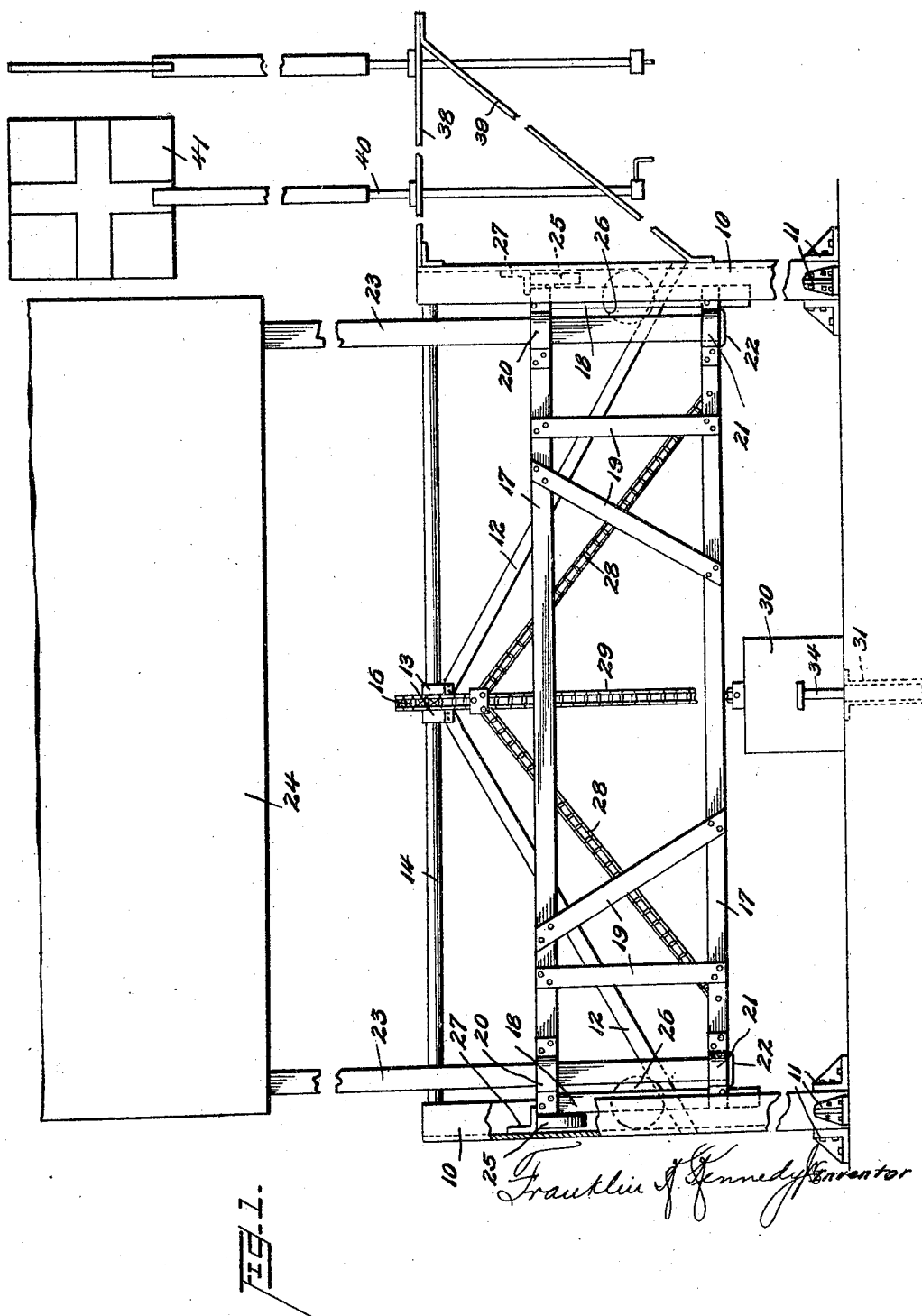


1,413,032.

