3,444,641

May 20, 1969 W. B. RUGER 3,444,641

GUN RECEIVER-BARREL-STOCK COMBINATION

Filed Aug. 2, 1967

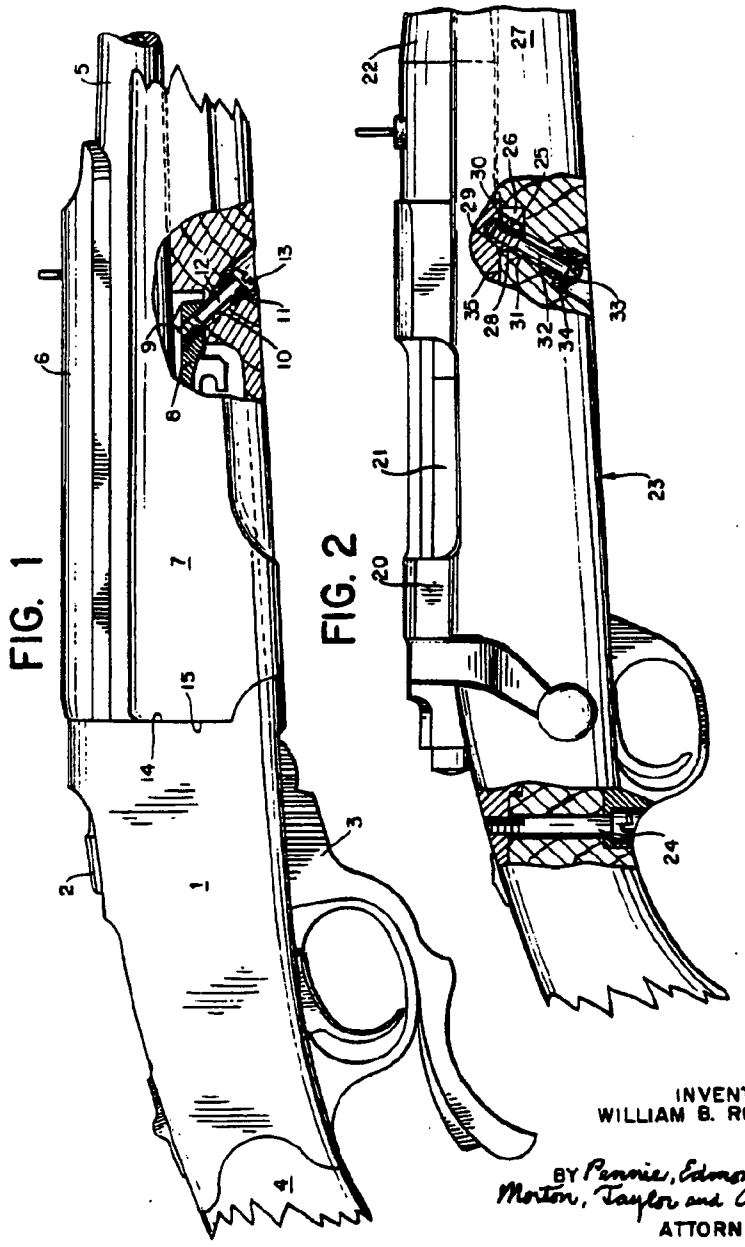

FIG. 1

FIG. 2

INVENTOR
WILLIAM B. RUGER

BY Pennie, Edmonds, Morton, Taylor and Adams
ATTORNEYS

United States Patent Office 3,444,641 Patented May 20, 1969

3,444,641

GUN RECEIVER-BARREL-STOCK COMBINATION

William B. Ruger, Southport, Conn., assignor to Sturm, Ruger & Co., Inc., Southport, Conn., a corporation of Connecticut

Filed Aug. 2, 1967, Ser. No. 657,805
Int. Cl. F41c 23/00
U.S. Cl. 42—75 5 Claims

ABSTRACT OF THE DISCLOSURE

This invention relates to guns including rifles and shotguns, and especially to the attachment of the stock to the receiver and barrel. The invention is particularly concerned with sloping screw means for securing the forward portion of the stock whether it be a Mauser-type one-piece rifle stock or the fore-end of a two-piece stock such as used on single shot rifles or shotguns.

Background of invention

The prior art as presently understood for securing each type of stock to the receiver, the barrel, or both, includes screws, bolts, bank clamps, spring pressed latches and the like. Where screws or bolts have been used the axes of the screw or bolt has been either in a transverse or a longitudinal direction with respect to the barrel axis.

Summary of the invention

This invention is concerned with either the forward part of the single piece stock or the forearm of a two-phase stock as aforementioned (hereinafter for convenience called the "fore-end"). The fore-end is secured to the receiver by a screw bearing at one end on the fore-end and threaded into the receiver extension at the other end and disposed at such an angle with respect to the longitudinal axis of the barrel that the force is resolved into one component pushing the fore-end rearwardly against the front face of the receiver and another component pushing the fore-end upwardly against the barrel or receiver extenison. These forces achieve at least two important results: (1) the plane of contact of the wood with the metal (inletting) is always close and can overcome minor misfitting or shrinkage, and (2) looseness between the metal and wood is prevented.

