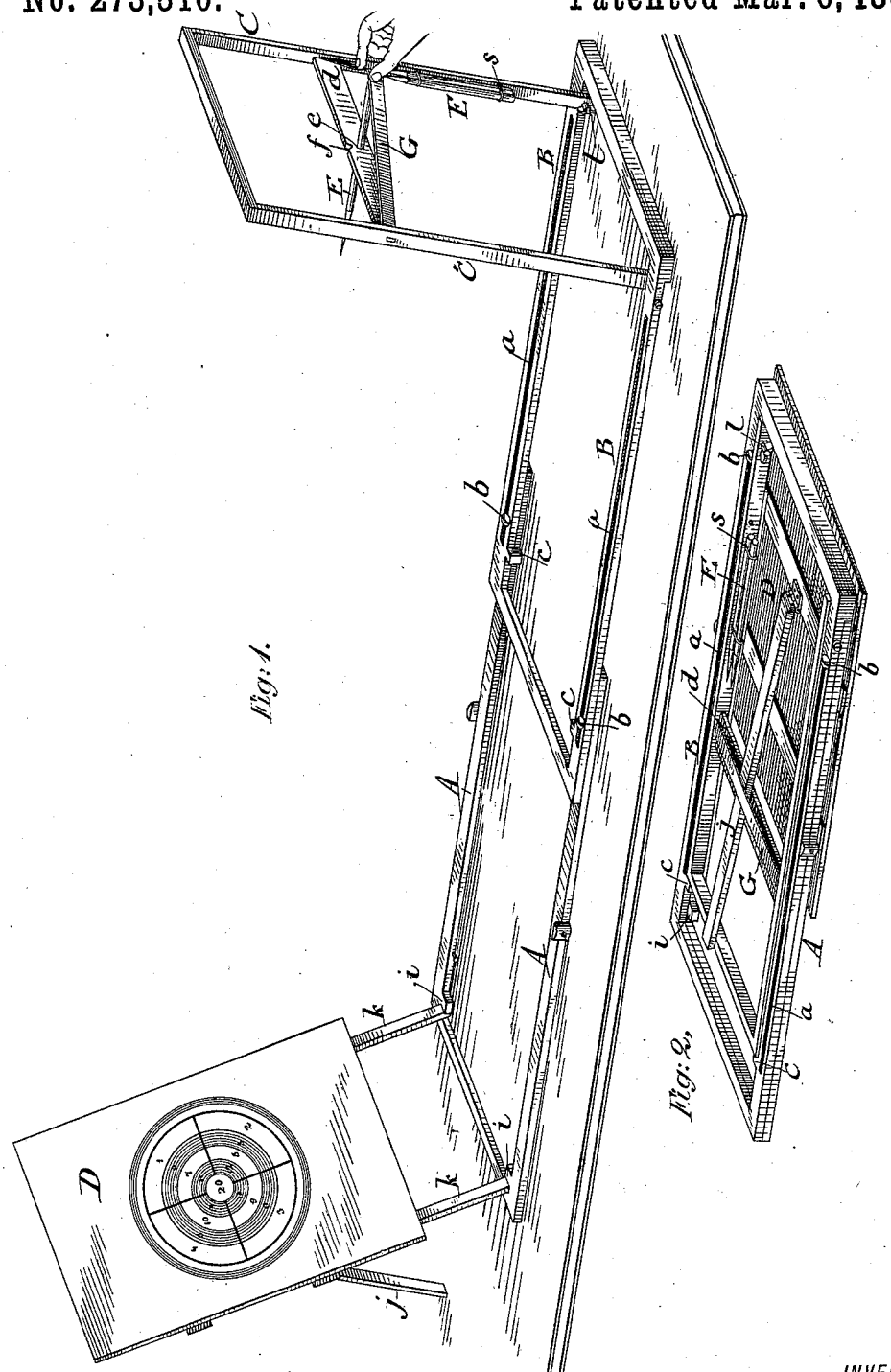
(No Model.) 2 Sheets—Sheet 1.

