

No. 749,698.

PATENTED JAN. 12, 1904.

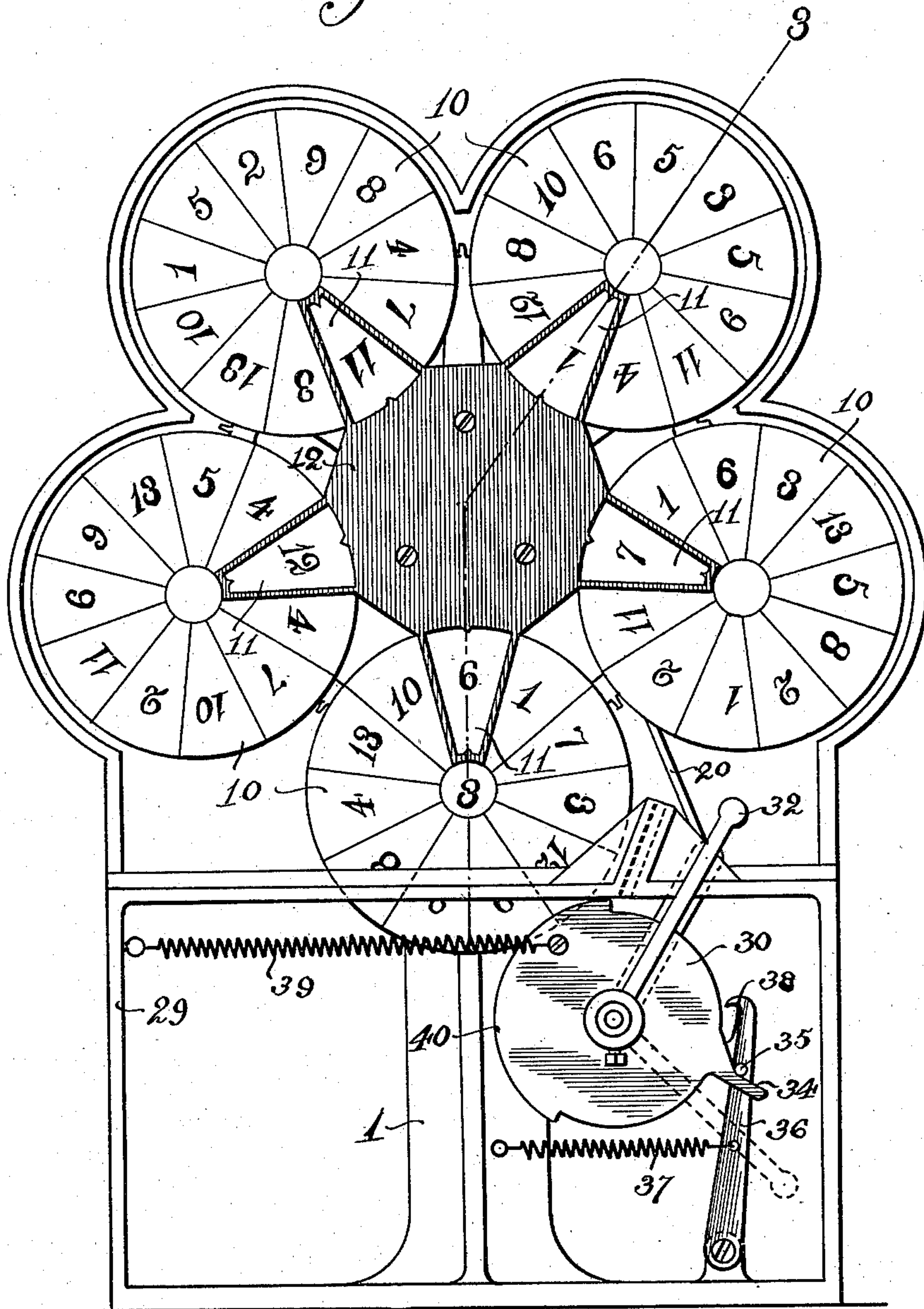
C. MOLITOR.
COIN CONTROLLED GAME APPARATUS.

APPLICATION FILED JAN. 13, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

C. F. Wilson
W. B. Snowhook

Inventor:

Charles Molitor
By *Rudolph L. [Signature]*
Attorney.

