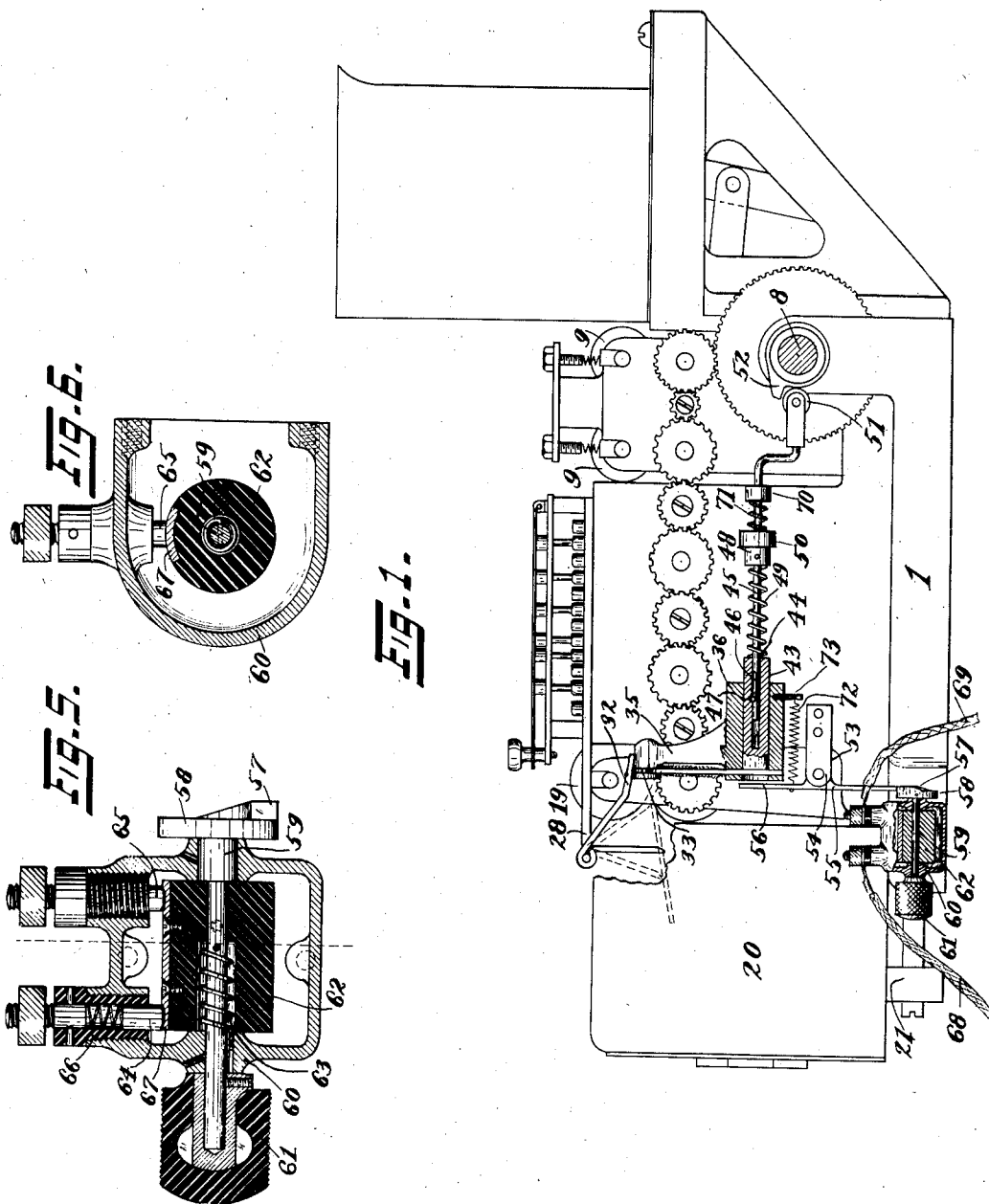


J. POWERS.
CARD FEED ACTUATED STOP.
APPLICATION FILED OCT. 31, 1914.

1,317,458.

Patented Sept. 30, 1919.

