

FIREARM RECEIVER MOUNT AND ANCHORAGE ARRANGEMENT

Background of the Invention

Prior firearms have included receivers anchored by
5 recoil blocks with connector portions both on the block and
receiver for engagement and disengagement of receiver from
block for disassembly (see Ruger Model 44 carbine). In
addition, receiver recoil plates have been proposed for
absorbing the forces extended on the receiver during firing
10 and recoil (U.S. Patent Nos. 2,108,648 and 2,844,904).
However, none of these have been entirely satisfactory from
the standpoint of securely anchoring the rear of the receiver
into the stock for accuracy, yet still permitting quick tool-
free disassembly.

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Summary of the Invention

Broadly, the present invention comprises a receiver
mount block secured in the stock of a firearm for detachably
mounting the receiver. The block includes spaced-apart
20 recesses for receiving foot projections on the rearward
portion of the receiver. The block and receiver also have
abutting vertical walls for transferring forces. The block
may include forward and rearward bosses.

25 It is a feature of the invention that the block and
receiver when locked together engage at three (3) surface
locations and at two (2) locations spaced apart substantially
the widths of the block and receiver.

30 Brief Description of the Drawings

Fig. 1 is a right side elevational view of the firearm
of the present invention (with part of barrel not shown);

Fig. 2 is an enlarged elevational cutaway partial view
35 of the recoil block, anchor bolt and receiver being
installed;

Fig. 3 is a view taken along line 3-3 of Fig. 2;

Fig. 4 is a view taken along line 4-4 of Fig. 3; and

5 Fig. 5 is an exploded perspective view of the block and rear end of the receiver.

Description of the Preferred Embodiment

In Figs. 1 and 2, firearm 10 includes stock 11, barrel 12, receiver 14, magazine 16, trigger 17 and trigger guard 18. Receiver 14 includes an integral optical rear sight mount 21a and a forward sight (not shown).

Molded composite stock 11 includes a stock recess 22 for 15 accommodating receiver mount block 23 and engageable receiver 14 (Fig. 3). Stock recess 22 has rearward wall 22a. Block 23 is anchored by anchor assembly 25 including threaded bolt 26 which is positioned in molded passageway 19 with bolt head 26h and flat washer 27w located in butt stock recess 20.

20 Turning to Figs. 3-5, receiver mount block 23 includes flat front surface 30 having at its upper surface area 30u which area has a width of A. Block 23 has vertical side surfaces 23a, 23b which are spaced apart by width B. Block 25 23 also has rear surface 28. Rear block boss 28a extends from the rear wall surface 28 and includes a threaded hole 31 therein for receiving threaded bolt 26. Surface 28 abuts stock recess wall 22a. Block 23 also includes a forward boss 30a for locating and retaining hammer strut 60 and a hammer 30 spring 62 (Fig. 4). Block 23 has bottom extension 32.

Block 23 has two (2) identical left and right side connector receiver recesses 33, 34 and front surface area 30u, all of which cooperate with receiver 14 to provide a 35 connection between block 23 and receiver 14. Only the right side receiver recess 33 is shown in Figure 4 while both recesses 33, 34 are shown in Figure 5. Receiver recess 33

has upper surface 38a consisting of upper passage portion 39a and upper lock portion 40a. Receiver recess 33 also has lower curved passage surface 42a and vertical surface 43a. Similarly recess 34 has upper surface 38b (not shown) which 5 has upper passage portion 39b (not shown) and upper lock portion 40b. Recess 34 also has lower curved passage surface 42b and vertical surface 43b.

Turning to receiver 14 and particularly its rearward end 10 14e, two curved spaced-apart foot projections 47, 48 are shown. Also shown is an upper receiver abutment wall 51 for receiving in abutting relationship the upper surface area 30u of block front wall 30.

15 Foot projection 47 has upper angular surface 53a and lower curved convex surface 54a, front surface 56a and rear surface 57a. Foot projection 48 also has an upper angular surface 53b, lower convex curved surface 54b, front surface 56b and rear surface 57b. Receiver 14 has width B equal to 20 the width B of block 23.

