(No Model.) 6 Sheets—Sheet 1.

C. ZALLUD.

CHECK REGISTERING MACHINE.

No. 432,686. Patented July 22, 1890.

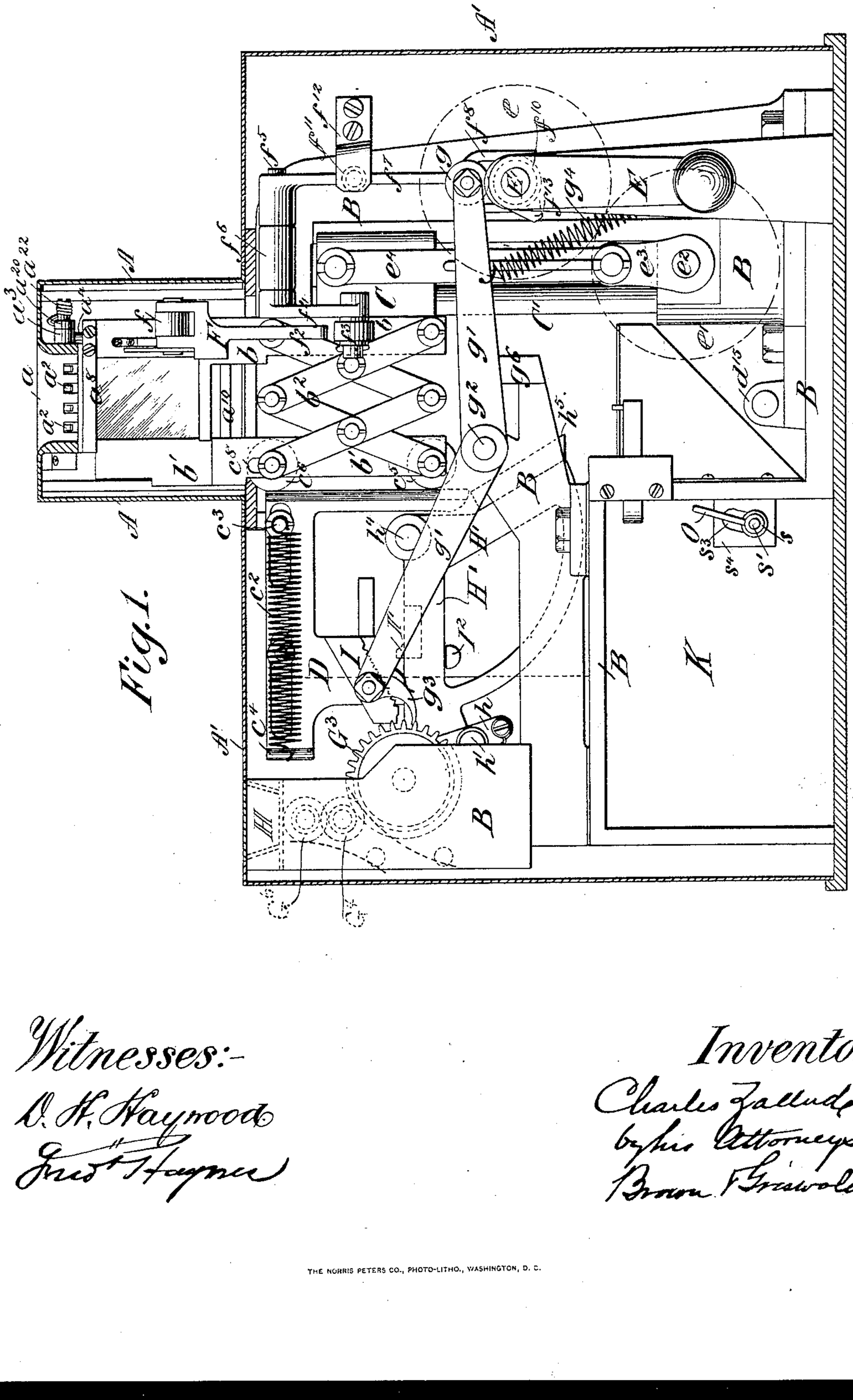

Fig. 1.

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Jno. F. Haynes

Inventor:-
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(No Model.) 6 Sheets—Sheet 2.

C. ZALLUD.

CHECK REGISTERING MACHINE.

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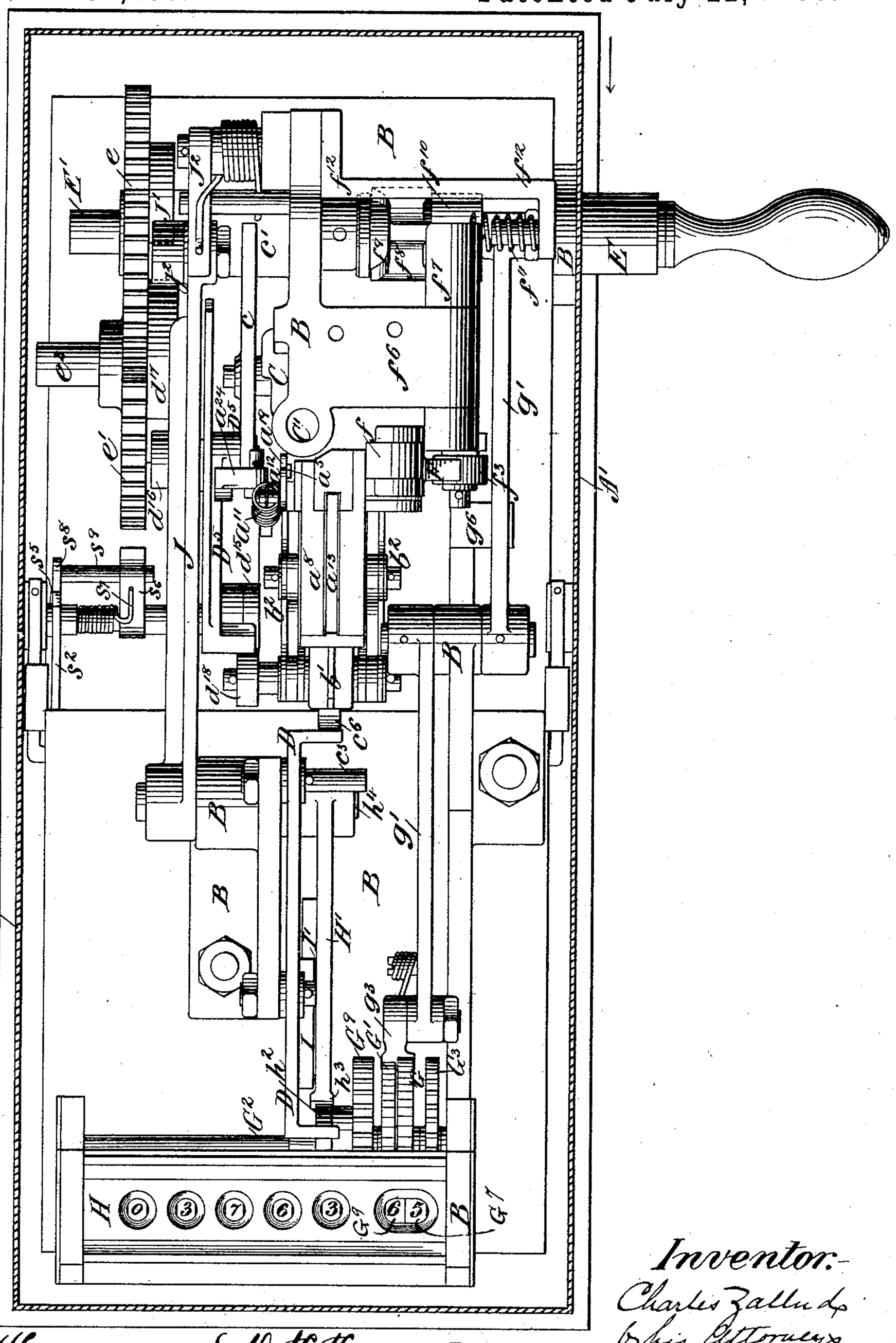

Fig. 2.