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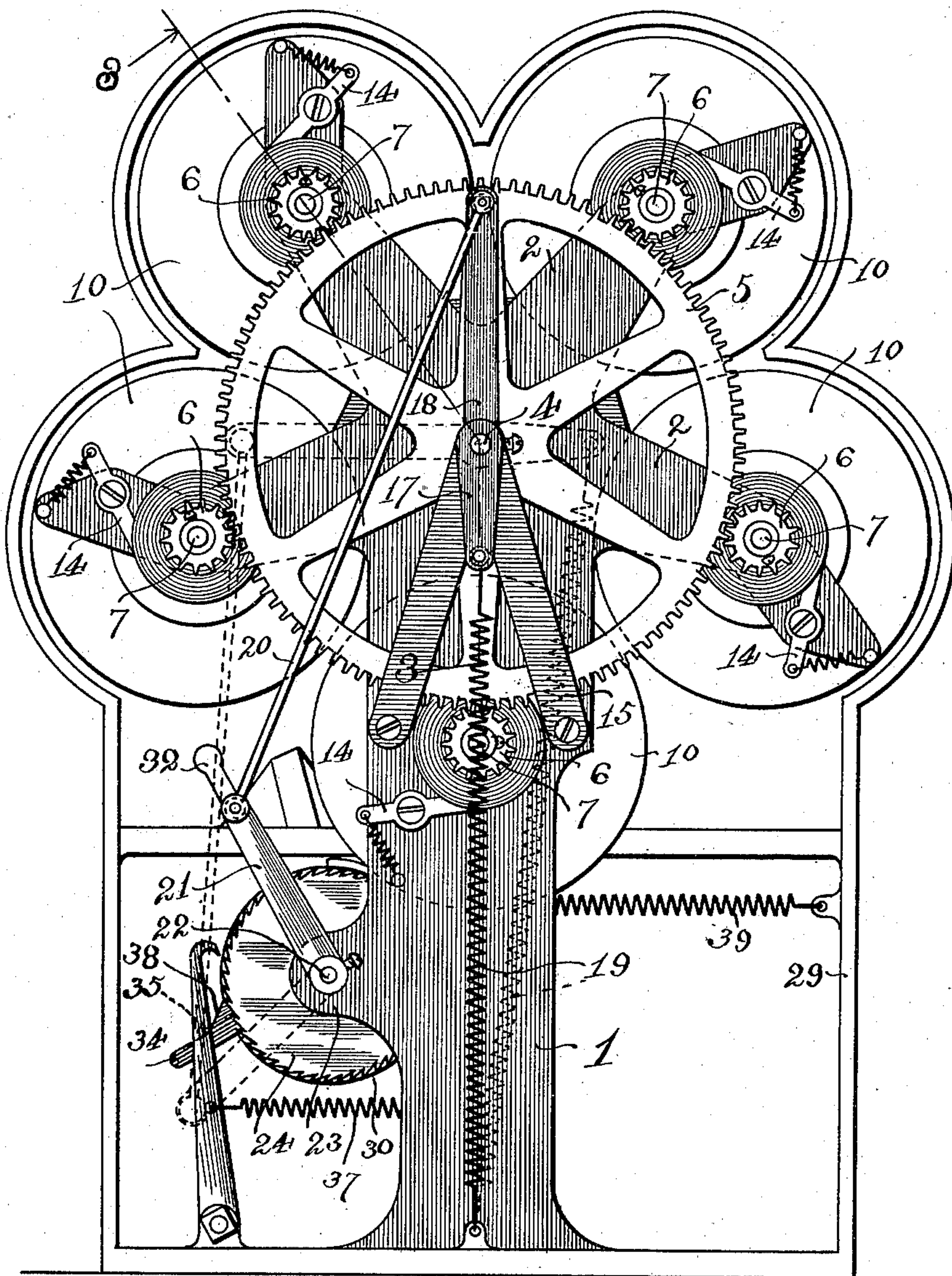
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NO MODEL.

3 SHEETS—SHEET 2.

Fig. 2.



Witnesses:

