

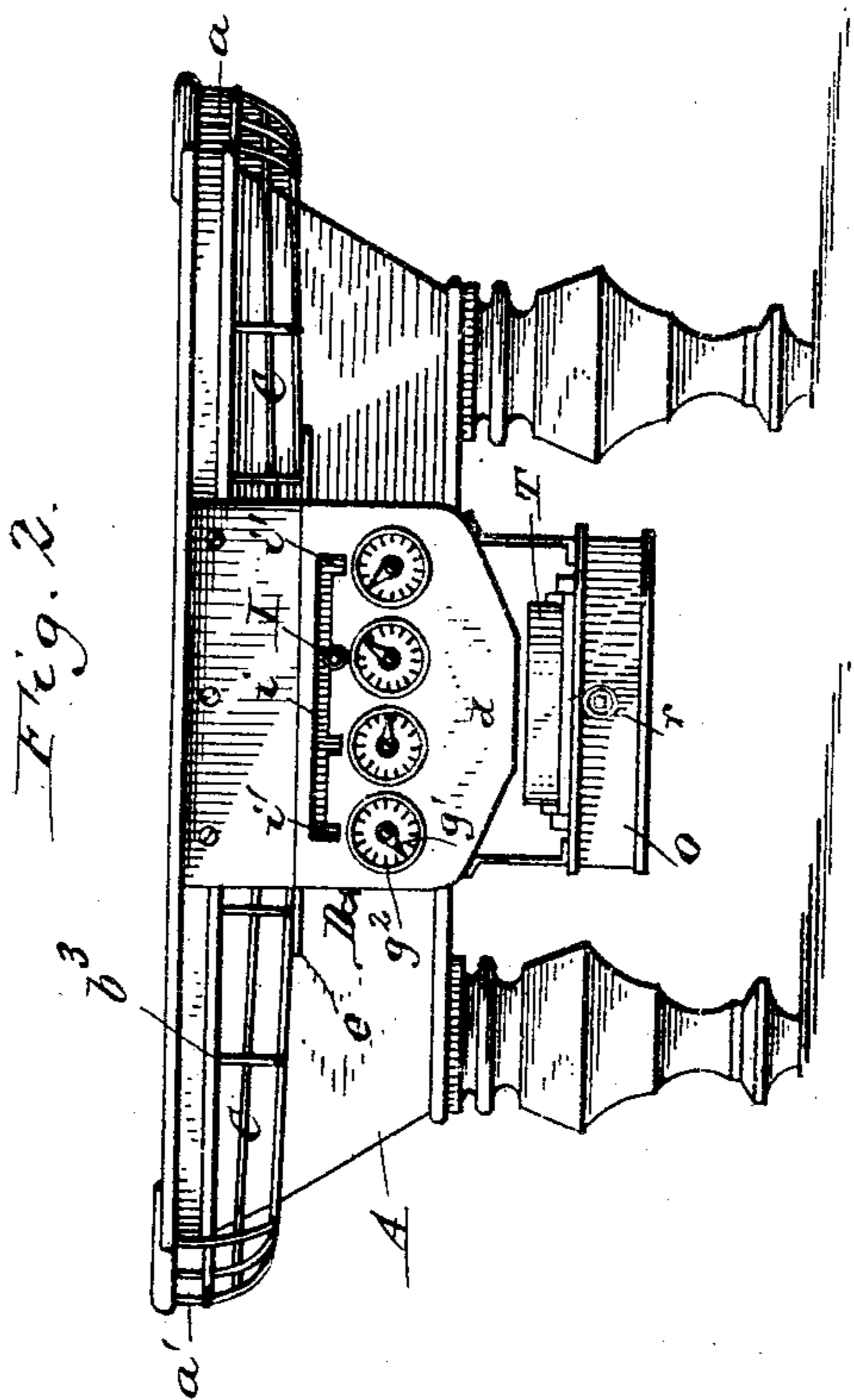
