

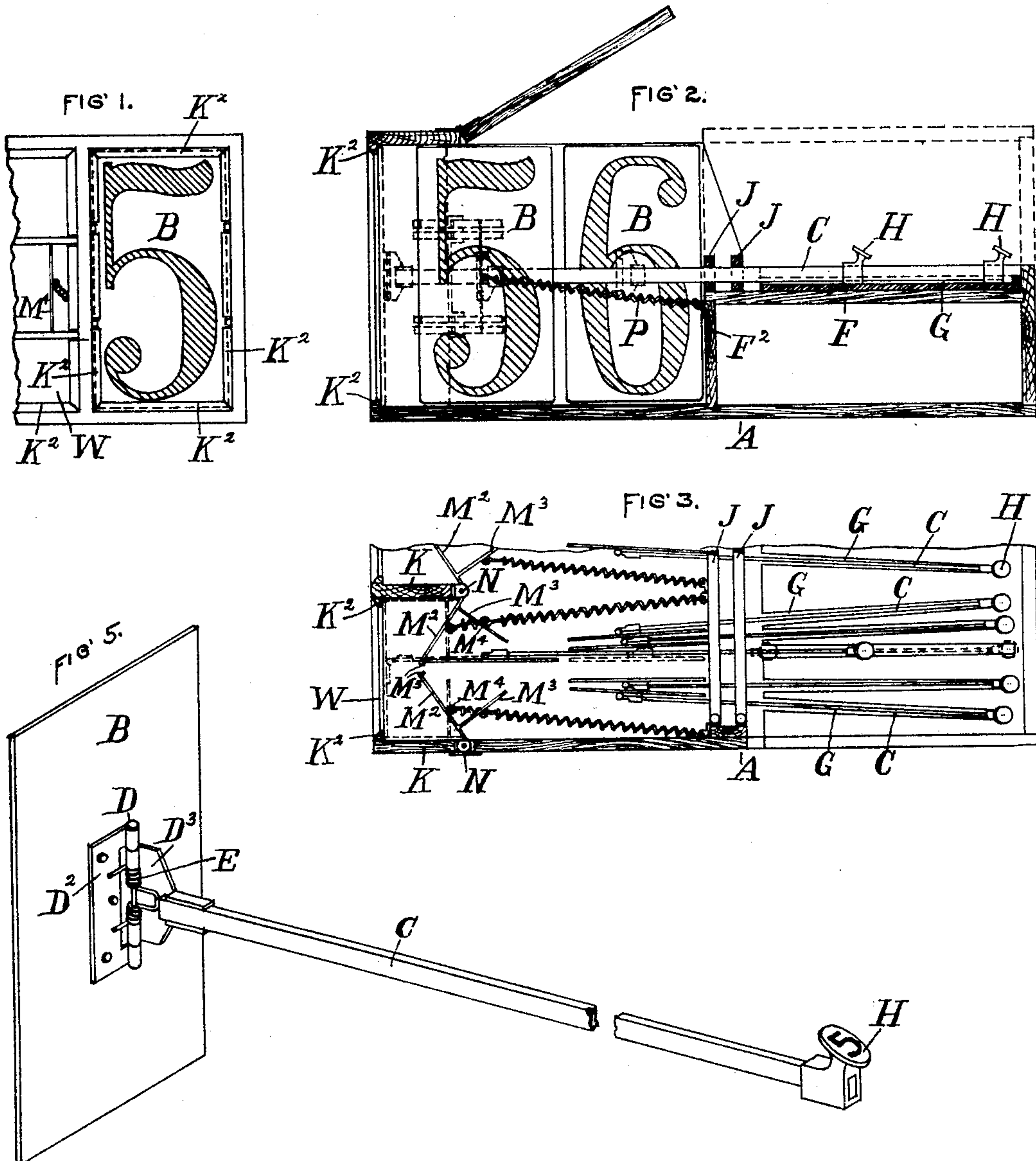
(No Model.)

2 Sheets—Sheet 1.

W. H. WINDER.
GAME COUNTER.

No. 583,640.

