

No. 768,536.

PATENTED AUG. 23, 1904.

J. L. McCULLOUGH.
TARGET APPARATUS.

APPLICATION FILED NOV. 6, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

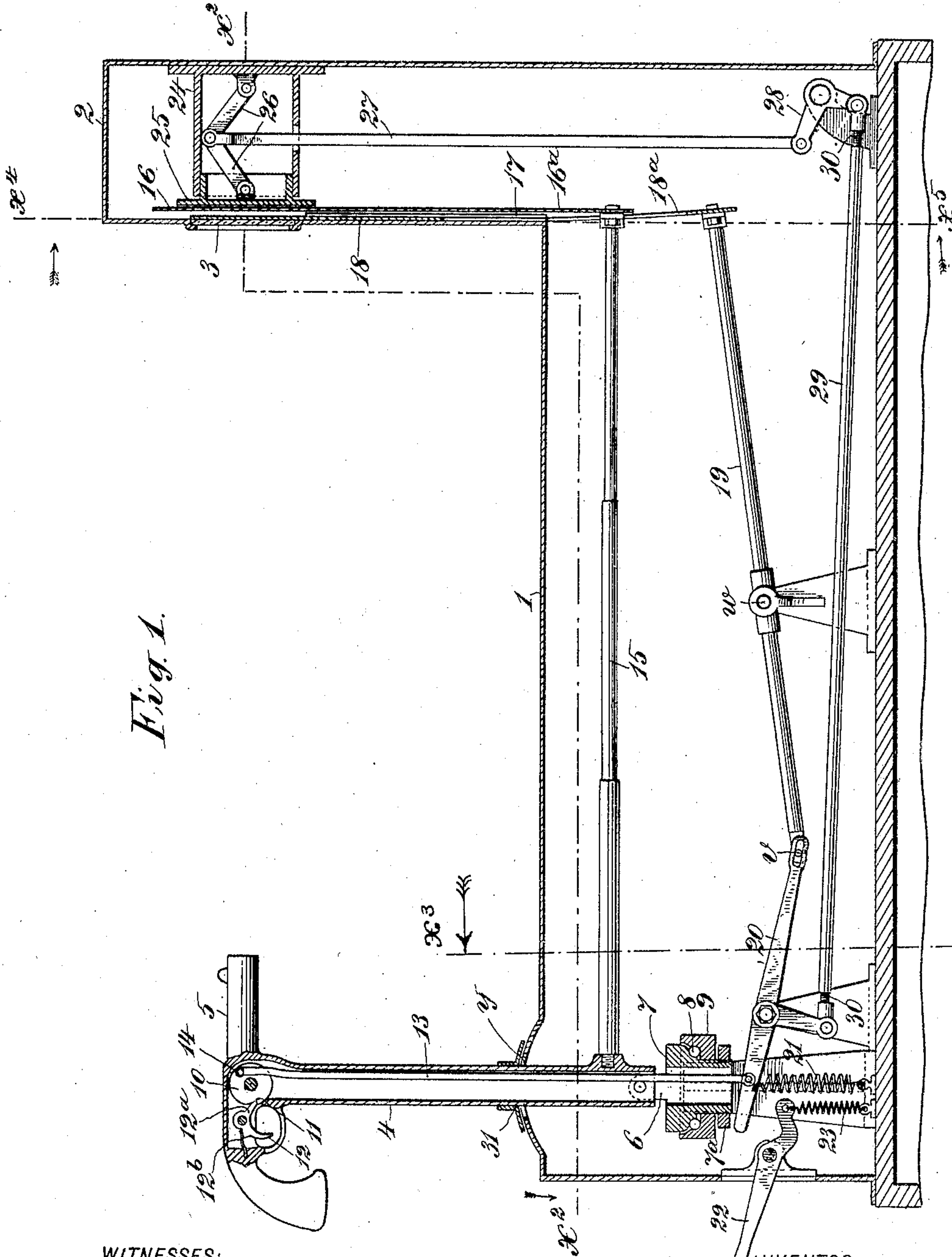


Fig. 1.

