

No. 669,325.

Patented Mar. 5, 1901.

J. W. LUTZ.  
CASH RECORDER.

(Application filed Dec. 4, 1899.)

(No Model.)

Fig. 1.

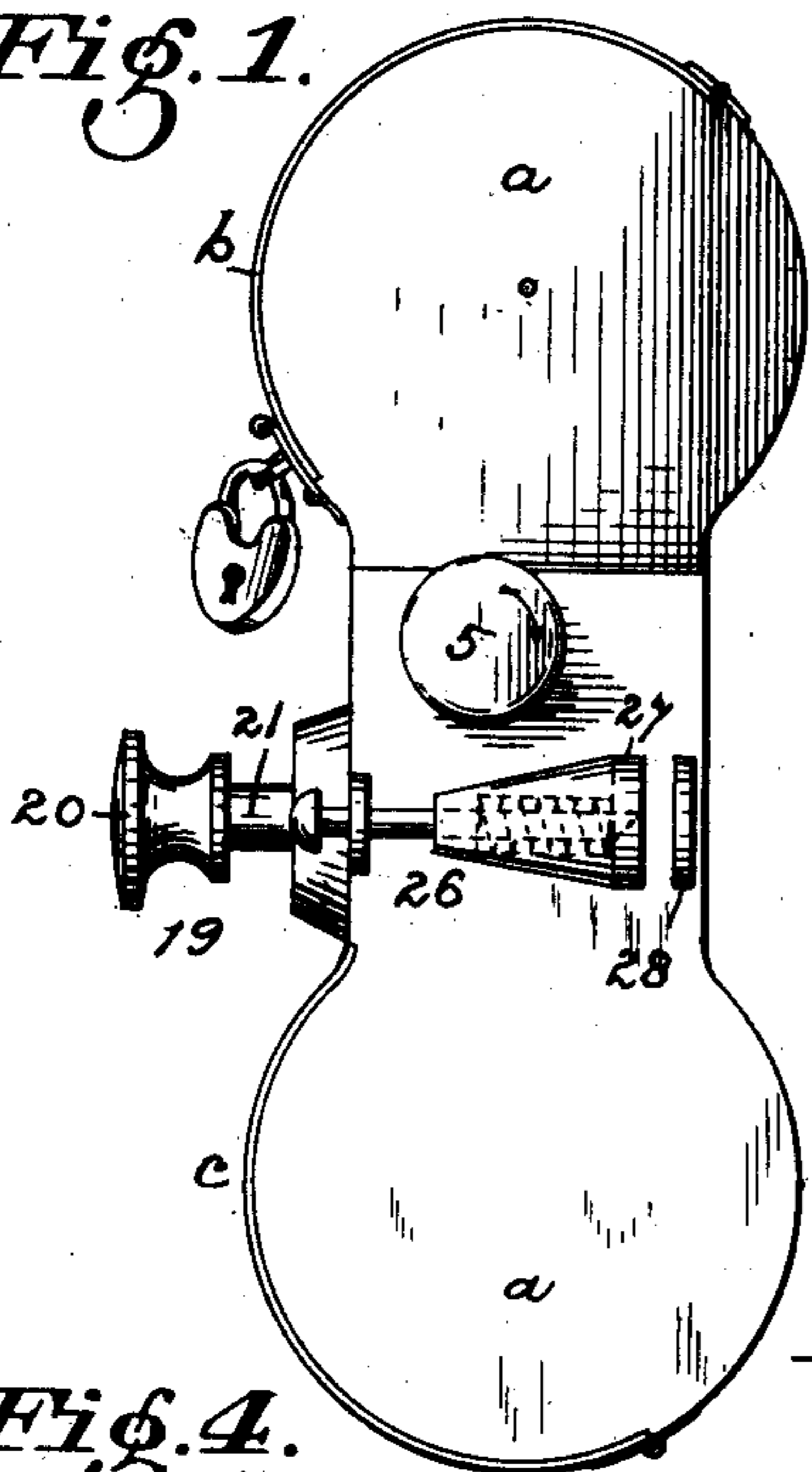


Fig. 2.

