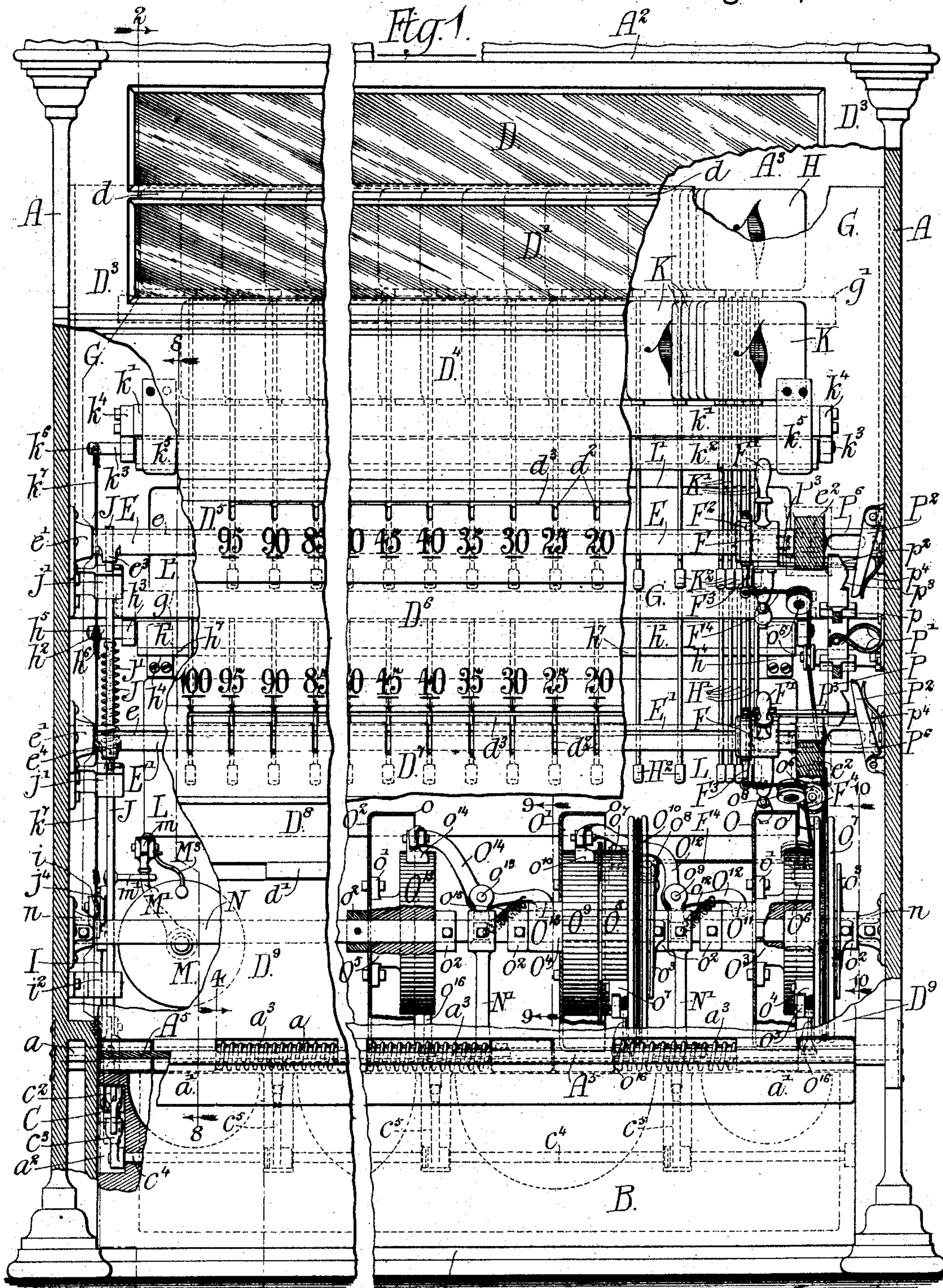


A. C. HANSEN.
CASH INDICATOR AND REGISTER.

No. 503,598.

Patented Aug. 22, 1893.



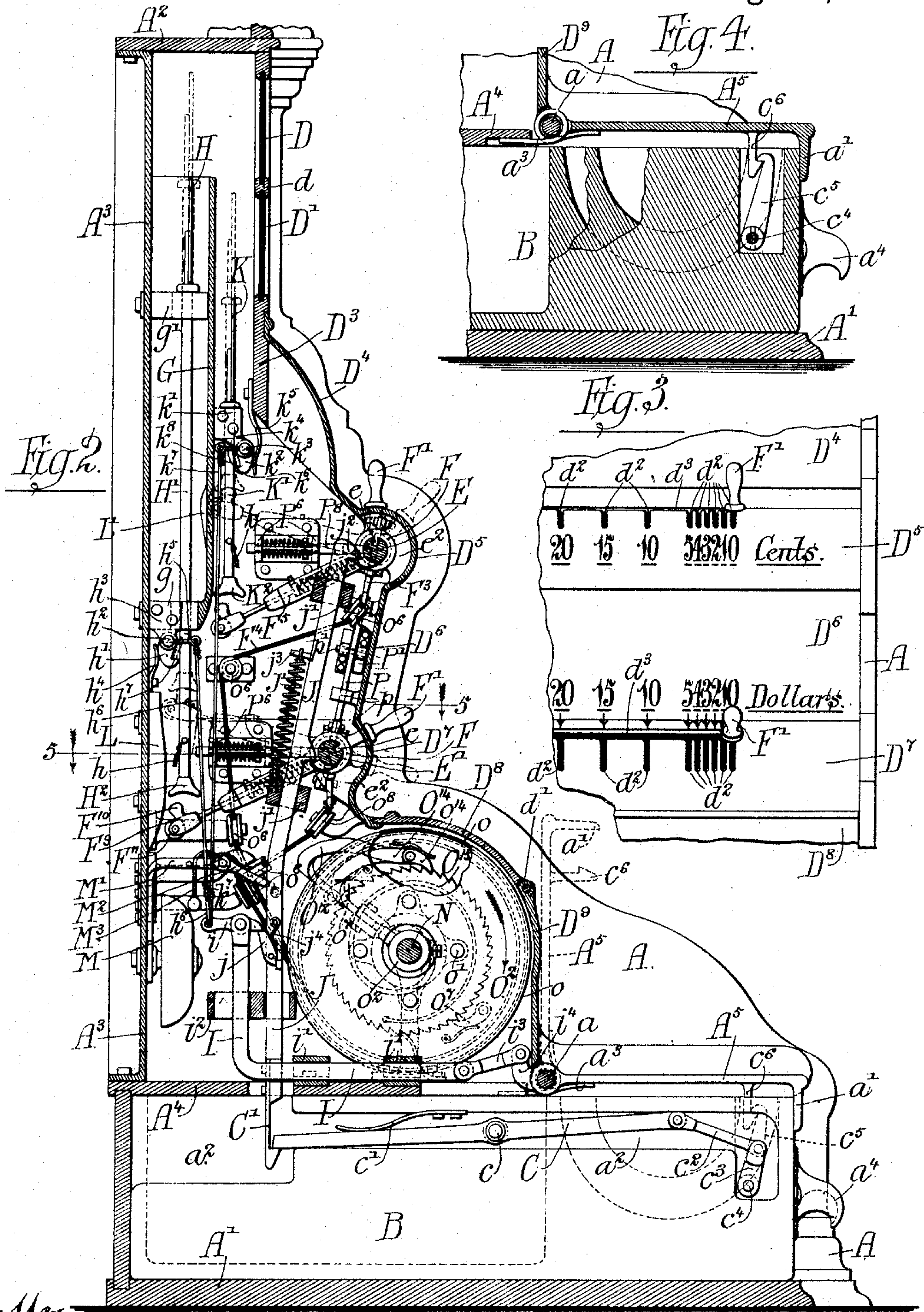
Witnesses:
Louis H. F. Whitehead.
Jno. L. Condron

Inventor:
Adolph C. Hansen.
By: Dayton, Peck & Brown
his Attorneys.