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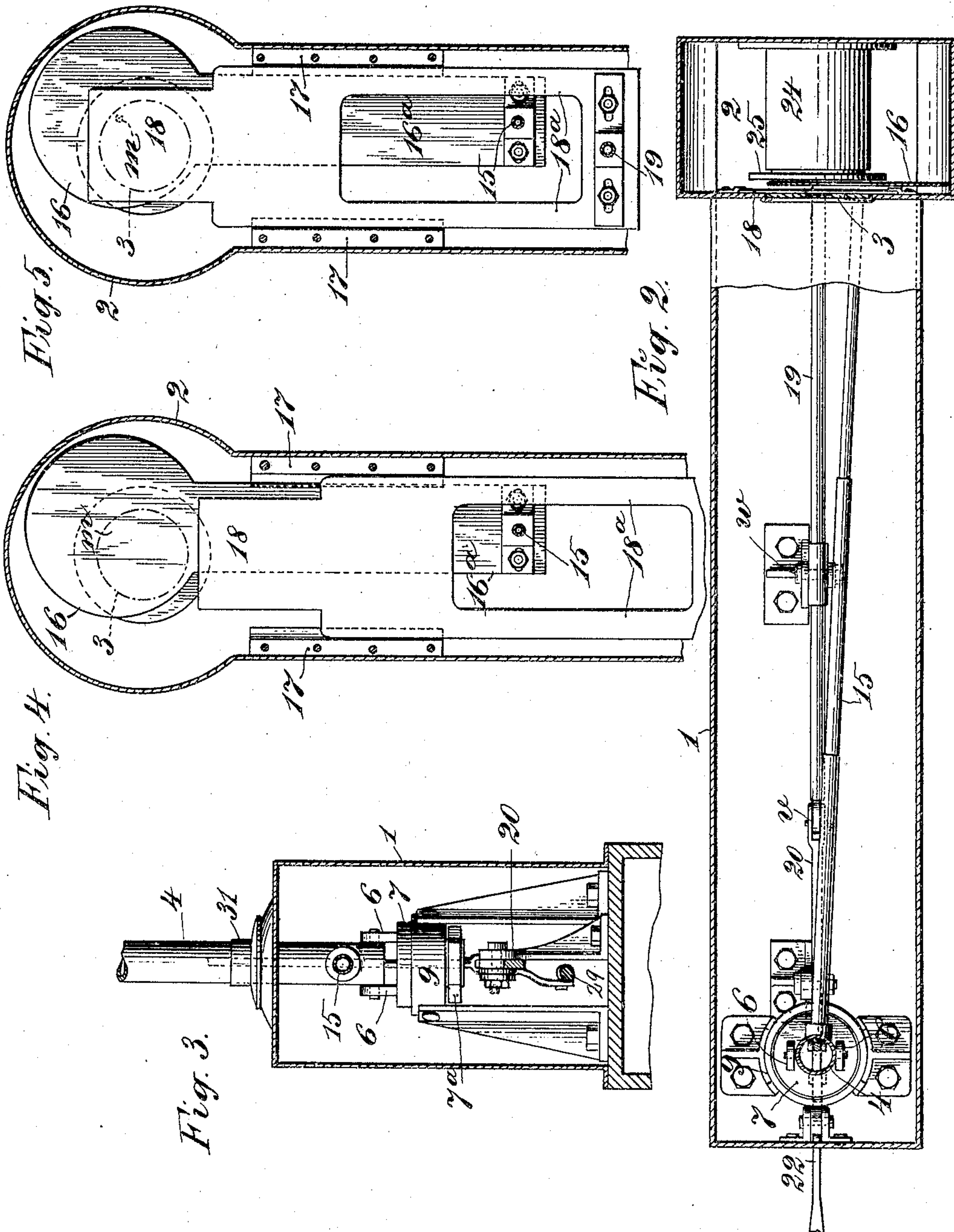
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3 SHEETS—SHEET 2.



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No. 768,536.