Patented June 1, 1897.



WITNESSES:

L. J. McDiarmid
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INVENTOR

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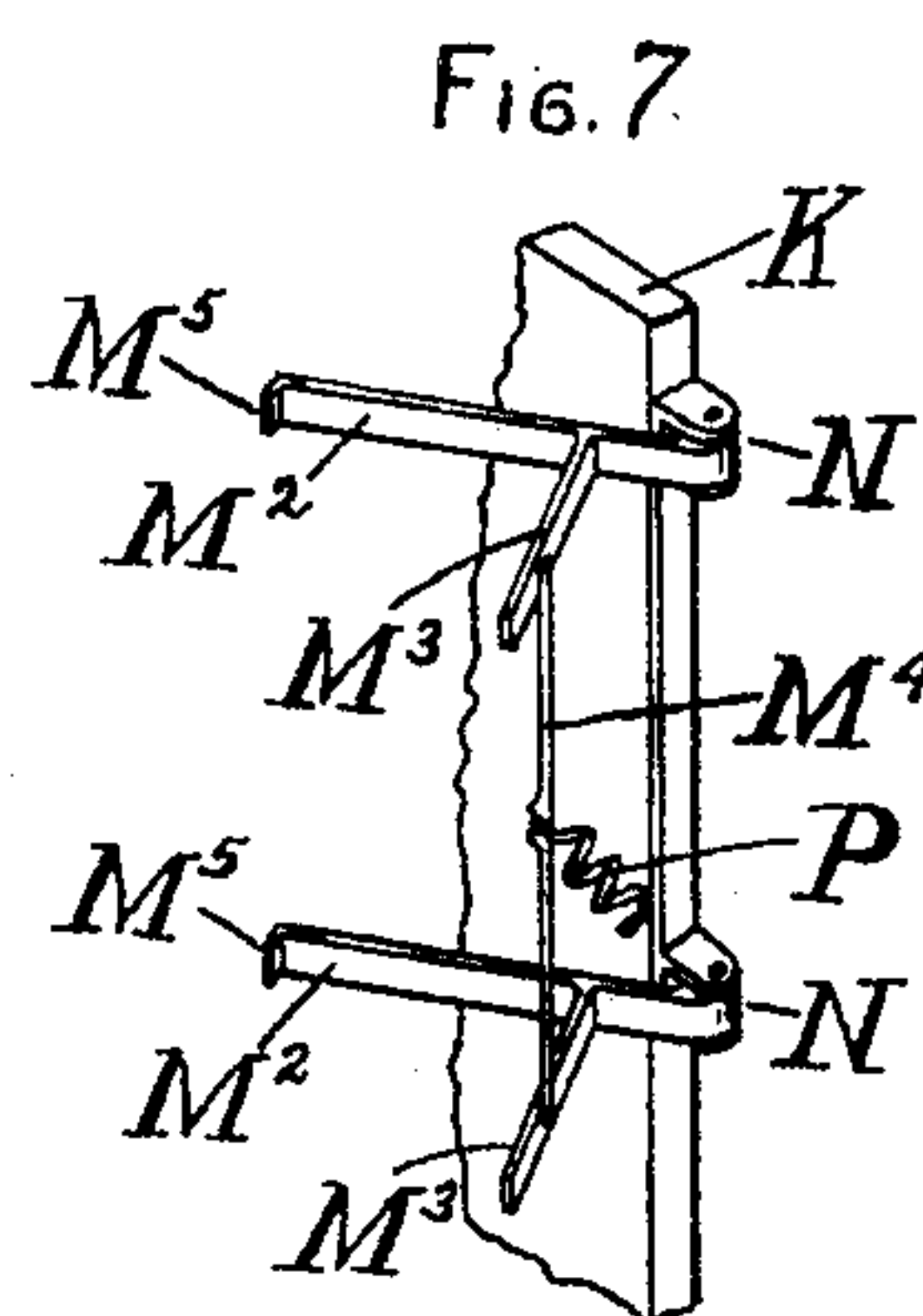
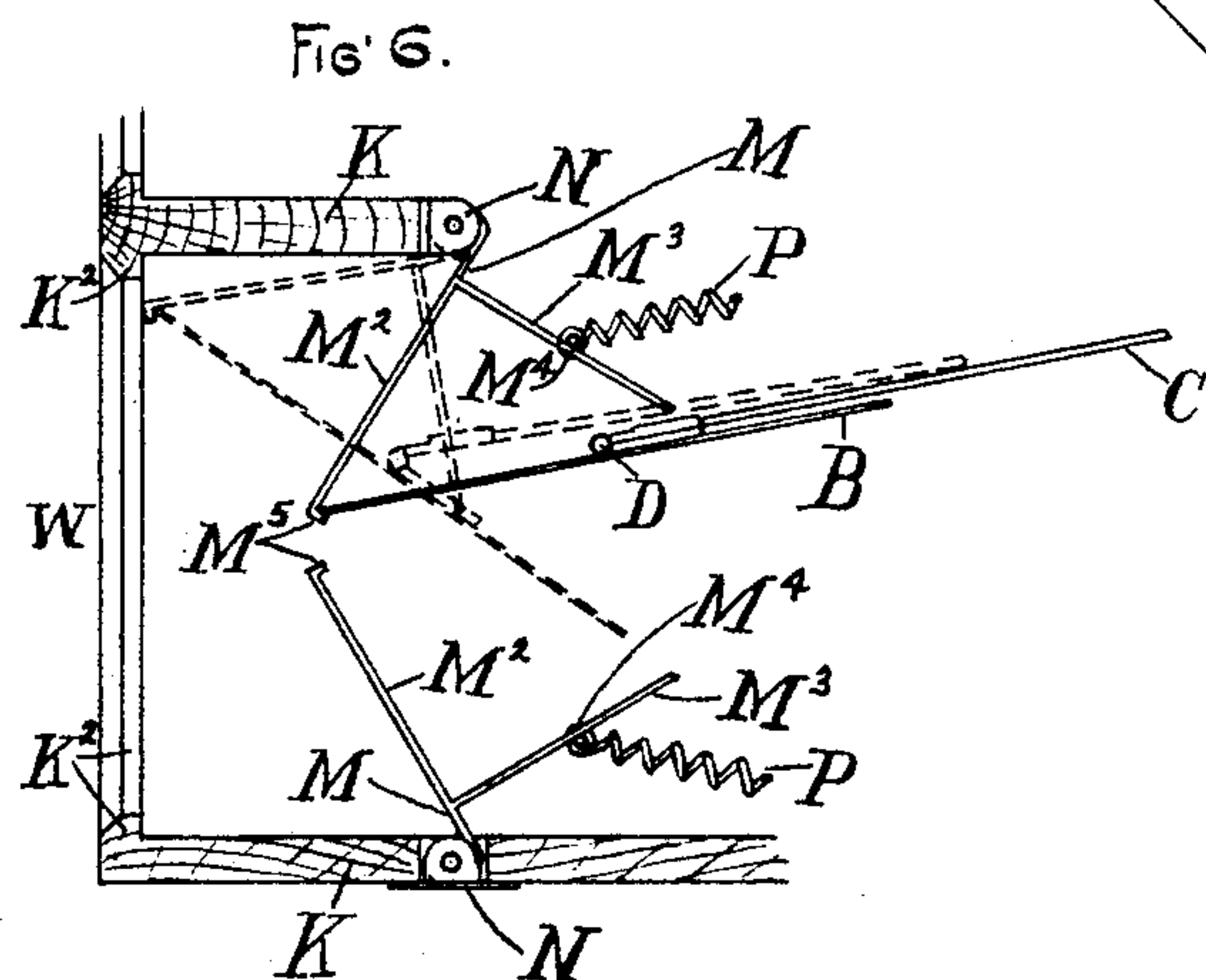