4 SHEETS—SHEET 1.



Witnesses:
Chas. E. Whitman.
H. O. Penny

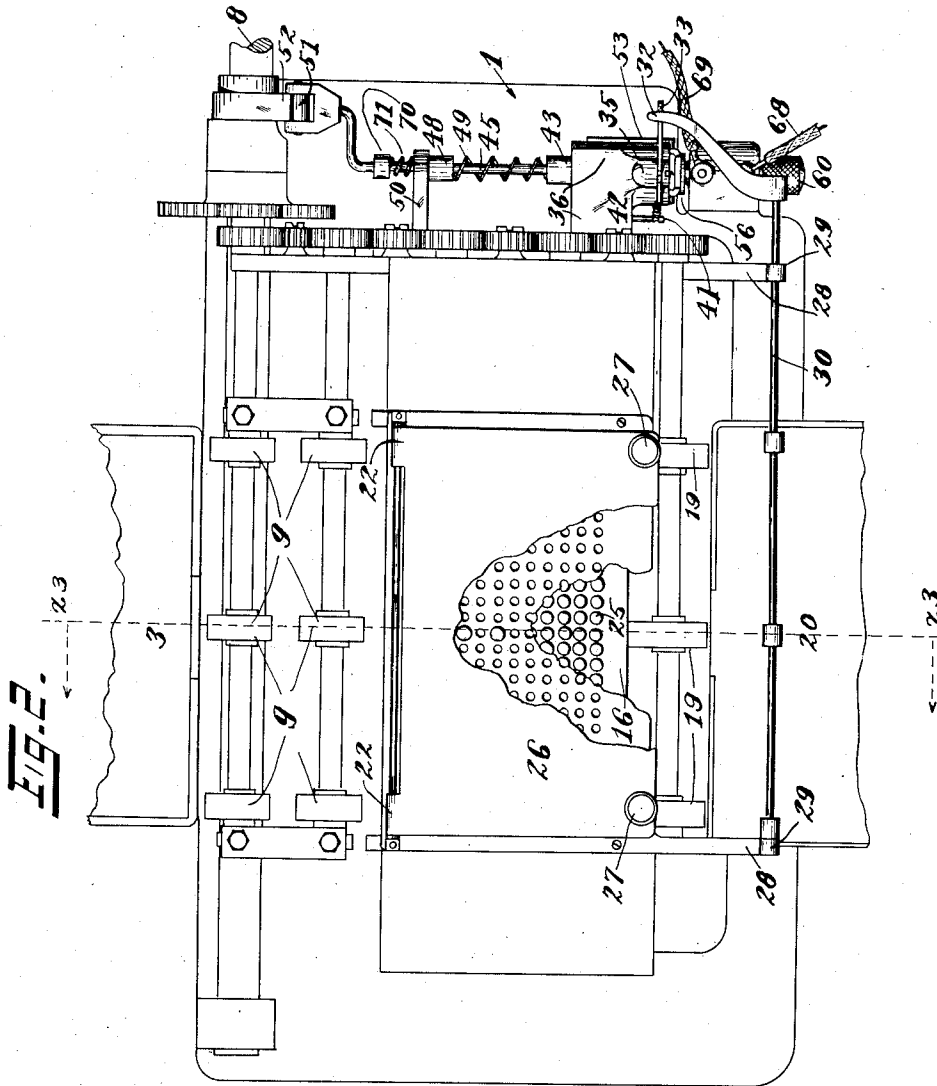
Inventor:
James Powers,
By his Atty: F. H. Richards

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4 SHEETS—SHEET 2.



Witnesses:
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4 SHEETS—SHEET 3.

FIG. 8.