Witnesses:- { W. H. Haywood; Fred't Haynes

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(No Model.) 6 Sheets—Sheet 3.

C. ZALLUD.

CHECK REGISTERING MACHINE.

No. 432,686. Patented July 22, 1890.

Fig. 3.

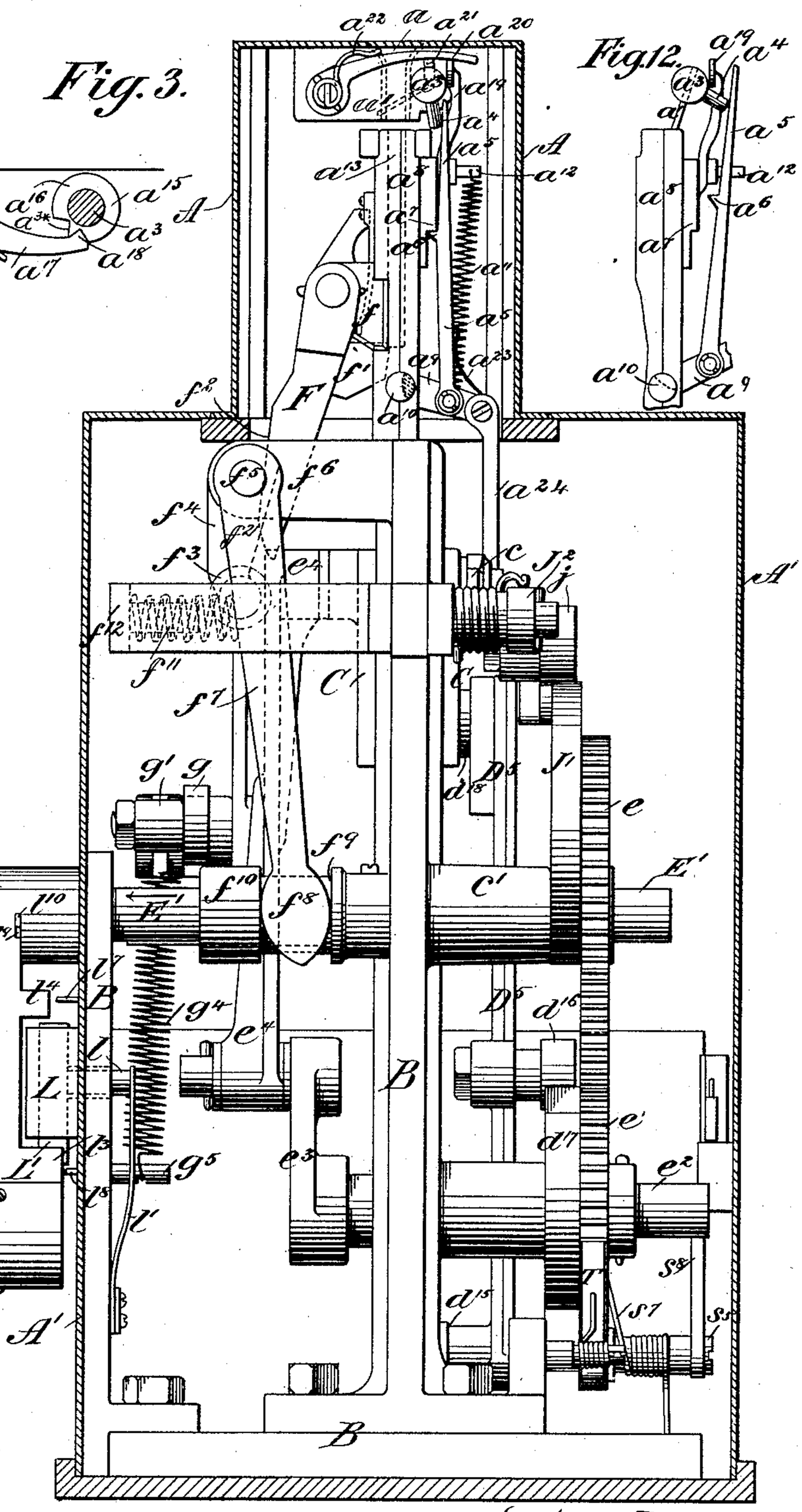

Fig 11.

Fig 12.

Witnesses:-

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C. ZALLUD.

CHECK REGISTERING MACHINE.

No. 432,686. Patented July 22, 1890.

