

**No. 617,760.**

Patented Jan. 17, 1899.

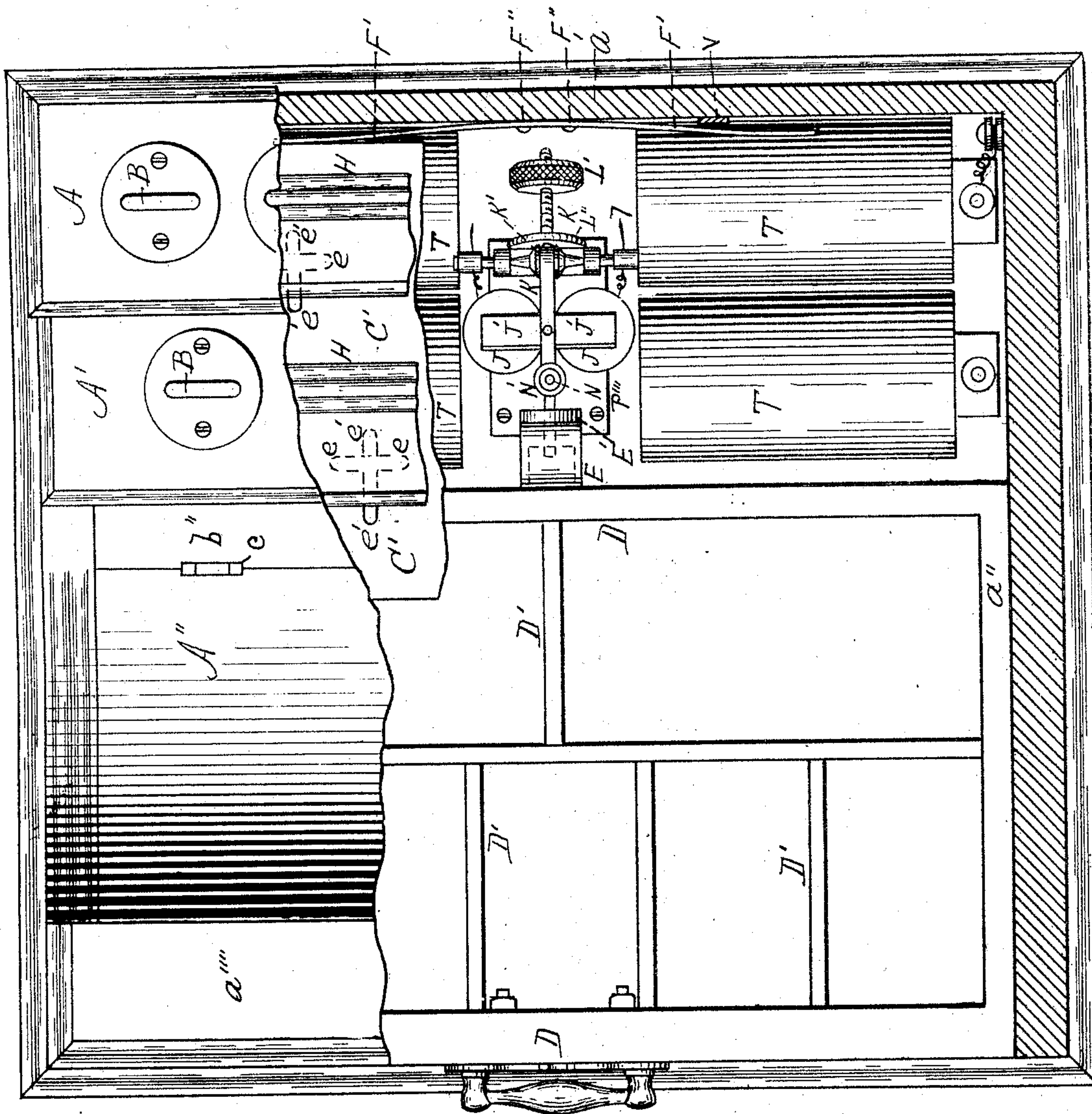
**A. R. MIRANDA.**

**COMBINED CHECK RECEPTACLE AND CASH DRAWER.**

(Application filed Jan. 3, 1898.)

(No Model.)

