

(No Model.)

H. C. SMITH.
GAME APPARATUS.

No. 495,527.

Patented Apr. 18, 1893.

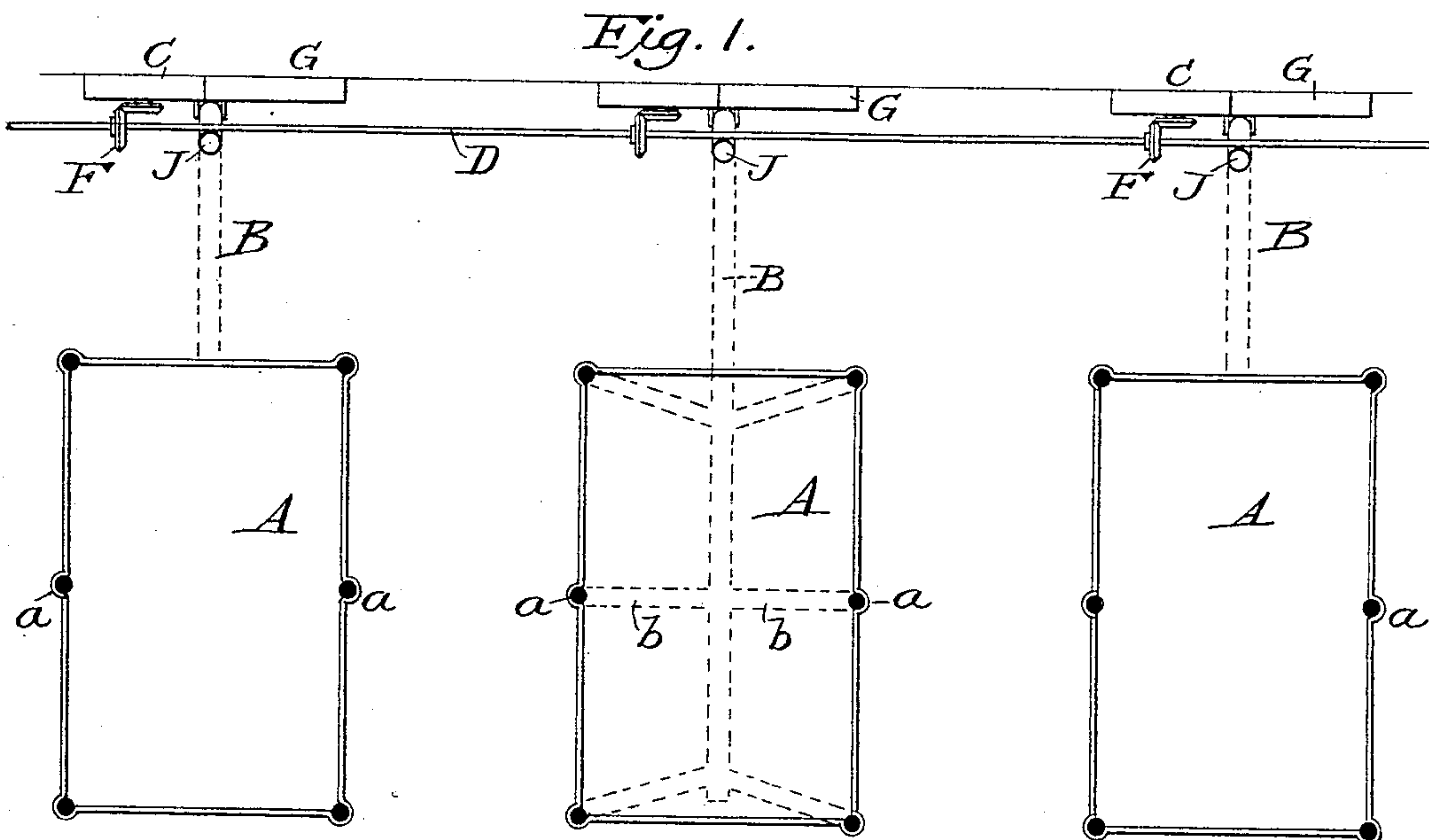


Fig. 3.

