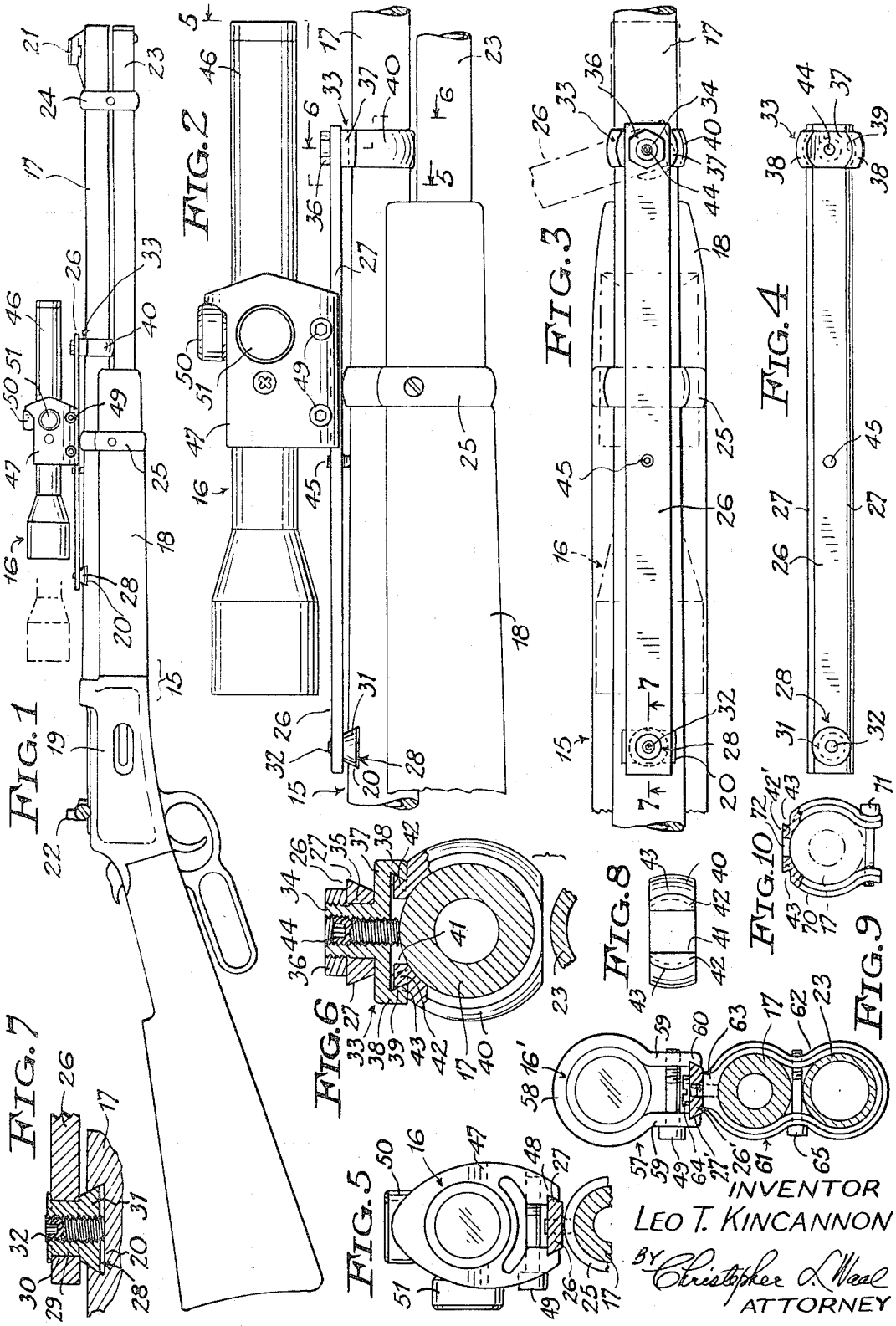
Dec. 20, 1966 L. T. KINCANNON 3,292,264

TELESCOPE SIGHT MOUNTING

Filed May 11, 1965



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United States Patent Office

3,292,264
Patented Dec. 20, 1966

3,292,264

TELESCOPE SIGHT MOUNTING

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Filed May 11, 1965, Ser. No. 454,869
4 Claims. (Cl. 33—50)

This invention relates to telescope sight mountings for firearms.