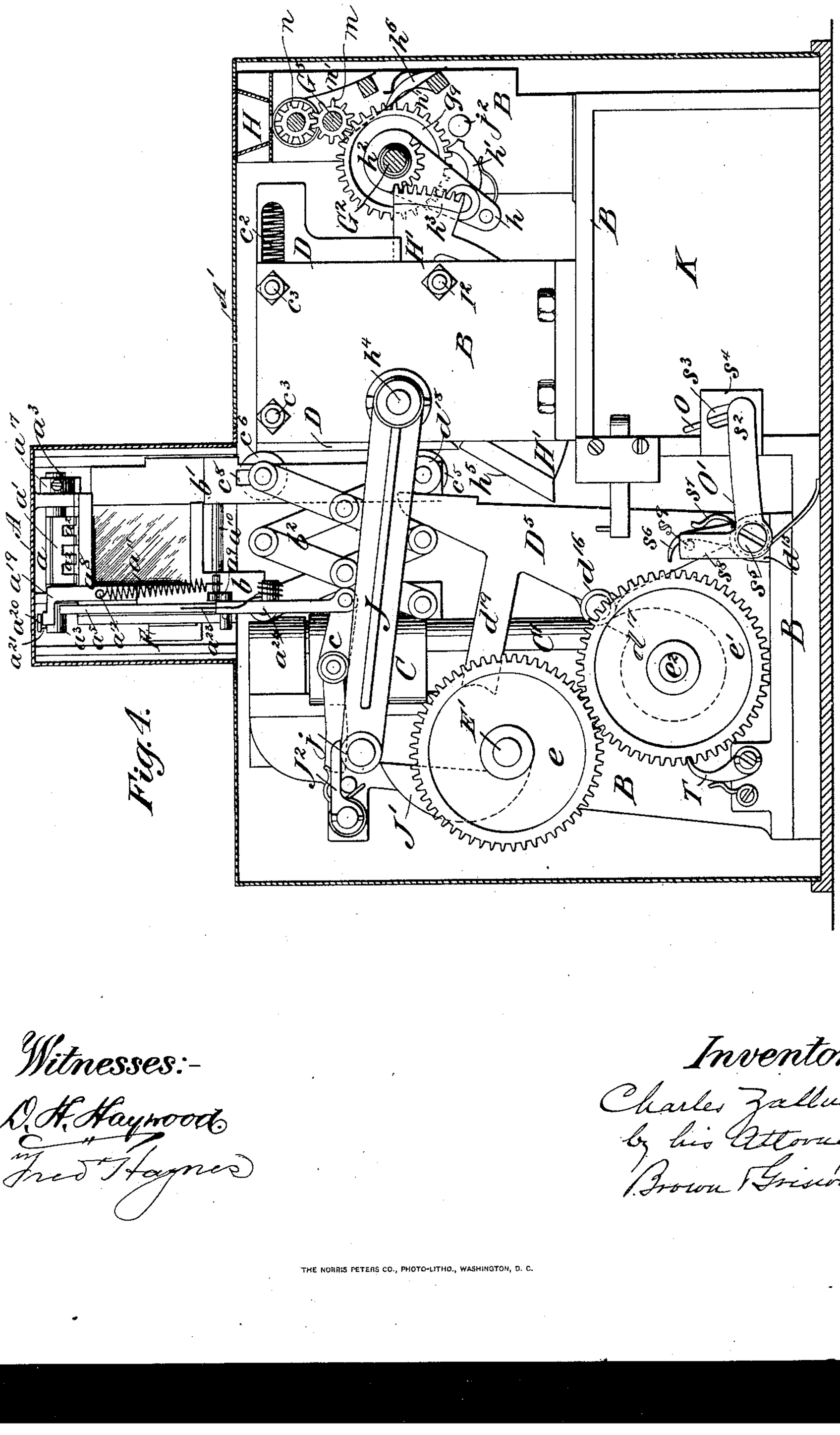

Fig. 4.

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C. ZALLUD.

CHECK REGISTERING MACHINE.

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Fig. 10.

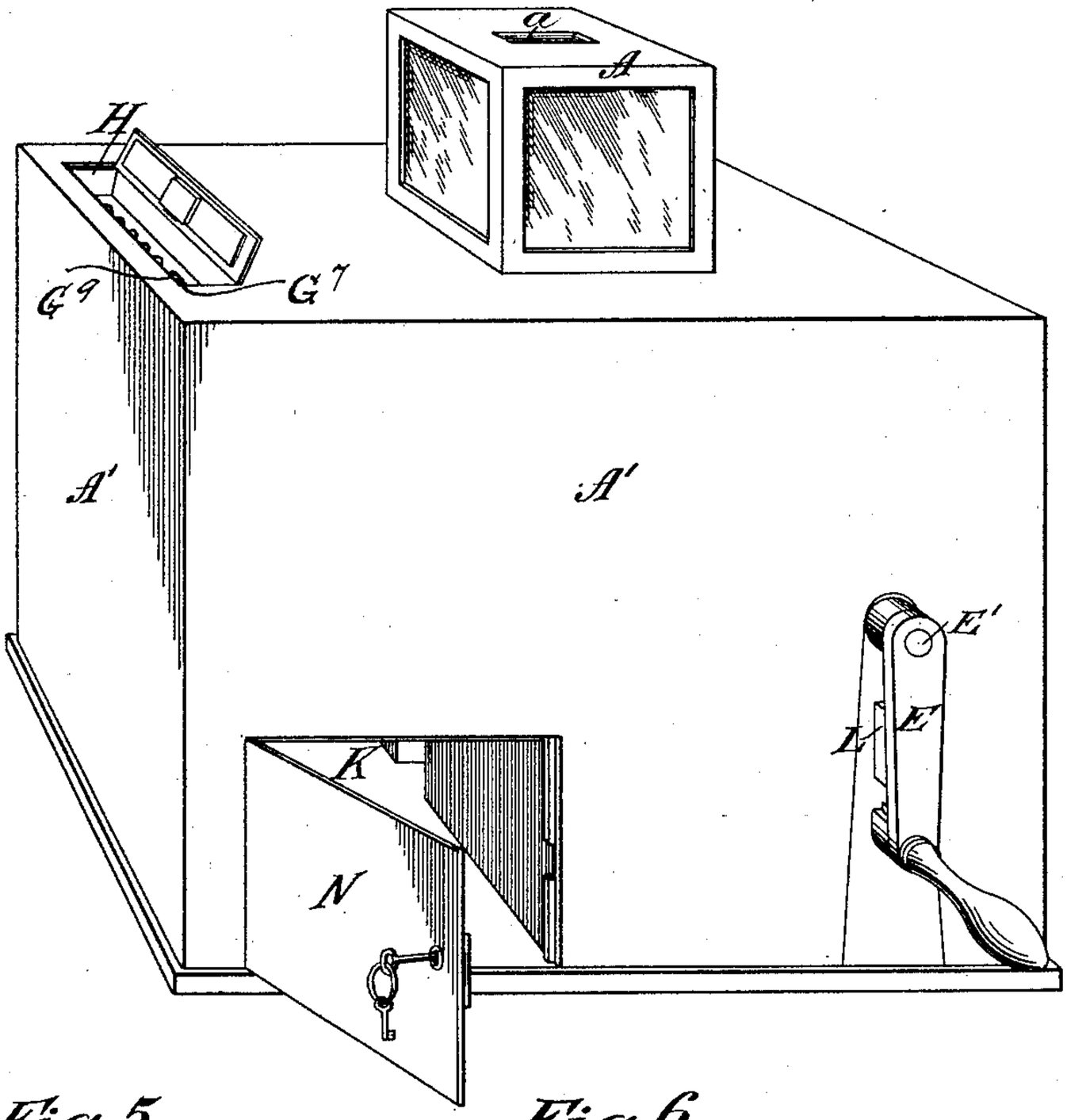


Fig. 5.

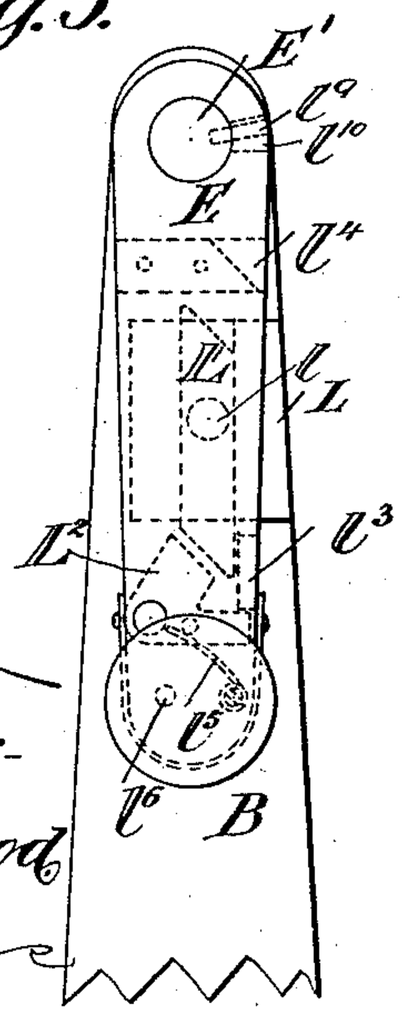
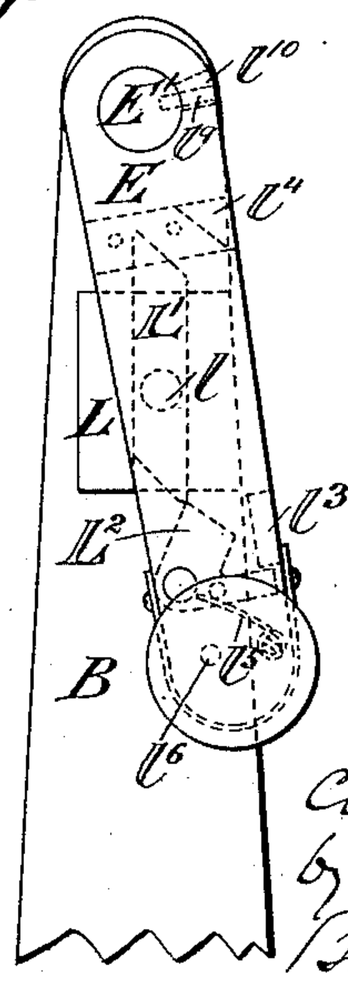


Fig. 6.