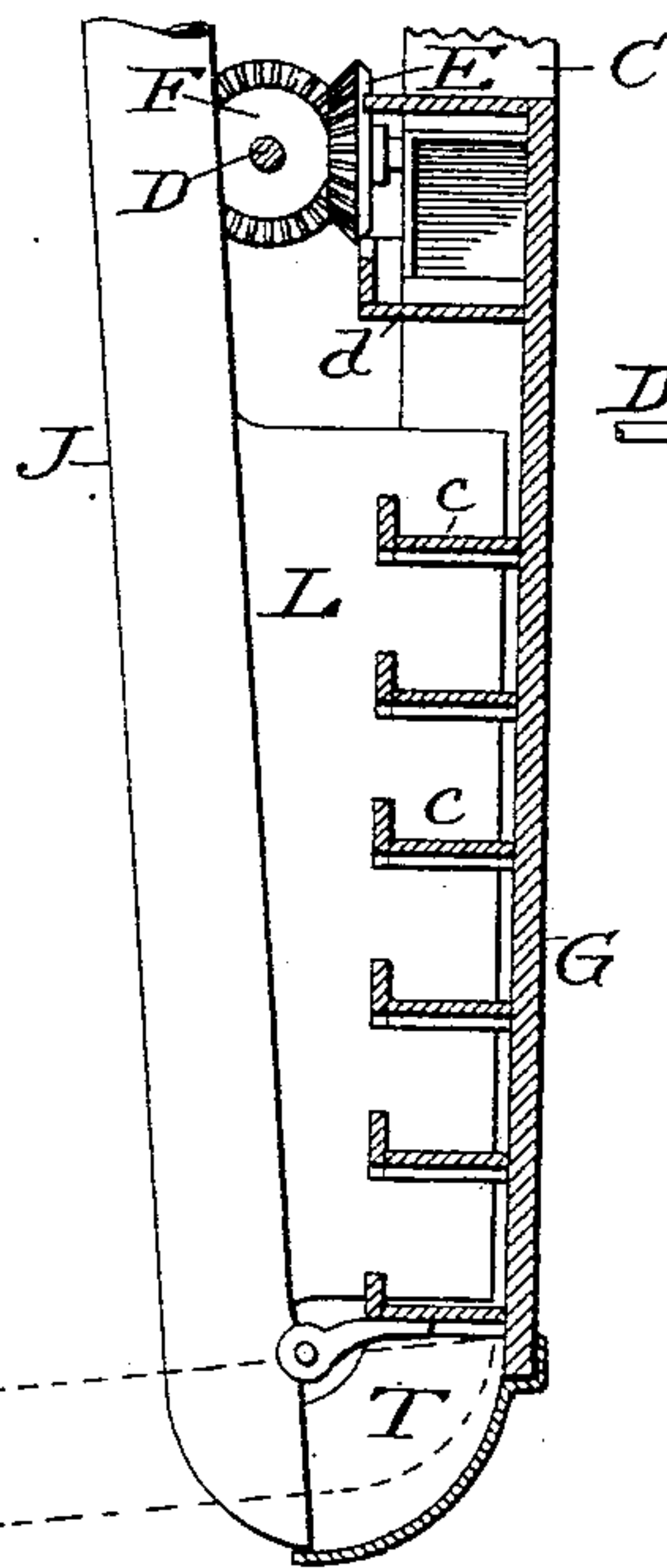


Fig. 2.