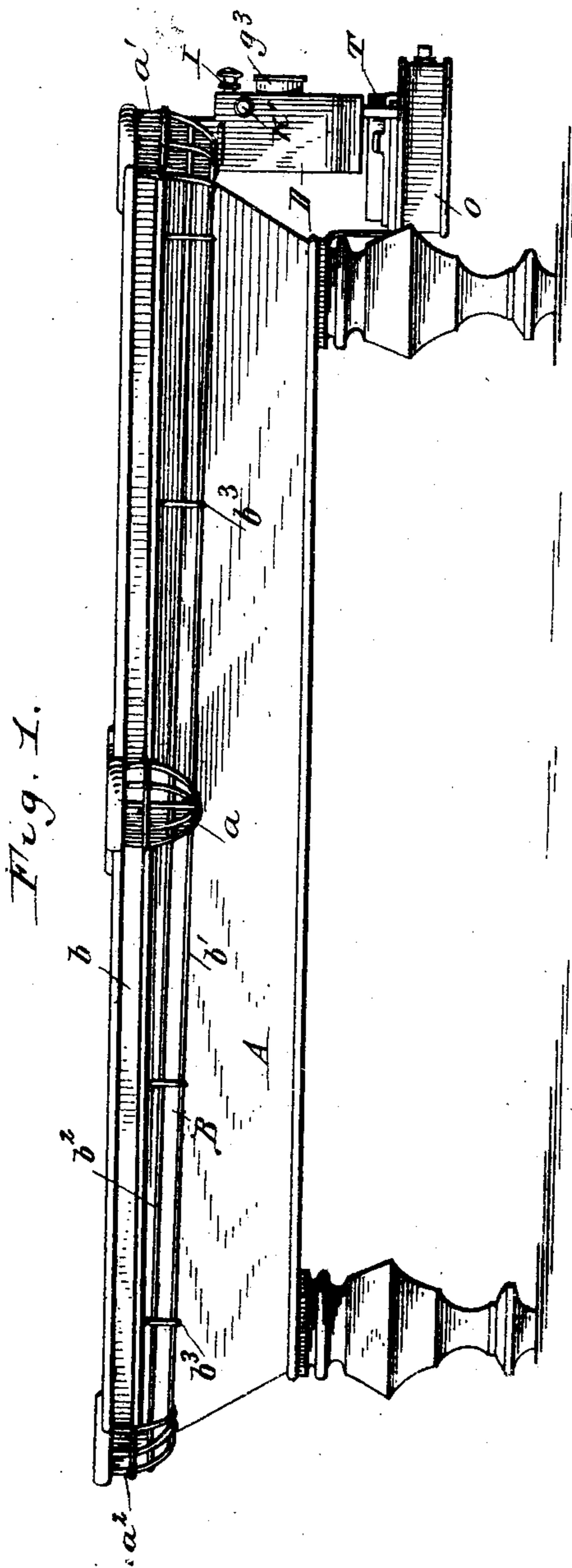
(No Model.)