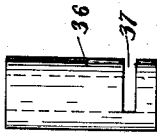
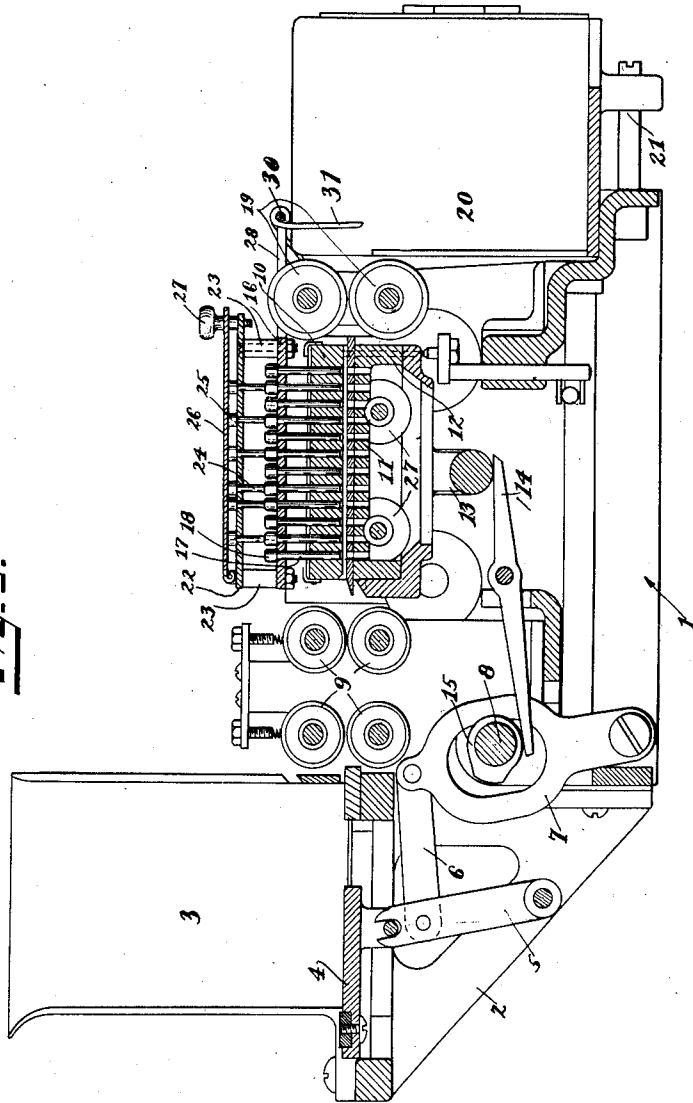


FIG. 3.



Witnesses:
Chas. E. Whitman.

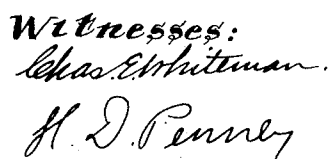
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1,317,458.

4 SHEETS--SHEET 4.



Inventor:
James Powers,
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UNITED STATES PATENT OFFICE.

JAMES POWERS, OF NEW YORK, N. Y., ASSIGNOR TO POWERS ACCOUNTING MACHINE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

CARD-FEED-ACTUATED STOP.

1,317,458.

Specification of Letters Patent. Patented Sept. 30, 1919.

Application filed October 31, 1914. Serial No. 869,538.

To all whom it may concern:

Be it known that I, JAMES POWERS, a citizen of the United States, residing in New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Card-Feed-Actuated Stops, of which the following is a specification.

This invention relates to perforating machines and more particularly to mechanism for automatically stopping the operation of perforating machines.

The main object of this invention is to provide a stop mechanism or power cutoff for arresting the operation of a perforating machine whenever a card is not discharged from such machine. This lack of discharge may be due to the fact, that the supply of cards to be perforated has been exhausted, or else that the card has been arrested or stuck in the machine before passing therefrom. In either event, it is desirable that the perforating machine be stopped since the continuation of the operation would only result in a loss of power.

A specific object of the invention is to provide a means for shutting off the electric power of electrically operated perforating machines.

A further object of the invention is to provide means whereby the stopping means, after having performed its stopping operation may with facility be reset to be in position to stop the machine when next required after the machine has been again set into operation.

And another object of the invention is to provide a stopping mechanism for any machine from which cards or the like are discharged, especially perforating machines, although in the accompanying drawings the stop mechanism is applied only to one particular form of perforating machine.

Still another object of the invention is to provide such a stopping mechanism which can be readily applied to any machine from which cards or the like are discharged without requiring any expensive reconstruction.

These and other features, capabilities and advantages of the invention will appear from the subjoined detailed description of one specific embodiment thereof illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of a per-

forating machine equipped with the stop mechanism.

Fig. 2 is a plan view of the same, parts being broken away for the purpose of illustration.

Fig. 3 is a longitudinal section along the line x^3-x^3 of Fig. 2 and looking in the direction of the arrows of such line.

Fig. 4 is a fragmentary perspective showing the stop mechanism with parts of the perforating machine removed therefrom.

Figs. 5 and 6 are longitudinal and transverse sections respectively of the switch mechanism.

Fig. 7 is a detached perspective of a portion of the switch mechanism.

Fig. 8 is a fragmentary view of a portion of the stop mechanism.

