No. 719,141.

PATENTED JAN. 27, 1903.

C. C. REINHARDT.

TOY SHOOTING GALLERY.

APPLICATION FILED JUNE 10, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 3.

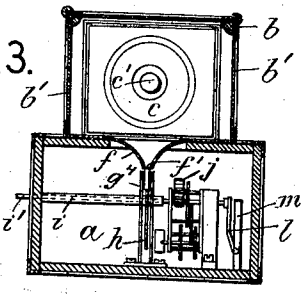


FIG. 2.

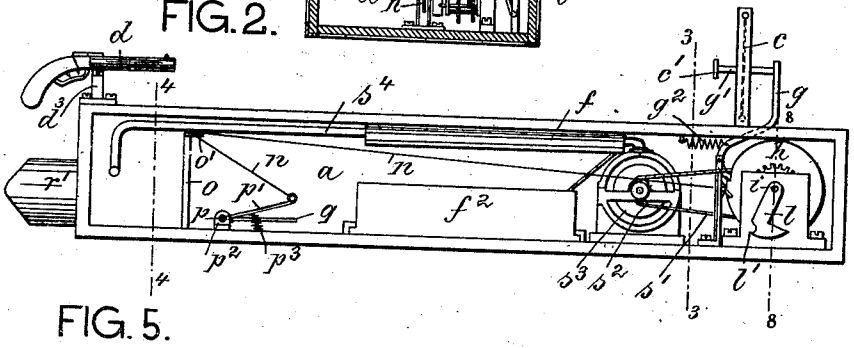


FIG. 5.

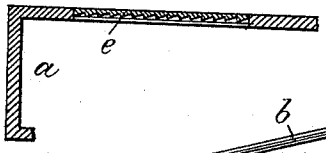


FIG. 1.

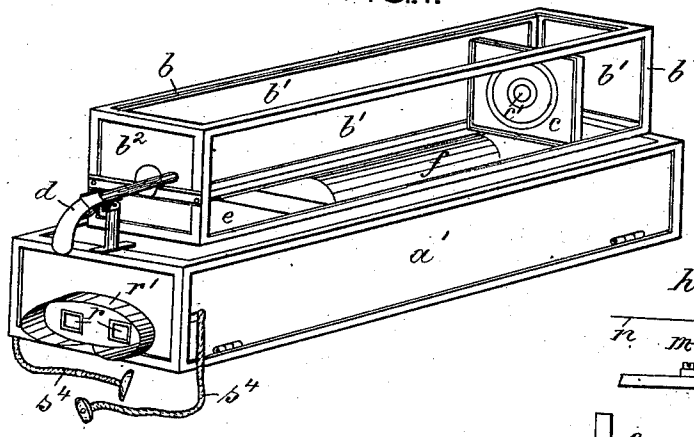


FIG. 6.

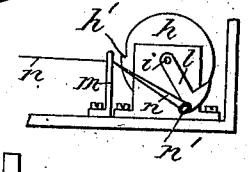
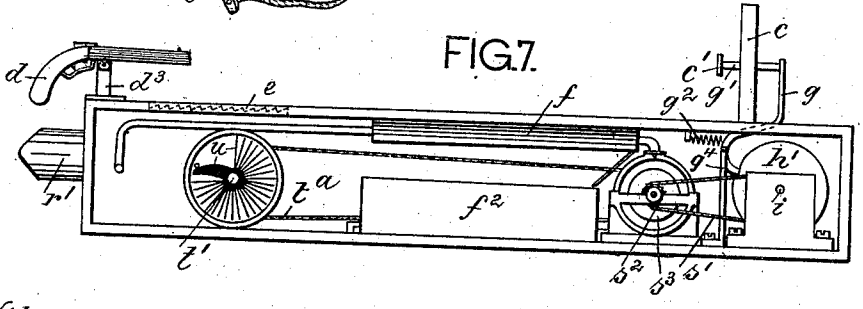


FIG. 7.