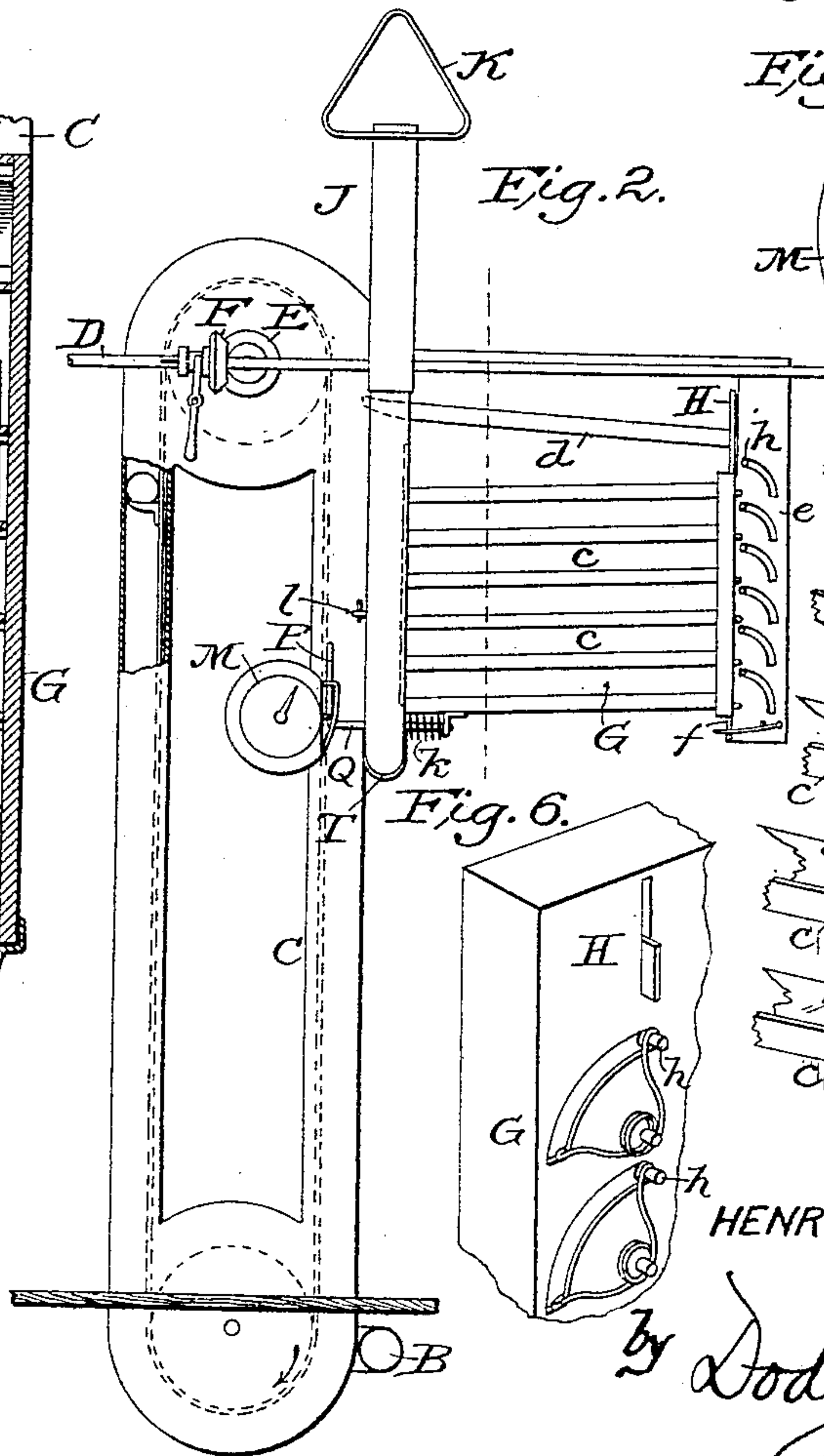


Fig. 4.

