W. W. ROBLYER.

AUTOMATIC CHANGE MAKER.

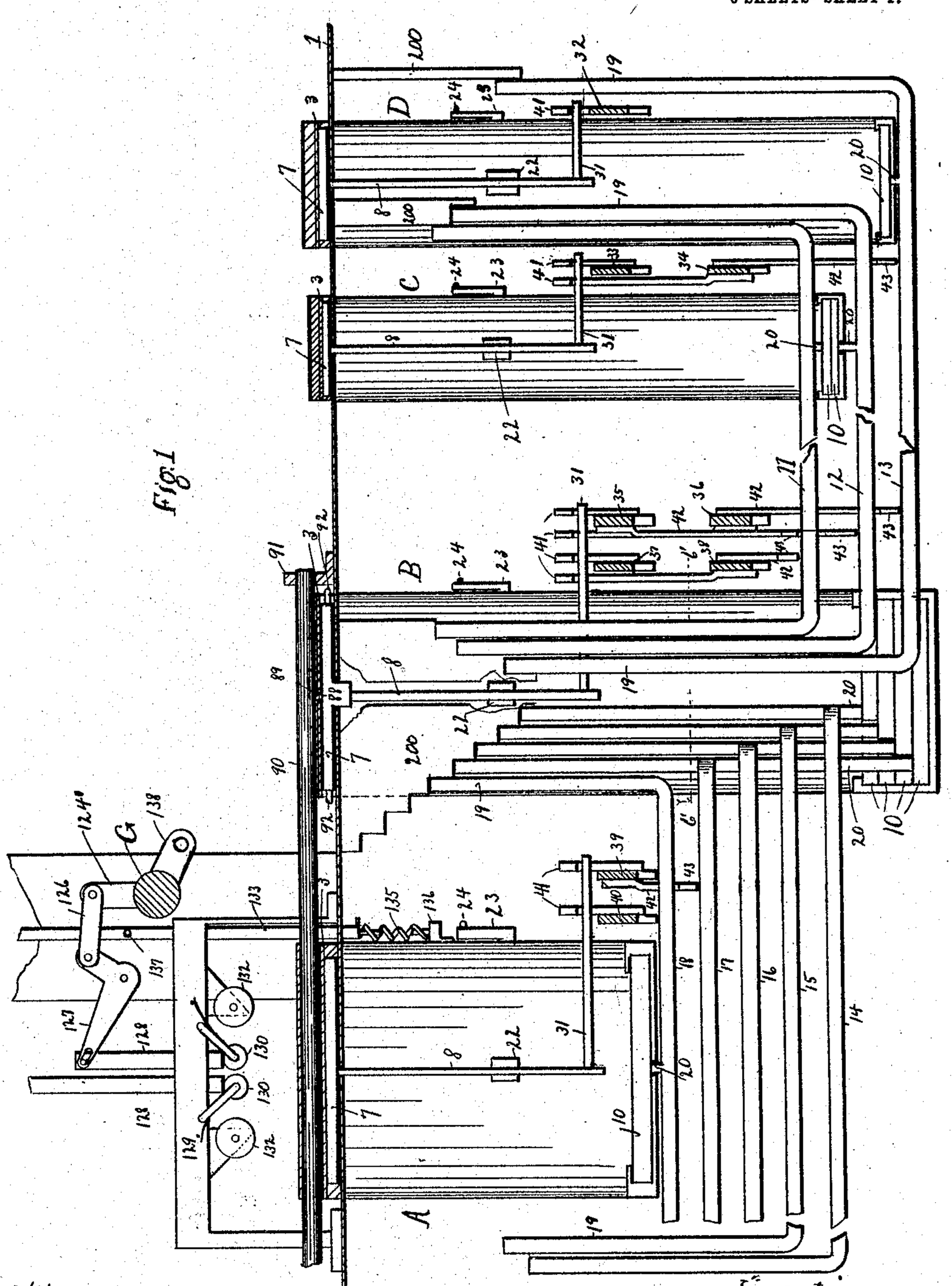
APPLICATION FILED OCT. 3, 1908.

899,704.

Patented Sept. 29, 1908.

6 SHEETS—SHEET 1.

Fig. 1



Witnesses

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6 SHEETS—SHEET 2.

Fig. 2

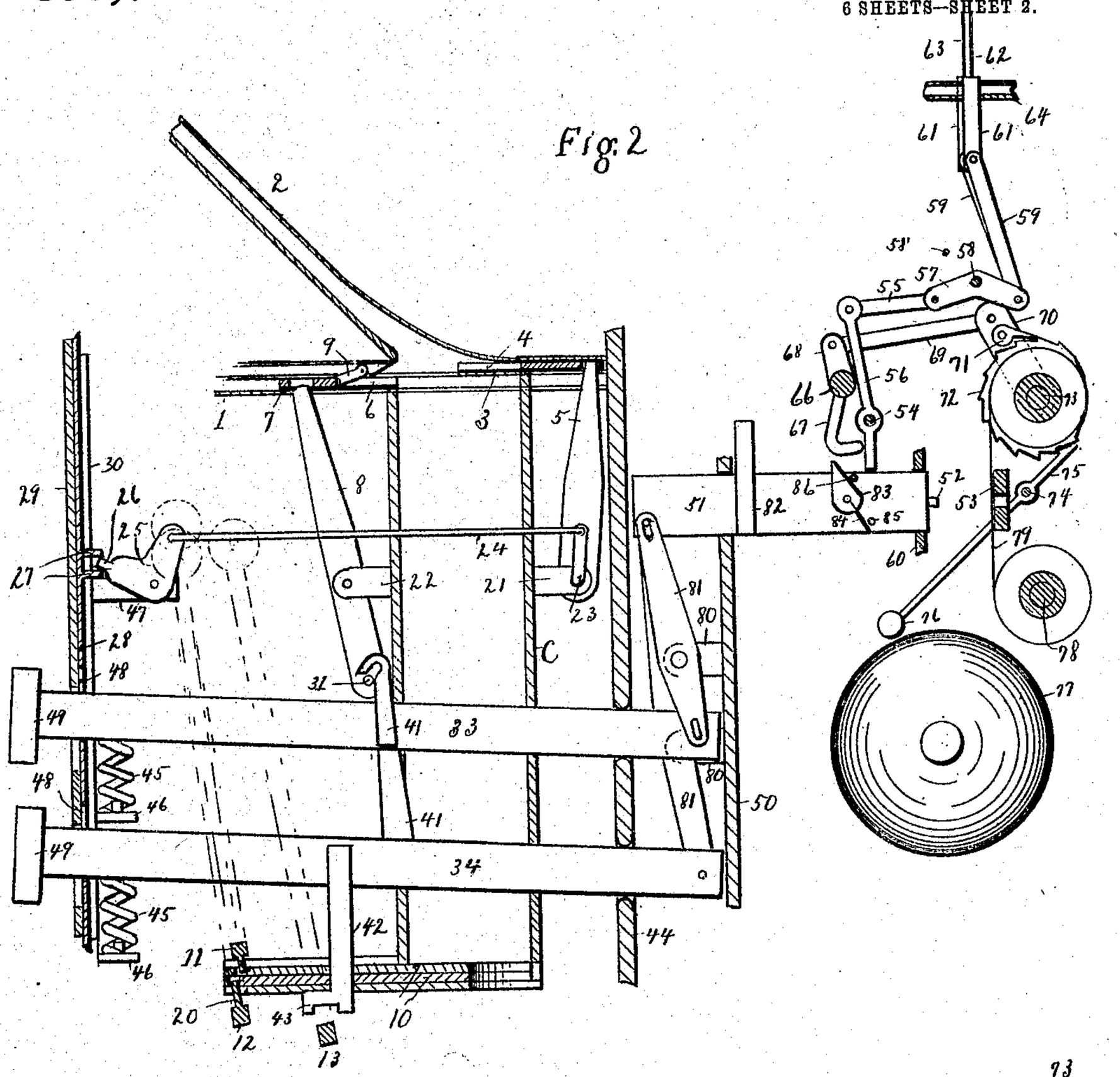

Fig. 4

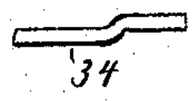

Fig. 3

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6 SHEETS—SHEET 3.

