

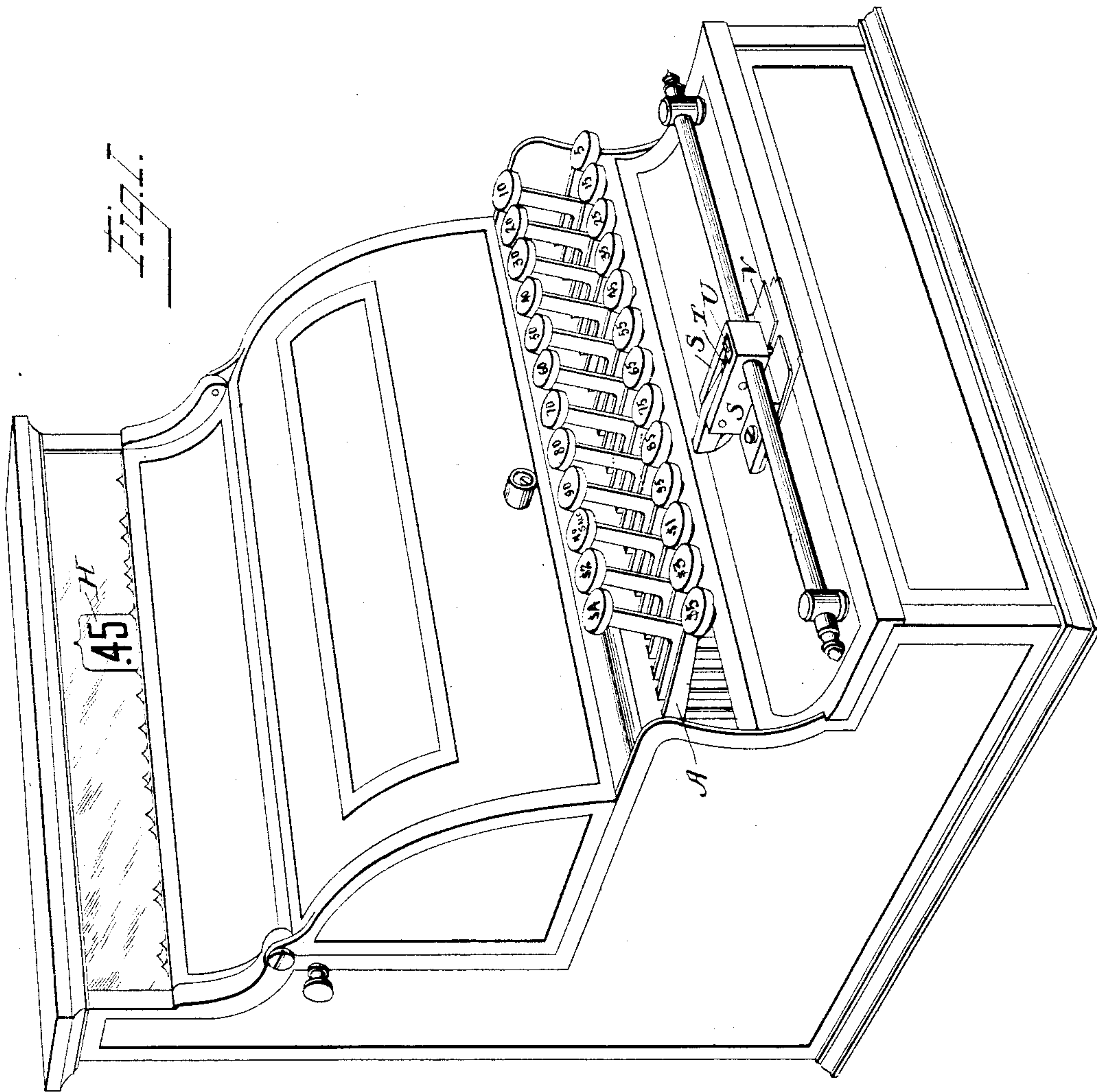
(No Model.)

3 Sheets—Sheet 1.

J. P. CLEAL.
CASH REGISTER AND INDICATOR.

No. 541,264.

Patented June 18, 1895.