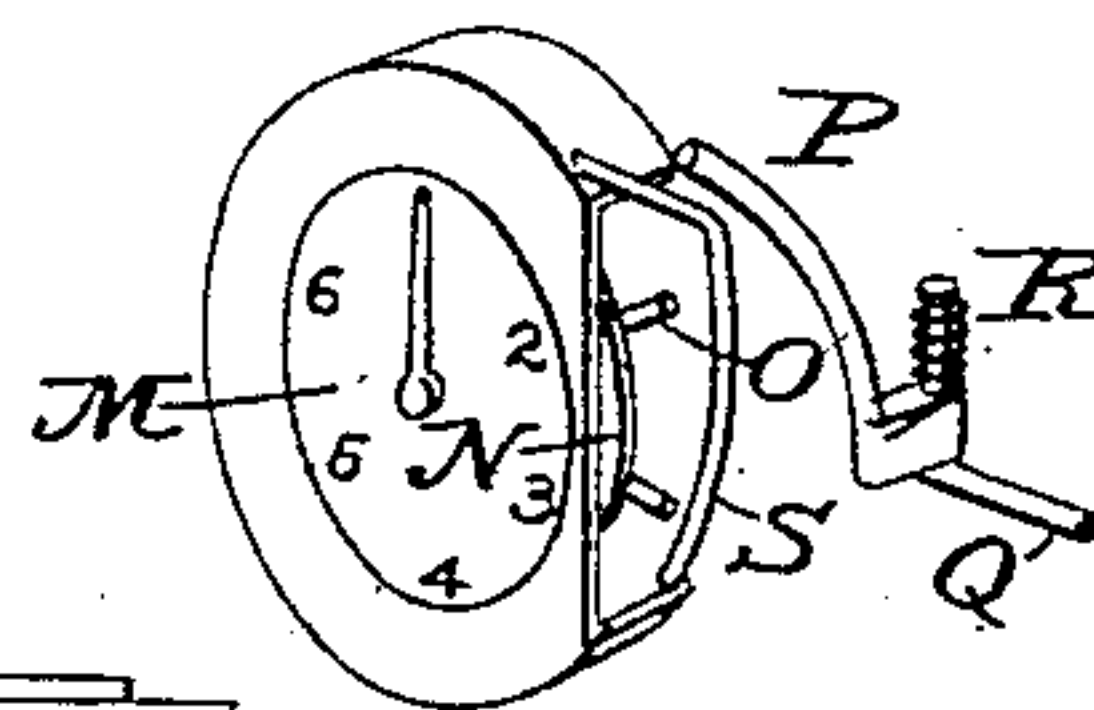


Fig. 5.

