Oct. 5, 1948. R. CARLSON 2,450,466

TELESCOPE MOUNTING FOR GUNS

Filed Jan. 6, 1947

Fig 1

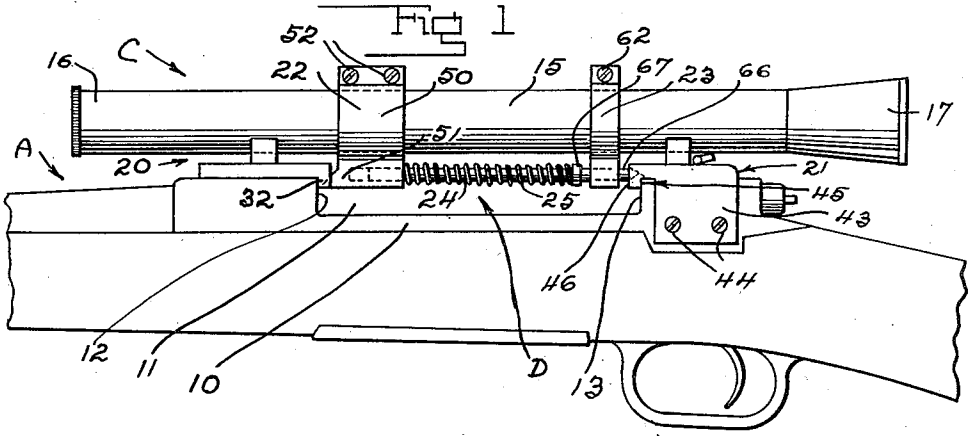


Fig 2

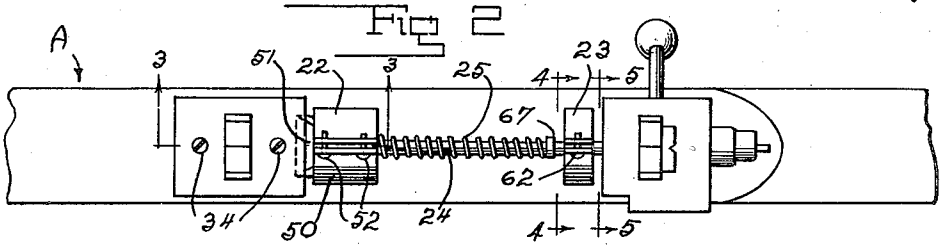


Fig 4

Fig 5

Fig 3

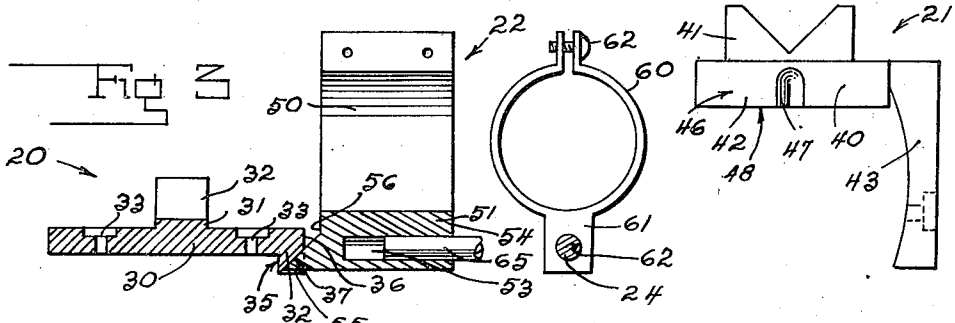
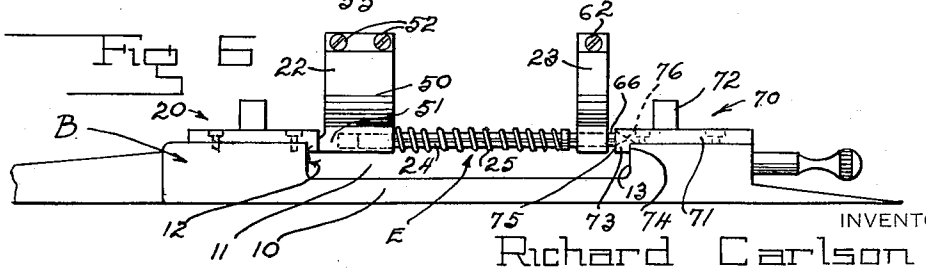


Fig 6



INVENTOR.