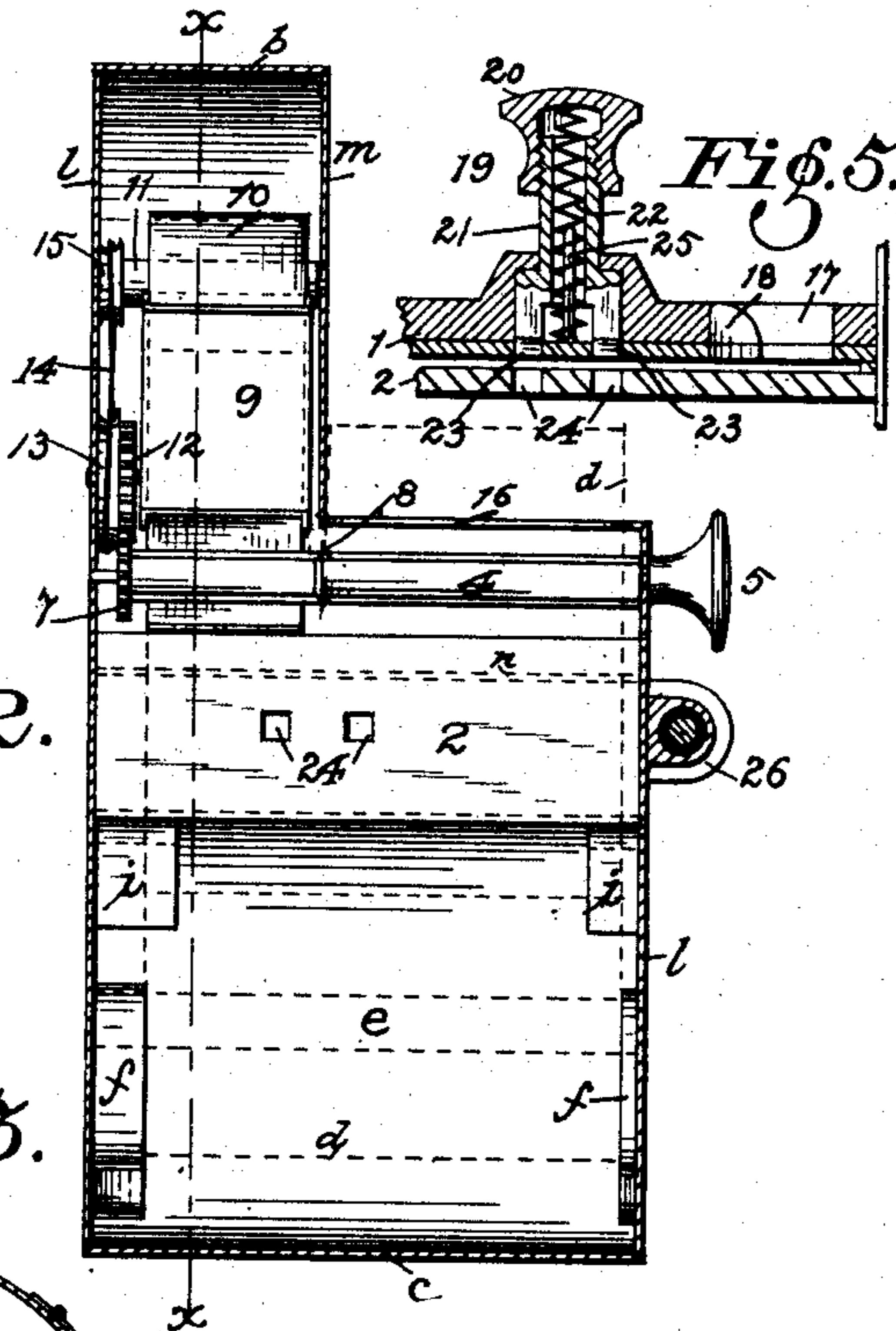


Fig. 3.