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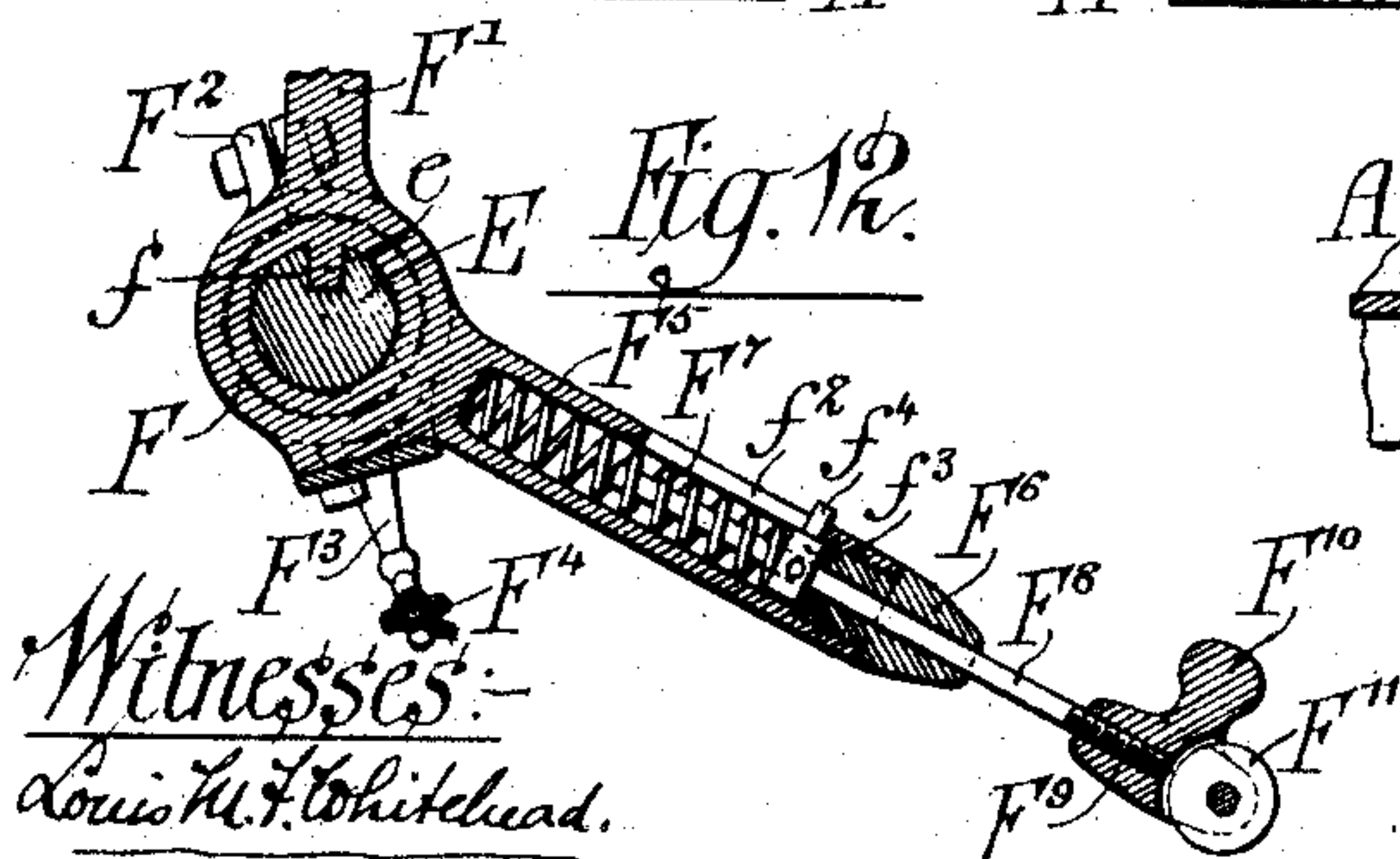
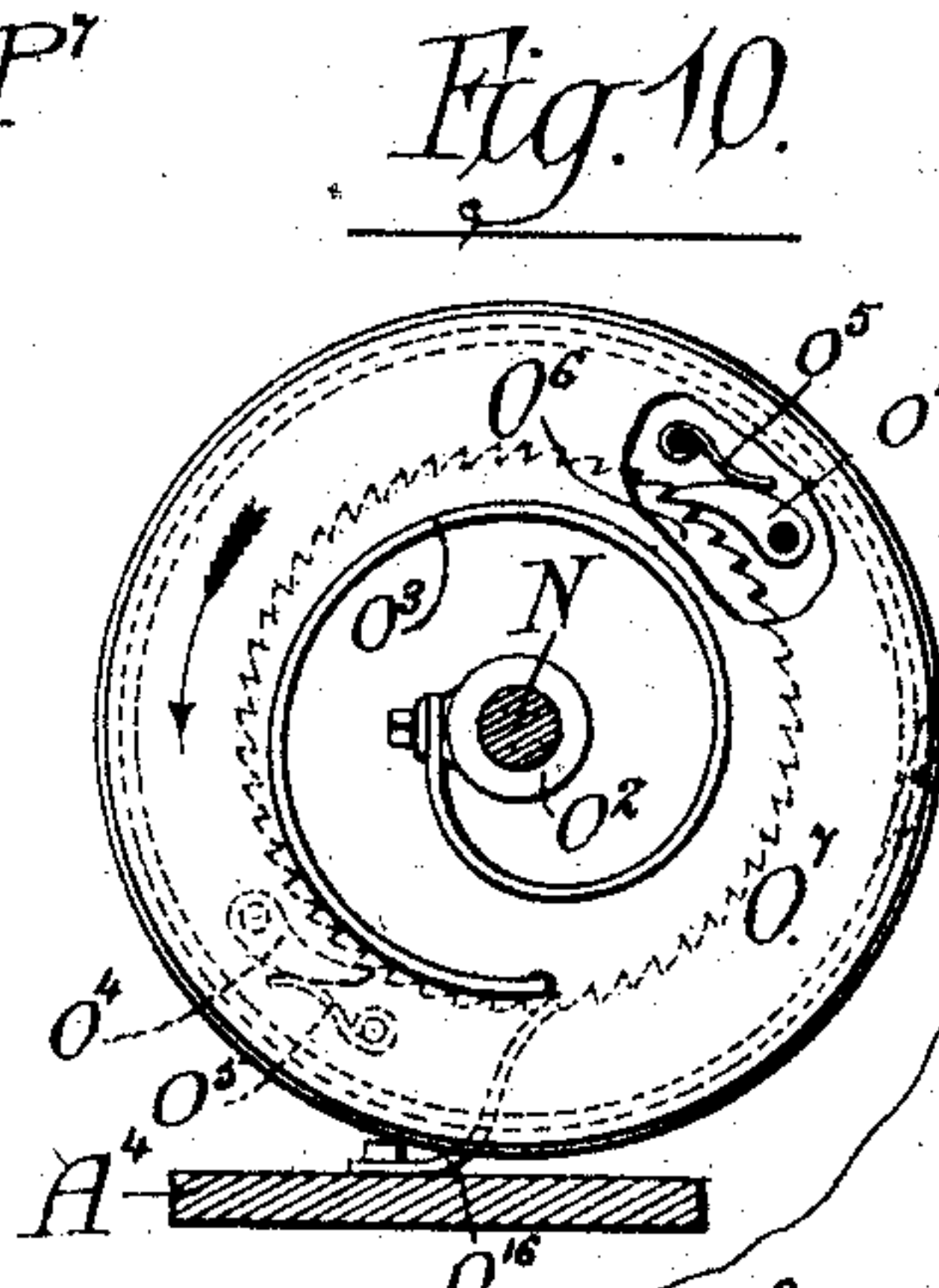
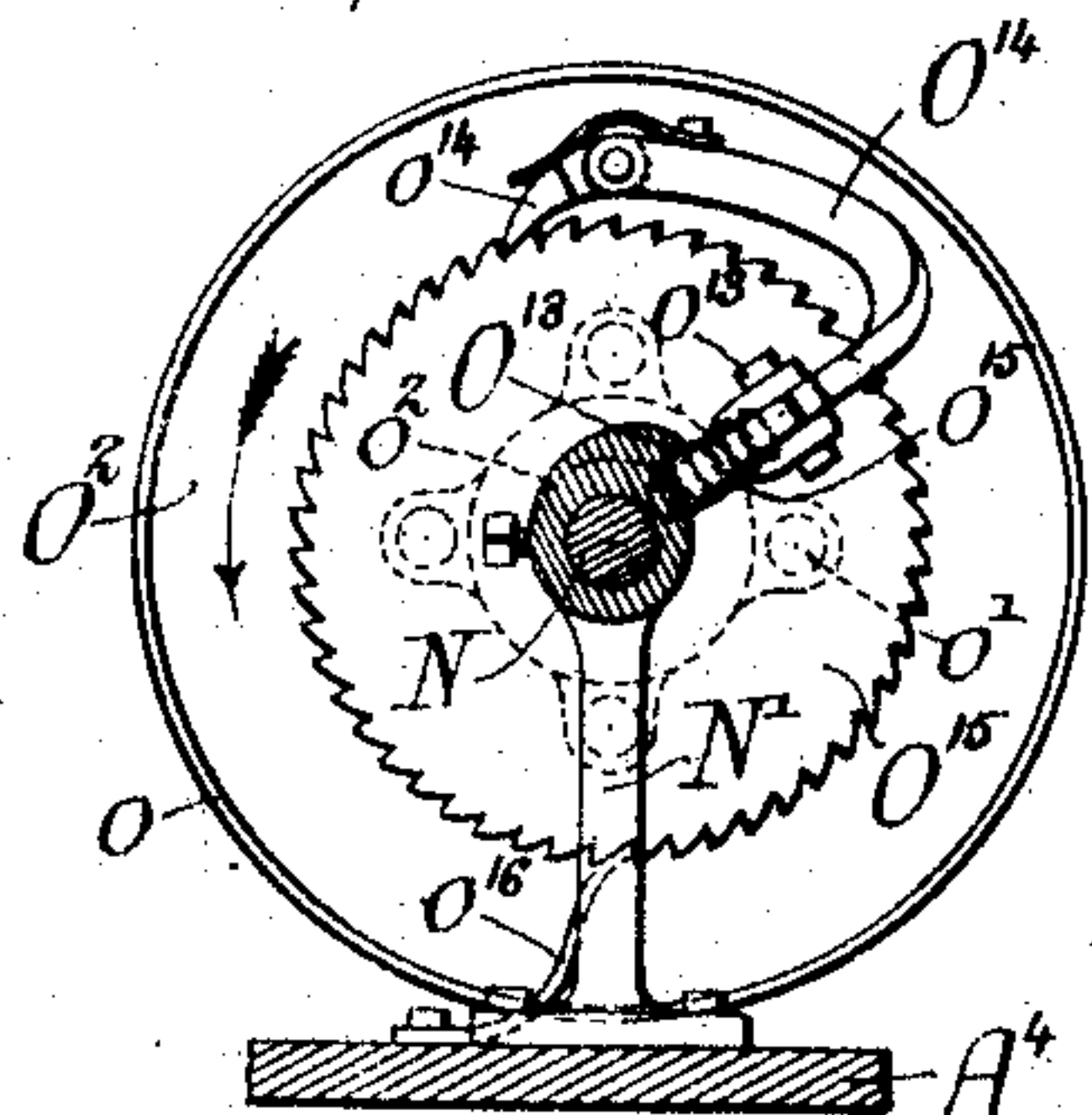
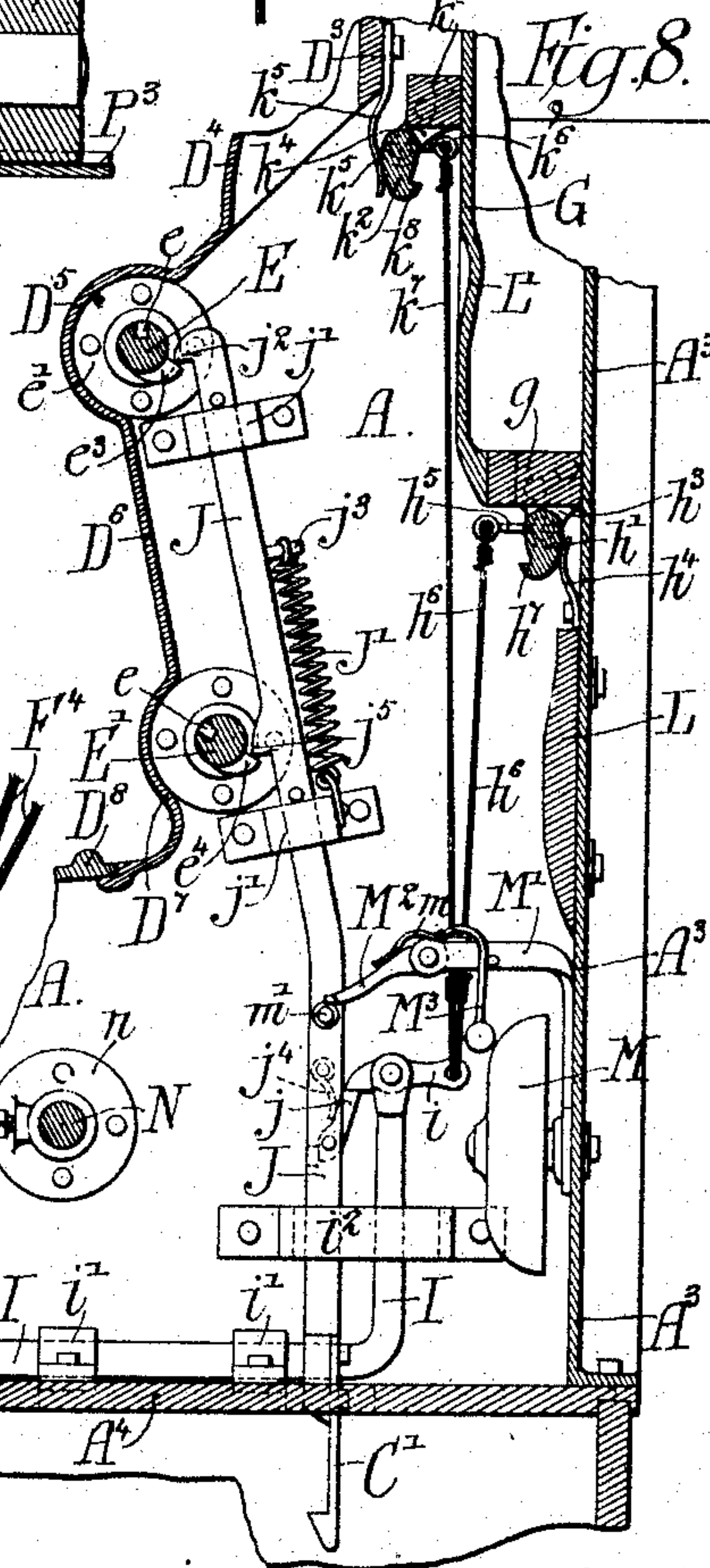