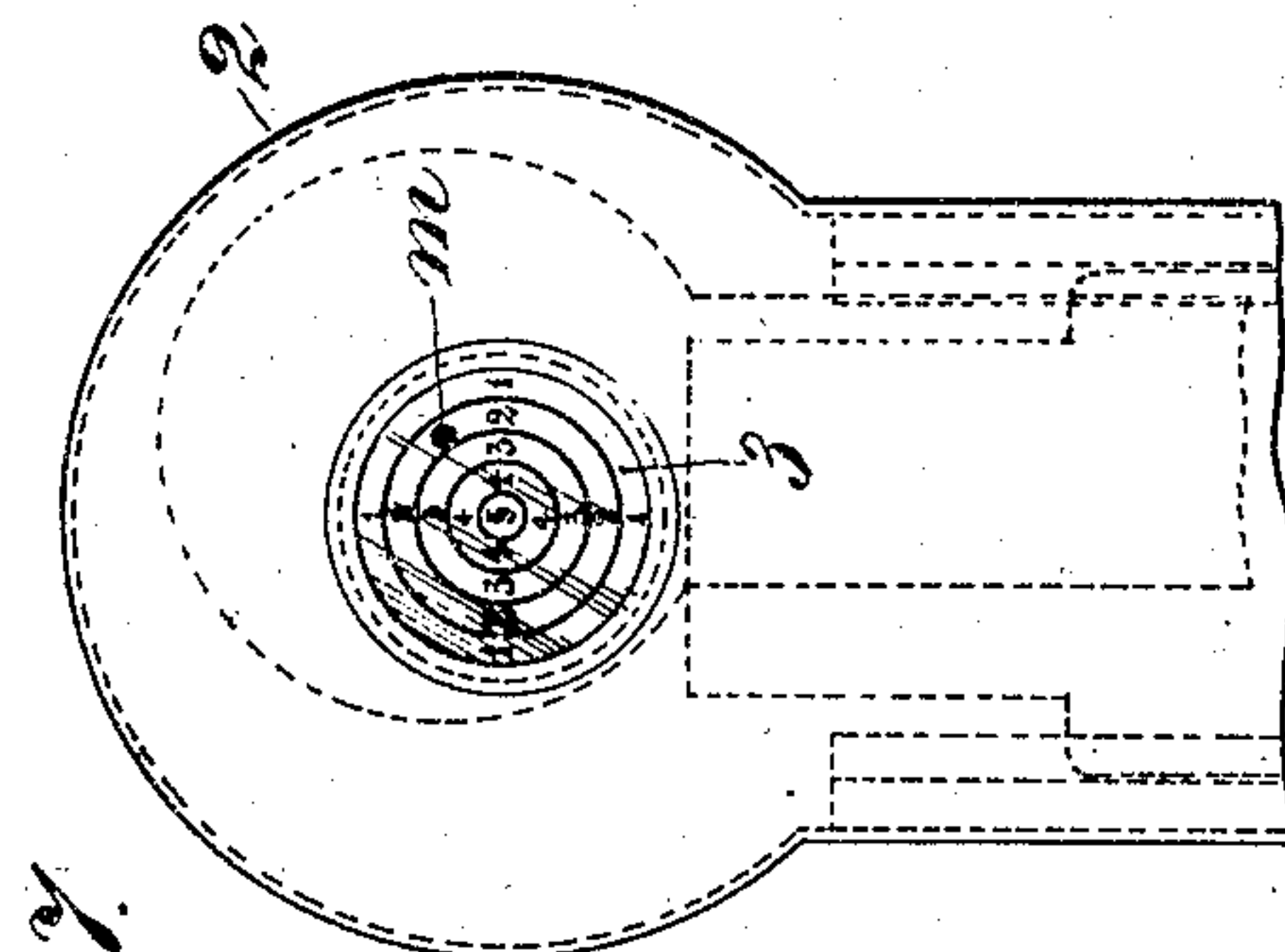
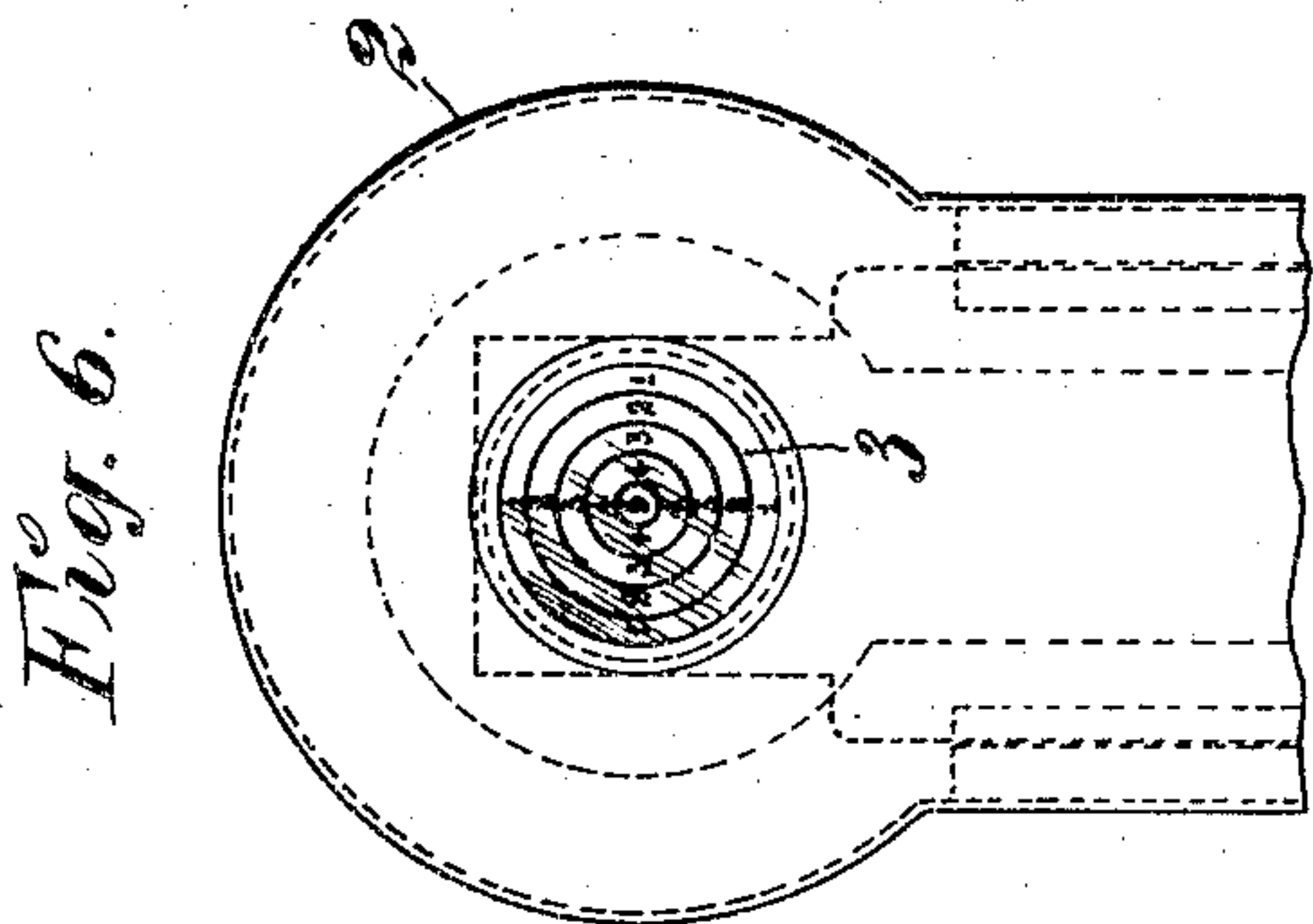