Witnesses
Martin H. Olsen,
Arthur H. Mada

Inventor
Joseph P. Cleal
by Edward Rector
att'y

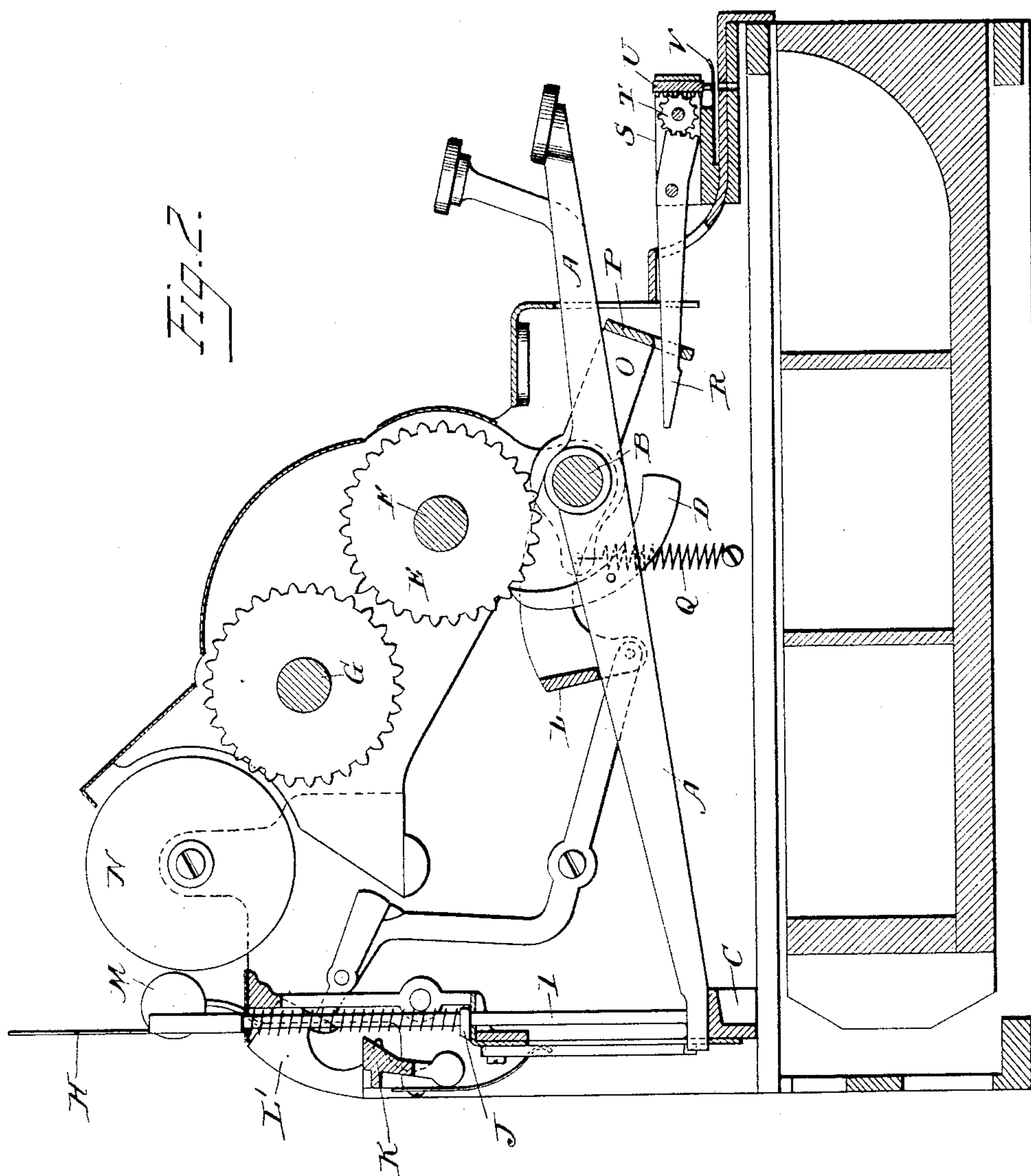
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3 Sheets—Sheet 2.

J. P. CLEAL.
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Witnesses
Martin H. Olsen.
Albert W. Meade

Inventor
Joseph P. Cleal
by Edward Reitor
his atty

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Fig. 5.

Pass	300	200	100
	295	195	95
	290	190	90
	285	185	85
	280	180	80
	275	175	75
	270	170	70
	265	165	65
	260	160	60
	255	155	55
	250	150	50
	245	145	45
	240	140	40
	235	135	35
	230	130	30
	225	125	25
	220	120	20
	215	115	15
	210	110	10
	205	105	5

Fig. 4.