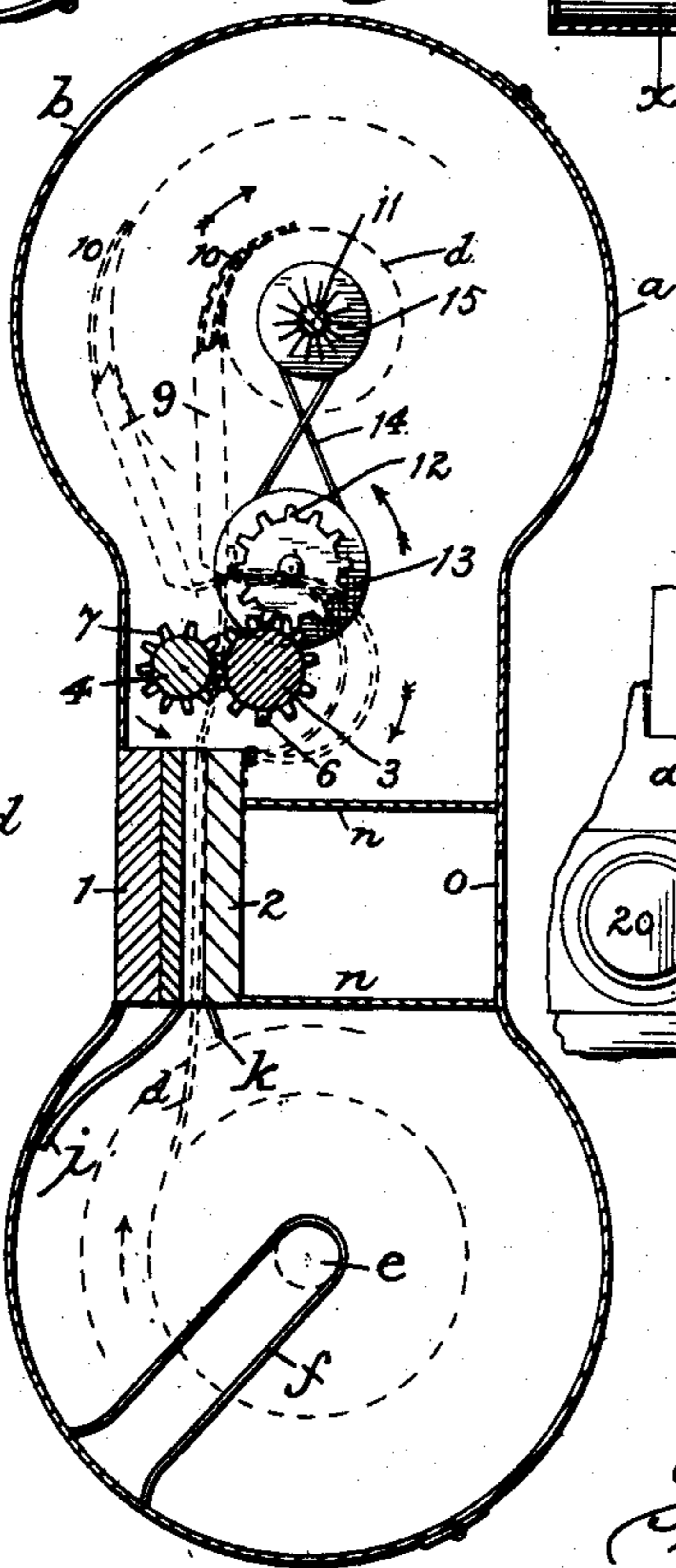


Fig. 4.

WITNESSES:

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Fig. 6.



Fig. 8.