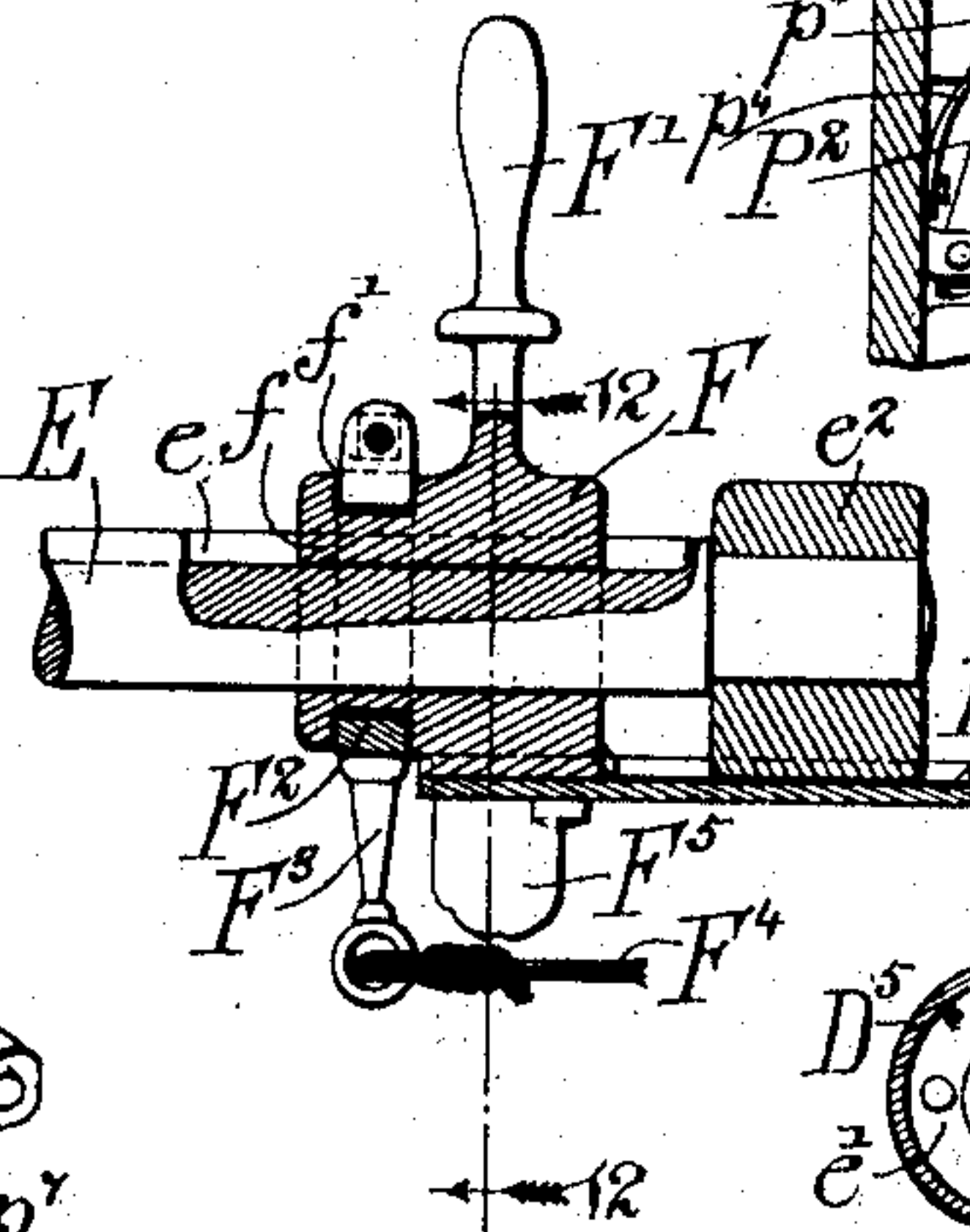
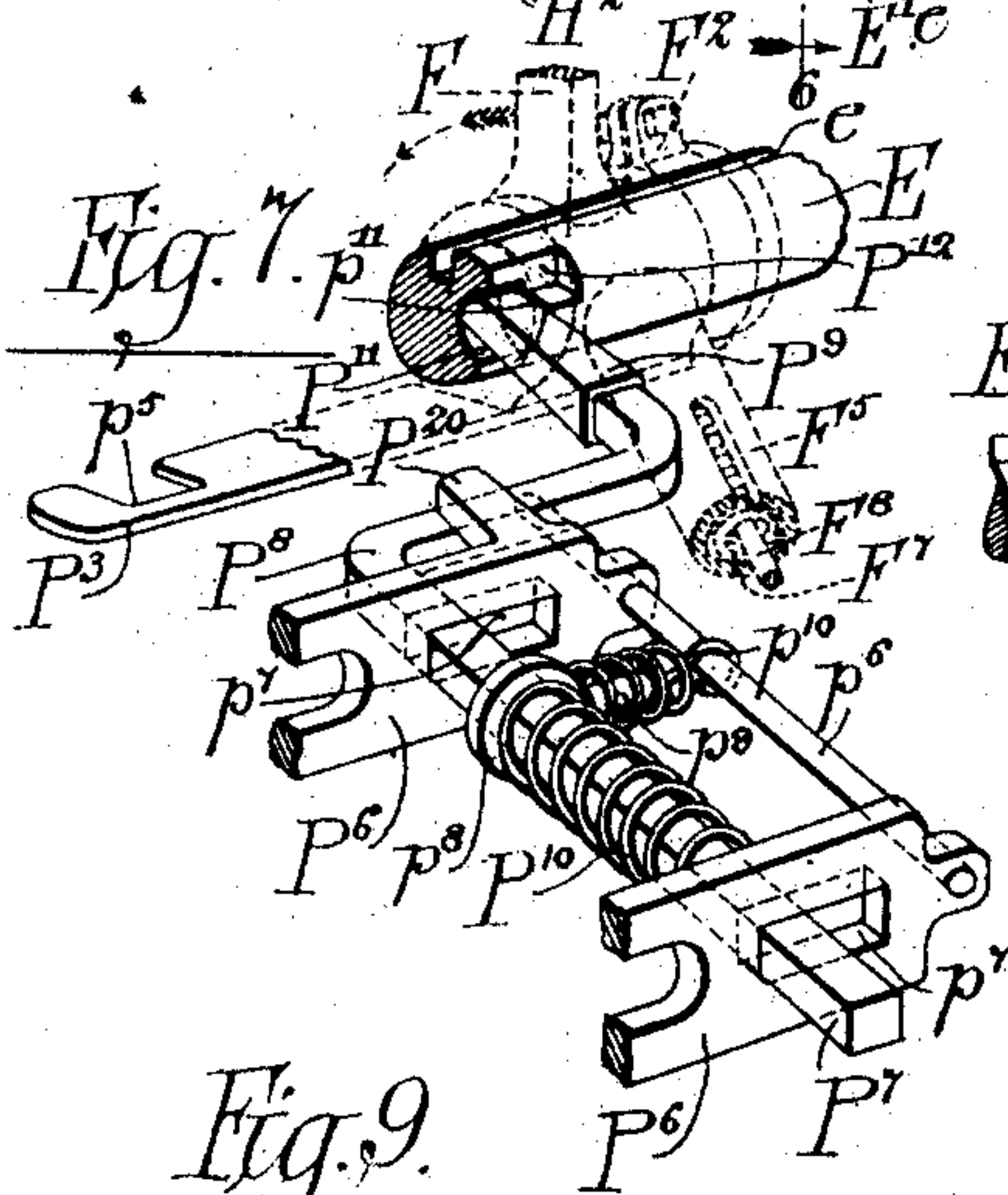
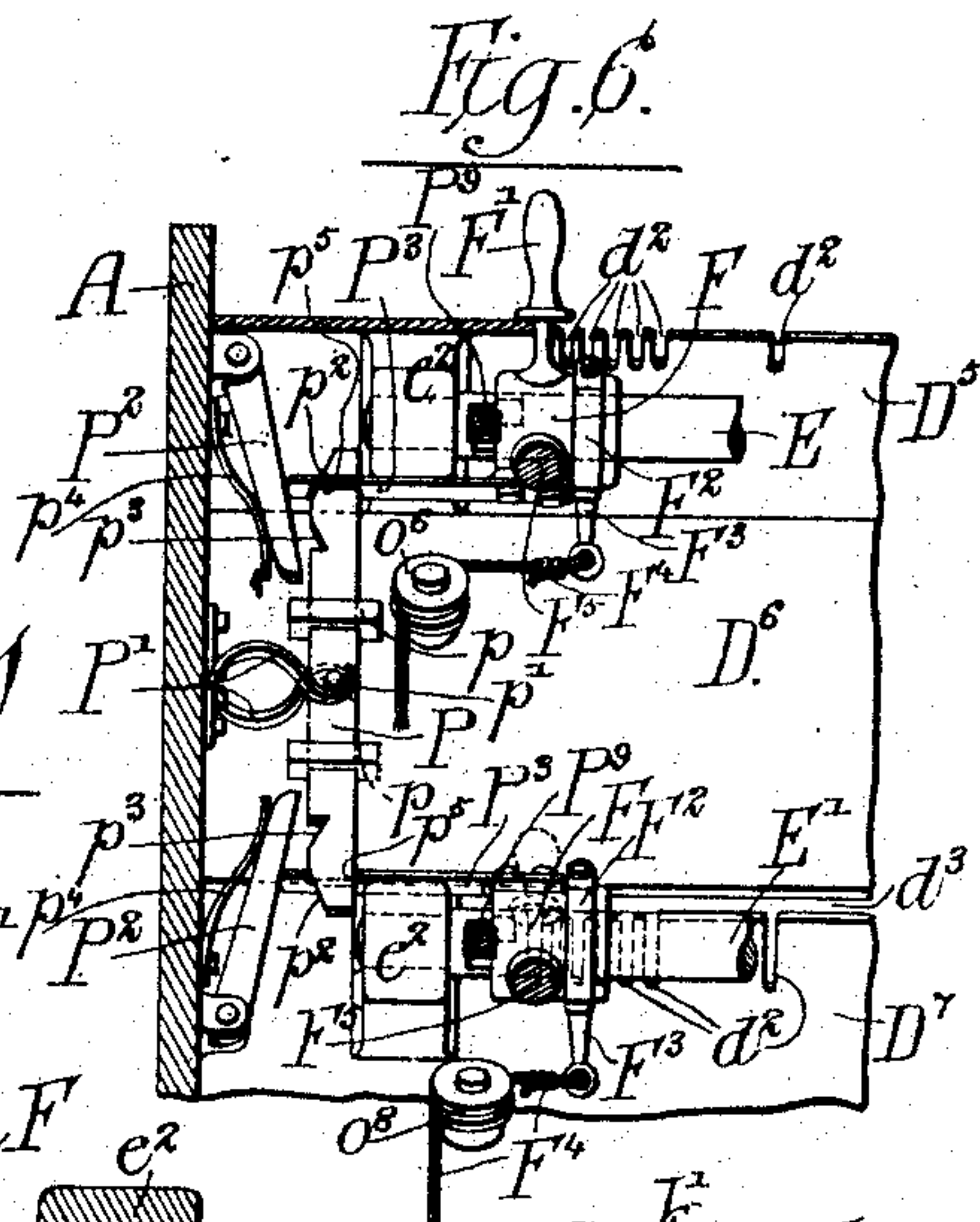
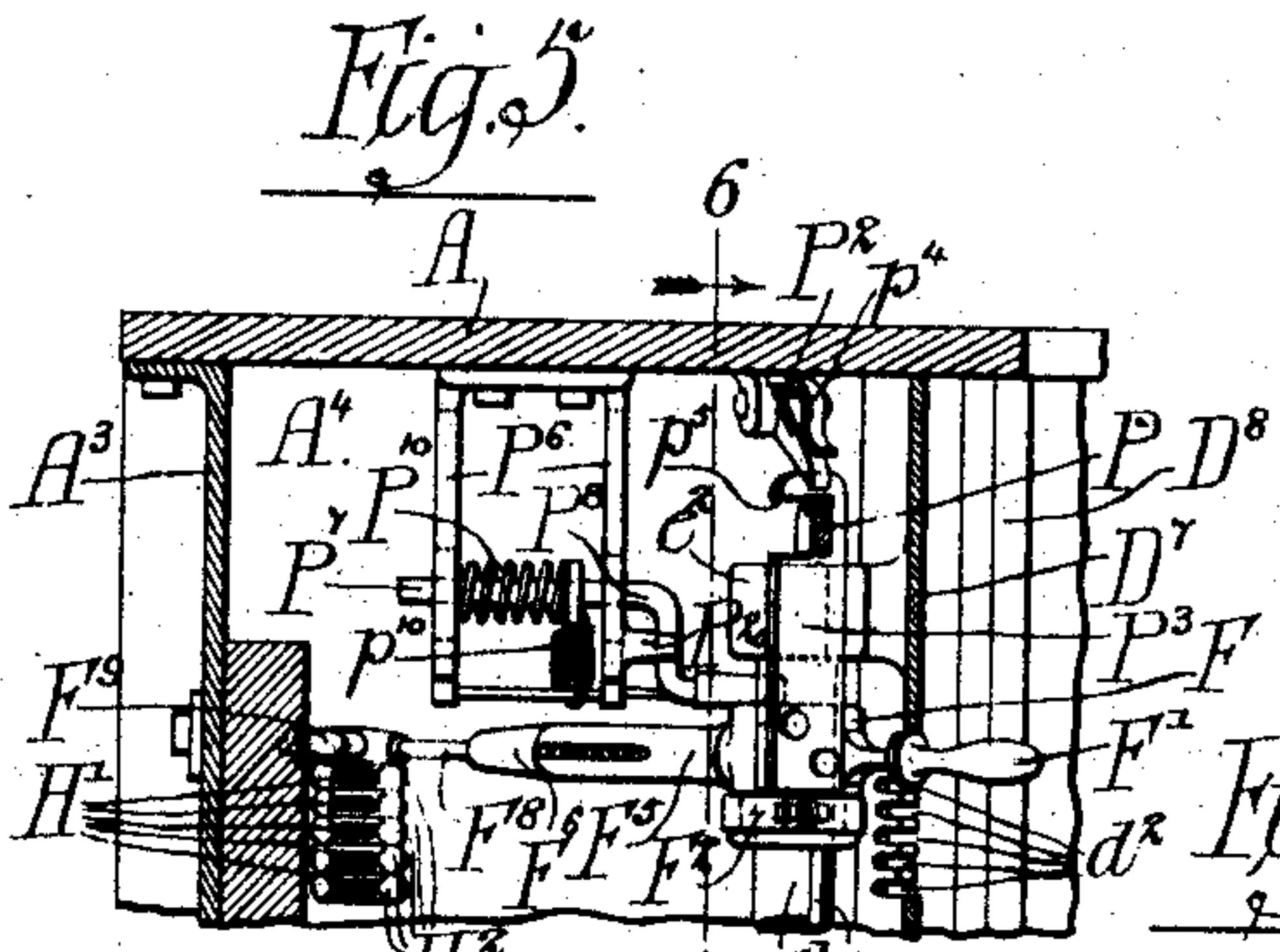
(No Model.)