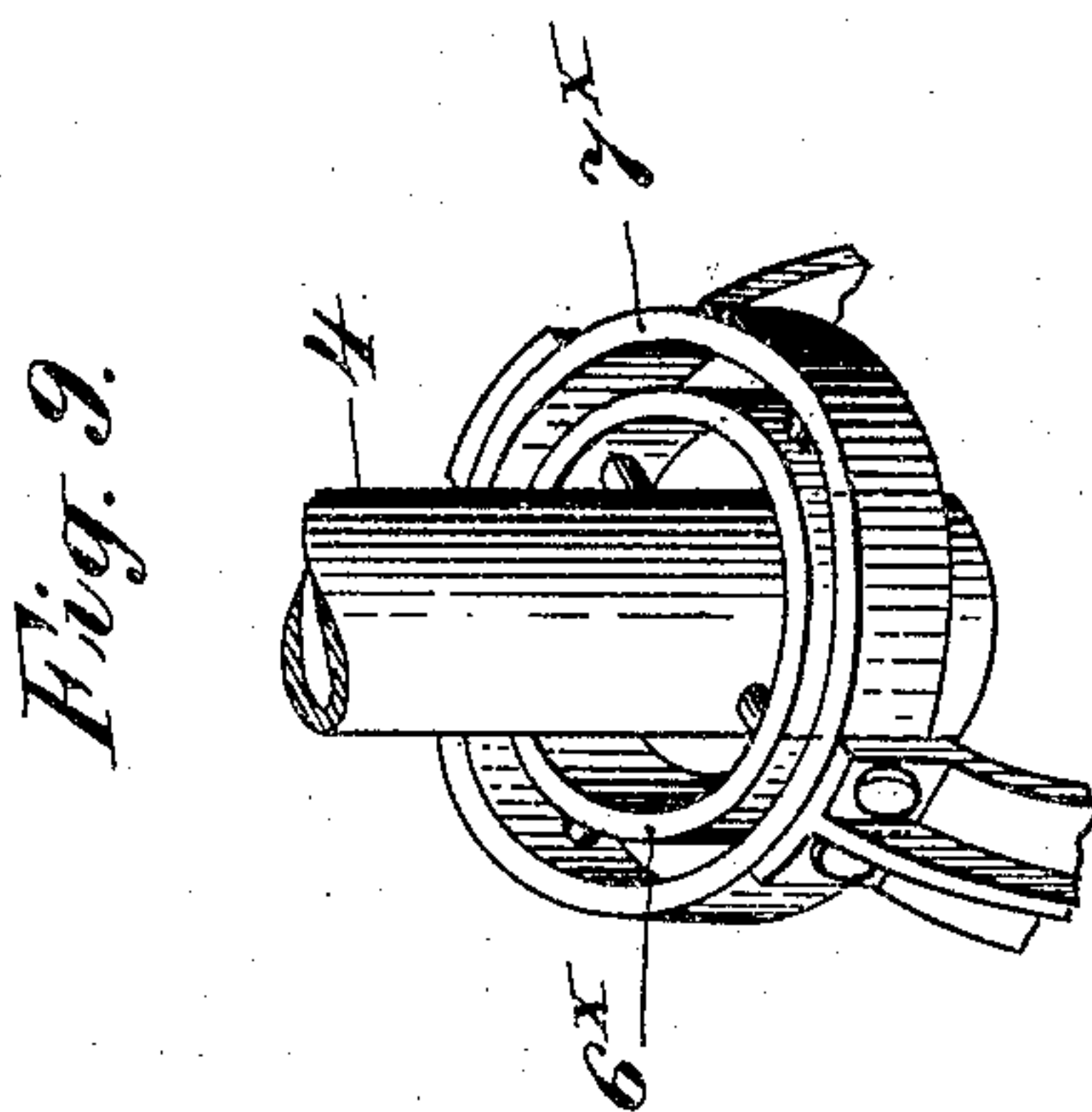
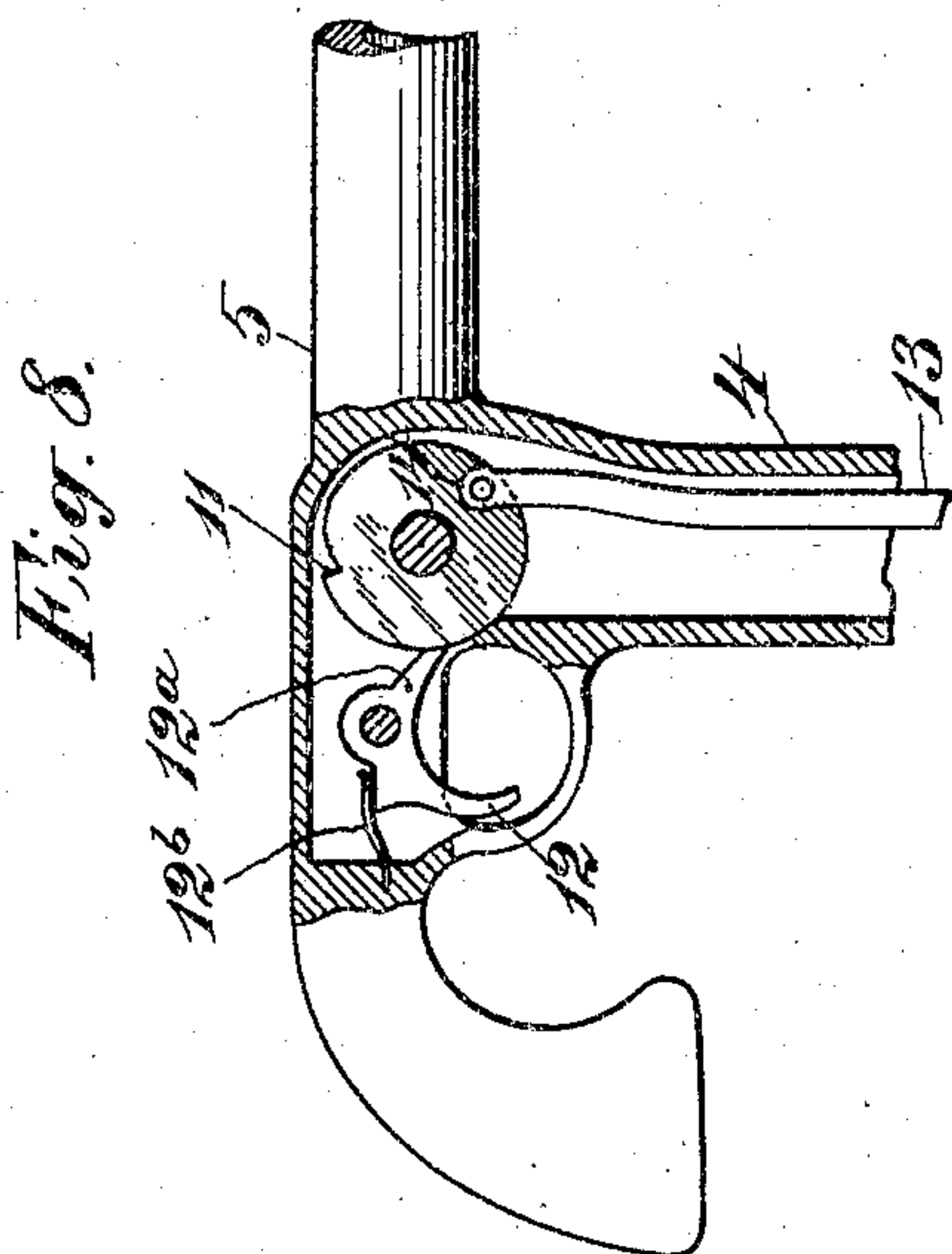
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APPLICATION FILED NOV. 5, 1903.