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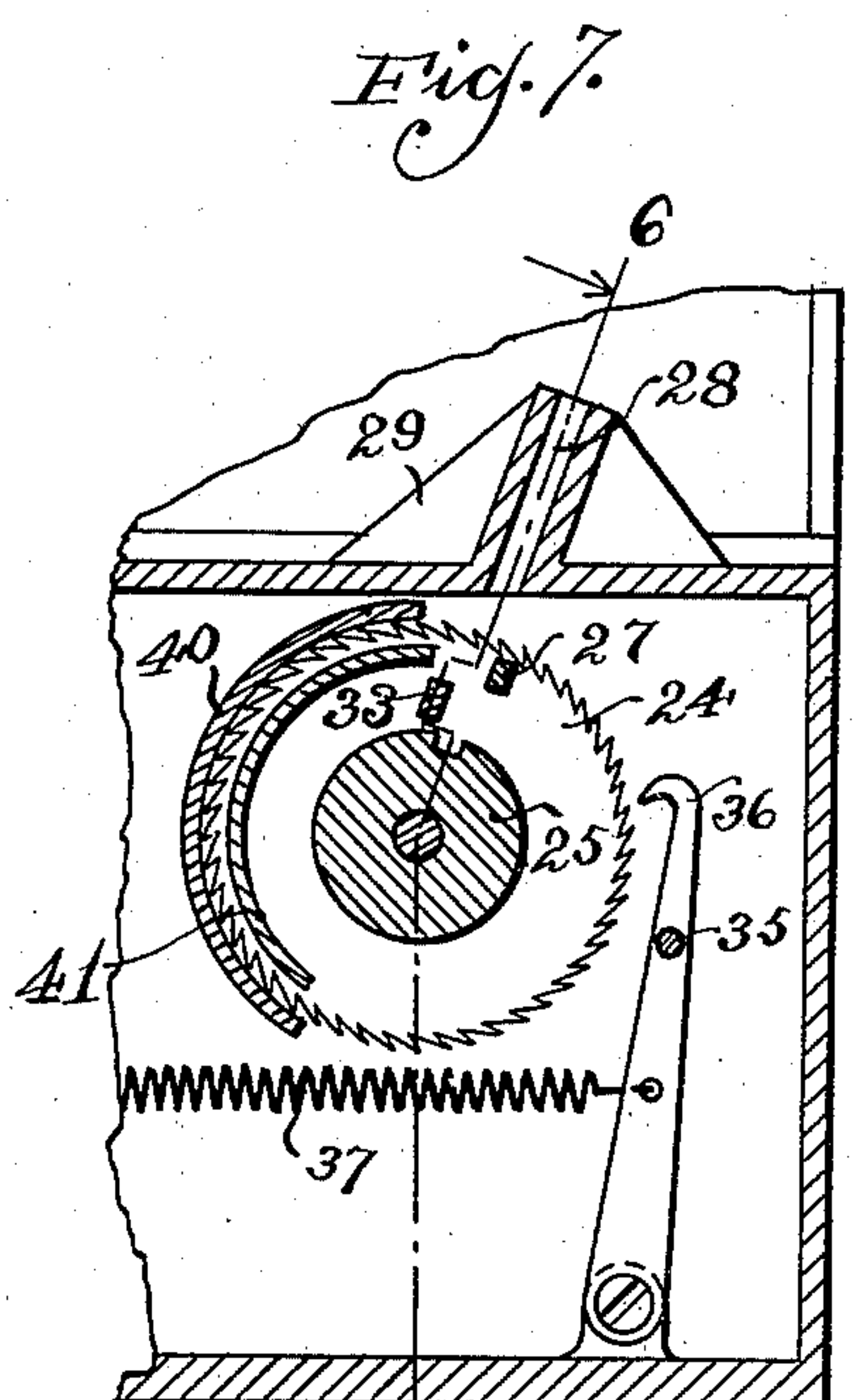
