

(No Model.)

N. FISCHER.
FLYING TARGET.

No. 281,183.

Patented July 10, 1883.

Fig. 1.



Fig. 2.

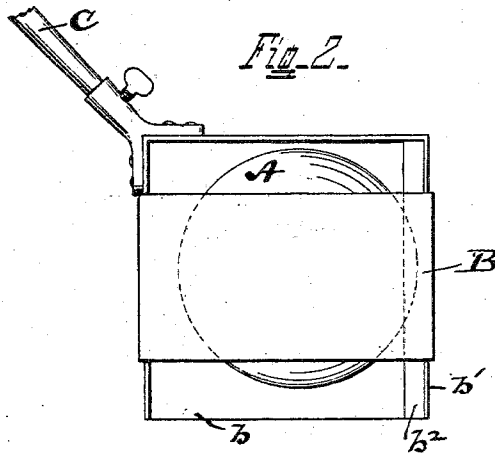
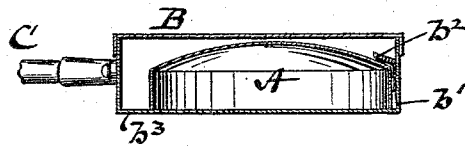


Fig. 3.



Attest
Carl Spengler
Notary Hamilton

Inventor
Nicholas Fischer
By Helmutson Atty.

UNITED STATES PATENT OFFICE.

NICHOLAS FISCHER, OF CINCINNATI, OHIO.

FLYING TARGET.

SPECIFICATION forming part of Letters Patent No. 281,183, dated July 10, 1883.

Application filed May 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS FISCHER, a citizen of the United States, residing at Cincinnati, Ohio, have invented new and useful Improvements in Flying Targets, of which the following is a specification.

My invention relates to flying targets, sometimes called "clay pigeons," designed to be projected into the air by suitably-constructed mechanism and used as a mark for shooting practice. Such targets are made in shallow-dish form, of burned clay or other fragile material, and are thrown into the air in an approximately horizontal position, and a rapid axial rotation at the same time imparted to them by the sending mechanism. It will be obvious that it is desirable that such targets should be made of as light a weight as possible and free from any feature of construction offering an impediment to rotation while in the air.

As heretofore constructed, such targets have been of dish form, with a radial tang or projection, either formed as part of the target or of other material attached thereto, or with a slot or opening in the peripheral flange for engagement with the throwing-arm of the sending mechanism. By the mechanism usually employed, the sending force was thus applied by such tang or slot to the peripheral flange in such manner as to require special strengthening of the flange, either by thickening or providing the same with a strengthening-fillet, or by other special devices, thereby adding unduly to the weight and creating impediments to the proper sending and rotation of the target, and impairing the freedom and proper movement while in its flying course in the air. Moreover, these features of construction form a serious addition to the cost, which it is desirable to avoid in view of their necessary destruction in the using.

My invention obviates all these difficulties; and it consists in the construction of a target of plain, cylindrical, or dish form, without tang, slot, fillet, or thickening of any part, and generally lighter in construction than those now in use, it being intended to throw this target by means of a swinging arm provided with a resisting-guideway, whereby the target is projected into the air by centrifugal force, and the rotation imparted to it by the resist-

ance of the guideway acting centripetally upon the target from without, the force being thus applied in a direction and in a manner enabling the thinnest and lightest shell target to be freely used, and thereby securing a perfect movement in the air when projected from the trap, and the minimum of cost in production.

My invention is illustrated in the accompanying drawings, in which Figure 1 is a perspective view of my improved target; Fig. 2, a plan view of the same in position within the containing-case of the throwing-arm, and Fig. 3 a cross-sectional view of the same within the containing-case.

A in the drawings designates the target, which is simply a shallow cylindrical cup having preferably a concave bottom convex without. The target being of this form, with a plain cylindrical periphery, without tongue or slot, or any device to be attached as a handle for the purpose of throwing the same, may be quickly and easily molded or formed upon the end of a rotating mandrel; and for ornamental purposes the outer surface may be ribbed and grooved or varied in contour without departing from the cylindrical cup form, and may be made as thin a shell as the material will admit.

The swinging arm C, attached to the trap, is provided at the end with a case, B, or box, forming a receptacle for the target A. The case B is open at one side, *b*, and the adjacent side is provided with or constitutes a guideway, *b'*, adapted to the external periphery of the target A. It is preferable to form the guideway flat and with a flange, *b''*, projecting forward over the edge of the target, as shown in Fig. 3.

As shown in the drawings, the guideway *b'* occupies a position inclined about forty-five degrees to the arm C, and the latter, being actuated as a radius, revolves in the plane of the circumference about the center. It will be apparent that, under the influence of centrifugal force, the target will be impelled against the guideway, and also outward through the open end *b* of the containing-case. The resisting friction of the guideway will produce a rolling motion of the target exactly proportioned to the force impelling it outward, and the bottom *b''* of the containing-case and the guideway *b'* and flange *b''* together perfectly guide the target

until it leaves the case, so that when impelled into the air a rapid rotary motion is imparted to it, which enables it to maintain its proper inclination to the horizon, as determined by the proper adjustment of the case B.

It will be also observed that the strains upon the target itself, both in throwing it and in imparting its rotary motion, are delivered centripetally in the direction of its greatest resisting-power at a constantly-shifting point, as in the case of a rolling wheel; hence the thinnest shell that can be made will, by its form and the relation of the propelling force, be of sufficient strength to resist breakage in propulsion.

By reason of the construction thus described, the target may be propelled much farther into the air, is enabled to maintain itself much longer in flight, and is not so subject to the action of gravity, but is more perfectly controlled by the gyratory forces, and is, indeed, in all respects essentially improved in cost, construction, and efficiency in use.

I claim as my invention and desire to secure by Letters Patent—

1. A cylindrical cup-shaped flying target formed as a thin shell of clay or similar material, suitably hardened, without slot, tongue, or projection, substantially as and for the purpose specified, as a new article of manufacture.

2. A cylindrical cup-shaped flying target, A, having a peripheral flange of uniform thickness circumferentially, and without slot or tongue, or provision for the attachment of a tongue or handle for propulsion, or which might constitute an impediment to the axial rotation of the target, substantially as specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

NICHOLAS FISCHER.

Witnesses:

L. M. HOSEA,

ALEX. HAMILTON.