

(No Model.)

B. F. SAYLOR.
FLYING TARGET.

No. 571,958.

Patented Nov. 24, 1896.

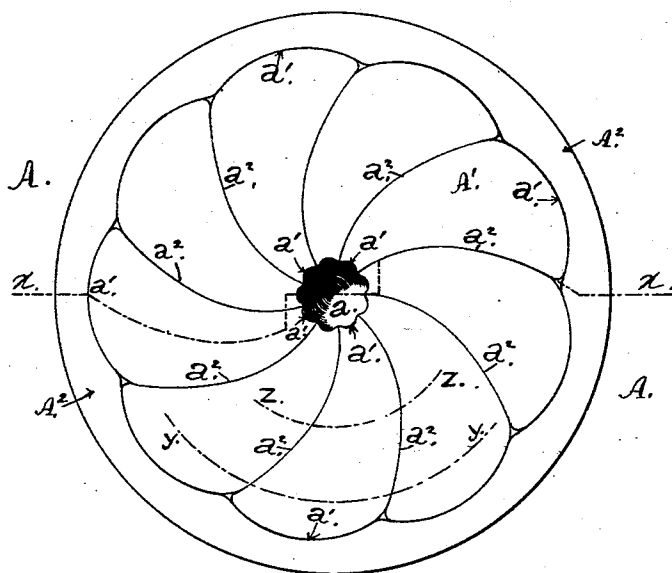


Fig. 1.

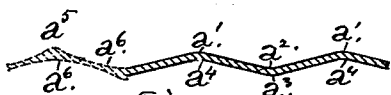


Fig. 4.

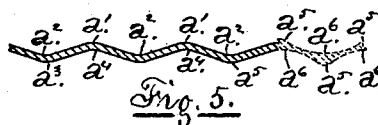


Fig. 5.

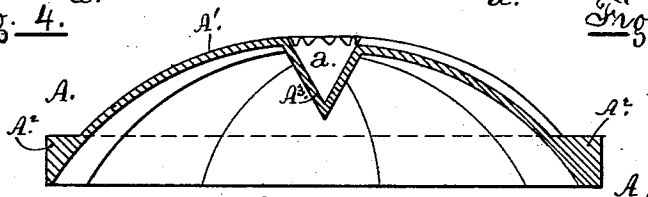


Fig. 3.

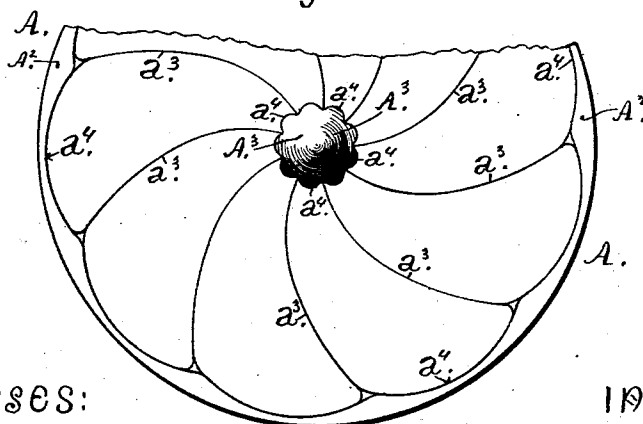


Fig. 2.

WITNESSES:

J. Grant Johnston
Frank G. Urban.

BY

INVENTOR:

Benjamin Franklin Saylor.

Sam. H. Kerr.

ATTORNEY.

UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN SAYLOR, OF LANCASTER, PENNSYLVANIA.

FLYING TARGET.

SPECIFICATION forming part of Letters Patent No. 571,958, dated November 24, 1896.

Application filed February 5, 1894. Serial No. 499,178. (No model.) Patented in Canada January 15, 1895, No. 47,897, and in England May 13, 1895, No. 9,414.

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN SAYLOR, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Flying Targets, (for which I have received a patent in the Dominion of Canada, No. 47,897, dated January 15, 1895, and in England, No. 9,414, dated May 13, 1895;) 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.

This invention relates to improvements in flying targets of the class adapted to be thrown or sprung from traps, well known to marksmen in the field sport known as "bird" or "trap" shooting.

The invention consists, first, in the shape or form of the target and the material of which it is made, having for its object the giving to the target the best form for poising or supporting it in the air during the period of its flight, enabling it to move steadier, a greater distance, and in a much lower course than is possible to be attained by targets differently molded, as well as rendering the target more readily breakable when struck by pellets of shot; second, in making it practically in the shape of a segmental spherical dome, and in arranging in its upper and under faces alternate ridges and valleys ranging from the center toward the circumference in the form of spiral volutes, and in bringing the under volutes to the circumferential edge.