During the assembly of receiver 14 into engagement with block 23 anchored in stock recess 22, receiver 14 is tilted as shown in Fig. 2 to allow receiver foot projections 47, 48 25 to enter block receiver recesses 33, 34. Upon initial entrance of projections 47, 48 receiver 14 is rotated clockwise as shown in Fig. 2 until the lock position of Fig. 4 is reached. As locked:

- 30 1) block surfaces 40a, 40b engage receiver surfaces 53a, 53b;
- 2) block surfaces 42a, 42b engage receiver surfaces 54a, 54b; and
- 3) block upper front surface area 30u engages receiver abutment surface 51.

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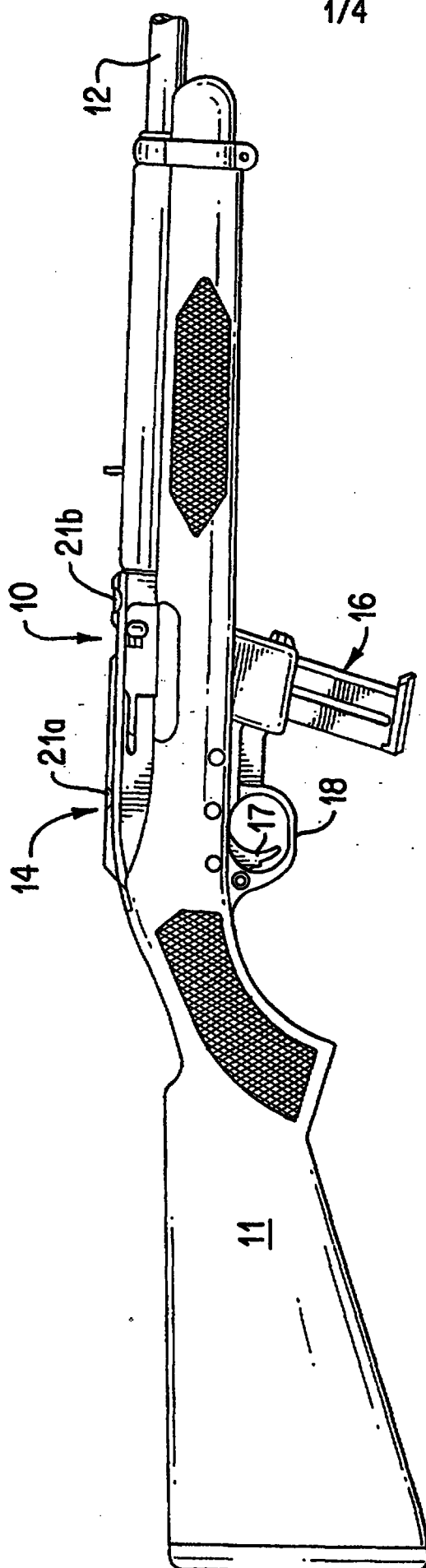


I CLAIM:

1. A firearm having a stock, a receiver and interconnectable mount block mounted in such stock comprising
- 5 a) a mount block positioned in the stock having
- i) a front surface;
- ii) a rear surface;
- iii) two side surfaces; and
- iv) two spaced apart block recesses, one
- 10 recess in each side surface with said block recesses extending from block front surface to block rear surface;
- b) fastener means for holding the mount block in the stock; and
- c) two spaced-apart receiver foot projections on
- 15 the receiver which projections are sized and shaped for positioning in said block recesses when the receiver is tilted during such movement into the recesses and after further tilting such projections are locked in said
- 20 block recesses.
2. The firearm receiver and interconnectable mount block of claim 1 in which each block recess has upper angularly curved surface and lower curved surfaces and in
- 25 which each receiver foot projection has upper angularly curved surface and lower curved surfaces which surfaces engage when the receiver is locked to the block.
3. The firearm receiver and interconnectable block of
- 30 claim 2 in which the upper surfaces of mount recess include a forward portion and a rearward portion and in which the first projecting engage the rearward portions.