**3 Sheets—Sheet 1.**



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WITNESSES

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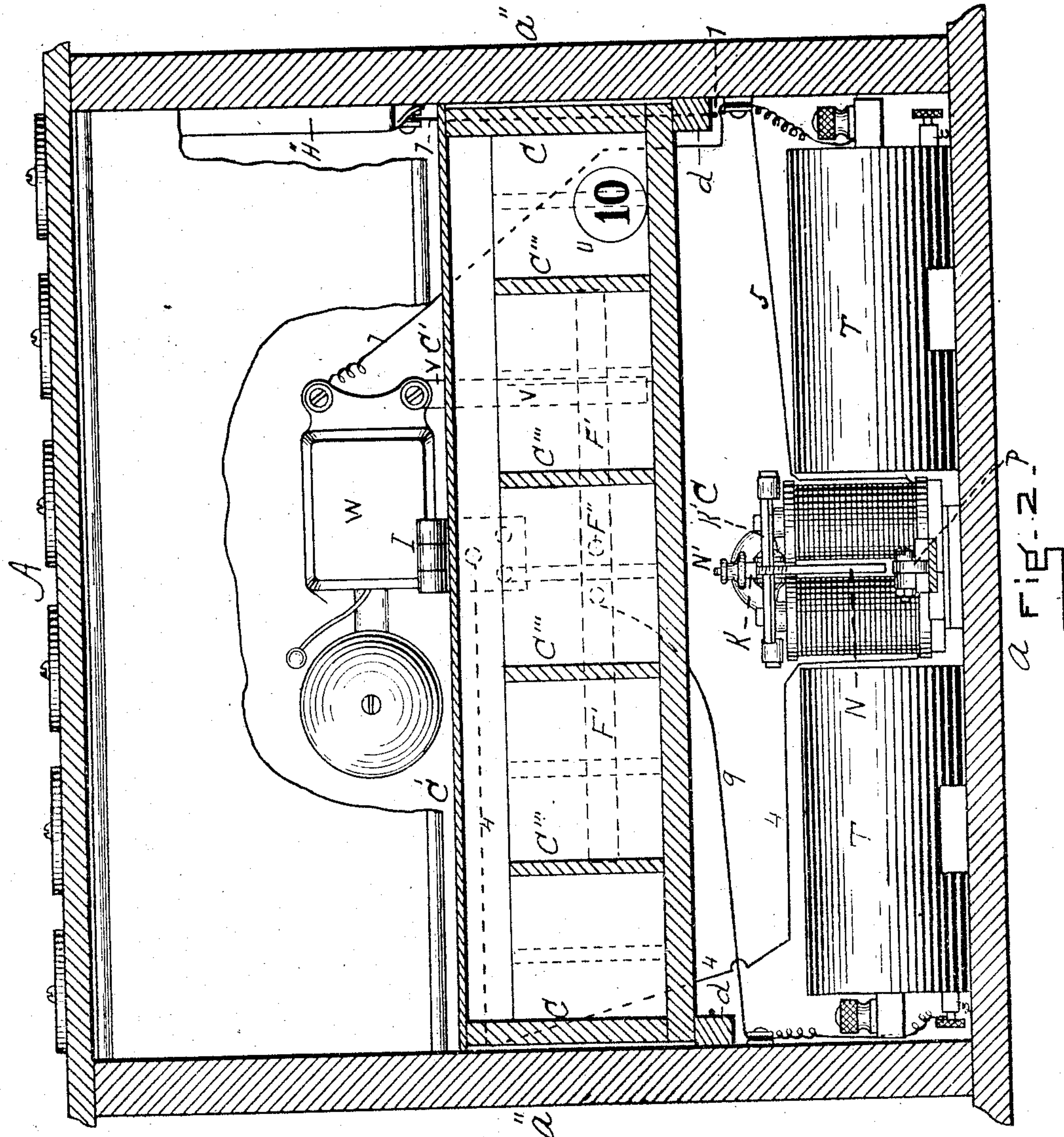