3 Sheets—Sheet 1.

L. F. TORREY & J. LA SHA.
GAME COUNTER AND REGISTER FOR POOL TABLES.

No. 501,632.

Patented July 18, 1893.



Witnesses:

Theo. L. Popp
Fred C. Tyler

L. F. Torrey
Jerome La Sha } Inventors.

By Wilhelm Rimmer
Attorneys.

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Fig. 1.

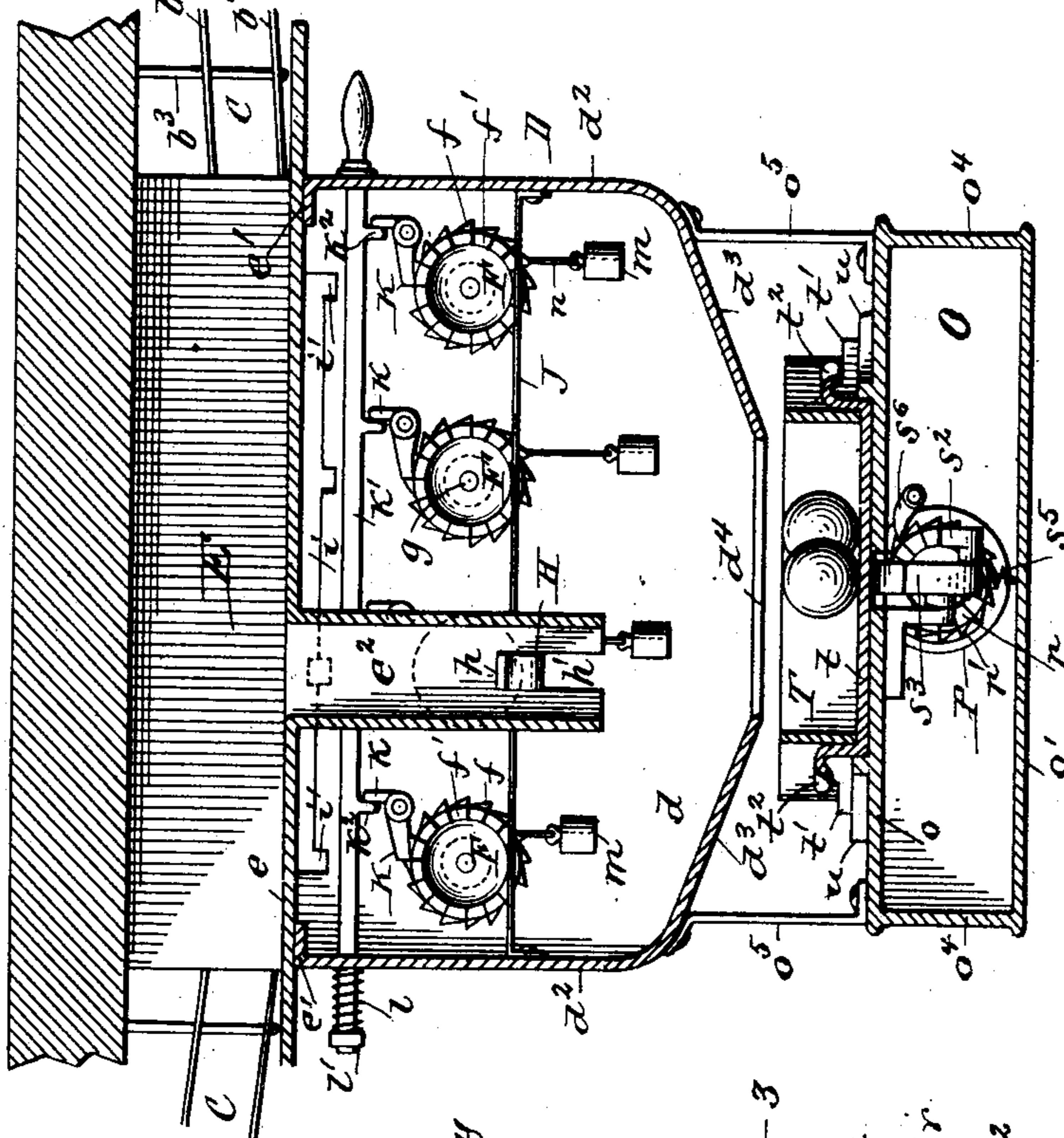
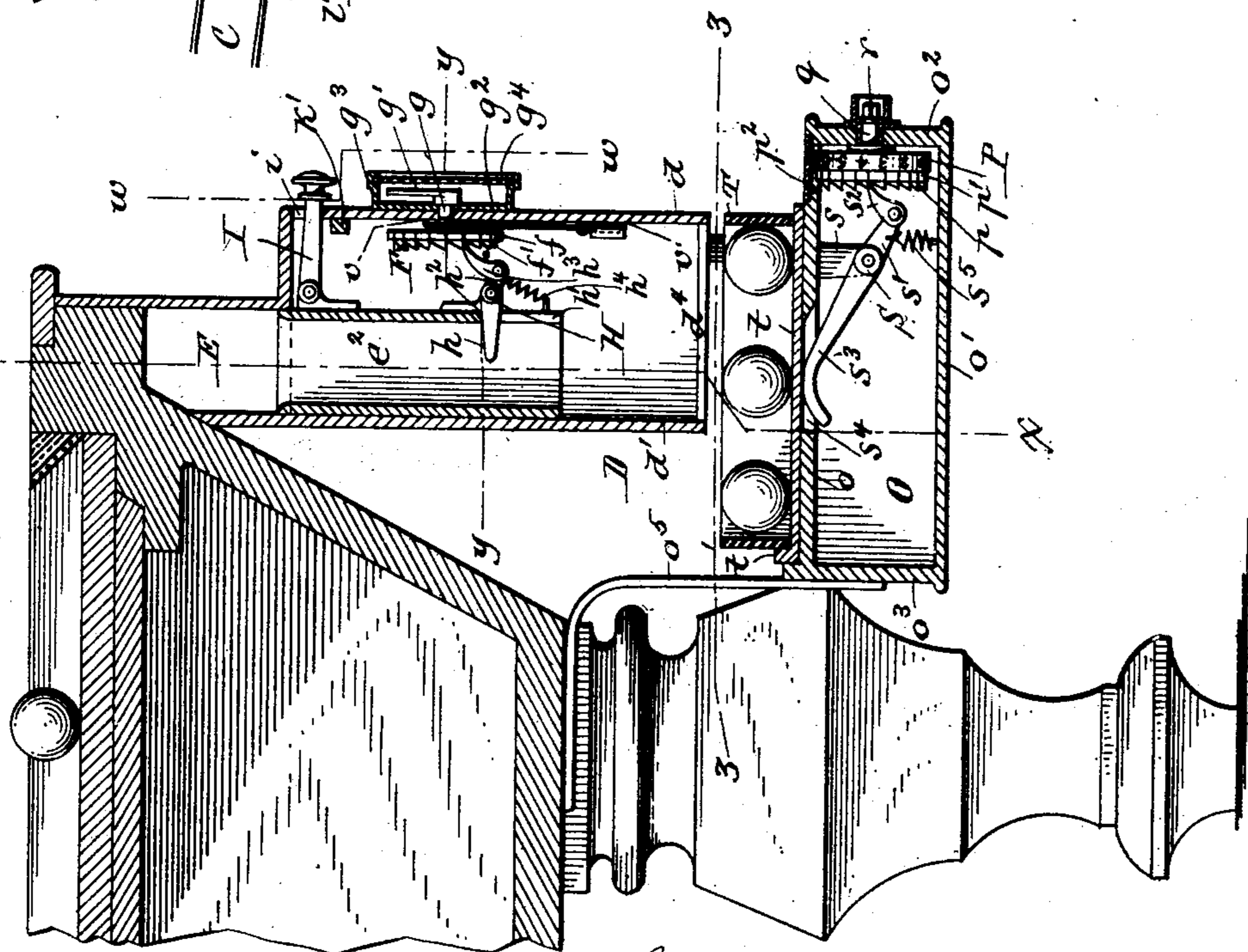