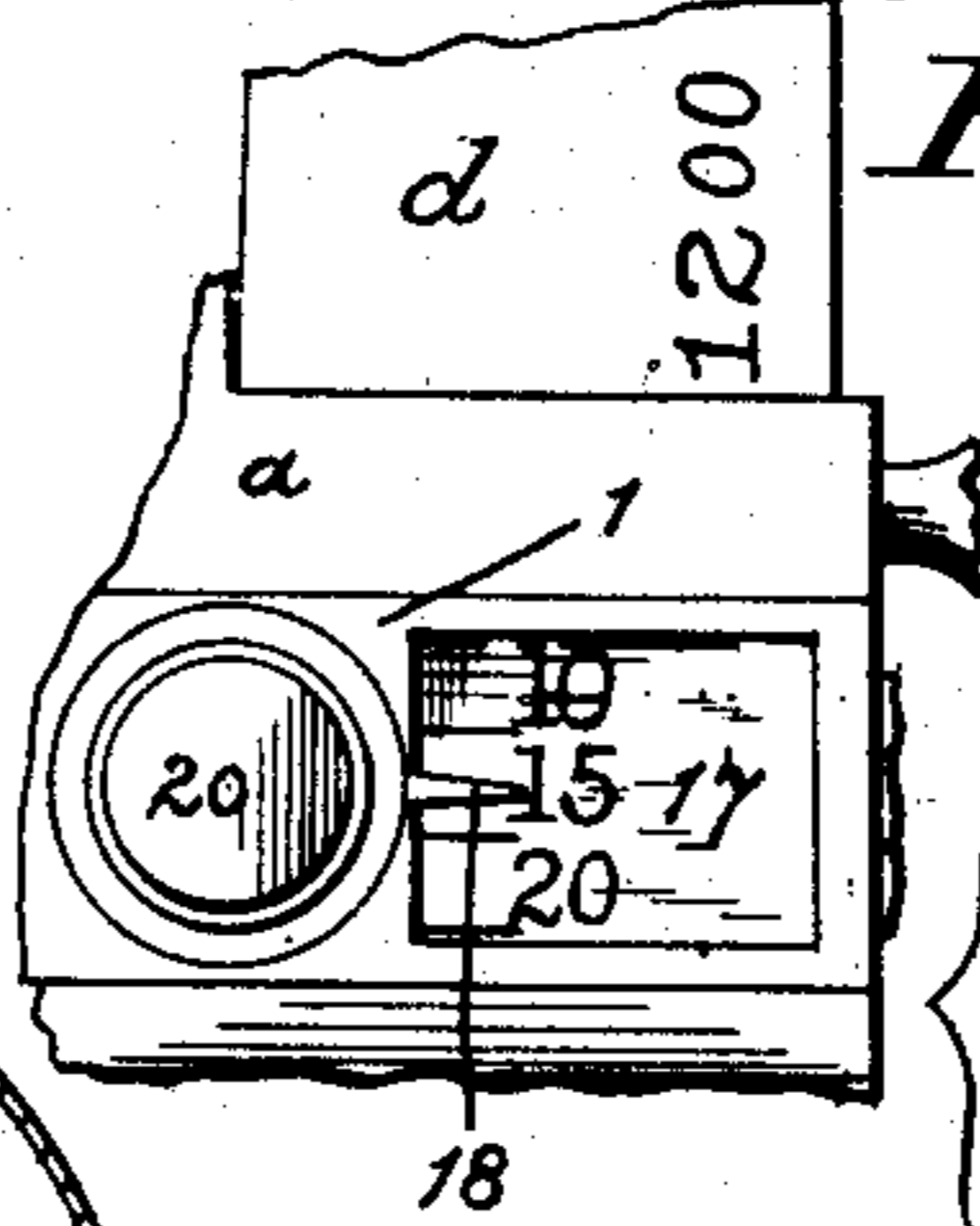
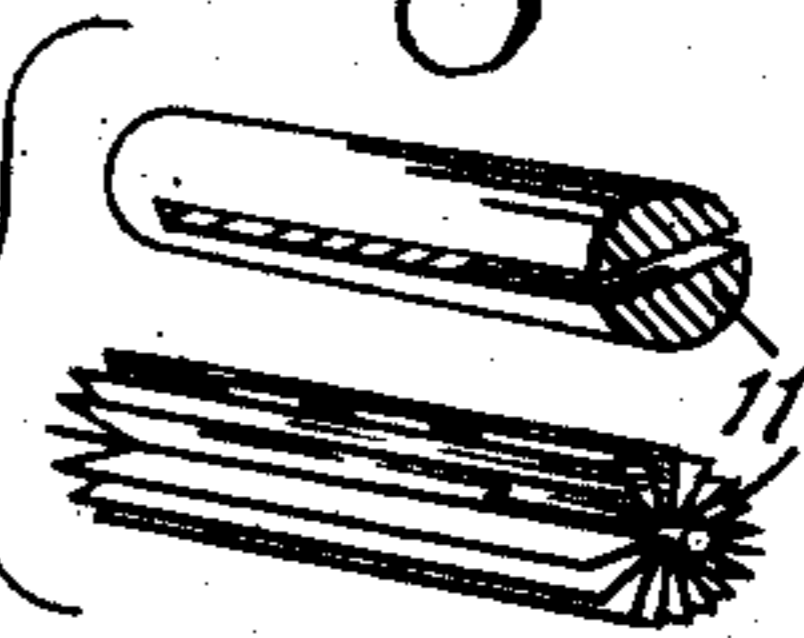


Fig. 7.



INVENTOR:

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# UNITED STATES PATENT OFFICE.

JOHN W. LUTZ, OF JACKSON TOWNSHIP, OHIO.

## CASH-RECORDER.

SPECIFICATION forming part of Letters Patent No. 669,325, dated March 5, 1901.