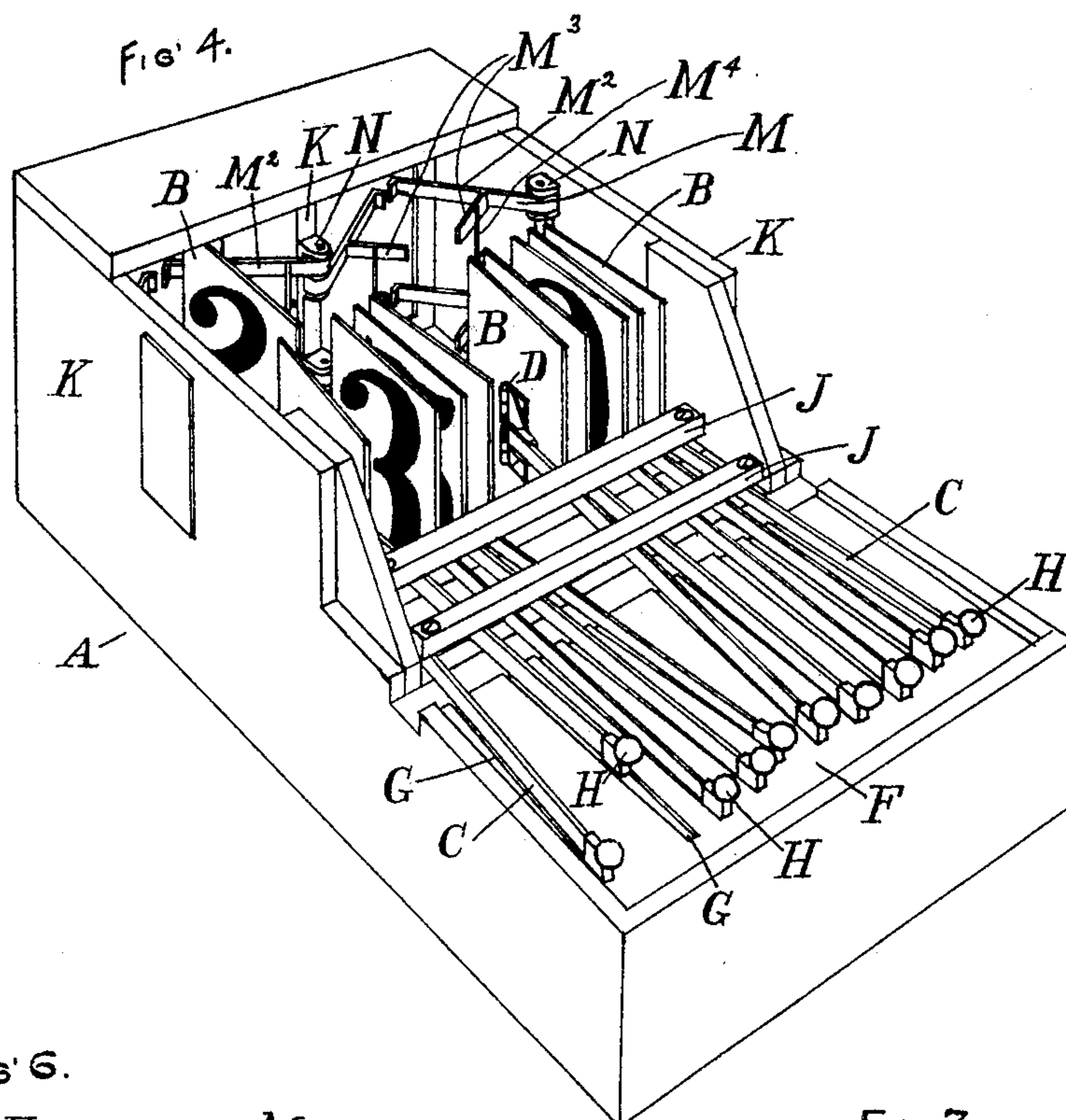
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WITNESSES:

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UNITED STATES PATENT OFFICE.

WILL H. WINDER, OF CARTHAGE, OHIO.

GAME-COUNTER.

SPECIFICATION forming part of Letters Patent No. 583,640, dated June 1, 1897.

Application filed April 18, 1896. Serial No. 588,080. (No model.)

To all whom it may concern:

Be it known that I, WILL H. WINDER, a citizen of the United States, and a resident of the town of Carthage, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Game-Counters, of which the following is a specification.

One of the primary objects of my invention is to present the numbers more quickly to the display-opening and to remove them therefrom more quickly than has hitherto been done.

My invention dispenses with the latching device heretofore in use and provides a construction whereby when a number is pushed forward it locks itself and is held in position without any additional locking device and without knocking of the rods.

My invention renders the operation of presenting the display-number, holding it for inspection, and withdrawing it from sight more simple and renders the cost of the machine considerably less.

My invention obviates the friction heretofore necessarily present on the block and which friction wore out the other machinery to a great extent.

My invention simplifies the whole mechanism and makes the entire operation easier. For example, in the mechanism shown in Letters Patent No. 529,118 there are two notches in each rod and the operator was compelled to use both hands at the same time, unlocking the latch device with one hand and drawing back the numbers with the other hand.

By my invention the operator uses but one hand, and, in fact, a one-armed man could operate my machine.

My machine works twice as quickly as the said machines heretofore used.

By my invention I can show four (4) figures in twelve (12) seconds, and if there is a mistake made, if a wrong number is put out accidentally, it can be drawn back so quickly that it cannot be noticed. In the said machines heretofore made the number of the machine gets locked and cannot be withdrawn immediately.

The several features of my invention and the various advantages resulting from their

use, conjointly or otherwise, will be apparent from the following description and claims.

In the accompanying drawings, included on two sheets of the specification and making a part of this application, and in which corresponding letters of reference indicate corresponding parts, Figure 1 represents a part of the front end of a mechanism illustrating my invention. This view shows one of the front display-apertures filled by an index-plate and also shows a portion of another display-aperture and of the compartment behind said aperture and of the mechanism located in the forward portion of the said compartment. Fig. 2 is a side elevation of the mechanism for advancing the index-plate and for turning the plate as it moves forward so as to present the index-face of the plate at the front of the machine when the plate has been fully moved forward. This view shows two index-plates, one in the rear position it occupies when not in use and another when advanced part way toward the display-aperture. The elevation is taken after that side of the box at the bottom of Fig. 3 has been removed and is of that face of the mechanism which faces downward in Fig. 3. Fig. 3 is a plan view of the mechanism, a part of the same being omitted because the latter is a mere duplicate of the portions shown. In Fig. 2 the cover of the casing inclosing the mechanism is depicted as elevated. In Fig. 3 the upper portion of the casing has been removed. In both Figs. 2 and 3 the position of one of the index-plates advanced is shown by dotted lines. Fig. 4 is a view in perspective of the mechanism of my invention, one of the index-plates being shown partially advanced. The main portion of the cover has been removed and the mechanism laid bare. The view is taken from above and at the rear of the machine. Fig. 5 is a view in perspective of the rear side of one of the index-plates and of the operating-rod and its index and of the mechanism connecting the rod to said plate. Fig. 6 is a top view of the front portion of one of the compartments and of the mechanism at the front and illustrating how the said mechanism operates to properly turn an index-plate as it is moved forward to the index-aperture. This illustration is assisted by dotted

lines showing another position of the plate and said operating mechanism in the process of turning the plate. Fig. 7 is a view in perspective of the device for catching the index-plate 5 and turning it, as hereinafter mentioned.