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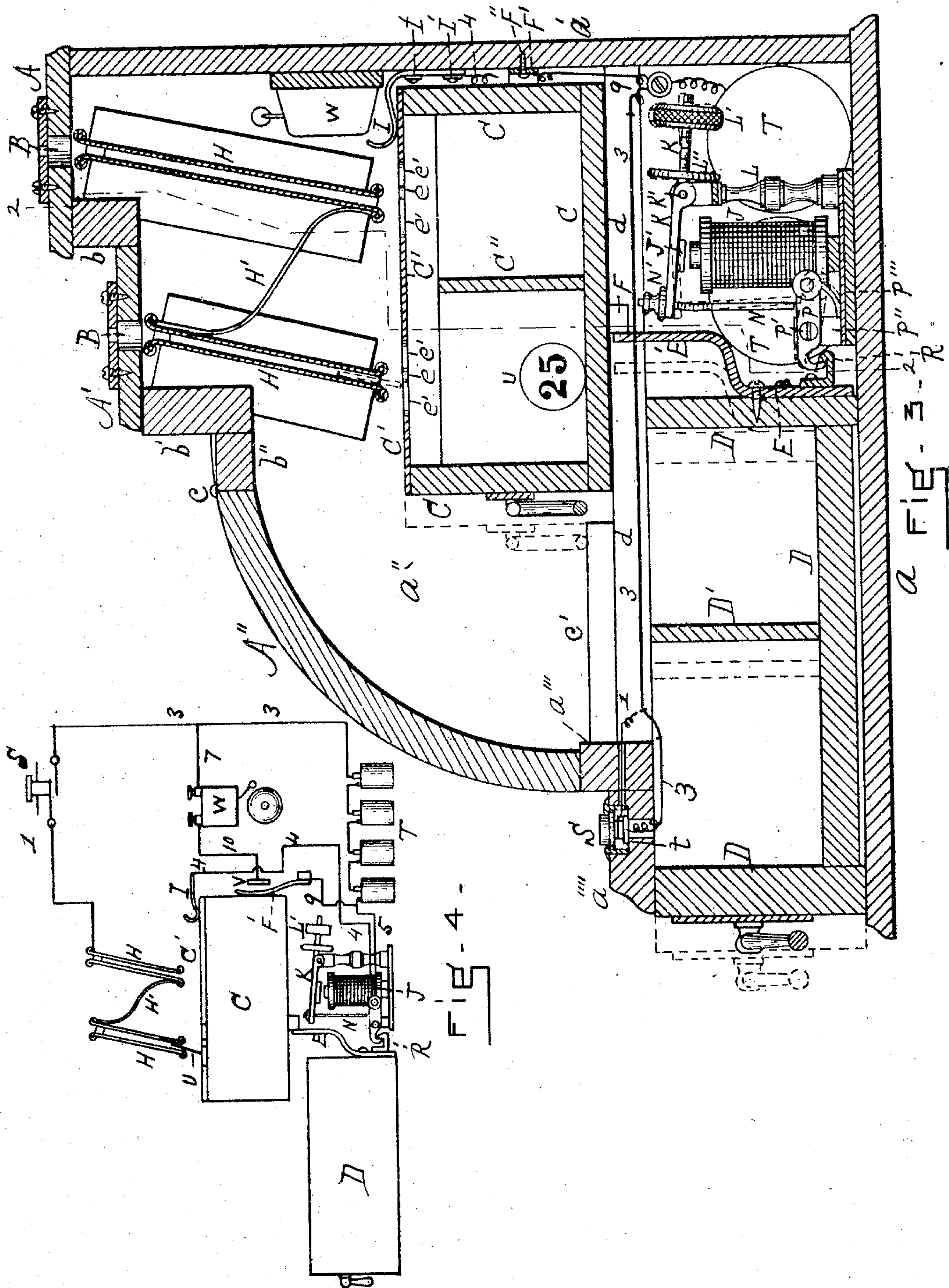
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# UNITED STATES PATENT OFFICE.