In the embodiment illustrated there is provided a frame 1 having a bracket 2 extending from one end thereof on which is supported a card receptacle 3 having a reciprocating slide 4 forming the bottom of said receptacle by means of which slide the cards supported thereon are fed into the machine to the perforating mechanism one at a time, the slide 4 being connected to a lever 5 pivoted to the bracket 2 and connected by a link 6 to a cam link 7 pivotally connected to the frame 1 and having a cam connection not shown with the driving shaft 8, by means of which cam link 7, link 6, and lever 5 the slide 4 is reciprocated.

From the slide 4, the cards, one at a time, are fed to the first set of feed rolls 9 suitably mounted in the frame 1, from such feed rolls 9 to the pin box between the guide plate 10 and die plate 11 suitably mounted on a movable frame 12 having a lower extension 13 in engagement with one end of a lever 14 pivotally mounted in the frame 1 and having its other end in engagement with the cam 15 on the driving shaft 8, by means of which cam 15 and lever 14, the frame 12 is raised, the raising being timed to take place when the card is supported between the plates 10 and 11 on said frame 12.

Above the movable frame 12, is fixed on the frame 1, a perforated plate 16 provided with a series of perforations in each of which is slidably disposed a pin 17 having a head 18 larger than a perforation and supporting the pins in said plate 16, the lower ends of said pins extending into a corre-

sponding series of perforations in the guide plate 10 and disposed opposite to another corresponding series of perforations in the die plate 11, the arrangement being such that

5 when the pins are obstructed in their upward movement, and the guide plate 10 and die plate 11 are moved upward with the movable frame 12, the series of pins will be permitted to extend into the series of perforations in said die plate 11, the perforating

10 of the cards being effected by such obstructed pins, while the pins unobstructed will ride on the surface of the card and rise with the movable frame 12.

15 From the guide plate 10 and die plate 11, a card, after having been perforated, is fed to the discharge rolls 19 from which they are discharged into the discharge receptacle 20 positioned at the rear end of

20 the frame 1 and supported on a bracket 21 secured to the frame 1, the end of the frame where the receptacle 3 is disposed being designated the front of the machine for purposes of explanation.

25 In the present instance, provision is made for gang punching the whole card. This is done when a number of cards are to be punched with the same data in which case, the required pins are set and locked in position. For this purpose, a perforated plate

30 22 having a series of perforations to correspond with the series of perforations in the fixed plate 16, is supported on arms 23 secured to the fixed plate 16 in which plate 22, setting pins 24 are positioned having heads

35 25 to support them on the plate 22 which pins 24 are positioned according to the data to be perforated, reproducing the record on said plate 22. These pins 24 are locked in

40 position against upward movement by means of a locking plate, 26 which in the present instance is hinged to the front end of the plate 22 and provided with thumb screws 27 to register with openings in the plate 22

45 when the locking plate 26 is in locking position and are adapted to engage such openings in plate 22 having screw-threaded connection with the same and thereby lock the plate 26 in place on the plate 22, the distance

50 the plates 22 and 26 are spaced from one another being equal substantially to the altitude of the heads 25, the plate 26 being adapted to rest on such heads 25 and thus lock the pins 24 in position. Thus when the

55 setting pins 24 are set to reproduce the data to be perforated, and cards are fed through the machine onto the plate 11, the upward movement of the frame 12 will raise the card with it and the perforating pins 17 that are

60 unobstructed will ride on the surface of the card, while those pins 17 that are unobstructed by setting pins 24 will punch through the card and pass into perforations in the die plate 11. Upon the descent of the movable

65 frame 12, the intermediate feed rolls 27 will

feed the card from between such plates 10 and 11 to the discharge rolls 19 from which the card is discharged into the discharge receptacle 20.

The foregoing is one of the perforating 70 machines to which the stop mechanism, or power cutoff now to be described, is, in the present instance, attached. Extending rearwardly from each side of the plate 16, and in the present instance integral therewith, is 75 an arm 28 provided with a bearing 29 in its free end. Carried by the bearings 29 of these arms 28 is provided a rock shaft or rod 30 to which are fixed three downwardly extending arms 31 which extend down rearwardly of the discharge rolls 19 into the 80 path of the card being discharged from such discharge rolls 19. At one end of the rod 30 and preferably extending at an angle to the direction of the arms 28, there is fixed a 85 lever 32, the free end of which rests on the arm 33 of a bell crank pivotally connected to the upper end of the upright frame 35 formed on the cylindrical conformation 36 which, in the present instance, is formed in 90 tegral with the frame 1 and extends laterally therefrom. The cylindrical conformation 36 is provided with a slot 37 into which the downwardly extending arm 38 is adapted to move when the arm 33 of the bell crank is 95 depressed, the bell crank having an extension 39 extending in the opposite direction to the arm 33 to which is connected one end of a tension spring 40, the other end of which is connected to the pin 41 fixed to the lateral 100 extension 42 integral with and formed between the frame 1 and the cylindrical conformation 36, this spring serving to normally maintain the arm 38 out of the slot 37 in the cylindrical conformation 36. 105