An object of the invention is to provide improved means for detachably mounting on a rifle a telescope sight of the long-eye-relief type.

Another object is to provide a mounting including a track-forming base member on which the telescope sight can be easily and firmly applied in longitudinally adjusted position.

Still another object is to provide novel fastening means for detachably securing the track-forming base member to the rifle in a position forward of the receiver.

A further object is to provide a telescope sight mounting which is of simple and reliable construction and capable of inexpensive manufacture.

The invention further consists in the several features hereinafter described and claimed.

In the accompanying drawing,

FIG. 1 is a right-hand side elevational view of a rifle equipped with a telescope sight mounting of the invention, a rearwardly adjusted position of the telescope sight being indicated in broken lines;

FIG. 2 is a detail side elevational view of the mounting on an enlarged scale;

FIG. 3 is a top view of the mounting, the telescope being indicated in broken lines;

FIG. 4 is a bottom plan view of a track-forming base bar of the mounting;

FIG. 5 is a transverse sectional elevational view taken generally on the line 5—5 of FIG. 2;

FIG. 6 is an enlarged transverse sectional view taken generally on the line 6—6 of FIG. 2;

FIG. 7 is an enlarged fragmentary sectional view taken generally on the line 7—7 of FIG. 3;

FIG. 8 is a top plan view of a clamp collar for the base bar;

FIG. 9 is a transverse sectional elevational view, similar to FIG. 5, showing a modified form of telescope sight mounting, and

FIG. 10 is a detail end view, partly in section, of a modified form of barrel-embracing collar.

In the drawing, the numeral **15** designates a rifle of conventional type, and the numeral **16** designates a telescope sight which is mounted on the rifle as hereinafter described. The rifle includes a barrel **17** secured to a stock **18** and having a receiver **19** at its rear end. The usual horizontal dovetail slot or groove **20** is formed transversely in the upper rear portion of the rifle barrel at a region forward of the receiver. The rifle is equipped with the customary front and rear metallic sights **21** and **22**, the front sight being secured to the front end of the barrel and the rear sight being secured to the receiver. The rifle is here shown to include a tubular magazine **23** extending below the barrel in close parallel relation thereto, the front end portion of the magazine being attached to the barrel by a vertically elongated clamping loop member **24**. A somewhat similar clamping loop member **25** secures the rifle barrel to the fore-end of the stock.

By way of example, the rifle is here shown to be of the lever-action type.

An elongated track-forming base bar **26**, which is fabricated from flat bar stock, extends longitudinally above the rifle barrel forward of the receiver and is rigidly secured to the barrel in slightly spaced parallel relation thereto, as hereinafter described. The base bar is of trapezoidal cross-section with parallel top and bottom faces and beveled side edges, as seen in FIGS. 5 and 6, to form parallel dovetail ways **27**, the wide horizontal face of the bar being at the top.

The rear end portion of the base bar has rigidly secured thereto a downwardly projecting attaching member **28** with a cylindrical vertical shank **29** which is riveted in a vertical bore **30** formed in the bar centrally of the width of the bar and which has integrally formed at its lower end a frusto-conical dovetail tenon **31**. The tenon **31** has a detachable slidable fit in the horizontal dovetail groove or slot **20** formed in the rifle barrel. A vertical set screw **32** with a socketed wrench-receiving upper end is threaded coaxially in the attaching member **28**, as best seen in FIG. 7, and is engageable with the floor of the dovetail groove **20** to lock the frusto-conical tenon **31** in laterally adjusted position in the groove. The attaching member **28** can be inexpensively formed as a screw machine part.

