoids or magnets moves its particular vane or member, where- 80 by to open the proper passageway, said movable vanes being designated respectively, as 24<sup>b</sup> 24<sup>c</sup>, 24<sup>d</sup> and 24<sup>e</sup>, and connected at their movable ends to the armatures or cores of said magnets or solenoids. The rearmost 85 vane 24<sup>a</sup> is stationary, and the passageway formed between it and vane 24<sup>b</sup>, leads to receiving pocket 29. The passageway between members 24b and 24c, shown in Fig. 1 as open to receive a card from the container, leads to 90 receiving pocket 28.

With the energizing of any or all of the operating solenoids of the distributer, solenoid 41 is also energized, moving its core 41a so that the opposite end 41b thereof moves 95 contact members 44 together, completing a circuit through line E, E<sup>5</sup> and E<sup>5</sup>, and energizing the ejector solenoid 11, which operates the ejector to eject a card from the container. The movement of the core b11, of 100 said ejector solenoid 11, operates to move contact members 43 together, thereby completing a circuit through E, E', E<sup>3</sup>, between B and A, and energizing solenoid 42, which operates the main circuit breaker at E<sup>4</sup>, 105 whereupon all of the parts are automatically returned to their normal positions under the action of their respective springs.

If the next card in the container belongs in receiving pocket 28, key 28a is pressed, 110 thereby completing a circuit from B to A through F, F<sup>3</sup>, key 28<sup>2</sup> and F', which energizes solenoids 37, 38, 39 and 41, as before. Solenoid 36 is not energized for the reason that its key 29a is open, as is also contact 115 points 45. The pressing of key 28a operates to energize the solenoids mentioned, and to move their cores which operate to close contact points 47, 49 and 51, but permit contact points 48 and 50 to open. Solenoid 36 not 120 being energized, contact points 46 remain closed, and a retaining circuit is thus established from F to F' through F<sup>4</sup>, points 46 and 47 and F<sup>5</sup>, which retains the connection established by pressing the key, though the 125 key 28<sup>a</sup> is instantly released. The solenoid 41, and the ejector solenoid 11 and the circuit breaker solenoid 42, perform their respective functions successively, as hereinbefore referred to.

130

If the next card should properly belong in receiving pocket 27, key 27a is pressed, thereby completing a circuit from B to A through F, F<sup>6</sup>, key 27<sup>a</sup>, F<sup>6</sup>, and F', whereupon sole-5 noids 38, 39 and 41 are energized, as before. Solenoids 36 and 37 are dead for the reason that their keys and also contact points 45 and 47 are open. The circuit around solenoids 38 and 39 and 41 is maintained, as be-10 fore described, though the key is released, by circuit from F to F' through F', contacts 48 and 49 and F<sup>8</sup>, contacts 49 having been closed by the movement of the core 38<sup>b</sup> of solenoid 38, as before described in connection with 15 solenoids 37 and also 36. The operation of the solenoid 41 is the same as before described, as also is the operation of the ejector solenoid 11, and the circuit breaker sole-

The operation of key 26° operates to deposit the next card in receiving pocket 26. A circuit is established from B to A through F, F°, key 26°, F° and F', energizing solenoids 39 and 41, as before. The circuit is main-25 tained, though the key be not held down. through a circuit established through F10, points 50, F10, points 51 and F11, the points 51 having been closed by the movement of the solenoid core 39b, as before described, 30 and contact points 50 remaining closed for the reason that solenoids 38, 37 and 36 are energized. Solenoid 41 performs its function, as before, as does the ejector solenoid in operating the ejector and in completing 35 the circuit through the solenoid 42, which breaks the main circuit, permitting all parts to be automatically returned to their normal

The information on the foremost card in 40 the container indicates in which pocket it belongs, and which key should be struck to effect its deposit in that particular pocket. By striking that key, the particular circuit is completed and the solenoid or solenoids 45 necessary to open the proper passageway to said pocket is, or are, energized. The controlling solenoid 41 always operates instantly thereafter to close the circuit of the ejector solenoid, which operates the ejector to eject 50 the card on to the traveling conveyer, as hereinbefore described, and also completes a circuit through the solenoid 42 for breaking the main circuit, to permit the parts to return to their normal positions. This cycle 55 of operations takes place with the stroke of each key, and the action, in effect, is as if the foremost card were struck from the container directly into a particular receiving pocket or apartment, and the cards can thus 60 be struck from the container and deposited instantly in the proper receiving pocket as fast as the foremost card can be read and the

I have shown and described one practical 65 embodiment of the invention for purposes

proper key struck by the operator.

of illustration, but I am aware that other modifications thereof can be made without departing from the spirit of the invention, and I do not, therefore, limit the invention to the particular embodiment here shown 70 and described, except as I may be limited by the hereto appended claims.