Richard Carlson

BY Lancaster, Allwine & Rommel

ATTORNEYS.

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TELESCOPE MOUNTING FOR GUNS

Richard Carlson, Hamilton, Mont.

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6 Claims. (Cl. 33—50)

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This invention relates to mountings for telescopes upon guns and the like.

An important object of the invention is to provide means for detachably mounting a telescope upon a gun in such a way that the telescope is held against accidental longitudinal and lateral tipping, no matter what may be the position of the gun.

Another important object is to provide a mounting for telescopes upon guns whereby the telescopes may be readily removed by very simple manipulations, without the use of tools, and may be quickly remounted upon the guns by as simple manipulations.

Still another object is to provide a telescope mounting, adopted particularly for guns wherein V-bases are employed in part to secure the telescope against tipping.

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

Fig. 1 is a side elevation of a portion of a gun supporting a telescope carried by one form of the novel mounting.

Fig. 2 is a top plan of the same, with the telescope removed.

Figs. 3 and 4 are vertical sections substantially on their respective lines of Fig. 2.

Fig. 5 is an end elevation of a V-base forming a portion of the novel mounting as viewed in the direction of the arrows 5—5 of Fig. 2.

Fig. 6 is a side elevation of a portion of a gun differing from that of Fig. 1, with the novel mounting thereon, the latter being adapted to this gun.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of the invention and wherein similar reference characters designate corresponding parts throughout the several views, the letters A and B designate two types of guns, the letter C a telescope and D and E, two forms of the novel mountings for the telescope C.

For the purpose of illustration, the gun A is shown as the well-known Winchester 70 rifle and the gun B as the similarly well-known Springfield rifle.

Both of guns A and B include a receiver 10 with recess 11 ending in opposite substantially vertical wall surfaces 12 and 13.

The telescope C is illustrated as of a conventional shape, having a cylindrical barrel 15, forward end 16 and rearward end 17.

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Referring now to the novel mount D, shown particularly in Figs. 1 to 5 inclusive, it will be seen that it comprises a forward V-base 20, a rearward V-base 21, a forward clamp means 22 for the telescope C, a rearward clamp means 23 for the telescope C, a plunger 24 carried by the means 22 and 23 and spring means 25 associated with the plunger 24 and means 22.

The forward V-base 20, shown more particularly in Fig. 3, comprises a member, somewhat L-shaped in vertical section, with one portion 30 thereof preferably a plate, from which a lug portion 31 having a V-notch projects upwardly, preferably intermediate the end of the plate, and from the rear end of which a flange portion 32 extends downwardly. Means to secure the V-base 20 to the receiver 10, may comprise the walls of openings 33 for the reception of the heads and portions of the shanks of screws 34 which shanks extend into the receiver.

It should be noted that the flange portion 32 is constructed and arranged to extend downwardly with its inner face 35 bearing against the wall surface 12 of the receiver recess 11, and from its outer face 36 extends inwardly a recess or opening 37. Preferably, the recess 37 is wedge shaped having a substantially horizontal face and a second face extending upwardly and outwardly, forming an acute angle with the first face.

The rearward V-base 21 shown more particularly in Fig. 5, comprises a member, also somewhat L-shaped in vertical section, with one portion 40 thereof preferably a plate, from which a lug portion 41 having a V-notch projects upwardly, preferably intermediate the ends of the plate and from the forward end of which plate a flange portion 42 extends downwardly. Carried by the portion 40 is a depending bracket 43 provided with suitable openings for the reception of the heads and portions of shanks of screws 44 for securing the V-base 21 to the receiver wall when the bracket 43 engages the wall thereof as is clear in Fig. 1.

