

No. 773,518.

PATENTED OCT. 25, 1904.

J. F. OHMER.

MACHINE FOR REGISTERING, PUNCHING, AND ISSUING TICKETS.

APPLICATION FILED JAN. 29, 1904.

NO MODEL.

3 SHEETS—SHEET 1.

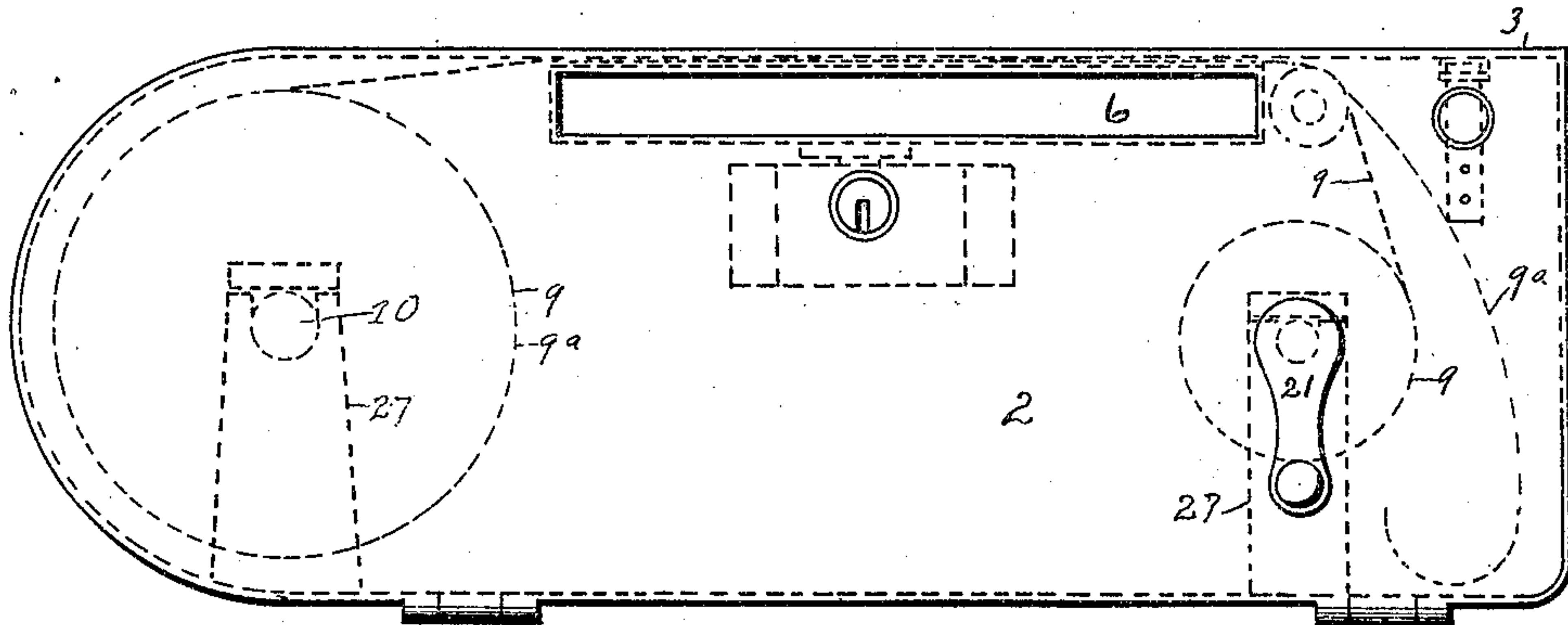


Fig. 1.

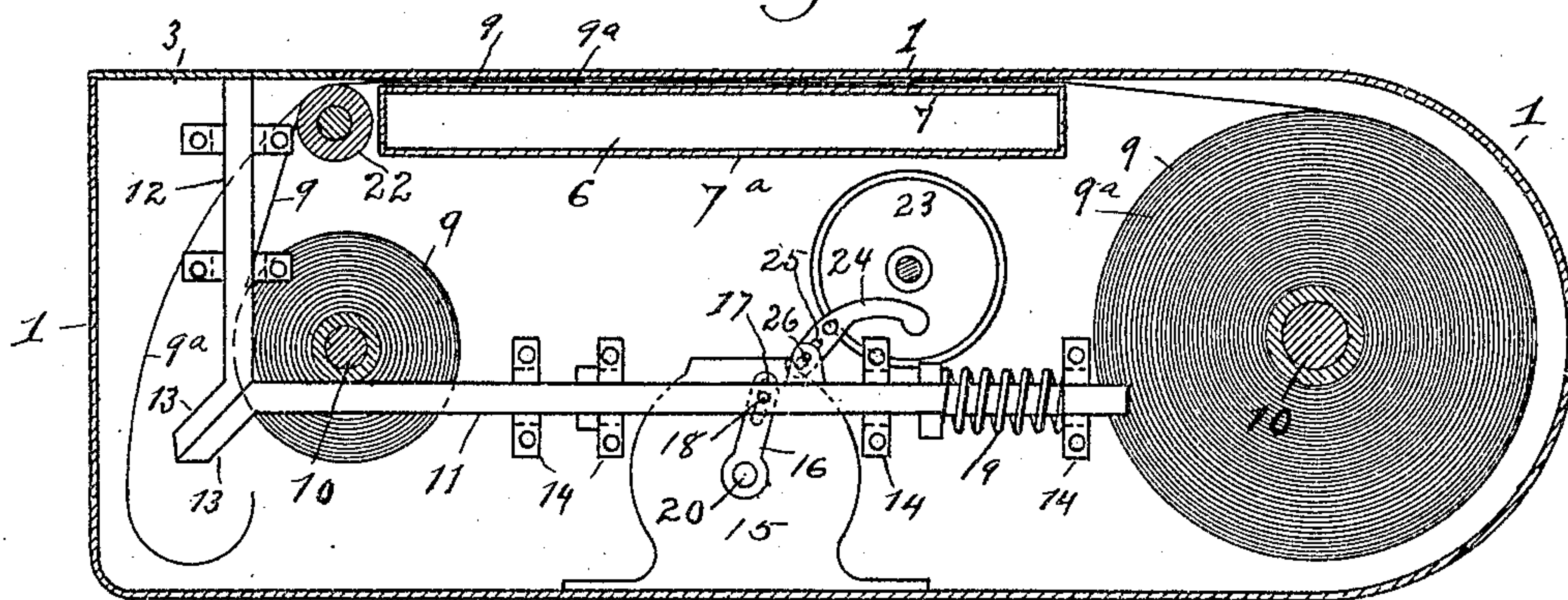


Fig. 2.