As to the broader aspects of my invention herein disclosed, the same will be claimed in my co-pending application Serial No. 6159, 75 filed Feb. 4, 1915 covering applicant's more perfected type of machine, and which application, so far as common subject-matter is concerned may properly be considered a continuation of this case. The claims herein 80 retained will be directed to those features of the machine distinguishing the same from said later machine.

I claim:

1. A distributing machine comprising in 85 combination, a container, an ejector therefor, a series of receiving pockets, a traveling conveyer from said container to said pockets, elongated spring guide members adjacent said conveyer for directing the matter dis- 90 tributed to the various pockets, operating keys corresponding to said pockets, and operating connections from said keys to said ejector and guide members, whereby the manipulation of said keys operates said 95 ejector and deflects said spring guide mem-

2. A distributing machine comprising in combination, a container, an ejector therefor, a series of receiving pockets, a traveling con- 100 vever from said container to said pockets, guide members adjacent said conveyer for directing the matter distributed to the various pockets, magnets for operating said guide members, a source of electrical energy 105 with circuit connections to said magnets, a series of operating keys corresponding to said pockets, and operating connections from said keys to said ejector and into said circuits for said magnets, whereby the operation of a key operates said ejector and a cortion of a key operates a cortion of

responding guide member. 3. A distributing machine comprising in combination, a container, an ejector therefor, a magnet for operating said ejector, a 115 source of electrical energy with circuit connections to said magnet, a series of receiving pockets, a traveling conveyer from said container to said pockets, guide members adjacent said conveyer for directing the mat- 120 ter distributed to the various pockets, a series of operating keys corresponding to said pockets, and operating connections from said keys into said circuit connections and to said guide members, whereby the manipu- 125 lation of said keys operates said ejector and said guide members.

4. A distributing machine comprising in combination, a container, an ejector therefor, a magnet for operating said ejector, a 130

series of receiving pockets, a traveling conveyer from said container to said pockets, guide members adjacent said conveyer for directing the matter distributed to the vasious pockets, magnets for moving said guide members, a source of electrical energy with circuit connections to all of said magnets, and a series of operating keys corresponding to said pockets and having connections into said magnet circuits, whereby the manipulation of said keys operates said ejector and said guide members, for the purpose referred to.

5. In a distributing machine for cards,
15 letters and the like, in combination, a container, an ejector for said container, a horizontally traveling conveyer from said container, a series of receiving pockets along said conveyer, movable guide members adjacent said conveyer for holding said cards, letters and the like edgewise upon the conveyer, said guide members leading to the various pockets, means for operating said ejector and said guide members, a series of operating finger keys, and operative connections from said keys to the means for operating said ejector and said guide members, for the purpose referred to.

6. In a distributing machine for cards,
30 letters and the like, in combination, a container, an ejector for said container, a horizontally traveling conveyer leading from said container, a series of receiving pockets adjacent said conveyer, means supporting
35 said cards and letters edgewise while being conveyed by said conveyer, means for guiding them from the conveyer to the various receiving pockets, a series of operating keys corresponding to the various pockets,
40 and operative connections from said keys to said ejector and to the guiding means, whereby the manipulation of said keys operates said ejector and said guiding means, for the purpose referred to.

7. In a card distributing machine of the character referred to, in combination, a container, an electrically operated ejector therefor, a series of receiving pockets, a horizontally traveling conveyer from said container 50 to said pockets, movable guide members along said conveyer for holding said cards edgewise and directing them to the various receiving pockets, electrically operated means for moving some of said guide mem-55 bers, a source of electrical energy with circuit connections for the electrically operated mechanism, and a series of finger keys corresponding to said pockets, and having controlling connections into said circuit connec-60 tions, whereby the operation of said keys operates said ejector and said guide members.

8. In a card distributing machine, in combination, a container, an ejector therefor, a 65 series of receiving pockets, a horizontally

traveling conveyer from said container to said pockets, vertically disposed guide members adjacent said conveyer for holding said cards edgewise while being conveyed by said conveyer, said guide members leading to 70 the various receiving pockets and some of them being movable, a source of electrical energy, magnets for operating said ejector and said movable guide members, circuit connections therefor with said source of 75 electrical energy, a series of operating keys corresponding with said receiving pockets, and controlling connections from said keys into said circuit connections, whereby the manipulation of said keys operates said ejec- 80 tor and said movable guide members.

9. In a card distributing machine, in combination, a container, an ejector therefor, a series of receiving pockets, a horizontally traveling conveyer from said container to 85 said pockets, a series of movable guide members set edgewise above said conveyer at a space apart, whereby to provide guideways to said pockets and through which said cards are carried edgewise by said conveyer, a series of operating keys corresponding to said pockets, and operating connections between said keys and said ejector and said movable guide members, whereby the manipulation of said keys operates said ejector and said 95 guide members, for the purpose referred to.

