Nov. 1, 1955 T. H. ADAMSON 2,722,420

MULTI-TARGET HOLDER

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Fig. 1.

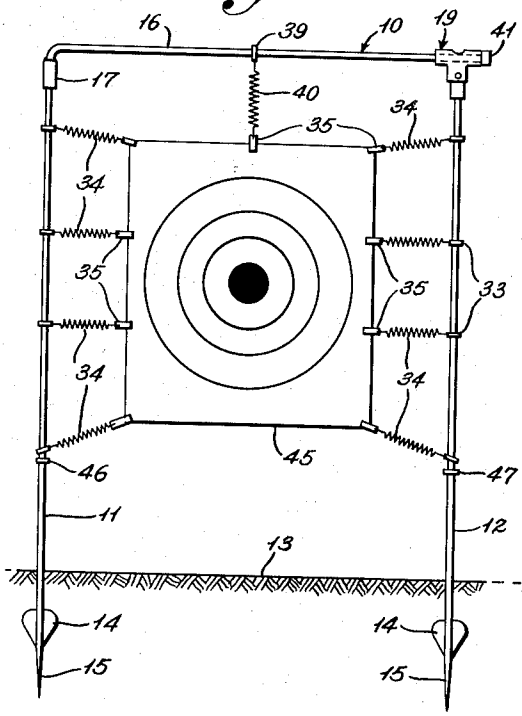


Fig. 2.

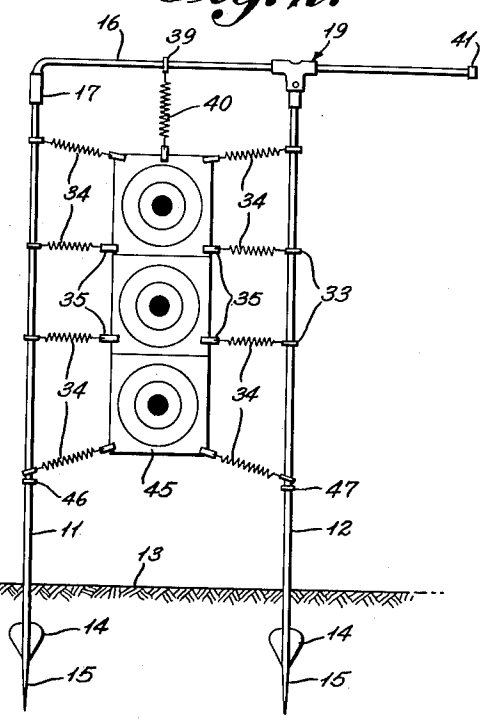
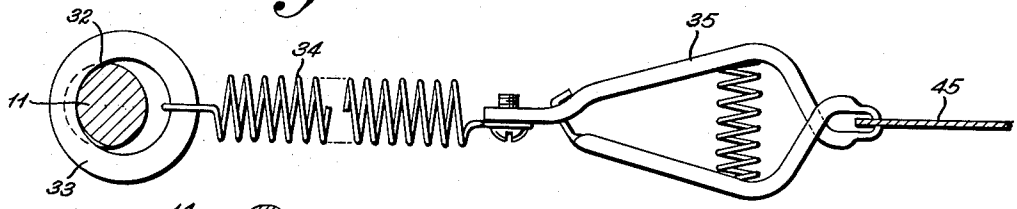


Fig. 3.



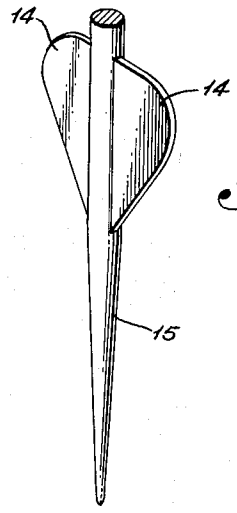


Fig. 4.

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Fig. 5.