A indicates the casing, of any suitable description. In the forward half or portion of this box are the index-plates B. For the sake of simplicity of operation each of these index-plates B is primarily moved forward or backward by means of rod C, connected to its rear side. For the sake of easily manipulating the plate and obviating the necessity of laterally moving the rod from the line of its travel it is connected to the plate at about the middle of the latter. The plate, when back out of use, lies parallel to its rod, substantially as shown in Figs. 3 and 4. When being thrust forward, it rotates on its axis. As the plates 20 are preferably located so that their length is vertical, the connection between them and their operating-rod is such as to allow each plate to rotate on its long axis. To this end a hinge D is present, one half D² of the hinge being fastened to the plate and the other half D³ to the rod C. A spring E, connected to the two halves of the hinge continually by its elastic pressure, tends to turn the plate into a plane parallel to the length of the rod C and 30 keep it in that position. A common support for the rear end of each rod consists of the platform F. Runways in the form of grooves G are provided on this platform, a runway for each rod. Thereby each rod is kept in its own proper place and is prevented from lateral deflection and from interference with adjacent rods. In this way the index-plate of a given rod is advanced and retracted in a given path and in accordance with the general 40 design of the mechanism.

The front side of each plate is made to bear a given character or sign. In the present illustrative instance the plate bears a number, and the casing includes enough plates and 45 their operative mechanism to indicate all that is necessary or desired. In Fig. 1 a plate whose front carries the figure "5" is shown, and in Fig. 2 the front sides of two plates are shown, the one carrying the figure "5" and 50 the other the figure "6."

The operating-rod C of a given plate B bears the same character as is on the front of the plate which it operates. This character is located on the rod in a conspicuous place. Inasmuch as the rods C are conveniently operated from and at the rear of the machine I locate the rod-number on the rear end of the rod on a raised and inclined plate II, the latter facing upward and rearward, substantially as shown in Figs. 2, 4, and 5. This position of these rod-numbers enables them to be readily seen and the rod for operating a plate having a given number to be readily distinguished. An additional means for holding the rods respectively in line consists of the fixed cross parallel pieces J J. The pieces J respectively pass over the rods and lie close

above the latter, but do not bind them. These guides J J prevent the rods from being lifted out of place through accident or otherwise. 70

Each front compartment is included between the parallel walls K K. In this front of the compartment is a front aperture W, and therein is a beading or flange K², extending around the aperture and slightly diminishing the size of the aperture. This flange K² serves as an abutment against which the plate, when presented, is held and against which it rests. The plate B is light and is usually suspended by hinge D and out of contact with the floor. This suspension of the plate is obviously one of great advantage. 80

All of the mechanism thus far described is old as regards my present invention.

I will now proceed to describe my invention 85 and also its special application in connection with the mechanism already described, premising that the purpose of my invention is to guide each plate B as it is advanced and turn it and cooperate in carrying it forward until it is in place at the front aperture W, and, vice versa, cooperate to properly carry the plate back and allow it to fold back properly against its rod as the latter retracts it, (the plate.) 95

M indicates a carrier, consisting of the upper and lower arms M² M² and the supplemental arms M³ M³, the latter united by the vertical rod M⁴. The arms M³ are respectively united to the arms M² at or near the rear of the latter and at substantially a right angle thereto. The arms M² and M³ are each preferably in duplicate, so as to better control the upper and lower portion of the plate B at the same time and compel the latter to move evenly forth and back. Were this latter object unimportant one arm M² and its arm M³ would be sufficient. The arms M² at one end are hinged to the adjacent wall K by suitable hinge connections, one desirable form 100 of such hinge being shown at N. 105

A spring P is connected so as to draw the arms M² and M³ back to the position shown in Figs. 3, 4, and 6. This spring P is preferably a coiled one and is therefore connected 115 at one end to the middle of rod M⁴ and at the other end to a fixed rear portion of the frame of the machine, as, for example, the partition F², which latter also serves to assist in upholding the forward end of the platform F. The outer 120 or free end of each arm M² is provided with a short projection M⁵, standing at right angles to the length of the arm M² and directed backward. The length of each arm M² is equal to the distance between the hinge N and 125 that point in the aperture where the plate is to be displayed.