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C. ZALLUD.

CHECK REGISTERING MACHINE.

No. 432,686. Patented July 22, 1890.

Fig. 7.

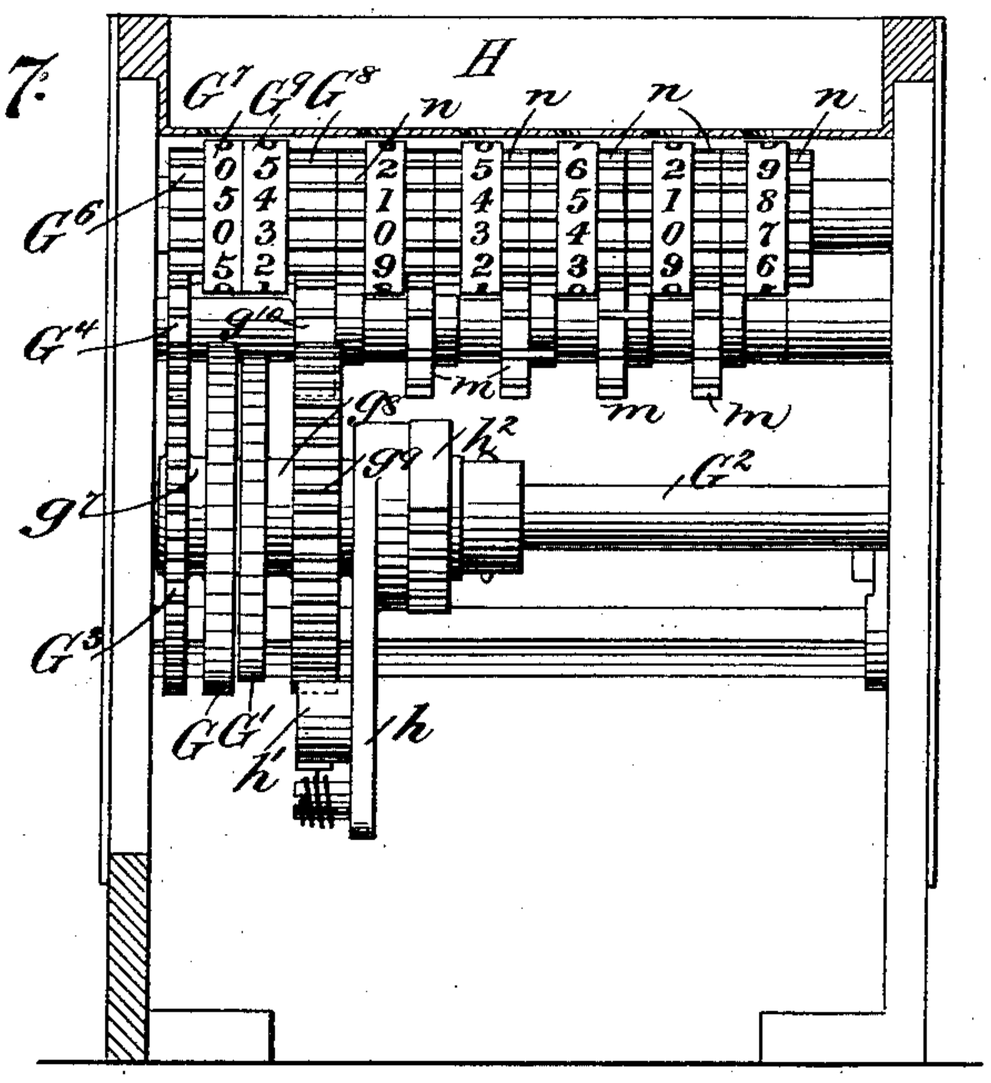


Fig. 8

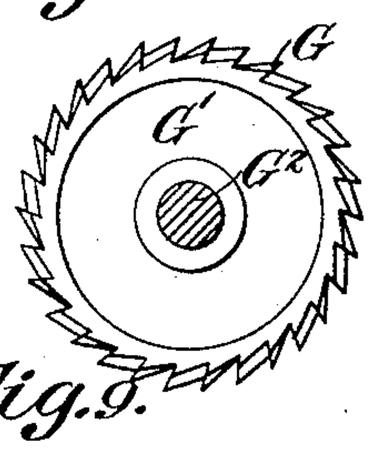
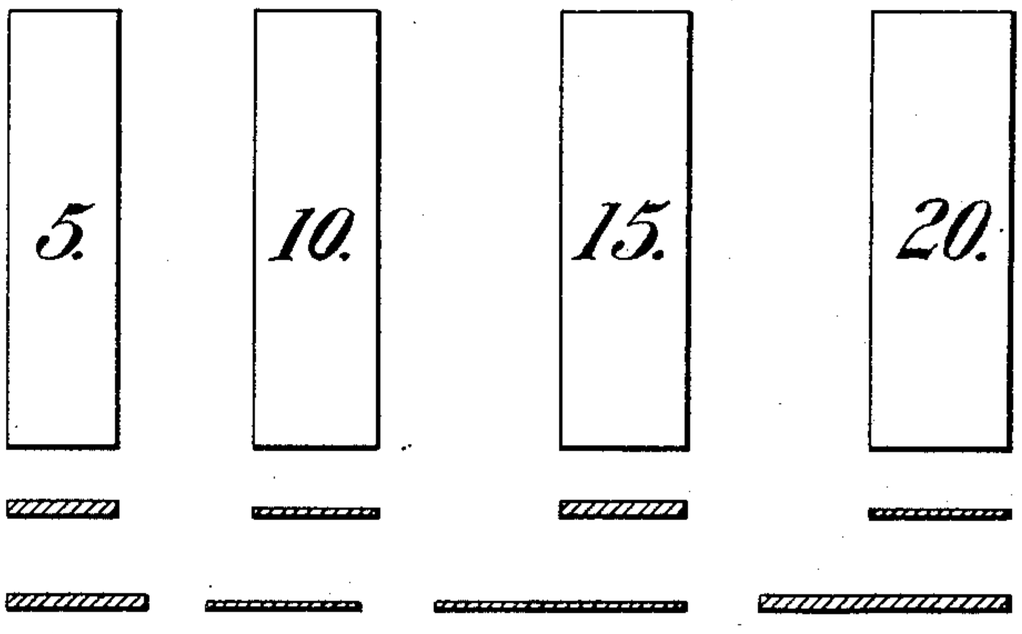


Fig. 9.



Witnesses:-
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UNITED STATES PATENT OFFICE.

CHARLES ZALLUD, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO ISAAC PFORZHEIMER, OF SAME PLACE.

CHECK-REGISTERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 432,686, dated July 22, 1890.

Application filed October 19, 1889. Serial No. 327,552. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ZALLUD, of the city, county, and State of New York, have invented a certain new and useful Improvement in Check-Registering Machines, of which the following is a specification.

My improvement relates to machines for registering the value of checks, such as may be employed to indicate the amount of sales made in restaurants or other places where check systems are used.

In carrying out my improvement I employ checks which are of different thicknesses and different widths. These checks indicate amounts of five, ten, fifteen, and twenty cents, and so on up to any desired amount, and the total value of the checks deposited in the machine during any given period will be accurately registered. I prefer that the checks indicating the odd numbers—such as five, fifteen, twenty-five, &c.—should be thicker than those indicating even numbers—such as ten, twenty, thirty, &c.; also, I prefer that as the checks increase in value they should to a certain extent increase in width. One of these checks having been passed into the machine by an automatically-operating device, the introduction of another check until the first check has been entirely registered and the parts returned to a normal position is prevented. The check is received upon a carriage, where it is grasped and held. During the downward movement of the carriage checks indicating odd numbers—such as five, fifteen, &c.—occasion the registering of the "fives"—as, for instance, if the check were for fifteen cents, upon the downward movement of the carriage "5" would be registered, but upon the upward movement of the carriage the "10" would be registered.