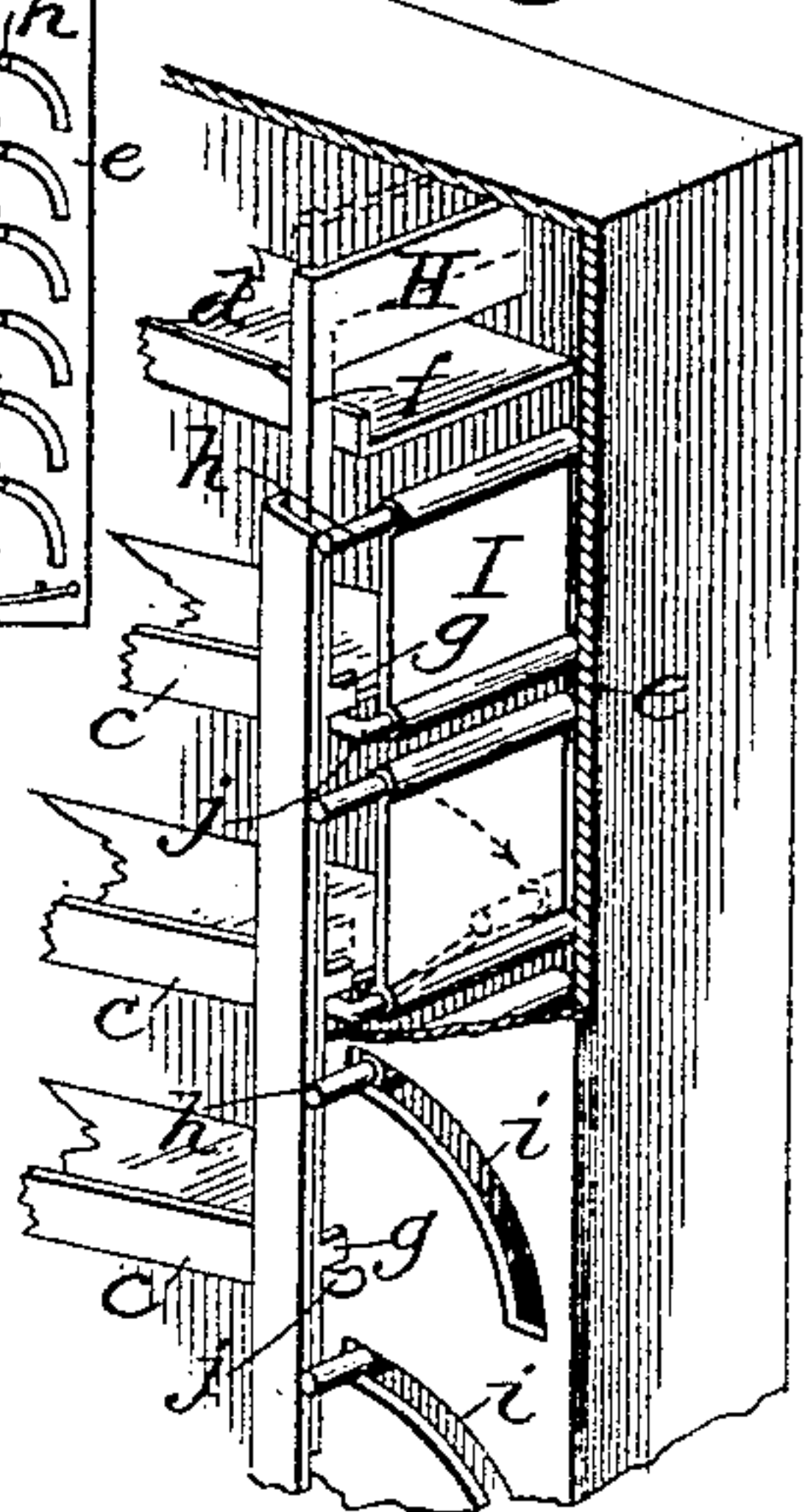
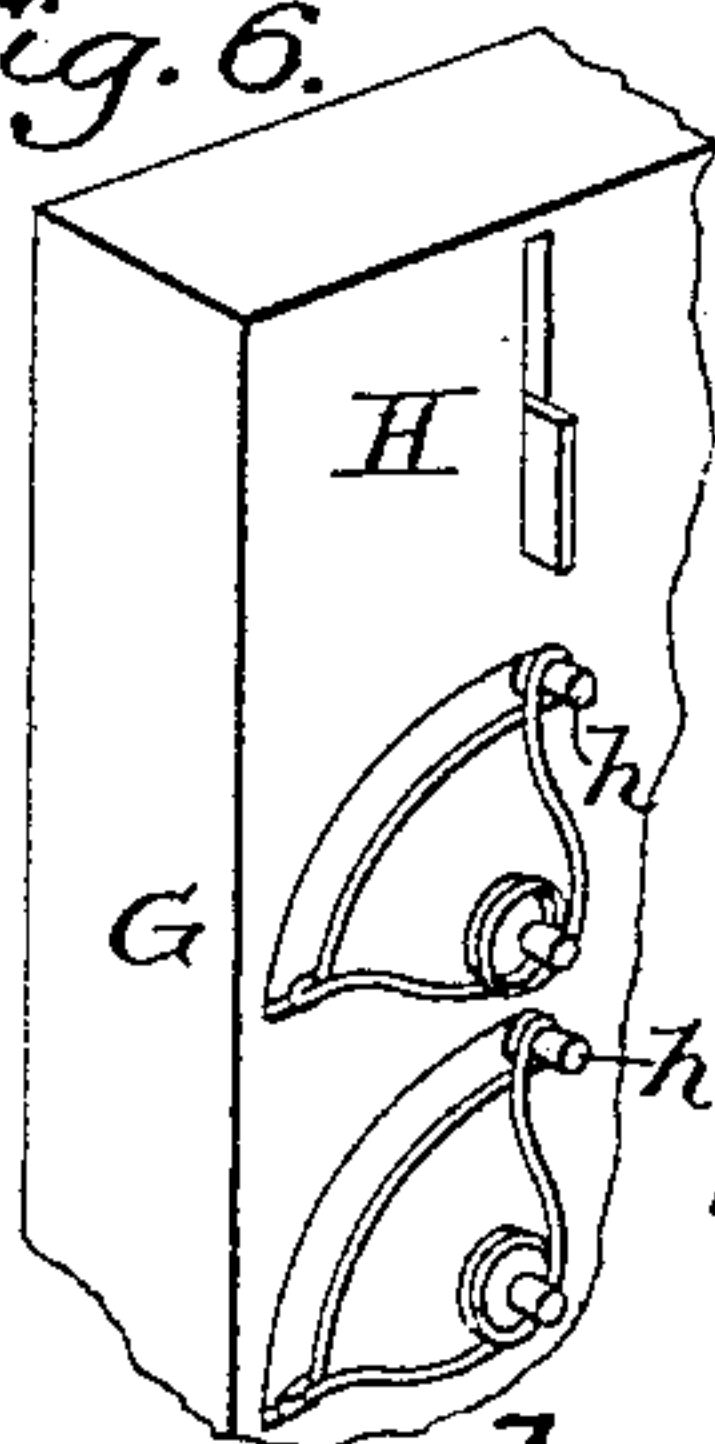