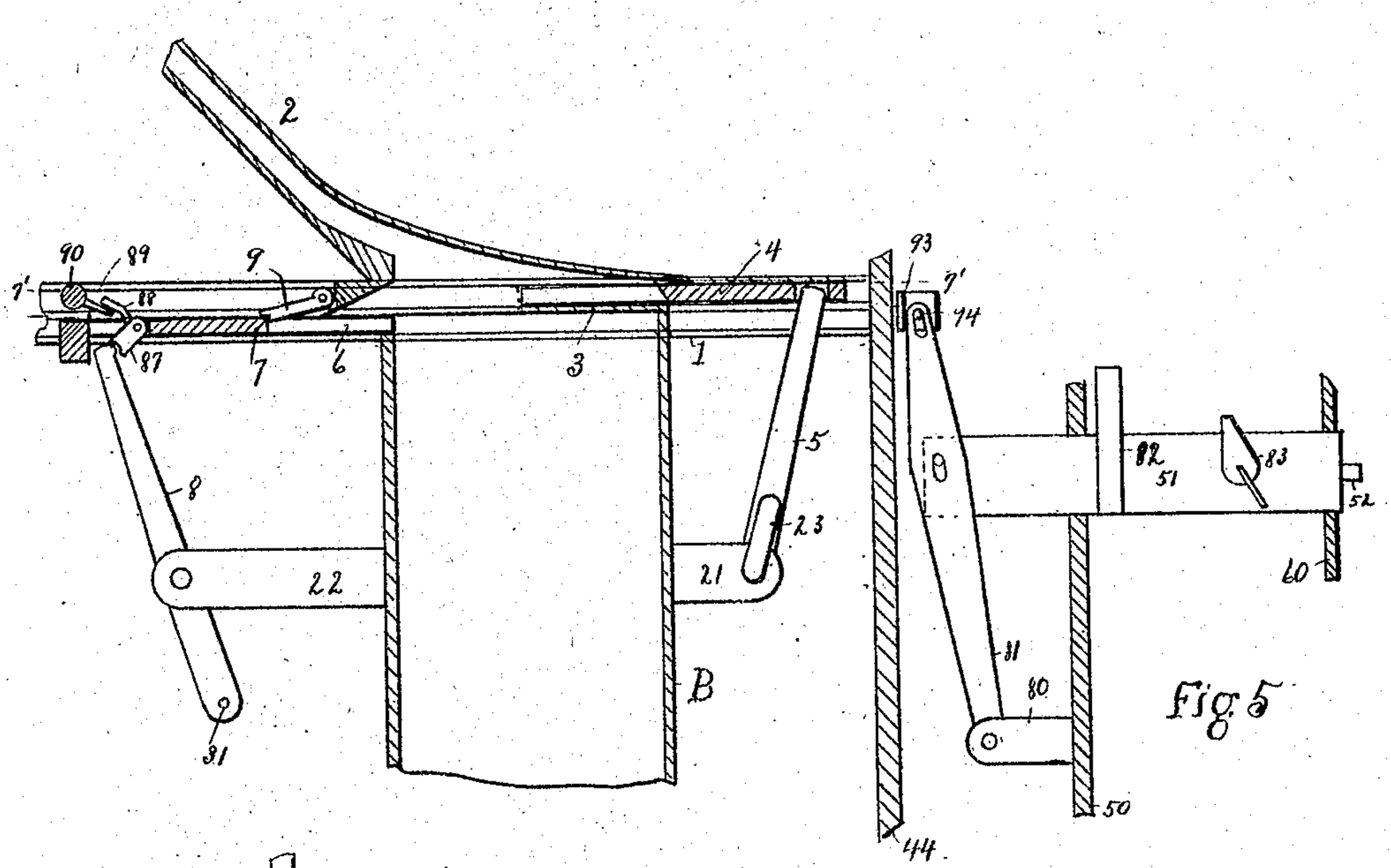

Fig 5

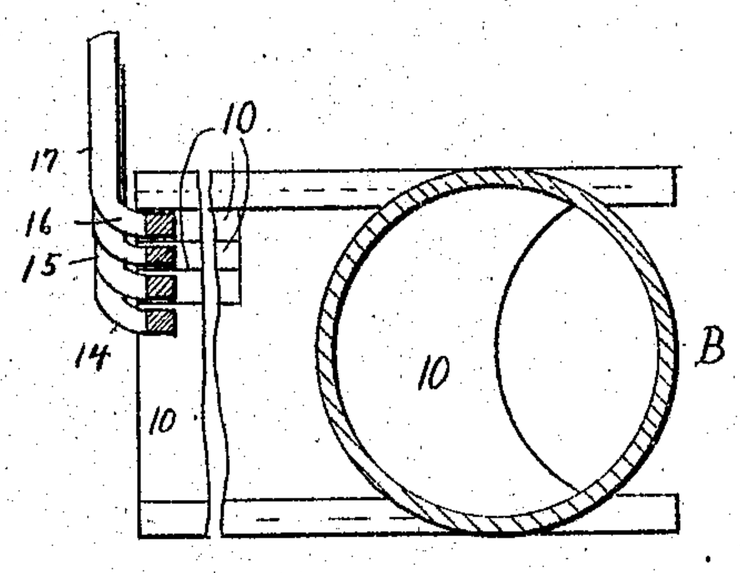

Fig 6

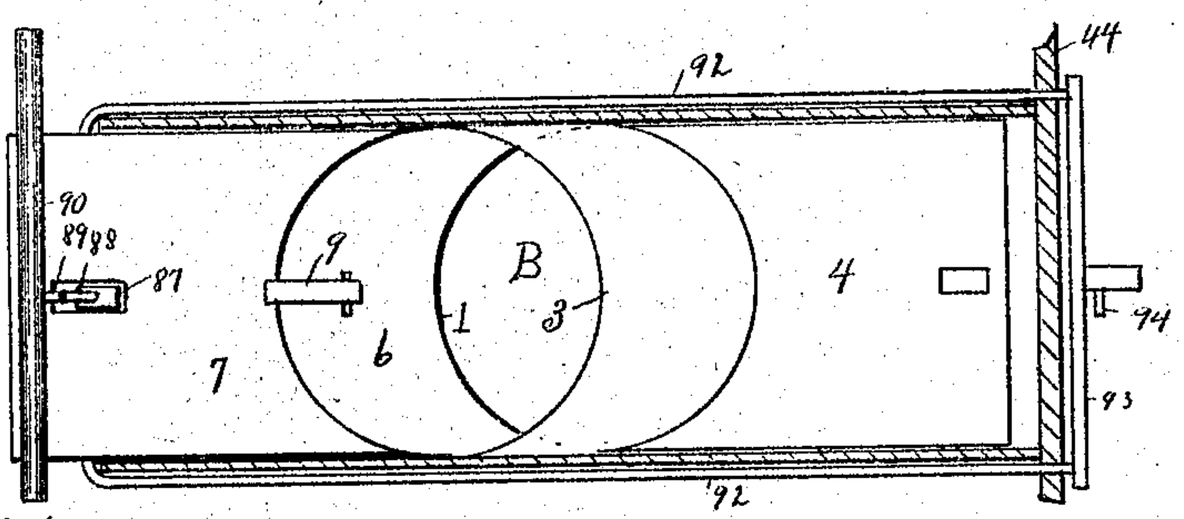

Fig 7

Witnesses

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6 SHEETS—SHEET 4.