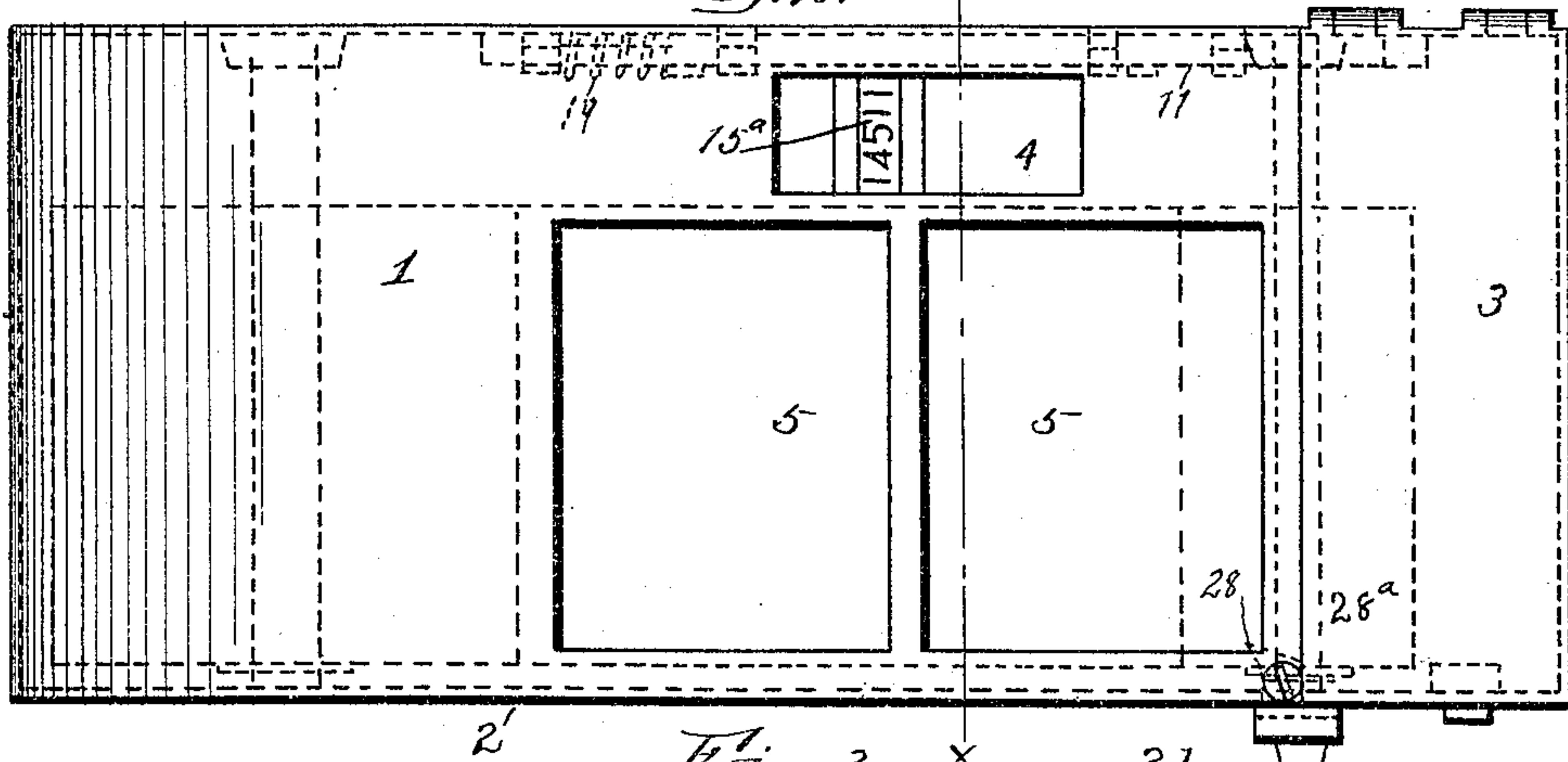


Fig. 3.

WITNESSES.

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3 SHEETS—SHEET 2.

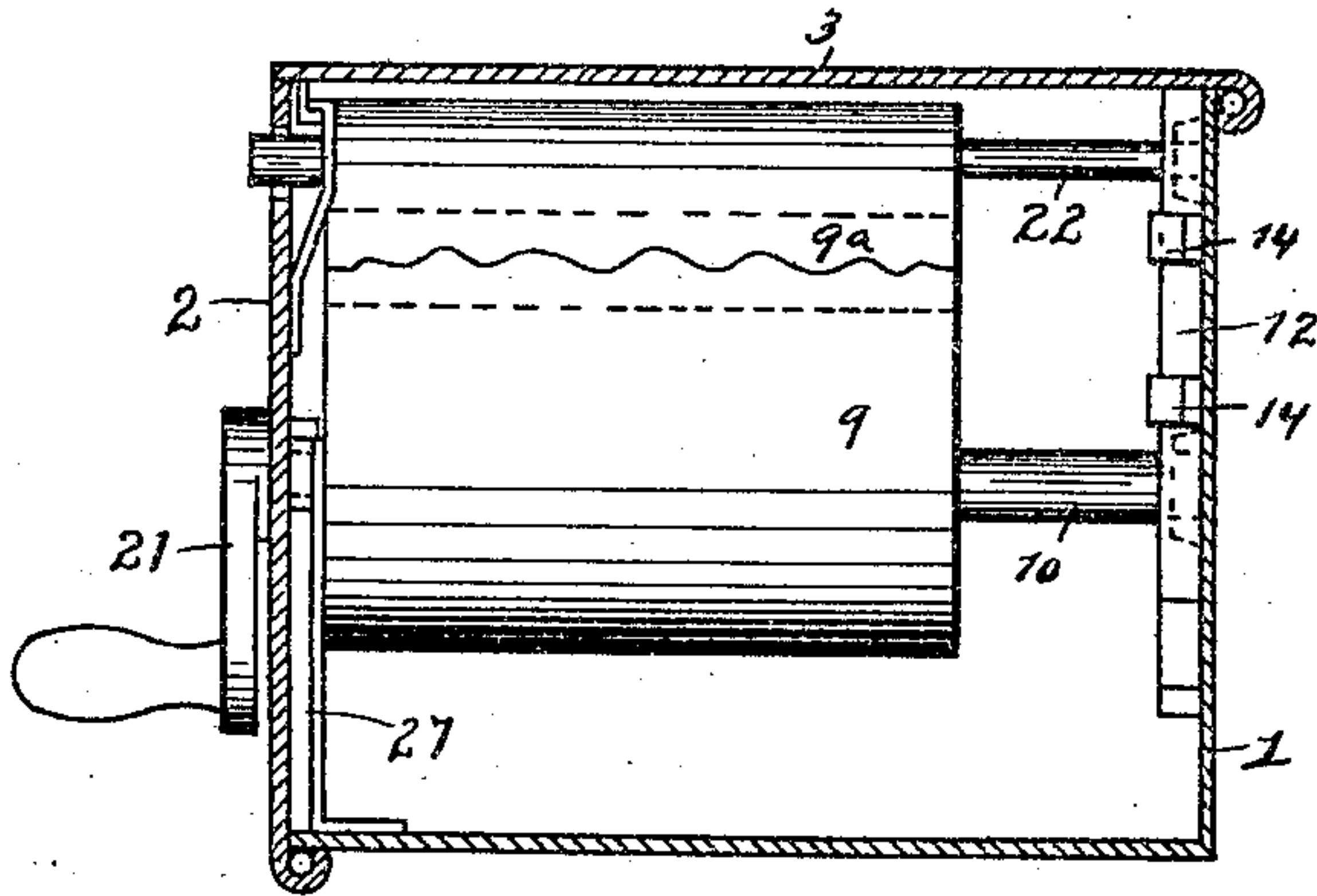


Fig. 4.