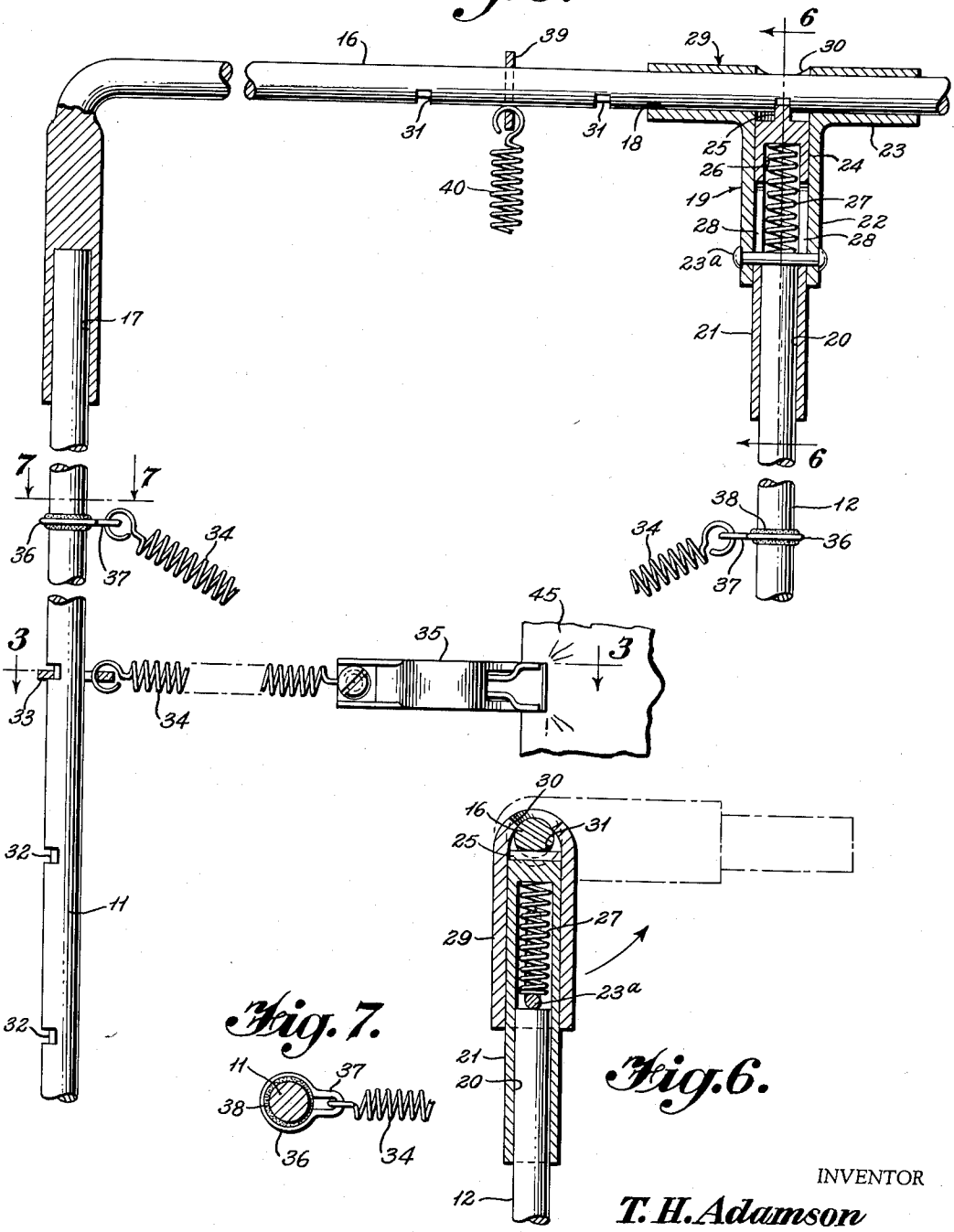


Fig. 7.

Fig. 6.

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2,722,420

MULTI-TARGET HOLDER

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Application September 4, 1953, Serial No. 378,560

3 Claims. (Cl. 273—102)

This invention relates to target supports and more particularly to a collapsible adjustable target support which is capable of supporting one or more targets of different sizes.

Ever since man first learned to throw a stone he has used a target and, as might be expected, some type of target support. Because of this antiquity of the art many different types of target supports have been devised and utilized and some of these supports have been portable and adjustable in nature. Such prior art supports, however, have involved heavy structures which either were not collapsible to a small lightweight apparatus or were not adapted to handle targets of varying sizes under a large plurality of field conditions.