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## COMBINED CHECK-RECEPTACLE AND CASH-DRAWER.

SPECIFICATION forming part of Letters Patent No. 617,760, dated January 17, 1899.

Application filed January 3, 1898. Serial No. 665,401. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM R. MIRANDA, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in a Combined Check-Receptacle and Cash-Drawer, of which the following is a specification.

This invention relates to combined check-receptacles and cash-drawers such as are intended particularly for use in restaurants and other establishments where the customer is handed a check which corresponds with his indebtedness, which check is to be handed by the customer to the cashier.

In using this check-receptacle and cash-drawer the cashier drops the check through a slot upon the metallic top of a check-receptacle inside the outer case. This check rests in a substantially vertical position, with its edge on said top in front of a slot, which is directly over a particular compartment. By pressing a button on the outside of the case the check-receptacle is moved forward just enough to allow the check to drop through said slot into the said compartment in the check-receptacle. At the same time the cash-drawer is released and moved forward, so that the cashier can open it and deposit therein the money handed him by the customer. After this operation the drawer is closed by the cashier and is automatically locked, the act of closing the drawer operating to move the check-receptacle back in position to receive the next check on its metallic top. The moving forward of the check-receptacle and drawer is the effect of the establishment of an electrical circuit within the case by the operation of an electromagnet, the check and the metallic top of the check-receptacle making a part of the circuit. In case the cash-drawer is tampered with an electrical alarm is sounded.

The nature of the invention is fully described in detail below and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the apparatus with a large portion of the top or cover broken out. Fig. 2 is a cross-section taken on line 2, Fig. 3, a portion of the rear guideway being represented as broken out. Fig. 3 is a substantially central longitudinal vertical sec-

tion of the apparatus. Fig. 4 is a diagram showing the electrical connections.

Similar letters and numerals of reference indicate corresponding parts.

$a$ ,  $a'$ , and  $a''$  represent, respectively, the bottom, back, and sides of the case.

$A$  represents the highest portion of the top, such portion consisting of a narrow horizontal piece extending from one side to the other and provided with a row of narrow slots  $B$ , parallel with the back  $a'$ . This portion  $A$  is connected by the upright portion  $b$  with a similar portion  $A'$ , set at a lower level and provided with a similar row of slots  $B$ . The front edge of the portion  $A'$  is connected by the upright  $b'$  with the cross-piece  $b''$ , to which is hinged at  $c$  the lid or vertically-swinging door  $A''$ , whose lower end rests and is preferably adapted to lock upon the cross-piece  $a'''$ , rigid with the ledge  $a'''$ . (See Fig. 3.)

$C$  is a check receptacle or drawer sliding horizontally on ways  $d$  and provided with the flat metallic top  $C'$ , which is formed with two rows of slots, each slot consisting of the portion  $e$ , which is parallel with the front of the drawer and the cross-slot  $e'$ , Figs. 1 and 3. The check-drawer is separated by the partitions  $C''$  and  $C'''$  into two sets of compartments for receiving different denominations of checks, such compartments corresponding with the slots  $B$  in the two rows above described. The movement of the drawer on its slideways is limited by the stop-pieces  $c'$ , Fig. 3, between it and the portion  $a'''$  of the case.

$D$  is the cash-drawer, separated by suitable partitions  $D'$  into compartments. The rear wall of this drawer has secured to it the bar  $E$ , which extends rearward and upward, as shown, so that its upper end  $E'$  rests normally against the front edge of the cleat or block  $F$ , secured to the underside of the check-receptacle  $C$ . A horizontal metallic spring  $F'$ , secured at  $F''$  to the inner side of the back  $a'$  of the case, Figs. 1 and 3, bears against the rear wall of the check-receptacle and holds its block or cleat  $F$  against the bar  $E E'$ . Metallic guideways  $H$ , connected by the metallic bar  $H'$ , are supported at their opposite ends by the end walls  $a''$  at the angle shown in Fig. 3, said angle being such that a check dropped through one of the slots  $B$  will fall with its



edge on and at right angles with the cross-slot *e'* a little in front of the slot *e*. The guideways are long enough to prevent the check from leaving them and falling flatwise upon the plate *C'*, and the cross-slot *e'* serves to prevent the check from rolling.

A metallic bar or spring *I* is rigidly secured at *I'* to the inner side of the rear wall *a'* and extends forward over and bears upon the metallic top *C'* far enough to preserve its contact with said top when the receptacle *C* is moved forward.

An electromagnet *J* is placed in the bottom of the case, as shown, and an armature *J'* is secured to the under side of an arm or lever *K*, pivoted at *K'* to a standard *L*, the rear portion of this arm or lever being screw-threaded to receive a counterbalance or weight *L*, which can thus be adjusted at any distance from the pivotal point of the lever, being separated from the post by a plate of insulation *L''*.