Fig. 3.



Witnesses:

Theo. L. Opp.
Fred. C. Geiger.

Levi F. Torrey
Jerome La Sha } Inventors.
By Wilhelm Rimmer
Attorneys.

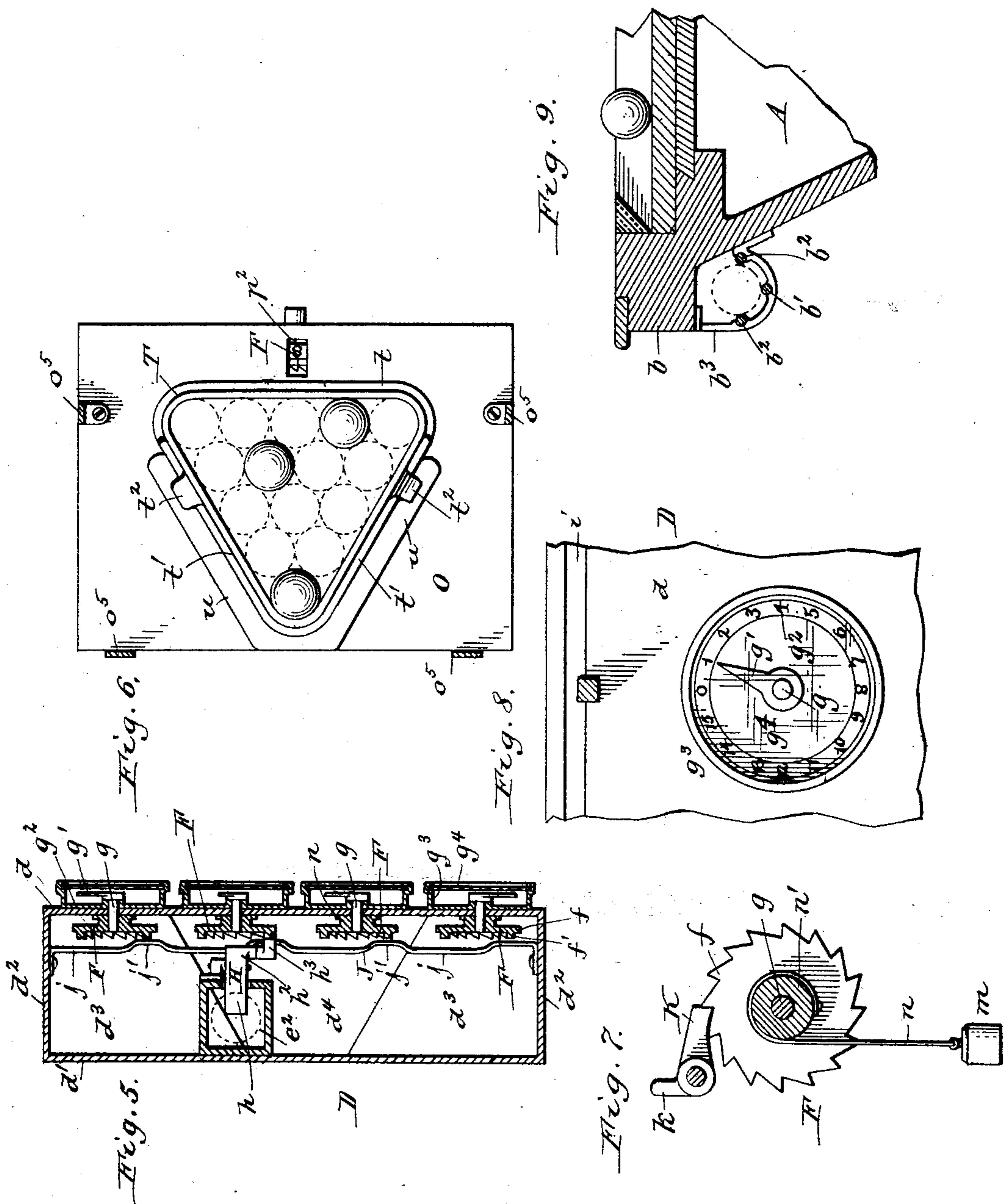
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Thos. L. Popp.
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By Wilhelm Rornet.
Attorneys.

UNITED STATES PATENT OFFICE.

LEVI F. TORREY AND JEROME LA SHA, OF SYRACUSE, NEW YORK, ASSIGNORS
TO MARGARET TORREY AND SALINA LA SHA, OF SAME PLACE.

GAME COUNTER AND REGISTER FOR POOL-TABLES.

SPECIFICATION forming part of Letters Patent No. 501,632, dated July 18, 1893.

Application filed July 20, 1892. Serial No. 440,667. (No model.)

To all whom it may concern:

Be it known that we, LEVI F. TORREY and JEROME LA SHA, citizens of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Pool-Tables, of which the following is a specification.

This invention relates to a registering device for pool tables whereby the balls made by each player and the number of games are registered.

In the accompanying drawings consisting of three sheets, Figure 1 is a side elevation of a pool table provided with our improvements. Fig. 2 is an end elevation thereof. Fig. 3 is a vertical longitudinal section through the registering mechanism and the front end of the pool table. Fig. 4 is a vertical transverse section in line $x-x$, Fig. 3. Figs. 5 and 6 are horizontal sections in lines $y-y$ and $z-z$, Fig. 3 respectively. Figs. 7 and 8 are fragmentary vertical sections, on an enlarged scale, in lines $v-v$, and $w-w$, Fig. 3. Fig. 9 is a fragmentary vertical section, on an enlarged scale, of the side portion of the pool table and the ball track.

Like letters of reference refer to like parts in the several figures.

