Nov. 30, 1943. Z. DE LUBICZ-BAKANOWSKI ET AL 2,335,393

TARGET CARRYING STAND

Filed Jan. 8, 1943 2 Sheets-Sheet 1

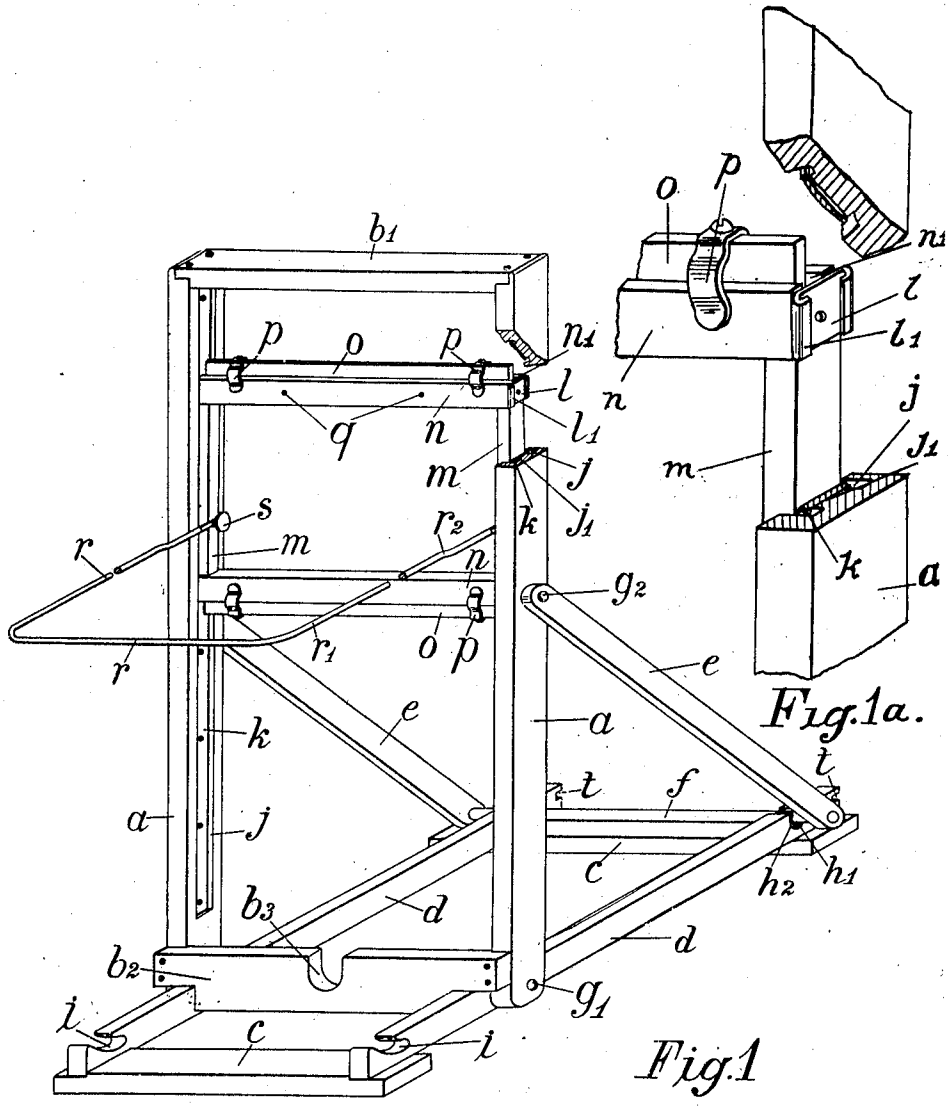


Fig.1

Fig.1a.

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TARGET CARRYING STAND

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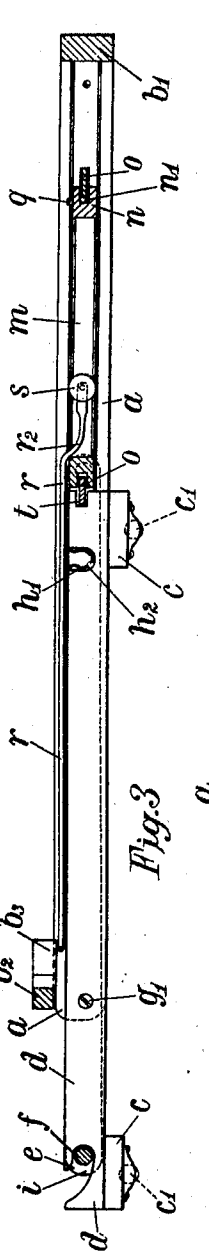