10. In a card distributing machine, in combination, a container, an ejector therefor, a series of receiving pockets, a horizontally traveling conveyer from said container 100 to said pockets, a series of movable guide members set edgewise above said conveyer, whereby to provide guideways to said receiving pockets and through which said cards are carried edgewise by said conveyer, 105 a series of operating keys corresponding to said pockets, magnets for operating said ejector and said guide members, a source of electrical energy with circuit connections to said magnets, and operating connections 110 from said keys into said circuit connections, for the purpose referred to.

11. In a distributing machine of the character described, in combination, a container. an ejector therefor, a series of receiving 115 pockets, distributing mechanism between said container and said pockets, a main circuit with circuit breaker therein, parallel connecting circuits across said main circuit and having circuit making and breaking de- 120 vices therein, an electromagnet for operating said main circuit breaker included in one of said parallel circuits, an electromagnet for operating said ejector included in another parallel connecting circuit, and a 125 series of electromagents for operating said distributing mechanism included in another parallel connecting circuit, with operating keys interposed therein for making and breaking their circuit at will, one of said 130

electromagnets operating to close the circuit of the ejector magnet, which in turn operates to close the circuit of the magnet which operates the main circuit breaker, substantially

5 as shown and described.

12. In a distributing machine of the character described, in combination with a container for the matter to be distributed, an ejector in coöperative relation to the con-10 tainer, distributing mechanism and receiving pockets for said matter, of a series of solenoids with movable cores for operating said mechanisms, a source of electrical energy, a main circuit therefrom, a plurality 15 of connecting circuits in parallel across said main circuit for energizing said solenoids, circuit making and breaking devices included in said main circuit and said parallel circuit connections, operating keys for 20 making and breaking certain circuits at will, and connections whereby solenoids on one parallel circuit, when energized, operate to successively close the circuits of the other parallel connections for the purpose of ener-25 gizing their respective solenoids in order until the main circuit breaking device is opened by its solenoid, substantially as and for the purpose described.

13. A distributing machine for cards, tick-30 ets and letters, comprising in combination a container therefor, an ejector, a series of receiving pockets, an endless conveyer belt extending from said container to and along said receiving pockets, means for driving 35 the same, guide members having movable portions and arranged immediately above said conveyer for supporting said cards, tickets and letters, edgewise upon said conveyer belt, a series of manually operable 40 finger keys corresponding to said receiving pockets, and operating connections from said keys to said ejector and to the movable portions of said guide members, whereby the pressing of a finger key operates said 45 ejector and a movable part of said guide members and opens a passageway into the corresponding pocket to receive the ejected

card.

14. In a distributing machine for cards, 50 letters and the like, in combination, a container with ejector therefor, a series of receiving pockets, guiding members from said container along said receiving pockets, some of said members being movable to direct the 55 cards and letters to different pockets, feed rollers cooperating with said guide members and driving said cards edgewise therealong, finger keys corresponding to said receiving pockets, and operating connections 60 between said keys and the movable guide members for moving them to direct the cards

or letters into the respective receiving pockets and movable supporting means on which the lower edges of the cards may rest in their

travel to the pockets.

15. In a distributing machine for cards and letters, in combination, a container with ejector for ejecting the cards one by one, a series of receiving pockets, guide members from said container to said receiving pockets 70 and adapted to hold the cards in vertical edgewise positions, some of said guide members being movable to direct the cards and letters into different pockets, means engaging the lower edges of the cards for passing 75 the cards in vertical edgewise positions along said guide members, a series of finger keys corresponding to said receiving pockets, and electrical operating connections controlled by said keys for moving said mov- 80 able guide members to direct said cards and letters into the different pockets.

16. In a distributing machine for cards and letters, in combination, a container therefor, an ejector operating therein, a 85 series of receiving pockets therefor, means for supporting the lower edges of the cards, means for passing the ejected cards and letters in vertical edgewise position from said container to said pockets, electrically con- 90 trolled means for directing said cards and letters to the respective receiving pockets, a series of finger keys corresponding to said pockets, a source of electrical energy, electromagnets, and circuit connections between 95 said keys, and said magnets, whereby the pressing of said keys controls the distribution of said cards and letters to the respec-

tive pockets.

17. In a distributing machine for cards 100 and letters, in combination, a container therefor, an ejector with operating magnet therefor, a series of receiving pockets therefor, means for supporting the ejected cards in a vertical edgewise position, feed rollers 105 for passing the cards and letters in the vertical edgewise position toward said pockets, movable guide members for directing the cards to the respective pockets, magnets for controlling said movable guide members, a 110 series of finger keys corresponding with said receiving pockets, and circuit connections between said keys and said magnets, whereby the operation of a key causes the operation of the ejector and a movable guide 115: member to direct the ejected card or letter to a corresponding pocket.

ARTHUR S. TREW.

In presence of-R. B. French, P. P. Rodes.