A represents the pool table provided with the usual side pockets a , front corner pockets a' and rear corner pockets a^2 . The pockets on each longitudinal side of the pool table, comprising a front corner pocket, a rear corner pocket and a side pocket, are connected by a track or conveyer B which inclines from the rear end to the front end of the table. These tracks are arranged lengthwise underneath the longitudinal side rails b of the table and are preferably composed of longitudinal bottom and side wires b' b^2 , and transverse brackets b^3 secured to the wires b' b^2 and the adjacent portion of the table, as represented in Figs. 1, 2 and 9. The front ends of the tracks extend inwardly across the front end of the table and form chutes C which incline from their outer to their inner ends. When a ball is shot into any one of the pockets, it will be conducted to the front end of the table by the tracks and their chutes.

D represents the inclosing case of the ball registering mechanism which consists essen-

tially of front and rear walls d d' , side walls d^2 and inclined bottom portions d^3 extending inwardly from the lower ends of the side walls and separated at their inner ends to form an opening d^4 in the bottom of the case D. The upper end of the case D is provided with a contracted portion forming a channel E which connects the chutes of both ball tracks.

e represents a horizontal shifting board upon which the balls are deposited by the tracks and chutes. This board forms the bottom of the channel E and is supported with its end portions in slides e' formed upon the upper ends of the side walls underneath the inner ends of the chutes. The shifting board is provided at its middle with a depending tube e^2 through which the balls drop into the registering case D.

F represents a series of ratchet wheels, preferably four in number, which are arranged in a horizontal row between the front wall of the case D and the delivery tube. Each of these ratchet wheels is provided with an outer row of ratchet teeth f on its periphery and an inner row of ratchet teeth f' on its rear face at right angles to the peripheral row of ratchet teeth. The ratchet wheels are secured to short horizontal shafts g which are journaled in the front wall of the case D. Each of these shafts g is provided at its front end with a pointer g' , which traverses a dial g^2 secured to the front side of the case D. Each of these dials is provided with an annular row of numbers from 0 to 15. The dial and its pointer are preferably inclosed by a case g^3 having a glass front g^4 .

H represents a trip lever whereby the ratchet wheels are rotated for registering the balls made by each player. This trip lever is pivoted to the front side of the delivery tube and projects horizontally with its rear arm h through a slot h' into the delivery tube. The front arm h^2 of the trip lever is provided with a pawl h^3 which is adapted to engage with the inner rows f' of teeth on the ratchet wheels. Each ball which drops through the delivery tube depresses the rear arm of the trip lever, thereby raising the front arm and rotating the ratchet wheel and moving the pointer connected therewith ahead one number. The trip lever is returned to its normal

position by a spring h^4 secured with its ends to the delivery tube and the front arm of the trip lever. The pawl of the trip lever can be engaged with any of the ratchet wheels by shifting the shifting board and the delivery tube. For this purpose the shifting board is provided on its front side with a handle I which is pivoted to the board with its rear end, while its front end passes through the horizontal slot i formed in the front wall of the case D. The lower side of the slot i is provided with a number of notches i' , Fig. 4, in which the handle I engages and thereby holds the shifting board against lengthwise movement when the pawl of the trip lever is in engagement with one of the ratchet wheels.

J represents a guide rod whereby the pawl of the trip lever is guided from one ratchet wheel to another. This guide rod is arranged lengthwise in rear of the ratchet wheels and is secured with its ends to the side walls of the case D. The guide rod is bent to form alternately straight or rear portions j and indented or front portions j' . The indented portions are arranged in rear of those portions of the ratchet wheels with which the actuating pawl engages, as represented in Fig. 5. When it is desired to shift the trip lever to another ratchet wheel, the handle I is raised to disengage it from the notch i' corresponding with the ratchet wheel with which the pawl is in engagement and is then moved lengthwise in the slot i until it stands over the notch i' corresponding with the ratchet wheel of the indicator, which is to be engaged. When the pawl of the trip lever is in engagement with one of the ratchet wheels, the indentation j' of the guide rod clears the pawl and the rod does not interfere with its operation. Upon shifting the delivery tube and the shifting board, the pawl of the trip lever comes in contact with the rearwardly trending portion of the indentation of the guide rod and is swung backwardly and out of engagement with the ratchet wheel and held in this position by the straight part of the guide rod until the pawl has reached a position opposite the inner teeth of the next ratchet wheel, when the pawl is permitted to drop forward by the next indentation j' and engage with the said teeth.