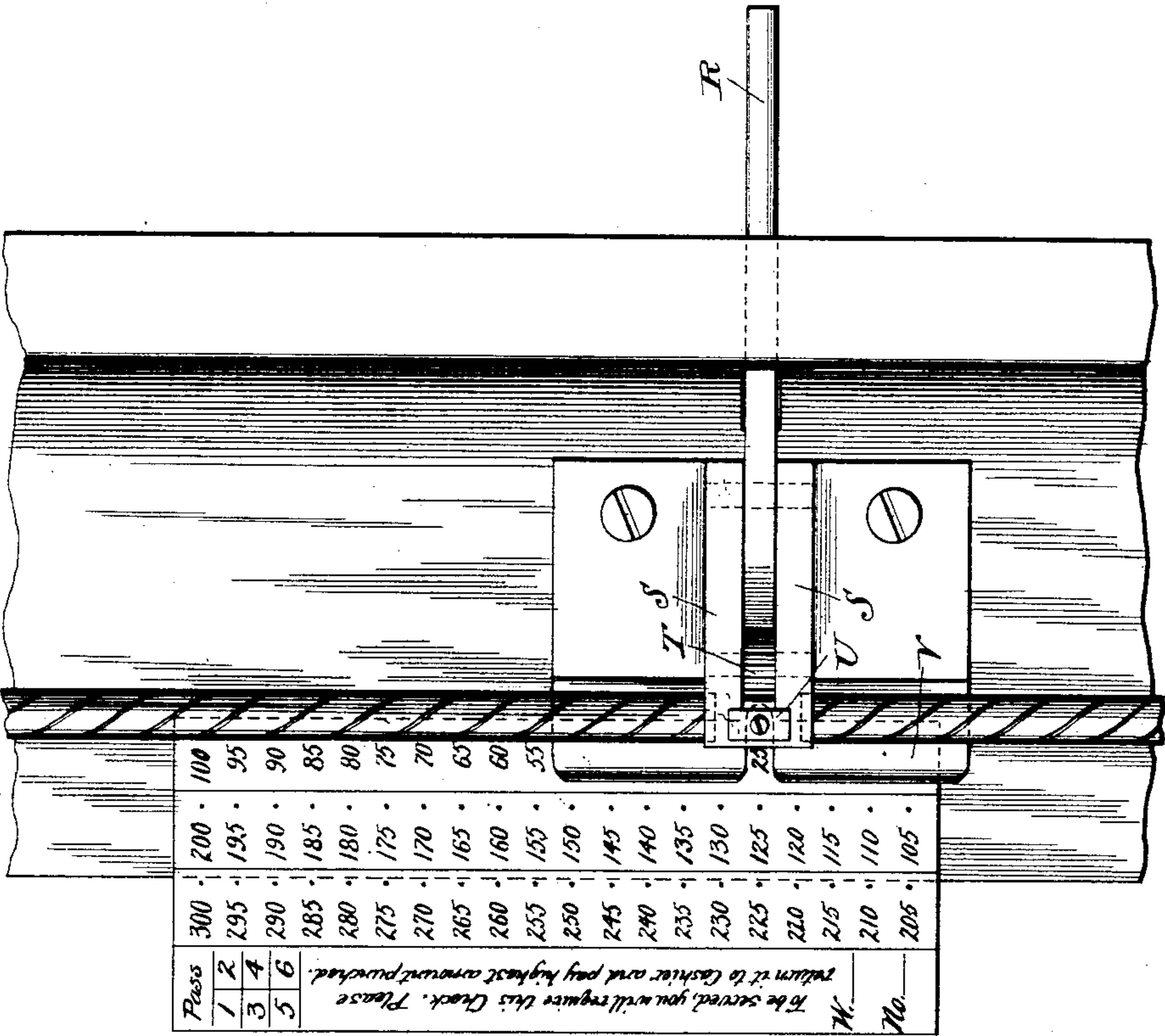


Fig. 3.

Pass	300	200	100
	295	195	95
	290	190	90
	285	185	85
	280	180	80
	275	175	75
	270	170	70
	265	165	65
	260	160	60
	255	155	55
	250	150	50
	245	145	45
	240	140	40
	235	135	35
	230	130	30
	225	125	25
	220	120	20
	215	115	15
	210	110	10
	205	105	5

Witnessed
Martin H. Olsen,
Accountant

Inventor
Joseph P. Cleal
by Edward Rector
his atty

UNITED STATES PATENT OFFICE.