2 SHEETS--SHEET 1.

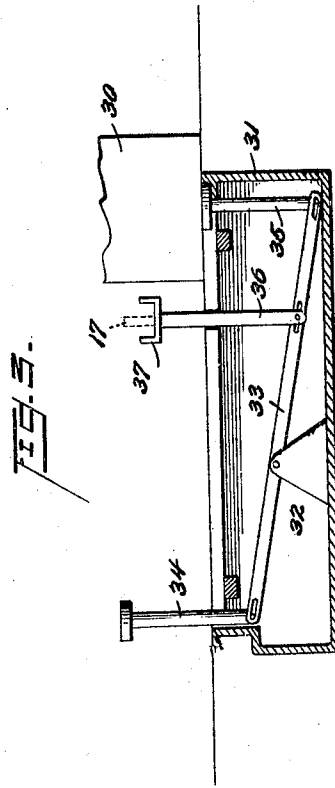
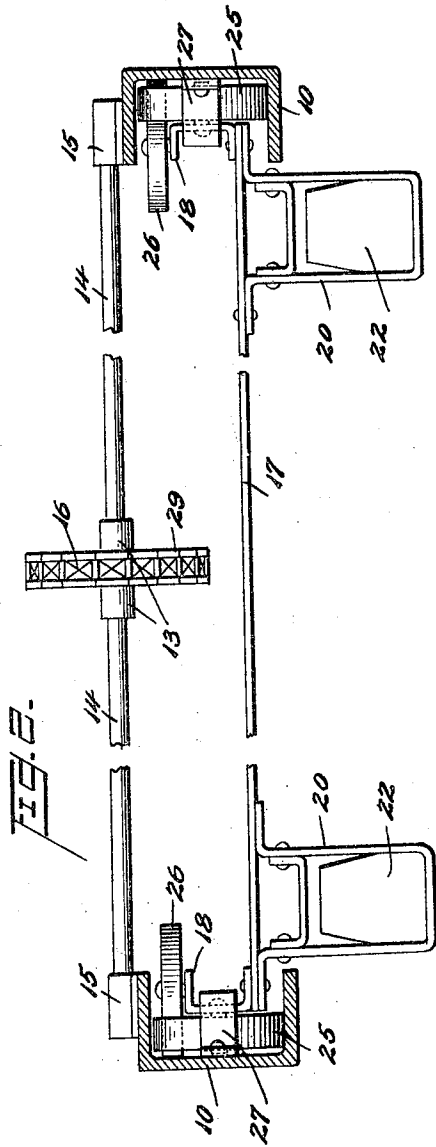


F. K. KENNEDY, JR.
 TARGET FRAME.
 APPLICATION FILED NOV. 2, 1920.

1,413,032.

Patented Apr. 18, 1922.

2 SHEETS—SHEET 2.



Franklin F. Kennedy Inventor

UNITED STATES PATENT OFFICE.

FRANKLIN KNIGHT KENNEDY, JR., OF THE UNITED STATES ARMY.

TARGET FRAME.

1,413,032.

Specification of Letters Patent. Patented Apr. 18, 1922.

Application filed November 2, 1920. Serial No. 421,370.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, FRANKLIN KNIGHT KENNEDY, Jr., lieut., Ordnance Dept. U. S. A., a citizen of the United States, stationed at Washington, District of Columbia, have invented an Improvement in Target Frames, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment to me of any royalty thereon.

The subject of this invention is a target frame upon which the usual target may be mounted.

In target shooting it is customary to have attendants or markers stationed behind the protecting butts whose duty it is to lower the target, mark the location of the shot and again raise the target. At present it is usual to have two attendants assigned to this duty for each target.

The present invention aims to provide a target frame which is semi-automatic in action and which may be handled by one attendant with ease and facility.

With these and other objects in view the invention resides in the novel arrangement and combination of parts and in details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

One practical embodiment of the invention is illustrated in the accompanying drawings, wherein:

Fig. 1 is a view in front elevation of a target frame constructed in accordance with my invention;

Fig. 2 is a plan view of the frame with the carriage in place therein, the up-rights of the frame shown in section;

Fig. 3 is a view in vertical longitudinal section of the treadle box or pit.

Referring to the drawings by numerals of reference:

In carrying out my invention I provide uprights 10, preferably formed of channel iron, which may be secured in place upon a suitable base by the foot brackets 11. Diag-

onal braces 12 have ends secured to the up-rights 10 and their upper ends secured to col-lars 13, which encircle a rod or shaft 14 bridging the space between the uprights and having its ends supported in clamps 15 secured to the uprights. Mounted for rotation upon the shaft 14 is a sprocket wheel 16 which is held against longitudinal movement upon the shaft by the collars 13.