4 Sheets—Sheet 3.

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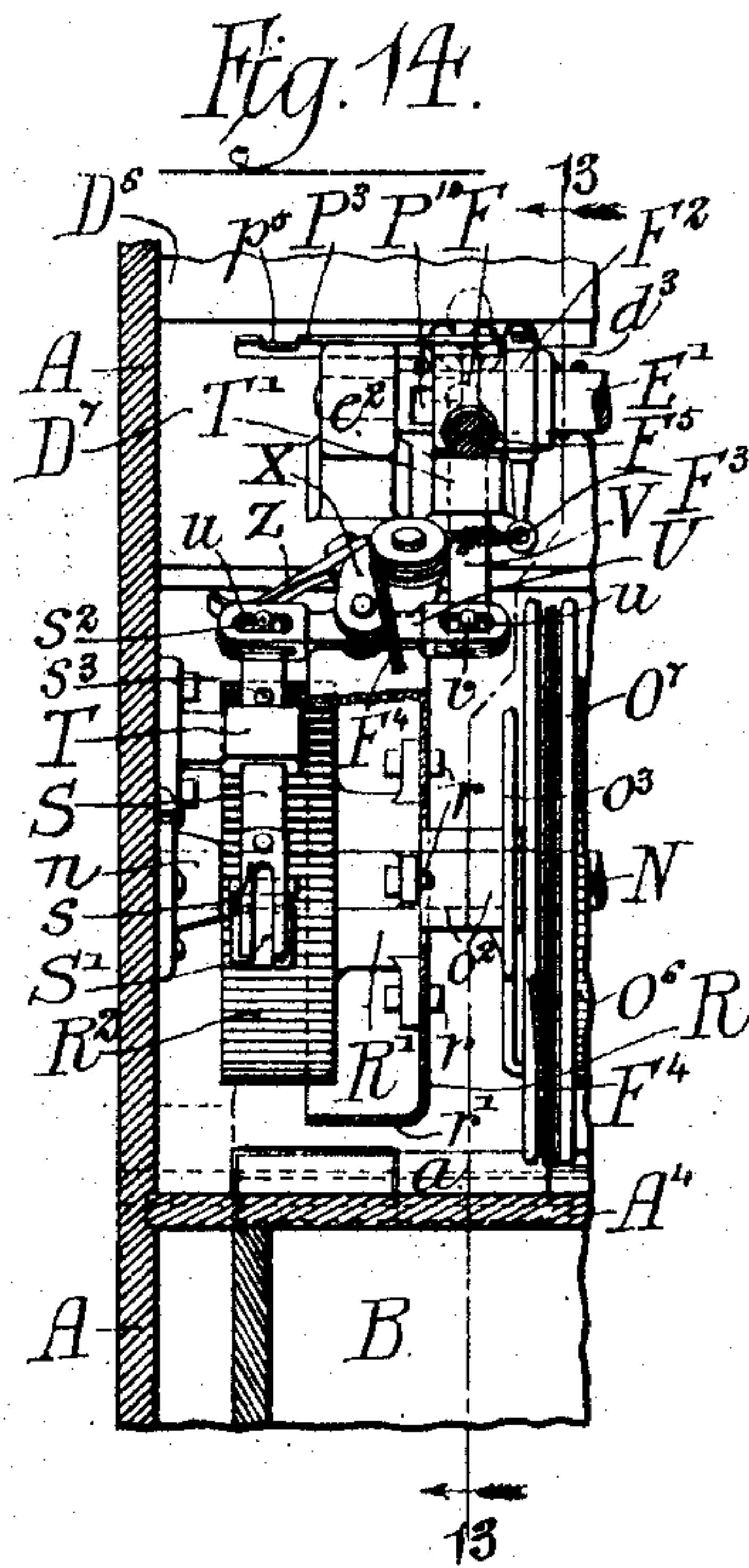
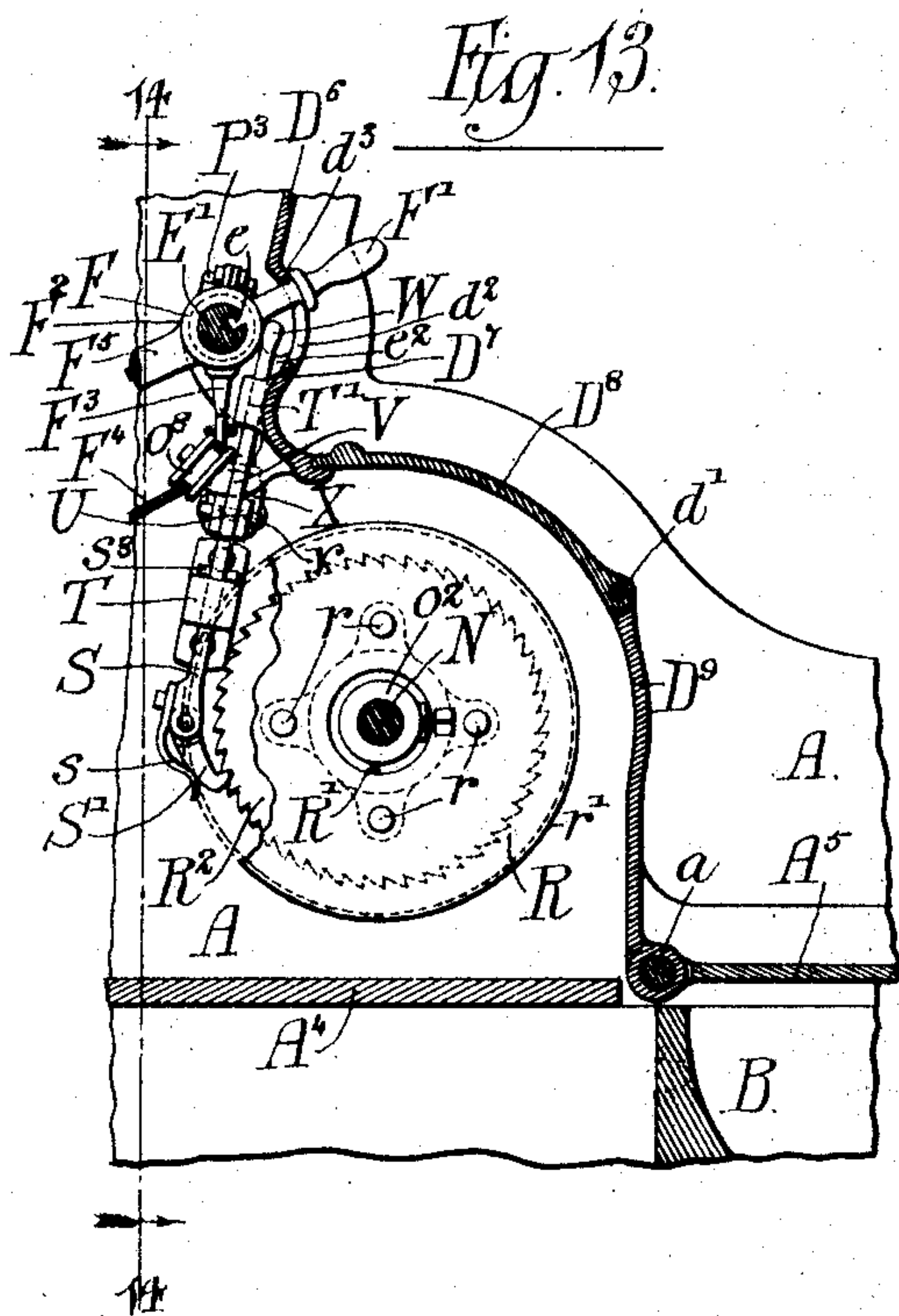
(No Model.)

4 Sheets—Sheet 4.

A. C. HANSEN.
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Patented Aug. 22, 1893.



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Louis H. F. Whithead.

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UNITED STATES PATENT OFFICE.

ADOLPH C. HANSEN, OF CHICAGO, ILLINOIS.

CASH INDICATOR AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 503,598, dated August 22, 1893.

Application filed November 26, 1892. Serial No. 453,187. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH C. HANSEN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Cash Indicators and Registers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference
10 marked thereon, which form a part of this specification.

This invention relates to machines for indicating to purchasers or customers the price of goods purchased, and also for automatically
15 keeping a current register of the amount of cash received from purchasers or customers.

The object of my invention is to produce a cash indicator and register which shall be simple in construction and easy to manipulate, and which shall be accurate and reliable
20 in its operation.

My invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and
25 claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

30 Figure 1 is a view, principally in front elevation, of a machine embodying my invention; the mechanism being shown as partly broken away in a transverse vertical plane, and also as having its front partly removed to expose
35 certain interior parts. Fig. 2 is a transverse vertical section of the machine, taken on the line 2—2 of Fig. 1; the direction of view being toward the right. Fig. 3 is an enlarged view of a detached fragment of the front of
40 the machine, and showing the actuating handles in their normal positions. Fig. 4 is an enlarged view of the machine, in irregular transverse vertical section on the line 4—4 of Fig. 1; the direction of view being to the right.
45 Fig. 5 is an irregular horizontal section of the machine, taken on the line 5—5 of Fig. 2, the direction of view being downward. Fig. 6 is a transverse vertical section of the parts shown in Fig. 5, the section being taken on the line
50 6—6 of Fig. 5 and the direction of view being toward the front of the machine. Fig. 7 is an enlarged perspective view of one of the rock-

shaft locking-mechanisms, in detached condition. Fig. 8 is an irregular transverse vertical section of the machine, taken on the line 8—8 of Fig. 1; the direction of view being toward the left. Fig. 9 is a transverse vertical section of a portion of the machine, taken on the line 9—9 of Fig. 1; the direction of view being to the left. Fig. 10 is a transverse vertical section of a portion of the machine, taken on the line 10—10 of Fig. 1; the direction of view being to the left. Fig. 11 is an enlarged vertical longitudinal section of a portion of the machine. Fig. 12
55 is a transverse vertical section of the parts shown in Fig. 11, and taken on the line 12—12 of said Fig. 11. Fig. 13 is an enlarged view, in transverse vertical section, of a modified set of attachments for the registering mechanism; the section being taken on the line 13—13 of Fig. 14. Fig. 14 is a view, partly in rear elevation and partly in vertical longitudinal section, of the parts shown in Fig. 13; the section being taken on the line 14—14
60 of said Fig. 13, and the direction of view being toward the front of the machine.

