Oct. 7, 1947. L. A. RICHARDS 2,428,761

SUPPORT FOR ROCKET LAUNCHERS

Filed Jan. 24, 1946 2 Sheets-Sheet 1

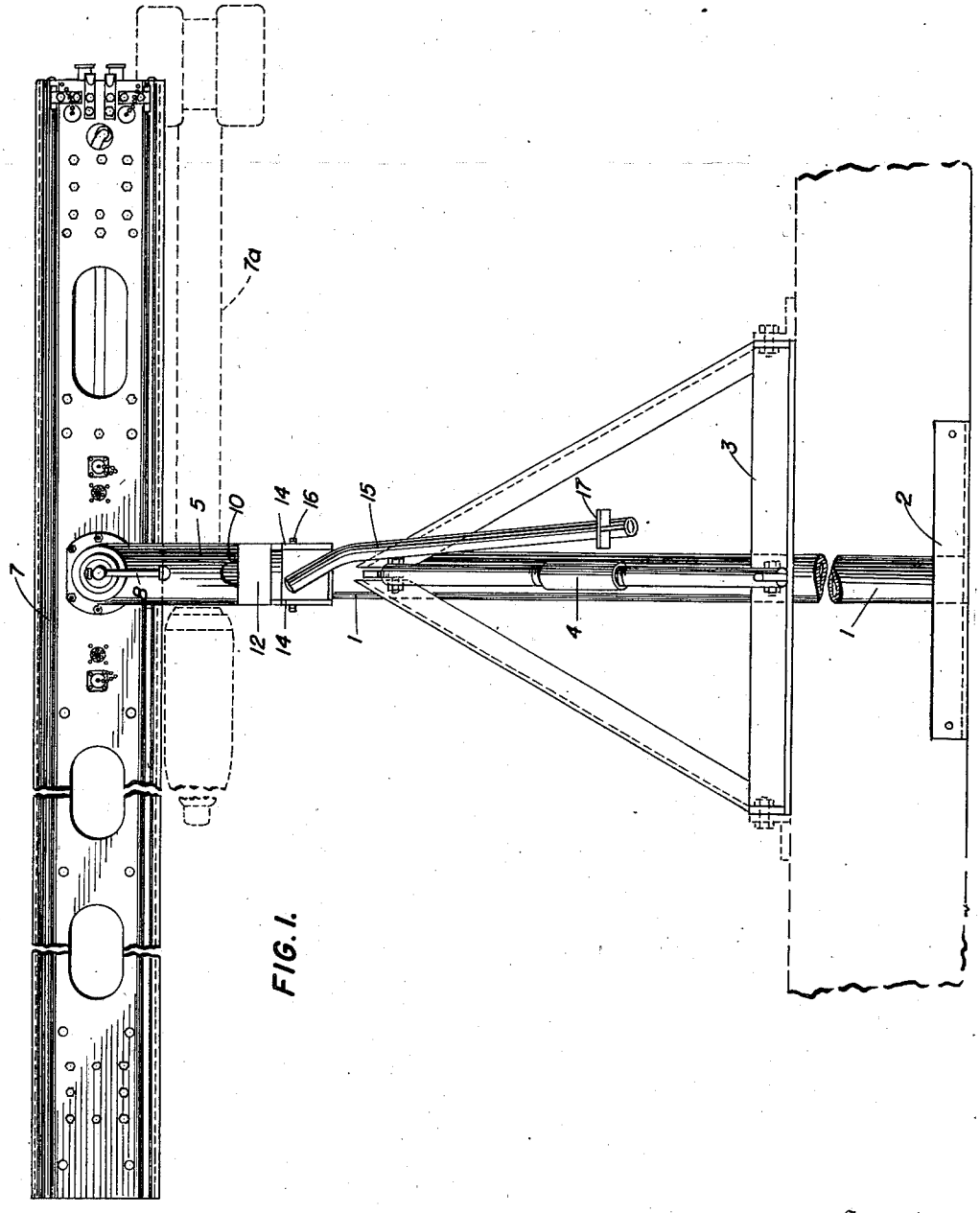


FIG. 1.