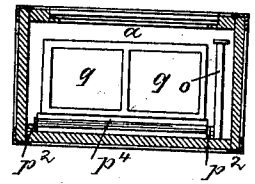


Witnesses:

Arthur Jenys

Edward C. Ray.

FIG. 4.



Inventor:

Charles C. Reinhardt

by his attorneys

Roeder & Briesen

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 719,141. PATENTED JAN. 27, 1903.

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TOY SHOOTING GALLERY.

APPLICATION FILED JUNE 10, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

FIG. 8.

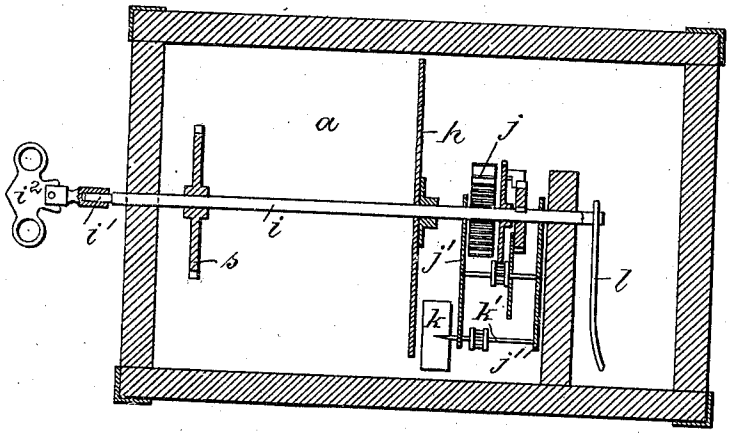


FIG. 10.

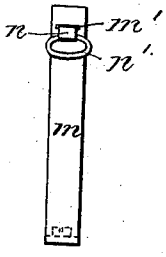


FIG. 11.

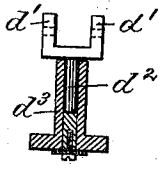


FIG. 12.

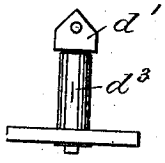


FIG. 9.

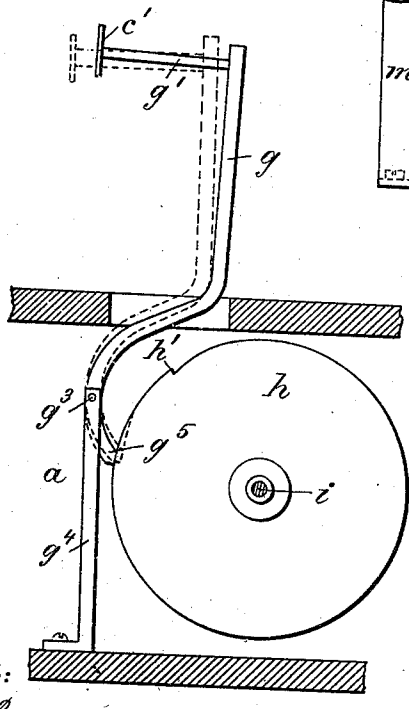


FIG. 10ª

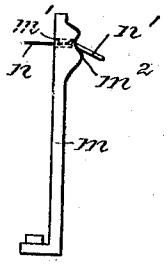
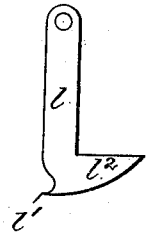


FIG. 13.



Witnesses:
Arthur Jamys.
Edward Ray.

Inventor:
Charles C. Reinhardt
by his attorneys
Roeder & Briesen

UNITED STATES PATENT OFFICE.

CHARLES C. REINHARDT, OF NEW YORK, N. Y.

TOY SHOOTING-GALLERY.

SPECIFICATION forming part of Letters Patent No. 719,141, dated January 27, 1903.