The front end portion of the track-forming base bar **26** has rigidly secured thereto a downwardly projecting attaching member **33** which includes a cylindrical vertical shank **34**, FIG. 6, snugly fitting in a vertical bore **35** of the base bar and tightly secured to the bar as by a nut **36** threaded on the shank and engaging the upper face of the bar. The projecting lower portion of the front attaching member **33** is in the form of a transversely extending flat plate or bar **37** the opposite ends of which have downwardly projecting arcuate gripping flanges **38** with inner coaxial dovetail grooves **39** of arcuate shape, FIGS. 4 and 6. A clamping ring or collar **40** with a convexly rounded outer surface and a top gap or opening **41** snugly encircles the rifle barrel **17** forward of the front end of the stock and is exteriorly grooved at its open upper end to form laterally spaced tenons **42**, FIGS. 6 and 8, having coaxial convexly formed segmental frusto-conical gripping surfaces **43** engageable in the complementary dovetail grooves **39** of the attaching member **33**. As seen in FIG. 6, the lower portion of the clamping collar **40** is thinned to increase the resiliency of the collar and also to clear the tubular magazine. A vertical set screw **44** with a socketed wrench-receiving upper end is threaded coaxially in the attaching member **33**, as seen in FIG. 6, and passes through the collar opening **41** into engagement with the upper surface of the rifle barrel to lock the attaching member firmly to the barrel collar **40**. The front attaching member **33** and the barrel collar **40** can be inexpensively formed as screw machine parts.

A vertical set screw **45** with a socketed wrench-receiving upper end is threaded through the track-forming base bar about midway of the length of the bar and is engageble with the upper surface of the rifle barrel to brace the assembled base bar and also to effect a slight bowing of the base bar when this is desired.

To mount the track-forming base bar **26** on the rifle, the front attaching member **33** is first engaged with the dovetail tenons **42** of the rifle barrel collar **40**, the bar

being placed at an angle to the barrel for this purpose, as indicated by broken lines in FIG. 3, to enter the tenons into engagement with the arcuate dovetail grooves **39** of the attaching member **33**. The base bar is then swiveled rearwardly on its joint with the barrel collar **40** to the position over and parallel to the barrel, the bar clearing the upper end of the clamping loop member **25**, and the frusto-conical tenon **31** of the rear attaching member **28** entering the transverse dovetail groove **20** in the rifle barrel to a position vertically above the barrel axis. The set screws **32**, **44** and **45** are then tightened into engagement with the barrel.

The mounted base bar **26** forms a support for the telescope sight **16** which is of the low-power long-eye-relief type, such as with a power in the range of 1 to 3. By way of example, a telescope of this type may be of 1.3 power. The telescope sight is here shown to include a cylindrical tube **46** secured to a bracket or fitting **47**. The laterally spaced lower side portions of the bracket are slightly resilient in a transverse direction and are provided with parallel, laterally spaced inwardly facing dovetail grooves **48**, FIG. 5, in which are engaged the opposite dovetail ways **27** of the track-forming base bar **26**, the bracket being slidably entered onto the base bar from the rear end of the bar. The telescope assembly is slidably adjusted along the base bar through a considerable range of travel, for example several inches, to suit the vision characteristics of the user, and is clamped in adjusted position by transversely extending clamping screws **49** on the bracket. In the present instance, the telescope bracket is also provided with means including conventional adjusting devices **50** and **51** for effecting sighting adjustments. The position of the telescope forward of the receiver **19** avoids interference with the conventional metallic sighting means on the receiver and also avoids interference with ejection of spent cartridges in the case of certain types of rifles.

To remove the telescope sight from the rifle the clamping screws **49** on the telescope bracket are slightly loosened and the telescope is slid rearwardly off the base bar **26**. The base bar may remain attached to the rifle without interfering with sighting by means of the conventional front and rear sights **21** and **22** when this type of sighting is desired, the line of sight passing over the base bar.

The modified form of telescope sight mounting shown in FIG. 9 is adapted for accommodating a conventional type of telescope **16'** without sighting adjustments. In this modified mounting, the telescope is secured to an inverted U-shaped bracket **57**, which has an enlarged circular bight **58** snugly embracing the telscope tube and a pair of parallel vertical legs **59** with respective dovetail notches **60** in which are seated the opposite dovetail ways **27'** of a track-forming base bar **26'**, the bracket legs being slightly resilient and being connected by one or more transverse clamping screws **49**, as in FIGS. 2 and 5, to clamp the bracket in slidably adjusted position on the base bar **26'**. The base bar **26'** and its attachment to the rifle barrel may be identical with that of FIG. 2, but is here shown to have a different front end attachment in which a looped clamping member **61** with a contracted waist **62** snugly embraces both the rifle barrel and the subjacent tubular magazine and has a top boss **63** to which the front end of the base bar is secured by a snugly fitting pivot-forming vertical screw **64**. The looped clamping member **61** is fixed to the rifle by a transverse clamping screw **65** connecting the contracted waist portions of the clamping member and passing between the barrel and the magazine. In the case of a rifle without the tubular magazine the lower portion of the clamping loop member may be omitted. In some instances, the telescope may be carried on a pair of the brackets **57** disposed in axially spaced relation. The telescope **16'** is suitably sighted as by laterally adjusting the frusto-conical rear tenon **31**, FIGS. 2 and 3, in the