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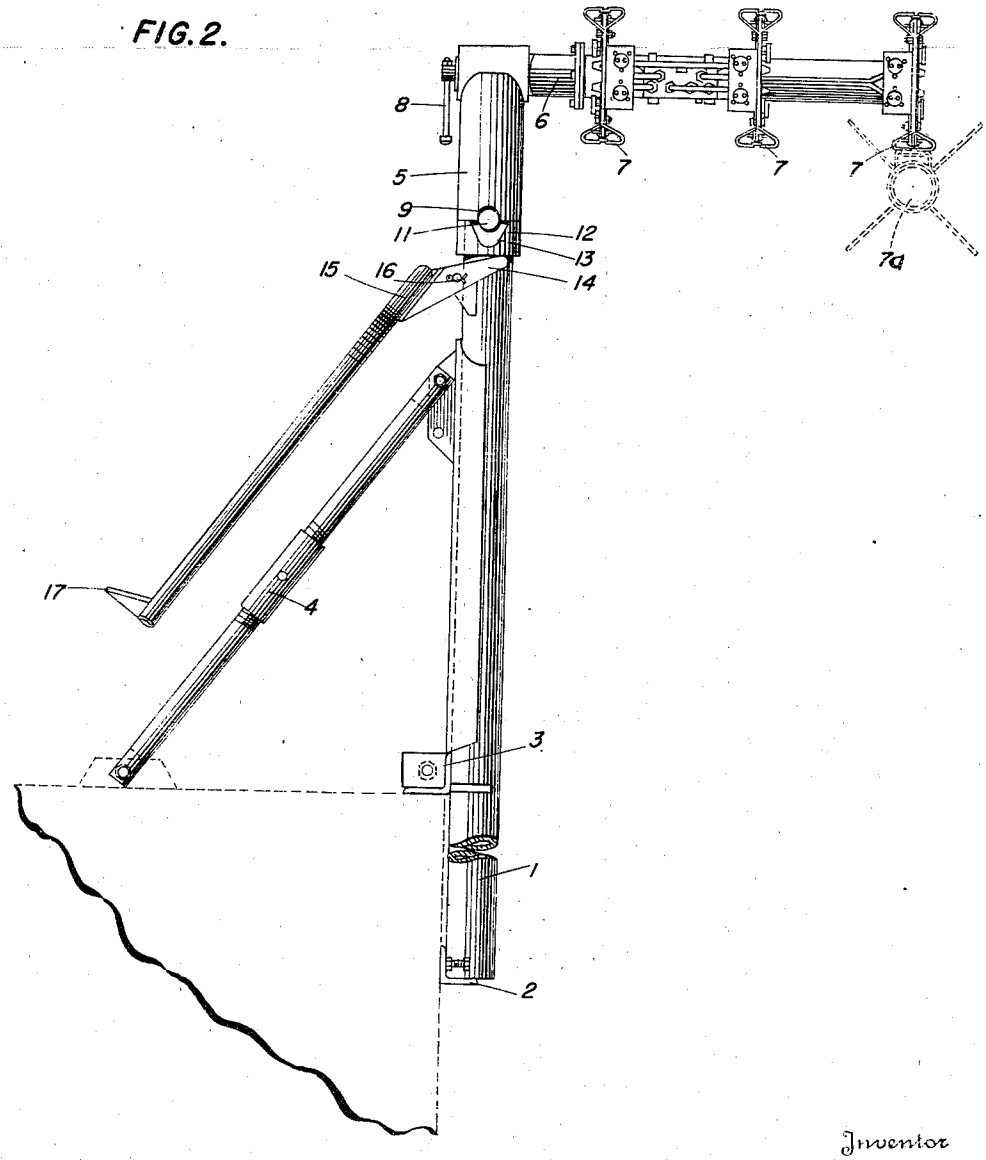
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FIG. 2.



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UNITED STATES PATENT OFFICE

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SUPPORT FOR ROCKET LAUNCHERS

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2 Claims. (Cl. 89—1.7)

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This invention relates to a trainable item of ordnance and more particularly to locking devices for locking such items in train.