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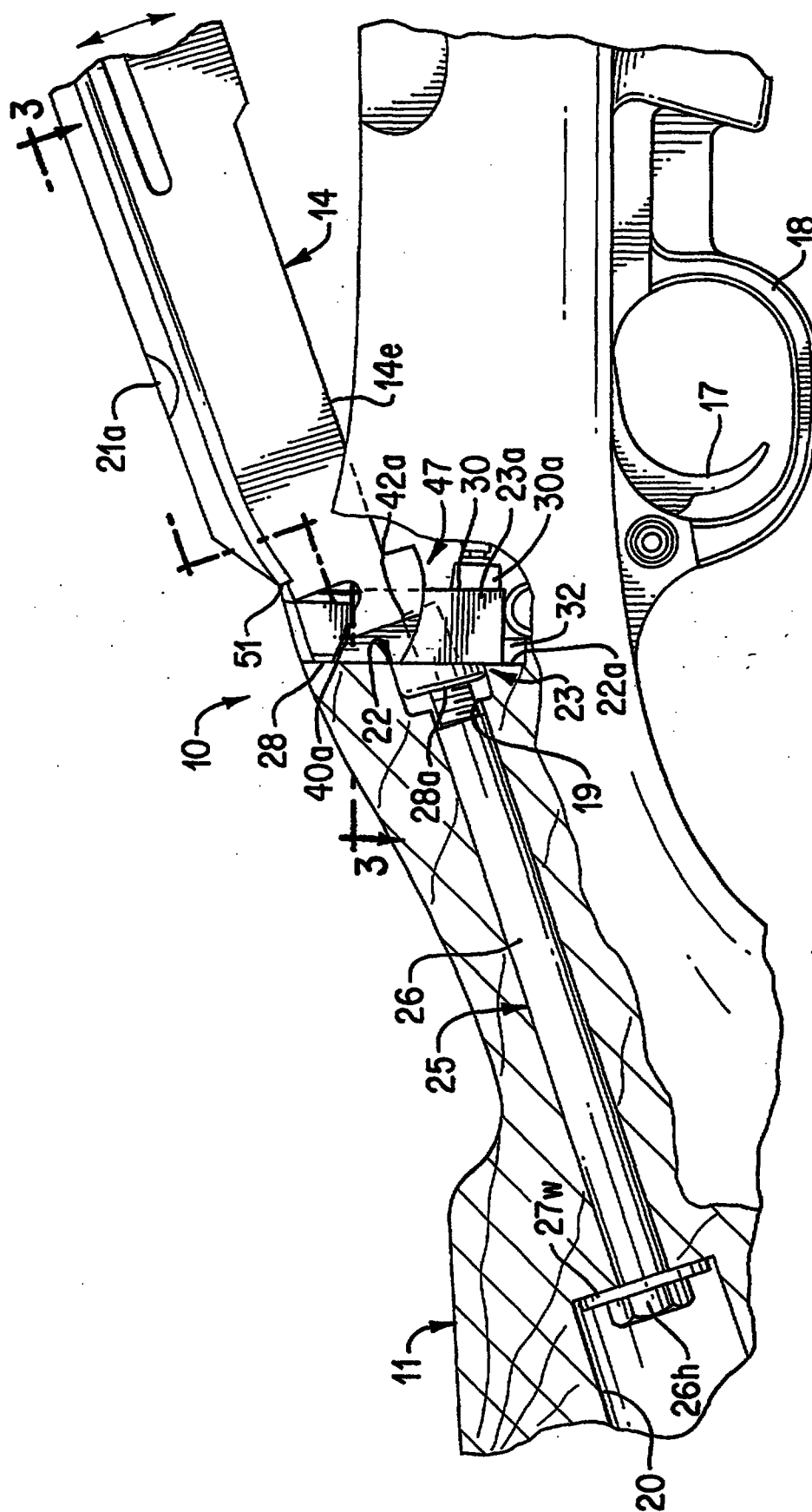