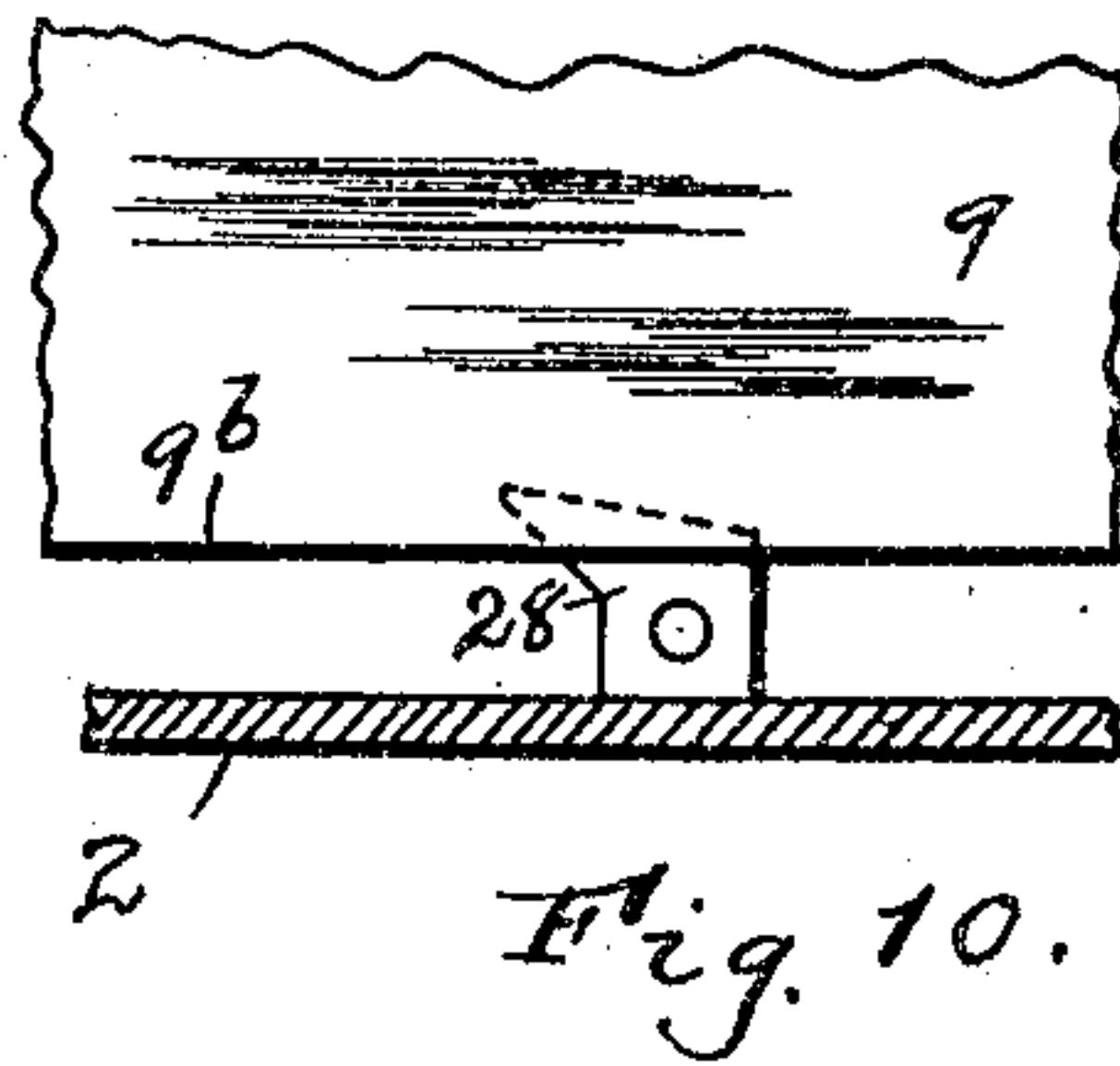


Fig. 10.