C. P. & W. H. GOLDEY.

ARCHERY APPARATUS.

No. 273,510. Patented Mar. 6, 1883.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

C. P. & W. H. GOLDEY.

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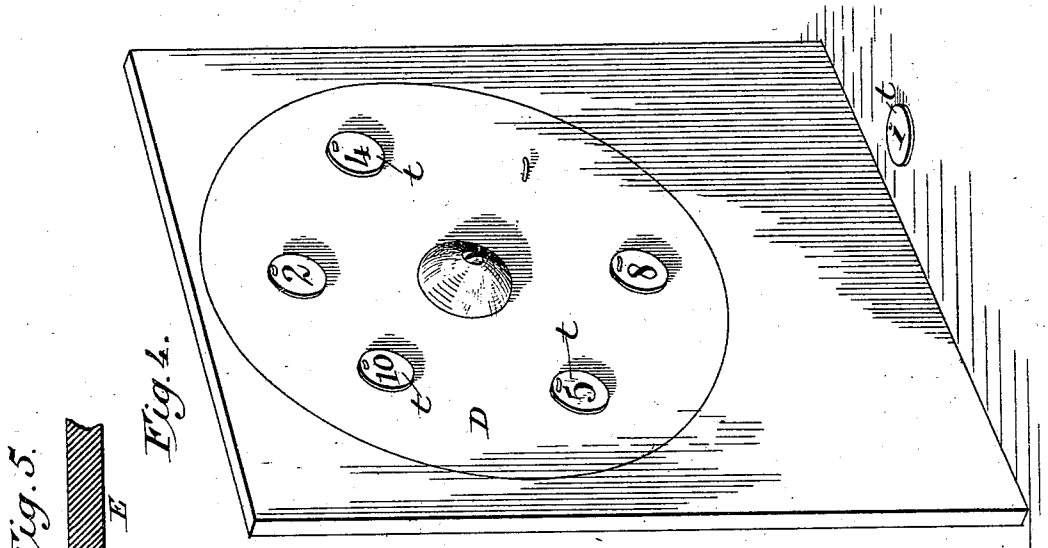

Fig. 4.

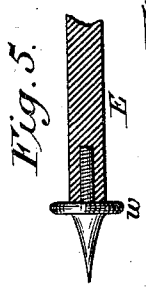

Fig. 5.

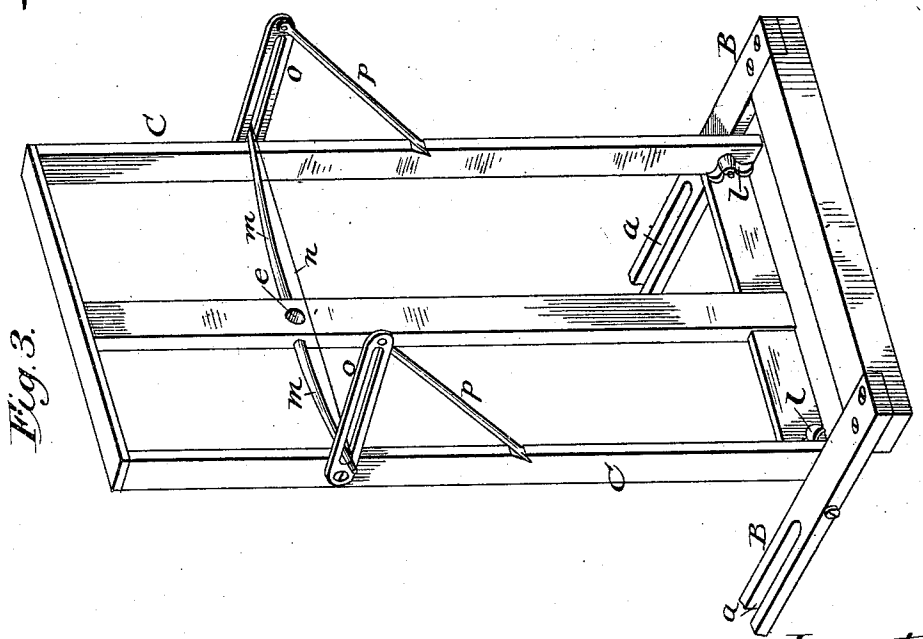

Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES P. GOLDEY, OF NEW YORK, AND WILLIAM H. GOLDEY, OF BROOKLYN, N. Y.

ARCHERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 273,510, dated March 6, 1883.

Application filed December 8, 1881. (No model.)

To all whom it may concern:

Be it known that we, CHARLES PIERRE GOLDEY, of New York city, New York county, New York, and WILLIAM H. GOLDEY, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Archery Apparatus, of which the following is a specification.

The object of this invention is to produce an archery apparatus for indoor use which will admit the exercise of great skill in marksmanship, and which shall at the same time be capable of use without danger of the shafts or arrows being thrown beyond or away from the target.

To this end it consists in the combination of a base-frame adapted to sit upon the floor, table, or other support, a target mounted upon one end of the same, and a bow or equivalent device for projecting the shafts, mounted upon the opposite end of the frame, and provided with means by which the flight of the shaft is confined within the limits of the target; in the construction of the frame, whereby it is adapted to fold within a small compass for storage, or to be extended to a considerable length for use, and in minor features of construction hereinafter described.

Referring to the accompanying drawings, Figure 1 represents a perspective view of the apparatus as adjusted in position to be used; Fig. 2, a perspective view of the same as it appears when folded for storage; Fig. 3, a perspective view illustrating a modified form of the device for projecting the arrows; Fig. 4, a perspective view of the target, illustrating the detachable objects upon its face; Fig. 5, a sectional view of one of the shafts or arrows.

The base-frame of the apparatus, which may be modified in its details of construction, consists in the present instance of two light rectangular frames, A B, the latter provided with longitudinal slots *a*, and connected to the former by means of screws *b* and guiding-arms *c*, in the manner represented in Figs. 1 and 2, so that the frame, as a whole, may be extended for use, as represented in Fig. 1, or closed together in a short space, as represented in Fig. 2.

D represents a target consisting of a suitable board provided with sustaining-feet *k*, and with a hinge-supporting leg, *j*, upon its back. The outer end of the frame A is provided with lugs *i*, intended, in connection with the end bar of the frame, to hold the feet of the target rigidly in position. By this means, and by means of its hinged leg *j*, the target is sustained firmly in position at the end of the base-frame. At the opposite end of the base-frame, to the outer end of frame B, a frame, C, is secured by thumb-screws *l*, which admit of the frame being folded down within the base-frame, as shown in Fig. 2, or of its being turned to and secured in an upright position, as represented in Fig. 1. This frame C is provided with a cross-bar, *d*, having at its middle a transverse hole, *e*, intended as a support and guide for the shafts or arrows E. A rubber or other elastic strap, G, is extended across the rear face of the bar *d*, and secured at its ends thereto or to the frame C. A central notch, *f*, is also made in the upper side of the bar *b* to serve the purpose of a sight and assist the operator in directing the flight of the arrow. The bar *d* is made of such thickness and the hole *e* made of such size that although the arrows are permitted a wide range of flight they are compelled to strike within the limits of the target. If desired, a tube or sleeve of suitable length and size may be inserted through and secured within the bar *d* as a guide for the arrows; but in practice it is found sufficient, in ordinary cases, to simply bore a hole through the bar for the purpose.