The purposes of the invention are attained by the devices illustrated in the accompanying drawings, in which similar reference-letters designate like parts throughout the several views, and in which—

Figure 1 is a plan of a flying target embodying the elements of the invention; Fig. 2, a reverse plan of the same, with a portion removed for want of room in the drawings; Fig. 3, a view from below of the portion above the line xx in Fig. 1, with curved lines to indicate the hollow under side; and Figs. 4 and 5 are drawn-out-straight sections taken, respectively, on the lines yy and zz in Fig. 1, to better illustrate the regularity and depth

of the corrugations placed in the dome of the target.

The target of this invention is preferably made of coal-tar or pitch, such as results from the manufacture of gas, reduced to a consistency or paste that may be readily molded, pressed, or otherwise given the required shape, and it may be made of any other approved material whose particles are not tenaciously adherent, in order that it may be easily broken when struck by pellets of shot.

The general shape of the target is practically that of an inverted saucer having a thickened edge or ring about its open end, being circularly convex above and circularly hollow or concaved underneath, giving to the body A the general appearance of a segmental spherical dome A', projecting upward from the upper face of a practically-cylindrical base A², as shown. At the center of the top is a hollow depression a , in the form of a conical recess of about sixty degrees opening, forming on the under side of the target, in the hollow thereof, an inverted right cone A³, depending from the center of the dome. Starting from the central depression a and terminating in the upper face of the cylindrical base A² are alternate elevations or ridges a' and depressions or valleys a'' , arranged in spiral volutes, forming convoluted corrugations, Figs. 1, 4, and 5, in the upper face or convex surface of the dome, against which the impinging air through which the target flies in its course serves to give to said target increasing or continuing rotation. Again, beginning at the depending cone A³ and ending in the under edge of the ring-base are alternate elevations or ridges a'' and depressions or valleys a' , arranged in similar spiral volutes, forming similar but oppositely-disposed convoluted corrugations, Figs. 2, 4, and 5, in the under face or concaved surface of the dome, against which the air through which the sprung target flies likewise contacts, adding to or further increasing said rotation, imparting additional support or prolongation of flight; but the curved lines in the hollow of the dome in Fig. 3 are introduced to indicate its spherical concavity, and have no reference to the nature of the spiral volutes.

It will here be observed that when a trap carrying a target of this class is sprung the target will leave the trap in an upwardly and forwardly sloping direction, and having received a rotating momentum at the initial of its flight with its under surface opposing most directly the air contact. First, then, the air, as the target rushes through it, in coming in contact with said convoluted spiral volutes or corrugations, measurably adds to or continues said rotation, imparting increasing support with great steadiness to the flying target; second, the convoluted spiral volutes in the hollow of the dome, in having been brought to the extreme under edge of the target, form a greater corrugated surface underneath than do those above in the top thereof, and by reason of said upwardly-sloping forward flight the air, in coming in most direct contact with said under convoluted corrugations, by measurably adding to the rotatability thereof, actually continues or prolongs its support, and the target is carried steadier and farther in its course, even way beyond the point heretofore attained by targets without said convolutes, though thrown or sprung from the same trap and under precisely similar conditions, and, third, by reason of this continued rotation, this steadier and better support, and greater or farther flight the target of this invention is adapted to be sprung from a trap having but a slight elevation, giving to it an almost horizontal flight, parallel to and but a slight distance above the ground. These convoluted corrugations in the upper and under faces thereof also present obstructions to the striking shot, and in preventing the striking pellets from glancing off aid materially in its being damaged or broken by the shooter or marksman. The bases A^3 , before mentioned, likewise serve to support a number of targets in nesting for safe packing for

either storage or transportation, and the central depressions a serve to receive the points of the depending cones A^3 , protecting them from injury in these several conditions.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim, and desire to secure by Letters Patent, is—

1. A target to be sprung from a trap comprising a hollow segmental spherical body, having a practically cylindrical base-ring about the open end thereof, a conical depression in the center of its top and a depending cone in the hollow thereof, with alternating elevated and depressed spiral volutes in the convex surface of the dome, said volutes extending from said conical depression to the upper face of said cylindrical base-ring; and, with alternating elevated and depressed spiral volutes in the concaved surface of the dome, said under volutes extending from said depending cone to the extreme lower edge of the target, all substantially as described and for the purpose hereinbefore set forth.

2. The herein-described flying target comprising a hollow segmental spherical dome projected from the upper face of a cylindrical base-ring, and having a central conical top depression, with convoluted convex surface corrugations terminating in the upper face of said cylindrical base-ring, and having a central depending cone in the hollow of the dome with convoluted concaved surface corrugations extended to the extreme under edge of the target, all substantially as shown and for the purpose hereinbefore set forth.

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

BENJAMIN FRANKLIN SAYLOR.

Witnesses:

DANL. H. HERR,
PAUL A. HERR.