In practice when a given plate B is to be displayed the operator finds its rod C, and he does this readily with the assistance of the rear plate II. He then pushes the rod C forward. The raised rear plate II serves as a convenient handle with which to move the rod. As the rod C is advanced it likewise 130

moves its front plate B forward. The front edge of the latter strikes against the inner side of the arm M^2 in front of it, as illustrated in the nearest compartment of Fig. 4, and pushes this arm forward, the front edge of the plate B sliding along the rod until it rests against the projections M^5 of the arms M^2 , as shown in Figs. 3 and 6. The rod C, being continually advanced and the free end of arm M^2 moving in a circle, soon carries (by means of the projection M^5) the forward edge of the plate B around with it toward the adjacent wall K of the compartment, as shown in dotted lines in Fig. 6. The rod C being yet further advanced, the free end of arm M^2 finally rests at aperture W against the adjacent wall K, and the edge of the plate B, which has accompanied the free end of said arm M^2 in the movement of the latter, is in proximity to wall K and rests against the rear side of the adjacent flange K^2 of the aperture W. In this part of the operation the arms M^3 of this device M perform an important part in pressing that part of the plate B which is yet behind the hinge D forward at the same time the front edge of the plate B is moving with the arms M^2 , as mentioned. The rod C being still advanced carries the rest of the plate B forward and compels the latter to move forward, thus turning the front side of the plate B wholly frontwise. During this movement it presses to one side the opposite and complementary arms M^2 of the compartment, which latter by their pressure through the agency of their springs P operate to keep the first-named or original front edge of the plate in its position against the first-named wall K and close against the adjacent portion of flange K^2 and prevent the second or original rear edge of the plate from coming into contact with the adjacent wall K. Thus the plate B is fully turned with its front to the flange K^2 and its edges brought against said flange. It now displays the character it bears. In withdrawing the plate the operations just described are reversed. The pressure of the spring E at the junction of the rod and plate B is overcome as the plate is moved forward and turned, and this spring E acts and asserts its supremacy as the plate is drawn back and the hold and pressure of the arms M^2 M^3 upon it are removed.

It will be observed that the rods on one side of the longitudinal median line of a compartment are grouped together and converge at their front ends. The object of this arrangement is so that the rods of this group shall point toward substantially the same location or spot on the arms M^2 M^3 of the device M on that side of the compartment. The rods of the other group converge and point toward a point on the opposing or complementary device M of the compartment. Thus every plate B as it is advanced is certain of striking the arms M^2 of the device M in front of it.

My invention is very simple of construction,

light of weight, easy of application, economical of cost, is not liable to get out of order, is accurate in movement, and carries the display-plate B to the front and turns it frontwise and to a display position quickly and easily and returns it with precision toward its first position of non-use.

There are cases where it is not necessary to duplicate the device M—that is to say, there are cases where one of the two complementary devices in a compartment may be dispensed with. In this event but one of such devices M may be employed, and it will successfully operate. Whether one or two of such devices M are to be employed in the same compartment will usually be determined by the number of display-plates required or present in the compartment.

The indicating apparatus described is applicable to a number of different uses, and in the following claims I desire their scope to be understood as covering the features therein respectively claimed for any of the various indicating purposes for which one or more of them (the said features) can be respectively applied, either in this particular machine or in other machines.

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

1. In an indicating apparatus, the combination of the index-plate, making its preliminary advance edgewise, and the arm M^2 hinged at one end to the frame, and provided at its free end with a projection and with an angulated arm connected to the arm M^2 , and spring P connected to the angulated arm and to the frame, and swinging restraining means for engagement with the display-plate, substantially as and for the purposes specified.

2. In an indicating apparatus, a front apertured frame having detents K^2 , and an index-plate adapted to make its preliminary advance toward the said aperture, and an arm M^2 hinged at one end and carrying swinging restraining means at the other, and having the angulated arm M^3 , and a spring connected substantially as described and adapted to elastically draw back the arm into the first position whenever free to do so, substantially as and for the purposes specified.

3. In an indicating apparatus, a frame having a front aperture and having detents K^2 , and an index-plate adapted to make its preliminary advance toward the said aperture, and a rod for advancing the plate, and hinged thereto, and a spring for elastically keeping the plate edgewise when allowed to so do, and an arm M^2 hinged at one end and carrying the swinging restraining means, and having the angulated arm M^3 , and a spring adapted to elastically draw back the arm into its first position whenever free to do so, substantially as and for the purposes specified.