K represents detent pawls which engage with the outer teeth of the ratchet wheels and hold the same against backward movement. The detent pawls are pivoted to the rear side of the front wall of the case D and provided with upwardly projecting ears k .

k' represents a shifting rod whereby the detent pawls are simultaneously disengaged from the ratchet wheels. This shifting rod is arranged lengthwise above the ratchet wheels and provided with depending lugs k^2 which engage against one side of the ears on the detent pawls. The shifting rod passes with its end portions through openings in the side walls of the case and is supported therein. One end of the shifting rod is provided with

a handle for shifting the rod to disengage the detent pawls. The opposite end of the shifting rod is surrounded by a spring l bearing with its ends against the side wall of the case D and a collar l' formed on the shifting rod, whereby the latter is moved in the opposite direction and the detent pawls are allowed to engage with the ratchet wheels.

m represents weights whereby the movement of the ratchet wheels is reversed and the pointers are returned to 0 on the dials. Each of these weights is attached by a cord n to a drum n' formed on the front side of the ratchet wheel. Upon rotating the ratchet wheel in the direction of the arrow in Fig. 7 by means of the trip lever, the cord n is wound upon the drum n' and the weight is raised. Upon moving the pawl of the trip lever out of engagement with the ratchet wheel and releasing the detent pawls from the ratchet wheels, the descent of the weights causes the ratchet wheels to turn simultaneously backward until all the pointers have reached the place of beginning.

O represents a case which incloses the mechanism for recording the number of games played on the pool table. The case O is arranged underneath the case D inclosing the ball registering mechanism and consists essentially of a top and bottom o o' , front and rear walls o^2 o^3 and side walls o^4 . The case O is preferably supported from the pool table and case D by hangers o^5 .

P represents an indicator wheel which registers the number of games. This wheel is arranged transversely in the front portion of the case O and is provided with an inner and an outer row of ratchet teeth p p' on its rear side while its periphery is provided with numerals from 0 upward. The upper portion of the indicator wheel projects into an opening p^2 formed in the top of the case O so that only one of the numerals on the periphery of the indicator wheel is visible at one time. The opening p^2 is preferably covered with glass to prevent tampering with the indicator wheel. The indicator wheel is secured to the rear end of a short shaft q which is journaled in the front wall of the case O and provided with a flat-sided key stem r on its front end.

S is a trip lever whereby the indicator wheel is rotated forwardly for recording the games. This trip lever is arranged lengthwise in the case O and pivoted between its ends to a depending bracket s secured to the top of the case O. The front arm s' of the trip lever S is provided with a pawl s^2 which engages with the inner ratchet teeth of the indicator wheel. The rear arm s^3 of the trip lever is adapted to project through an opening s^4 formed in the top of the case O. Upon depressing the rear arm of the trip lever S, the pawl on its front arm is raised and moves the indicator wheel forward one number. Upon releasing the rear arm, the pawl is again returned to its normal position by a spring s^5 secured with its ends to the front arm of the trip lever S and

the bottom of the case O. s^6 represents a detent pawl pivoted to the front wall of the case O and engaging with the outer teeth p' of the indicator wheel whereby the latter is held against backward movement.

T represents the triangular frame in which the pool balls are inclosed for the purpose of placing them upon the table. This frame is provided with a removable bottom t having cleats t' t' on two of its sides, whereby the frame is guided upon the movable bottom. The cleats t' of the bottom are provided with two handles t^2 t^2 whereby the bottom and frame containing the balls may be carried. The triangular frame and its bottom are placed upon the case O underneath the opening in the bottom of the case D so that the balls discharged from the latter will drop into the frame. The triangular frame is held in its proper position underneath the case D by two cleats u bearing against two sides of the bottom of the ball frame. Upon removing the frame and its bottom from the case O, the rear arm of the trip lever S rises up above the top of the case and upon replacing the frame and its bottom upon this case, the rear arm of the trip lever is depressed, thereby causing the indicator wheel to be operated and to register a game. This registration is made every time the frame is removed from and replaced upon the case O.

In playing pool, each of the players selects one of the dials to register the balls which he may win. Before shooting, each player shifts the board and delivery tube by means of the handle I so that the balls which he secures may be registered upon his dial.