Application filed December 4, 1899. Serial No. 739,121. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. LUTZ, a citizen of the United States, residing in Jackson township, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in a Duplicate Cash-Recorder; and I do hereby 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 letters and figures of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in a "duplicate cash-recorder" or system of recording the amount of cash paid by one person to another by issuing a receipt or voucher to the customer, and at the same time recording inside of the device a duplicate receipt of the same, and although said device is susceptible of being used to advantage in any business place where it is desired to keep a record of the amount of cash received and also to protect the employer against dishonest employees it is more especially designed to be employed in street and railroad cars, ferry-boats, ticket-offices of railroad and steamboat companies, stores, cafés, and other similar places; and it consists in certain novel combination of the features of construction and arrangement of the various parts, as will be more fully described hereinafter and pointed out in the subjoined claims, in accordance with the statutes in such case made and provided therefor.

One of the principal objects of this invention is to provide means for correctly handling and recording any amount of cash and in such a manner as to be impossible for an employee to so manipulate the recorder as to be able to appropriate any money to his own use without being immediately detected.

A further object is to provide a duplicate cash-recorder of simple and cheap construction and one that can be made of any size to be used in a stationary as well as a movable position in any or all classes of business places wherein cash payments are made, a special and very important feature of this device being that it may be so constructed and in a very small compact form, thus making

a portable hand cash-recording device which may be carried in the pocket and being always ready for use is adapted to take the place of the ordinary punch used by conductors.

Referring to the accompanying drawings, illustrating my invention, and in which like letters and numerals refer to corresponding parts throughout the several views, Figure 1 is an end elevation of my duplicate cash-recorder, and Fig. 2 is a vertical longitudinal sectional view of same. Fig. 3 is a somewhat-enlarged vertical transverse sectional view on line  $x x$  of Fig. 2 and showing in dotted lines the location of the sleeve and its spring and the position of the roll of the recorded receipts as well as the roll of unrecorded receipts or vouchers. Fig. 4 is a view of a section or portion of a slip or strip of paper upon which is printed the receipts and showing a partial cut as made by the cutters or knives on the parallel rollers, thus separating said slip into two portions, on one of which is the receipts to be recorded and on the other the unrecorded receipts, which are designed to be torn off and given to the customer as a voucher, both portions having a puncture made by the punch opposite to and indicating the amount of cash as paid. Fig. 5 is a sectional view in detail of the punch and its various parts, including the male and female dies, by which the recorded as well the unrecorded receipts are punched, as shown in Fig. 4. Fig. 6 is a detail view of the two parallel rollers provided with the cutters or knives between which the slip passes and is cut or separated into a strip of recorded and unrecorded receipts. Fig. 7 represents detail views in perspective, showing two forms of construction of the slotted roller, which receives and carries the roll or narrow slip of recorded receipts; and Fig. 8 is a view showing a portion of front side of the recorder as partially broken away for the purpose of showing the opening through the male die and the indicator, by which means the operator is enabled to see the number on the ticket corresponding to the amount of cash as paid to be punched.

In describing my invention in detail and having reference to the various parts thereof as shown throughout the several views of the

accompanying drawings by means of the aforesaid letters and numerals of reference, *a* indicates a shell or casing of any desirable and suitable shape, but preferably of a form  
5 that can be readily grasped by and held in the hand.

As herein shown, *b* and *c* are lids or small doors hinged to the forward and rear portions, respectively, of the shell or casing of the re-  
10 corder for the purpose of protecting the mechanism located inside said shell or casing and also to permit of the introduction or removal of the slip or strip of paper *d*, (see Fig. 4,) upon which is printed in duplicate, (and in the in-  
15 stance herein shown in the drawings for the purpose of illustration is supposed to represent a ticket used on traction-cars, omitting the names of the stations,) and consists of numbers indicating the various amounts of cash  
20 paid and received in specified amounts from five to fifty cents; but it will be obvious that the numbers to represent the cash may be arranged and expressed in dollars or cents, or both; also, that instead of numbers various  
25 symbols or words may be printed on said tickets or said slip, according to the line of business in which the recorder is employed—as, for instance, when used by an agent in a ticket-office the names of different towns or  
30 cities along the route may be printed instead of numerals, or in a café the menu-card. Said slip *d* being then wrapped or rolled upon a roller or bobbin *e*, as shown in dotted lines in Figs. 2 and 3, is passed into the inside of  
35 said shell through the opening left when lid or door *c* is thrown or swung open on its hinges, and by reason of the lateral guides *f*, which project on the inside of casing *a* and act as a support and bearing for roller *e*, the wrapped or rolled slip of paper *d*, upon which  
40 is printed in duplicate the number representing the amounts of cash and to be used as receipts or vouchers when punched, is held in position. Said slip of paper may of course  
45 be printed in any desired form or style, as above referred to; but for the purposes of illustrating the principle of its use I have shown in Fig. 4 a duplicate row of numerals having a transverse dividing-line, as at *g*, which represents a ticket. The unrecorded portion of  
50 this ticket, (see Fig. 8,) when longitudinally separated by a cut made by the cutters or knives 8, as at *h*, as will be more fully described hereinafter, is intended to be torn  
55 off at the said dividing-line and given to the customer to be retained as a voucher or receipt. These tickets are to be numbered consecutively on each side at their tops, as shown by the numerals “1200” and “1201.”