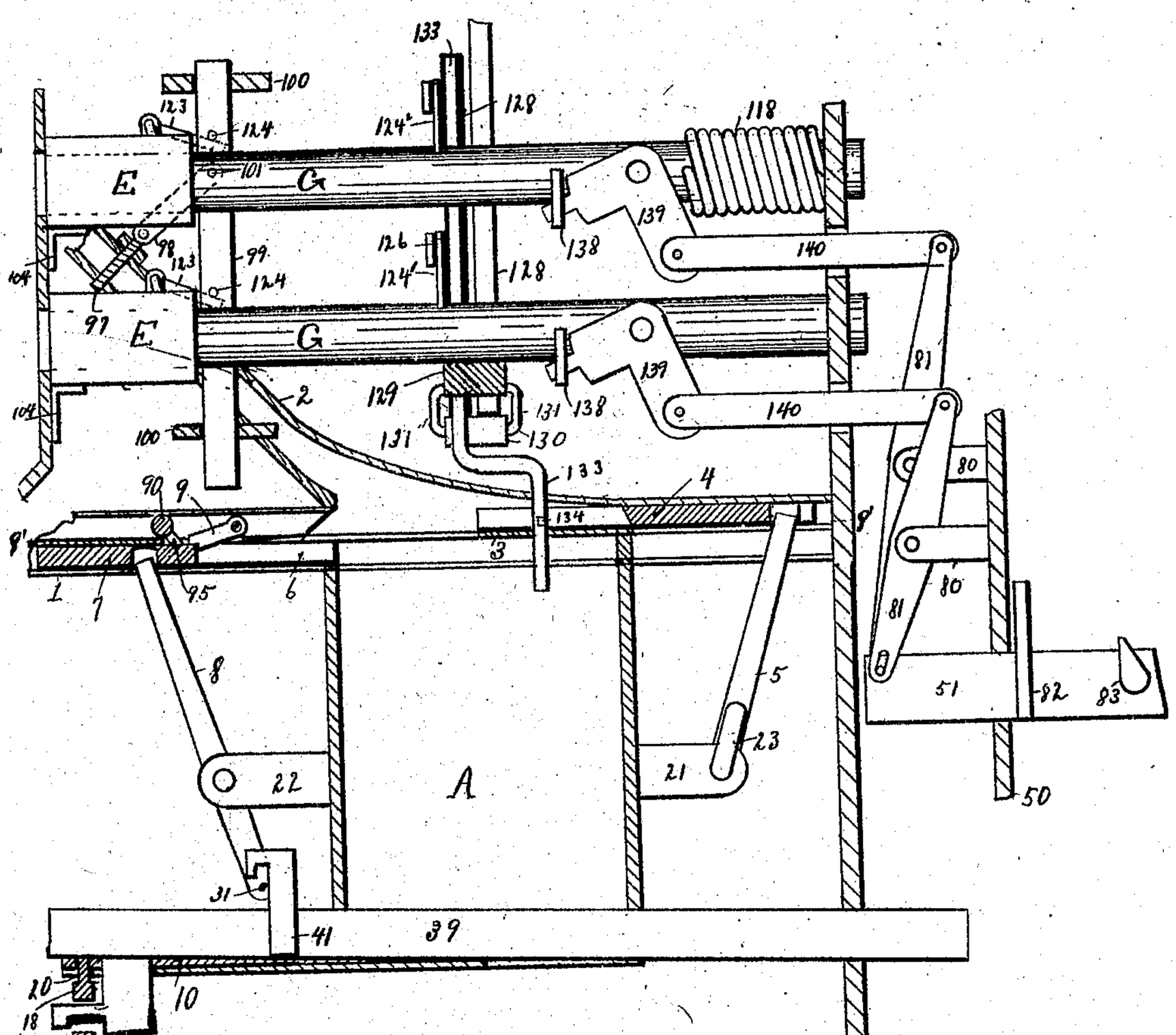

Fig 8

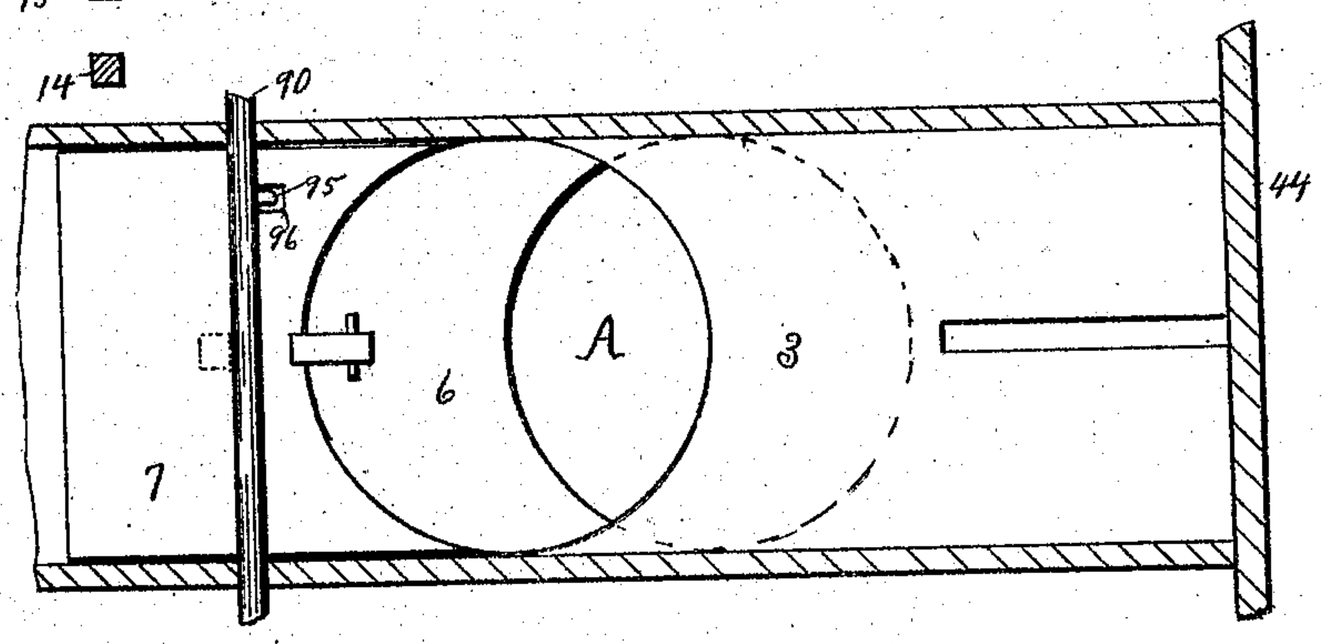

Fig 9

Witnesses

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6 SHEETS—SHEET 5.