NO MODEL.

3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

JOHN L. McCULLOUGH, OF NEW YORK, N. Y., ASSIGNOR TO AUTOMATIC TARGET MACHINE COMPANY, OF NEW YORK, N. Y.

TARGET APPARATUS.

SPECIFICATION forming part of Letters Patent No. 768,536, dated August 23, 1904.

Application filed November 5, 1903. Serial No. 179,892. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. McCULLOUGH, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings, in the city and State of New York, have invented certain Improvements in Target Apparatus, of which the following is a specification.

This invention relates to the class of target apparatus wherein is employed an imitation firearm, such as a gun or pistol, mounted on a joint which permits it to be aimed at a target and wherein on pulling the trigger the point aimed at is indicated automatically on the target. A device of this general character is shown in the United States Patent No. 708,245, granted to me September 2, 1902.

The object of the present invention is to provide a simple and relatively inexpensive recreation device or apparatus for effecting the purpose explained above. The apparatus may be used in conjunction with a coin or check controlled device, if desired; but as a coin-controlled device forms no essential part of the present invention it has not been considered necessary to illustrate such a mechanism herein.

In the accompanying drawings, which illustrate one form or embodiment of the invention, Figure 1 is a vertical longitudinal section of the apparatus, showing it set ready for firing. Fig. 2 is a sectional plan, the plane of the section being indicated substantially by the line x^2 in Fig. 1. Fig. 3 is a vertical transverse section at line x^3 in Fig. 1, showing in elevation the universal mounting of the firearm. Figs. 4 and 5 are illustrative sectional views taken substantially in the plane indicated by line x^4 in Fig. 1, but showing the moving parts in different positions. Figs. 6 and 7 are face views of the target, the former showing it with the shield in position, as in Fig. 5, and the latter showing it out of position, as in Fig. 4. Fig. 8 is an enlarged side view of the trigger mechanism in the pistol, showing the parts in the position they occupy after firing. Fig. 9 is a perspective view illustrating a form of universal mounting for the pistol somewhat different from that seen in the principal views.

As the device is herein shown as adapted for short-range firing with a pistol or with a firearm simulating a pistol, the firearm will be referred to hereinafter as a "pistol."

