UNITED STATES PATENT OFFICE

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DROPPING TARGET APPARATUS

Don Lenzi, Los Angeles, Calif.

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3 Claims. (Cl. 273—102.1)

This invention relates to and has for an object the provision of a target apparatus embodying one or more target elements of the same or different character and dimensions which are adapted to be supported on a suitable frame in such a manner that they may be readily dislodged from target positions, one after the other, when a missile is directed thereagainst.

I prefer to provide a target apparatus which includes an adjustable support for a plurality of targets which are loosely held in position on the frame so that when a missile, such as a rubber band discharged from a gun or projector, will readily dislodge the targets from their original positions when hit by the missile and, when used as a game or in a contest, for the purpose of entertainment or an exhibition of skilled marksmanship, will provide means for scoring the efforts of different players in accordance with different predetermined values of the several targets. I also provide means for separately supporting the targets in operative and inoperative positions, which means, when rotated to a given extent at the completion of a round of playing or at the completion of the play of a single player, will serve to restore all of the targets to position for a succeeding play or round, as the case may be.

To such end I provide a suitable stationary frame on which a carrier is rotatably mounted and is arranged to support one or more targets visibly behind openings of the same or different size formed in the carrier and having different values, together with means for rotating the carrier at the completion of each play or at intervals, for restoring the targets to playing position in a succeeding play or interval.

An object is to provide a target apparatus of the character mentioned which may be produced economically of cardboard or other cheap materials and assembled for sale and use as a game for the purpose of affording entertainment as well as an exhibition of skill. Still other objects may appear as the description of my improvements progresses.

I have shown my improvements in the accompanying drawing with one or more minor modifications, but I conceive it to be possible to otherwise modify the form and structure thereof, within the scope of the appended claims, without departing from the spirit of the invention. In said drawing:

Fig. 1 is a perspective view of a target apparatus embodying one form of device which includes but one series of targets and but one

series of openings in the carrier through which the targets are visible when in playing position;

Fig. 2 is a front view of a somewhat similar structure but which includes two series of openings—one on the front side and one on the rear side of the carrier—whereby when the targets are dislodged from positions behind one series of openings they will automatically drop into positions behind the openings on the reverse side of the carrier;

Fig. 3 is a sectional elevation of the structure as seen on line 3—3 of Fig. 2;

Fig. 4 is a fragmentary view of the structure of Fig. 2 on line 4—4; and

Fig. 5 is a fragmentary section of Fig. 2 on line 5—5.

Briefly described, my target apparatus includes a supporting frame A on which a target carrier B is rotatably mounted, a plurality of targets C, C1, C2 and C3—more or less—which are slidably held in carrier B so that they may be either supported in operative positions on the carrier, as shown in Fig. 1, or in inoperative positions thereon. As in Fig. 1, the reverse side 1 of the carrier is formed with horizontally aligned openings 2, 3, 4 and 5 behind which the targets C, C1, C2 and C3 are supported so that when struck by a rubber band D (or other type of missile) discharged from a gun or projector E the targets will be dislodged from their supports and will drop downwardly into the lower portion of the carrier. Carrier A may be formed as shown with the obverse sheet 1, a reverse sheet 1a, a top strip 6 and a bottom strip 7 and similar end strips 3, 8, and internally the front sheet 1 of the carrier of Fig. 1. I may provide a ledge or pins 9 below the openings 2, 3, 4 and 5 which forms a support for the targets C, C1, C2, and C3, as shown in Fig. 3. In such case the ledge or pins 9 are spaced from the rear wall 2 of the carrier in order that the targets in succession may readily drop off of and fall below the ledge or pins 9 into the positions shown in Fig. 3 in broken lines. In this case, when one or more of the targets are dislodged from their supports 9 and the carrier is rotated in the direction of the arrow, as in Figs. 1 and 3, to an extent of about or a little in excess of one-half of a revolution the targets will slide by gravity in the direction of top strip 6 and will again seat on supports 9 preparatory to a succeeding play or round.

However, when the form of device shown in Fig. 2 is used, the mere rotation of the dual unit will automatically position the targets for a suc-
ceeding play, because the reverse side 1a of the carrier is provided with a second series of apertures 2', 3', 4' and 5', and when the carrier is rotated to an extent of one-half of a revolution, as shown in Fig. 3, the targets will then rest upon a ledge or pins 9' attached to the rear side wall 1a.