Fig. 6.



Witness:
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UNITED STATES PATENT OFFICE.

HENRY C. SMITH, OF ROANOKE, VIRGINIA.

GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 495,527, dated April 18, 1893.

Application filed May 31, 1892. Serial No. 434,993. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SMITH, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented certain new and useful Improvements in Game Apparatus, of which the following is a specification.

My invention relates to game apparatus, and consists in various features, details and combinations hereinafter set forth and claimed.

In the accompanying drawings,—Figure 1 is a top plan view showing my game apparatus applied to a series of tables. Fig. 2 is a front face view, partly in section, of the pool rack, elevator and pivoted discharge tube; Fig. 3, a vertical sectional view on the line $x-x$ of Fig. 2 on a slightly larger scale. Fig. 4 is a view illustrating the mechanism for actuating the register or indicator; and Figs. 5 and 6, views illustrating the construction of the valves or gates for retaining the balls in the uppermost compartment of the rack, and for discharging them in any one of the lower rack compartments.

A indicates an ordinary pool table having the pockets a , from which latter extend the branch pipes b ,—the said pipes b communicating at the head of the table with an inclined pipe B, which extends beneath the floor where it connects with the boot of an elevator C, as shown in Fig. 2. This elevator extends up against the side of the wall, and is designed to be actuated by means of a shaft D which, as shown in Fig. 1, extends across the room and in front of a series of these elevators. The upper wheel of the elevator is provided with a bevel pinion E which engages a similar pinion F secured upon the shaft D. The pinion F is keyed to the shaft so that while it turns or rotates with the shaft, it may be moved longitudinally with reference thereto so as to throw any one or more of the elevators out of action.

Secured to the side of the elevator near its upper end is a ball rack G, which has a series of shelves c as usual. At the top of the rack there is a larger shelf d which, as shown in Fig. 3, is much wider than the lower shelves, and is capable of holding all of the fifteen balls used in the ordinary game of fifteen-ball pool. This shelf d inclines downward from the elevator to or toward a vertical chan-

nel or passage e , which extends vertically along the right-hand end of each of the shelves of the rack. In order to prevent the balls upon the shelf d from falling into this passage or chamber, I provide a vertically moving gate H which, as shown in Figs. 5 and 6, is provided with a long stem f , which latter in turn carries or is provided with the lugs or arms g . These lugs or arms g correspond in number and position to the shelves c , which latter, I might mention, incline toward the elevator slightly, or in a direction opposite to that of the uppermost shelf d .