Referring to the flange portion 42, it will be seen that it is constructed and arranged to extend downwardly with its inner face 45 bearing against the wall surface 13 of the receiver recess 11 and from its outer face 46 extends inwardly a recess or opening 47. This recess 47 also opens into the lower edge 48 of the flange portion for a purpose to be subsequently detailed.

As may be seen, particularly in Fig. 2 the forward clamp means 22 for the telescope C may comprise a pair of arcuate arms providing a split ring portion 50 carried by a base portion 51 and

having a conventional screw 52 to draw the sections of the split ring portion together. The base portion 51 not only provides support for the upwardly extending arcuate sections of the split ring portion 50 but it also contains a socket 53 opening into its rearward end face 54 and carries a forwardly-extending lug or bolt 55 projecting from its forward end face 56. This bolt 55 is constructed and arranged to slide into and out of the recess or slot 37. The rearward clamp means 23, shown particularly in Fig. 4 for the telescope C may also comprise a split ring portion 60, like the portion 50, carried by a base portion 61 and having a conventional screw 62 to draw the sections of the split ring portions together, as is well known, to detachably secure the telescope C to the mount D. This base portion 61 has a bore 62 to receive the plunger 24 next to be described.

The plunger 24 carried by the clamp means 22 and 23 just described, is preferably a length of rigid suitable material, circular in transverse cross section, with its forward end section 65 constructed and arranged to slide into and out of the socket 53 and its rearward end section 66 constructed and arranged to slide into and out of the recess 47. Obviously because of the shape of the recess 47 it may slide into and out of this recess either by a horizontal or a vertical sliding movement. The plunger 24 also slidably extends, intermediate its ends, through the bore 62.

As may be seen by full and dotted lines in Fig. 1 and by full lines in Fig. 3, the plunger 24 does not normally extend into the socket 53 for the full depth of the socket. The distance may vary but the forward end of the plunger must be normally spaced from the base of the socket 53 a distance slightly more than the extent the bolt 55 projects into the recess 37.

Intermediate its length, the plunger 24 is provided with an abutment or stop means. This may be an enlargement 67 which is disposed along the plunger 24 between the two base portions 51 and 61 of the clamp means 22 and 23.

The spring means 25 may be an expansion coil spring disposed about the plunger 24 with its forward end bearing against the face 54 of the base portion 51 and its rearward end bearing against the enlargement 67. Thus the spring tends to urge the plunger 24 rearwardly and the clamp means 22 forwardly. It does not affect the clamp means 23.

Aside from a different rearward V-base, the mounting E of Fig. 6 is substantially like that of mounting D, and similar reference characters are employed to designate corresponding parts of both mountings.

The rearward V-base 70 of the mounting E, comprises a member, somewhat L-shaped in vertical section, with one portion 71 thereof preferably a plate, from which a lug portion 72 having a V-notch projects upwardly, preferably intermediate the ends of the plate, and from the forward end of which plate a flange portion 73 extends downwardly. Any suitable means may be employed to secure the V-base 70 to the receiver 11, such as screws.

The flange portion 73 like the flange portion 42, has a rearward face 74 bearing against the surface 13 of the recess 11 and a forward or outer face 75 from which extends inwardly a recess or slot 76 like the slot 48 and which also opens downwardly in a manner similar to that of the latter. In fact, the only difference is that the V-base 70 does not carry the bracket 43 of the V-base 21.

The clamp means 22 and 23 are attached to the telescope C as is obvious and spaced apart so that the rearward clamp means 23 is normally spaced rearwardly from the enlargement 67 a distance sufficient to permit the spring to expand without having the enlargement abut the means 23.