In the said drawings A, A, designate the two side or end portions of the inclosing casing or housing of the machine; A' being the
55 bottom of said casing or housing, A² the top thereof, and A³ the back of said casing. Excepting in the respects hereinafter particularly specified, this casing or housing may be of any desired form or type of construction; consideration being given to particular exigencies of space available for the machine, the kind of business in connection with which the machine is to be used, and the more or less ornamental character of the casing
65 necessitated by the kind of fixtures or appurtenances of the business. The form of casing or housing shown in the drawings is, however, that which is found most suitable generally for the proper reception of the operative parts of the machine, as well as for general business purposes. As shown, the casing or housing is proportionately shallow from front to rear, at its upper portion, as compared to its width, or dimensions from
70 side to side. The casing or housing is shown as successively increased in depth downwardly, by two principal forward protrusions of its front, one of such protrusions being

about midway of the height of the casing and the other at and just above the base of said casing, and the front edges of the side pieces A being correspondingly protruded forward preferably by ornamental curvatures. This form of casing provides effectively for the reception in the lower part of the casing of a money-drawer or till B which is adapted to be moved forwardly and backwardly upon the bottom A' of the casing or housing and which is shown as interposed between the bottom A' and a horizontal partition A⁴ which is located at such a distance above the bottom A' as to lie immediately above the drawer or till B. To the front margin of this partition A⁴—which does not extend to the front of the lower part of the casing or housing—is connected, by a suitable hinge-joint, as at *a*, a lid or cover A⁵; this lid or cover normally extending horizontally forward and closing the top of the front end of the till or drawer B, when the latter is in its innermost or closed position. At its front edge this lid or cover is provided with a pendent flange *a'* which, when the drawer or till B is closed, and the lid A⁵ lowered, overlies the front of the drawer and thus prevents said drawer from being opened or drawn outward until the lid A⁵ has been raised. When so closed, the drawer or till B is locked by attachments which also lock the lid A⁵ in its closed position, and which are constructed and arranged as follows: In the outer surface of the left hand side of the drawer or till B is formed a longitudinal or horizontal recess *a*², within which is located a lever C, pivoted intermediately of its ends, as at *c*, to the side of the drawer or till. The rear or inner end of this lever engages at times with a pendent catch-hook C' which is connected with and actuated by certain parts of the operative mechanism of the machine, as hereinafter more fully explained; the rear end of the lever C being pressed downward into engagement with the lower end of the catch-hook C' by a suitable spring *c'* which is shown as a leaf spring but which may be of any form, adapted to exert downward pressure or tension upon the rear end of the lever C. As shown, the spring *c'* is secured at one end to the upper margin of the recess *a*² and presses at its opposite end upon the rear portion of the lever C. With the front end of the lever C is connected one end of a link *c*² the opposite end of which is connected with the outer extremity of a rock-arm *c*³; this rock-arm being carried at the adjacent end of a horizontal rock-shaft *c*⁴. This rock-shaft extends within the front part of the drawer or till B, its ends having bearings in the sides of the drawer, and said shaft carries, at points between its ends, three or any suitable number of upwardly extending catch-arms *c*⁵. Each of these catch-arms *c*⁵ is hooked at its upper end to engage the hooked lower end of one of a corresponding number of fixed catch-arms *c*⁶ which are pendent from the under side of the lid or cover A⁵. It will thus be seen that

the pressure of the spring *c'* holds the front or outer end of the lever C elevated, and consequently, through the link *c*² and rock-arm *c*³, said lever holds the rock-shaft *c*⁴ in such position as to retain the hooked upper ends of the catch-arms *c*⁵ into engagement with the hooked lower ends of the pendent catch-arms *c*⁶, and thus retains the drawer B and lid A⁵ locked in closed position. A suitable number (three, or more, or less) of springs *a*³ are coiled about the pintle-rod of the hinged connection *a* of the lid A⁵, one end of each spring pressing upward against the partition A⁴, and the other end of each spring pressing upward against the lid A⁵ so as to exert a lifting pressure against said lid. When, therefore, the hooked catch C' is moved upward, by the mechanism to be hereinafter described, it raises the inner end of the lever C, against the pressure of the spring *c'*, depressing the outer end of said lever, and, through the link *c*² and rock-arm *c*³, rocking the shaft *c*⁴ so as to move the catch-arms *c*⁵ out of engagement with the catch-arms *c*⁶ of the lid A⁵, and permitting the springs *a*³ to raise said lid. The raising of the lid A⁵ frees the flange *a'* from engagement with the front of the drawer B, so that said drawer may be moved outward, either by the operator grasping a handle *a*⁴ on the drawer, or in any other preferred manner. As the drawer B is thus moved outward, the rear end of the lever C is carried with it, out of engagement with the hooked lower end of the catch C', and when the drawer is again moved inward, the rear end of the lever C is again engaged with the catch C'. It is to be understood that, in the ordinary use of the machine, the drawer or till B is not intended to be pulled outward; the raising of the lid A⁵ by its springs *a*³ affording sufficient access to the drawer or till B for depositing money in said drawer and for removing money therefrom.

In the upper part D³ of the front of the casing or housing are formed two elongated horizontal openings D, D', which are located the one above the other, and separated from each other by horizontal cross-piece or bead *d*, and which are preferably filled with panes of glass or other transparent material, through which the tablets bearing numbers or price-inscriptions can be seen, when said tablets are lifted, and brought opposite the openings, as hereinafter explained. To the upper portion D³ of the casing-front is secured also a closed convex portion D⁴ which extends downward a suitable distance and which is united to a semicircular portion D⁵ which at its lower portion merges into a flat portion D⁶. The lower part of the flat portion D⁶ merges into a second semicircular portion D⁷. Against the lower margin of this portion D⁷ normally rests a door D⁸ which is hinged, as at *d'*, to the upper edge of a bottom portion D⁹ of the casing-front; this door D⁸, when opened, permitting inspection of the registering dials to be hereinafter described. The front of the

casing or housing is preferably in the form of a strong casting having the semicircular portions D^5 and D^7 cast therein, and having also cast therein the portions D^4 , D^6 , or other similar portions intervening between the semicircular portions, as the particular form of the casing or housing may demand. The semicircular portions D^5 , D^7 , are each formed with a number of short vertical slots d^2 extending in a row horizontally across the front of the casing and designated by numerals, as shown, from "0" to "95" and from "0" to "100" respectively. That is to say, the slots d^2 of the upper portion D^5 are designated from "0" to "95," and these numerals indicate cents, while the slots of the portion D^7 are designated from "0" to "100," these latter numerals indicating dollars; the series of numerals beginning in each instance at the right and progressing toward the left. At their upper ends each set of slots d^2 open into a longitudinal horizontal slot d^3 , as shown, and for a purpose to be hereinafter explained.

E and E' designate two horizontal rock-shafts which are mounted within the casing or housing of the machine, the shaft E being located just back of the upper semicylindrical portion D^5 of the casing-front and the shaft E' being located just back of the lower semicylindrical portion D^7 of said front. Each of these shafts is formed with a longitudinal groove e extending continuously from one end of the shaft to the other end thereof, and at one end each shaft is inserted into one of two bearing-sockets e' , secured to the inner surface of the corresponding side piece A of the casing. The opposite end of each shaft E or E', from that which is inserted into the bearing-socket e' is inserted into one of two bearing-brackets e^2 , near the opposite side-piece A of the casing. The two shafts E and E' are thus placed parallel with each other, the former above the latter, and are both capable of being oscillated axially in their bearings e' , e^2 . Upon each of these shafts is mounted a sleeve F which surrounds the shaft in such manner as to be movable longitudinally of the same, and which is provided with an inwardly extending rib or feather f which works within the groove or spline e of the shaft in such manner as to prevent the sleeve from being rotated upon the shaft independently thereof, while permitting the shaft to rotate with the sleeve. Each of the sleeves F carries a rigid handle or arm F' which projects radially outward from the sleeve and which also normally extends obliquely upward and outward through the corresponding horizontal slot d^3 above referred to. At one end, each of the sleeves F is provided with a transverse circular and external groove f' within which lies loosely a strap or split ring F^2 ; said ring carrying a downwardly extending radial arm F^3 , to the outer end of which is connected a cord or similar flexible device F^4 , for a purpose to be hereinafter explained. Each sleeve F is furthermore provided with a tubular arm F^5

(Fig. 12) which extends radially backward and downward from the sleeve and which is provided at one side with a longitudinal slot f^2 . The outer end of this tubular arm F^5 is shown as internally screw-threaded to receive a plug or head F^6 , and within said tubular arm is located a spiral spring F^7 . A rod F^8 is inserted into the tubular arm F^5 and also works loosely through the head or plug F^6 thereof, said rod being surrounded, within the arm F^5 , by the spring F^7 , and carrying a collar f^3 against which the said spring F^7 presses, so as to force the rod F^8 outward. This outward projection of the rod F^8 is limited by the engagement of a stud f^4 , carried by the collar f^3 , with the outer end of the slot f^2 ; the said stud f^4 projecting radially outward from the collar f^3 and through the slot f^2 . At its outer end, each rod F^8 carries a head F^9 which may be screwed upon the end of the rod, as shown, or otherwise secured thereto, and which is formed with a knob F^{10} projecting upwardly at right angles from the body-portion of the head. The head F^9 also carries an anti-friction wheel or roller F^{11} which is shown as mounted in the head at a point opposite the point of connection of the head with the rod F^8 . The purposes of these parts, just described, will also be hereinafter explained.

Within the upper part of the casing or housing of the machine, is located a closed vertical partition G which extends from side to side of the casing or housing, and the upper edge of which lies parallel with and in the same plane as the bar or bead d . One of the principal functions of this partition G is to conceal the dollar-tablets from view, when said tablets are not in use, and for this purpose the body-portion of the partition G is located a sufficient distance from the back A^3 of the machine-casing to receive the dollar-tablets H, and their supporting slide-rods H', as is clearly shown in Fig. 2. At its lower portion, the partition G is extended backward, as at g , and is bolted, or otherwise suitably secured to the back A^3 of the casing; this backward extending portion g serving also as the guide for the lower portions of the tablet-supporting slide-rods H'. Near its upper edge, the partition G is also connected with the back A^3 by a horizontal bracket g' which intervenes between the partition and the back of the casing and through which also extend, loosely, the upper portions of the tablet-supporting slide-rods H'; the bracket g' thus serving also as an additional guide to the movements of the slide-rods H'. The dollar-tablets H are of the usual rectangular form, or of any other suitable form; each tablet bearing upon its face a numeral indicative of a purchase-price, and the tablets being shown as arranged with their numerals in increasing sequence from right to left, beginning at the right with "0" and ending at the left with "100." These tablets are each secured upon the upper end of one of the supporting

slide-rods H' , and at its lower end each rod carries a head H^2 which is preferably concave on its under side, and with which the knob F^{10} of the head F^9 , carried by the corresponding rod F^8 , engages at times, so as to raise the slide-rod H' . Each slide-rod H' also carries, at a point somewhat above its lower end, a downwardly and rearwardly extending spring-catch h , which spring-catches, when the slide-rods H' are raised, engage the hooked lower edge or margin of a pendent pivotal catch plate or bar h' ; the engagement of each catch-spring h with the bar h' serving to retain the corresponding slide-bar H' and its tablet II in elevated position until the catch-bar is swung backward, as hereinafter described. The catch-bar h' extends horizontally across the machine-casing, from near one side to near the opposite side thereof, and is shown as provided at its ends with outwardly extending trunnions h^2 having bearings in supporting-brackets h^3 ; these brackets being located near to the side-pieces A of the machine-casing, and the arrangement being such that the catch-plate depends from its trunnions h^2 so as to be freely pivotal thereon. This catch-bar h' is normally pressed forward by two or any suitable number of springs h^4 , shown as leaf-springs, and the trunnion h^2 at the left hand end of the catch-plate, carries a forwardly extending radial rock-arm h^5 to which is connected the upper end of a cord h^6 , or a similar flexible connection. This flexible connection extends downward within the machine-casing and is connected at its lower end with the rear end of a trip-arm or dog i which is pivoted intermediately of its ends at the upper or inner extremity of an L-shaped bar I . One arm of this bar I extends horizontally forward upon the horizontal partition A^4 , previously described, and the other arm extends vertically upward within the casing of the machine; the dog i being carried at the upper end of this vertical arm, and the horizontal arm working through guides i' upon the partition A^4 , while the vertical arm works through a guide-bracket i^2 which projects inwardly from the corresponding side-piece A of the machine-casing. The front extremity of the bar I is connected by a link i^3 with a rearward arm or extension i^4 of the lid A^5 . The front end or tip of the dog i , engages, at times, with a trip-arm j which is pivoted upon the lower part of an approximately vertical bar J , which carries at its lower end the catch-hook C' above referred to and described; this bar J being vertically movable through the guide-bracket i^2 , and also through guide-brackets j' projecting inward from the corresponding side-piece A of the machine-casing, at points above the guide-bracket i^2 . At its upper end, the bar J is provided with a hook j^2 which is engaged, at times, by a radial spur e^3 (Fig. 8) at the corresponding end of the shaft E . The bar J is retained normally at the lower limit of its movement by a spiral spring J' the

