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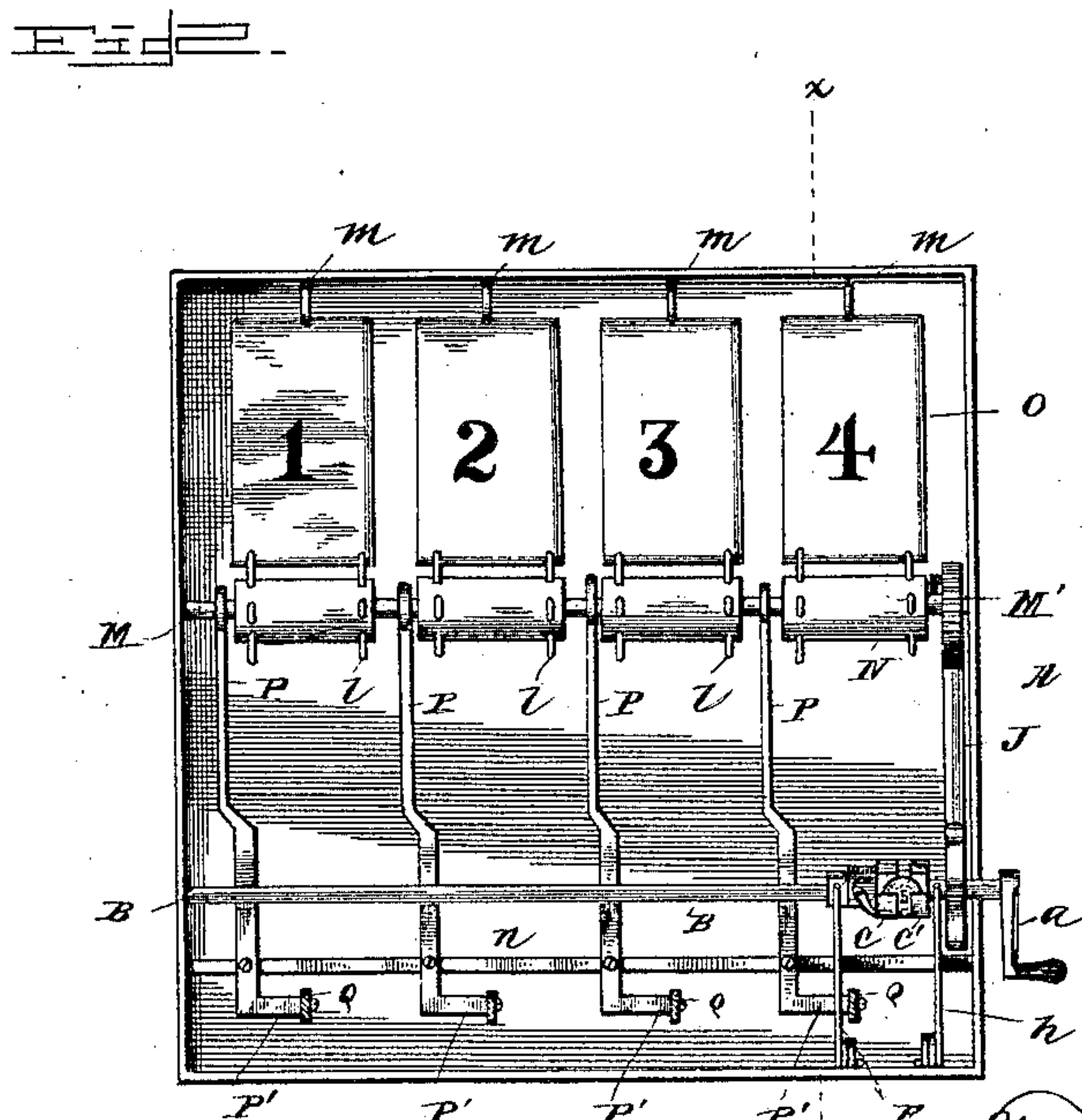