In the variation of a two-piece stock, the fore-end makes a permanent tight fit with the receiver and barrel which imparts an important quality aspect to the gun. In the variation of a single stock, the depending lug which butts against a shoulder of the stock to absorb the impact of firing is held in pressed contact.

In the drawing:

FIG. 1 is a side view, with parts in section, of the receiver-portion of a single shot rifle; and

FIG. 2 is a side view, with parts in section of the receiver-portion of a repeating bolt action rifle.

Description of preferred embodiment

The single shot rifle illustrated in FIG. 1 comprises a receiver 1 of the drop breechblock type having a breechblock 2 and an operating lever 3. A similar rifle is more completely illustrated and described in the copending application of Ruger and Larson, Ser. No. 550,214, filed May 16, 1966, now Patent No. 3,355,833. The stock 4 is secured to the rear portion of the receiver by means not shown. The barrel 5 is threaded into the receiver in the usual manner and has a top rib 6 for sight mounting.

The fore-end of the stock 7 is mounted under and inletted to the barrel 5. The receiver has an extension 8 with an upwardly and rearwardly sloping threaded hole 9. The fore-end 7 has an upwardly and rearwardly sloping hole is recessed to receive the snug fitting metal collar 11. The screw 12, which has a head 13 bearing on the collar, makes a loose fit in the hole 10 and is threaded into the hole 9.

The receiver forward edge 14 and the fore-end rearward edge 15 are in close "hair line" fit. When the screw 12 is tightened the fore-end is pressed upwardly into contact with either the barrel, the receiver extension, or both, and rearwardly into contact with the receiver at the interface 14–15.

In the embodiment of the invention illustrated in FIG. 2, the receiver 20 has a breech bolt 21, an attached barrel 22 and a one-piece stock 23 of the Mauser type. The receiver is secured to the stock 23 at the rear by the screw 24 and the receiver has the usual depending lug 25 which enters a recess 26 in the fore-end 27 of the stock. The lug has a face 28 which makes abutting contact with the shoulder 29 of the stock recess. The rearward impact of the barrel-receiver on firing is resisted by the lug face 28 bearing on the shoulder 29.

The lug has an upwardly and forwardly sloping threaded hole 30, and the stock has an aligned upwardly and forwardly sloping hole 31. The screw 32 makes a loose fit in the hole 31, is threaded into the hole 30 and has a head 33 that bears on the metal collar 34 which is fitted snugly into the stock hole 31. The tightening of screw 32, which has a head 33 that bears on the collar 34, results in one force component pulling the lug face 28 into tight engagement with the stock shoulder 29. The other force component pulls the barrel and forward bottom part of the receiver into pressed engagement with the fore-end or surface 35.

The stocks of FIGS. 1 or 2 may be made of any suitable material such as wood or plastic, wood such as walnut being preferred. Even the dried and aged wood fitting most meticulously to the metal in time shrinks away from the metal. The single screw, inclined with respect to the barrel axis at an acute angle varying from 70° to 80° can be tightened when necessary to press the wood into contact with the metal to maintain the appearance of fine workmanship and snug attachment of fore-end to the receiver and barrel. The snug attachment affords an improved bedding of the receiver and barrel components in the stock fore-and which results generally in improved shooting accuracy.

What is claimed is:

1. A gun having a receiver and extension therefor, a barrel and a stock having a fore-end, a screw mounted in the fore-end disposed with respect to the axis of the barrel at an angle varying from ten to eighty degrees bearing at one end on the fore-end and the other end being screwed into the receiver extension, said screw when tight having a force component pulling the fore-end upwardly against the barrel and another force component pulling the fore-end against the receiver.

2. A gun having a receiver, a barrel and a stock having a fore-end, a screw mounted in the fore-end disposed with respect to the axis of the barrel at an angle varying from ten to eighty degrees bearing at one end on the fore-end and the other end being screwed into the receiver, said screw when tight having a force component pulling the fore-end upwardly against the barrel and another force component pulling the fore-end against the receiver.

3. A gun having a receiver and extension therefor, a barrel and a two-piece stock having a fore-end, a screw mounted in the fore-end sloping rearwardly and upwardly with respect to the barrel axis, said screw being threaded into the receiver extension and bearing on the fore-end, the fore-end having a rear face in contact with a forward face of the receiver and being in contact with the barrel, tighthening of the screw resulting in one force component

forcing the rear face into contact with the forward face, and another force component which holds the fore-end against the barrel.

4. The gun defined in claim 3 in which the screw is at an angle varying from ten to eighty degrees with respect to the barrel axis.

5. A gun having a receiver with an integral lug, a barrel and a one-piece stock having a fore-end with a shoulder in a recess for engaging the receiver lug, a screw mounted in the fore-end having one end bearing on the fore-end and the other end threaded into the receiver lug, said screw being sloped forwardly and upwardly with respect to the axis of the barrel such that on tightening the screw one force component pulls the stock fore-end into contact with the barrel and another force component pulls the shoulder of the fore-end recess into contact with the receiver lug.

References Cited

UNITED STATES PATENTS

1,141,256	6/1915	Nelson.	
1,383,966	7/1921	Oliver	42—75 X
2,765,563	10/1956	Roper et al.	42—75
3,183,617	5/1965	Ruger et al.	42—75

BENJAMIN A. BORCHELT, *Primary Examiner.*