lower end of which is shown as connected to the lower guide-bracket j' and the upper end to a stud j^3 projecting rearwardly from the bar J . The trip-arm j extends upward from its point of pivotal connection with the bar J and is pressed rearward by the leaf-spring j^4 secured to an adjacent part of the bar. The arrangement is such that when the shaft E is rocked forward, by depressing the handle F' into one or another of the slots d^2 , the spur e^3 shall move upwardly, engaging the hooked upper end j^2 of the bar J so as to elevate said bar. This elevation of the bar J causes the catch-hook C' to actuate the till and lid locking-mechanism so as to unlock the same, as above described, and also lifts the trip-arm j upward past the dog i ; depressing the rear end of the dog and pulling downward upon the cord h^6 so as to tilt the catch-bar h' rearward. This rearward tilting of the catch-bar h' releases its hooked margin h' from the engagement with the spring-catch h of the slide-rod H' which has been previously raised and permits said slide-rod to drop by gravity, so as to conceal its tablet II ; a tablet bearing the required price mark being simultaneously elevated and exposed as hereinafter explained. The vertically movable bar J is also provided with a lateral offset or lug j^5 , at its front edge, (Fig. 8) and some considerable distance below its upper end, which offset or lug is engaged, at times, by a spur or stud e^4 which is carried by the corresponding end of the lower rock-shaft E' . The arrangement is such that when the lever or handle F' of the rock-shaft E' is depressed, the spur e^4 shall rise, engaging the lug j^5 and elevating the bar J and causing the trip j to tilt the dog i , as before, and consequently to move the catch-bar h' backward so as to release that tablet supporting slide-rod which had been previously elevated, and allowing said slide-rod to descend by gravity, as previously explained. K' designates a second series of vertical tablet-supporting slide-rods which are arranged side by side in front of the vertical partition G and which carry each at its upper end a tablet K of rectangular or other suitable form; each of said tablets K bearing upon its face a numeral indicating cents. The cents-numerals commence with "0" and end with "95" and are shown as arranged in a successively increasing series from the right toward the left. Each slide-rod K' is shown as working loosely through a guide-bracket k' secured to the vertical partition G , and, at its lower end, each of said slide-rods carries a head K^2 which is similar in form and purpose to the heads H^2 upon the slide-rods H' . At a point somewhat above its head K^2 , each slide-rod K' carries a spring-catch k which is similar in form and purpose to the spring-catches h of the slide-rods H' , but which extends obliquely downward and forward, instead of downward and rearward, as do the spring-catches h . These spring-catches k are arranged to engage the hooked lower margin

of a pendent pivotal catch-bar k^2 which extends horizontally from side to side of the machine-casing and which is similar in form and purpose to the catch-bar h' above described. At its ends, the catch-bar k^2 is formed with outwardly extending trunnions k^3 which are inserted loosely into bearings k^4 pendent from the guide-brackets k' . The catch-bar k^2 is normally pressed upon rearwardly by two, or any other suitable number of leaf-springs k^5 which are shown as secured to the inner side of the lower part of the portion D^3 of the casing-front. The trunnion k^3 at the left hand end of the catch-bar k^2 is shown as provided with a rearwardly extending radial rock-arm k^6 with which is connected the upper end of the cord k^7 , or a similar flexible connection; this cord extending downward and being attached at its lower end to the rear end of the dog i , before described. It will thus be seen that when the trip-arm j depresses the rear end of the dog i , as the bar J rises, said dog will pull downward upon the cord k^7 and rock the catch-bar k^2 so as to disengage the hooked lower edge k^8 of the bar from the spring-catch k of that slide-rod K' which had been previously elevated; thus permitting said slide-rod to descend by gravity, and so conceal its price-tablet.

The sleeve F which surrounds the upper rock-shaft E carries a rearwardly extending tubular arm F^5 having an internal rod F^8 , pressed outward by a spring F^7 and carrying a head F^9 which is provided with a knob F^{10} to engage the head K^2 of the corresponding slide-rod K' , all as previously described; said head F^9 also carrying an antifriction wheel or roller F^{11} , as before. It is to be understood that when either the upper or lower sleeve F is rocked by the depression of the upper or lower lever F' , the upper or lower tubular arm F^5 is raised, so as to bring the knob F^{10} into contact with the head H^2 or K^2 of the corresponding slide-rod H' or K' , so as to raise said slide-rod, as above described.

In order to so direct or guide the heads F^9 as to maintain the contact between their knobs F^{10} and the heads H^2 and K^2 , throughout the entire extent of the lifting movements of the slide-rods H' or K' , the following attachments are provided: L (Figs. 2 and 8), designates a bearing-plate which is bolted or otherwise secured to the back A^3 of the machine-casing adjacent to the lower ends of the slide-rods H' and which extends horizontally from near one side to near the other side of said casing; the lower part of said bearing-plate being inclined upward and forward and its middle part being flat and vertical, while its upper part is inclined upward and rearward. As the lower tubular arm F^5 rises, in consequence of the depression of the lower handle F' , the wheel or roller F^{11} of the arm F^5 comes into contact with the convex surface L and travels vertically upward and over said surface, so as to move in a practically straight path,

and so, therefore, as to carry the knob F^{10} in such straight path; the knob thus being maintained in contact with the head H^2 throughout the entire vertical movement of the head F^9 . In order to similarly direct the upward movement of the head F^9 of the upper tubular arm F^5 , the lower part of the vertical partition G is formed with a guiding surface L' (Fig. 8) which extends from near one side of the partition to near the opposite side of the same; the lower portion of this guiding surface extending obliquely upward and forward, and its middle portion extending vertically upward, while the upper portion of said bearing surface is recessed in the partition and extends upward and rearward. The wheel or roller F^{11} of the upper tubular arm travels upwardly upon the bearing-surface L' and so causes the knob F^{10} to remain in contact with the head K^2 of the particular slide-rod K' which is being acted upon at the time. The inclinations of the bearing-plate L and bearing-surface L' are such that, as the tubular arms F^5 move upward, the rods F^8 are first forced forward into the tubular arms, so as to compress the springs F^7 , and lastly so as to permit the springs F^7 to expand and force the rods F^8 rearward or outward from the arms F^5 .

As each tablet H or K is elevated into view, the intention is that the machine shall automatically sound an audible signal, such as a gong, so as to attract the attention of the customer or purchaser to the purchase-price indicated by the exposed tablet or tablets and, for accomplishing this object, the following devices are provided: M designates a gong which is suitably secured to the back A^3 of the machine-casing, near the lower left hand corner thereof, and M' designates a bracket-arm which is also secured to the casing-back A^3 so as to extend, at its upper portion, horizontally forward above the gong M . To the outer end of the upper part of the bracket-arm M' is pivotally connected a trip-arm M^2 which extends forwardly from the bracket-arm M' and which carries a downwardly and rearwardly extending clapper-arm M^3 having a suitable clapper at its lower end. The front end of the trip-arm M^2 is shown as pressed downwardly by a leaf-spring m , which is secured to the upper part of the bracket-arm M' , and a pin or projection m' upon the arm J is so placed on the latter as to engage the tip of the trip-arm M^2 and lift the latter, when the bar J is elevated by the depression of the handles F' , as above described. As the bar J continues to ascend, the tip of the trip-arm M^2 slips off of the pin or projection m' , and the spring m snaps the trip-arm suddenly downward; throwing the clapper-arm M^3 rearward, so that the clapper shall strike the gong M and thus sound an audible signal each time either of the handles F' is depressed to elevate and expose a tablet H or K .

The mechanism thus far described operates to raise the price-tablets successively into exposed position and to release said tablets and

also to sound an audible signal each time a price-tablet is exposed. I have also provided mechanism by means of which a current or running register is automatically kept of the total amount of cash received by the machine, and this mechanism I will now describe. In the lower part of the machine casing is placed a horizontal and non-revoluble shaft N which extends from one side-piece A of the casing to the other side piece thereof; the ends of the shaft being inserted into sockets n which are suitably secured to the inner surfaces of the side-pieces A, at points just above the horizontal partition A^4 ; the intermediate portions of said shaft being supported in the upper ends of the vertical standards N' secured to and rising from the said partition A^4 . Upon this stationary or non-revoluble shaft N are mounted a number of registering disks or dials O, O', O², which are arranged to be rotated upon the shaft N, which shaft extends through the centers of the disks. Each of these disks is formed marginally with a laterally extending circular flange o upon the outer surface of which are inscribed the registering-numerals. The disks O, O', O², are mounted respectively upon hubs O³, O⁴, O⁵, which are arranged to revolve upon the stationary shaft N; the said disks being shown as bolted or riveted to radial lugs o' protruding from the hubs, and the disks being thus compelled always to rotate with the hubs. The right hand hub O³ is shown as confined between two collars or sleeves o^2 which are rigidly secured to the stationary shaft N, the arrangement being such that the hub O³ cannot move endwise upon the shaft, and at its right hand end the hub O³ carries a ratchet-disk O⁶ having its ratchet-teeth formed upon the margin; this ratchet-disk being arranged to turn always with the hub O³. Upon the shaft N, at a point adjacent to the right hand end of the hub O³, is mounted a peripherally grooved wheel O⁷ which revolves independently of the shaft N, and to the outer side of which is secured the outer end of a spiral retracting-spring o^3 ; having its inner end shown as secured to the right hand collar o^2 . Upon the opposite or inner side of this wheel O⁷ are pivoted two pawls o^4 each of which is pressed upon by a suitable spring o^5 , also carried by the wheel O⁷, so as to retain the tips of the pawls in engagement with the teeth of the ratchet-wheel. In the peripheral groove of the wheel O⁷ is laid the upper cord or similar flexible connection F⁴, previously referred to as being connected with the arm F⁵, which is carried by the upper sleeve F; this cord being secured at its lower end to the periphery of the wheel and being led upward over a number of guide pulleys or sheaves o^6 suitably mounted in the machine frame. The arrangement is such that, as the sleeve F is moved to the left, the cord F⁴ is drawn upon, so as to rotate the said wheel O⁷, through the limit of the registering rotation of the dial O; such being slightly less than one complete revolution which is produced by

a complete movement of the upper handle F' to the left hand end of the slot d^3 . The disk or dial O is the cents registering dial and its registering numerals are arranged upon its periphery successively from "1" to "99," a blank space or cipher intervening between "1" and "99," and at the completion of one complete revolution of the disk the blank space or cipher will therefore appear in registering position. The dial O is so arranged as to register any number less than one hundred in accordance with the number of the particular intermediate slot d^2 into which the upper handle F' may be depressed. When the upper handle F' is returned to its starting point at the right hand end of the slot d^3 , the spring o^3 turns the wheel O⁷ backward to its starting point; the dial O remaining in the position to which it was last moved, and the pawls o^4 riding backward over the teeth of the ratchet-disk O⁶ in readiness to again revolve the ratchet-disk in its operative direction. The hub O⁴ of the dial O' carries two ratchet-disks O⁸ and O⁹ which are located at the right hand side of the dial, and which are arranged to turn with said hub upon the stationary shaft N. This dial O' is the dollars-registering dial, and the purpose in providing this dial with two ratchet-disks is to enable said dial to be rotated either directly from the dollars-indicating handle F' (the lower of the two handles) or from the cents-indicating handle, through the medium of the cents-registering dial O after said cents-registering dial has completed one revolution.