Fig.3

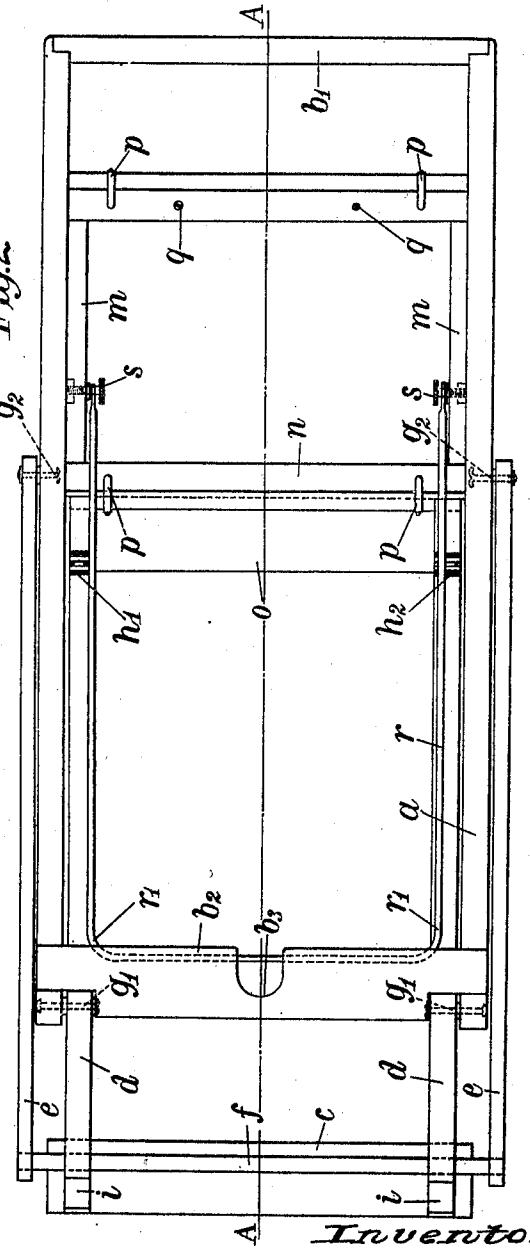


Fig.2

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2,335,393

TARGET CARRYING STAND

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Application January 8, 1943, Serial No. 471,728
In Great Britain November 3, 1942

11 Claims. (Cl. 273—102)

This invention relates to an improved target carrying stand for use in target practice with dummy rifles.

The main object of the invention is to provide a target stand which, when not in use, could be readily collapsed in a minimum of space with all its component parts firmly secured in position.

A further object is to provide an improved mounting of target frame on the stand which will allow of the frame being easily and accurately adjusted along the stand and of the target being secured in the exact position to the frame and of its being firmly stretched therein.

A still further object is to provide a proper support for the dummy rifle on the stand when the rifle is not being used during some temporary interruption in the practice.

The invention mainly consists in an improved target stand for the purpose above referred to comprising in combination: an upright frame adapted to receive a sliding target frame and rifle yoke mounted on the target frame and displaceable therewith; a supporting base frame to which the upright frame is pivoted at its lower end; a U-shaped buttress frame pivoted at the free ends of its limbs to the upright frame, and adapted to engage with and be secured to the base frame through its transverse member, the said upright frame with its target frame and rifle yoke, the base frame and the buttress frame all lying in one single plane when the stand is collapsed; and means on the constituent parts of the stand for interlocking them in the single plane when the stand is collapsed.

Other features of the invention are hereinafter described and claimed in the appended claims.

Referring to the accompanying drawings illustrating, by way of example, one mode of carrying the invention into effect:

Figure 1 is an isometric view of the target stand as erected, partly cut away to show some details, the rifle yoke, which when not in use hangs freely down, being shown in the raised position for practicing purposes in which position it is held by the rifle (not shown);

Figure 1*a* is a detailed view of the slide and groove structure connected with the sliding target frame, the details being shown on an enlarged scale;

Figure 2 is a plan view thereof, in a collapsed position, and

Figure 3 is a sectional elevation along the line A—A in Figure 2.