Screwed into the forward end of the lever *K* and held adjustably in position therein by means of the nut *N'* is the vertical rod *N*.

The lower end of this rod is normally a little above the rear end of the latch *P*, pivoted at *P'* to a post *P''*, supported by the base *P'''*.

The front end of this latch is hook-shaped, as shown in Fig. 3, and is normally in engagement with the hook *R*, secured to the rear end of the cash-drawer *D*. A push-button *S*, Fig. 3, is connected electrically by the wire 3 with the battery *T*, and said battery is connected by the wire 5, Fig. 2, with the electromagnet *J*.

The magnet is connected by the wire 4, Figs. 2 and 3, with the spring-arm *I*, which is in sliding contact with the metallic top *C'* of the check-receptacle. The guideways *H* are electrically connected by the metallic connection *H'*, Fig. 3, and the rear guideway is electrically connected by the metallic connection *H''*, Fig. 2, and wire 1 with the contact *t*, Fig. 3.

The diagrammatic view Fig. 4 clearly indicates the electrical connections above described, the metallic connection *H''* being in this diagram included in the wire 1.

In operation when the metallic check *U* has been dropped into the position above described—viz., with its edge resting on the metallic top *C'* across the slot *e'* and in front of the slot *e*—an electrical connection is established between the metallic guideway *H* and said metallic top. Hence when the check has been dropped in the said position the cashier presses the button *S* and completes the circuit above described, such circuit including, as indicated in the diagram in Fig. 4, the wire 3, battery *T*, wire 5, electromagnet *J*, wire 4, spring *I*, metallic top *C'* of the check-receptacle, check *U*, guideways *H* and their connection *H'*, and the metallic connection *H''* and wire 1. As will be seen, the circuit is completed by the check and the push-button.

When this is done, the armature *J'* is drawn down upon the magnet *J*, thus pulling the vertical rod *N* down upon the rear end of the

latch *P*, tipping up its front end and releasing the hook *R*. Upon the release of this hook the spring *F'* pushes the check-drawer *C* forward against the stop *c'*, and by means of the block *F* and bar *E E'* the cash-drawer *D* is also pushed slightly forward. When the check-receptacle *C* is pushed forward, the slot *e* is brought under the check *U*, and said check drops through the slot into its compartment. The cashier drops the money into the proper compartment in the cash-drawer *D* and pushes it back into place, thus pushing at the same time the check-receptacle into its original and normal position, (indicated in the drawings.) When the next customer hands in a check, it is dropped through the proper slot *B* and rests upon the metallic top *C'* until the cashier presses the button *S* and completes the circuit, with the result above described. By turning the counterbalance *L'* the force of the vertical rod *N* may be regulated and by turning the nut *N'* its length may be regulated.

Should the cash-drawer *D* be tampered with, an inward push or pressure forces the spring *F'* back against a metallic contact *V*, Fig. 1, and thus establishes an electrical circuit through the wire 9, Figs. 2 and 3, to the battery *T*, thence through the wires 7 and 3, Figs. 1, 2, and 4, to the alarm *W*, and thence to the contact *V*, Fig. 1. In the diagram shown in Fig. 4 an electrical wire 10 is indicated as connecting the contact *V* with the alarm; but in fact this contact is sufficiently long to extend entirely up to the gong, as shown by the broken lines *V* in Fig. 2. Moreover, for the purpose of this diagrammatic view the horizontal spring *F'*, whose shape is well indicated in Fig. 1, is shown as vertical instead of horizontal.

The check-drawer is entirely inside the case, and hence cannot be directly tampered with, and the guideways *H*, being absolutely stationary while the check-drawer moves under them, are not easily gotten out of repair.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an apparatus of the character described, the case provided with the slots *B*; the metallic guideways *H* extending downward from the under ends of said slots within the case; the check-receptacle provided with the metallic top or cover *C'* and adapted to slide on suitable ways within the case and under the lower ends of the guideways, said metallic top being provided with slots *e* substantially parallel with the front of the check-receptacle, the lower ends of said guideways being so set that a check dropping through them will rest with its lower edge on said metallic top slightly in front of the slot and with its upper edge within the guideway when the check is in its normal position; an electromagnet and electrical connections placing the guideways and the metallic top of the check-receptacle in circuit therewith and



with electric batteries; and mechanism intermediate of the armature of the magnet and the said metallic top and guideways whereby when the metallic check has been dropped upon the top of the check-receptacle an electrical circuit may be established in the ordinary manner and the check-receptacle moved forward until one of said slots is under and coincident with the check, so that said check may drop into the check-receptacle, substantially as described.