FIG. 2

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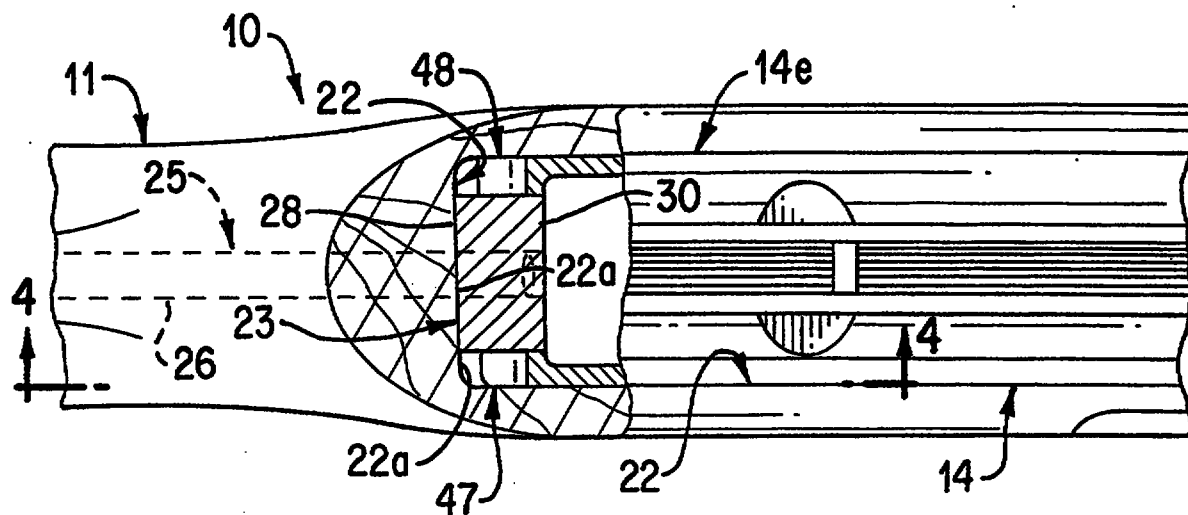