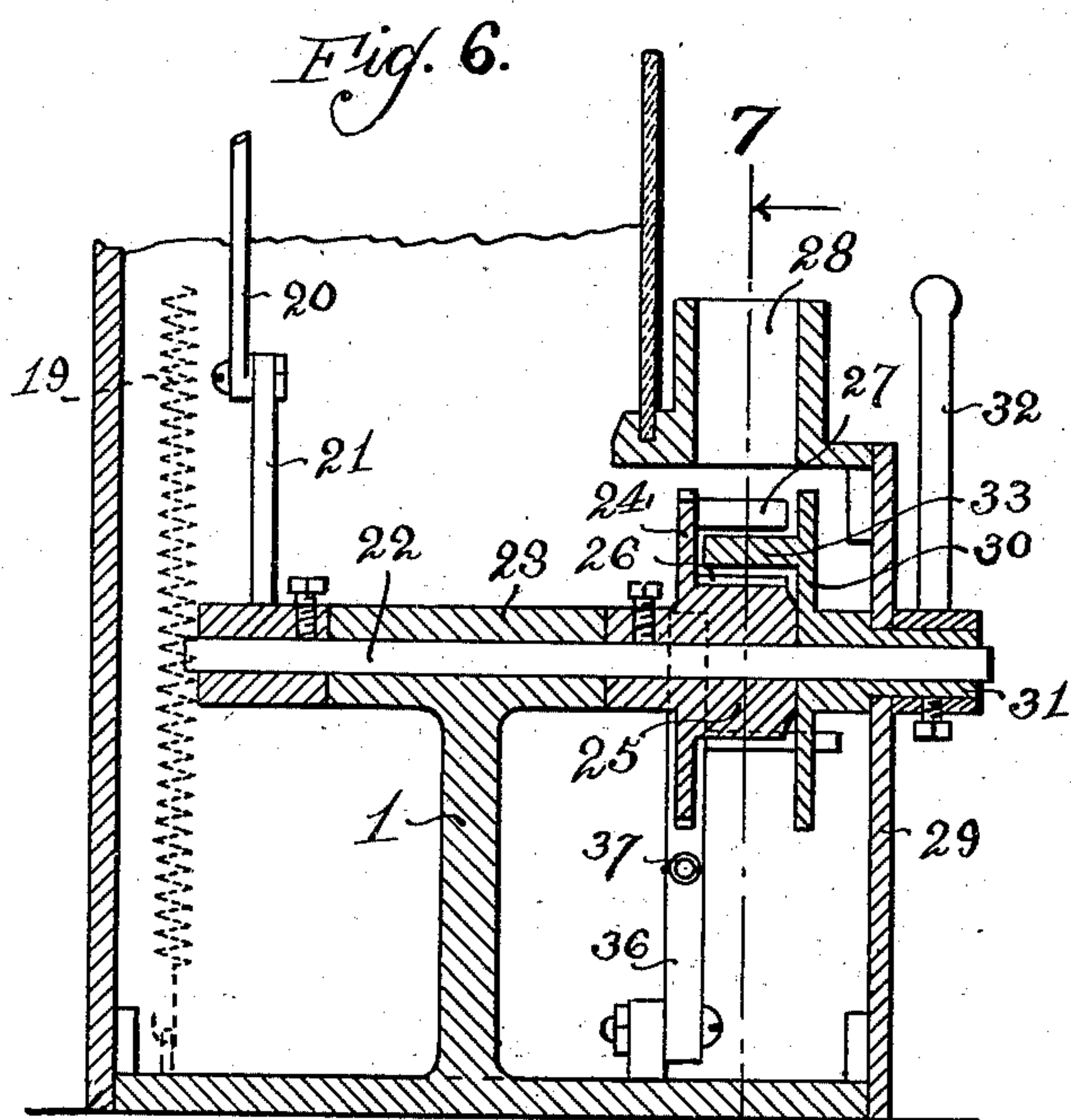
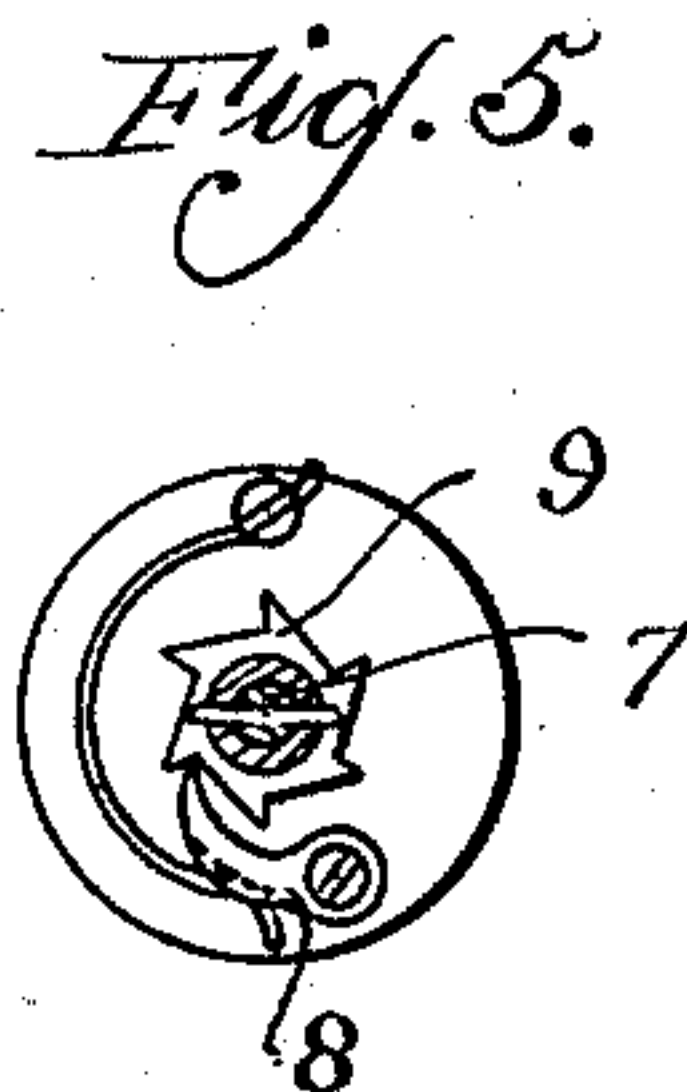