The stand comprises an upright frame constituted by two uprights *a a* secured together by transverse members b_1, b_2; a supporting base frame formed by two boards *c c* mounted on rollers c_1 and by two bars *d d* secured to the said boards and provided with a number of recesses as hereinafter more particularly described; and a U-shaped buttress frame consisting of two side members *e e* and a transverse member *f*. The upright frame is pivoted at its lower end to the base frame as shown at g_1 and the buttress frame is pivoted to the upright frame, at approximately half the height of the latter, as shown at g_2, its transverse member *f* being held in position in recesses h_1, provided in the bars *d* of the base frame through the intermediary of spring clips h_2 secured in the said recesses. *i* are recesses provided in the forward ends of the bars *d* of the base frame, being suitably shaped to lock in position the buttress frame *e e f*, when the latter, during the collapsing of the stand, is swung over the top of the upright frame and then downward to bring the three constituent frames of the stand into one single plane.

The uprights are longitudinally slotted on their inner surface, as shown at *j*, to provide a path for the displacement of the target frame. As will be seen a ledge-like projection j_1 is left along the middle of the longitudinal slot to which a slide bar *k* is attached in such a manner that its lateral edges remain free for engagement with the turned over edges l_1 of slide clips *l* secured at top and bottom on either side of the target frame.

The target frame consists of two side bars *m m*, and top and bottom bars *n*, and is adapted to be adjusted at the required height in the stand by an up and down displacement within the longitudinal slots *j*, any wobbling movement being prevented by the engagement of the clips *l* with the slide bars *k*.

The target sheet (not shown) is placed on the target frame and is held in a stretched position by means of wedge members *o* forced by means of spring clips *p* into longitudinal recesses n_1 formed in the top and bottom bars of the target frame. *q* are two positioning studs for ensuring the placing of the target sheet in the correct position, the latter being provided with a pair of holes intended for engagement with the said studs, prior to the top and bottom edges of the target being turned over the top and bottom bars of the target frame.

r is the rifle yoke by means of which a dummy rifle can be yoked to and maintained at a constant distance from the target, for which purpose

the rifle may be connected in a detachable manner to the transverse bar of the yoke. This may be effected by a hook secured to the bottom of the rifle and adapted to engage with the yoke by slipping the hook over the yoke at a reduced cross section of the latter as shown at r_1 and then sliding the rifle along the transverse bar of the yoke. The rifle yoke is hinged to the inside of the target frame, the thumb screws s by means of which the target frame is locked in its adjusted position on the stand being also adapted to serve as pivots for the yoke. When not in use, the yoke hangs freely down, being raised into the position shown in Figure 1 when the rifle is yoked thereon for practicing purposes and being held in that position by the rifle.

When it is not being used during a temporary interruption in the practice, the dummy rifle may be supported on the stand without being disengaged from the yoke; for this purpose the bottom bar b_2 of the upright frame is provided with a recess b_3 suitable to serve as a rest for the forward end of the rifle.

As will be seen at r_2 the yoke is bent near its pivotal connection in such a manner as to ensure that when the stand is in its collapsed position the yoke will clear the bottom bar of the target frame and come to lie in the single plane above referred to. It will also be seen from Figures 2 and 3, that when the stand is in that position the yoke is held down by the transverse bar b_2 of the upright frame.

In order to collapse the stand, the thumb screws s are loosened and the target frame, together with the yoke is adjusted in a high position of the upright frame, so that when the upright frame is collapsed, the target frame is clear of the bottom rails d d; the buttress frame e e f is then disengaged from the clips h_2 and swung around the pivots g_2 over the top of the upright frame, the latter being at the same time swung downwards around its pivotal connections g_1 with the base frame; towards the end of the latter movement, the transverse member f of the buttress frame engages in the slots i; thereupon the target frame together with the yoke is slid towards the bottom transverse bar b_2, bringing the transverse part of the yoke underneath the latter bar, and causing the wedge member o provided with the bottom bar n of the target frame to engage in recesses t provided in the rear ends of the members d of the base frame; finally the thumb screws s are screwed down, whereby all the constituent parts of the stand, including the target frame are locked in position in a flat and compact form.

The details for carrying the invention into effect may be modified in various respects without departing from its scope.