According to the present invention there is provided a target support which is constructed of extremely lightweight elements which are collapsible and which, when assembled, are adjustable to receive targets of widely varying dimensions. Thus there is provided a target supporting device which comprises a pair of vertical upright standards which are adjustably and removably connected to a horizontal width bar so as to cooperate with the width bar to provide a target support which is quickly assembled and disassembled and which is easily anchored in many types of ground. The target support is preferably made of cylindrical bar stock and thus exposes no flat hard surface to the shooter so as to make it possible for a bullet to rebound. The standards are further supplied with anchor plates which make it easily possible to anchor the target support in soft mud, dry loose sand, or ordinary soil. The device is also usable with a rack for indoor shooting. Because of the light nature and portability of the target support it can be set up to take advantage of the best light conditions and may be arranged downwind so as to eliminate cross breezes which would interfere with accurate firing.

It is, therefore, an object of the present invention to provide a portable, collapsible target support which is capable of supporting targets having a wide variation in dimensions.

It is another object of the invention to provide such a support which is extremely light in weight, sturdy and so constructed as to prevent bullet rebound toward the shooter.

It is a still further object of the invention to provide such a target supporting device which is capable of being mounted in all types of ground and also on flooring for indoor use.

Further advantages and objects of the invention will become apparent upon reference to the following description and drawings wherein:

Figure 1 is a front view of the target support extended to its fullest width and supporting a single large target;

Figure 2 is a front view of the target support adjusted to an intermediate width and supporting a plurality of small targets;

Figure 3 is a plan view of a section of one standard showing the target clamp and spring attaching means;

Figure 4 is a partial perspective of the bottom of a standard showing the anchor plates;

Figure 5 is a front elevation partly in section of the target support;

Figure 6 is a sectional view taken on the line 6—6 in Figure 5; and

Figure 7 is a sectional view taken on the line 7—7 in Figure 5.

Referring more particularly to the drawing, there is shown in Figures 1 and 2 a target support **10** consisting of a pair of upright standards **11**, **12** mounted in soil **13** and having attached to the lower ends thereof a pair of radial anchor plates **14**. The anchor plates **14** may be fastened to the standards **11** and **12** in any suitable manner such as by welding, brazing or the like. The lower portion of each standard below the anchor plates **14** is pointed as at **15** in order to facilitate driving the standard into the soil. A width bar **16** extends horizontally across the tops of the two standards **11** and **12** and carries on one end thereof a socket **17** best seen in Figure 5. The socket **17** may be fastened to the width bar **16** with its axis perpendicular thereto by any suitable means such as welding or being integrally formed therewith. The other extremity of the width bar **16** is received in the horizontal passage **18** through a T-connection **19** which may be mounted on the standard **12** by any suitable means such as by socket type connection **20**.

The T-connection **19** consists of a sleeve **21** having an upper portion **24** to which is connected, integrally or otherwise, a lip or detent **25**. A pair of opposed longitudinal slots **28** are provided in the sleeve **21** to receive a rivet **23***a* which slidably secures the stem **22** of the T-section **29** to the sleeve **21**. The T-section **29** has an upper cross arm portion **23** which is preferably cylindrical in shape in order to receive the width bar **16** in a bore **18**. An aperture **30** is provided in the upper portion of the section **23** for access to the detent **25**. The T-section **29** is urged downwardly on sleeve **21** by means of a coil spring **27** mounted in the sleeve **21** and bearing against the underside of the lip **25** and the upper side of the rivet **23***a*. The T-connection is mounted upon the standard **12** by inserting the top of the standard into the bore **20** in the sleeve **21**. The width bar **16** which is slidably mountable in the bore **18** of the T-section **29** is provided with a series of transverse eccentric slots **31** on its lower surface and these slots receive the lip or detent **25** to cause the width bar to be locked to the standard **12** at any one of a selected number of predetermined positions.

Each standard **11** and **12** is provided with a series of transverse eccentric slots **32** in the outer sides thereof which are adapted to receive a series of rings **33** to which are attached one end of a plurality of coil springs **34**. The other ends of such coil springs have attached thereto a plurality of target clamps **35** which may be similar to battery clamps. Beneath the lowermost slot **32** on each standard **11** and **12** is located a collar **46** and **47** which may be attached to the standard in any suitable manner such as by welding in order to prevent the rings **33** from sliding off the standard when the rings are not in use. At the uppermost end of each standard **11** and **12** is provided a fixed hook **36** having an eye **37** and such hooks are permanently fastened to the standards by any suitable means such as by a weld **38**. Attached to each eye **37** is a coil spring **34** which supports a clamp **35**. The width bar **16** is also supplied with a ring **39**, spring **40** and clamp **35** which is slidable along the length of the width bar and does not seat in any transverse slot. The outermost edge of the width bar **16** may be provided with a removable collar **41** which prevents inadvertent removal of the T-connection **19** or ring **39**.