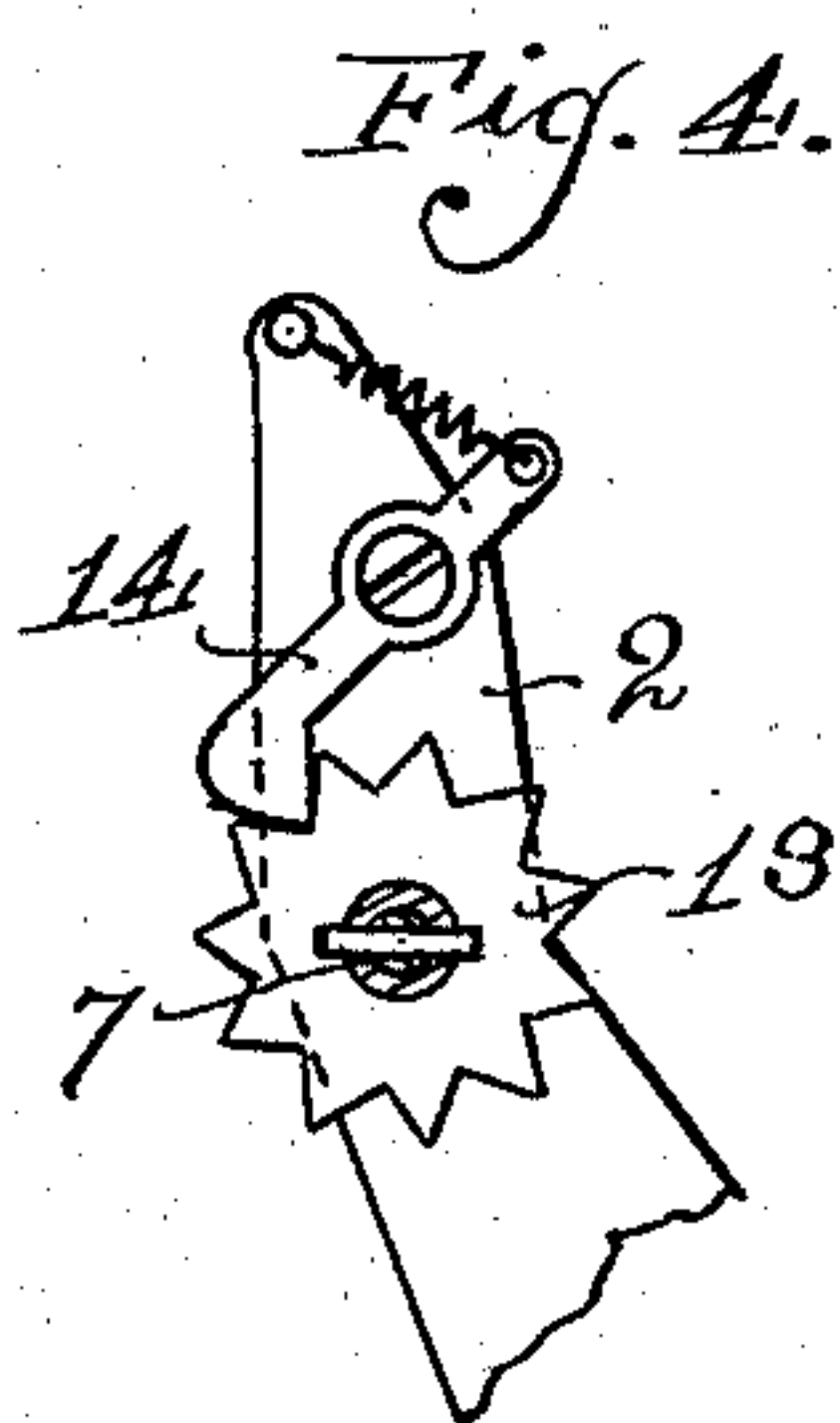
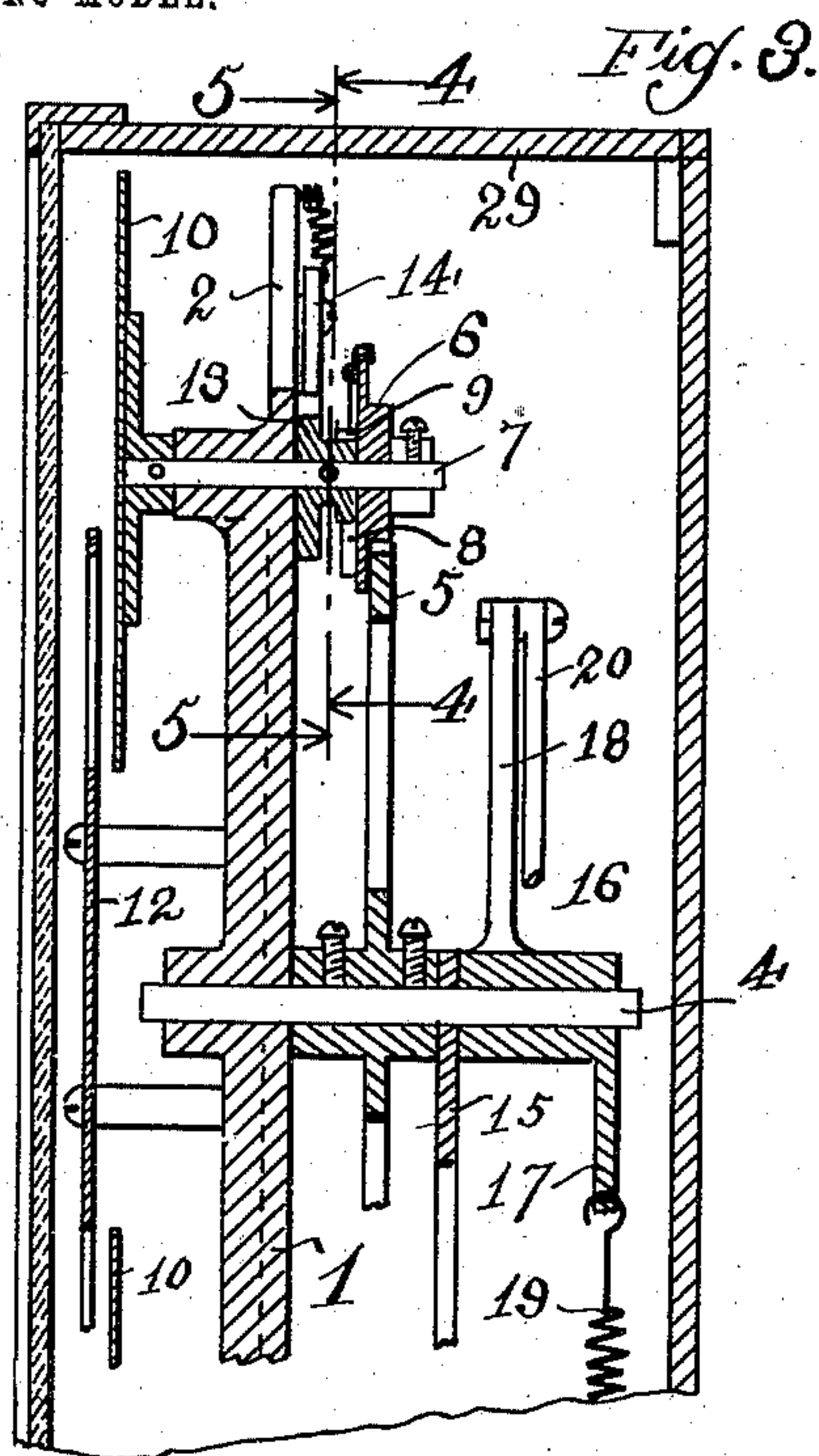
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COIN CONTROLLED GAME APPARATUS.