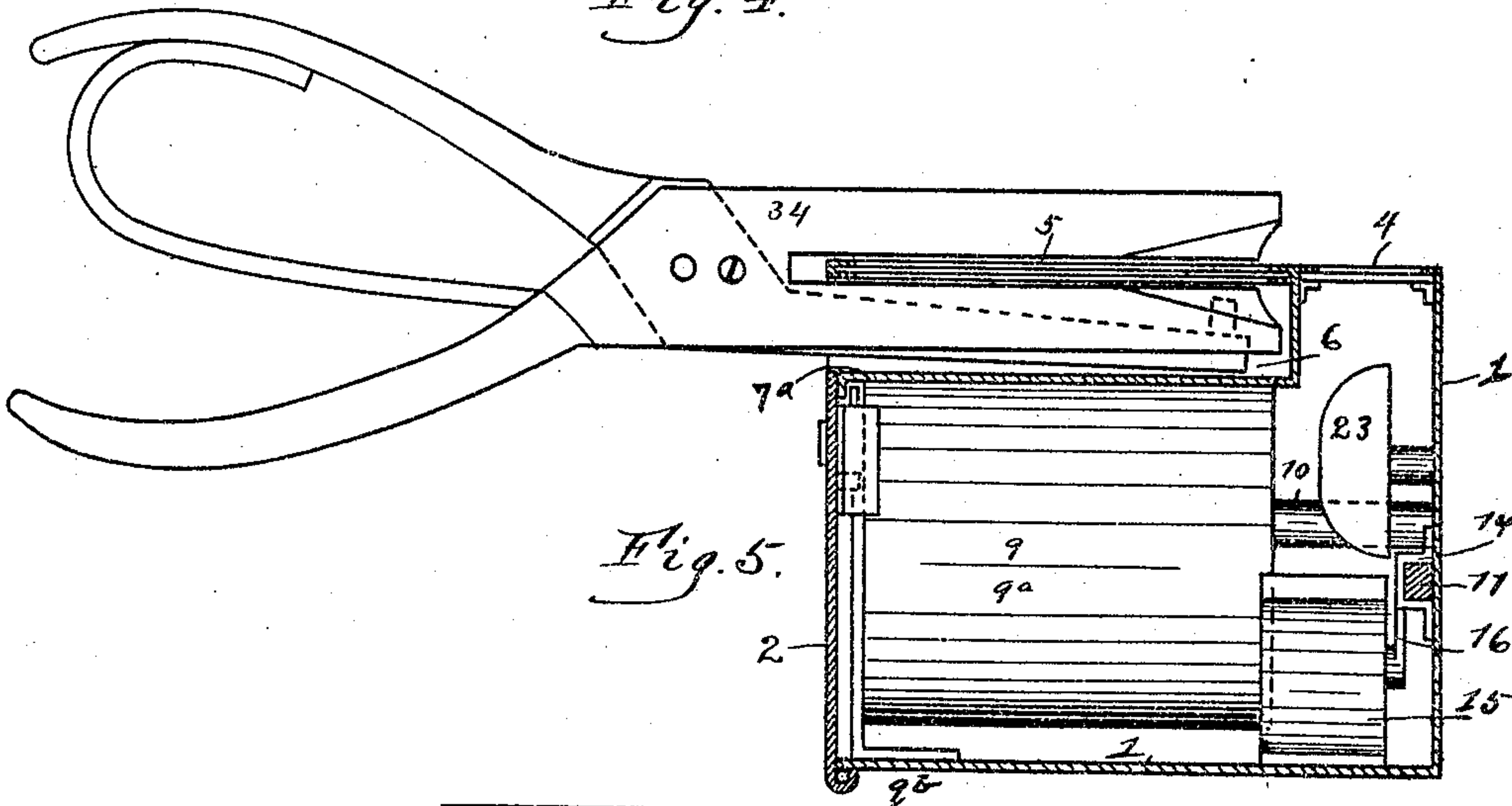


Fig. 5.

N W		32198		Fare		JAN FEB		32198		W N	
E S				Paid		MAR APR				S E	
Toledo				5		JUNE				Toledo	
Finley				10		JULY				Finley	
Lenton				15		AUG				Lenton	
Ottawa				20		SEPT				Ottawa	
Lima				25		OCT				Lima	
Sidney				30		NOV				Sidney	
Piqua				35		DEC				Piqua	
Salem				40						Salem	
Troy				1902						Troy	
Dayton				1903						Dayton	
Carlton				1904						Carlton	
Hamilton				1905						Hamilton	
Glendale				1906						Glendale	
Wyoming				Half Fare						Wyoming	
Ludlow				Excess Baggage						Ludlow	
Elwood				Express						Elwood	
Cincinnati										Cincinnati	

Fig. 6.

WITNESSES.

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3 SHEETS—SHEET 3.

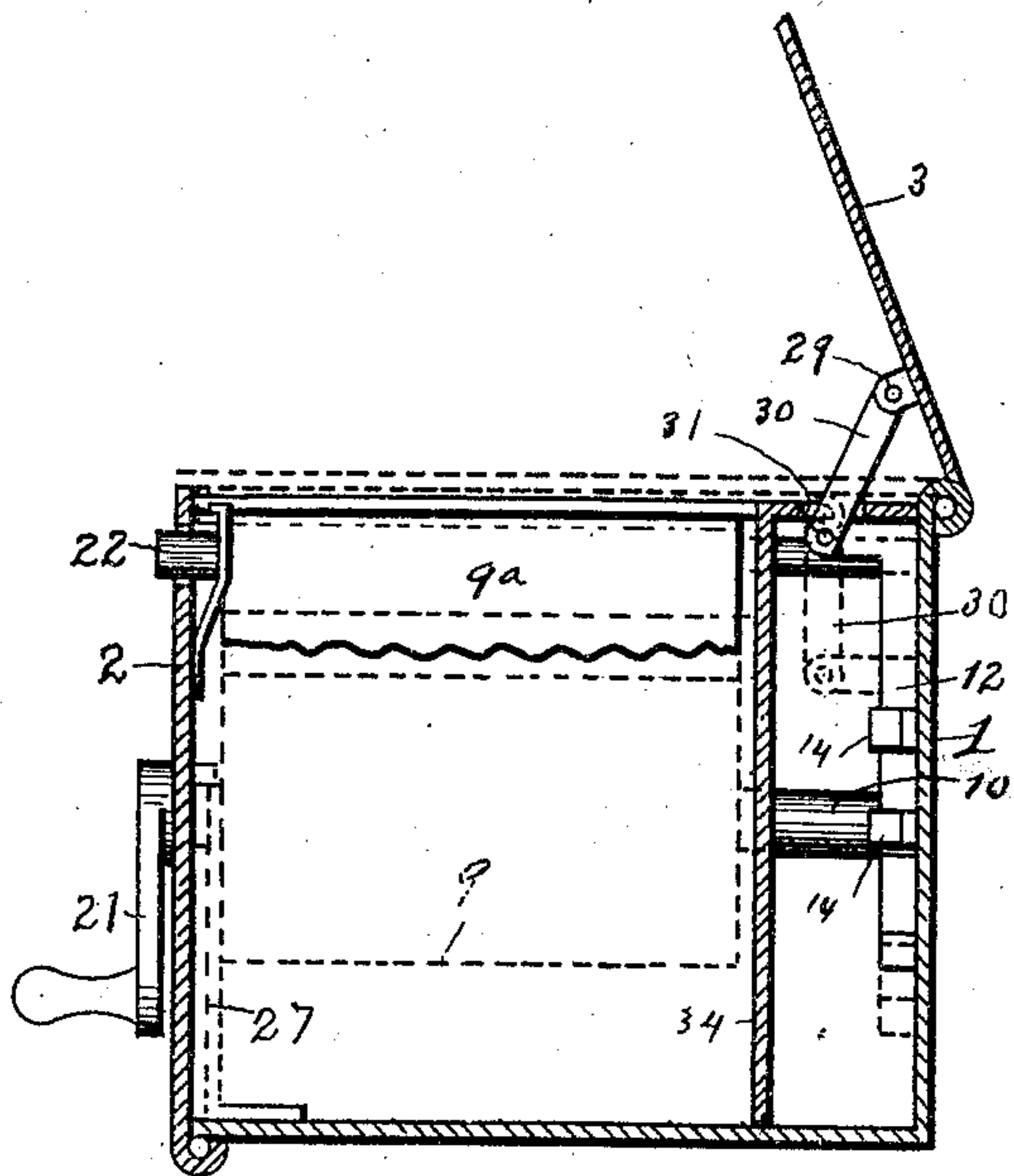


Fig. 7.