JOSEPH P. CLEAL, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF SAME PLACE.

CASH REGISTER AND INDICATOR.

SPECIFICATION forming part of Letters Patent No. 541,264, dated June 18, 1895.

Application filed June 23, 1894. Serial No. 515,523. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. CLEAL, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Cash Registers and Indicators, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention consists in the novel combination of a ticket-punching device with the operating keys of a cash register and indicator, in such manner that upon the operation of any one of the keys to indicate and register its value the corresponding number upon a printed ticket may be canceled by the punching device.

The invention is intended more particularly for use in restaurants and similar places where are employed printed checks or tickets bearing a series of numbers arranged in arithmetical progressive order from the smallest amount for which any order is served, as for instance five cents, up to an amount large enough to cover the cost of the largest orders ordinarily received. The ticket illustrated in the drawings bears a series of numbers in multiples of five from five cents to three dollars. One of these printed checks is furnished the waiter for each person or party of persons to whom he serves an order. As he emerges from the kitchen into the dining room with the first course of an order the inspector or checker stationed at the passage between the two rooms will punch out the number upon the ticket representing the value of the portion of the order which the waiter has upon his tray and hand the ticket to the waiter. When the latter procures the next course of the order he will present the ticket to the inspector and the latter will punch out the number representing the value of the articles the waiter has upon his tray added to the value of those previously served to the customer; and so on until the order has been served, whereupon the waiter will deliver the ticket to the customer and when the latter presents it to the cashier the cashier will collect from him the amount represented by the highest number which has been canceled. Heretofore the inspectors or checkers have been in the habit of using ordi-

nary ticket punches for canceling the numbers upon the checks, so that no record of the amount canceled could be retained by them unless written down each time with a pen or pencil and it was possible for a dishonest cashier to destroy part of the checks received by him from the customers and defraud the proprietor of the amount represented by such checks. The use of my invention enables the inspector to preserve a record or registration of all of the amounts represented by the canceled checks, so that the amount of money for which the cashier must account may always be readily ascertained, and the making of this record or registration is substantially automatic and incidental to the canceling of the numbers upon the check.

In the accompanying drawings, Figure 1 is a perspective view of an ordinary form of cash register and indicator having my invention applied to it; Fig. 2, a middle vertical section of the same; Fig. 3, a face view of one of the printed checks; Fig. 4, an enlarged detail plan view of the punching device with a check in position to be punched, and Fig. 5 a face view of one of the checks having a number of holes punched in it to indicate different amounts.

As seen in Fig. 2 the operating keys consist of levers A fulcrumed on the horizontal rod B in the lower forward part of the machine and resting at their rear ends upon the cross-bar C. Each key has pivoted to it a pawl D which co-operates with a registering wheel E mounted above it upon a horizontal rod F, and each of the wheels upon the rod F co-operates with a wheel above and in rear of it upon a rod G, operating to advance the latter wheel one number at each of its own complete revolutions, as is common in the well-known form of cash register illustrated.

The indicators H are carried upon the upper ends of the usual vertical rods I which are provided with collars or projections J co-operating with the spring-pressed supporting bar K to support the operated indicators in exposed position.

Hung by side-arms at each end upon the key-shaft B is the cross-bar L of a swinging frame composed of said cross-bar and its two side-arms, the bar L resting upon the upper

edges of the keys so as to be lifted by the operation of any one of them. A train of parts interposed between this frame and the arm L' projecting upward from the right hand end of the supporting bar K operates the latter to 5 release the exposed indicator and catch and support the newly lifted one at each operation of the machine, and also causes the gong-hammer M to sound the gong N.

10 Hung upon and projecting forward from the key-shaft B, beneath the keys, is a second swinging frame composed of two side arms O and a cross-bar P, said frame being yieldingly held in its upper normal position, 15 with the bar P bearing against the under sides of the keys, by a spring Q. Extending through a hole in the bar P near its middle is the rear end of a lever R which extends forward through an opening in the casing and 20 is fulcrumed near its front end between the adjacent vertical portions of two angle-plates S secured upon the horizontal portion of the casing above the front end of the drawer-compartment of the machine.