After the two clamp means 22 and 23 are secured to the telescope C, the rearward end section 66 of the plunger is slid into the recess 47, with the plunger tilted with its forward end slightly upwardly. Next, the telescope C is pulled slightly rearwardly which causes the clamp means 22 to move rearwardly and, consequently, the bolt 55 will be retracted so that it can enter the recess 37 when the plunger and telescope are in parallelism with the bases of the V-notches, since what is desired is that the cylindrical barrel 15 of the telescope be in good frictional contact with the walls of these notches.

With the arrangement disclosed the telescope cannot tip laterally and it is also retained against accidental tipping longitudinally.

It is now clear that the specific shape of the bolt 55 urged forwardly by the spring means 25 tends to pull the telescope into firm contact with the walls of the V-notch of the forward V-base, yet the rear end portion of the telescope cannot tilt upwardly so long as the rear end portion of the plunger is within the recess 47.

When it is desired to remove the telescope C, all that is needed is to draw the telescope rearwardly, tip the forward end until the bolt 55 clears the forward V-base 20 and then carry the telescope slightly forwardly.

Various changes may be made to the forms of the invention herein shown and described without departing from the spirit of the invention or scope of the claims.

What I claim is:

1. In a telescope mounting for a gun, a forward V-base; a rearward V-base, each base having a bolt-receiving recess, with said recesses facing one another; a forward clamp means for the telescope to retain said telescope within the V of the forward V base, including a portion provided with a forwardly extending bolt, constructed and arranged to slide into and out of the recess in said forward V-base, when the telescope is disposed upon said V-base, and a socket facing the recess in said rearward V-base; a rearward clamp means for said telescope to retain said telescope within the V of the rearward V-base, including a portion provided with a bore; a plunger with one end section extending into said socket and the other end section extending through said bore and into the recess of said rearward V-base; said plunger having an enlargement disposed intermediate said portions; and an expansion spring with one end bearing against said first portion and its other end bearing against said enlargement.

2. In a telescope mounting for a gun having a receiver recess provided with upwardly-extending end wall surfaces facing each other, said mounting including a forward V-base having a downturned flange with one face in contact with the surface of one of said end walls and provided with a bolt-receiving recess; a rearward V-base having a downturned flange with one face in contact with the surface of the other of said end walls and provided with a plunger-receiving recess facing said first recess; clamp means for the telescope to retain the telescope within the V's of the V-bases, including a base portion and arms extending upwardly therefrom, said base portion being provided with a bolt at its forward end slid-

able, upon reciprocation of said base portion, into and out of said bolt-receiving recess, and an opening at its rearward end; a plunger, with one end section normally extending into a portion of said opening and into the plunger-receiving recess and being provided with an abutment intermediate its length; and an expansion coil spring surrounding a portion of said plunger, bearing at one end against said base portion and bearing, at its other end, against said abutment.

3. In a mounting for detachably mounting a telescope on a gun having a receiver recess provided with upwardly-extending end wall surfaces facing one another, said mounting including a pair of members substantially L-shaped in longitudinal section, each providing a plate portion and a flange portion and a lug extending upwardly from each member having a telescope barrel-receiving opening, each of said flanges being provided with an opening, one of said flanges being constructed and arranged to extend along a portion of one of said wall surfaces and the other flange being constructed and arranged to extend along a portion of the other of said wall surfaces with said openings therein in substantially axial alignment; clamp means for the telescope, including a base portion and a clamping portion extending upwardly therefrom, said base portion being provided with a bolt at one end slidable, upon reciprocation of said base portion, into and out of one of said last named openings, when said telescope barrel is disposed within said telescope barrel-receiving openings, and a socket at its other end; a plunger with one end section normally extending into a portion of said socket and into the other of said last-named openings, and being provided with an abutment intermediate its ends; and an expansion coil spring surrounding a portion of said plunger, bearing at one end, against said base portion and bearing its other end against said abutment.