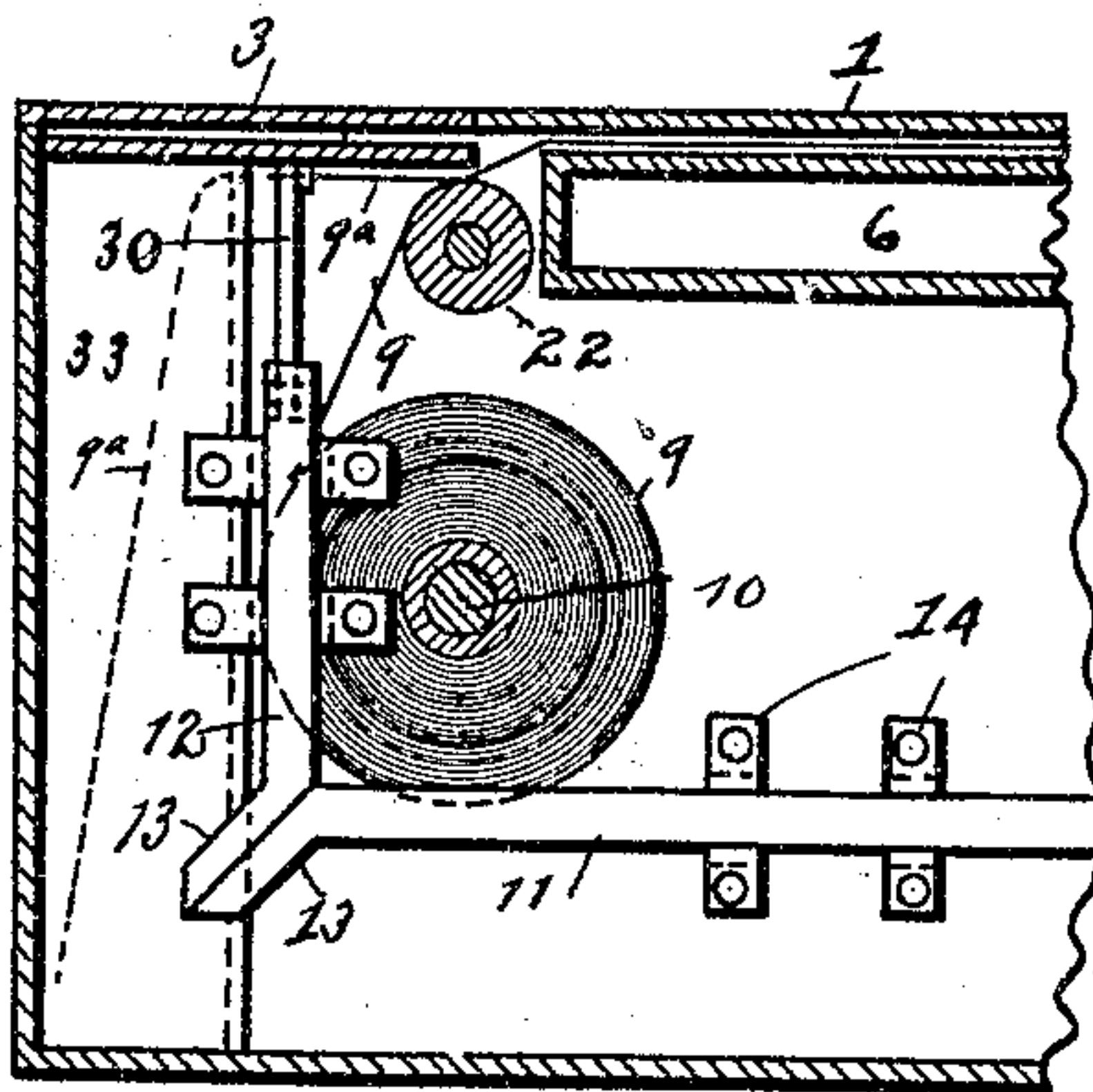


Fig. 8.

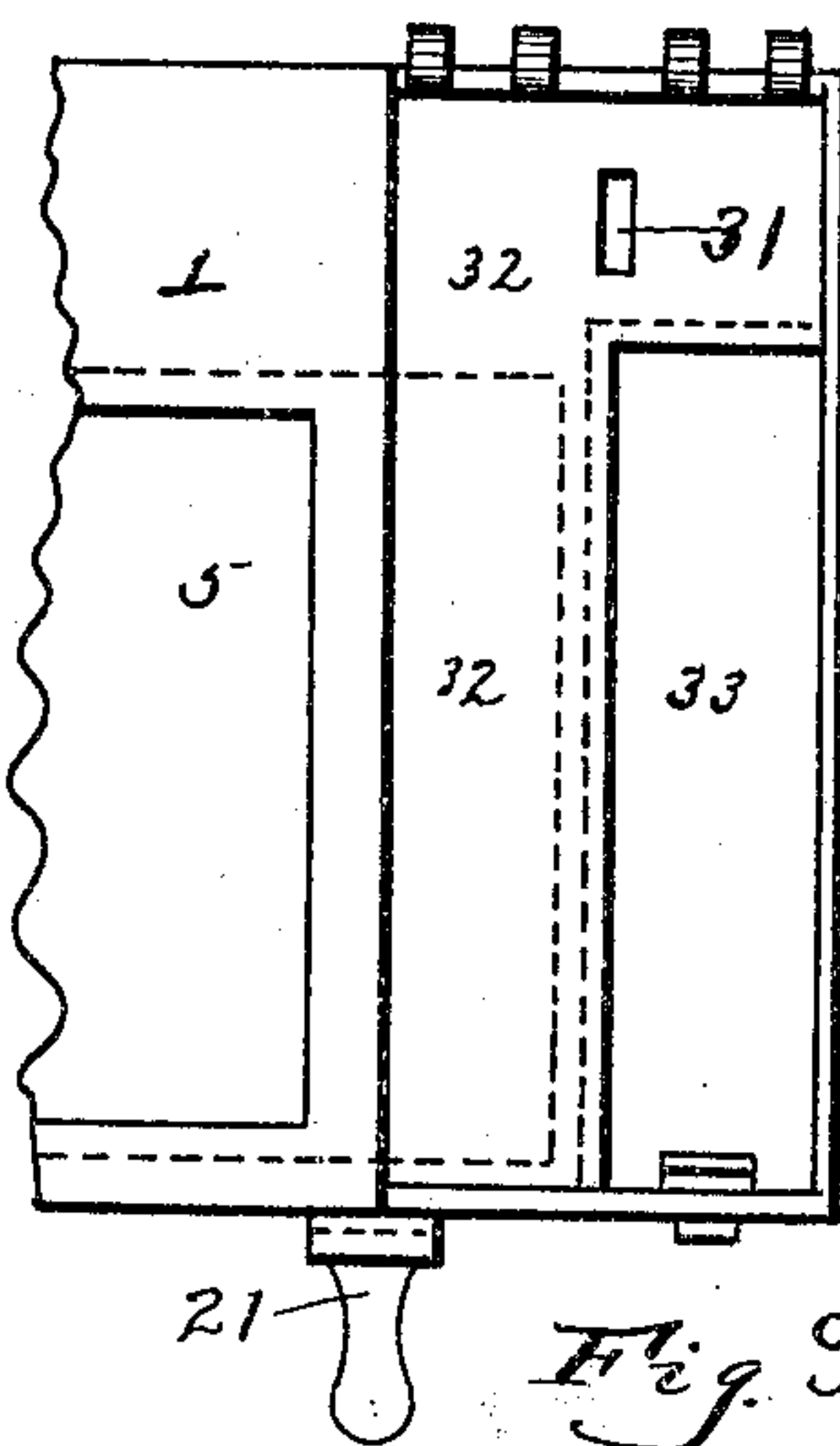


Fig. 9.

WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN F. OHMER, OF DAYTON, OHIO, ASSIGNOR TO OHMER FARE REGISTER CO., OF ROCHESTER, NEW YORK.

MACHINE FOR REGISTERING, PUNCHING, AND ISSUING TICKETS.

SPECIFICATION forming part of Letters Patent No. 773,518, dated October 25, 1904.

Application filed January 29, 1904. Serial No. 191,082. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. OHMER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Machines for Registering, Punching, and Issuing Tickets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention comprises a machine for registering, punching, and issuing registering and indicating tickets.

The object of the invention is to provide a machine of the above character from which tickets are issued to passengers on various public conveyances—such as traction-cars, steam-railway cars, sleeping-cars, &c.—and a record is made of each ticket so issued, such register being contained on a series of counting-wheels, which are actuated as each ticket is issued. Also a duplicate of each ticket so issued and registered is stored within the machine.

A further object of the invention is to provide means which render it impossible for a ticket to be issued without a register of the same being made upon the counting-wheels.

At the present time there are no reliable means for guarding against the dishonest tendencies of persons having authority to collect money for passages on various public conveyances such as indicated above. Upon the payment of a cash fare it is the custom for the conductor to issue a ticket to such passenger or passengers. In many instances the passengers receiving such tickets throw them aside either at the time of their receipt or when such passengers leave the car. These tickets so thrown away may be gathered up by the conductor who previously issued them and may by him be given to other passengers who aboard the train at a later time. For example, a conductor may pick up a ticket which was issued to a former passenger upon

the receipt of one dollar and fifty cents, and this ticket may be handed to a subsequent passenger who may, in fact, pay the conductor two dollars, two dollars and fifty cents, or even more, the conductor retaining the difference between the amount paid by the original passenger who was given the ticket and the subsequent passenger to whom the same fare has been given or, as a matter of fact, the entire amount paid by the last-named passenger might be pocketed by the conductor. This, in brief, is one example of how a railway company or other company operating a business of public traffic may be defrauded by those who are employed as fare-collectors. By means of the present invention it is impossible for a conductor to practice these things. Each and every ticket that is issued by him is taken from a continuous duplex sheet which is fed from a continuous roll placed within the machine. These tickets are printed with the various points of destination and are required to be punched by the conductor between the points of starting and destination. Owing to the arrangement of these tickets, it is impossible to punch the ticket to be issued without at the same time punching the duplicate or stored ticket. It is also impossible to issue a ticket from the machine without making a consecutive register upon a series of counting-wheels as each ticket is issued and stored. This record is beyond the control of the person in whose possession the machine is placed—that is to say, it is impossible to issue a ticket without at the same time making a register upon the counting-wheels of such ticket.

Preceding a more detailed description of the invention reference is made to the accompanying drawings, of which—

Figure 1 is a side elevation of my improved ticket issuing, registering, and indicating machine. Fig. 2 is a horizontal sectional elevation showing the interior mechanism. Fig. 3 is a top plan view of the machine. Fig. 4 is a transverse section. Fig. 5 is a transverse section on the line *xx* of Fig. 3. Fig. 6 is a view of the duplex ticket. Figs. 7, 8, and 9

are modifications of the mechanism which compels a register to be made upon the counting-wheels as each ticket is removed from the machine. Fig. 10 is a detail of the means for
5 severing the tickets.

Throughout the detailed description of the invention similar reference characters indicate corresponding parts.

The casing in which the mechanism is inclosed may consist of any suitable design or shape. In the present adaptation of the invention to the uses intended the casing 1 is of oblong rectangular shape with one end rounded, the other end preferably rectangular in
15 plan and side elevation.

2 designates one side of the machine, which is hinged and is secured in a closed position by means of a suitable lock and key.

The upper face of the casing has two or
20 more openings 5, below which the tickets pass as they are issued from the machine. There is also an opening 4 in the upper face of the machine, through which the indicator-wheels 15^a are visible. These indicator-wheels consist of a series of counters having numerical
25 figures arranged upon their peripheries and which transfer from one wheel to another in a well-known manner. The said counting-wheels are mounted within their own casing
30 15 upon a shaft 20, the said shaft having connected to it a crank-arm 16, which will be again referred to. The upper side of the casing also has a hinged cover 3, which is held closed by a suitable lock and key. This cover
35 permits access to be had to the ticket to be detached and given the passenger or other person entitled thereto. The openings 5, through which the tickets are exposed for the punch 34, are contained in upper and lower
40 parallel walls 1 and 7, which provide a guideway through which the ribbon of duplicate tickets is passed.

6 is a space for the lower jaw of a punch to enter, as shown in Fig. 5. This space 6 is inclosed below by a solid wall 7^a, which con-
45 ceals the mechanism in the casing at all times.

The supply-roll consists of duplex tickets in a continuous ribbon folded on a perforated line 9^b, as shown in Fig. 6, and rolled upon
50 spindle 10, one end of which is suitably mounted in a wall of the casing and the other end of which is mounted in a standard 27, supported on the bottom of the casing immediately inside of the door 2. This ribbon of
55 duplex tickets passes below and above openings 5 5 in the guideway and over a guide-roller 22, suitably mounted within the casing. It will be seen that the ticket 9^a to be delivered to the passenger is not moved out of the machine by the movement which takes it out
60 of the guideway after it is punched. This is important, as it requires the machine to be opened in order to remove the ticket. The upper ribbon comprises the tickets 9^a, which
65 are detached, and the lower ribbon comprises

the tickets 9, which are stored upon a roll mounted upon a spindle 10 in the same manner in which the supply-roll is mounted. The uppermost ticket 9^a is fed into the front end of the machine, from which it is removed by
70 opening the cover 3.

Referring to Fig. 5, the punch 34 is shown in position to perforate the tickets at suitable points through the openings 5 5 in the guide-walls 1 and 7. The spindle 10, upon which
75 the storage-roll of tickets is wound, has a crank-handle 21, by means of which the tickets are unwound from the supply-roll and moved to suitable points in the guideway below and above the openings 5 5. The count-
80 ing-wheels, hereinbefore referred to, upon which the registrations of the tickets are made, are operated upon each opening of the cover 3 to remove the ticket by the following devices: 11 designates a horizontal bar slid-
85 ingly mounted on the rear side of the casing in guides 14. The said bar has one end projected on an angle to provide a tapering portion 13, which is normally in contact with a
90 similar portion 13 on an upright sliding bar 12. The horizontal bar 11 is normally pressed in the direction of the upright bar 12 by means of an expanding-spring 19, which
95 incloses one end of said bar 11 and normally exerts such pressure against said bar. 18 designates a pin which projects from the bar 11 and enters an oblong slot 17 in the crank-arm 16, which arm, as before stated, is se-
100 cured to the shaft 20, upon which the counting-wheels are mounted. These counting-wheels are old and well-known features, and it has not been deemed necessary to give a detailed illustration of the same. It will be
105 readily seen that the pressure of the spring 19 will tend to move the bar 11, as indicated, and that if bar 12 is permitted to rise this movement will be transmitted to the counting-wheel shaft 20 through the crank-
110 arm 16. The horizontal bar 11 is held against the tension of the spring 19 by the lower end of vertical bar 12 only when the lid or cover 3 is secured in a closed position. The upper
115 end of the said bar 12 is in contact with the inner side of said lid or cover at such times, as shown in Fig. 2. As soon as the said lid or cover is opened, the pressure of the spring 19 upon the bar 11 will cause the upright or
120 vertical bar 12 to elevate and will thus permit the horizontal bar 11 to have sufficient longitudinal movement to impart the desired motion to the counting-wheel shaft 20. This movement, it will be understood, only takes
125 place when the lid or cover 3 is opened to enable a detachment of a ticket 9^a. This movement of the bar 11 also operates to sound the bell 23 by moving the bell-hammer 24, said bell-hammer being connected to the rod 11 by means of an oblong slot 25 in said bell-hammer, which receives a pin 26, that projects
130 from an extended portion of said bar 11.