At the right-hand end of each of the shelves c is a valve or gate I which is designed to swing outwardly or into the passage or channel e , and to direct the balls falling from the shelf d onto the shelf c , whose gate is thus opened. Each of these gates I is provided with a stem or handle h which projects out through the front of the case of the rack which is slotted as at i to receive such stem or handle. These gates I are further provided with an arm j which projects from the axis or pivot of said gate and extends beneath the arm or lug g projecting from the stem f of the valve H. From this construction it will be seen that whenever any one of the gates I is operated or actuated its arm j will, acting through the lug or projection g raise the gate or valve H of the shelf d and permit the balls to fall from said shelf down into the passage e where they will strike the upper face of whichever gate or valve I happens to be thrown out into the passage way. Each of the valves or gates I is provided with a spring which shall return the gate to its normal position and keep it closed and out of the passage e . The vertically-reciprocating valve or gate H will also be provided with a spring which tends to keep it normally closed to prevent the balls from falling from the shelf d .

While in the drawings I have shown the stem of the valve or gate H on the front side of the rack, I do not wish to be understood as limiting myself to this arrangement, as it is obvious that the stem or valve may project along the rear face of the rack without involving any material change in the construction herein shown and described; in fact, it would be merely a reversal of what is

shown, and seems, therefore, to require no illustration.

J indicates a tube or conduit pivoted at its lower end to the rack G as shown in Figs. 1, 2 and 3, and carrying at its upper end a triangle K, by means of which latter the balls are placed in position upon the table. The axis or pivot of this tube is provided with a moderately strong spring *k*, which tends to return the tube to its upright position, but in order to hold the tube up out of the way, I provide a hook *l* or other suitable retaining device. This tube or conduit J is provided with a wing or blade L which, when the tube is in its upright position, extends across the left hand ends of all the shelves *c c*, as clearly shown in Fig. 3, and prevents the balls from rolling off said shelves. When, however, the tube or conduit J is swung down to the position indicated by the dotted lines in Fig. 3, the blade L, moving with the tube, is withdrawn from across the ends of the shelves and the balls will thereupon roll off the shelves and fall down into the end of the tube which is brought up under the opening formed in the bottom of the rack. The balls roll through the tube or conduit into the triangle at the end thereof, and are thus placed upon the table in proper position.

Secured to the elevator or to the wall of the arm is an indicator M, which may be of most any desired construction, but which should be provided with an armed wheel or a wheel as N, provided with arms or projections O which are designed to be struck by an arm P carried by the tube or conduit J every time the tube is swung down to place the balls upon the table. This arm P to which I have referred is pivoted to the upturned end of a second arm Q, and is pressed normally toward the indicator by means of a spring R, which may be arranged as shown in the drawings or in any other suitable manner. As the arm P moves downward to turn the wheel N, it rides along in contact with a spring arm S and moves the latter away from the indicator; but when the arm P reaches the limit of its downward movement it rides off the end of the spring arm S, which latter immediately resumes its normal position. Now when the tube is raised and the arm P is carried upward with it, the said arm will be prevented from striking the lugs or projections O of the wheel N, (and thereby turning the indicator backward or breaking it) by reason of the presence of the arm S, along the outer face of which the arm P moves as it is raised. When the arm P reaches the limit of its upward movement, it rides off the arm S, whereupon the spring R throws the arm P inward toward the indicator in position to again actuate the indicator.

The valves H and I, as well as the lower portion of the tube or conduit J, will be lined or provided with a cushion so as to prevent injury to the balls in falling upon the same.