I will describe in detail a machine embodying my improvement, and then point out the novel features in claims.

In the accompanying drawings, Figure 1 is a front view of a machine embodying my improvement, the front of the case in which the same is contained being removed. Fig. 2 is a plan or top view of the same, the top of the case and certain mechanism being removed. Fig. 3 is an end view of the machine, looking in the direction of the arrow, Fig. 2, the end of the case being removed. Fig. 4 is a rear view of the machine, the back of the case being removed. Figs. 5 and 6 are details of certain handle mechanism employed. Fig. 7 is a view in detail of the registering mechanism. Fig. 8 is a detail view of certain wheels employed in the registering mechanism. Fig. 9 is a view showing how checks which I employ may be constructed. Fig. 10 is a view in perspective of the box or case, showing the lid for the register as open, and also the door of the case open, disclosing a portion of the interior. Fig. 11 is a view in detail of certain detent mechanism which I employ. Fig. 12 is a detail showing certain parts in a different position from that shown in Fig. 3.

Similar letters of reference designate corresponding parts in all the figures.

I will first describe the means by which the check when inserted into the machine is received and what operations transpire upon the reception of a check.

A designates a casing secured upon the upper part of the main frame B of the machine. Within this casing A is arranged the mechanism for receiving the check. The upper side of the casing A is provided with a slot *a*, through which the check is inserted. Upon being passed inwardly it contacts with a trip *a'*, which trip extends across the slot *a*, but normally does not obstruct the inward passage of the check. In the example of my improvement shown this trip comprises a number of fingers a^2, (shown more clearly in Fig. 1,) which fingers extend through vertically-extending grooves in the side walls of the slot *a*. The trip *a'* is mounted upon a rock-bar a^3, which rock-bar is journaled in the end walls of the frame in which the slot *a* is formed. The check upon being inserted causes the trip *a'* to be moved out of the slot *a*, and thus to cause the rocking of the rock-bar a^3 in one direction. Upon said rock-bar is a pin or projection a^4, which pin or projection, when the bar is rocked as described, contacts with the upper portion of a detent a^5. The detent a^5 has upon it a tooth a^6, which tooth normally engages a notch a^7 upon the

outer wall of an open-sided chute a^8. When the detent a^5 has thus been moved, the chute a^8 may be drawn downwardly. The chute a^8 is formed by jaws b b' on a movable carriage, and is internally grooved upon its edges to receive the check. The detent a^5 is pivotally connected near its lower end to a link a^9, which link is rigidly connected at one of its ends to a rock-bar a^{10}, journaled in the jaws of the carriage. This rock-bar has a cut-away portion. (Shown more clearly in dotted outline in Fig. 3.) Connected to the link a^9, near one of its ends, is a coil-spring a^{11}, the other end of which coil-spring is connected to a projection a^{12}, extending from the outer side of the chute a^8. When the detent has been moved, as described, out of engagement with the notch a^7, the coil-spring operates to rock the link a^9 upwardly, carrying with it the detent a^5 and causing the rocking of the rock-bar a^{10}, the effect being to present the broadest surface of the cut-away portion of the said bar, thereby causing the same to close the lower end of the chute a^8. The check, after having been passed through the slot a, drops into the chute, but is prevented for the time being from passing out of the same by the rock-bar a^{10}, which has by that time been turned, as described. Upon one end of the rock-bar a^3 is mounted a cam a^{15}, having a single tooth a^{16}, as best seen in Fig. 11. A detent a^{17}, which is spring-actuated, engages one side of said tooth when the trip a' is in its normal position, or, in other words, when it is across the slot. When, however, the trip has been moved by the insertion of the check to cause the rotation of the rock-bar a^3, the tooth a^{16} will cause the detent to rock until the tooth has passed by a tooth a^{18} upon the detent. The tooth a^{18} will then be sprung in behind the tooth a^{16} and will maintain the trip out of the slot a. This mechanism is illustrated more clearly in Fig. 11.

The chute a^8 forms part of a carriage which is capable of vertical movement, and in registering the value of the check said carriage is moved up and down. Upon the upper end of the chute a^8 is a projection a^{19}, which projection extends beneath a pawl a^{20}, which pawl is spring-actuated. Extending from this pawl is a tooth a^{21}. The rock-bar a^3, having been rocked by the insertion of the check, as described, and the check having passed into the chute a^8, it will be observed, by reference more particularly to Fig. 12, that the pin or projection a^4 upon the rock-bar a^3 has been moved into a substantially horizontal position.

When the chute a^8 is moved downwardly, the projection a^{19} is withdrawn from beneath the pawl a^{20}, and in its downward movement contacts with the pin or projection a^4 and causes the rock-bar a^3 to be so rocked as to restore the trip a' to its normal position across the slot a. This movement of the rock-bar a^3 brings a recess or indentation a^{3*} upon the said rock-bar beneath the tooth a^{21} upon the pawl a^{20}. Said tooth will then be sprung into the said recess by means of a spring a^{22}, which actuates the pawl. It will be thus seen that the trip is prevented from being further moved by the insertion of a check, because the rock-bar a^3 is locked against rotation. This locking continues until the carriage and the chute a^8 are brought back to a normal position and the tooth a^{21} is again lifted out of the recess in the rock-bar by the projection a^{19}.

I have shown a spring a^{23}, acting upon the detent a^5, to restore the same to its normal position after the carriage has completed its upward movement. The link a^9 is connected near its other end to a rod a^{24}. This rod at the completion of the downward movement of the carriage has imparted to it a downward movement, which causes the link a^9 to be rocked downwardly against the resistance of the spring a^{11}, thus bringing the detent a^5 into proper position to again have its tooth a^6 brought into the notch a^7.

The carriage comprises two upright jaws b b', one of which b' is horizontally movable. These jaws are connected together, as shown, by means of lazy-tongs b^2. The fixed jaw or b has secured to it or formed integral with it a sliding piece C, which forms a cross-head, to which the entire carriage is attached through the fixed jaw b, which sliding piece is adapted to be slid up and down upon a vertically-extending rod C'. Upon the sliding piece C is fulcrumed a lever c, one arm of which is pivotally connected to the rod a^{24}. The other arm of said lever is free. When the carriage is moving downwardly and has nearly reached the limit of its downward movement, the free arm of the lever c will contact with a hub c', extending from the main frame B, as shown more clearly in Fig. 3, and as the carriage completes such downward movement the lever c will be rocked, causing the downward movement of the rod a^{24}, as previously described. The check while in the chute a^8 and between the jaws b b' of the carriage is there gripped upon its side edges. Such gripping is caused by means of a coil-spring c^2, which spring is mounted upon a movable frame D. One end of the spring is connected to a pin c^3, extending from the main frame of the machine, and the other end is connected to a projection c^4 upon the rear end of said movable frame. The movable frame D bears at its forward or inner end against rollers c^5 c^6, the former of which is mounted upon the lower end of the jaw b', and the latter of which is mounted upon a pin or stud extending from the upper end of one of the arms of the lazy-tongs b^2. Such pin or stud passes through a slot c^8, formed in the jaw b', and thus admits of the horizontal movement of the jaw and the lazy-tongs.