As hereinafter stated, the tickets consist of a continuous ribbon which is folded longitudinally in the center throughout its length on the perforated line 9^b. The tickets are severed as they are advanced from the guideway, one to a position to be wound upon the storage-roll and the other to a position within the casing to be detached. This severance of the tickets is done by means of a knife-blade 28, which projects a suitable distance into the folded edge of the ribbon to cut the perforations as the ribbon is drawn forward by the turning of crank-handle 21. This knife 28 is secured in a suitable position adjacent to the front upper edge of the casing by means of a set-screw 28^a, which passes through the casing and secures the knife in proper position. Any other suitable means may be employed for attaching the knife, or other suitable means may be employed for cutting the perforated edge of the ribbon.

Referring to Figs. 7, 8, and 9, the vertical bar 12 is connected with a link 30, passing through an opening 31 in a wall 32, that conceals the said bar 12, so that access cannot be had to the same. The link 30 is pivoted at 29 to the cover 3. It will therefore be apparent that in lowering or raising the lid 3 corresponding movement will be transmitted to the bar 12. The lowering movement will have the effect of driving the horizontal bar 12 to the position shown in Fig. 2, and the opening movement of said lid will elevate the said bar 12 upwardly away from the end 13 of the horizontal bar 11 and will thus permit the spring 19 to move said bar 11. The ticket to be detached is moved into a compartment 33, as shown in dotted lines in Fig. 8.

Referring to Figs. 3 and 6, if the conductor desires to issue a ticket to be used between any two of the stations indicated on said ticket in duplicate, the two terminals between which the ticket is good are punched by means of the punch 34, it being impossible to punch one ticket without punching a corresponding duplicate. The direction in which the train or the passenger receiving the ticket is going is also punched in a similar manner, said punch being through either one of the letters "N," "S," "E," and "W." The date of the month as well as the month is also punched. The crank 21 is then turned to unwind from the supply-roll for the next succeeding ticket to be issued and to cause a severance of the ticket already perforated by means of the knife 28 and to feed the ticket to be delivered to the passenger to the front end of the machine, as shown in Fig. 2, and to wind the duplicate upon the storage-roll. The lid 3 is then opened by means of a key, and the upright rod 12 is enabled to be elevated, and thus permit the bar 11 to be moved by the spring 19, and with said bar, as before stated, the crank 16 is turned to transmit movement to the counting-wheels.

Having described my invention, I claim—

1. In a machine of the class specified, a suitable casing, a supply-roll consisting of an endless ribbon of duplicate tickets which are severed one from the other while being issued from the machine, a guideway in the upper part of said casing consisting of two parallel walls between which said duplicate tickets are passed, said walls having openings therein through which said tickets are exposed, and a knife adapted to sever said tickets as they are moved out of the guideway.

2. In a machine of the class specified, a casing, a supply-roll consisting of an endless ribbon of duplicate tickets which are severed one from the other while being issued from the machine, a guideway through which said tickets are fed from said roll, said guideway having upper and lower walls with openings therein, and a space below the lower wall whereby a punch is adapted to be placed in a position to perforate said tickets, means for removing said tickets from the guideway after being punched, and means for severing said tickets while being thus removed.

3. In a machine of the class specified, a supply-roll consisting of an endless ribbon of duplicate tickets which are severed one from the other while being issued from the machine, a guideway through which said endless ribbon of duplicate tickets is fed, said guideway having upper and lower inclosing walls with openings therein, means for severing said tickets while being moved from the guideway, and means for storing one of said tickets and for moving the other of said tickets to a position to be detached and removed from the casing.

4. In a machine of the class specified, a roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally, so that one ticket will lie above the other throughout the length of the ribbon, and means for severing said tickets through the perforations as the same are unwound from the roll.

5. In a machine of the class specified, a roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally so that one ticket will lie above the other throughout the length of the ribbon, a guideway through which said folded tickets are passed, said guideway having upper and lower walls with openings therein.

6. In a machine of the class specified, a roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally in its center so that one ticket will lie above the other throughout the length of the ribbon, a guideway through which said folded tickets

are fed, said guideway having inclosing walls with openings therein, and means for severing said tickets longitudinally during their movement from the guideway.

5 7. In a machine of the class specified, a roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded throughout its length
10 so that one ticket will lie above the other throughout the length of the ribbon, a guideway through which said folded tickets are passed, said guideway having upper and lower walls with openings therein, means for severing
15 said tickets longitudinally while being advanced to a position to enable one to be detached and the other to be placed on a storage-roll.

8. In a machine of the class specified, a supply-roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a line of perforations which enable it to be folded longitudinally so that one ticket will lie above the other throughout
20 the length of said ribbon, a guideway through which said ribbon is fed, said guideway consisting of two parallel walls with openings therein, a space below said guideway which enables a punch to be inserted in a position
25 to perforate the upper and lower ticket lying within the guideway, a knife projected between said tickets at the perforated edge thereof, a storage-roll upon which the duplicate tickets are wound, and means for turning
30 said storage-roll to draw the tickets from the guideway, the duplicate ticket to be stored upon the storage-roll, and the other ticket to be delivered to a passenger.

9. In a machine of the class specified, a roll
40 consisting of an endless ribbon of duplicate tickets, the same being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally in its center so that one ticket will lie above the other
45 throughout the length of the ribbon, a guideway through which said ribbon of tickets is fed, said guideway having upper and lower parallel walls with openings therein which enable a punch to be placed in position to
50 perforate said upper and lower tickets, means for severing said tickets at the perforations as they are fed from the guideway, a storage-roll upon which the duplicate ticket is wound, and an inclosed space within the casing into
55 which the ticket to be delivered to a passenger is fed.