Fig 10

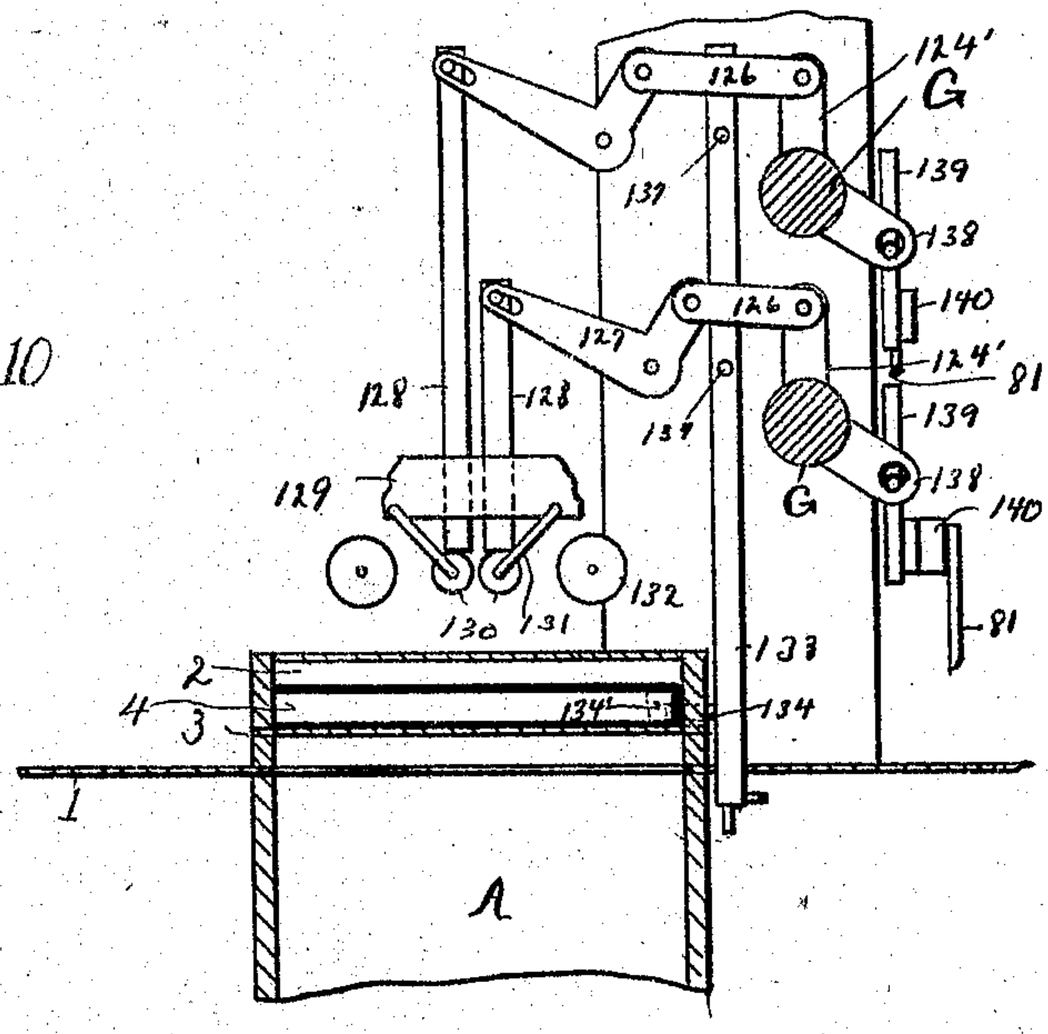


Fig 11

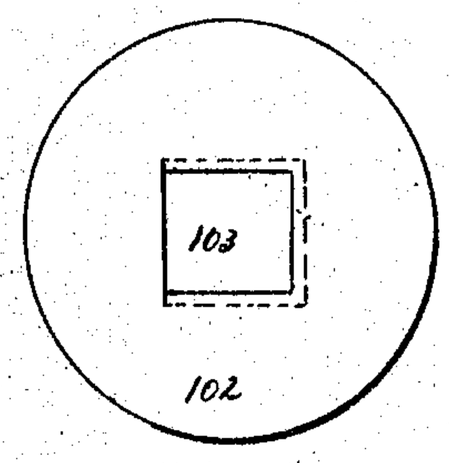
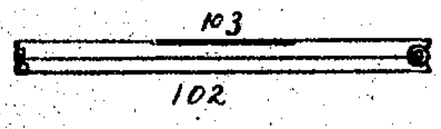


Fig 12



Witnesses
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6 SHEETS—SHEET 6.