Before any movement of the jaw b' can occur it must be released from a lock. Such lock in this instance consists of a rocking bar or plate D^5. (Shown more clearly in Fig. 4.) This rocking bar or plate is pivoted near its lower end to a lug or boss d^{15}, extending up-

wardly from the base of the main frame B. Said bar or plate is shown as somewhat triangular in shape and bears at one of its angles a roller d^{16}. This roller bears normally, or before the handle E has been rotated, against a snail-cam d^{17} on a shaft e^2 at the greatest point of diameter on said cam. The upper end of the plate or bar D^5 bears against a roller d^{18} upon the same pin which bears the roller c^5 on the jaw b'. When the handle E is rotated, the snail-cam is of course caused also to rotate, and the roller d^{16} will pass off the step of said cam, thus admitting of a forward motion of the plate or bar D^5, thus removing said plate or bar from contact with the roller d^{18}. Such forward movement of the plate or bar D^5 is caused by means of the spring c^2 forcing the frame D and the movable jaw b' forward. Upon the plate or bar D^5 is a projection d^{19}, which when the plate or bar is thus forced forward will contact with the hub c', and thus act as a stop (in the event of the machine being operated without a check having been inserted) to prevent a too-extended forward movement of the plate or bar. When the handle E has made a complete rotary movement, the cam d^{17}, acting on the roller d^{16}, will force the plate or bar D^5 rearwardly, thus forcing the movable jaw b' and the frame D into their normal positions and releasing the check, which will then fall into a suitable receptacle K.

It will be seen that the tendency of the spring c^2 is to constantly force the jaw b' toward the jaw b. Therefore when a check is passed between said jaws it will be gripped and held until subsequently released. The check having been thus gripped, the carriage is moved downwardly. This is accomplished by means of the crank or handle E upon the outside of the machine. Said crank is mounted upon a shaft E', which shaft is journaled in suitable bearings on the main frame of the machine. In this case one of said bearings consists of the hub c'. Upon said shaft is a gear-wheel e, which gear-wheel meshes with another gear-wheel of equal diameter e'. The gear-wheel e' is mounted upon the shaft e^2, also journaled in suitable bearings on the main frame. Upon one end of the shaft e^2 is secured a crank e^3, which crank has pivotally connected with it a connecting-rod e^4. The other or upper end of the connecting-rod e^4 is pivotally connected to the sliding piece or cross-head C. When, therefore, the crank E is rotated, the crank e^3 will be moved, and a complete rotation of the crank E will cause a complete rotation of the crank e^3, whereby the carriage will make a complete to-and-fro movement. During the downward movement of the carriage, as previously stated, the "5," if any upon the check, will be registered. This is accomplished in the following manner: Upon the jaw b is fixed a detent F, which detent is pivotally connected to a boss or lug f, extending from one side of said jaw. I have shown such connection to be made by bifurcating the upper portion of the detent F and passing a pin through said bifurcations and through the boss or lug f. Extending inwardly from the detent F, and through a suitable opening in the side of the jaw is a tooth f', which tooth extends into the passage in the chute a^8 at the lower end of said passage. If a thick check, or one of the fives series, be passed downwardly through said passage, it will approximately fill the space between the inner end of the tooth f' and the opposite side wall of said passage. It will be readily seen that with a check thus closing said space further inward movement of the tooth f' is prevented. The lower portion of the detent F is provided with a cam-surface f^2. If now the carriage be moved downwardly, the cam-surface on the detent will contact with an anti-friction roller f^3, mounted upon a stud extending from an arm f^4, which arm is rigidly secured upon one end of a rock-shaft f^5, which rock-shaft is journaled in a bearing f^6 upon the main frame of the machine. Upon the other end of the said rock-shaft is a downwardly-extending arm f^7, having a bifurcated lower end portion f^8. Said bifurcated portion extends through a suitable groove f^9, formed in a collar f^{10}, having a feathered connection with the shaft E'. Bearing against the arm f^7 is a coil-spring f^{11}, which coil-spring is secured near one of its ends to a bracket f^{12}. The bracket f^{12} is mounted upon the main frame of the machine.

Upon the collar f^{10} is a toe f^{13}. When the carriage is moved downwardly, the cam-surface f^2 on the detent F is brought into contact with the roller f^3; but as the detent is rigidly held by the check against inward movement it causes the outward rocking of the arm f^4, and consequent rocking of the arm f^7 in the same direction. The arm f^7 thus causes the shifting of the collar f^{10} in the direction of the arrow shown in Fig. 3. When thus shifted, the toe f^{13} upon the collar is brought beneath a roller g, which roller is mounted upon one end of a lever g', which lever is fulcrumed at g^2 upon a portion of the main frame. The other arm of the lever is provided with a pawl g^3, which pawl is adapted to engage the ratchet-wheels G G'. The ratchet-wheel G is adapted to operate the fives-registering wheel, while the ratchet-wheel G' is adapted to operate the tens-registering wheel, in cases only, however, where fives occur upon the check. When the toe f^{13} contacts with the roller g, it rocks the lever g' upon its fulcrum and causes the pawl g^8 to operate said ratchet-wheel. A spring g^4 is secured near one end to one arm of the lever g' and at the other to a pin g^5, extending from the main frame of the machine, which spring operates to retract the lever to a normal position after the toe f^{13} is passed by the roller g. A stop g^6 upon the main frame of the machine operates to prevent a too-extended downward rocking of the lever.

I will now describe the means by which the

pawl g^3 operates the ratchet-wheels G G'. The wheels G G' are of different diameters, the wheel G' in this instance being the smaller. The wheel G' is provided with teeth of equal length, while the wheel G is provided with alternate long and short teeth, as shown more clearly in Fig. 8. If a check of the five series be passed into the machine and the machine be operated, the pawl g^3 will engage the ratchet-wheel G. The ratchet-wheel G is loosely mounted upon a hub g^7, which hub surrounds a shaft G^2, mounted in the main frame of the machine. Upon said hub is a gear-wheel G^3, which gear-wheel engages a gear-wheel G^4, loosely mounted upon a shaft G^5, also journaled in the main frame. The gear-wheel G^4 engages a gear-wheel G^6, rigidly mounted upon one side of a fives-registering wheel G^7. The fives-registering wheel has upon its periphery the figures 0 and 5, alternating throughout the periphery of the wheel. When the ratchet-wheel G is rotated, one of the figures 5 upon the registering-wheel will be brought opposite a suitable opening in the dial-plate, to be seen through the opening H in the case A'. During this operation the wheel G has been moved far enough so that one of its long teeth is brought opposite one of the teeth on the ratchet-wheel G'. If now another check of the fives series be passed into the machine and the machine be operated, the pawl g^3 will engage both said ratchet-wheels. The ratchet-wheel G' is mounted upon a hub g^8, loosely surrounding the shaft G^2. Upon this hub is a gear-wheel g^9, which gear-wheel meshes with a gear-wheel g^{10}, loosely mounted upon the shaft g^5. The gear-wheel g^{10} meshes with a gear-wheel G^8, upon one side of which is affixed the tens-registering wheel G^9. Both ratchet-wheels being now operated by the pawl causes the figure 0 to be brought opposite the opening for the fives-registering wheel, while the figures on the tens-registering-wheel, which are from 0 to 9, respectively, are moved forward one figure. Thus all the fives of the checks of the fives series are registered separately from the tens on the checks.