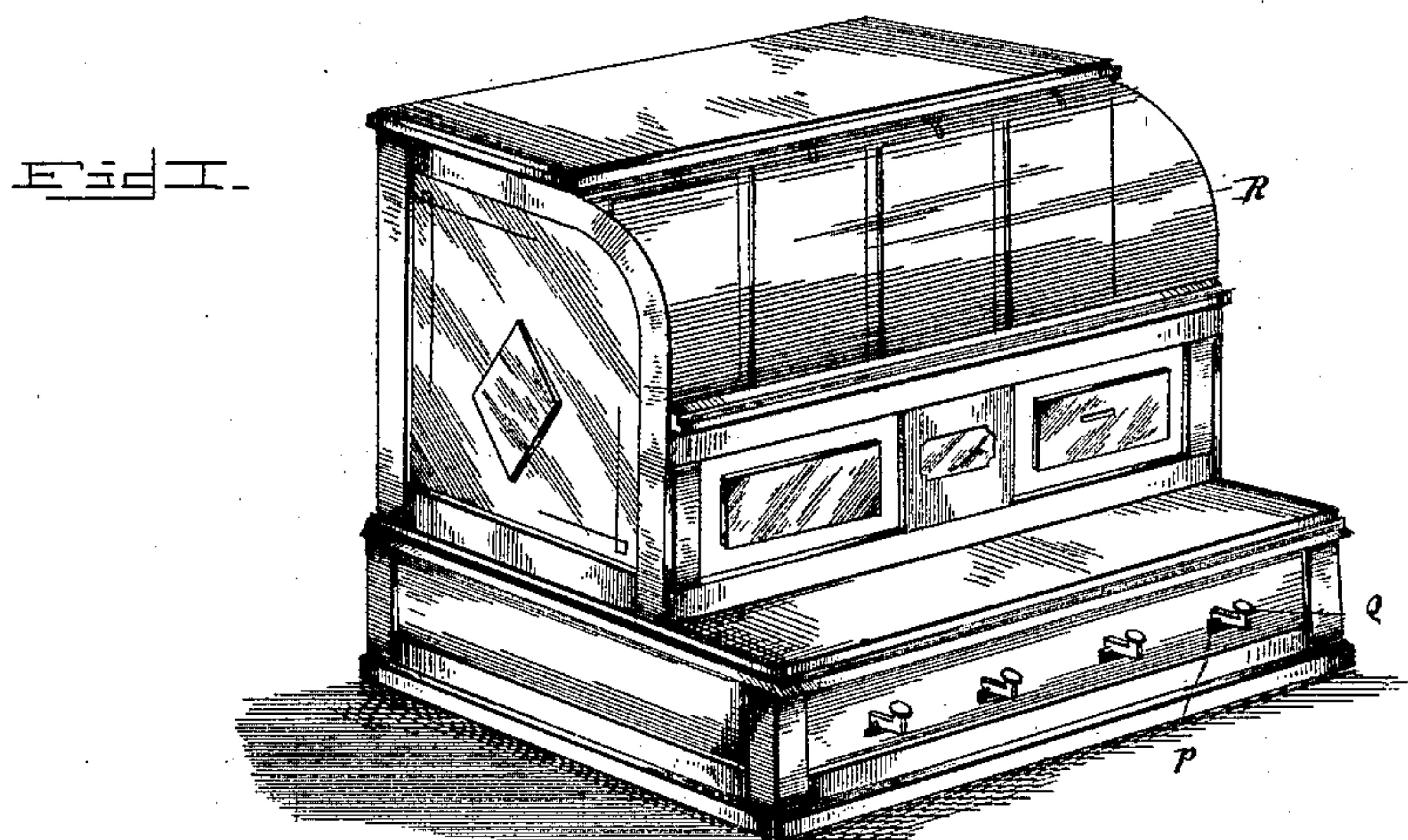
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F. H. SMITH.