In the cylindrical conformation 36 is disposed a plunger 43 having a centrally disposed opening 44 partly extending therethrough in which opening 44 is slidably 110 mounted a rod 45 having a key slot 46 to accommodate the pin or key 47 fixed transversely of said plunger 43 and partly extending through said opening 44. On the rod 45 is secured a sleeve 48 between which 115 is strained a spring 49. Forwardly of the sleeve 48 is formed a bearing 50 in the present instance integral with the bracket extending from the frame 1 in which bearing the rod 45 slides extending therethrough and 120 having a forward extension on which is formed a sleeve 70 between which sleeve and the bearing 50, there is strained a spring 71 to normally maintain the rod 45 in forward position. Forwardly of the sleeve 70, the 125 rod is bent at two places and is provided with a roller 51 at its front free end which roller 51 coöperates with a cam 52 on the driving shaft 8. Below the cylindrical conformation 36, there is formed a bracket 53 130

on the end of which is provided a bearing 54 to which is fulcrumed a lever 55 having a broad upper portion 56 extending in front of the opening in the cylindrical conformation 36 the lower end of which lever 55 extends down and coöperates with a cam 57 on a disk 58 mounted on a shaft 59 which extends through and is carried by a bracket or housing 60, and having a knurled knob 61 secured to its free end extending rearwardly through the bracket 60. The broad portion 56 of the lever 55 is normally maintained directly in front of the opening in the cylindrical conformation 36 by means of a spring 72 connecting such broad portion 56 with a pin 73 formed on the lower portion of the cylindrical conformation 36. The bracket or housing 60, in the present instance, is formed on the frame 1 and is shaped to accommodate a drum 62 fixed to the shaft 59 which drum has in one of its ends (Figs. 5 and 6) a cylindrical opening surrounding the shaft 59 in which is disposed a spring 63 attached at one end to the housing 60 and at the other end to the drum 62 and adapted to control the movement of the drum 62 with respect to the bracket 60.

Extending through the upper portion of the bracket 60 are two terminals 64 and 65 of an electric circuit which are each extended outwardly by a spring 66, see Fig. 5, to impinge against the drum 62. The drum 62 is provided with a conductive plate 67 extending longitudinally thereof and of sufficient length so that when the drum is rotated so that this plate is disposed adjacent to the terminals 64 and 65, the terminals will each be in contact with the conductive plate 67 and thus complete a circuit, the terminals being connected by suitable mains 68 and 69 to the driving motor and source of supply.

The operation is as follows:

Every time a card is discharged from the discharge rolls 19 it will strike against the downwardly extending arms 31, rock the rod or rock shaft 30 thereby depressing the arm 32 which in turn will depress the arm 33 and the arm 33 rock the bell crank so that its downwardly extending arm 38 will enter the slot 37 in the cylindrical conformation 36. When the arm 38 is depressed into the slot 37, the cam 52 will be so timed that it will at the discharge of a card engage the roller 51 and thereby actuate the rod 45, the rod 45 will advance the plunger 43 against the arm 38, the plunger 43 being there prevented from further movement, the rod 45 will move into the opening 44 compressing the springs 49 and 71. Upon the further rotation of the cam 52, the rod will be permitted to be returned to forward position which is effected by the spring 71 while the spring 49 will prevent the plunger 43 re- turning with the rod 45; and the spring 40

will withdraw the bell crank 34 out of the slot 37, while the arm 33 through the lever 32 will rock the rod 30 back to normal position where its downwardly depending arms 31 are again disposed in the part of the 70 cards being discharged.