2. In an apparatus of the character described, the case provided with the slots B; the metallic guideways II extending downward from the under ends of said slots within the case; the check-receptacle provided with the metallic top or cover C' and adapted to slide on suitable ways within the case and under the lower ends of the guideways, said metallic top being provided with slots e substantially parallel with the front of the check-receptacle, the lower ends of said guideways being so set that a check dropping through them will rest with its lower edge on said metallic top slightly in front of the slot and with its upper edge within the guideway when the check is in its normal position; an electromagnet and electrical connections placing the guideways and the metallic top of the check-receptacle in circuit therewith and with electric batteries; mechanism intermediate of the armature and magnet and said metallic top and guideways whereby the deposit of the metallic check upon the top of the check-receptacle enables an electrical circuit to be completed in the ordinary manner whereby the check-receptacle is moved forward so that one of its slots is directly under said check; the sliding cash-drawer D; mechanism intermediate of the magnet and cash-drawer whereby said drawer is normally locked but released when said circuit is completed; and mechanism intermediate of the check-receptacle and cash-drawer whereby said cash-drawer is moved forward by the check-receptacle upon the completion of said circuit and the release by the locking mechanism, substantially as set forth.

3. In an apparatus of the character described, the case provided with the slots B; the metallic guideways II extending downward from the under ends of said slots within the case; the check-receptacle provided with the metallic top or cover C' and adapted to slide on suitable ways within the case and under the lower ends of the guideways, said metallic top being provided with slots e substantially parallel with the front of the check-receptacle, the lower ends of said guideways being so set that a check dropping through them will rest with its lower edge on said metallic top slightly in front of the slot and with its upper edge within the guideway when the check is in its normal position, said metallic top being provided with the slots e' extending forward from and at substantially

right angles with the slots e and adapted to receive at right angles with their edges the check-receptacle when it is dropped through the guideway; an electromagnet and electrical connections placing the guideways and the metallic top of the check-receptacle in circuit therewith and with electric batteries; and mechanism intermediate of the armature of the magnet and the said metallic top and guideways whereby when the metallic check has been dropped upon the top of the check-receptacle an electrical circuit may be established in the usual manner and the check-receptacle moved forward until one of said slots is under and coincident with the check, so that said check may drop into the check-receptacle, substantially as described.

4. In an apparatus of the character described, the case provided with the slots B; the metallic guideways II extending downward from the under ends of said slots within the case; the check-receptacle provided with the metallic top or cover C' and adapted to slide on suitable ways within the case and under the lower ends of the guideways, said metallic top being provided with slots e substantially parallel with the front of the check-receptacle, the lower ends of said guideways being so set that a check dropping through them will rest with its lower edge on said metallic top slightly in front of the slot and with its upper edge within the guideway when the check is in its normal position; the metallic spring F' secured to the rear wall of the case and bearing normally against the rear wall of the check-receptacle; a suitable stop limiting the forward movement of the check-receptacle; the metallic spring-arm I extending from the case and bearing upon the metallic top of the check-receptacle; the sliding cash-drawer D provided on its rear side with the hook R and the upwardly-projecting arm E, E'; a projection or block F' on the lower side of the check-receptacle and bearing normally against the rear side of said arm E, E'; the electromagnet J and armature J'; the pivoted arm K sustaining said armature; the pivoted hook P engaging normally with said hook R; the rod N extending down from the forward end of the pivoted arm K to a point slightly above the rear portion of pivoted hook P; a weight or counterbalance on the rear end of the arm or lever K; and electrical connections placing the electromagnet, spring F', spring-arm I, guideways II and the metallic top of the check-receptacle in circuit, said circuit being completed by the dropping of the metallic check upon said metallic top and the pressing of an electric button, substantially as and for the purpose set forth.

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