I will now proceed to describe the means by which the tens are registered. This is accomplished, as previously stated, during the upward movement of the carriage. Loosely mounted upon the shaft G^2 is an arm h, which arm bears a spring-actuated pawl h'. Rigidly secured to the hub of the said arm is a toothed segment h^2. With this toothed segment engages a rack h^3, formed upon a quadrant H'. This quadrant is in effect a bell-crank lever, and is fulcrumed at h^4 upon the main frame of the machine. The other arm of the quadrant is provided with a cam-surface h^5. This cam-surface is directly in the line of movement of the jaw b' when the latter is moved downwardly, and when brought downwardly the roller c^5 on said jaw will contact with said cam-surface. Such contact causes the rocking of the quadrant H' upon its fulcrum. The pawl h' upon the arm h engages with the teeth upon the gear-wheel g^9. When the carriage is brought downwardly, the rack h^3 is moved upwardly and causes the rotation of the gear-segment h^2 and a rotary movement to be imparted to the arm h. During this movement, however, the pawl h' will slide freely over the teeth upon the gear-wheel g^9. When, however, the carriage is moved upwardly, said pawl will engage a tooth upon said gear-wheel and cause the rotation of the same, and thus the operation of the tens-registering wheel. A spring stop-pawl h^6, mounted upon the frame of the machine, operates to prevent the rotation of the gear-wheel g^9 when the pawl h' is moving freely over its teeth. The extent of rocking movement which will be imparted to the quadrant H' depends upon the point at which the roller c^5 contacts with the cam-surface h^5 upon the quadrant, and this is determined by the width of the check. A five-cent check, which depends upon its thickness for registration, need of course cause no movement of the quadrant, and the roller c^5 when brought downwardly will therefore pass the quadrant without contacting with it. If, however, checks of a different width are inserted, they will cause certain movement to be imparted to the quadrant in order to register the tens. The farther inward upon the cam-surface h^5 the cam c^5 contacts of course the greater will be the rocking movement imparted to the quadrant and the greater will be the extent of movement imparted to the rack h^3 and gear-segment h^2. The tens-registering wheel will thus be moved a corresponding greater or less distance. The gearing is such as to admit of the tens-wheel being moved an accurate distance to indicate the value of the check. No difference in width of the check is necessary between such numbers, for instance, as 10 and 15, 20 and 25, 30 and 35, and so on, as is shown clearly in Fig. 9 of the drawings. In order to prevent a too-extended movement being imparted to the quadrant by the roller c^5 when the latter is brought downwardly, I employ a stop, which stop in this instance consists of a toothed bar I. This bar is rigidly secured upon the movable frame D and extends downwardly at an angle, the lower end of the bar being nearer to the outer end of the quadrant. Upon the quadrant is a tooth I', extending upwardly therefrom. If a narrow check be inserted in the carriage and the frame be moved forward, the lower teeth upon the bar I will be brought nearer the tooth I' than they would be if a wider check were inserted, which would lessen the range of movement of the frame. The teeth upon the bar are so arranged that when the quadrant is rotated the tooth I' will engage a tooth upon the bar I, which tooth will be at a distance equivalent to the range of movement which it is desired to impart to the quadrant, according to the width of the check. Thus for a five-cent check the tooth I' will engage a tooth near the extreme lower end of the bar I, and thus

prevent any movement of the quadrant. For a fifteen-cent check the tooth I′ will contact with the first tooth upon the bar I and admit of the movement of the quadrant sufficient to register "1," "10," and so on. The bar I therefore operates as a graduated stop for the quadrant. I have shown a pin I^2, extending from the frame of the machine and beneath the upper arm of the quadrant, which is to prevent a too-extended movement of the quadrant in the other direction. In order to cause a return movement of the quadrant, and thereby the operation of the tens series, I employ an arm J, which arm is rigidly mounted upon the same pin or stud h^4 as is the quadrant H′. This arm at its free end bears a roller j. Upon the shaft E′ is mounted a cam J′, which cam operates when the machine is not in use, or, in other words, when the handle E is not being rotated, to maintain the arm J in an elevated position and the quadrant in position to be operated upon by the roller c^5. When, however, the handle E is rotated, the cam J′ is moved away from beneath the roller j, and the arm J may then fall and free movement is permitted to the quadrant. Upon the continued rotation of the handle, however, the cam J′ will contact with the roller j during the elevation of the carriage and will raise the arm J, thus rocking the quadrant back into its normal position and causing the rotation of the gear-segment h^2 to operate the tens series. It will be observed that when the arm J has reached its highest point the point of the cam J′ will be somewhat beyond the center of the roller j, thus admitting of a slight downward movement of the arm J, into which downward position it will be forced by a spring-actuated presser-bar J^2, mounted upon the frame and bearing upon said roller. This is for the following purpose: A rapid movement of the quadrant might cause a too-extended rotation of the gear-wheel g^9 by the pawl h'. In order to prevent this, I employ a stop-pin j^2, extending from the frame and into the path of the pawl h'. As the pawl is moved along during the rotation of the gear-segment h^2, it will contact with said stop-pin, thus preventing a too-extended movement of the gear-wheel g^9. This contact will occur at the time that the cam J′ has raised the arm J to its highest point against the resistance of the presser-bar, and unless a slight drop were permitted of the arm J the pawl h' would be jammed between the teeth of the gear-wheel g^9 and the stop-pin j^2. Of course the slight drop allowed to the arm, as described, will move the pawl rearwardly sufficiently to withdraw it from contact with the stop-pin j^2. This will admit of the gear-wheel g^9 being rotated to register the "10," which has been caused by the addition of two fives on the five series, which it could not do if the pawl were jammed between the gear-wheel g^9 and the stop-pin j^2.

I will now describe means for preventing a too-extended rotation of the handle, and also whereby the handle may be released to permit it to operate. Extending from a portion of the main frame is a guideway L, in which is adapted to slide vertically a key or bar L′. A pin or plug l, actuated by a flat spring l', bears against said key or bar L′, to maintain it in close frictional contact with the front wall of the slideway L, and thus prevent its accidental displacement. This key or bar has angularly-extending or beveled upper and lower surfaces, such surfaces being parallel with each other, as shown more clearly in Figs. 5 and 6. The key or bar L′ constitutes in effect a trip. Upon the inner side of the handle E is pivotally arranged a detent L^2. This detent is provided at its upper end with a beveled or angularly-extending surface corresponding with its angle of inclination approximately with that of the lower end of the trip L′. The trip L′, when in its lowermost position, will be in the path of a projection l^3, extending inwardly from one of the edges of the handle E. This projection, when the handle is rotated in order to operate the machine, will contact with the trip, and thus prevent the rotation of the handle, it being understood that the handle always rotates in the direction of the arrow, Fig. 5. In order, therefore, to render the handle operative, it is necessary to give it a slight backward movement, as shown more clearly in Fig. 6. The detent L^2 during this movement contacts with the trip L′ and moves it upwardly to such a distance that the projection l^3 may then pass freely beneath it. As soon as the projection l^3 has passed the trip L′ a projection l^4, having upon its inner side a beveled or angularly-extending surface corresponding to that upon the upper end of the trip L′, will contact with said trip and force the same downwardly into a position where, when a complete rotation has been given to the handle, the projection l^3 will again come in contact with the trip to prevent further movement of the handle in the same direction. During the return movement the detent L^2 is permitted to pass the trip L′, because when the detent strikes the trip it will be forced downwardly by the trip against the resistance of a spring l^5, secured upon the inner side of the handle. This spring operates to restore the detent to its normal position after it has thus been rocked downwardly. The projection l^3 operates as a stop to prevent a too-extended movement of the detent in one direction, and a pin l^6, extending from the handle, operates to prevent a too-extended movement of the detent in the other direction. I have shown pins l^7 l^8—one above and one below the trip L′—which pins operate as stops to prevent a too-extended movement of the trip. The handle E is loose upon the shaft E′, but is retained in position thereon by means of a pin l^9, extending from the shaft and into a slot l^{10}, formed in the hub of the handle. This construction admits of the handle being moved rearwardly, as shown in Fig. 6, and still ef-

fects an engagement between the handle and the shaft E′ when such engagement is desired.