25 The front end of the lever is provided with rack teeth which mesh with a pinion T mounted between the two plates S, and the pinion at its forward side meshes with a rack upon the rear side of a vertically reciprocating punch U mounted in a guide-way in the 30 front ends of the plates S and co-operating at its lower end with a hole in the casing.

Secured beneath and projecting in front of the plates S is a spring-clip-plate V having a 35 notch or recess co-incident with the punch to permit the passage of the latter, beneath which plate the checks are placed to be punched.

The cross-bar P of the swinging frame normally holds the rear end of the lever R in upper position and consequently maintains the punch U in elevated position so that a check can be readily inserted beneath it. Under 40 this construction when any key in the entire series is operated the cross-bar P will be depressed, the lever R vibrated and the punch U moved downward and its lower end caused to pass through the perforation in the casing.

In using the machine with the printed 50 checks illustrated the inspector or checker, when the waiter comes along with the first course of an order, will take one of the checks and insert it beneath the clip-plate V with the number representing the value of the articles 55 the waiter has immediately beneath or opposite the punch Fig. 4. He will then depress the key representing such number and thereby indicate and register its value upon the machine and cause the punch to simultaneously indicate or cancel the number upon the 60 check. He will then deliver the check to the waiter, who will retain it until he procures the next course of the order, whereupon he will present it to the checker again and the latter will in the same manner punch out a higher number, representing the value of both 65 courses of the order, and simultaneously in-

dicating and register the additional amount upon the machine; and so on until the complete order has been served. In this manner 70 the checker, with no appreciable increase of trouble or labor over the old method of canceling the checks with an ordinary ticket punch, preserves an accurate record of the value of all articles served by the waiters, and 75 the cashier, to whom the customers deliver the checks, will be obliged to account for a corresponding amount of money. In the present instance the checks have a series of dots 80 printed upon them immediately at the right of the respective numbers. By placing the check beneath the clip-plate V, with a given number exposed through the notch or recess in said plate, the dot at the right of said number will be brought immediately beneath the 85 punch, so that when a key is operated a hole will be punched in the check immediately to the right of the number and the desired amount be thus indicated, as seen in Fig. 5. If desired the numbers themselves may of 90 course be punched out and canceled instead of punching holes opposite them.

It will of course be understood that my invention is equally applicable to machines of this general character in which the values of 95 the operated keys are recorded upon a paper strip, or the record of them otherwise preserved, instead of being added upon registering wheels.

It will also be understood that any other 100 suitable indicating or canceling device may be substituted for the punching device, for the same purpose, though a punching device is preferable.

The punching device might be actuated by 105 connections with the swinging frame composed of the cross bar L and its side-arms, and the special frame composed of the bar P and its arms be dispensed with, but for convenience I have employed the latter frame in the 110 machine illustrated.

I am aware that it has heretofore been proposed to provide each key of a cash register and indicator with a punching device by which numbers upon a printed check might 115 be canceled and the amounts simultaneously indicated and registered upon the machine, but so far as I am aware I am the first in the art to combine a single punch with the series of keys representing different amounts in such 120 manner that upon the operation of any one or another of the keys the punch will be actuated to cancel or indicate a number upon the printed check.

Having thus fully described my invention, 125 I claim—

1. In a cash register or indicator, the combination with a series of operating keys representing different amounts, and indicating mechanism operated thereby of a single punch 130 accessible from the front or exterior of the register, a swinging bar arranged to be actuated by the operation of any of the keys, and means connecting the said bar and the punch

whereby the actuation of the bar by any one of the keys will operate the punch.

2. In a cash register or indicator, the combination with a series of operating keys representing different amounts and indicating mechanism operated thereby, of a punch accessible from the front or exterior of the register, a swinging bar arranged to be actuated by the operation of any of the keys, and a train of levers intermediate the said bar and the punch whereby the operation of any of the keys will actuate the punch.

3. In a cash register and indicator, the com-

bination, with the indicating and registering mechanisms and the series of operating keys for actuating the same, of the swinging bar P yieldingly held in upper position beneath the front ends of the operating keys, the lever R actuated thereby, the reciprocating punch U, and the pinion T interposed between the lever R and punch, substantially as described.

JOSEPH P. CLEAL. [L. S.]

Witnesses:

PEARL N. SIGLER,
GUY FULTON.