dovetail groove **20** of the rifle barrel and by screwing down the intermediate set screw **45**, FIGS. 2 and 3, to effect a slight bowing of the track bar.

The modified form of barrel-embracing loop member or collar **70** shown in FIG. 10 is split at the bottom and clamped to the rifle barrel by a transverse screw **71** below the barrel. The upper portion of the collar has arcuate segmental dovetail grooves **43**, as in FIGS. 6 and 8, to form tenon portions **42'** for swiveled interengagement with the arcuate grooved gripping flanges **38**, FIG. 6, of the front attaching member **33** of the track-forming base bar. The upper portion of the collar also has a central opening **72** to admit the clamping screw **44**, FIG. 6, of the front attaching member of the base bar.

I claim:

1. A telescope sight mounting for a rifle having a barrel with a receiver and a transverse dovetail top groove forward of the receiver, comprising a track-forming base bar extending longitudinally above the rifle barrel forward of the receiver, front and rear fastening means rigidly and detachably securing said base bar to the rifle barrel, said front fastening means having a detachable vertical-axis swivel connection with the barrel to permit turning of the base bar thereon to a position in substantial alignment with the barrel, and said rear fastening means including a dovetail tenon engageable in said dovetail barrel groove and releasably clamped therein, said track-forming base bar being adapted to interengageably support a telescope sight thereon forward of the receiver in longitudinally adjusted clamped position.

2. A telescope sight mounting for a rifle having a barrel with a receiver, comprising a track-forming base bar extending longitudinally above the barrel forward of the receiver, and front and rear fastening means rigidly and detachably securing said base bar to the rifle barrel, said front fastening means including a barrel-embracing member and a fastening member on the base bar having a swiveling vertical-axis frusto-conical dovetail connection with the upper portion of the barrel-embracing member, said front fastening means further including a clamping set screw coaxially threaded in said fastening member, said track-forming base bar being adapted to interengageably support a telescope sight thereon forward of the receiver in longitudinally adjusted clamped position.

3. A telescope sight mounting for a rifle having a barrel with a receiver at its rear portion, a track-forming base bar extending longitudinally above the rifle barrel forward of the receiver, a front and rear fastening means for the base bar detachably secured to said barrel, said front fastening means including a barrel-embracing member having laterally spaced opposed arcuate dovetail grooves at its upper portion, said front fastening means further including a fastening member rigidly attached to said base bar at the lower side thereof and having laterally spaced depending projections with opposed arcuate dovetail grooves interengageable with the dovetail grooves of the barrel-embracing member to form a vertical-axis swiveling connection between the base bar and the barrel-embracing member, said base bar when disposed transversely of the rifle barrel permitting engagement and release of the base bar projections with respect to the dovetail grooves of the barrel-embracing member.

4. A telescope sight mounting for a rifle having a barrel with a transverse dovetail top groove forward of the receiver, comprising a track-forming base bar extending longitudinally above the barrel forward of the receiver and having a vertical bore in its rear portion, and front and rear fastening means rigidly and detachably securing said base bar to the barrel, said front fastening means having a detachable vertical-axis swivel connection with the barrel to permit swinging of the base bar thereon to a position in substantial alignment with the barrel, said rear fastening means including a fastening member with a frusto-conical tenon below the base bar and with a re-

duced upper coaxial shank tightly secured in said base bar bore, said rear fastening means further including a clamping set screw threaded coaxially in said fastening member, said tenon being engageable in said dovetail barrel groove and clampable therein by said set screw, said track-forming base bar being adapted to interengageably support a telescope sight thereon forward of the receiver in longitudinally adjusted clamped position.

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