APPLICATION FILED JAN. 13, 1903.

NO MODEL.

3 SHEETS—SHEET 3.



Witnesses:

C. F. Wilson
Wm B. Snowhook

6 *Inventor:*

Charles Molitor
By *Rudolph Wm. [Signature]*
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UNITED STATES PATENT OFFICE.

CHARLES MOLITOR, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 749,698, dated January 12, 1904.

Application filed January 13, 1903. Serial No. 138,930. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MOLITOR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coin-Controlled Game Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in a coin-controlled game apparatus, the object being to provide a device of this character particularly adapted for use in stores to increase sales and which is very simple, cheap, and durable in construction; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a front elevation of an apparatus constructed in accordance with my invention, the front wall of the casing being removed. Fig. 2 is a similar rear elevation. Fig. 3 is a fragmentary section on the line 3 3 of Figs. 1 and 2. Figs. 4 and 5 are detail sectional views on the line 4 4 5 5 of Fig. 3 looking in opposite directions. Fig. 6 is a section on the line 6 6 of Fig. 7. Fig. 7 is a section on the line 7 7 of Fig. 6.

My said device consists of a standard 1, having a plurality of arms 2, radiating from a common center, at which is a bearing 3, in which a shaft 4 is journaled. Said shaft carries a large spur-gear 5, meshing with a plurality of spur-pinions 6, mounted on counter-shafts 7, journaled in bearings in the end portions of said arms 2. Said spur-pinions 6 are loosely mounted on said counter-shafts 7 and each carries a spring-actuated pawl 8, engaging a small ratchet-wheel 9, rigidly mounted on each of said shafts, so that each of said pinions is free to revolve in one direction independently of the shaft on which it is journaled, but in revolving in the opposite direction causes the shaft to revolve with it. Each of said counter-shafts 7 carries a circular disk 10 at one end, which is radially divided into eleven segmental divisions, each of which is adapted to

register with a similar segmental opening 11 in a star-shaped frame 12, rigidly mounted on said standard 1 concentrically with the bearing 3. In order to cause each of said counter-shafts 7 to come to a standstill, so that one of the divisions of its disk 10 will register with the said opening 11 of the frame 12, I provide a star-shaped wheel 13 adjacent the ratchet-wheel 9, having eleven points or teeth and which is engaged by a spring-actuated dog 14, having a V-shaped projection adapted to enter the recesses between the points or teeth of said wheel and cause the latter to stop at predetermined points in its revolution, as will be obvious. In order to accomplish this, it is necessary to provide for a slight reverse motion of said counter-shafts 7. This is done by leaving considerable play room between the teeth of the spur-gear and those of the pinions, the teeth of the latter being very much smaller than and lying loosely in the recesses between the teeth of the spur-gear. The shaft 4 is further supported by an inverted-V-shaped bracket 15, in which it is journaled, said bracket 15 being secured at its lower end to two studs or projections on the rear face of said standard 1. At its rear end said shaft carries a collar 16, having two arms 17 and 18, said arm 17 being connected at its outer end with one end of a spring 19, connected at its other end with the base of the standard 1. The said spring serves to normally hold said shaft 4 in a given position and to return it to said position when revolved against the action of said spring. The said arm 18 is connected by means of a link 20 with an arm 21 of a shaft 22, journaled in a bearing 23 on the lower end of said standard. The said shaft 22 carries a ratchet-wheel 24, having an enlarged hub 25, provided with a groove 26, and also carries an arm 27, projecting over said groove 26 in said hub, the coin controlling said mechanism being adapted to enter said groove 26 and rest against said arm 27, said coin being introduced through a slot 28 in the casing 29. Loosely mounted on said shaft 22 is a disk 30, having an elongated hub or sleeve 31 passing through the casing and carrying a lever 32 at its outer end. Said disk 30 is provided with a crank-pin 33, projecting over the hub 25 and so located as to enable it

to pass freely below the arm 27 of the ratchet-wheel 24, so that before a coin is introduced said disk 30 can be turned without turning said shaft 22. However, when a coin has been introduced the said crank-pin 33 will obviously bear against the same when the arm 32 is turned, and thereby turn the shaft 22. The said disk 30 also carries a radial arm 34, adapted to engage an arm 35 on a dog 36, pivotally secured to the base of said standard 1 and held in engagement with said ratchet-wheel 24 by means of a spring 37. The said arm 34 is enlarged adjacent the periphery of said disk 30 to form an inclined face 38, which by engagement with said arm 35 of said dog forces the latter out of engagement with said ratchet-wheel 24 and leaves the latter free to revolve. The said disk 30 is normally held in the position shown in Figs. 2 and 7 by means of a tension-spring 39, secured at one end to one wall of the casing 29, so that the arm 34 engages the said arm 35 to normally hold said dog 36 out of engagement with said ratchet-wheel 24.