Application filed June 10, 1902. Serial No. 111,004. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. REINHARDT, a citizen of the United States, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Toy Shooting-Galleries, of which the following is a specification.

This invention relates to a toy shooting-gallery, in which a stereoscope, mutoscope, phonograph, or similar device contained within the casing of the gallery is set in motion by the impact of the projectile against the target. The casing is provided with sight-openings or ear-tubes, and thus a pleasing exhibition may be witnessed by the skilful marksman.

In the accompanying drawings, Figure 1 is a perspective view of my improved toy shooting-gallery; Fig. 2, a side elevation thereof, showing the casing open; Fig. 3, a cross-section on line 3 3, Fig. 2; Fig. 4, a cross-section on line 4 4, Fig. 2; Fig. 5, a cross-section of the window for admitting light into the casing; Fig. 6, a side view of the string-releasing mechanism; Fig. 7, a side elevation of a modification of the apparatus; Fig. 8, an enlarged cross-section on line 8 8, Fig. 2; Fig. 9, a detail of the stop mechanism for arresting the shaft, and Figs. 10, 10^a, 11, 12, and 13 are details of various minor parts of the apparatus.

The letter a represents a casing which is closed at one side by a hinged lid a'. Upon the casing is supported a frame b, having windows b', and inclosing near its rear end a target c, provided with a movable target-button or "bull's-eye" c'. Opposite the target the front window b^2 of frame b is perforated to admit the projectile ejected from a gun d. This gun is hung in a fork d', Figs. 11 and 12, of a pin d^2, embraced by a hollow post d^3, which is mounted upon the forward end of a casing a, so that in this way the gun is connected to the casing by a universal joint.

Intermediate the gun and the target the top of the casing a is divided into a front and a rear section. The front section is covered by a prismatic window e, Fig. 5, to concentrate the rays of light upon the exhibitor, hereinafter described, which is mounted within the casing underneath the window. The rear section of the top is made in the form of a flat funnel f, which conveys the projectile through a slot f' into the interior of the casing, where it is received by a suitable box f^2.

The button c' of the target is by a rod g', passing through the target center, connected to the upper arm g of a lever influenced by a spring g^2. The lever is pivoted at g^3 to a post g^4 within casing a, Fig. 9. The lower arm g^5 of the lever constitutes a detent, which is adapted to engage a tooth h' of a stop wheel or disk h. This disk is fast upon a transverse shaft i, mounted within casing a, and rotated when released by a coiled spring j, one end of which is connected to the shaft i, while the other end is connected to a clockwork-frame j'. This frame carries the spindle k' of a fly k, which is intergeared by suitable clockwork with the shaft i, so that the rotation of the latter is regulated in the usual manner.

One end of the shaft i projects outwardly through the side of casing a and is here squared, as at i', to be engaged by a key i^2 and to thus constitute the winding-arbor of the clockwork. The other end of the shaft i is contained within the casing a and carries an arm l Fig. 13, which is provided with a hook l' and with a laterally-bent projection l^2 in alinement with said hook. In front of the arm l there is mounted within the casing a post m, Figs. 10, 10^a, which is slotted, as at m', and provided with an inclined rest m^2 underneath said slot. Through the slot m' passes a string or tape n, which carries at its free end a ring n', adapted to be supported upon the rest m^2 and arranged in the path of the rotating hook l'. The other end of the tape n passes through the eye o' of a post o and is thence attached to a lever p' of a rock-shaft or drum p, hung in bearings p^2 within casing a.

The lever p' is influenced by a spring p^3, and the shaft p is provided with a clamp p^4, Fig. 4, adapted to hold one or more pictures q, the whole constituting a stereoscope. The picture q is visible through a pair of lenses r within a hood r' on the front of casing a.

Upon the shaft i is also mounted a chain-

wheel s, which is engaged by an endless chain s' for transmitting motion by a chain-wheel s^2 to the cylinder s^3 of a phonograph contained within casing a. The ear-tubes s^4 of the phonograph pass through the casing a and thence outwardly, as shown in Fig. 1.