FIG. 3

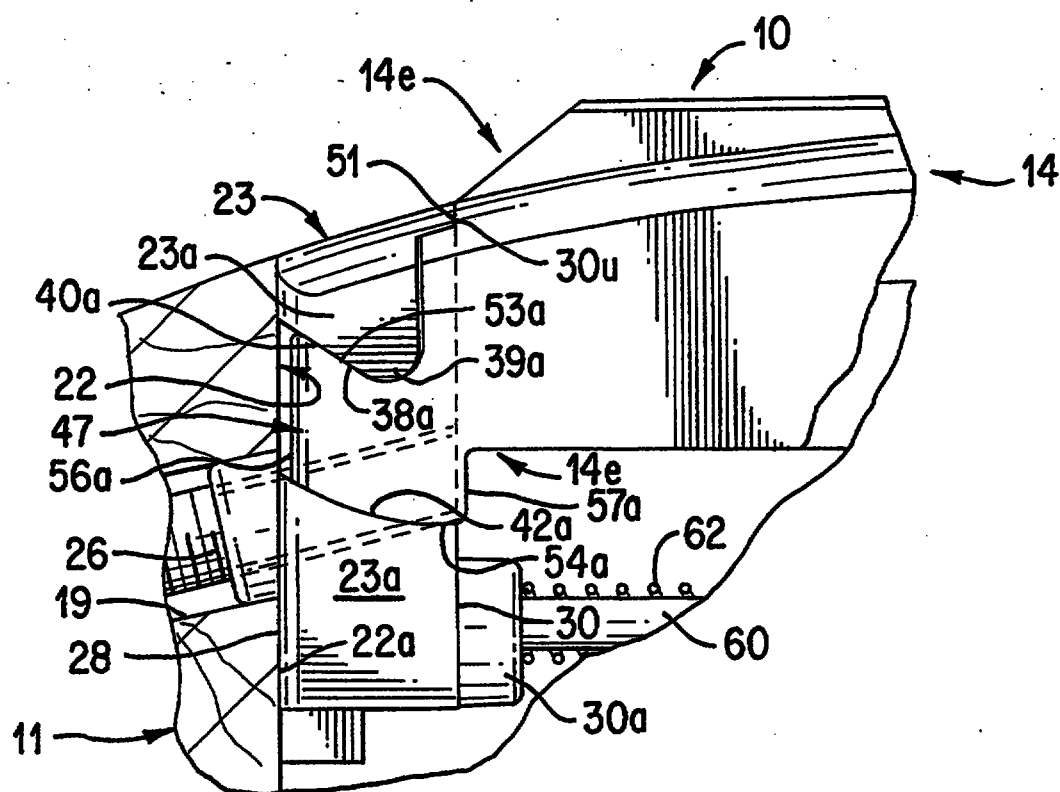
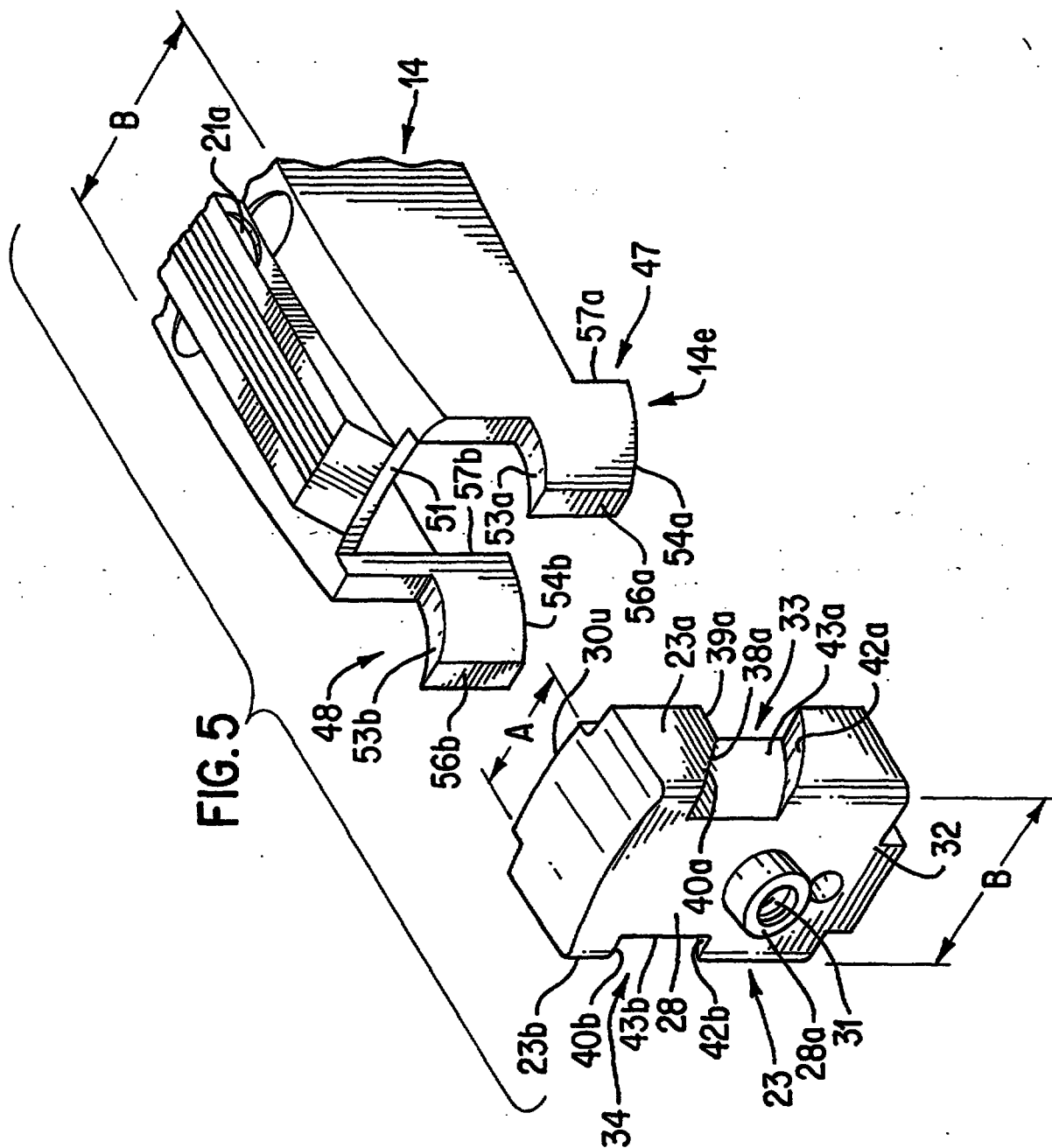


FIG. 4



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/04340

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

A firearm (10) having a stock (11), a receiver (14) and interconnectable mount block (23) with the block having spaced apart recesses (33,34) and receiver spaced apart foot projections (47,48) configured to fit into and be locked in such block recesses.