60 Small guides *i* and *k* direct the slip *d* on its course as passed through the opening left between male die 1 and female die 2, said slip being then grasped between paper-rolls 3 and 4, which are constructed of rubber or like  
65 suitable material and have pivotal bearings in each of the walls *l* of shell *a*, and by reason of the operator turning thumb-knob 5, pro-

jecting outside the casing on end of roll 3, in the direction indicated by an arrow in Fig. 1 the teeth of small pinion-wheel 6 on oppo-  
70 site end of said roll will mesh with teeth of small pinion 7 on end of roll 4, both of said rolls being thus caused to revolve, as shown by the arrows in Fig. 3.

Paper-rolls 3 and 4 are each provided at a  
75 point directly opposite to subwall *m* with an annular cutter or knife 8, the edges of said cutters or knives just meeting sufficiently in the small space between said rolls so that as  
80 slip *d* is caused to pass between said rolls by their action in turning, as above described, it will come in contact with said cutters or knives, and said slip will be cut longitudinally and separated or divided into two por-  
85 tions, as shown in Fig. 4. The portion nearest to the pinions as it continues on its course will enter and pass through sleeve 9, said sleeve being pivotally supported by a hinged  
90 portion (the whole being constructed of light metal) which is connected to the female die 2 and moves with the slip of punched tickets or receipts as rolled up and recorded, as shown by dotted lines in Fig. 3, and as this portion  
95 of slip *d* passes out of the opposite or forward end of said sleeve, which rests directly over slotted recording-roller 11, it is caught in a slot in said roller 11. Said roller may be provided with one or more slots, as desired and  
100 shown in Fig. 7, and as it is revolved in the direction indicated by the arrow in Fig. 3 this portion of slip *d* is rolled or wrapped thereon and held in place while being wrapped by a  
105 piece of flat light spring metal 10, (similar to the metal used in clocks or watch-springs,) which is connected to and projects from the forward end of sleeve 9, as shown in Figs. 2 and 3, and said slip is thus retained as a rec-  
110 ord inside of the upper or forward portion of said shell or casing by reason of its shape, and also as lid *b* is provided with a lock of any preferred style, as shown in this instance  
115 in Fig. 1 by a small padlock, the key to said lock being held by the employer, who thus has at his disposal a correct record at all times of the amount of cash paid in to the  
120 employee, and in case said employee should through any cause not turn over the exact amount of cash as taken in, a comparison of the amount of cash with the punched record as contained on the slip of recorded re-  
125 cepts will immediately show it. A gear wheel or pinion 12, having a pivotal bearing in wall *l*, the teeth of which engages the teeth of pinion 6 on roll 3, and as said roll is turned by its thumb-knob, as above described, the  
130 teeth on pinion 6 coming in mesh with teeth of pinion 12, said pinion is revolved in the direction indicated by the arrow in Fig. 3 and carries or revolves with it pulley 13, which  
135 in turn by reason of cord or small belt 14 which connects with and revolves another small pulley 15 on end of slotted roller 11, said slotted roller having a pivotal bearing in end wall *l* and subwall *m*, and as roller 11

is thus revolved in the direction shown by the arrow in Fig. 3, this slip of printed receipts, the correct numbers representing cash amounts as paid having first been indicated by a puncture, as shown in Fig. 4 and as will be hereinafter described, is wrapped or rolled (see dotted lines, Fig. 3) on said slotted roller, by reason of the end of said slip being caught in a slot in said roller 11, and thus duly recorded, as above described.

