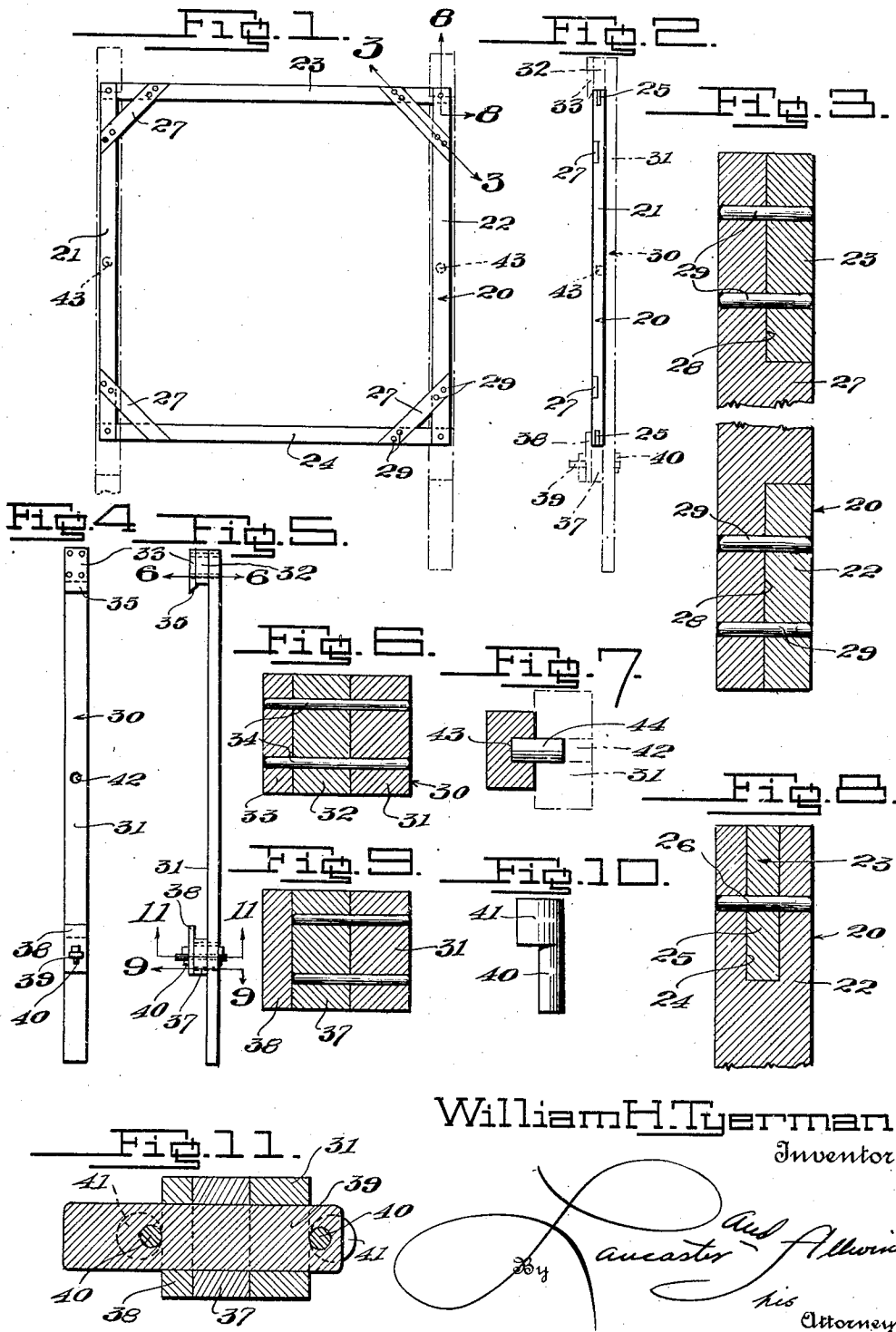


W. H. TYERMAN.
 TARGET.
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TARGET.

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To all whom it may concern:

Be it known that I, WILLIAM H. TYERMAN, a citizen of the United States, residing at Paris Island, in the county of Beaufort and State of South Carolina, have invented certain new and useful Improvements in Targets, of which the following is a specification.