The devices for rotating the dollars-registering dial directly from the lower handle F' are as follows: A peripherally grooved wheel O¹⁰ is mounted on the shaft N at the right of the ratchet-disks O⁸ and O⁹ so as to revolve upon said shaft, this wheel O¹⁰ carrying at its left hand side two pawls o^7 the tips of which engage the teeth of the ratchet-disk O⁸. Around the periphery of this wheel O¹⁰ is trained the lower cord or flexible connection F⁴ which has been described as connected with the arm F⁵ of the lower sleeve F. The lower end of this cord F⁴ is secured to the periphery of the wheel O¹⁰ and said cord is led upward over suitable guide pulleys or sheaves o^8 which are properly mounted in the machine frame; the arrangement being such that as the lower handle F' is moved to the left, the cord F⁴ is drawn upon, so as to rotate the wheel O¹⁰, and through its pawls o^7 and ratchet-disk O⁸, to correspondingly rotate the dial O'. The limit of registering rotation of the dial O' is one complete revolution, which is produced in consequence of one complete movement of the lower handle F' to the left hand end of its slot d^3 . The registering-numerals of this dial O' are arranged upon its periphery successively from "0" to and including "99" and, at the completion of one revolution of said dial, the 99 (dollars) numeral will be in registering position; the dial O' being so arranged as to register any number less than one hundred in accordance

with the number of the particular intermediate slot d^2 into which the lower handle F' may be depressed. After the cents-registering dial O has completed one revolution it causes the dollars-registering dial O' to be turned the space of one numeral and continues to turn said dollars-registering dial the space of one numeral for each succeeding complete revolution of the cents-registering dial. The means for accomplishing this operation are as follows: Upon the left hand end of the hub O^3 of the registering-dial O is formed a longitudinal cam or projection O^{11} upon which rides, at times, the right hand end of a pawl-carrying lever O^{12} . This pawl-carrying lever O^{12} is pivoted intermediately of its ends, as at o^9 , upon the upper end of the right hand standard N' and carries at its left hand end a pawl o^{10} which engages the teeth of the ratchet-wheel O^9 ; the pawl-carrying lever O^{12} being of irregular curvature so as to straddle the grooved wheel O^{10} , and a spring o^{12} being attached at one end to the upper end of the right hand standard N' and at its other end to the lever O^{12} , so as to hold the right hand end of said lever into engagement with the end of the hub O^3 and also with the cam O^{11} of said hub. The arrangement is such that when the dial O has completed one revolution, the cam O^{11} passes beneath the adjacent end of the lever O^{12} , raising this end of the lever and permitting the lever to drop and consequently raising its opposite end, and thereby causing the pawl o^{10} to turn the ratchet-disk O^9 and dial O' backward one tooth or the distance from one registering-numeral to the next succeeding registering-numeral upon said dial O' . Each succeeding complete revolution of the dial O produces a succeeding progressive movement of the dial O' , through the distance of one numeral. After the dollars-registering dial has completed one revolution, either in consequence of manipulations of the lower handle F' , or in consequence of complete revolutions of the dial O , or in consequence of both said manipulations and revolutions, the dollars-registering dial O' , begins to actuate the hundred-of-dollars registering dial O^2 progressively through the space of one of its numerals for each successive complete revolution of the dollars-registering dial. The means for accomplishing this purpose are as follows: Upon the left hand end of the hub of the dollars-registering dial O' is a longitudinal cam or projection O^{13} which is engaged, at times, by the right hand end of a pawl-carrying lever O^{14} ; this lever being pivoted intermediately of its ends, as at o^{13} , upon the upper end of the left hand standard N' . At its left hand end, the lever O^{14} carries a pawl o^{14} which engages with the peripheral ratchet-teeth of a ratchet-wheel O^{15} ; this ratchet-wheel being mounted upon the right hand end of the hub O^5 of the dial O^2 , so as to turn with said hub. A spring o^{15} , which is connected at one end with the upper end of the left hand standard N' and at its opposite end with the right hand

end portion of the lever O^{14} , serves to press the right hand end of the lever O^{14} into contact with the left hand end of the hub O^4 and with the cam or projection O^{13} thereof. The arrangement is such that when the dial O' has completed one revolution the cam or projection O^{13} moves under the right hand end of the lever O^{14} , raising said end and allowing it to drop, and raising the opposite end of the lever so as to cause its pawl o^{14} to move the ratchet-wheel O^{15} backward the distance of one tooth, and consequently to move the dial O^2 the distance of one registering numeral. Each succeeding complete revolution of the dial O' rotates the dial O^2 the distance of one succeeding registering numeral; there being a successive series of such numerals upon the periphery of the dial O^2 , running from "0" to "100" or as much higher as desired. The hubs O^4 and O^5 are also shown as retained against endwise movement upon the shaft N by collars o^2 which abut against the ends of the hubs and which are rigidly secured to the shaft. Spring pawls o^{16} which are secured to the partition A^4 engage the teeth of the ratchet-wheels and prevent retrograde movements of said ratchet-wheels.

It is desirable, in order to prevent confusion in the operation of the machine, and also to prevent designedly false operations of the machines, that while one lever F' is being manipulated the other lever F' shall be automatically locked against manipulation; and it is, furthermore, desirable for the same purposes, that while one lever F' is being manipulated, the rock-shaft of the other lever shall be automatically locked against rotation.

The means for locking one lever F' while the other lever F' is being manipulated, are as follows: P (Figs. 6 and 7) designates a vertical bar which is located adjacent to the right hand side-piece A of the machine-casing, and which is vertically movable in guide-brackets p , which latter are shown as secured to the portion D^6 of the casing-front. Normally, this locking-bar P is retained at the middle or intermediate point of its upward and downward movement by means of a double leaf-spring P' , which is shown as secured to the right hand side-piece A of the machine-casing, and the extremities of the two arms of which embrace a pin or stud p' which is located midway of the length of the locking-bar P ; the spring P' thus pressing downward upon the locking-bar, when the latter is at the upper limit of its movement, and upward upon the bar, when said bar is at the lower limit of its movement. At the outer side of each of its ends, the locking-bar P is formed with an oblique surface p^2 which is inclined longitudinally toward the opposite edge of the bar and toward the adjacent extremity of the bar, while in the outer side of each end portion of the bar is formed a notch p^3 , the inner margin of which extends transversely of the bar and the outer margin of which is inclined outwardly and toward the adjacent

end of the bar. Upon the right hand side-piece A of the machine-casing are pivotally mounted two detent-arms P^2 the upper one of which extends inward and downward and the lower one of which extends inward and upward; each of these detent-arms being pressed inward by a spring p^4 shown as secured to the side-piece A of the casing, and the inner ends or tips of the detent-arms P^2 engaging at times with the notches p^3 of the locking-bar P. To each sleeve F is secured one end of an arm P^3 which extends horizontally outward toward the right hand side-piece A and which is formed at its outer end with a longitudinal slot p^5 , said slot being left open at its inner side, as shown in Fig. 7. The arrangement is such that when both handles F' are at the right hand ends of the slots d^3 , the locking-bar P is at its normal intermediate position, and either handle F' can be moved to the left. If now one handle F' be moved to the left, for example the upper handle, the outer end of the slot p^5 of the arm P^3 will strike the inclined surface p^2 at the upper end of the locking-bar P, forcing said bar downward and causing the tip of the upper detent P^2 to enter the upper notch p^3 of the locking-bar; thus retaining said locking-bar in depressed position. While the locking-bar P is so depressed, its lower extremity protrudes into the slot p^5 of the lower arm P^3 and consequently the outer end of the slot p^5 of this lower arm prevents the lower lever F' from being moved to the left until after the upper lever F' has been moved back to the right hand end of its slot d^3 . As soon as the upper lever F' again reaches the right hand end of the slot d^3 , the outer end of its arm P^3 strikes the upper detent P^2 , so as to move it out of the upper notch p^3 , and thus permit the spring P' to raise the locking-bar P into its normal intermediate position. The action is essentially the same when the lower lever F' is moved to the left; the end of the slot p^5 of the lower arm P^3 striking the lower inclined surface p^2 of the locking-bar P, forcing said bar upward so that the lower detent P^2 shall enter the lower notch p^3 , and so also that the upper end of the locking-bar shall enter the slot p^5 of the upper arm P^3 . The upper lever F' is thus locked against movement to the left, until the lower lever F' has been returned to the right hand end of the upper slot d^3 , so that the outer end of the lower arm P^3 shall strike the lower detent P^2 and move it out of the lower notch p^3 of the locking-bar P; the spring P' then depressing the locking-bar into its normal intermediate position. It will be observed that when either the upper or lower lever F' is locked, as above described, the locked lever is free to be tilted downward into the "O-slot" d^2 , owing to the open form of the slots in the arms P^3 , and therefore that, when both levers are at the right hand limit of their movement either of them may be thus depressed for actuating the "O" tablets and for unlocking the drawer or till B, without

actuating the registering mechanism, as hereinafter described. When, however, either lever F' has been moved to the left and once depressed, it is necessary to prevent it from being depressed again into either of the slots d^2 until it has been first moved fully to the right hand end of its slot d^3 , and the means for accomplishing this purpose are as follows: To the inner surface of the right hand side-piece A of the machine frame or casing are secured two pairs of bracket arms P^6 , one pair of said arms being located back of the upper rock-shaft E and the other pair being located back of the lower rock-shaft E' . Each pair of brackets P^6 extends horizontally inward from the side-piece A and said arms are connected together by a cross-rod p^6 ; said brackets being each also formed with a longitudinal slot p^7 . Through these two slots p^7 extends a locking-bar P^7 the inner or body-portion of which is formed square or angular, in cross-section, so as to prevent the bar from rotating axially in the slots p^7 ; the rod p^6 extending forward beneath the front end of the rod P^7 , as shown. The outer end-portion P^8 of the bar P^7 extends inward at right angles from the bar and beneath a lug P^{20} which prevents upward movement of the arm P^8 , while the outer extremity of the end-portion P^8 carries a head P^9 which extends forward at right angles to the end-portion P^8 . Between the two bracket-arms P^6 the locking-bar P^7 is surrounded by a coiled spring P^{10} one end of which abuts against the rear bracket-arm P^6 and the other end of which abuts against a collar or shoulder p^8 ; the spring P^{10} thus acting to force the bar P^7 forward. A pin or arm p^9 projects radially inward from the collar or shoulder p^8 , and this pin is surrounded by a coiled spring p^{10} which is attached at one end to the collar or shoulder p^8 and at its opposite end to the cross-rod p^6 ; the spring p^{10} thus serving to pull inward upon the locking-bar P^7 . The right hand end-portion of the shaft E is formed, in its inner side, with a short longitudinal groove P^{11} and also with a second short longitudinal groove P^{12} in a plane somewhat above that of the groove P^{11} ; a shoulder p^{11} connecting the lower margin of the groove P^{11} with the lower margin of the groove P^{12} . The inner surface of the right hand end-portion of the shaft E' is similarly grooved and shouldered. The arrangement is such that the springs p^{10} normally retain the heads P^9 of the locking-bars P^7 within the lower grooves P^{11} of the shafts E, E' , and that when both handles F' are at the right hand ends of their slots d^3 , either of said handles can be depressed into the cipher-slot d^2 when desired; the lower margin of the corresponding lower groove P^{11} passing, in such instance, upward beneath the head P^9 ; the spring P^{10} compressing sufficiently to permit this action. The right hand ends of the sleeves F are in contact with the heads P^9 of the locking-bars P^7 so that said heads normally press against the shoulders p^{11} of the shafts

E and E'. If now, either of the handles F', for example the upper handle, be moved to the left and depressed into one of the slots d^2 , the groove P¹¹ will first ride out from under the head P⁹, as the depression of the handle F' rocks the shaft E forward. As soon as the groove P¹¹ has left the head P⁹, the spring p^9 draws the locking-bar P⁷ to the left, causing the head P⁹ to ride upon the external surface of the shaft E and when the handle F' is raised out of the notch d^2 the backward rocking of the shaft E will cause the head P⁹ to enter groove P¹² by the action of the spring p^9 . The shaft E is now locked against further forward rotation, and the handle F' must be returned to the right hand end of the slot d^3 , before the rock-shaft E can be again rocked; the return of the handle F' causing the right hand end of its sleeve F to strike the head P⁹ and thus forcing said head out of the groove P¹² and into the groove P¹¹. The operation of locking the lower shaft E', against rotation, is precisely similar to that just described; the lower locking-bar P⁷ being, in this instance, of course, the one which is brought into action.

It is desirable also, at times, to be able to gain access to the drawer or till B without operating the registering mechanism, as for example, when the proprietor of the establishment or an authorized employé desires to obtain money from the drawer or till, and to deposit a ticket therefor. This operation is accomplished by the connections which I will now proceed to describe, and which are shown in Figs. 13 and 14 of the drawings. Upon the right hand end of the shaft N is mounted a "ticket-dial" R which is shown as bolted at r to one end of a hub R', which is arranged to rotate freely upon the shaft N. The margin of this dial R is extended laterally to form a circular flange r' upon which is inscribed a series of numerals running from "0" to any number desired, and upon the opposite end of the hub R' is mounted a ratchet-disk R² having peripheral ratchet-teeth and arranged to turn with the hub R'. With the teeth of the ratchet-wheel R² engages a pawl S' which is pivotally connected to the lower end of a vertically movable pawl-carrying bar S; the pawl being pressed against the ratchet-teeth by a spring s which is secured to the lower end of the bar S. This pawl-carrying bar S works through a suitable guide-bracket T which is secured to the right hand side-piece of the machine-casing, and its movements are limited by studs s^3 , on said bar, which engage said bracket. At its upper end said bar S is pivotally connected with the right hand end of a link-lever U, which is pivoted intermediately of its ends to a bracket X which is carried by the portion D⁷ of the casing-front; the ends of said link-lever being longitudinally slotted, as at u . A stud or pin s^2 which is carried by the upper end of the pawl-carrying bar S, protrudes through the slot u in the right hand end of the link-bar

U, and a leaf-spring Z, which is secured to the pivot-bracket X, presses downward upon the right hand end of the link-lever U and consequently tends to retain the pawl-carrying bar S at the lower limit of its movement. A stud or pin v which is carried by the lower end of an actuating slide-bar V protrudes into the slot u at the left hand end of the link-lever, and this actuating slide-bar works through a guide-bracket T' which is secured to the portion D⁷ of the casing-front. This actuating slide-bar V carries at its upper end a head W which lies directly beneath the lower operating-handle F' of the machine. The pressure of the spring Z holds the slide-bar V at the upper limit of its movement, and when the lower-handle F' is at the right hand end of its slot d^3 , it can be depressed into the right hand or cipher-slot d^2 , so as to strike the head W of the slide-bar V; depressing said slide-bar and elevating the right hand end of the link-lever U against the pressure of the spring Z. The pawl-carrying bar S is thus raised, causing the pawl S' to rotate the ratchet-disk one tooth and indicating, by the number on the dial R, that the drawer B has been opened or unlocked once, for ticket-purposes, and one ticket should be found in the drawer. As soon as the lower handle F' is released, the spring Z resets the parts for a subsequent operation.