At the same time that the portion of slip *d* nearest to the pinions as it is longitudinally cut or separated from the main portion is going through the operation of being recorded on slotted roller 11, as just above described, the other or main portion, on which is printed the unrecorded receipts or vouchers, as it comes from the cutters or knives 8 passes out through a suitable slotted opening 16, located in upper portion of casing *a*, (see Figs. 2 and 8,) and is here torn off at dividing-line *g* and given to the customer, as heretofore described, after having first had the amount punched therefrom, as will be hereinafter described. As slip *d* passes between dies 1 and 2, as described, rectangular opening 17, which may be fitted with a top covering of transparent material, preferably mica, if desired, and having a projection or indicator 18 extending inside said opening, by which means the operator is thereby enabled to at once see the number in duplicate which corresponds with the amount of cash received necessary to be punched, (see Fig. 8,) and by striking or quickly pressing knob 20 of punch 19 the hollow plunger 21, actuated by spring 22, is forced or driven suddenly down, and the two cutters 23, which are formed integral with hollow plunger 21, (see Fig. 5,) pass through slip *d* by reason of openings 24 in female die 2, and two punctures or openings are thus punched through slip *d* at or through the numbers corresponding with the amount of cash, one puncture passing through the narrow portion of the slip which is to be recorded and the other puncture being through the unrecorded portion of the slip, (see Fig. 4,) and the two small pieces as clipped out by the punch in making these punctures or perforations will drop into the chamber or apartment between and formed by the transverse walls *n*, and as these clippings accumulate, by reason of the number of tickets punched, may be jarred or shook out through a slotted opening *o*, formed in the casing at bottom of said chamber or apartment whenever desired. Punch 19 comprises knob 20, which is detachably connected to a hollow plunger 21, formed with vertical cutters 23, spring 22, which retains and throws said plunger back into position when pressure is taken off of knob 20, and vertical guide-rod 25, which keeps spring 22 in position.

Conveniently located on one end of the casing for the purpose of punching single tickets as collected on the cars by conductors and where no record is desired to be made I provide

a punch 26, of ordinary construction, comprising a spring-actuated plunger having a cutting end adapted to pass through an opening (not necessary to be shown) in a male and female die 27 and 28, formed with a sufficient space between, so that a number of single tickets may be punched at one time.

It will be readily understood from the foregoing description and accompanying drawings that I have produced a recorder that is simple in construction, quickly and cheaply manufactured, effective in its purpose, and which carries inside of it the tickets, receipts, or vouchers in a form always ready and printed—one to be recorded and the other to be issued. It will also be obvious that the form and arrangement of the several parts of my recorder may be slightly varied without departing from the spirit or principles of my invention.

Having now described my recorder, what I claim, and desire to secure by Letters Patent, is—

1. In a recording device of the character herein referred to, the combination of an outer casing or shell; means arranged and disposed within said casing or shell for retaining and supporting a strip, on which is printed in duplicate, a series of tickets, one half of which are to be recorded, the other half to be issued as vouchers; a punch and dies for puncturing or perforating each half of said tickets; means for separating or dividing said slip and tickets; an opening in said casing through which one of said halves may be torn off and issued as a voucher; means whereby the other half or ticket may be securely retained within said casing in a strip as recorded; and means for moving and manipulating said printed strip of tickets in said device by suitable mechanism, substantially as and for the purpose described.

2. In a recording device of the character as herein referred to, the combination of an outer casing or shell; means arranged and disposed within said casing or shell for retaining and supporting a continuous strip on which is printed in duplicate, a series of tickets, one half of which are to be recorded, the other half to be issued as vouchers; a punch and dies for puncturing or perforating each half of said tickets; paper-rolls provided with cutters or knives, for cutting or separating said slip and said tickets, said rolls having pivotal bearings, and one roll provided with a thumb-knob, said rolls adapted to grasp said printed slip; an opening in said casing through which one of said halves or tickets may be torn off and issued as a voucher; means whereby the other half or ticket may be securely retained within said casing in a continuously-rolled strip as a record; and means for moving and manipulating said printed strip of tickets in said device by suitable mechanism, substantially as and for the purpose described.