10. In a machine of the class specified, a supply-roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally so that one ticket will lie above the other throughout the length of the ribbon, a guideway through which said ribbon of tickets is fed,
60 the said guideway having parallel walls with

openings therein which enable a punch to be placed in position to perforate both tickets at once, a series of counting-wheels upon which the tickets issued are registered, a storage-roll upon which the duplicate tickets
70 are wound, means for simultaneously winding the duplicate ticket upon said roll and for feeding the ticket to be delivered to the passenger in a position within the casing where access may be had to the same, and means for
75 actuating the counting-wheels to record each ticket as issued.

11. In a machine of the class specified, a supply-roll consisting of an endless ribbon of duplicate tickets, said ribbon being divided longitudinally by a suitable line of perforations which enable it to be folded longitudinally so that one ticket will lie above the other throughout the length of the ribbon, a guideway through which said ribbon of duplicate tickets
80 is passed, said guideway having parallel walls with openings therein which enable a punch to be placed in position to perforate both tickets, a knife projected between the longitudinal perforated edge of said tickets
85 and whereby the said tickets are severed as they are moved from the guideway, a storage-roll upon which the duplicate tickets are wound, means for turning said storage-roll to withdraw from the guideway both tickets
90 in a separated condition, an inclosing lid above said storage-roll and below which the ticket to be delivered to a passenger is fed, a series of counting-wheels upon which is registered each ticket as issued, and means under the
95 control of said inclosing lid whereby the counting-wheels are actuated upon each opening of said lid to remove the ticket to be delivered therefrom.

12. In a machine of the class specified, a casing having its upper or outer side provided with a guideway consisting of parallel walls within openings therein through which duplicate tickets are accessible for punching, a supply-roll containing an endless ribbon of said
100 duplicate tickets, said ribbon being perforated through its longitudinal center so as to enable it to be folded throughout the length thereof, means for feeding said duplicate tickets through the guideway to a position for one
105 to be stored within the casing, and the other to be delivered to a position in said casing from which it may be detached and removed, a device located within the guideway for severing said tickets longitudinally as they are
110 fed from the guideway, a series of counting-wheels, a horizontal sliding bar, connections between said bar and the counting-wheels, a vertical sliding bar controlling the position of the horizontal bar, and a lid above said
115 vertical bar by means of which both the horizontal and vertical bars are permitted to be moved when said lid is opened and thereby the counting-wheels are actuated.

13. In a machine of the class specified, a cas- 130

ing having its upper and outer side provided with a guideway consisting of parallel walls with openings therein through which duplicate tickets are accessible for punching the same, a supply-roll containing an endless ribbon of said duplicate tickets, said ribbon being perforated through its longitudinal center so as to enable it to be folded throughout the length thereof, means for feeding said duplicate tickets through the guideway to a position for one to be stored within the casing, and the other to be delivered to a position in said casing from which it may be detached and removed, a device located within the guideway for severing said tickets longitudinally as they are fed from the guideway, a series of counting-wheels, a horizontal sliding bar, connections between said horizontal bar and the counting-wheels, a spring adapted to actuate said horizontal bar at definite times, a vertical sliding bar controlling the position of the horizontal bar, and a lid above said vertical bar by means of which both the horizontal and vertical bars are permitted to be moved when said lid is opened and thereby the counting-wheels are actuated.

14. In a machine of the class specified, a suitable casing, a roll of duplicate tickets therein, said tickets being united by a line of perforations, a guideway through which said tickets are passed, means for severing said tickets while being moved through the guideway after being punched, means for storing a duplicate of each issued ticket, and means for registering each issued ticket.

15. In a machine of the class specified, a casing, a supply-roll consisting of duplicate tickets, a guideway in the top of the casing inclosed by two open parallel walls between which said tickets are passed, a knife located adjacent to one end of said guideway for severing said tickets longitudinally, and means within said casing for consecutively registering each ticket delivered from the machine and stored therein.

16. In a machine of the class specified, a casing, a supply-roll consisting of ribbon of duplicate tickets, a guideway through which said tickets are fed from said roll, said guideway being inclosed by upper and lower open walls, an inclosed space below said guideway with an entrance thereto from a side of the machine, means for feeding said tickets from the supply-roll through said guideway, one of said tickets to be delivered from the machine, and the other to be stored within the machine, a knife at the terminal of said guideway for severing said tickets longitudinally as they are issued, and means on the interior of the machine for consecutively registering each ticket so issued and stored.

17. In a machine of the class specified, a casing adapted to contain a roll of duplicate tickets, a guideway in the upper portion of said

casing through which said duplicate tickets are fed from said roll, the said guideway being inclosed by upper and lower parallel walls with openings therein through which said tickets may be punched or perforated while in the guideway, a knife located at one of the terminals of said guideway for severing the tickets longitudinally as they are fed from the roll, a bank of consecutive counting-wheels on the interior of said casing for registering each ticket issued, means engaging said counting-wheels to actuate the same to record each ticket when the machine is opened to remove the tickets therefrom.

18. In a machine of the class specified, a casing, a supply-roll consisting of duplicate tickets, a guideway in the upper part of said casing through which said tickets are fed from said roll, said guideway being inclosed by upper and lower parallel walls with openings therein through which said tickets may be punched or perforated, an inclosed space below said guideway opening on one side of the casing, a knife located adjacent to one of the terminals of said guideway for severing the tickets longitudinally as they are fed from the roll, a consecutive counter within said casing for registering the tickets issued from said roll, a horizontal bar having a connection with said counter and adapted to actuate said counter upon the issuing of each ticket from the machine, and an upright bar engaging said horizontal bar and holding it in its normal position, said upright bar being maintained in its normal position by the lid of the casing.

19. In a machine of the class specified, a casing from which is issued duplicate tickets, one of which is stored within said casing, and the other of which is delivered therefrom, a consecutive counter within said casing to register the tickets thus issued, a bell to sound a signal upon each issuance of a ticket, a sliding bar, connections between said sliding bar and the consecutive counter and the bell whereby said counter and said bell are operated at the same time, a bar mounted in an upright position below the lid through which the tickets to be delivered are extracted, said upright bar controlling the position of said sliding bar when the lid of the machine is closed.

20. In a machine of the class specified, a casing containing a supply-roll consisting of a continuous ribbon of duplex tickets, a guideway in the upper part of said casing consisting of two parallel walls with aligned openings therein through which the tickets may be punched or perforated, an inclosed space below said guideway with an opening thereto from one side of the casing, a knife located adjacent to one of the terminals of the guideway to sever the tickets longitudinally, a consecutive counter to register each ticket delivered from the machine, a horizontal bar con-

5 nected with said counter, an upright bar, said horizontal and upright bars having their engaging ends deflected in parallel angles, the said upright bar being controlled by the lid of the casing to maintain the horizontal bar in its normal position, and a spring exerting an influence upon said horizontal bar to move it lengthwise and to elevate the upright bar when

the lid of the machine is open to remove a ticket therefrom. 10

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. OHMER.

Witnesses:

R. J. McCARTY,
C. M. THEOBALD.