1 designates any suitable form of casing, hollow base, or supporting-frame for the mechanism. Preferably this part will be in the nature of a hollow oblong inclosing casing, and it will have at one end an elevated support or casing 2 for the target 3 and at the other end a universally-mounted support or standard 4 for the pistol 5. The casing 1 may, if desired, be elevated on supporting-legs, (not shown herein,) and the length of the casing will be such as to permit the target to be placed at the desired distance from the pistol.

The standard 4, which carries the pistol, is pivotally mounted at its lower end between two upright lugs 6, Figs. 1 and 3, on a turn-table 7, rotatable about its vertical axis on a ball-bearing 8 in a fixed bearing 9. This universal mounting provides for all the movements necessary in aiming the pistol, the pivotal mounting provides the up-and-down or vertical play, and the turn-table provides the desired horizontal play.

Within the hollow of the pistol-frame is rotatively mounted on a horizontal axis a disk 10, Figs. 1 and 8, having in its periphery a retaining-notch 11, capable of being engaged by a dog or pawl 12^a on the trigger 12. A setting-rod 13 is coupled at 14 to the disk 10 and extends down through a hollow in the standard 4, the turn-table 7, and the bearing 9 below. This rod is connected operatively with mechanism at the target through intermediate levers in the casing, as will be hereinafter explained. Extending out rigidly from the pistol-standard to the other end of the casing, where the target is situated, is a marker-arm 15. This arm carries at its end a thin marker-disk 16, on which is the marker *m*. This latter may be a small round black spot simulating a bullet-hole.

It may be explained here that the marker *m* is so disposed with respect to the axis of the pistol and the center of the target that the pistol is always aimed at the marker and

that when the pistol is aimed at the bull's-eye of the target the marker *m* will be directly behind the bull's-eye. The target will be of some suitable transparent material, as glass, for example, and the usual rings and numerals thereon, Fig. 6, will be marked or printed in any suitable manner. The marker-disk, preferably white, is designed to move about in the space back of and near to the target, and by preference it will be cut from thin sheet metal, with a broad attaching-stem 16^a pendent from it and secured to the marker-arm 15.

So far as has been described it will be noted that the person aiming the pistol would be able to see the marker *m* moving about behind the transparent target as he moves the pistol in aiming, and to prevent this a screen is employed, as will now be described.

Mounted in suitable guides 17, Figs. 4 and 5, is a thin opaque screen 18, which may move up and down at the back of the target and between it and the marker-disk. Preferably this screen will be of thin sheet metal painted white, and preferably also it will have a pendent attaching portion 18^a cut out so as to allow the marker-arm to pass through it and have free play. The lower end of the attaching portion 18^a is secured to one arm of an operating-lever 19, fulcrumed at *w*, the other arm of this lever being coupled at *v* to an arm of an intermediate three-armed lever 20, the opposite arm of which is coupled to the pendent end of the setting-rod 13, extending up to the disk 10 in the pistol. A spring 21 or an equivalent weight serves to draw down the screen 18 through the medium of the levers 19 and 20. Projecting out from the casing is a lever 22 for setting the parts. The inner arm of this lever takes under the arm of the lever 20, which is coupled to the rod 13. This lever 22 has a spring 23, which holds it elevated normally.

So far as described the operation is as follows: The operator presses down upon the outer arm of the setting-lever 22. This has the effect of elevating the screen 18 and interposing it between the target 3 and the marker-disk 16, and it also has the effect of causing the rod 13 to rotate the disk 10 until the trigger-dog 12^a is pressed by the trigger-spring 12^b to engage the detaining-notch 11 and hold the disk 10 against rotation. The operator now grasps the handle or stock of the pistol and aims the latter at the target. In doing this he moves the marker-disk 16 about behind the target-screen 18. When he has secured his aim, he pulls the trigger, which sets free the disk 10 and allows the spring 21 to suddenly draw down the screen 18 through the medium of the levers 19 and 20. The marker *m* is thus disclosed and indicates the exact spot on the target at which the pistol was aimed.

It is now desirable that the pistol and marker-

disk shall be held fast in the position left by marksman after firing and until the setting-lever 22 is again operated, and to effect this object the device now to be described is employed.