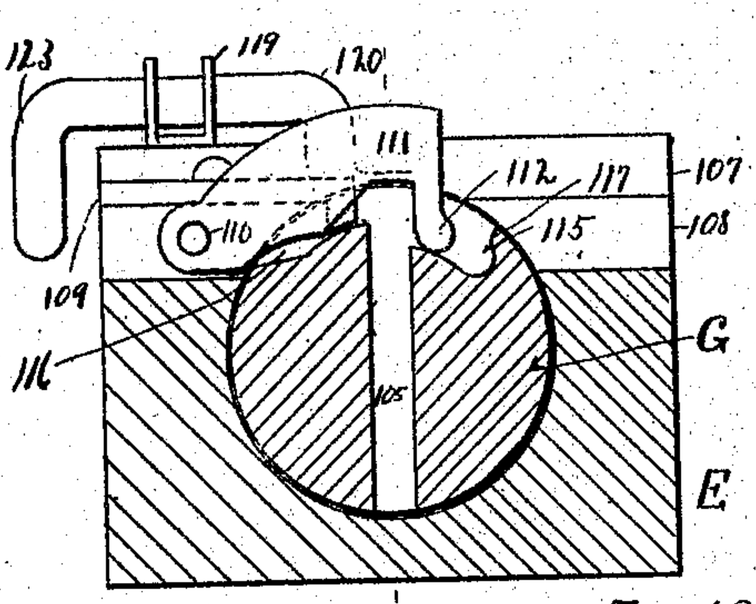

Fig. 13

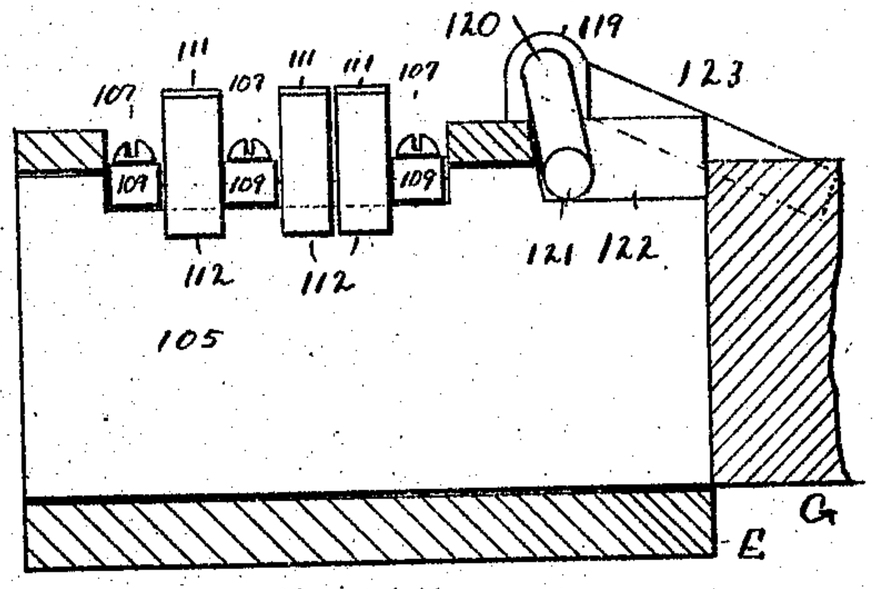

Fig. 14

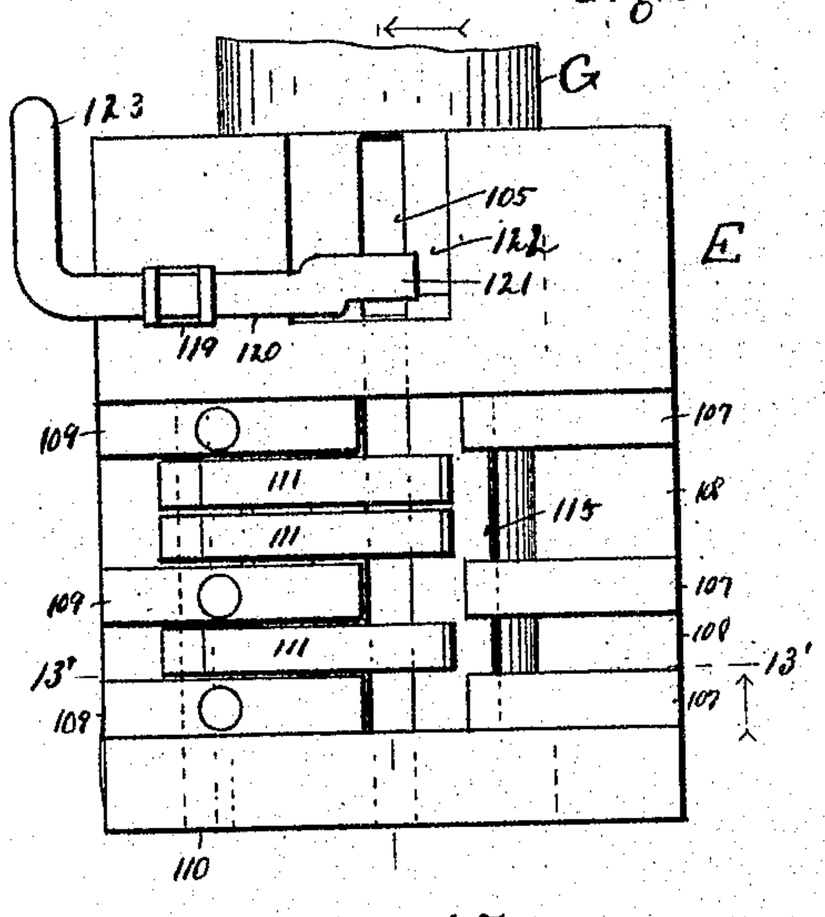

Fig. 15

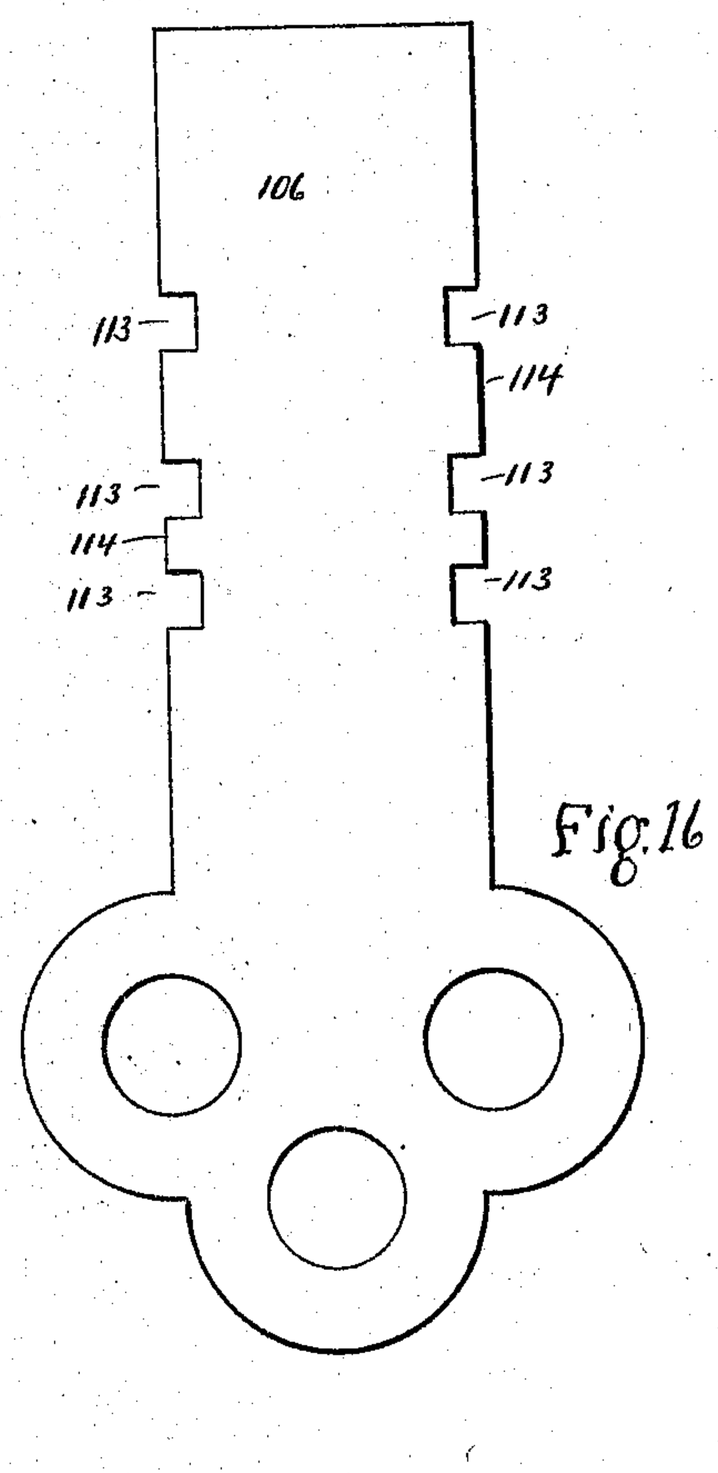

Fig. 16

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UNITED STATES PATENT OFFICE.

WILLIAM W. ROBLYER, OF CLEARWATER, KANSAS.

AUTOMATIC CHANGE-MAKER.

No. 899,704. Specification of Letters Patent. Patented Sept. 29, 1908.

Application filed October 3, 1906. Serial No. 337,210.

To all whom it may concern:

Be it known that I, WILLIAM W. ROBLYER, a citizen of the United States of America, residing at Clearwater, in the county of Sedgwick and State of Kansas, have invented new and useful Improvements in Automatic Change-Makers, of which the following is a specification.

The invention relates to coin-handling devices, and it consists of the receptacles for holding the coin, devices for receiving the coin, and devices for delivering the coin, the latter being normally locked and being adapted to become unlocked by the coöperation of a coin-receiving device and the corresponding coin. Another invention of similar nature is shown in Patent No. 771,326, dated October 4, 1904, granted to me for improvements in change-makers.

Objects of the invention are to improve generally upon change-makers; to improve upon the device shown in the above-mentioned patent; to provide for the operation of the device by other currency than coin, such as bills; to provide for the proper recording of all transactions; to provide for automatically marking the receptacle in which the bill is placed with the initial or other designating mark of the clerk or other party inserting such bill; in brief, to provide an apparatus which not only will make the change, but will also keep a check upon the parties who operate it, in order to reduce to a minimum the possibility of improperly withdrawing funds therefrom or improperly failing to deposit the necessary funds therein.

The invention consists of the novel combinations, parts, and improvements, the preferred form of the embodiment whereof is described and claimed in this specification and shown in the accompanying drawings forming part of this specification.

