W. B. COSBY.

CARRIER FOR TARGET TRAPS.

APPLICATION FILED APR. 20, 1908.

917,009. Patented Apr. 6, 1909.

Fig I

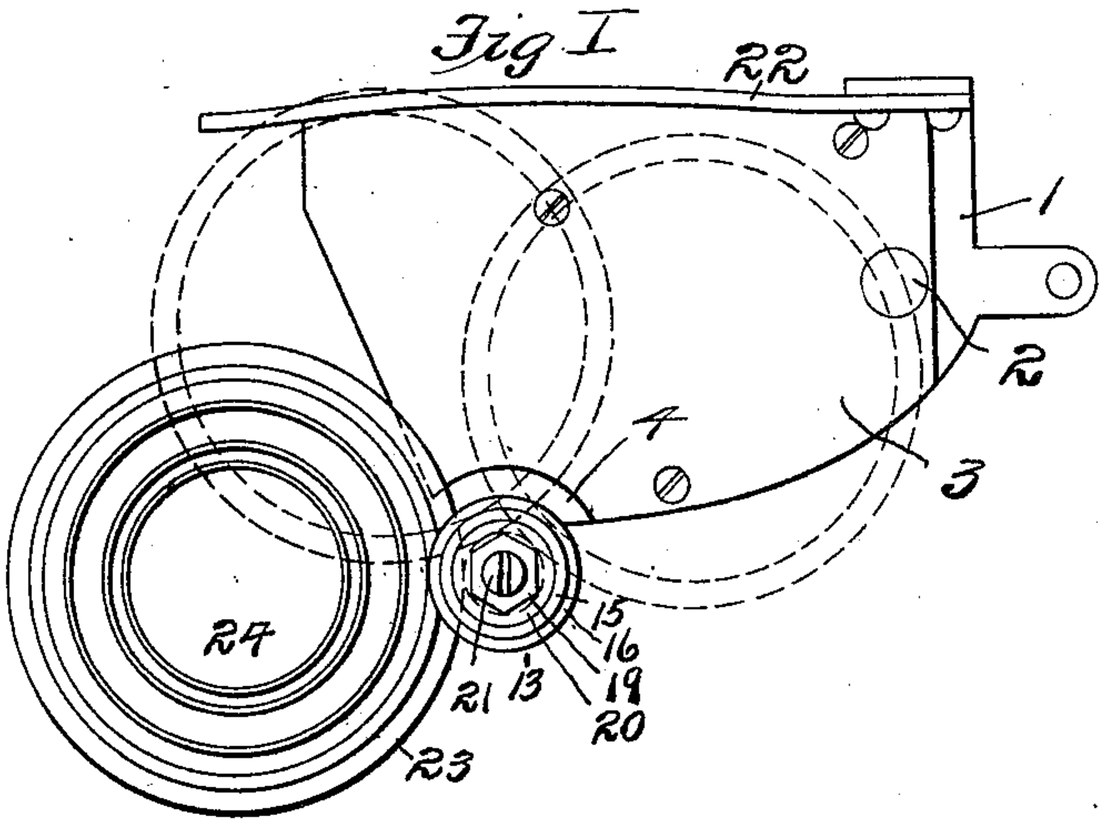


Fig II

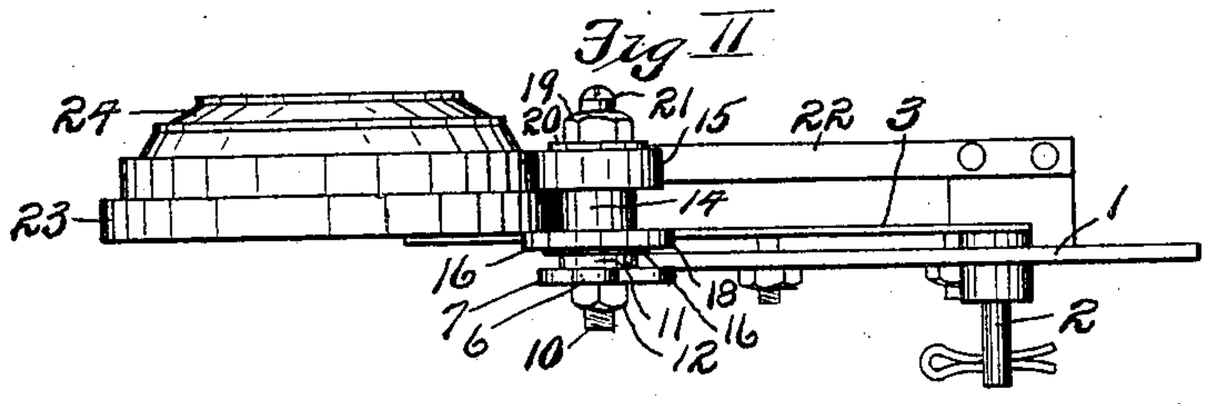


Fig III

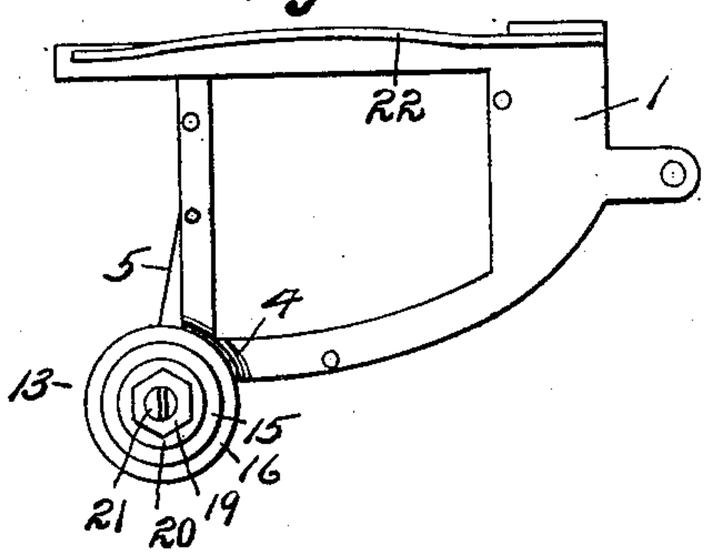


Fig IV

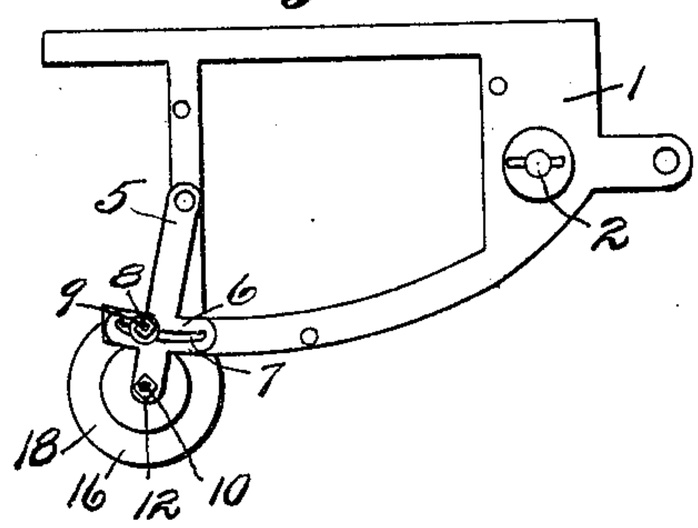
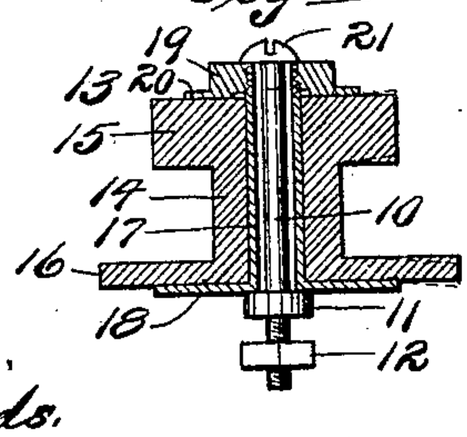


Fig V



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CARRIER FOR TARGET-TRAPS.

No. 917,009. Specification of Letters Patent. Patented April 6, 1909.

Application filed April 20, 1908. Serial No. 428,227.

To all whom it may concern:

Be it known that I, WILLIAM B. COSBY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Carriers for Target-Traps; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a carrier for target traps and has for its object to provide a device of that class from which a target of an ordinary construction, may be thrown in such a manner as to impart a decided rotary movement thereto at the moment of discharge, to insure a long, rapid and steady target flight. In accomplishing this object I have provided the improved details of structure which will presently be fully described and pointed out in the claims, reference being had to the accompanying drawings in which like reference numerals refer to like parts throughout the several views and in which:—

Figure I is a top plan view of a carrier constructed according to my invention, showing various positions of the target during its discharging travel. Fig. II is a side elevation of same. Fig. III is a top plan view of a modified form of carrier. Fig. IV is a bottom plan view of same in which the post adjusting mechanism used with both the preferred and modified form is shown. Fig. V is an enlarged vertical sectional view of the revoluble carrier post.

Referring more in detail to the parts: 1 designates the carrier base which is provided with a stud 2 by means of which the carrier may be revolubly mounted on the throw arm of a target trap of any ordinary construction, and as the carrier is adaptable for use on any of several well known target traps, no trap or throw arm will be described or illustrated, as my invention relates solely to the target carrier.

Supported on and forming part of base 1 is a platform 3, one corner of which is preferably cut away to form the curved recess 4 for a purpose presently set forth. Pivoted on the under side of base 1 is an arm 5 which projects outwardly beyond the side of base 1, and across the recessed portion of platform 3, and has a flange portion 6 that is provided with a curved slot 7 through which a threaded pin 8 that is carried on the under side of base 1 extends; said pin being provided with a nut 9 by means of which said arm may be anchored in a desired position in relation to the base 1.

On the outer end of arm 5 is carried a bolt 10, the lower end of which is threaded and projects through a perforation on the end of arm 5 and carries the nuts 11 and 12, one of which is adapted to engage the upper surface of said arm and the other the lower surface thereof in order to permanently fix the bolt on the arm and prevent movement thereof when the carrier operates.