In the target-casing back of the target and the marker-disk is mounted a toggle-brake, which may consist of a tubular guide 24, fixed to the casing, a brake-plunger 25, mounted slidably in said guide, a toggle 26 back of said plunger for operating it, and a brake-rod 27, coupled to the knuckle of the toggle and extending down into the casing below. By drawing down on this rod 27 the toggle is caused to drive the plunger 25 out forward, so that it forcibly presses the marker-disk against the front of the target-casing and prevents said disk from being moved through the medium of the pistol and the marker-arm.

The brake-rod 27 is coupled below to one arm of a bell-crank lever 28, the other arm of which is connected by a rod 29 to the third or pendent arm of the lever 20, whereby at the moment the spring 21 draws down the screen 18 it also sets the brake on the marker-disk and locks it fast. The rod 29 will be by preference provided at its ends with right and left hand screw connections 30, whereby the movement of the toggle-knuckle in setting the brake may be nicely regulated.

The following-described features of construction are preferred; but they may be varied without materially departing from the invention. The screen 18 and marker-disk 16 will be in color a dead white, with the marker *m* and markings on the target of opaque black. The marker-arm 15 for the sake of lightness and rigidity will be of steel tubing and the lever 19 and rods 13, 27, and 29 also of light tubing. As the standard 4 must play laterally in an aperture in the casing at *y* in Fig. 1, it will have a flanged collar 31. The pendent end of the turn-table 7 will be screw-threaded and provided with a nut 7^a to prevent it from lifting. The spring 21, or weight used as an equivalent means, may be placed at any point where it will accomplish the object sought. After the setting-lever 22 has been depressed and let go its spring again elevates it.

Fig. 9 shows a universal mounting which may be employed for the pistol-support in lieu of that described. This device consists of a fixed ring 7^x, in which is pivotally mounted another ring 6^x. The support 4 for the pistol is pivotally mounted in this last-named ring on pivots at right angles to those on which the inner ring is mounted. Such a mounting is not in itself new. It will serve for the pistol, although the mounting shown in Fig. 1 is preferred.

Having thus described my invention, I claim—

1. In a target apparatus, the combination, with a transparent target, a pistol or the like, and a universally-mounted support for the pis-

tol, of a marker-disk back of the target and having on it a marker, said disk being connected with and movable with the pistol-support, an opaque screen movable between the marker-disk and the target, and means, controlled by the trigger of the pistol, which operates said screen.

2. In a target apparatus, the combination, with a transparent target, a pistol or the like, and a universally-mounted support for the pistol, of a movable marker-disk back of the target and having on it a marker, rigid means connecting the marker-disk with the pistol-support, an opaque screen movable between the target and marker-disk, means for holding the marker-disk against movement, and means, controlled by the trigger of the pistol, for operating said screen and disk-holding means.

3. In a target apparatus, the combination, with a transparent target, a pistol or the like, and a universally-mounted support for the pistol, of a marker-arm carried by said support, a marker-disk back of the target and having on it a marker *m*, said marker being alined with the barrel of the pistol, a sliding screen movable between the target and said marker-disk, and means, controlled by the trigger of the pistol, for operating said screen.

4. In a target apparatus, the combination, with a transparent target, a pistol or the like, and a universally-mounted support for the pistol, of a marker-disk back of the target and

having on it a marker, said disk being connected with and movable with the pistol-support, an opaque screen movable between the marker-disk and the target, and means, controlled by the trigger of the pistol, which operates said screen, said means comprising the coupled levers 19 and 20, the spring 21, coupled to the lever 20, the notched crank-disk 10 in the pistol, the setting-rod, coupled at one extremity to said disk and at the other to the lever 20, and the trigger provided with a dog to engage the notch in the disk 10 and hold the latter against rotation.

5. In a target apparatus, the combination, with a transparent target, a pistol or the like, and a universally-mounted support for the pistol, of a marker-disk back of the target and connected with and movable with the pistol-support, means for holding the said marker-disk against movement, said means comprising a plunger-brake to press on said disk, a guide for said plunger, and a toggle for operating the plunger, and means, controlled by the trigger of the pistol, for operating said toggle.

In witness whereof I have hereunto signed my name, this 27th day of October, 1903, in the presence of two subscribing witnesses.

JOHN L. McCULLOUGH.

Witnesses:

BENJAMIN H. HOLT,
WILLIAM J. FIRTH.