Figure 1 is a front elevation of a series of four coin tubes or receptacles with the mechanism located in the forward parts of the machine, the front part of the case being removed and some of the parts being shown in section. Fig. 2 is a side elevation of the mechanism coöperating with the ten-cent tube, some of the parts, including the tube itself, being shown in section. Fig. 3 is a top view of the recording devices and indicator operating mechanism. Fig. 4 is a top view of the rear end of lever 34, simply to show the off-set or bend therein. Fig. 5 is a central section (from front to rear) of the dollar tube. Fig. 6 is a section thereof through line 6′—6′, Fig. 1. Fig. 7 is also a sectional view intended to show the front and back sides of the receiving mechanism, taken approximately on the line 7′—7′, Fig. 5. Fig. 8 is a side elevation of the mechanism coöperating with the two-dollar tube, said tube and some of the parts being shown in section. Fig. 9 is a view thereof intended to show the front slide and adjacent parts, some in section. Fig. 10 is a front view, the tube and some of the parts being shown in section. Fig. 11 is a top view of the carrier in which the two-dollar bill is inserted, which carrier is intended to be inserted in the tube in the same manner as the coins are inserted in the other tubes. Fig. 12 is a sectional view thereof. Figs. 13, 14, 15 and 16 are details of the lock and hand-key for use in connection with the tubes above the dollar tube. Fig. 13 is a section through the line 13′—13′, Fig. 15. Fig. 14 is a vertical central section from front to rear. Fig. 15 is a top view. And Fig. 16 shows the hand-key.

To a plate 1 within the case (not here shown), are secured a number of tubes, each corresponding in inner diameter to the coin or carrier to which it is designed. Thus, ordinarily, I would provide tubes for the pennies, for the nickels, for the dimes, the quarter-dollars, the half-dollars, and the dollars; and above the dollars I provide carriers in which the bills may be placed; but these carriers operate the proper mechanism in the same manner as the coins. They may, therefore, be graduated in size in the same manner as the coins, except that all the carriers should be larger than the coins, as shown. Now in the drawings, I have shown only the tubes designed for the two-dollar bills, A, for the dollars, B, for the dimes, C, and for the nickels, D, but from these the manner of simply adding to or deducting from the total number of tubes desired will be readily understood. Each tube is provided with a receiving chute 2 into which the coin is inserted and down which it passes onto the plate 3 and in front of the back slide 4 operated by lever 5. The front end of the slide 4 is concaved, or semi-circular in contour, as shown in Fig. 7, to correspond to the contour of the coin intended to be inserted in the receiving chute. This constitutes the first step. The operation of lever 5 and back slide 4 throws the coin forward onto the second step 6 in front of front slide 7 oper-

ated by lever 8, and raises the pawl 9 so that the front slide 7 may be pushed toward the tube by lever 8, it being understood that the front slide and the lever 8 are normally locked against motion toward the coin tube by said pawl 9. The operation of lever 8 now throws the coin into the tube, under plate 3. At the bottom of each tube is a coin delivering slide 10, of well-known construction, adapted simply to be moved back and forth and being of approximately the width of the coin so that its operation will deliver or discharge the coin. I provide two such slides for the ten-cent tube, and four for the dollar tube. The slide 10 for the nickel tube D is operated by the rocker 13; one of the ten-cent slides by the rocker 12 and the other by the rocker 11. Rocker 13 extends along in front of the ten-cent tubes and on along in front of all the other tubes to and including the dollar tube. The rockers 11 and 12 also extend along in front of all the other tubes above the ten-cent tube to and including the dollar tube. The slides for the dollar tube are operated by rockers 14, 15, 16, and 17 respectively, which extend along in front of all the tubes above the dollar tube; and the slide for the two-dollar tube is operated by the rocker 18 which extends along in front of all the other tubes above the two-dollar tube. The several rockers are connected to the slides by pins 20, 20, and may be hung on the pivoted hangers 19, 19, swung from the frame portion 200, 200.

Lever 5 is pivoted to a bracket 21 and has an arm 23 connected to a bell-crank lever 25 by rod 24. The bell-crank lever is pivoted on a bracket 47 and has a pin 26 which engages between two pins 27, 27 of the slide 28 which operates between the front plate 29 of the frame of casing and the cleats 30. Lever 8 is pivoted to bracket 22 and its lower end is provided with the laterally extending pin 31. A series of key-levers are provided, to-wit: 32, 33, 34, 35, 36, 37, 38, 39, and 40. Each lever is provided with a hook 41 to engage pin 31 when the key lever is depressed and drawn forward, but it is seen that the pin 31 is free to move forward without drawing the hook 41 with it. Hooks 41, 41, it is noted, operate the coin-receiving mechanism. The coin-delivering mechanism is operated by hooks 43, 43, on the depending bars 42, 42 secured to the several key-levers. Thus lever 34 operates the five-cent delivery slide; lever 35 operates two of the ten-cent slides through rockers 11 and 12; lever 36 operates the five-cent slide; lever 38 operates a single ten-cent slide; lever 39 operates one of the four dollar slides, the other dollar slides being adapted to be operated by other key-levers not here shown. Levers 32, 37, 33, and 40 are not connected with any of the delivery slides but only with the receiving mechanism. The key-levers are slidably pivoted in the plate 44 which runs the full length of the machine behind all of the tubes. Each is sustained and returned to normal position by a compression spring 45 supported on a bracket 46, and each works in a slot 48 in the slide 28, so that when any one of the levers is depressed, it will depress the slide 28 and thereby operate lever 5, as heretofore explained. It is to be understood that there is a slide 28 for each tube, so as to operate the lever 5 and receiving mechanism for that tube when any of the key-levers for that tube is operated. Fingers 49, 49 may be provided for the key-levers. The purpose of having two ten-cent slides and four dollar slides is in order to effect the change commonly calling for either two dimes or for from one to four dollars; for instance, where the purchase is eighty cents and a dollar be given in payment, and where the purchase is one dollar and a five-dollar bill be given in payment.

Through the two plates 50, 60, which extend the full length of the machine, are slidably mounted a series of punch bars 51, 51, each provided with a punch 52, normally disengaged from the die 53. Above the punch bars is a shaft 54 on which are mounted a series of levers 56, 56, one for each punch bar. The upper arm of each lever 56 is connected by link 55 to bell crank lever 57, pivoted to shaft 58, and connected by link 59 to plunger 61 on which is mounted a "purchase" indicator 62, or 63, the plungers operating through the frame portion 64. There is one indicator and one lever 56 and one set of connecting mechanism as just described for each punch-bar.

In front of and above shaft 54 is a rod 66 extending the full length of the machine, and depending therefrom and in front of each lever 56 is an arm 67. At the end of the shaft 66 is an arm 68 connected by link 69 to arm 70 on shaft 73, and on said arm 70 is a pawl 71 adapted to propel the ratchet 72 On a pivot 74 is secured a lever 75, which acts as a holding pawl for the ratchet, and also which has at the other end a ball 76 adapted to contact with a bell 77, so that as the ratchet is progressed the bell rings. Below shaft 73 is another shaft 78 around which the record sheet 79 (extending the full length behind all of the punch-bars), is first turned then passed up in front of die 53 and then around shaft 73. Thus as the punch bars are operated as hereafter explained, the sheet will be rolled up on shaft 73, making a uniform progress of one notch for each transaction, as will be explained.

To the plate 50 are secured a number of pivot brackets 80, 80 (one for each punch-bar), to which are pivoted the levers 81, 81, which operate the punch-bars. On each punch bar is an arm 82, a pawl 83 having a spring 84 to return it to normal position by engagement with pin 85, and a stop pin 86

for the pawl. If punch bar 51 be forced to die 53 to punch the record-sheet 59, pawl 86 will pass under the lower end of lever 56, and arm 82 will come to arm 67 but without operating it. Now, on returning punch bar 51 to initial position (supposing it to be the bar between lever 33 and indicator 62), the pawl 86 will engage the lower end of lever 56 and pull it along with it, so as to force up the indicator 62, and said lever 56 will also progress the ratchet 72 through arm 67. The arms 67 being all fixed to shaft 66 will all be thrown to the left. Crank 57 will be thrown around until it rests against buffer rod 58′ and beyond the dead-center line between shaft 58 and the point of the pivot of 59 and 61, thereby holding these parts in that position until returned by the further operation of the punch-bars, as will now be explained. If another lever, say 34, be operated, the action of the punch-bar and indicator-operating mechanism will be as follows: When the punch bar for key-lever 34 be forced to die 53, arm 82 will engage with that arm 67 which is provided for that punch-bar, and, as all the arms 67 are fixed to the shaft 66, the result is to return all the indicators and all the mechanisms between the indicators and the lever 56, including said lever 56, to their normal position. Upon returning the punch bar, the operation is the same as before, except that the indicator 63 is set up, instead of indicator 62. Of course, the manner of progressing the ratchet one notch and ringing the bell for each transaction, as well as recording the transaction on the record sheet by punching it, is evident from this explanation.