It is obvious, from the above description, that various minor variations in details of construction may be adopted without departing from the essential spirit of my invention. For example, the shafts E and E' may be provided each with a longitudinal rib and the sleeves F' may be internally grooved. Also, that various means may be adopted for retaining the shaft N against rotation. Furthermore, that other and various modifications in mere structural details may be adopted.

It will be obvious that while I have shown the registering-dial O² as being the last dial to the left of the series of dials, as many additional dials as desired may be added to the left of the series, appropriate pawl and ratchet-connections being used as before.

It is to be observed that when the "ticket-registering" attachments shown in Figs. 13 and 14 are employed, the cipher-slot at the right-hand end of the upper or cents-registering slot d^2 is omitted, and also that when the "ticket-registering" attachments are not used, the right hand or cipher-slots of both the cents and dollars (or of the upper and lower) registering slots d^2 are to be omitted. Thus either of the levers F' can only be depressed when they have first been moved laterally sufficiently to actuate the registering-mechanism. It is also to be observed that the "ticket-registering" mechanism may be arranged to be operated by the upper handle F' instead of by the lower handle F'; and it will be obvious that the cipher-slot is to be then omitted from the lower instead of the upper set of slots d^2 .

It is to be further observed that when the

locking-mechanism for the lid A⁵ and drawer B has been unlocked by the raising of the bar J, as above described, the upward movement of the lid A⁵, acting through the link *i*³ upon the bar I, moves said bar backward in the bracket *i*² so as to prevent any engagement of the trip *j* of bar J with the dogs *i*, until the lid A⁵ has again been closed and locked. Consequently, if any additional amount is to be added to the cash price indicated when the drawer and lid were unlocked, the proper handle F' can be moved to and depressed into the appropriate slot *d*² without causing the raising of the bar J to drop the first raised indicating tablet; the spring catch *h* or *k* of the last raised tablet-rod H or K engaging the catch-bar *h'* or *k'* without releasing the first raised tablet, owing to the greater strength of the springs *h*¹ or *k*⁵ than that of the spring-catches *h* or *k*. The registering mechanism will, of course, operate to register the additional amount in the usual manner.

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

1. A cash indicator comprising a rock shaft, an actuating lever movable endwise upon said shaft and turning therewith, a plurality of tablet-supporting slide rods, an arm movable with the actuating lever and adapted to act upon either of the several slide rods, a money receptacle, a locking mechanism for the money receptacle, a slide bar mounted in the machine frame and operatively connected with the locking mechanism, and an arm or projection rigidly attached to the rock-shaft and adapted to engage and move the said slide bar when said rock shaft is turned by force applied to the actuating lever, substantially as described.

2. A cash indicator comprising a rock-shaft, an actuating lever movable endwise upon said shaft and turning therewith, a plurality of tablet supporting slide rods, an arm movable with the actuating lever and adapted to act upon either of said slide rods, an audible signaling device provided with a trip arm, a slide bar mounted on the machine frame and adapted to engage the trip-arm to actuate the signaling device, and an arm or projection rigidly attached to the rock-shaft and adapted to engage and move the slide bar when said rock-shaft is turned by force applied to the actuating lever, substantially as described.

3. A cash indicator comprising a rock-shaft, an actuating lever movable endwise upon said shaft and turning therewith, a plurality of tablet-supporting slide rods, an arm movable with the actuating lever and adapted to act upon either of the several slide rods, a catch-bar movable toward and from the said slide rods, a tilting arm or dog connected with and adapted to actuate said catch-bar, a slide bar adapted to engage and move said tilting arm or dog, and a rigid arm on the rock-shaft

adapted to engage and move the slide bar when the rock shaft is turned by force applied to the actuating lever, substantially as described.

4. A cash indicator comprising a rock-shaft, an actuating lever movable endwise upon said shaft and turning therewith, a plurality of tablet supporting slide rods, an arm movable with the actuating lever and adapted to act upon either of the several slide rods, a catch bar movable toward and from the slide rods, a tilting arm or dog connected with and adapted to actuate the said catch bar, a money receptacle, a locking device therefor, a slide bar operatively connected with the locking mechanism and adapted to engage and move the said tilting arm or dog, and a rigid arm on the rock-shaft adapted to engage and move the slide bar when the rock-shaft is turned by force applied to the actuating lever, substantially as described.

5. A cash indicator comprising a rock-shaft, an actuating lever movable endwise upon said shaft and turning therewith, a plurality of tablet supporting slide rods, an arm movable with the actuating lever and adapted to act upon either of the several slide rods, a catch bar movable toward and from the slide rods, a tilting arm or dog connected with and adapted to actuate said catch bar, a money receptacle, a locking mechanism therefor, an audible signaling device provided with a trip arm, a slide bar operatively connected with the locking mechanism and adapted to actuate the said tilting arm or dog and the said trip arm, and a rigid arm on the rock-shaft adapted to engage and move the slide bar when the rock shaft is turned by force applied to the actuating lever, substantially as described.

6. A cash indicator and register, comprising a laterally movable actuating lever, a number of vertically movable tablet supporting slide rods each carrying a spring catch, a spring-pressed catch bar movable toward and from the slide rods, for engaging the catches of said slide rods, the spring of the catch bar being stronger than those of the said catches, a tilting arm or dog having operative connection with said catch-bar, a vertically movable tripping bar for engaging said arm or dog to move the latter in such manner as to disengage the catch bar from the slide rod, and means for actuating said tripping bar at each reciprocation of the actuating lever, substantially as described.

7. A cash indicator and register, comprising a rock-shaft, a vertically movable trip-bar engaged and lifted by the shaft, a tilting arm or dog engaged and lifted by the vertically movable trip-bar, a number of vertically movable tablet carrying slide-rods, and a pendent pivotal catch-bar flexibly connected to the tilting arm or dog and arranged to engage the slide rods and to retain them in tablet-exposing position; said tilting arm or dog,

when raised, serving to move the catch bar out of engagement with the slide rods, substantially as set forth.

8. A cash indicator and register comprising a number of sets of vertically movable tablet-carrying slide rods, a plurality of pendant pivotal catch-bars arranged to engage the slide-rods and retain them in position to expose their tablets, a tilting arm or dog flexibly connected to each of the catch bars, and a vertically movable tripping bar engaging the tilting arm or dog so as to raise the same and thus cause the dog to swing the catch bars out of engagement with the tablet supporting slide rods, substantially as described.

9. A cash indicator and register, comprising a money receptacle having a part which is moved to open the receptacle, a number of vertically movable tablet supporting, slide rods, each carrying a spring catch, a spring pressed catch bar movable toward and from the slide rods to engage the catches of the said slide rods, a tilting arm or dog having operative connection with said catch bar, and a tripping bar for engaging said arm or dog to move the latter in such manner as to disengage the catch bar from the slide rod, said tilting arm or dog being movable bodily toward or from the tripping bar and having operative connection with the movable part of the money receptacle whereby the opening of the receptacle will shift the said arm or dog out of position for engagement with the tripping bar, substantially as described.

10. A cash indicator comprising a casing or housing provided with a movable money receptacle, and a movable lid or cover for said receptacle, a locking mechanism for the receptacle and lid, a number of vertically movable tablet supporting slide rods, each carrying a spring catch, a spring pressed catch bar movable toward and from the slide rods and adapted to engage the catches of the said slide rod, a tilting arm or dog having operative connection with the said locking mechanism and adapted to engage and actuate said tilting arm or dog, said tilting arm or dog being bodily movable and having operative connection with the said lid or cover whereby the dog will be shifted out of position for engagement with the tripping bar when the lid or cover is open, substantially as described.

11. A cash indicator and register, comprising a casing or housing having a money receptacle and a movable lid or cover for said receptacle, a locking mechanism for the receptacle and lid, a number of vertically movable tablet supporting slide rods, each carrying a spring catch, a spring-pressed catch bar movable toward and from the slide rods and adapted to engage the catches of the same, a tilting arm or dog having operative connection with said catch bar, a horizontally sliding bar on which said arm or dog is mounted, said sliding bar having operative connection with the said lid or cover, and a vertically movable tripping bar having operative con-

nection with the locking mechanism and adapted to engage said tilting arm or dog, substantially as described.

12. A cash indicator and register comprising a plurality of revoluble registering dials, and pawls and ratchets connecting said dials in series so as to transmit motion from each dial to another dial, a longitudinally movable sleeve through the medium of which said dials are actuated, a grooved wheel giving motion to one of the dials by a pawl and ratchet connection, a flexible strand attached at one end to the said sleeve and at its opposite end to the said grooved wheel, and a retracting spring applied to the grooved wheel to turn the same backward and restore the sleeve to its normal position after each advance movement thereof, substantially as described.

13. A cash indicator and register, comprising a plurality of registering dials or disks, pawl-carrying levers connecting the dials in series and engaging, by their pawls, ratchet-disks carried by the dial-hubs, and also engaging projections of the dial hubs, a plurality of rock-shafts each carrying a longitudinally movable sleeve, grooved wheels carried by the dial hubs and flexible connections between the sleeves and grooved wheels carried by the dial-hubs, substantially as set forth.

14. A cash indicator and register, comprising a plurality of rock-shafts, a longitudinally movable sleeve mounted upon each of said shafts and provided with a slotted arm, a spring-retained and notched locking-bar having inclined ends to engage the slots of the sleeve arms, and detents for engaging the notches of the locking-bar, substantially as set forth.

15. A cash indicator and register comprising a plurality of rock-shafts, vibratory levers for actuating the same, and means for holding one shaft from movement during the time the other shaft is being actuated, operated by the movement of the lever on such other shaft, substantially as described.

16. A cash indicator and register, comprising a plurality of rock-shafts, longitudinally movable sleeves mounted upon each of said rock shafts and provided each with an open-slotted locking-arm, a spring-retained locking-bar having inclined ends to enter the slots of the arms, and spring-pressed detents engaging notches in the locking-bar, substantially as set forth.

17. A cash indicator and register, comprising a rock-shaft having a plurality of grooves and shouldered intermediately of said grooves, and a locking bar movable laterally and longitudinally into and out of engagement with said grooves, substantially as set forth.

18. A cash indicator and register, comprising a rock-shaft having a plurality of grooves and shouldered intermediately of the grooves, a longitudinally and laterally movable locking-bar engaging the grooves, and springs sur-

rounding said bar to resist its longitudinal movement and also to move the locking bar laterally, substantially as described.

19. A cash indicator and register, comprising a rock shaft carrying a vibratory handle, a sliding bar engaged by said handle, a sliding pawl-carrying bar having a pivotal link-connection with the first named sliding bar, and a "ticket" dial carrying a ratchet wheel the teeth of which are engaged by the pawl of the pawl-carrying bar, substantially as set forth.

20. A cash indicator comprising a plurality of tablets, slide rods supporting the same, and means for operating the tablets comprising a laterally movable and oscillating actuating arm, said actuating arm being extensible and retractible and being held in its extended position by a spring, an anti-friction roller on the free end of the arm, and a guide plate arranged parallel with the slide bar, against which guide plate said roller bears so as to

maintain the outer end of the actuating arm in engagement with the slide rods, substantially as described.

21. A cash indicator, comprising a plurality of slide rods carrying price-tablets, a bodily movable and vibratory arm for actuating the slide-rods, said arm being extensible and retractible and provided with a spring for effecting its extension, and a bearing or guide surface upon which the free end of the extensible and retractible arm is arranged to travel; this guide surface serving to maintain the extensible and retractible arm in engagement with a slide-rod, substantially as set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature in presence of two witnesses.

ADOLPH C. HANSEN.

Witnesses:

C. CLARENCE POOLE,
G. W. HIGGINS, Jr.