This invention relates to targets, and an object of the invention is to provide in a target structure, a frame and carrying uprights, together with means for securely locking the frames to the uprights for preventing accidental disengagement of the frame and the uprights or to prevent the frame from falling out of the target structure and consequently endangering the operator as the operators of targets are often injured by the target frame falling from the uprights, and further to provide a target frame which is made up so that any side, top, bottom or brace can be readily taken out and replaced, when it is broken or shot away, separately and without damaging any other part of the target.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing:

Figure 1 is a front elevation of the target frame.

Fig. 2 is an edge elevation of the target frame, illustrating the upright in dot and dash lines.

Fig. 3 is a section taken on the line 3—3 of Fig. 1 illustrating the manner of connecting one of the corner braces to the target frame.

Fig. 4 is a front elevation of one of the uprights of the target structure.

Fig. 5 is an edge elevation of one of the uprights of the target structure.

Fig. 6 is a cross section on the line 6—6 of Fig. 5.

Fig. 7 is a detail cross section through one of the side members of the target frame illustrating the manner of connecting the target frame intermediate its edges to the uprights.

Fig. 8 is a section taken on the line 8—8 of Fig. 1 illustrating the manner of connecting the meeting ends of the side bars of the target frame.

Fig. 9 is a section taken on the line 9—9 of Fig. 5.

Fig. 10 is a detail side elevation of a locking pin employed in the upright structure, and

Fig. 11 is a cross section taken on the line 11—11 of Fig. 5.

Referring more particularly to the drawings, the target frame 20 which carries the sheet bearing the bull's eye as is usual in target structures comprises a pair of side bars 21 and 22, the ends of which are connected to the upper cross bars 23 and the lower cross bars 24 respectively. The side bars 21 and 22 have their upper ends mortised as clearly shown in Fig. 8 of the drawings at 24 which mortises receive therein the tenons 25 formed of the ends of the cross bars 23 and 24. The mortised and tenon ends of the side bars and cross bars are connected by dowels 26 so as to prevent their accidental disconnection. Diagonally extending braces 27 are attached to the cross bars 23 and 24 and the side bars 21 and 22, the said cross and side bars being mortised as shown at 28 to receive therein the end portions of diagonal braces 27 which are reduced in thickness as clearly shown in Fig. 3 of the drawings. The diagonal braces 27 are connected to the cross bars and side bars by dowel pins 29 so as to prevent accidental disconnection of these members.

In use, the frame 20 is supported by or carried by uprights 30, which may be attached to the approved type of target machines, in the usual manner, or which may be supported in upright position in any suitable manner. These uprights 30 each comprise a bar 31, to the upper end of which is attached a block 32, which forms a spacing block and also an abutment block against which the upper edge of the frame 20 abuts, and the confining block 33 is attached to the spacing block 32, as clearly shown in Fig. 6 of the drawings, the said blocks 32 and 33 are attached to the upper end of the upright bar 31 by dowel pins 34. The lower end of the confining block 33 projects beyond the lower edge of the abutment block 32 and it is beveled, inclining from its outer edge upwardly toward its inner edge as clearly shown at 35 in Fig. 5 of the drawings for preventing outward movement of the upper edge of the frame 20 relative to the uprights

30. A supporting or abutment block 36 is attached to the upright bar 31 adjacent the lower end thereof, and its upper surface is spaced from the under surface of the abutment block 32 a distance equal to the height of the frame 20, so that the frame will snugly fit between these abutment blocks. The clamping plate 38 engages against the outer surface of the abutment block 37, and its upper end projects above the upper edge of the abutment 37 for engagement against the outer surface of the lower cross bar 24 of the target frame 20 to hold the target frame securely connected to the uprights 30. The upright bar 31, the abutment block 37 and the clamping plate 38 are all provided with alining openings which receive therethrough a connecting bar 39. The connecting bar 39 projects beyond the outer surface of the bar 31 at one end thereof, and outwardly of the clamping plate at its other end as clearly shown in Figs. 5 and 11 of the drawings, and this connecting bar is provided with openings through which the clamping pin 40 extends. The openings which receive the clamping pin 40 therethrough are spaced so that when the pins 40 are inserted through these openings, the said pins will hold the block 37 in firm abutting engagement with the bar 31 and also hold the clamping plate 38 in firm abutting engagement with the outer surface of the abutment block 37. The clamping pins 40 have laterally offset heads 41 thereon which limit the insertion of the pins into the connecting bar 39, and also serve as means to facilitate the withdrawal of the pins 40 from their respective openings so as to permit the disconnection of a frame 20 from the uprights when desired.