4. In a mounting for detachably mounting a telescope on a gun having a receiver recess provided with upwardly-extending end wall surfaces facing one another, said mounting including a pair of members substantially L-shaped in longitudinal section, each providing a plate portion and a flange portion and a lug extending upwardly from each member having a telescope barrel-receiving opening, each of said flanges being provided with an opening, one opening being wedge-shaped and the other opening extending to the outer face and the edge of the flange, one of said flanges being constructed and arranged to extend along a portion of one of said wall surfaces and the other flange being constructed and arranged to extend along a portion of the other of said wall surfaces with said openings therein in substantially axial alignment; clamp means for the telescope including a base portion and a clamping portion extending upwardly therefrom, said base portion being provided with a wedge-shaped bolt at one end, slidable upon reciprocation of said base portion, into and out of wedge shaped opening, when said telescope barrel is disposed within said telescope barrel-receiving openings, and a socket at its other end; a plunger with one end section normally extending into a portion of said socket and into the other of said last-named openings, and being provided with an abutment intermediate its ends; and an expansion coil spring surrounding a portion of said plunger, bearing at one end, against said base portion and bearing at its other end, against said abutment.

5. In a mounting for detachably mounting a telescope on a gun having a receiver recess provided with upwardly-extending end wall surfaces facing one another, said mounting including a pair of members substantially L-shaped in longitudinal section, each providing a plate portion and a flange portion and a lug extending upwardly from each member having a telescope barrel-receiving opening, each of said flanges being provided with an opening, one opening being wedge-shaped and the other opening extending to the outer face and the edge of the flange, one of said flanges being constructed and arranged to extend along a portion of one of said wall surfaces and the other flange being constructed and arranged to extend along a portion of the other of said wall surfaces with said openings therein in substantially axial alignment; clamp means for the telescope, including a base portion and a clamping portion extending upwardly therefrom, said base portion being provided with a wedge-shaped bolt at one end slidable, upon reciprocation of said base portion, into and out of said wedge-shaped opening, when said telescope barrel is disposed within said telescope barrel-receiving openings, and a socket at its other end; a plunger with one end section normally extending into a portion of said socket and into the other of said last-named openings, and being constructed and arranged to slide into and out of that portion of said opening extending to the outer face of the flange and that portion of the opening extending to the edge of the flange, said plunger being provided with an abutment intermediate its ends; and an expansion coil spring surrounding a portion of said plunger, bearing at one end against said base portion and bearing at its other end against said abutment.

6. In a mounting for detachably mounting a telescope on a gun having a receiver recess provided with upwardly-extending end wall surfaces facing one another, said mounting including a pair of members substantially L-shaped in longitudinal section, each providing a plate portion and a flange portion and a lug extending upwardly from each member having a telescope barrel-receiving opening, each of said flanges being provided with an opening, one opening being wedge-shaped and the other opening extending to the outer face and the edge of the flange, one of said flanges being constructed and arranged to extend along a portion of one of said wall surfaces and the other flange being constructed and arranged to extend along a portion of the other of said wall surfaces with said openings therein in substantially axial alignment; first clamp means for the telescope, including a base portion and a clamping portion extending upwardly therefrom, said base portion being provided with a wedge-shaped bolt at one end slidable, upon reciprocation of said base portion, into and out of said wedge-shaped opening, when said telescope barrel is disposed within said telescope barrel-receiving openings, and a socket at its other end: a plunger with one end section normally extending into a portion of said socket and into the other of said last-named openings, and being constructed and arranged to slide into and out of that portion of said opening extending to the outer face of the flange and that portion of the opening extending to the edge of the flange, said plunger being provided with an abutment intermediate its ends; second clamp means for the telescope, including a base portion and a clamping portion extending upwardly therefrom, said last

named base portion being provided with a bore, with said plunger slidable therethrough and with the abutment thereon being normally spaced from said second clamp means; and an expansion coil spring surrounding a portion of said plunger, bearing at one end against said base portion and bearing at its other end against said abutment.

RICHARD CARLSON.

REFERENCES CITED

The following references are of record in the file of this patent:

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