An object of this invention is to provide a trainable item of ordnance having means for locking the item in a plurality of positions in train, and in which said locking means is readily operable to release the item for movement to other train positions.

A further object of the invention is to provide a locking device for retaining a rocket launcher in a firing position and which is readily operable to permit movement of the launcher to a loading position in which the device is operable to retain the launcher during loading.

Another object of the invention is to provide a locking device of the type referred to above which is operable by foot, leaving both hands of the operator free to manipulate the launcher.

These and other objects of the invention will be apparent from the following specification and the accompanying drawings, in which:

Fig. 1 is a side elevational view of the rocket launcher showing a rocket in firing position in dotted lines; and

Fig. 2 is a rear elevational view of the rocket launcher.

In the preferred embodiment of the invention, the rocket launcher includes a pedestal 1 which is adapted to be fastened to the side of a ship by means of a bottom bracket 2, a deck bracket 3 and a brace 4. The upper end of the pedestal 1 journals a sleeve 5 about a vertical axis. The sleeve 5 in turn supports a laterally extending rocket launcher supporting structure 6. The structure 6 carries a plurality of launcher rails 7 adapted to support rockets 7a and is equipped with means for tilting the launcher rails about a horizontal axis and locking the rails in various elevational positions. A handle 8 is provided for this purpose.

The lower end of the sleeve 5 is provided with two pairs of diametrically disposed notches 9 and 10 arranged in right angular relation. Either pair of these notches is adapted to seat over a cross pin 11 carried by the pedestal 1 and extending radially therefrom. Below the cross pin 11 the pedestal 1 is provided with a sliding collar 12 having a clearance recess 13 in its upper side. The recess 13 is of sufficient depth to accommodate pin

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11 on upward movement of the collar 12 to move the notches in sleeve 5 clear of the pin.

The collar 12 is movable upwardly by yoke arm 14 of a lever 15 which is pivoted about a fulcrum pin 16 carried by the pedestal 1. The other arm of the lever 15 extends downwardly and inboard of the pedestal 1 and is provided with a pedal 17 adapted to be engaged by the operator's foot.

In operation, the launcher rails 7 are moved to their outboard or firing position or swung to an inboard or loading position merely by pressing down on the foot pedal sufficiently to raise the sleeve 5 clear of the cross pin 11 and grasping the launcher rails to swing them about the axis of the sleeve 5. Once the pair of notches 9 or 10 clears the pin 11, the foot pedal may be released and the launcher moved until the next pair of notches registers with and engages the pin 11. Inasmuch as two sets of notches are provided, the launcher may be locked in four positions 90° apart, one of which constitutes the firing position.

While the device disclosed herein is a preferred embodiment of the invention, it is to be understood that the invention may be embodied in other forms without departing from the spirit of the invention as defined by the appended claims.

I claim:

1. A trainable item of ordnance comprising a vertical supporting post, a sleeve loosely mounted on said post and carrying a trainable member, said sleeve having a plurality of notches on its lower end, a pin carried by said post for cooperating with said notches to lock said sleeve against rotation, a collar loosely mounted on said post adjacent the lower end of said sleeve and having a notch of greater depth than the diameter of said pin, and a lever pivoted to said post and bearing against said collar, whereby actuation of said lever frees said sleeve for movement in train by moving said collar and said sleeve to move the notches of said sleeve clear of said pin.

2. A rocket launcher for shipboard use comprising a vertical supporting post adapted for mounting on a ship's deck, a sleeve rotatably mounted on the upper end of said post, a rocket launcher rail attached to said sleeve and having an outboard firing position and an inboard loading position, said sleeve having a plurality of notches in its lower end, a transverse pin carried by said post and cooperating with said notches to

lock said sleeve against movement in train, a collar loosely mounted on said post adjacent the lower end of said sleeve and having a notch cooperating with said pin, said notch being of sufficient depth to permit upward movement of said collar sufficiently to move the notches in said sleeve clear of said pin, and a foot operated lever pivoted to said post and bearing against said collar, whereby operation of said lever raises said collar and said sleeve to free said sleeve and launcher rails for movement between said loading and said firing positions.

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