4. In an indicating apparatus, a compartment or division, a front aperture thereof, and an index-plate, and means for advancing the latter, and a spring for locating the plate

edgewise to the aperture when free so to do, and two sets of independent devices, each having an arm M^2 hinged at its outer end, and provided at its free ends with a detent projection M^5 , and an angulated arm M^3 , and a spring strained between the said device and a portion of the frame for drawing the arms M^2 , M^3 back to a given position, the projections M^5 of the respective arms being nearest, as the arms are moved, these two independent opposite devices coöperating to properly turn the plate as the latter is advanced and locate it at the aperture, and properly assist in returning the plate to its first position, substantially as and for the purposes specified.

5. In an indicating apparatus, the combination of the plate, in its rear position standing edgewise to the front of the machine, and front abutments to receive the index-plate when advanced and in a display position, the device M consisting of the two arms M^2 , M^2 , each carrying the arm M^3 angulated thereto, and each having end projections M^5 , and the connecting-rod M^4 , and spring P operating between the rod M^4 and a fixed portion of the stationary frame of the machine, substantially as and for the purposes specified.

6. In an indicating apparatus, the combination of the plate, in its rear position standing edgewise to the front of the machine, and front abutments to receive the index-plate when advanced and in a display position, the devices M each consisting of the two arms M^2 , M^2 , each carrying the arm M^3 angulated thereto, and each having end projections M^5 , and the connecting-rod M^4 , and spring P operating between the rod M^4 and a fixed portion of the stationary frame of the machine, the devices M being present and oppositely disposed in the compartment, and coöperating to turn the plate edgewise as it is retracted, substantially as and for the purposes specified.

7. In an indicating apparatus, the combination of the plate, in its rear position standing edgewise to the front of the machine, and front abutments to receive the index-plate when advanced and in a display position, the devices M each consisting of the two arms M^2 , M^2 , each carrying the arm M^3 angulated thereto, and each having swinging restraining means for causing the plate to assume its display position, and the connecting-rod M^4 , and spring P operating between the rod M^4

and a fixed portion of the stationary frame of the machine, the devices M being present and oppositely disposed in the compartment, and coöperating to turn the plate edgewise as it is retracted, a rod hinged to the plate, and a spring adapted to elastically move the plate so as to bring the plate flatwise to the side of the rod, substantially as and for the purposes specified.

8. In an indicating apparatus, the combination of the plate, in its rear position standing edgewise to the front of the machine, and front abutments to receive the index-plate when advanced and in a display position, the devices M each consisting of the two arms M^2 , M^2 , each carrying the arm M^3 angulated thereto, and each having end projections M^5 , and the connecting-rod M^4 , and spring P operating between the rod M^4 and a fixed portion of the stationary frame of the machine, the devices M being present and oppositely disposed in the compartment, and coöperating to turn the plate edgewise as it is retracted, a rod hinged to the plate, and a spring adapted to elastically move the plate so as to bring the plate flatwise to the side of the rod, and a platform for supporting the rods and guides for compelling the rod to run longitudinally in a given line, substantially as and for the purposes specified.

9. In an indicating apparatus, the combination of a display-plate having an advancing means hinged or pivotally connected thereto, a stop whereby the plate is held in display position when advanced, swinging restraining means for causing the plate as advanced to assume its display position, substantially as and for the purposes specified.

10. In an indicating apparatus, the combination of a frame, an index-plate adapted to stand edgewise when not in use, and flatwise when in use as a display-sign, a reciprocating rod for advancing the plate, front abutments for the index-plate, and a reciprocating device for operating on the plate, this device consisting of a pivoted arm, and an arm angulated thereto, and a spring for elastically returning this reciprocating device to its first position when free to so do, substantially as and for the purposes specified.

WILL H. WINDER.

Attest:

WM. E. JONES,
K. SMITH.