GAME APPARATUS AND SAMPLE EXHIBITOR.

No. 432,447.

Patented July 15, 1890.



Witnesses  
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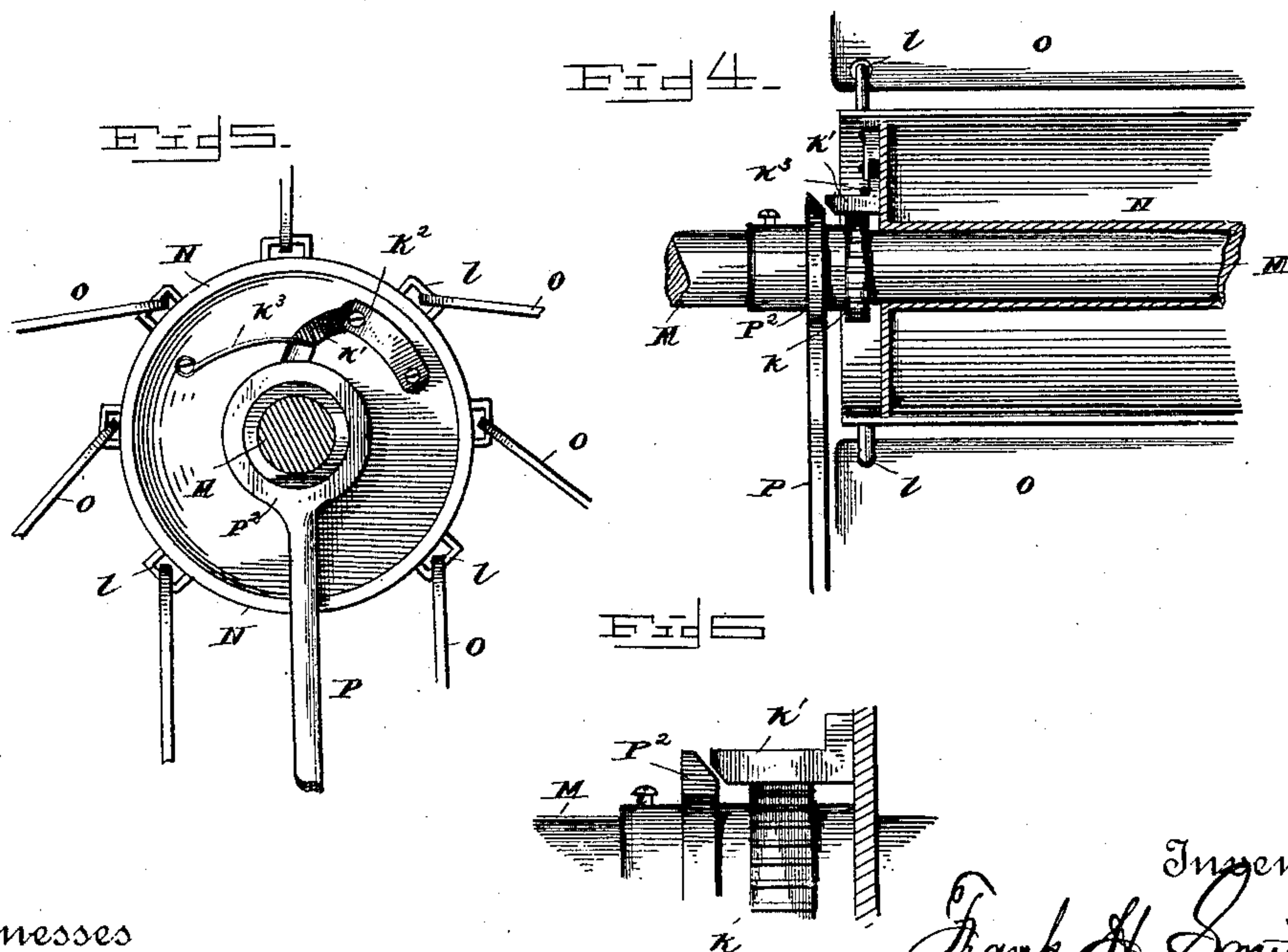