It is apparent that when the carrier of either the single or dual type of apparatus is pivotally mounted on frame A as by means of trunnions 10, 10 at its opposite ends which are pivotally held in ends 11, 11 of frame A, by friction or by means of a suitable detent, the carrier B will remain in adjusted position until again rotated for restoring the targets to playing positions. I have shown a means for rotating the carrier in Figs. 1, 2 and 4 which may include a pulley 12 attached to one end of the carrier and a cord or belt 13 operating over said pulley and of sufficient length that its extended portion shown in Fig. 1 may be held by a player for rotating the carrier and thereby restoring the targets to playing position without necessitating movement of a player from playing position. As a means for holding the carrier in its adjusted positions, it may provide a spring held detent 14 on one of the ends 11 and adapted to engage one of two indentations 15 in an end 8 of the carrier (see Fig. 5). Pulley 12 may be affixed to an end 8 of carrier B as by means of pins 10, 10 as shown in Fig. 4.

Fig. 3 shows a typical cross sectional view of the carrier which is applicable to either of the forms shown in Figs. 1 or 2, but it will be understood that in the form of apparatus shown in Fig. 1 the ledge or pins 9' are omitted and only a single series of apertures 2, 3, 4 and 5 are provided on the carrier which are formed on the reverse side 1. However, in the form shown in Fig. 2 the apertures 2, 3, 4 and 5 are provided on the upper portion of the reverse side 1 and corresponding apertures 2', 3', 4' and 5' are provided on the lower portion of the reverse side 1a. Thus, in the first mentioned form of apparatus it is necessary to rotate the carrier in one direction to a sufficient extent to restore the targets to their supporting portions 3 and then again to a necessary extent to position the carrier with its reverse side forwardly and its targets in proper position for a succeeding play. The dual apertured apparatus requires only the rotation to an extent of one-half of a revolution at each operation to reposition the targets for a succeeding play for the reason that when the targets drop from one to another position they are automatically positioned behind the apertures on the front or back of the carrier.

Preferably a member 18 Fig. 3 is arranged behind each target opening and is effective to limit the rearward movement of the top of each target and thus assure that the impact of a missile will throw the bottom of the target off the ledge or pins 9, 9'. The member 18 may be secured in any suitable manner on the rear of the carrier.

The targets may be of any form desired but are preferably rectangular, as shown in broken lines in Fig. 2, so that they may freely slide between vertical guides 17 which are disposed midway between the apertures 2, 3, 4 and 5 etc.

It is apparent that I may provide a frame A and a carrier B of substantially different form than I have herein shown and that the target apertures as well as the target supporting means 9 or 9' may be variously arranged to provide different forms of entertainment and amusement, but in its broadest aspect my invention contemplates the provision of a target game employing a carrier formed with a plurality of apertures and one or more targets which are arranged to be dislodged from positions adjacent certain of said apertures and moved into positions adjacent of said apertures for dislodgement from successive positions by the projection of a missile thereagainst.

I claim:

1. A target apparatus comprising: a frame, a carrier rotatably mounted thereon and formed with spaced walls at least one of which walls is provided with a plurality of apertures, a separate target slidably mounted between said walls in the plane of each of said apertures, supporting means between said walls for holding each target in playing position behind its corresponding aperture, so that when struck by a missile projected therewith each target will be knocked off the supporting means and will drop by gravity into then inoperative position, and means for rotating the carrier so as to reposition each target for a succeeding play.

2. A target apparatus comprising: a supporting frame, a carrier provided with a plurality of apertures therein and rotatably mounted on said frame, a target behind each of said apertures, means for supporting said targets in playing position, and means for guiding said targets so that when struck by a missile and displaced from said supporting means, the targets will drop to then inoperative positions on the carrier and may be restored to operative positions only by rotation of the carrier.

3. A target apparatus comprising: a supporting frame, a carrier provided with a plurality of apertures therein and rotatably mounted on said frame, a target behind each of said apertures, means for supporting said targets in playing position, means for guiding said targets so that when struck by a missile and displaced from said supporting means, the targets will drop to then inoperative positions on the carrier and may be restored to operative positions only by rotation of the carrier, and means for rotating the carrier to an extent necessary to restore the targets to operative positions.

DON LENZI.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>157,535</td>
<td>Lyon</td>
<td>Dec. 1, 1874</td>
</tr>
<tr>
<td>1,102,814</td>
<td>Sommerfeld</td>
<td>Dec. 7, 1915</td>
</tr>
<tr>
<td>1,510,643</td>
<td>Austin</td>
<td>July 22, 1919</td>
</tr>
<tr>
<td>1,488,647</td>
<td>Quinn</td>
<td>Apr. 1, 1924</td>
</tr>
<tr>
<td>1,603,536</td>
<td>Harris</td>
<td>Oct. 19, 1926</td>
</tr>
</tbody>
</table>