The operation is as follows: The clockwork being wound up is normally arrested by the engagement of the detent d^5 with the notched disk h. When the button c' is struck by a projectile from the gun d, the detent g^5 will be thrown out of engagement with the nose h' against the action of spring g^2, so that the shaft i is liberated and will be rotated by the spring j. As the shaft i commences its rotation the hook l' will enter ring n', supported upon inclined rest m^2, so as to draw the tape n backward against the action of spring p^3. The spring will in turn partially rotate shaft p with clamp p^4, and thereby gradually raise the picture q into an upright position, so that it becomes visible through the lenses r. When the arm l has made about a three-quarter turn and has thus arrived at the position shown in Fig. 6, with its hook l' projecting downwardly, the ring n' will slip off the hook, and the string n, being thus liberated, will release arm p'. The picture-exhibitor being thus released is folded back by spring p^3 and the picture q is withdrawn from view.

The laterally-bent projection l^2 serves to cause a slight lateral deflection of the ring n' as the latter is taken along by the hook l', and thereby prevents the string from being wound upon the end of arm l. In this way the ring will readily slip off the hook when the latter points downward.

Simultaneously with the oscillation of the stereoscope by spring n the cylinder s^3 will be rotated by chain s', and in this way the phonograph will also be sounded.

When the disk h has made one complete turn, the pawl g^5 will reëngage nose h' by spring g^2, so as to arrest shaft i and reset the button c' for the next discharge of the gun.

In Fig. 7 the shaft i drives by chain t the drum t' of a mutoscope containing a number of pictures u, which are thus successively exposed to view through the lenses r.

It will be seen that by my invention the projectile in striking the target-button actuates either an ocular or auricular exhibitor contained within the casing a. For the purpose of this invention the stereoscope, mutoscope, and phonograph are equivalents, which may be either jointly or separately operated from shaft i.

What I claim is—

1. A toy shooting-gallery composed of a casing, an inclosed movable exhibitor, a movable target-button, a spring-actuated shaft, a detent mechanism intermediate the shaft and button, and means for connecting said shaft to the exhibitor, substantially as specified.

2. A toy shooting-gallery composed of a casing, a movable target-button, a lever connected thereto, a spring-influenced shaft, a notched disk on said shaft engaged by the lever, and a movable exhibitor within the casing operatively connected to the shaft, substantially as specified.

3. A toy shooting-gallery composed of a casing having a sight-opening, a movable exhibitor within the casing, a movable target-button, a lever connected thereto, a spring-influenced shaft, a notched disk on said shaft engaged by the lever, and means for operatively connecting said shaft with the exhibitor, substantially as specified.

4. A toy shooting-gallery composed of a casing having a sight-opening, a gun, a movable target-button, a lever connected to the target-button, a spring-influenced shaft adapted to be locked by said lever, a movable picture-exhibitor within the casing, and means for operatively connecting the shaft to said exhibitor, substantially as specified.

5. A toy shooting-gallery composed of a casing having a front sight-opening, a top window, and a funnel for receiving a projectile, combined with a gun, a movable target-button, a lever connected thereto, a spring-influenced shaft adapted to be locked by the lever, a movable picture-exhibitor within the casing, and means for operatively connecting the shaft to said exhibitor, substantially as specified.

6. A toy shooting-gallery composed of a casing, an inclosed exhibitor, a spring-influenced shaft having an outwardly-projecting end to constitute a winding-arbor, means for operatively connecting said shaft to the exhibitor, a gun, a movable target-button, and a detent mechanism intermediate said button and shaft, substantially as specified.

Signed by me at New York city, New York, this 9th day of June, 1902.

CHARLES C. REINHARDT.

Witnesses:
F. V. BRIESEN,
WILLIAM SCHULZ.