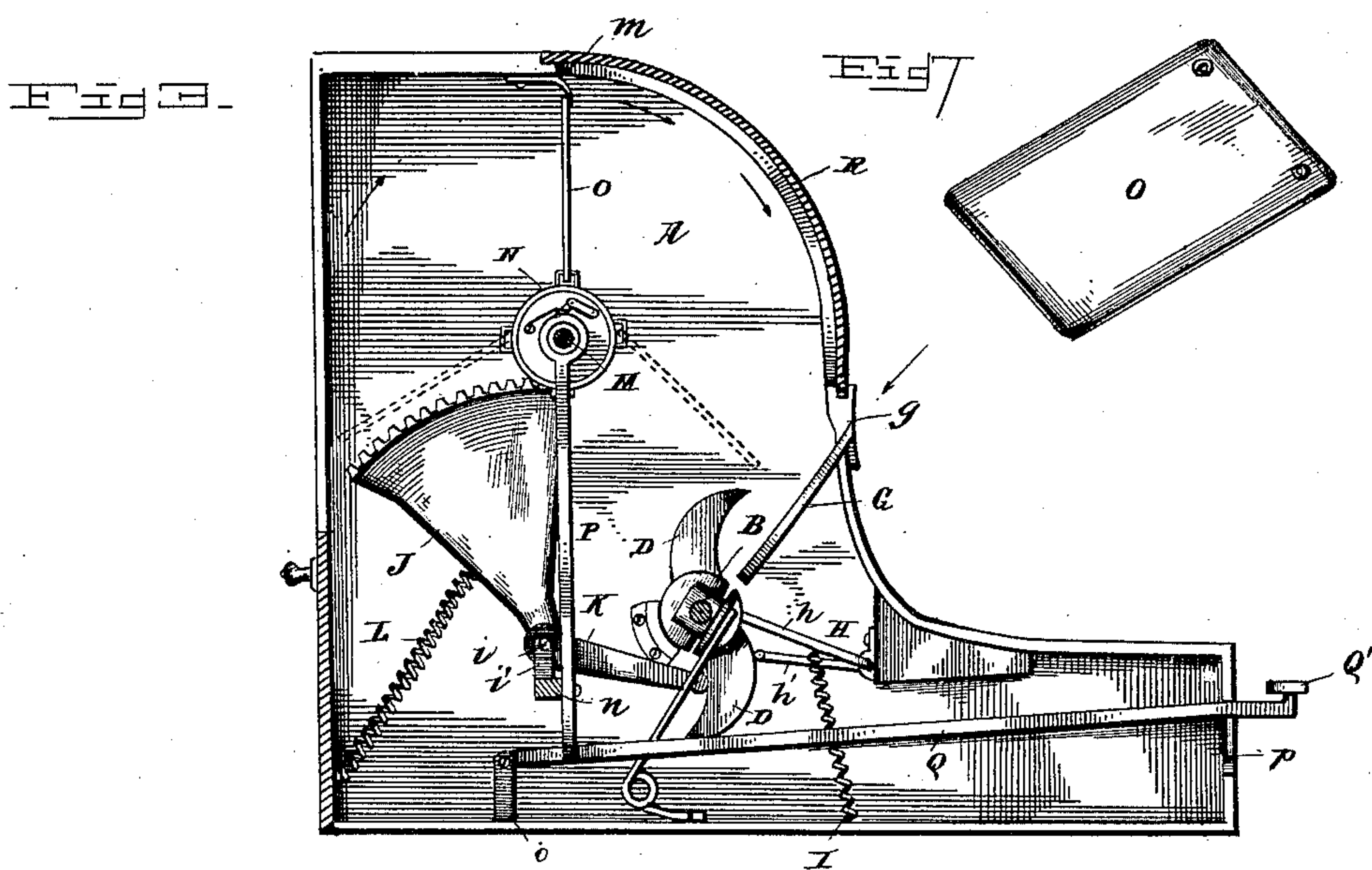
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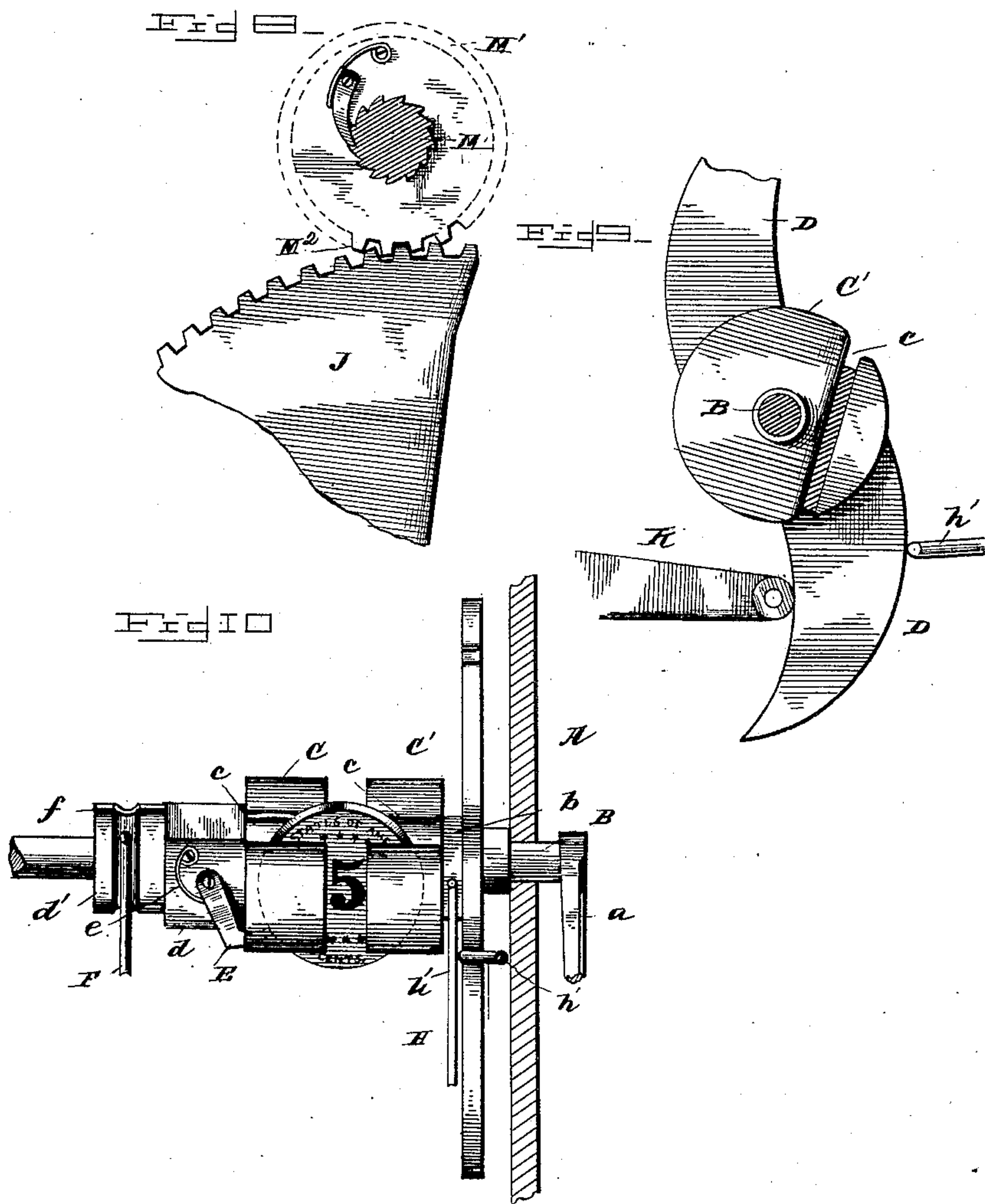
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# UNITED STATES PATENT OFFICE.