In operating the device the rear end of the arrow is inserted backward through the hole in the bar *d*. The attendant then grasping the rear end of the arrow, or the arrow and band, draws the same backward, as represented in Fig. 1. Upon releasing them the arrow is driven forward by the action of the band and propelled against the target. Instead of employing the elastic band, any equivalent device for propelling the arrows may be employed. We find an excellent arrangement for the purpose to be that represented in Fig. 3, in which the frame C is provided with a vertical bar in its center. This bar is provided, as in the first instance, with the guiding-hole *e*, and is also

provided with two laterally-extending elastic arms, *m*. The inner ends of these arms are seated firmly but detachably in the vertical bar, and their outer ends connected with each other by means of a cord, *n*, the combination constituting a bow. The outer ends of the arms *m* pass through and are guided by slotted arms *o*, pivoted at one end to the upright frame C and sustained at their outer ends by pivoted supports *p*, the lower ends of which are sustained in notches in the frame C.

The construction above described admits of the elastic arms being removed and the supporting-arms being folded downward compactly against the frame C when the apparatus is to be folded. As shown in Figs. 1 and 2, the frame C is provided on its inner sides with devices *s* to receive and retain the shafts or arrows. The folding devices consist of staples, as shown in the drawings, of elastic loops, of leather pockets, or of any suitable means answering the same purpose. The target, which may be of any suitable construction, is preferably provided, as represented in Fig. 4, with a series of small detachable plates or buttons, *t*, hung upon hooks or pins on the face of the target. These objects may be painted in different colors, provided with numbers indicating different values, or otherwise distinguished from each other. It is found in practice that when suspended upon the face of the target by means of hooks or pins, or in any equivalent manner, they will rebound and fall from the target when struck by the arrows, but not otherwise. The form and moving attachment of the buttons may be modified to any extent desired, provided they are adapted to be released from the target by the action of the shafts or arrows upon them.

As regards the construction of the folding frame, the details may be modified to any extent desired, provided the general mode of operation described is retained. It is manifest that it may consist of three, four, or more sections capable of being adjusted endwise with relation to each other, and that these sections may be constructed and united in any suitable manner, provided the frame is adapted to be self sustaining or supporting, so that it may be placed for use upon the floor or other level surface.

In practice it is found desirable in many cases to use arrows with pointed ends, which will pierce and remain in the target; but much difficulty is encountered in their use on account of the difficulty of removing them from the target, and of the rapid destruction of the target unless the piercing action of the arrows is properly limited. In order to overcome these difficulties, we provide the metal head of the arrow with a threaded stem, by which it is connected to the wooden shaft or body, and also provide the head with an annular enlargement or flange, *w*, which serves to limit the entrance of the point into the target, and also as a means by which the marksman may readily grasp the head to extract it from the target without danger of straining, breaking, or detaching the wooden shaft.

We are aware that a toy gun adapted to be placed against the shoulder in use has been provided with a short arm carrying at its front end a movable bow, against which the projectiles were thrown, the projectiles being guided in a long tube, by which they were accurately guided and prevented from deviating from a given line of flight. Our apparatus differs from the foregoing in that it is designed to be self-supporting and to be placed permanently in position for use, and consequently in that the guides employed in connection with our projectiles permit the same to change their line of flight within certain limits, permitting the exercise of skillful marksmanship on the part of the operator.

Having thus described our invention, what we claim is—

1. In a toy archery apparatus, the combination, with the base-frame, of a target secured at one end of the same, a tubular guide secured rigidly in position at the opposite end of the frame, said guide being of suitable diameter to confine the flight of the projectiles within the limits of the target, but permitting them to range over its face, and means, substantially as shown, for propelling the projectiles through said guide.

2. In combination with the extensible base-frame, the folding target and its supporting-leg, the folding frame C, clamping devices *l*, and bow or gun *d e* G.

3. In a toy archery apparatus, the combination of an extensible base-frame, a target adjustably secured to one end of the same, the frame C, hinged to the opposite end of the base-frame, means, substantially as shown, for securing the frame C rigidly in an upright position, and a bow or gun mounted upon and sustained by said frame C, as described and shown.

4. In combination with the base-frame, the folding frame provided with the perforated bar *d*, the means for propelling the arrow, and the sight or notch.

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