When the tube or conduit J is first swung

down and outward, the blade L is withdrawn from across the end of the upper rack before it is withdrawn from across the ends of the lower racks and also before the lower curved end of the tube comes fully into position under the opening in the bottom of the rack, hence there would be a chance of the balls falling from the upper rack down through this opening onto the floor. To prevent this, I provide the rack with a guard plate T, which as shown in Fig. 3, extends beneath the opening in the bottom of the rack. This guard plate is preferably curved transversely to conform to the form of the tube, and directs the balls into the lower end of the latter.

When it is desired to place the balls upon any one of the tables, the tube J opposite that particular table is swung downward to the position indicated by the dotted lines in Fig. 3. As the tube is thus drawn down, the gate or cut-off L is withdrawn from across the ends of the racks *c*, whereupon the balls resting upon said racks or slats will roll down and fall into the pivoted end of the tube J, and will be conducted by the tube on to the table. The tube is then raised to the position shown in Figs. 2 and 3 and locked in its elevated position by any suitable means. As the game proceeds, the balls which are knocked into the pockets fall into the tube *b* and find their way into the large tube or pipe B which communicates with the lower end of the elevator. Here the balls are taken up and deposited on to the upper slat or rack *d*. As soon as one player has finished and all of the balls pocketed by him have been carried by the elevator into the rack, he actuates the valve or gate I opposite his particular rack *c*, thereby raising the gate H and allowing the balls to fall down upon the valve or gate I which has been swung out into the vertical channel at the right hand end of the ball rack proper. As soon as all the balls have rolled into his particular space in the rack, he releases the valve I and the springs return the latter as well as the main valve H to their normal positions. As the tube is swung down to conduct the balls to the table, the arm P strikes one of the projecting arms or fingers O of the registering device, thereby actuating the latter and making the reading on the register or indicator show the number of games that have been played upon the table.

Having thus described my invention, what I claim is—

1. In combination with a pool table having a tube or conduit extending from the pockets thereof, a pool rack, and an elevator adapted to convey the balls from the tube or conduit of the table to the pool rack.

2. In combination with a pool rack and elevator adapted to deliver the balls thereto, a pool table provided with pockets, a tube or conduit extending from the table to the elevator, and a pivoted discharge tube for transferring the balls from the rack to the table.

3. A pool rack provided with a shelf as *d* adapted to contain all of the balls, and also having a series of shelves as *c* adapted to hold one or more of the balls, and a series of valves or gates to direct the balls from the upper rack to the lower racks.

4. In a pool rack, the combination with the upper shelf *d* and its gate *H*, a series of shelves *c*, a gate for each shelf *d*, and a channel or passage way at the ends of the shelves into which the valves or gates are adapted to swing.

5. In combination with the upper rack *d* and its gate *H*, a series of racks below the same, a passage way at the ends of the racks, a gate for each of the racks *c* adapted to swing into the passage way, and connections between the valves or gates of the lower racks and the valve or gate of the upper rack, whereby the actuation of any gate of the lower racks will cause the actuation of the valve or gate of the upper rack.

6. In combination with the rack *G*, the pivoted tube or conduit *J* provided with the wing or blade *L*, which, when the tube is in its normal position, shall extend across the ends of

the shelves and prevent the balls from falling therefrom.

7. In combination with the stationary rack, a tube or conduit *J* provided with the gate or cut-off *L* extending across the ends of the rack,—said tube being so pivoted that when it is swung down to withdraw its gate *L*, the balls shall fall from the shelves into the end of said tube.

8. In combination with the indicator *M* and the spring arm *S* secured thereto, a pool rack the tube *J* hinged thereto and provided with a swinging arm *P* and the spring *R*, all substantially as shown and described.

9. In combination with a rack, having a guard plate *T*, the tube *J* hinged to the rack and having its lower end in proximity to the guard plate, all substantially as shown and described.

In witness whereof I hereunto set my hand in the presence of two witnesses.

HENRY C. SMITH.

Witnesses:

F. W. CROME,

H. D. TURNER.