FRANK H. SMITH, OF CHICAGO, ILLINOIS.

## GAME APPARATUS AND SAMPLE-EXHIBITOR.

SPECIFICATION forming part of Letters Patent No. 432,447, dated July 15, 1890.

Application filed April 28, 1890. Serial No. 349,718. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK H. SMITH, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Game Apparatus and Sample-Exhibitors, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a new and improved coin-receiving machine; and it consists of novel mechanism adapted to hold a deposited coin until released and discharged therefrom by the depositor turning the crank of a shaft carrying a loose and a fixed carrier, the former actuating through a segmental rack a pinion, a cylinder or drum carrying, it may be, a sampling card or exhibitor combined with tripping and resetting mechanism, all as will be more fully disclosed by the accompanying drawings, description, and claims.

In the drawings, Figure 1 is a perspective view of my improved coin-receiving machine. Fig. 2 is a sectional elevation of the same. Fig. 3 is a sectional view taken on the line  $x$  of Fig. 2. Figs. 4, 5, 6, 7, 8, 9, and 10 are detail views of the principal features of my machine, which will be particularly described farther on.

In the embodiment of my invention I provide a suitable closure or case A. It may be of the type of case or closure usually adapted for cash-registers, in the ends of which is hung the ends of a shaft B, one of which projects beyond one end of said case or closure and has applied to it a handle or crank  $a$  for its rotation.

The shaft B carries two preferably cylindrical holders or carriers C C', which are provided with slots  $c$ , one of said carriers C being fixed thereto, while the other C' is loose thereon and has a sleeve or hub  $b$  at one side which carries two oppositely-curved concave-convex wings or cams D D, jointly having an approximate S shape.