Thus far, the mechanisms for all the tubes are about the same. I will now explain the devices provided especially for the dollar tube, and thereafter the devices provided especially for the tubes higher than the dollar tube. In the dollar tube, B, the front slide 7 of the receiving mechanism is provided with a pawl 87 provided with a rod 88, engaged by a pin 89 extending from shaft 90, so that when said pawl 87 is raised by the turning of the shaft 90, the lever 8 of the dollar tube may be operated without operating the said slide 7 of the dollar tube. Also, the dollar slide 7 is connected to one of the punch-bars 51 by the side rods 92, 92, crosshead 93, pin 94, and lever 81 (see Figs. 5 and 7). The shaft 90, which may be mounted in suitable bearings, as 91 (Fig. 1), extends from the dollar tube, where it has the pin or arm 89, as just explained, along in front of all the higher tubes, as indicated in Fig. 1. All of the higher tubes are of substantially the same construction as the two-dollar tube, hence the description of that tube will suffice for all. The shaft 90 has a pin 95 which normally extends downwardly into a recess or depression 96 of the slide 7 of the two-dollar tube; so that normally the pin 89 has the position shown in Fig. 5; but when the slide 7 of the two-dollar tube is moved to the tube, the pin 95 is raised and with it the shaft 90 is turned enough to carry pawl 87 clear of lever 8 of the dollar tube, thereby permitting that lever to be operated without operating the dollar slide 7. The two-dollar chute 2 has a shutter 97 which is connected by link 98 to a pin 101 extending laterally from an upright rod 99 slidably extending through the frame portions 100, 100. For the two-dollar bills I provide a carrier 102 (see Figs. 11 and 12), in the upper side of which is inserted a slip 103 suitable for printing on. This carrier may be opened and closed by any suitable means as by a hinge and spring or hasp, and is used and operates in the same manner as a coin of the same size and shape would be used and operated. The bill is to be inclosed in the carrier by hand before the carrier is inserted in the machine; and the purpose of the mechanism provided especially for the two-dollar tube is to provide a system for marking each carrier as well as the record sheet with the name or initial of the clerk or other person who inserted that carrier; hence in case of failure of any carrier to show up without the proper bill inclosed therein, the responsibility may be placed upon the person who inserted it in the machine. To these ends I provide mechanism for the tubes above the dollar tube, which require a hand-key for their operation. Each tube is provided with as many locks as there are clerks or persons to operate the machine (herein shown as two). In connection with each lock and hand-key is mechanism operable thereby for printing upon the carrier when it is inserted in the tube, the name or initial or other suitable index of the clerk or person to whom that key has been given, as well as making a similar suitable record upon the record sheet.

The locks E, E may be secured on brackets 104, 104 or otherwise to answer the requirements of substantial construction, and each may be described as follows: In the case E is a plunger G, the front end of which is slotted, 105, to admit of the insertion therein of the hand-key 106. Transverse shallow, 107, and deeper, 108, slots are cut across the case. In the shallow slots are secured the lugs 109, and in the deeper slots are pivoted the tumblers 111 to rod 110. The tumblers straddle the slot 105 and key 106, the end portions 112 thereof extending down into the grooved portion 115 of the plunger. On the other side of the slit 105, the plunger is also grooved to permit the extension of the lugs and tumblers into the circle described by the plunger. The hand-key is indented at 113, 113, to correspond with the lugs, the other portions 114 being intended to raise the tumblers. Upon in-

serting the key and turning it, the indented portions 113, 113 will pass the lugs 109, 109, and the other portions 114, 114, will engage the tumblers respectively and raise them and free the ends 112 from groove 115 and point 117, thereby permitting the plunger to be turned to do the work required of it, as will be explained. If, now a blank key be inserted and turned, it is seen that its upper edges will engage the lugs 109 which will prevent its turning beyond a slight initial movement. And if a narrower key be inserted so as to escape the lugs, such key would not raise the tumblers, so that in such case, the plunger could only be turned until the point or ledge 117 would engage with the ends 112, 112, of the tumblers. The relative locations of the lugs and tumblers may be changed in order to individualize the several locks, and keys may be provided accordingly. Of course, any other suitable lock and key may be provided, as I neither claim nor limit myself to any particular kind. If desired, a spring, 118, (Fig. 8) may be provided to hold and return the plunger to normal position.

Pivoted in a bracket 119 on top of each lock is a rod 120, one end of which, 121, is bent down into a recess 122 in the lock case, and the other end of which, 123, engages the under side of the pin 124 of the rod 99, the purpose of this being that when the hand-key is inserted, it will raise the end 121 and, through the mechanism already described, open the shutter 97, this being an additional safe-guard against improper manipulation of the machine. There is one rod 99 and shutter 97 for each carrier tube, and each is operable by a key inserted in any of the locks for that particular tube.

Each plunger G is provided with an arm 124′ which is connected by link 126 to bell-crank lever 127 which is connected to the printing plunger rod 128 movably extending through bracket 129. Underneath each printing plunger 128, is an inking roller or pad 130 suspended on spring hangers 131, which hold and return said rollers or pads to their normal positions, but when the rods 128 are forced downwardly, the rollers 130, 130 are pressed to one side and into contact with the larger replenishing inking rollers 132, whence the supply of ink is stored and procured for the rollers 130.

An upright rod 133 sustained on a spring 135 and bracket 136 (Fig. 1), has a pin 134 which engages in a slot 134′ in the back slide 4 of the two-dollar tube. The rod also has a pin 137 for each arm 124′, so that when said plunger G is turned by the hand-key, it will depress the rod 133 and withdraw pin 134 from slot 134′. Thus, the back-slide is normally locked, and becomes unlocked upon the turning of the hand-key in the lock, thereby recording upon the carrier the name or initial of the donee of that key. The parts are so adjusted that arm 124′ and link 126 must be thrown beyond the center line, so that the plunger 128 will not only come into complete engagement with the carrier as it rests upon the first step and print thereon, but will also by reason of the further movement of said arm 124′ be also slightly raised therefrom so as to permit the carrier to be sent to the next step without interference or binding. This complete movement must be made before back slide 4 becomes unlocked. It is understood, of course, that upon the lower end of the rod 128, the proper initial type or rubber or other suitable material is placed, to do the printing herein referred to. The holder of a key will thus be held responsible for the contents of every carrier bearing his mark.

Each plunger G is also provided with another arm 138 which operates a bell-crank lever 139 which is connected by a link 140 to lever 81 and punch-bar 51. Thus, it will be seen that the record sheet, as well as the carrier itself, will show not only what tube has been operated, but also, it will show who operated it, so far as the carrier tubes are concerned.

The various indicators may be marked in any suitable manner to indicate the transaction which is taking place. Thus, in general, a black figure upon a red back-ground may indicate the coin inserted in the machine, and a red figure upon a black back-ground may indicate the coin or amount delivered.