We claim:

1. A collapsible target carrying stand for use in target practice with dummy rifles comprising in combination: an upright frame; a target frame mounted within the upright frame; means for permitting a sliding movement of the target frame in the longitudinal direction of the upright frame; a rifle yoke pivoted to the target frame and capable of being swung to lie in the plane of the upright frame; a supporting base frame to which the upright frame is pivoted at its lower end and is capable of being swung to lie in the plane of the base frame; a U-shaped buttress frame pivoted at the free ends of its limbs to the upright frame and capable of being swung to lie in the plane of the base frame; means on the base frame for engagement with the transverse member of the U-shaped buttress frame, whereby said upright frame with its target frame and rifle yoke, the base frame and the buttress frame can be brought to lie in one single plane when the stand is collapsed; and means for interlocking all the said constituent parts in the single plane when the stand is collapsed comprising: means on the base frame for interlocking with the U-shaped buttress frame; means on the upright frame for locking the rifle yoke; means on the base frame and on the target frame for interlocking them; and means for locking the rifle yoke and the target frame to the upright frame.

2. A target stand as claimed in claim 1, in which the base frame comprises two side bars having recesses and spring clips in the said recesses for engagement with the transverse member of the U-shaped buttress frame for the purpose of securing the latter to the base frame.

3. A target stand as claimed in claim 1, in which the base frame comprises two side bars having locking recesses formed in their forward ends for the purpose of receiving the transverse member of the U-shaped buttress frame and interlock the latter with the base frame when the stand is collapsed.

4. A target stand as claimed in claim 1 in which the means permitting the sliding movement of the target frame in the longitudinal direction of the upright frame comprise longitudinal slots formed in the uprights of the upright frame, a ledge-like projection left along the middle of the said longitudinal slots, a slide bar secured to the said ledge-like projection and slide clips on the sides of the target frame having turned-over edges for sliding engagement with the lateral edges of the said slide bar.

5. A target stand as claimed in claim 1, in which the target frame comprises a top and bottom bar having longitudinal recesses in combination with wedge members engaging in the said recesses and spring clips for the purpose of gripping a target sheet in the recesses and keeping the said sheet in a stretched position.

6. A target stand as claimed in claim 1, in which the target frame comprises a top and a bottom bar having longitudinal recesses in combination with wedge members engaging in the said recesses and spring clips for the purpose of gripping a target sheet in the recesses and keeping the said sheet in a stretched position, and positioning studs on one of the said bars of the target frame for the purpose of positioning the target sheet.

7. A target stand as claimed in claim 1, in which the rifle yoke is pivoted to the inside of the target frame and is slightly bent near its pivots in order to clear the target frame and come to lie in a single plane with the other constituent parts of the stand when the latter is collapsed.

8. A target stand as claimed in claim 1, in which the rifle yoke is pivoted to the inside of the target frame and is slightly bent near its pivots in order to clear the target frame and come to lie in a single plane with the other constituent parts of the stand when the latter is collapsed, and in which the upright frame comprises at its lower end, a transverse bar so arranged as to hold the rifle yoke down when the stand is collapsed.

9. A target stand as claimed in claim 1, in which the target frame comprises a top and a bottom bar having longitudinal recesses in combination with wedge members engaging in the

said recesses, and spring clips for the purpose of gripping a target sheet in the recesses and keeping the said sheet in a stretched position, and in which the base frame comprises two side bars having locking recesses formed in their forward ends for the purpose of receiving the transverse member of the U-shaped buttress frame and interlock the latter with the base frame when the stand is collapsed, and recesses provided in the rear ends of the side bars for engagement with the wedge member associated with the bottom bar of the target frame when the stand is collapsed, whereby in the collapsed state of the target stand the base frame in addition to being interlocked with the U-shaped buttress frame is also interlocked with the target frame.

10. A target stand as claimed in claim 1, in which the target frame comprises a top and a bottom bar having longitudinal recesses in combination with wedge members engaging in the said recesses, and spring clips for the purpose of gripping a target sheet in the recesses and keeping the said sheet in a stretched position, and in which the base frame comprises two side bars having locking recesses formed in their forward ends for the purpose of receiving the transverse member of the U-shaped buttress frame and interlock the latter with the base frame when the stand is collapsed, and recesses provided in the rear ends of the side bars for engagement with the wedge member associated with the bottom bar of the target frame when the stand is collapsed, whereby in the collapsed state of the target stand the base frame, in addition to being interlocked with the U-shaped buttress frame, is also interlocked with the target frame, and the target frame having locking screws which in addition to locking the target frame in the upright frame when adjusted therein, also serve to lock in position all the constituent parts of the stand when the latter is collapsed.

11. A target stand as claimed in claim 1, in which the upright frame comprises a bottom transverse bar having a recess so shaped as to serve as a support for the forward end of the dummy rifle during a temporary interruption in the practice, with the rifle remaining yoked on to the yoke.

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