The holder or carrier C has at one side an extension  $d$ , which has pivoted to it a hook or latch E, with its lower end or beak normally held by a spring  $e$  in the slot  $c$  of said carrier to temporarily retain the coin, as shown in

Fig. 10, said spring being secured at one end to said extension by a screw or otherwise and engaging at its opposite end said hook or latch. Engaging at its upper end a slot or groove  $f$  in a still further extended portion  $d'$  of the carrier C is a stiff spring F, whose lower end has in it a coil and is fastened to the bottom of the case A. Said spring is so disposed as to normally hold said carrier in such a position that its slot  $c$  will stand in alignment with a slot  $g$  in the case A, so that a coin dropped therethrough will be conducted into the slot of said carrier by an inclined chute or board G, fixed at its upper end to said case, at the bottom edge of the slot of said case, and having its lower end standing contiguously to the slot of said carrier. Against the sleeve or hub  $b$  of the other carrier C' is held or presses one end of one arm  $h$  of a bail H, the other arm  $h'$  of said bail bearing at one end against the forward edge of the lower wing or cam D, said bail being held under pressure by the spring I, thus holding said carrier in such position that its slot normally will stand in alignment with the slot of its fellow carrier C.

J is a toothed segment or sector secured at its lower or tapered end to a lever or arm K, pivoted, as at  $i$ , at its juncture with said sector or segment to a suitable bracket  $i'$ , secured to and in the case A, the forward end of said arm engaging, by a frictional roll  $j$  upon a lateral stud thereof, alternately the concave and convex edges of the wings or cams D D.

The toothed segment or sector J has connected to it one end of a spring L, the opposite end of which is connected to the case A to effect its return movement.

M is an upper shaft, which is provided at one end with a gear M', whose teeth or cogs M<sup>2</sup> gear with the toothed segment J, said shaft being journaled at its ends in the ends of the case A, and carrying a series of drums or cylinders N, each of which has a pawl-and-ratchet connection with said shaft. This connection consists of a ratchet  $k$  on said shaft M, engaged by a pawl  $k'$ , the arm of which is pivotally secured in the recessed end of a bracket  $k^2$ , secured to one head of the drum or cylinder N, said pawl being held in engagement with said ratchet by the action of a



spring  $k^3$ , held at one end in any suitable manner to said cylinder or drum head and bearing at its opposite end upon said pawl.

The drum or cylinder N carries what are  
5 designed to be picture exhibit-cards O, held in brackets or keepers  $l$ , secured to and arranged at short intervals apart upon the periphery of said drum or cylinder, said cards being engaged and held when at their maxi-  
10 mum elevation in a slightly-forward inclined position by a pendent spring  $m$ , secured to the inner top surface of the case A.

P P are upright shipping-levers, which may be offset about at their mid-lengths and piv-  
15 oted near their lower ends to a common bar  $n$ , secured in the case A at its ends. The lower ends of the shipping-levers P are provided with lateral extensions or arms  $P'$ , which are connected to key-levers Q, pivoted  
20 at their inner or rear ends to the upper ends of short supports  $o$ , secured to the bottom of the case A, the forward ends of said key-levers projecting through the L-shaped openings  $p$  in the lower front part of said case and  
25 provided with finger-rests or keys  $Q'$ . The upper ends of the shipping-levers P are provided with rings or collars  $P^2$ , sliding upon the sleeves having the ratchets  $k$ , or directly upon the shaft M, in case the ratchets are formed  
30 with said shaft, as seen in Fig. 8, and adapted, as the key-levers Q are depressed, to engage by their beveled edges the beveled edges of the pawls  $k'$  and disengage said pawls from said ratchets. By this arrange-  
35 ment it is obvious that the rotation of the cylinders or drums N may be prevented to put the same out of operation, if desired.

It will be seen that by passing or dropping a coin—a five-cent piece, for instance—through  
40 the slot  $g$  in the case A it will slide down into and lodge in the slots  $c c$  of the holders or carriers C C'. Now by turning the handle or crank  $a$  in the required direction the shaft B, with the holders or carriers C C', will be  
45 rotated, carrying with them the coin, the crank or handle being given two turns, thus giving the coin-carriers with the coin two turns also. The arm K in the meantime has engaged and traversed the cams or wings D from end to  
50 end and rocked the toothed segment or sector J, rotating through the gear  $M'$ , the shaft M in turn rotating the drums or cylinders, thus exposing or displaying the cards containing exhibits, the cost of the viewing of which has  
55 been, as above stated, put into the machine. When the coin has been released or liberated, which is effected by the action of the spring, and the toothed sector or segment returned, under the action of the spring L, to the posi-  
60 tion occupied by it, as shown by said figure, resetting the machine for a like operation, when a second coin has been placed in the slot in the case, and the crank  $a$  of the shaft B is again turned as before.