I will now describe means by which the machine may be locked against all operation. This may be required when, for instance, business is closed for the day, or for other causes it is desired to prevent tampering with the machine. The case A is provided with a door N, which may be locked and by which access may be had to the interior of the machine. When it is desired to lock the machine against operation, the door is opened, the hand inserted, and an arm O (shown more clearly in Figs. 1 and 4) is grasped. This arm has upon it a nut *s*, which nut engages the screw-threaded end of a shank *s′*, extending from an arm s^2 of a lever O′. This lever is bell-cranked in shape, and the shank thereon extends through a slot s^3, formed in a plate s^4, extending from the frame of the machine. When the arm O is rotated into the position illustrated more clearly in Fig. 4, the nut *s* thereon clamps one arm of the lever s^2 tightly against the plate s^4 and prevents the movement of the lever. The lever O′ is fulcrumed upon a pin or screw s^5, mounted in the boss d^{15}. Upon the same pin or screw is a pawl s^6, with which contacts a spring s^7. Upon the arm s^8 of the lever O′ is a pin s^9, which extends in front of the pawl s^6. When the lever occupies the position illustrated more clearly in Fig. 4, the pin s^9 forces the pawl s^6 rearwardly against the resistance of the spring s^7 and out of engagement with the teeth upon the gear-wheel *e′*. When, however, the handle O is rotated, so as to loosen the nut *s*, the spring s^7 will rock the lever upon its fulcrum and force the pawl s^6 into engagement with the teeth on said gear-wheel. Upon the opposite side of said gear-wheel is a spring-actuated stop-pawl T, the object of which is to prevent a return movement of said wheel when being operated. It will be clearly seen that when both the pawls are in engagement with the teeth on the gear-wheel movement cannot be imparted to the gear-wheel, and consequently the machine will be wholly inoperative. In order to again render the machine operative, the hand is inserted, the lever rocked downwardly into the position shown more clearly in Fig. 4, and the nut *s* again tightened up.

The registering series employed beyond the tens-wheel may be of the usual or any ordinary construction. I have shown each of the registering-wheels as provided with gear-wheels *n*, having the same number of teeth meshing with gear-wheels *m*, having each nine short teeth and one long tooth in the usual manner, whereby at each rotation of the gear-wheels *m* they will successively engage their complementary gear-wheels *n*, and so impart rotary motion to the registering-wheels in regular rotation. Springs *n′* bear against the gear-wheels *n m*, as shown more clearly in Fig. 4, and prevent the rotation of said gear-wheels in a reverse direction.

It will be observed that the casing A, which is located upon the case A′, is provided with glass sides. This admits of the check when retained in the chute a^8 being seen from both sides of the machine. As it is my purpose to stamp the same numbers upon opposite sides of the check, this feature becomes important, because then the customer and the cashier may at the same time see the value of the check which is being deposited. If desired, the sides of the chute a^8, near the upper end of the latter, may also be of glass; but this is not wholly essential.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a check-registering machine, the combination, with a case provided with a slot through which a check may be introduced, of a trip extending normally across said slot, a rock-bar upon which said trip is mounted, a pin or projection on said rock-bar, a vertically-movable carriage provided with a chute, into which the check will fall after passing said trip, a second rock-bar at the lower end of said chute adapted to be rocked to close the same and support the check, and a detent normally operating to prevent rotation of said second-named rock-bar, but released by said pin to admit of the rotation of the rock-bar, substantially as specified.

2. In a check-registering machine, the combination, with a case provided with a slot through which a check may be introduced, of a trip extending normally across said slot, a rock-bar upon which said trip is mounted, a vertically-movable carriage, and a lock for said rock-bar rendered operative and inoperative by said carriage during the movements of the latter, substantially as specified.

3. In a check-registering machine, the combination, with a case provided with a slot through which a check may be introduced, of a trip extending normally across said slot, a rock-bar upon which said trip is mounted, a pin or projection on said rock-bar, a vertically-movable carriage, and a projection extending upwardly from said carriage adapted when the carriage is moved downwardly to contact with said pin and rotate the rocking bar to restore the trip to its normal position after it has been moved out of the same by the insertion of the check, substantially as specified.

4. In a check-registering machine, the combination, with the case A, having the chute *a*, of the trip *a′*, rock-bar a^3, upon which said trip is mounted, and provided with the pin a^4, a movable carriage, the detent a^5, engaging said carriage, the link a^9, with which the trip a^5 is connected, the rock-bar a^{10}, also connected to said link, spring a^{11}, the rod a^{24}, and the lever *c*, all substantially as and for the purpose specified.

5. In a check-registering machine, the combination, with a carriage provided with a movable jaw, of a movable frame operating to move said jaw in one direction, a rocking bar or plate normally holding said movable

jaw against the resistance of said movable frame, and a cam acting on said rocking bar or plate, which cam when rotated will first release the bar or plate to permit the movable frame to force the movable jaw forward, and when further rotated will restore the rocking bar or plate, and consequently the movable jaw and movable frame, to their normal positions, substantially as specified.

6. In a check-registering machine, the combination, with a movable carriage, of a quadrant provided with a toothed rack and operated by the carriage, a train of registering-wheels, to which motion is transmitted by the quadrant, an arm connected with said quadrant, a shaft, and a cam on said shaft operating to rock said arm to restore the quadrant to its normal position, substantially as specified.

7. In a check-registering machine, the combination, with a movable carriage, of a quadrant provided with a toothed rack, a gear-segment, an arm on said segment, a pawl on said arm, a gear-wheel, a registering series operated through the gear-wheel, a stop adjacent to said pawl, an arm connected with said quadrant, a shaft, a cam on said shaft, and a spring-actuated presser-bar, all combined and arranged as and for the purpose set forth.

8. In a check-registering machine, the combination, with a case, of a frame within the case, a slideway on said frame extending to the outside of the case, a vertically-movable trip in said slideway, a crank, a projection on said crank adapted to contact with said trip when the same is down to prevent movement of the crank in one direction, a spring-actuated detent on the crank adapted when the crank is moved slightly in the other direction to raise the trip to admit of said projection passing beneath it, and another projection on said crank adapted to force said trip downward after the projection first named has passed beneath it, substantially as specified.

9. In a check-registering machine, the combination, with a case, of a frame within the case, a slideway on said frame extending to the outside of the case, a vertically-movable trip in said slideway, a crank, a projection on said crank adapted to contact with said trip when the same is down to prevent movement of the crank in one direction, a spring-actuated detent on the crank adapted when the crank is moved slightly in the other direction to raise the trip to admit of said projection passing beneath it, another projection on said crank adapted to force said trip downward after the projection first named has passed beneath it, and stops for preventing too-extended movements of the trip and detent, substantially as specified.

10. In a check-registering machine, the combination, with a case, of a shaft, a gear-wheel on said shaft, a stop-pawl, a lever, a locking-pawl moved by said lever in one direction, a spring operating to move said pawl and the lever in the other direction to cause the pawl to engage the gear-wheel, and a lock for securing the lever in the position into which it has been rocked to disengage the pawl from the gear-wheel, substantially as specified.

CHARLES ZALLUD.

Witnesses:
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