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**I CLAIM:**

1. A firearm having a stock, a receiver and interconnectable mount block mounted in such stock comprising:
 - (a) a stock recess in the stock sized to accommodate the mount block and the receiver,
 - (b) the mount block having
 - i) a front surface;
 - ii) a rear surface;
 - iii) two side surfaces; and
 - iv) two spaced apart block recesses, one recess in each side surface with said block recesses extending from block front surface to block rear surface;
 - (c) fastener means for holding the mount block in the stock; and
 - (d) two spaced-apart receiver foot projections on the receiver which projections are sized and shaped for positioning in said block recesses when the receiver is tilted during such movement into the recesses and after further tilting such projections are locked in said block recesses.
2. The firearm receiver and interconnectable mount block of claim 1 in which each block recess has upper angularly curved surface and lower curved surfaces and in which each receiver foot projection has

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upper angularly curved surface and lower curved surfaces which surfaces engage when the receiver is locked to the block.

3. The firearm receiver and interconnectable block of claim 2 in which the upper surfaces of mount recess include a forward portion and a rearward portion and in which the first projecting engage the rearward portions.

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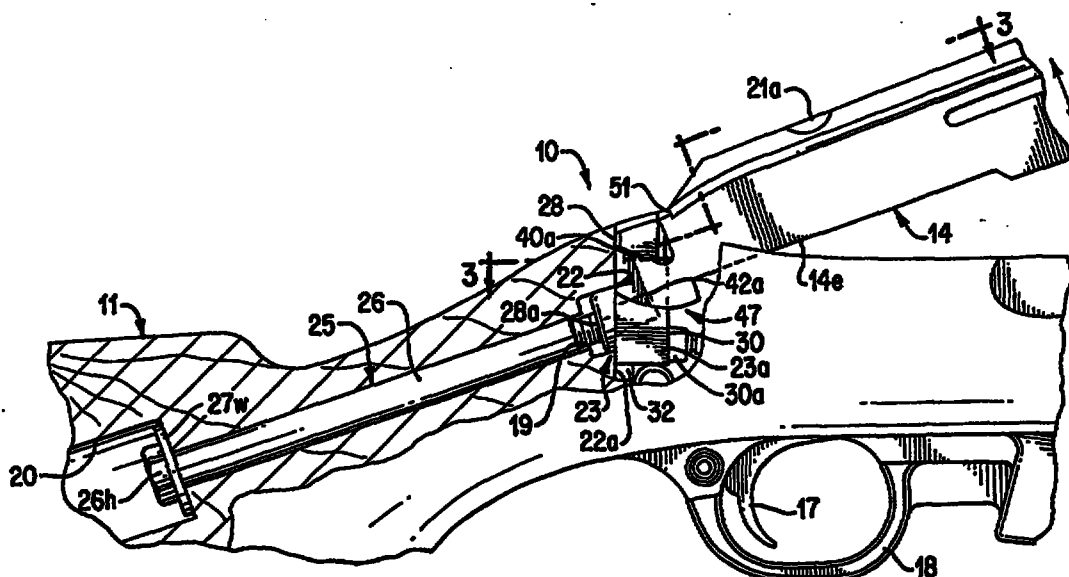
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(54) Title: FIREARM RECEIVER MOUNT AND ANCHORAGE ARRANGEMENT ✓



(57) Abstract

A firearm (10) having a stock (11), a receiver (14) and interconnectable mount block (23) with the block having spaced apart recesses (33, 34) and receiver spaced apart foot projections (47, 48) configured to fit into and be locked in such block recesses.

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