65 In lieu of the picture exhibit-cards, sample or display cards of goods, more especially of cloth, may be used, and whereby by throwing

any one or more drums or cylinders out of action different shades of cloth can be readily compared one with the other.

The cards, it will be seen, are viewed through a glass-covered opening R in the upper front portion of the case or closure.

When used as a sample-exhibitor, the device may be made to turn at any time at the will of the operator by securing a strip of metal in the slots  $c c$  of the carriers or holders C C'.

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

1. In a coin-slot machine, the handled or actuating shaft carrying thereon the loose and fixed slotted carriers and the cams, substantially as shown and described.

2. In a coin-slot machine, the handled or actuating shaft carrying the slotted carriers, the spring-actuated link for holding the coin in said slot, and the cams, substantially as shown and described.

3. In a coin-slot machine, the handled shaft having secured thereon the cams engaging an arm of a pivoted segment or sector, substantially as shown and described.

4. In a coin-slot machine, the combination, with the handled shaft carrying a fixed slotted and a loose slotted holder adapted for joint use, of the spring-held bail, one arm of which engages a sleeve of said loose holder or receiver, substantially as shown and described.

5. The combination of the handled shaft having a fixed slotted holder or receiver, the loose slotted holder having holding-springs, and the toothed sector or segment carried by a sleeve of said loose holder and geared to a second shaft having display-card-carrying drums or cylinders, substantially as shown and described.

6. The combination, with the shaft geared to another shaft adapted to be actuated by hand and carrying a loose slotted holder, and a fixed slotted holder adapted for joint operation, of a toothed sector or segment geared to the aforesaid shaft and having an arm, said arm being engaged by the curved cams carried by a sleeve of said loose holder or carrier, substantially as shown and described.

7. The combination of the upper and lower shafts connected by means of the pivoted toothed segment and the cams, the upper carrying-drums provided with display or picture exhibit-cards, the slotted holders or carriers, one fixed and the other loose on said lower shaft, and one having a grooved extension engaged by a spring and carrying a spring hook or latch extending into the slot of the fixed holder or carrier, substantially as shown and described.

8. The combination, with the loose slotted holder or carrier having a sleeve fitted upon its supporting or actuating shaft and carrying cams engaging an arm, of a segment geared to an upper picture-exhibit-carrying



shaft, and the bail pivoted to the case and engaging said sleeve and said cams, substantially as shown and described.

5 9. The combination, with the picture-exhibit-carrying shaft and means for actuating it, of the shipping-levers having beveled collars or rings, a bevel-edged pawl engaging a ratchet on said shaft, and the key-levers connected to said shipping-levers and passing  
10 through apertures or holes in the inclosing-casing, substantially as shown and described.

15 10. In a coin-slot mechanism, the upper shaft carrying the drums thereon detachable therefrom by means of a spring-actuated pawl engaged by a ring on the end of a vertical lever, substantially as shown and described.

20 11. In a coin-slot mechanism, the handled or lower shaft carrying the drums and a pinion thereon, said pinion engaging a toothed pivoted segment having an arm extending therefrom engaging the cams on the lower handled shaft, substantially as shown and described.

25 12. The combination, with the handled shaft, of the fixed and the loose holder, the lat-

ter having a sleeve fitting said shaft and carrying reversely-curved wings or cams, and the other arm of said bail engaging said sleeve, the spring-held hook or latch extending into  
30 the slot of the fixed holder or carrier, the last-mentioned spring bearing in a grooved extension of said latter holder, the toothed segment or sector having an arm engaged by  
35 said cams, said toothed sector or segment geared to a toothed wheel on the upper shaft, said shaft carrying a series of drums provided with picture exhibit-cards, the shipping-levers having a ring or collar beveled at one  
40 edge, which engages a beveled edge of a pawl engaging a ratchet on said shaft, and the key-levers connected to said shipping-levers and having their forward ends projecting outward through openings in the case, substantially  
45 as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK H. SMITH.

Witnesses:

H. A. HAINES,  
S. E. MARTIN.