The bars 31 of the uprights are provided with openings 42 extending therethrough intermediate their ends, which openings aline with recesses 43 in the side bars 21 and 22 of the frame 20, and pins 44 are inserted into the openings 42 and the recesses 43 for connecting the target frame 20 to the uprights intermediate their ends and further to form a more secure connection between the target frame 20 and the uprights so as to further decrease the liability of the target frames falling out of the uprights or their carriers.

To mount a target frame 20 upon the uprights 30 the clamping plates 38 are removed, and the upper edge of the target is slipped under the projecting beveled ends 35 of the confining plates 33 and against the under edges of the abutment block 32 after which the frame is moved toward the uprights 30 and across the upper edge of the supporting abutment block 37 after which the clamping plates 38 are slipped over the connecting bars 39 and the pins 40 are inserted through the openings in the outer ends of the connecting bars 39 to securely

clamp the clamping plates 38 in place and also clamp the frame 20 connected to the uprights 30. The pins 44 are then inserted into the openings 42 and forced into the recesses 43 for connecting the target intermediate its ends to the uprights. When it is desired to disconnect the frames from the uprights, the plates 38 are then removed and the lower end of the target frame 20 is forced outwardly permitting the loosening of the pins 44, and permitting the upper edge of the frame 20 to be slipped outwardly beneath the projecting beveled ends 35 of the confining plates 33.

Changes in details may be made without departing from the spirit of this invention; but,

I claim:

1. In a target, the combination of a frame, supporting uprights therefor, supporting abutment blocks carried by said uprights and adapted to receive the lower edge of said frame thereon, clamping plates, means for detachably clamping said clamping plates against the outer surface of said supporting abutment blocks and against the outer surface of the lower portion of said frame, abutment blocks carried by the upper ends of said uprights, confining plates attached to the outer surfaces of said upper abutment blocks and having their lower edges projecting below the lower edges of the upper abutment blocks, the said lower edges of said confining plates being beveled to guide the upper edge of the frame against the under surfaces of said upper abutment blocks, said uprights provided with openings intermediate their ends, the said frame provided with recesses therein adapted to aline with said openings, and pins inserted in the openings and recesses to connect said frame and uprights intermediate their ends.

2. In a target, the combination of a frame, supporting uprights therefor, supporting abutment blocks, clamping plates, said uprights, abutment blocks and clamping plates provided with alining openings, a connecting bar inserted through said openings, and pins inserted through said connecting bar for clamping said clamping plates against said abutment blocks and holding the abutment blocks firmly attached to the uprights.

3. In a target, the combination of a frame including removable side and end bars, supporting uprights therefor, supporting abutment blocks carried by said uprights adjacent to their lower ends and adapted to receive the lower edge of said frame thereon, clamping plates removably associated with the abutment blocks, the abutment blocks, clamping plates, and uprights having alined openings formed therein, connecting bars arranged in said alined openings, the terminals of said connecting

bars having openings formed therein, pins removably fitted in said openings, laterally projecting offset heads formed on the terminals of said pins, abutment blocks carried 5 by the upper end of said uprights, confining plates carried by the outer surface of the upper abutment blocks, the inner ends of said clamping plates and confining plates being disposed beyond the inner edges of the upper and lower abutment blocks, the 10 upper abutment blocks, the confining plates and the uprights having alined openings, and removable dowel pins fitted in said openings.

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