If, however, there is no card discharged from the discharge rolls 19 due to the supply being exhausted, or due to a card sticking in the machine, the arm 38 of the bell crank will not be moved into the slot 37 to obstruct the plunger 43, and consequently when the cam 52 in its rotation actuates the rod 45, the rod 45 by means of the spring 49 will advance the plunger 43 through the 80 opening in the cylindrical conformation 36 into contact with the upper portion 56 of the lever 55, and strike such upper portion, the lower end of which lever having in the meantime been disposed against the cam 57 85 of the disk 58, maintaining the shaft 59 with its contacting plate 67 in contact with the terminals 64 and 65 against the tension of the spring 66. Upon striking the lever 55 its lower end is removed from the cam 57, freeing such cam 57, and the spring 66 90 in the drum 62 will rotate the drum 62 to remove the conductive plate 67 out of contact with the terminals 64 and 65 thereby breaking the circuit. 95

Upon further rotation of the cam, the rod 45, will, of course, be again returned to normal position, and to then start the machine into operation again, it is only necessary to turn the set screw 61 so that the conductive 100 plate 67 contacts with the terminals 64 and 65, in which position, the cam 57 on the disk 58 will again be impinged against the lower end of the lever 55.

It is obvious that various changes and 105 modifications may be made to the details of construction without departing from the general spirit of the invention.

I claim:

1. In combination with a machine having 110 a discharge means, a cutoff normally arranged to stop the machine, and a device intermittently operated by the matter discharged to block the movement of the cutoff.
2. In a machine having a discharge 115 means, a movable means normally holding the machine in operation; a moving part adapted to actuate said movable means to bring about the stopping of the machine; and a device adapted to be intermittently 120 moved, by matter discharged from the machine, to hold said moving part against actuating the movable means.
3. In a machine having a card discharge, a movable means normally holding the ma- 125 chine in operation; a moving part adapted to actuate said movable means to bring about the stopping of the machine; a device adapted to be intermittently moved by a card discharged from the machine to hold 130

said moving part against actuating the movable means; and means yieldably preventing said device from holding the moving part.

4. In combination with a machine having
5 a card discharge, means normally arranged to stop the machine, retaining means arranged to hold said stop mechanism, a member adapted to normally trip the retaining means, and a device intermittently operated
10 by the cards discharged to block the tripping means.

5. In combination with a machine having a discharge means, means for driving said machine; movable means normally holding
15 said driving means operative and adapted when actuated to bring about the stopping of the driving means; a movable part yieldably moved to engage said movable means to cause its actuation; and a device adapted
20 to be moved by matter in said discharge to interpose itself between said movable part and said movable means to prevent the latter's actuation.

6. In combination with a machine having
25 a card discharge, means for driving said machine; movable means normally holding said driving means operative and adapted when actuated to bring about the stopping of the driving means; a movable part yieldably moved to engage said movable means to
30 cause its actuation; a device adapted to be moved by a card in said discharge to interpose itself between said movable part and said movable means to prevent the latter's actuation; and yieldable means for holding
35 said device against interposition between said part and movable means.

7. In combination with a machine having
40 a card discharge; means for driving said machine; yieldable means tending to stop said driving means; movable means adapted to hold said yieldably means against movement to stop the driving means; a movable part yieldably moved by said driving
45 means to engage said movable means to cause it to release yieldable means; and means adapted to be moved; by a card in said discharge, to interpose itself between
50 said movable part and said movable means to prevent the actuation of the movable means by said movable part.

8. In combination with a machine having a card discharge, an electric motor; a switch
55 controlling current to said motor; yieldable means yieldably tending to open said switch; movable means adapted to hold said switch closed against the action of said yieldable means and adapted when moved to release
60 said switch and permit it to open; a movable part adapted to be yieldably moved by said motor to engage and move said movable means to cause it to release said switch; and
65 by a card in said discharge to interpose

itself between said movable means and said movable part to prevent the actuation of the movable means by the movable part.

9. In combination with a machine having a card, a drive-shaft; an electric motor for
70 driving said shaft; a cam on said shaft; a cylinder; a plunger therein; a part operated by said cam; a spring interposed between said part and plunger; a switch for controlling current to said motor; yieldable means
75 tending to open said switch; a shoulder carried on said switch; a lever engaging said shoulder and holding said switch in closed position against the action of said yielding means, said lever being adapted to be
80 rocked by said plunger to cause the lever to be disengaged from said shoulder to permit the switch to open; and spring pressed means adapted to be moved by a card in said
85 discharge, to interpose itself between said plunger and said lever to prevent the operation of the lever by the plunger.