Now, to explain the general operation of the machine, the mode of operation of the several parts having already been explained quite in detail: Suppose the amount of purchase be five cents, and the purchaser gives the clerk a nickel. The clerk inserts the nickel into the nickel tube D by first depressing key-lever 32, then pulling it out, and then pushing it in again. This operation has the effect of raising the five-cent indicator on which appears "5¢" or any suitable designation in black characters on a red back-ground. Now, the next purchase is also five cents, but the purchaser gives the clerk a dime. The clerk inserts the dime and operates lever 34, the result being to push the dime in the dime tube C, and delivering a nickel in change, the indicator now shown being half red and half black, with the characters 10¢ upon the red back-ground and the characters 5¢ upon the black back-ground, the first-operated, the five-cent indicator, having been returned. If the next purchase amount to 80 cents and a dollar be given, the clerk inserts the dollar in the dollar tube, and, operates lever 35, which, through the operation of rod 31, lever 8, and other parts of the coin-receiving mechanism of the dollar tube, causes the dollar to fall into the dollar tube, and which, through the operation of the rock-

ers 11 and 12 (by hooks 43, 43, which depend from lever 35 and engage said rockers 11 and 12), pins 20, 20, and slides 10, 10, cause the delivery of two dimes as change. The operation of the receiving and delivering apparatus is more fully explained in my said Patent No. 771,326. If the next purchase be one dollar and a two-dollar bill be tendered in payment, the clerk inserts the bill in a carrier, inserts his key in the proper lock, inserts the carrier, turns the key, and operates the lever 39, the effect being to record the designation of the clerk upon the carrier as well as upon the record sheet, raise the proper indicator, after having returned all others, and deliver a dollar in change.

It has been explained that upon operating the forward slide 7 of the two-dollar tube, the lever 8 is freed from the same slide of the dollar tube. The purpose of this is, that whenever any of the carrier tubes are operated, any of the smaller change than the even dollars may be had by operating the dollars levers 35, 36, 37, 38 and so on. This construction saves a great multiplicity of keys and key-levers and other connections, making it necessary only to connect the delivery slides of the tubes of denominations lower than one dollar as high up as the dollar tube, and thus saving connections with the tubes of higher denominations. This is safe, as the entire transaction will be charged to the clerk whose key has been inserted to operate the carrier tube mechanism. Each transaction is kept entirely distinct and in a single line across the record sheet because of the fact that although when the carrier tube lever has been operated, if a clerk should attempt to operate any of the dollar keys more than once, although he may push in the plungers of punch bars 51, none of them can be withdrawn until all are withdrawn, because of the fact that the arm 82 on each punch bar 51 keeps all the levers or arms 67 in close engagement with their respective corresponding levers 56 and thereby keeps all the indicators down, and pawl 86 will prevent any of the punch-bars from returning to initial position because it cannot pass the lower end of lever 56 until all the arms 67 are released from engagement with arms 82. This insures the entire transaction being recorded against the clerk having the key operating that transaction.

Although I have shown the record as being made by punching, it will be understood that any other device suitable for the purpose may be employed.

The finger keys 49, 49. may be marked with suitable characters to distinguish them. The number of tubes may be increased or diminished. Of the carrier tubes, I contemplate the use of five, a two-dollar tube, a five-dollar tube, a ten-dollar tube, a twenty-dollar tube, and a tube for checks. All to be arranged in substantially the same order as herein explained, so that upon the insertion of a given coin or carrier, only a smaller total amount can be withdrawn. Also, I contemplate changes in form, proportions, and materials, the transposition of parts, and the substitution of equivalent members without departing from the spirit of the invention.

What I claim as new and desire to secure by Letters Patent is:

1. In change-makers, the combination of the frame; the carrier tube therein; a carrier therefor; a carrier operated locking and unlocking device; delivery devices; a carrier-marking device; and a series of keys and key-levers and suitable connecting mechanism whereby each key is adapted to operate a selective group of delivering devices.

2. In change-makers, the combination of the frame; the carrier receptacle therein; the carrier; the carrier-and-hand-operated locking and unlocking device; and the carrier-marking device for marking the carrier after said carrier has been inserted in the machine.

3. In change-makers, the combination of the frame; the carrier receptacle; the carrier; the carrier-operated locking and unlocking device; the carrier-marking device, and the hand-key-operated lock for unlocking said carrier-operated locking and unlocking device only after said carrier shall have been marked by the carrier-marking device.

4. In change-makers, the combination of the frame; the carrier receptacle; the carrier; the carrier-operated locking and unlocking device, and a trip device therefor; a marking device; and a lock and hand-key for operating the trip and marking device, and so adjusted that the trip cannot be freed from the carrier-operated locking and unlocking device until after the carrier has been marked.

5. In change-makers, the combination of the frame; a carrier receptacle therein, a carrier; a carrier-operated locking and unlocking device; a trip device for said locking and unlocking device; a series of individual carrier-marking devices within the frame, and a series of individual locks and hand-keys therefor respectively.

6. In change-makers, the combination of the frame; a carrier receptacle therein; a carrier; a carrier-operated locking and unlocking device; and a series of individual carrier-marking devices within the frame, and a series of individual hand-keys and locks therefor respectively.

7. In change-makers, the combination of the frame; a carrier receptacle therein; a carrier; a carrier-operated locking and unlocking device, and a trip therefor; a series of individual carrier-marking devices within the frame, and a series of individual recording devices coöperating with and corresponding with said

carrier-marking devices; and a series of individual locks and hand-keys for operating the trip device and the corresponding marking and recording devices respectively.

8. In change-makers, the combination of the frame; a carrier receptacle therein; a carrier; a carrier-marking device within the frame; and a series of individual locks and hand-keys for operating said carrier-marking device.

9. In change-makers, the combination of the frame; a carrier receptacle therein; a carrier-operated locking and unlocking device and delivery devices controlled thereby; a series of individual carrier-marking devices within the frame; a series of individual recording devices within the frame, and a series of individual locks and hand-keys corresponding with and for operating said marking and recording devices respectively.

10. In change-makers, the combination of a frame; an individual lock and hand-key; a carrier and a carrier receptacle; a carrier-receiving mechanism and a carrier-operated locking and unlocking device therefor; a carrier-marking device operated by the individual lock and hand-key; and a trip device for the carrier-operated locking and unlocking device controlled by said individual lock and key.

11. In change-makers, in combination with the series of coin-tubes including the dollar tube, and the receiving and delivering mechanisms therefor substantially as set forth, of the series of carrier-receptacles and carriers; the carrier-operated locking and unlocking devices and a trip therefor; the carrier-marking devices within the frame, and the recording devices within the frame; the individual locks and hand-keys for operating the trip device, the marking device, and the recording device; the carrier receiving mechanism; and suitable connections between all the carrier receiving mechanisms and the dollar receiving mechanisms whereby the operation of any one of the former, will render the dollar locking mechanism ineffective.

12. In change-makers, the combination with the dollar front slide 7, of the operating lever 8 therefor, the pawl in said slide to engage said lever, the rod 90 connecting with the same slides of all the carrier tubes, and the pins therein, whereby the operating of any of the carrier-tube slides 7 will raise and free the said pawl from said dollar lever 8.

13. In change-makers, the combination with a frame and coin- and carrier-tubes and automatic change-making mechanism of the kind described, of the series of recording bars 51, 51; a device for automatically progressing a record sheet; a series of display indicators and a lever 56 for operating each indicator; a universal bar 66 adjacent to said levers 56 and having an arm 67 engaging with each of said levers and adapted to be engaged by the bar 51 to return all said indicators to initial position; and the pawl 86 on each bar 51 to raise the display indicator corresponding thereto.

In testimony whereof I have hereunto signed my name in the presence of subscribing witnesses.

WILLIAM W. ROBLYER.

Witnesses:
J. W. DALE,
M. M. ORSIG.