The operation of my device is as follows: A coin is introduced into the slot 28 of the casing 29 and enters the groove 26 in the hub 25 of the ratchet-wheel 24 and lies between the arm 27 of the latter and the crank-pin 33 of the disk 30. By then turning the lever 32 the shaft 22 is obviously revolved, and through the medium of the connection between the arm 21 thereof and the arm 18 of the shaft 4 the spur-gear 5 is revolved against the action of the spring 19. The spur-pinions 6 are thus also revolved in the direction in which they are free to do so, the counter-shafts 7 on which said spur-pinions are mounted remaining inert. As soon as said disk 30 begins to revolve the dog 36 is released and springs into engagement with the ratchet-wheel. The lever 32 is turned to the position shown in dotted lines in Fig. 1, which is determined by a stop on the casing 29, and by then releasing same the coin will fall out, the disk 30 will spring back to the position shown in full lines, Fig. 1, and the arm 34 thereof will throw the dog 36 out of engagement with the ratchet-wheel 24. The latter is thus released and it and said spur-gear and spur-pinions are revolved in the reverse direction by means of the spring 19 and returned to the position shown in full lines in Fig. 2. By the engagement of the spring-pawls 8 with the ratchets 9 the counter-shafts 7 are rapidly revolved, and by the impetus given same continue to revolve after the spur-gears have stopped, gradually coming to a standstill. The dogs 14 cause each of the counter-shafts 7 to come to a standstill, so that one of the divisions of the disk carried thereby registers with the opening 11 in the frame 12. When all of said shafts have come to a standstill, the numerals appearing in each opening of the frame 12 are added or the combinations formed are noted, certain sums or

combinations entitling the operator to certain benefits.

In order to insure irregular revolution of the disks, I vary the number of teeth on different spur-pinions, thereby causing some of said disks to revolve more rapidly than others.

In order to prevent a second coin from entering until the first coin inserted has been used, I provide a guard-plate 40 on the disk 30, which closes the delivery end of the slot 28 when said disk is turned and upon which a second coin would rest until the first is released and said disk 30 and ratchet-wheel 24 resume their original positions, which is almost instantaneously after releasing the lever 32.

I claim as my invention—

1. In a coin-controlled game apparatus, the combination with two relatively movable members adapted to be interlocked by means of a coin, of a rotating member actuated to revolve in one direction by means of a spring, connection between said rotating member and one of said interlocking members to rotate said member against the action of said spring, a plurality of disks rotatably mounted on the frame of the machine, gearing between said disks and said rotating member, and clutch devices interposed in said gearing to cause said disks to be rotated by the motion of said rotating member in one direction, substantially as described.

2. In a coin-controlled game apparatus, the combination with a spur-gear revolubly mounted on the frame of the machine, connection between said spur-gear and a spring for normally holding said spur-gear in a given position, a plurality of disks revolubly mounted on said frame, gearing between said disks and said spur-gear, clutch devices interposed in said gearing to cause said disks to be revolved in unison with said spur-gear in one direction only, stop mechanism interposed in said gearing to cause said disks to stop in predetermined positions, a shaft journaled in the frame of said machine connection between said shaft and said spur-gear, coin-receiving devices on said shaft, and devices for engaging said coin and thereby rotating said shaft and said spur-gear against the action of the spring controlling the latter, substantially as described.

3. In a coin-controlled game apparatus, the combination with a spur-gear revolubly mounted on the frame of the machine, connection between said spur-gear and a spring for normally holding said spur-gear in a given position, a plurality of disks revolubly mounted on said frame, gearing between said disks and said spur-gear, clutch devices interposed in said gearing to cause said disks to be revolved in unison with said spur-gear in one direction only, stop mechanism interposed in said gearing to cause said disks to stop in predetermined positions, a shaft journaled in the frame of said machine connection between said

shaft and said spur-gear, coin-receiving devices on said shaft, a revoluble member loosely mounted on said shaft, and devices carried thereby adapted to engage said coin to rotate
5 said shaft in unison with said revoluble member, whereby said spur-gear is revolved against the action of said spring, substantially as described.

4. In a coin-controlled game apparatus, the
10 combination with a spur-gear revolubly mounted on the frame of the machine, connection between said spur-gear and a spring for normally holding said spur-gear in a given position, a plurality of disks revolubly mount-
15 ed on said frame, gearing between said disks and said spur-gear, clutch devices interposed in said gearing to cause said disks to be revolved in unison with said spur-gear in one direction only, stop mechanism interposed in
20 said gearing to cause said disks to stop in predetermined positions, a shaft journaled in the frame of said machine connection between said

shaft and said spur-gear, coin-receiving devices on said shaft, a spring-actuated revoluble member loosely mounted on said shaft and
25 carrying devices adapted to engage the received coin to rotate said shaft, a ratchet-wheel on said shaft, a spring-actuated dog engaging same, and devices on said revoluble member adapted to engage said dog to throw the same
30 out of engagement with said ratchet-wheel and release said shaft when said revoluble member is released, whereby said spur-gear and said shaft will be returned to their normal positions by the spring connected with said spur-
35 gear and said disks will be revolved, substantially as described.

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

CHARLES MOLITOR.

Witnesses:

RUDOLPH WM. LOTZ,
WM. B. SNOWHOOK.