10. In combination with a machine having a card discharge, a device operated simultaneously with the discharge of the cards
90 comprising a power cutoff, said power cutoff comprising a lever one end of which maintains the power connection, a rod reciprocally mounted and adapted to move forward and strike the other end of said
95 lever whereby to withdraw the end of the lever maintaining the power connection, means for giving a to and fro movement to the rod, and means actuated by the cards discharged to block the power cutoff whenever a card is discharged. 100

11. In combination with a machine having a card discharge, a device operated simultaneously with the cards comprising a
105 power cutoff, said power cutoff embracing a lever one end of which maintains the power connection, a rod reciprocally mounted and adapted to move rearward and strike the other end of said lever whereby to withdraw
110 the end of the lever maintaining the power connection, means for giving a to and fro movement to the rod, and means for blocking said rod whenever a card is discharged thereby to prevent the rod engaging said
115 lever.

12. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising
120 a power cutoff, said power cutoff comprising a lever fulcrumed in such frame one end of which lever maintains the power connection, a rod reciprocally mounted in said frame and adapted to strike the other end of said
125 lever whereby to withdraw the end of the lever maintaining the power connection, a driving shaft mounted in said frame, a cam on said driving shaft and cooperating with said rod to reciprocate the same, and means 130

for blocking said rod whenever a card is discharged thereby to prevent the rod engaging said lever.

13. In combination with a machine having
5 a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing
10 a lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocably mounted in said frame, a
15 plunger slidably mounted on said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of
20 said lever whereby to withdraw the end of the lever maintaining the power connection, a driving shaft mounted in said frame, a
25 cam on said driving shaft and cooperating with said rod to reciprocate the same, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said lever by said plunger whenever
30 a card is discharged.

14. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards
35 comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocably mounted in said frame, a plunger slidably
40 mounted on said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of said
45 lever maintaining the power connection, means for giving a to and fro motion or movement to the plunger, a driving shaft mounted in said frame, a cam on said driving shaft and cooperating with said rod to
50 reciprocate the same, and means for blocking said cutoff, said blocking means comprising a rock shaft mounted in said frame, fixed means secured on said rock shaft and disposed in the path of the card being discharged and adapted to be actuated by said
55 discharging card thereby to rock said rock shaft, a lever on said rock shaft, a bell crank pivotally mounted adjacent to said lever one arm of which bell crank is disposed to be engaged by said lever and depressed thereby whenever a card is discharged, the other arm of which bell crank is adapted to be moved into the path of said plunger whenever a card is discharged, to
60 prevent the striking of said cutoff lever by said plunger.

15. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously
65 with the discharge of the cards comprising a

power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocably mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining said
70 plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of said lever maintaining the power connection, a driving shaft mounted in said frame, a cam on said driving shaft and cooperating with said rod to reciprocate the same, and means for blocking
75 said cutoff, said blocking means comprising a rock shaft mounted in said frame, fixed means secured on said rock shaft and disposed in the path of the card being discharged and adapted to be actuated by said discharging card thereby to rock said rock
80 shaft, a lever on said rock shaft, a bell crank pivotally mounted adjacent to said lever one arm of which bell crank is disposed to be engaged by said lever and depressed thereby whenever a card is discharged, the other arm of which bell crank is adapted to be moved
85 into the path of said plunger whenever a card is discharged, to prevent the striking of said cutoff lever by said plunger, and means for returning said bell crank, cutoff lever, plunger and reciprocating rod to idle position after said card has been discharged.

16. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards
100 comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocably mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever
105 whereby to withdraw that end of said lever maintaining the power connection, means for giving a to and fro motion or movement to the plunger, and means for blocking said cutoff, said blocking means comprising a rock shaft mounted in said frame, fixed means secured on said rock shaft and disposed in the path of the card being discharged and adapted to be actuated by said
110 discharging card thereby to rock said rock shaft, a lever on said rock shaft, a bell crank pivotally mounted adjacent to said lever one arm of which bell crank is disposed to be engaged by said lever and depressed thereby whenever a card is discharged, the other
115 arm of which bell crank is adapted to be moved in the path of said plunger wherever a card is discharged, to prevent the striking of said cutoff lever by said plunger.

17. In combination with a machine hav- 120

ing a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocally mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of said lever maintaining the power connection, and means for blocking said cutoff, said blocking means comprising a rock shaft mounted in said frame, fixed means secured on said rock shaft and disposed in the path of the card being discharged and adapted to be actuated by said discharging card thereby to rock said rock shaft, a lever on said rock shaft, a bell crank pivotally mounted adjacent to said lever one arm of which bell crank is disposed to be engaged by said lever and depressed thereby whenever a card is discharged, the other arm of which bell crank is adapted to be moved into the path of said plunger whenever a card is discharged, to prevent the striking of said cutoff lever by said plunger, and means for returning said bell crank, cutoff lever, plunger and reciprocating rod to idle position after said card has been discharged.

18. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a cylindrical conformation, a rod reciprocally mounted in said frame, a plunger slidably mounted on said rod and disposed to reciprocate in said cylindrical conformation, resilient means for maintaining the plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of the cutoff lever maintaining the power connection, there being a slot in said cylindrical conformation, and means for blocking said cutoff, said blocking means comprising a rock shaft mounted in said frame, fixed means secured on said rock shaft and disposed in the path of the card being discharged and adapted to be actuated by said discharging card thereby to rock said rock shaft, a lever on said rock shaft, a bell crank pivotally mounted adjacent to said lever, one arm of which bell crank is disposed to be engaged by said lever and depressed thereby whenever a card is discharged, the other arm of which bell crank is adapted to be moved into the slot in said

cylindrical conformation which is in the path of said plunger whenever a card is discharged to prevent the striking of said cutoff lever by said plunger.

19. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocally mounted in said frame, a plunger having a key slot slidably mounted on said rod, a key in said plunger riding in the key slot in said rod and thereby locking said plunger on said rod and serving to permit the withdrawal of said plunger with said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of the cutoff lever maintaining the power connection, a driving shaft mounted in said frame, a cam on said driving shaft and cooperating with said rod to reciprocate the same, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said cutoff lever by said plunger whenever a card is discharged.

20. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame, an electric switch mounted on said frame, one end of which cutoff lever is adapted to maintain the electric switch in contacting or circuit completing position, a rod reciprocally mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining the plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of such lever maintaining the electric switch in contact from such switch to permit the switch to break the circuit, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said lever by said plunger whenever a card is discharged.

21. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame, an electric switch mounted on said frame, said switch comprising a housing, two terminals mounted in said housing and extending into such housing, a

shaft mounted in said housing, a drum on said shaft, a conductive plate on said drum adapted to contact with both terminals at the same time when said drum is turned to a predetermined position, a spring for normally maintaining said drum in a position where said plate does not contact with said terminals, a cam on said shaft, one end of which cutoff lever being adapted to engage said cam and lock said drum in position where said plate contacts with said terminals, a rod reciprocally mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of such cutoff lever in engagement with said cam from engagement with said cam to permit said spring to turn said drum where said conductive plate does not contact with said terminals, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said lever by said plunger whenever a card is discharged.

22. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame, an electric switch mounted on said frame, said switch comprising a housing, two terminals mounted in said housing and extending into such housing, a shaft mounted in said housing, a drum on said shaft, a conductive plate on said drum adapted to contact with both terminals at the same time when said drum is turned to a predetermined position, a spring for normally maintaining said drum in a position where said plate does not contact with said terminals, a cam on said shaft, one end of which cutoff lever being adapted to engage said cam and lock said drum in position where said plate contacts with said terminals, a rod reciprocally mounted in said frame, a plunger slidably mounted on said rod, resilient means for maintaining

said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of such cutoff lever in engagement with said cam from engagement with said cam to permit said spring to turn said drum where said conductive plate does not contact with said terminals, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said lever by said plunger whenever a card is discharged, a shaft in said drum having a portion extending out of said drum and a knurled knob fixed to said outwardly extending portion by means of which the drum may be returned to contacting position where it is engaged and locked by said cutoff lever.

23. In combination with a machine having a card discharge, a frame, a device attached to said frame and operated simultaneously with the discharge of the cards comprising a power cutoff, said power cutoff embracing a cutoff lever fulcrumed in said frame one end of which lever maintains the power connection, a rod reciprocally mounted in said frame, means for giving a to and fro motion or movement to the plunger, a plunger having a key slot slidably mounted on said rod, a key in said plunger riding in the key slot in said rod and thereby locking said plunger on said rod and serving to permit the withdrawal of said plunger with said rod, resilient means for maintaining said plunger in distended position on said rod, said plunger being adapted to strike the other end of said cutoff lever whereby to withdraw that end of the cutoff lever maintaining the power connection, and means for arresting said plunger when said rod is advanced thereby to crowd said plunger onto said rod and to prevent the striking of said cutoff lever by said plunger whenever a card is discharged.

JAMES POWERS.

Witnesses:

GUSTAV DREWS,
H. D. PENNEY.