The number on the indicator wheel which is visible through the opening in the top of the case O indicates the total number of games played. In order to turn the indicator wheel to the place of beginning, a key having a flat-sided socket is applied to the stem r of the shaft q and the latter is then turned forward until 0 appears through the opening in the case.

We claim as our invention—

1. The combination with the pockets of a pool table, the delivery tube and the tracks whereby the balls are carried from the pockets into said tube, of a shaft having a pointer at one end, a ratchet wheel secured to the opposite end of the shaft and provided with an outer row of teeth on its periphery and an inner row of teeth on one of its sides, a trip lever extending into the delivery tube and provided with a pawl engaging with the inner row of teeth, and a detent pawl engaging with the outer row of teeth, substantially as set forth.

2. The combination with the pockets of a pool table, the delivery tube, and the tracks whereby the balls are carried from the pockets into said tube, of a shaft having a pointer, a ratchet wheel secured to the shaft and provided with a drum, a trip lever extending into the delivery tube and provided with a pawl engaging with the ratchet wheel, whereby the

ratchet wheel is moved forward, a detent pawl engaging with the ratchet wheel, and a weight provided with a cord attached to the drum, whereby the ratchet wheel is moved backward when released from the detent pawl, substantially as set forth.

3. The combination with the pockets of a pool table and the tracks connected with said pockets, of a movable delivery tube receiving the balls from said tracks, a series of stationary indicators, and a trip lever mounted on the delivery tube and adapted to operate either of the indicators upon shifting the delivery tube, substantially as set forth.

4. The combination with the pockets of a pool table and the tracks connecting said pockets, of a delivery tube movably connected with said tracks, a series of indicators each of which is provided with a ratchet wheel, a trip lever mounted upon the delivery tube and having one arm extending into said tube, a pawl mounted upon the other arm of the trip lever and adapted to engage with any one of the ratchet wheels, and a guide rod whereby the pawl is engaged and disengaged from the ratchet wheels upon shifting the delivery tube, substantially as set forth.

5. The combination with the pockets of a pool table and the tracks connecting said pockets, of a delivery tube movably connected with said tracks, a series of indicators each of which is provided with a ratchet wheel, a trip lever mounted upon the delivery tube and having one arm extending into said tube, a pawl mounted upon the other arm of the trip lever and adapted to engage with any one of the ratchet wheels, and a guide rod supporting the pawl and having indented portions whereby the pawl is released, substantially as set forth.

6. The combination with the pockets of a pool table and the tracks connecting said pockets, of a delivery tube movably connected with said tracks, a series of indicators each of which is provided with a ratchet wheel, a trip lever mounted upon the delivery tube and having one arm extending into said tube, a pawl mounted upon the other arm of the trip lever and adapted to engage with any one of the ratchet wheels, detent pawls engaging with the ratchet wheels, and a shifting bar whereby the detent pawls are simultaneously released, substantially as set forth.

7. The combination with the pockets of a pool table and the tracks connecting said pockets, of a delivery tube movably connected with said tracks, a case inclosing the delivery tube and provided with a slot having notches, indicators arranged in said case and provided with ratchet wheels, a trip lever mounted on said tube and provided with a pawl adapted to engage with any one of the ratchet wheels, and a handle pivoted upon the delivery tube and arranged in the notched slot, substantially as set forth.

8. The combination with the pool table and its ball delivery tube, of a movable ball frame

adapted to receive the balls from said tube, a support for said frame arranged below said tube, a trip lever projecting above said support and adapted to be depressed by the ball frame, and an indicator operated by said trip lever, substantially as set forth.

9. The combination with the inclosing case provided with an opening in its top, and the ball frame provided with a removable bottom resting upon the case over said opening, of an indicator wheel arranged in said case and provided with ratchet teeth, and a trip lever having a pawl upon one arm which engages

with the ratchet teeth while its other arm is adapted to project above the top of the case through said opening and be depressed upon placing the frame with its bottom upon the case, thereby operating the indicator, substantially as set forth.

Witness our hands this 15th day of July, 20 1892.

LEVI F. TORREY.
JEROME LA SHA.

Witnesses:

THEO. L. POPP,
BENJ. STOLZ.