The operation of the device is as follows: One standard is pushed into the ground by stepping on top of the an-

chor plates **14** so as to force the pointed end **15** of the standard into the earth. In thus erecting the standard the slots **32** should be so placed that they are at right angles to the position which the shooter will assume. The width necessary to accommodate the particular target being used is then determined by holding one side of the target to the socketed end of the width bar and noting where the other end of the target terminates on the width bar. Ten to eleven inches of additional length is added to this measurement and the slot on the width bar selected which is closest to this point. The T-connection is slideable along the width bar when it is so situated relative thereto that the lip **25** does not snap into any transverse slots. This relationship may be obtained by rotating the T-connection a quarter turn from its locked position so that the lip rides up over the outer periphery of the width bar and will permit movement of the T-connection as is best seen in Figure 6. In this manner the T-connection is slid to the selected slot and the connection rotated a quarter turn back so that the lip engages the slot and locks the connection in position. After this width has been determined and the T-connection set on the width bar the socketed end of the width bar is held near the ground against the previously erected standard and the other standard positioned on the ground at the spot where the T-connection is located. The other standard is then pushed into the ground at this point in the manner previously described so as to insure that the standards will be erected in a parallel manner to provide a uniform spacing therebetween. The slots on the standards are so placed as to be on the outside edges. The width bar is then mounted on the top of the standards by sliding the socket **17** over one standard and the T-connection **19** over the other. The target is then clamped into position by securing to the target **45** the clamps **35**, a sufficient number of clamps being utilized to provide upward and downward tension on the target. In certain instances, where it is desired to mount the target near the lowermost portions of the standards, it will be found unnecessary to utilize the spring and clamp fastened to the width bar, sufficient upward and downward tension being secured from springs and clamps mounted on the standards. In order to bring about the desired tensions, the rings **33** are merely placed in slots which are selected so as to bring about the desired positioning of the target. When the use of the target support is completed, the target is rapidly removed by removing clamps **35** and the support is disassembled by simply removing the width bar and pulling the standards from the ground. The entire apparatus may then be tied together with the various bars parallel to one another to form a very compact and lightweight device.

While the target support has been described in connection with outdoor mounting in the soil, it will be obvious that a suitable wooden or metal stand could be provided to receive the pointed ends of the standards so that the device might be used indoors.

Whereas the invention has been described in terms of specific elements and devices, it is to be understood that this has been for purposes of illustration only and is not to be deemed limiting in any sense, the invention being limited solely by the scope and terms of the appended claims.

I claim:

1. A target support comprising, a pair of upright standards, a horizontal width bar having a socket at one end thereof for receiving the upper end of one of said standards, a T-section having a hollow stem and a hollow cross piece for receiving the width bar, a sleeve mounted in said stem and slidably secured thereto by means of a transverse rivet, said sleeve being longitudinally slotted to receive said rivet, a transverse lip on the upper end of said sleeve, a spring mounted in said sleeve having its upper end bearing against the under side of said lip and its lower end bearing against said rivet, said width bar having a series of transverse slots for receiving said lip, and target clamping means slidably mounted on said standards.

2. A target support as set out in claim 1 wherein said clamping means comprise, a plurality of rings slidably mounted on each standard, each ring having one end of a coil spring attached thereto, a clamp attached to the opposite end of each said coil spring, said standards being provided with transverse slots along the length thereof to receive said rings.

3. A target support comprising, a pair of upright standards, a horizontal width bar having a socket at one end thereof for receiving the upper end of one of said standards, a connector slidably mounted on said width bar for receiving the upper end of the other standard, said width bar and said connector having cooperating means to permit said other standard to be rigidly attached to said width bar at predetermined points, a plurality of rings slidably mounted on each standard, each ring having one end of a coil spring attached thereto, a target clamp attached to the opposite end of each said coil spring, said standards being provided with transverse open end slots along the length thereof to receive said rings.

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