3. In a recording device of the character

referred to, a sleeve having a hinged support, and provided with a projecting piece of spring metal; said sleeve adapted to receive a printed slip or strip, and rest and move in such a position that said piece of spring metal will act with sufficient tension upon said printed strip, so as to hold it in position while being wrapped or rolled; substantially as and for the purpose herein described.

4. In a recording device of the character as herein referred to, the combination of an outer casing or shell; means arranged and disposed within said casing or shell for retaining and supporting a continuous strip, on which is printed in duplicate a series of tickets, one half of which are to be recorded, the other half to be issued as vouchers; a punch and dies for puncturing or clipping each half of said tickets; a sleeve having a hinged support at one end and a flat piece of spring metal at the other end, adapted to retain a printed strip while being rolled; paper-rolls provided with cutters or knives for cutting or separating said slip and said tickets, said rolls having pivotal bearings, and one roll provided with a thumb-knob, said rolls adapted to grasp said printed slip; an opening in said casing through which one of said halves or tickets may be torn off and issued as a voucher; means whereby the other series of halves or tickets may be securely retained within said casing in a continuous and rolled strip as a record; and means for moving and manipulating said printed strip of tickets in said device by suitable mechanism, substantially as and for the purpose described.

5. In a recording device of the character herein referred to, the combination of an outer casing or shell, openings into said shell each provided with a lid or door, one of said lids or doors provided with means for securely locking it; lateral guides or flanges for guiding and supporting a roller or bobbin carrying a rolled slip upon which is printed tickets in duplicate; a male and female die having small guides connected thereto for directing the course of said printed slip, said male die provided with an opening and indicator located over the printed slip for observation, said female die provided with openings for the punch; a punch connecting with said dies; paper-rolls having pivotal bearings, one of which has a thumb-knob for turning or revolving it; a cutter or knife on each roll for cutting said slip, said rolls adapted to grasp said printed slip; a pinion on one end of each roll in mesh one with the other; a third pinion in mesh with pinion on end of roll having thumb-knob, said third pinion having a pivotal bearing and a pulley rigidly connected to it; a cord or small belt around said pulley and connecting with and transmitting motion to a smaller pulley above it; a slotted roller having pivotal bearings and rigidly connected with the latter or smaller pulley; a sleeve having a hinged support at one end and a projecting flat piece of spring

metal at the other end, adapted to retain a printed slip while being rolled on said slotted roller, all substantially as and for the purpose described.

6. In a duplicate cash-recorder, the combination of a casing or shell; two lids or doors opening into said casing or shell, one of which is provided with means for securely locking it; lateral guides or flanges for guiding and supporting a roller or bobbin carrying a slip or strip upon which is printed a series of tickets in duplicate; a male and female die having small guides connected thereto for directing the course of said slip, said male die provided with an opening and indicator situated over the printed slip for the purpose of observation, said female die provided with openings for the punch; a punch connecting with said dies; transverse walls forming an apartment or chamber, for catching the clippings from said slip as punctured, and an opening leading from said chamber to the outside for the removal of said clippings; paper-rolls pivotally mounted, one of which has a thumb-knob for turning or revolving it; a cutter on each roll for separating said slip, said rolls adapted to grasp said printed slip; a pinion on one end of each roll in mesh one with the other; a third pinion or gear wheel in mesh with pinion on end of roll having thumb-knob, said third pinion having pivotal bearings and a pulley rigidly connected to it; a cord around said pulley connecting it with and transmitting motion to a smaller pulley above it; a slotted roller having pivotal bearings and rigidly connected with the latter or smaller pulley; a sleeve having a hinged support at one end, and a flat piece of spring metal at the other end adapted to retain printed slip while being rolled on said slotted roller; an opening in said casing through which one of said halves or tickets may be torn off and issued as a voucher; and a second or smaller punch and dies connected to the outside of said casing or shell adapted for punching one or a plurality of single tickets at one time; substantially as and for the purpose described.

7. In a combined ticket punch and register, the combination, with two rolls, of means therebetween for providing the ticket with perforations and for slitting the ticket longitudinally between said perforations, substantially as described.

8. In a combined ticket punch and register, the combination, with a frame, of a roll journaled at each side thereof, a plunger provided with two punches, and a cutter arranged between the plunger and one of the rolls in position to separate the ticket between said punches, substantially as described.

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

JOHN W. LUTZ.

Witnesses:

PAUL J. WORTMAN,  
W. H. H. ECKI.