Mounted for vertical reciprocation in the uprights is a carriage comprising upper and lower longitudinal bars 17 suitably connected as by riveting to the end bars 18, which bars are preferably made of channel iron. For the purpose of strengthening the carriage, braces 19 may be connected to the upper and lower longitudinal bars 17. Secured to the upper bars 17 adjacent each end thereof is a stirrup 20, and secured to the lower bars 17 adjacent each end thereof and in vertical alignment with the stirrup 20 is a stirrup 21 formed with an inturned underlying plate 22. The stirrups 20 and 21 are adapted to receive the standards 23 of the target 24 the inturned plate 22 serving to prevent the standards falling through the stirrups. Mounted on each end bar 18 of the carriage is a pair of rollers 25 adapted to engage the front or rear flange of the upright 10 and between such pair of rollers is also mounted a roller 26 adapted to engage the end of the upright 10. The purpose of these rollers is to support the carriage between the uprights without undue play and at the same time permit the carriage to be easily raised and lowered. Brackets 27 may be secured within the channels of the uprights 10 for the purpose of limiting the upward movement of the carriage and so prevent the chain from jumping from the sprocket wheel 16 when the carriage rises.

A sprocket chain preferably of Y formation, has its arms 28 connected to the lower bar 17 of the carriage and the portion 29 passed over the sprocket wheel 16 with its end connected to a counter weight 30. The counter weight 30 may be of any suitable substance but is conveniently made of concrete which may be chipped off to reduce the weight or added to when it is desired to increase the weight.

Means are provided for raising and lower-

ing the carriage, consisting of a treadle box 31 in which is provided a fulcrum block 32 on which is fulcrumed a lever 33. Connected to one arm of the lever 33 is a foot
 5 plunger 34 and to the other end of the arm a push rod 35, while to the same arm and between the push rod 35 and the fulcrum of the lever is connected a second push rod 36
 10 formed with a forked upper end 37 adapted to receive and form a rest for the lower bar 17 of the carriage when the carriage is in lowered position.

The frame may have attached thereto the usual supporting bar 38 held by a brace 39
 15 in which bar are journaled rods 40 carrying at their upper ends the signals 41.

In practice the invention is operated in the following manner.

To lower the carriage the attendant steps
 20 upon the foot plunger 34, forcing the same downwardly, thereby locking the lever 33 and forcing the push rod 35 upwardly. As the push rod 35 rises it elevates the counter weight 30 a sufficient distance to permit the
 25 weight of the carriage and the chain to overbalance the counter weight and the carriage descends, the lower bar of the carriage coming to rest in the fork of the push rod 36. When it is desired to again raise the carriage the attendant once more steps on the
 30 foot plunger 34, forcing the push rod 36 upwardly and elevating the carriage a sufficient distance to permit the weight of the chain and the counter weight 30 to overbalance the carriage which will cause the
 35 counterweight to descend drawing the carriage to its upper position.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:

1. A target frame, including channel iron uprights, a rod bridging the space between the uprights, a sprocket wheel mounted for rotation on the rod, collars encircling the rod
 45 to retain the sprocket wheel in position thereon, a carriage mounted for vertical reciprocation between the uprights, rollers journaled on the carriage and engageable with the flanges of the uprights, rollers on the
 50 carriage and engageable with the webs of

the uprights, stirrups on the carriage to receive the standards of a target, stops secured to the uprights for limiting the upward movement of the carriage, a counter weight, a sprocket chain passing over the wheel and
 55 connected to the carriage and the counter weight, a treadle box, a lever fulcrumed in the treadle box, a foot plunger connected to one end of the lever for rocking the same upon its fulcrum, a push rod connected to
 60 the other end of the lever and adapted to engage the lower face of the counter weight to raise the counter weight when the foot plunger is depressed and a second push rod connected to the lever between the fulcrum and
 65 the first push rod, having a formed upper end to receive and straddle the lower bar of the carriage when the carriage descends.

2. A target frame, including channel iron uprights, a rod carried by the uprights and
 70 bridging the space between the uprights, a sprocket wheel mounted for rotation on the rod, a carriage mounted for vertical reciprocation between the uprights, stops for limiting the upward movement of the carriage,
 75 rollers on the carriage and engageable with the uprights, a counter weight, a chain passing over the wheel and connected to the counter weight and the carriage, stirrups on the carriage for the reception of the stand-
 80 ards of a target, a lever, and a foot plunger for operating the lever to alternately thrust the counter weight and the carriage upwardly.

3. The combination with a target frame, 85 including a reciprocable carriage, of a treadle box, a lever fulcrumed in said box, a foot plunger connected to one arm of the lever, a push rod connected to the other arm of the lever to lower the carriage when
 90 the foot plunger is depressed and a push rod connected to the lever to raise the carriage when the foot plunger is again depressed.

4. The combination with a target frame including a reciprocable carriage, of a lever, 95 a foot plunger connected to the lever and push rods connected to the lever to alternately lower and raise the carriage when the foot plunger is depressed.

FRANKLIN KNIGHT KENNEDY, Jr.