13 designates a target engaging button which is constructed of a yielding material, preferably rubber, and is formed with a neck 14, and the upper and lower shoulders 15 and 16, the upper shoulder 15 being preferably of less diameter but thicker than the shoulder 16, and the lower shoulder being adapted to revolve partially within recess 4 with its upper surface on a level with the upper surface of platform 3. Button 13 is provided with a central perforation within which is fitted a shank 17 which is threaded at its upper end and is provided at the bottom with a base flange 18 adapted for engaging a portion of the under surface of the lower shoulder 16.

19 designates a nut that is threaded on the upper end of shank 17 and is provided with a flange 20 which is adapted to engage a portion of the upper surface of the top shoulder 15. Bolt 10 is provided with a slotted head 21 that is adapted to engage the upper rim of shank 17 and a portion of the top of nut 19.

Carried on base 1 at the side opposite button 13 is a rail 22 preferably curved as shown and arranged at a sufficient distance above the base to permit the lower flange 23 of a target 24 to extend thereunder.

When in use the target is placed on the platform 3 and moved into engagement with the rail 22 and button 13 or simply placed on the platform in such position that it may be moved into that engagement by the centrifugal force of the discharge.

When the target throw arm is released and moved through its discharging swing in the ordinary manner, the centrifugal force of the arm movement moves the target

forward against the tension of the spring rail 22 and into the peripheral groove between the shoulders on the button 13, forcing said shoulders to yield slightly to enable said flange to enter said groove until it has reached a contact with the neck 14 or is stopped by the impingement of the upper shoulder 15 against the second target rail, so that the base rail 23 is yieldingly held between the upper and lower button shoulders.

As the carrier reaches the discharging position, the target is moved out against the tension of rail 22 until it reaches the position indicated in full lines in Fig. I the target being held against revolution by the button, but the button itself being permitted to revolve around the bolt 10.

When the carrier reaches the discharging position, the target is released from the rail 22, the centrifugal force of the discharge giving it an outward impetus that tends to throw it from the trap and release the target base flange from the grip of button 13. The target being held at one side only at the moment of discharge receives a strong rotary as well as a forward impetus, which rotary movement continues after the target is released and aids materially in producing a perfect target flight.

While I have described my carrier as provided with a target supporting platform that is elevated slightly from the carrier base, this construction is provided merely for the purpose of permitting the top of the target supporting base and the top of the bottom button shoulder to be arranged in the same plane in order that the target may move freely during the discharging travel.

If desired the platform 3 may be omitted and the base be so arranged, preferably by providing the corner of the base with a downward offset 4; that the top of shoulder 16 will be in the plane of the top of base 1, when the discharging action will take place in the same manner as when the platform 3 is used; the gripping button that imparts the rotary motion to the target being the same with both constructions shown.

Should a continued use of the carrier weaken or wear, the button material, the nut 19 may be turned on shank 17 so as to press the two shoulders together thereby bringing the button parts into position for exercising the gripping function.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:

1. A carrier for target traps comprising a target supporting base, and a revoluble button having shoulders projecting therefrom, one of said shoulders being arranged in the same plane as the target supporting base.

2. A carrier for target traps comprising a target supporting base, a revoluble button, a shoulder extending from said button in a plane parallel with the plane of said base, and a shoulder on said button having its upper surface in the plane of said base, substantially as set forth.

3. In a carrier for target traps, a revoluble button having peripheral shoulders of yielding material adapted for receiving and gripping a target flange, and means whereby said shoulders may be pressed toward each other for the purpose set forth.

4. In a carrier for target traps, a button having shoulders arranged to form a peripheral groove for receiving a target flange and provided with a central perforation, a hollow shank fitted within said perforation, a bolt extending loosely through said shank, and means on said bolt for anchoring said button although permitting free revolution thereof, for the purpose set forth.

5. A carrier for target traps, comprising a target supporting base, a rail at one side of said base, and a button revolubly mounted on said base opposite said rail, said button being provided with peripheral shoulders adapted to yieldingly grip a target therebetween.

6. A carrier for target traps, comprising a target supporting platform, a relatively stationary rail at one side of said platform, a button revolubly mounted opposite said rail, a shoulder projecting from said button with its upper surface in line with the upper surface of said platform, and a second shoulder projecting from said button to form a target flange receiving groove between same and said first shoulder, said shoulders being yielding to receive and grip a target flange therebetween for the purpose set forth.

7. A carrier for target traps, comprising a target supporting base, a rail at one side of said base, a bolt adjustably mounted on and projecting upwardly from said base opposite said rail, a button having a peripheral groove within which a target flange may be received and yieldingly held, a perforated plate having a hollow shank projected through said button and revolubly mounted on said bolt, and a nut threaded on said shank and having a flange adapted for engagement with the upper button shoulder, substantially as and for the purpose set forth.

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

WILLIAM B. COSBY.

Witnesses:
GEO. HORN,
HAROLD E. RICHARDS.