

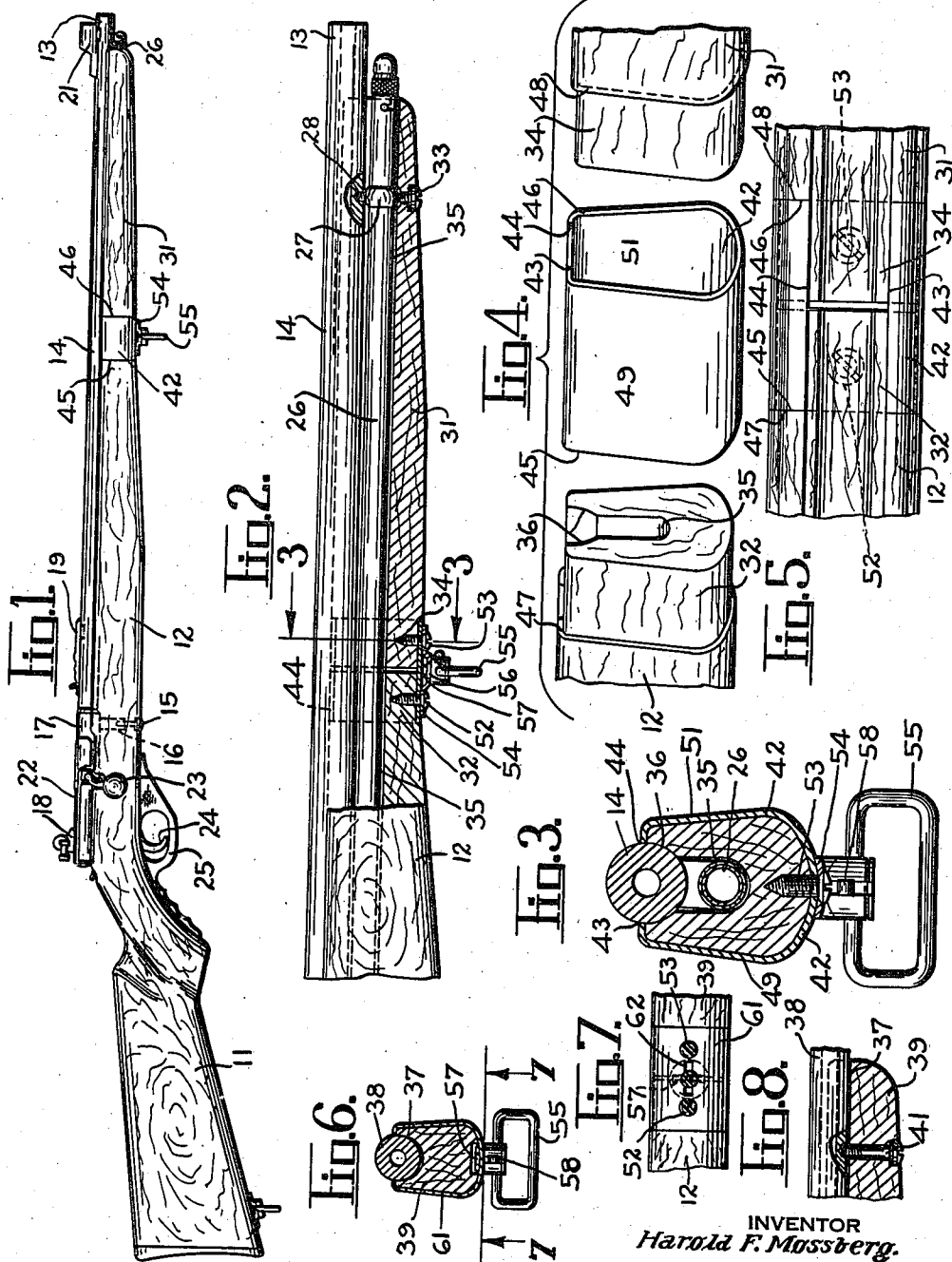
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FIREARM

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FIREARM

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This invention relates to improvements in firearms and more particularly to an improved form of combined stock and forearm extension, and means to connect them together in aligned position along the barrel of the firearm.

It is often desired that the forearm portion of a firearm stock be extended beyond its usual termination to a point closely adjacent to the muzzle end of the barrel of the firearm. This would necessitate the procuring of a substantially long piece of wood of the proper grade for such use, which has been found to be both impractical and quite expensive. To properly form such a long piece of wood, it was also necessary to either purchase additional machinery or to remodel the present ones, and in view of the relatively small production required, this was also undesirable.

To obviate the above disadvantages and yet provide a firearm stock with an extended forearm portion, it has been proposed to make the stock portion of one piece of wood and the forearm portion extension piece of another, and abutting their adjoining ends. This was undesirable in that it was particularly difficult to obtain two pieces of wood which would desirably match in respect to color and graining, and also that the jointure at the abutting ends was difficult to make and maintain tight and of neat appearance, due to the expansion and contraction of the wood under varying atmospheric conditions and the shock of recoil from firing the firearm.

Another proposal was to dispose the joint, between stock and forearm portions, at the jointure between the receiver and the barrel of the firearm and securing the opposing ends of the respective portions to the receiver by means of a band adapted to encircle these opposing ends and a screw-threaded end of the receiver, and to screw-thread this band thereon. This form was both expensive to make and to assemble, and also interrupted the smooth stream-line appearance of the combined receiver and barrel. In some instances such a form tended to interfere with the proper sighting of the firearm, due to such interruption of the smooth appearance distracting the attention of the user of the firearm during the sighting operation, or of distorting the sighting due to light reflection from the raised band portion.

In order to obtain the advantages of an extended forearm, and to meet the demand for firearms provided with the same, without the above disadvantages being present, it is proposed, as one object of this invention, to provide an improved firearm having a combined stock and forearm portion and a forearm extension, which are

connected together by a U-shaped band, which band does not encircle the barrel to interrupt its continuous appearance, and is wide enough to sufficiently interrupt the continuity of the wood from which these parts are made, so that differences in color and graining, between the connected parts, are substantially unnoticeable.

Another object is to provide in a firearm a combined stock and forearm extension of the above nature, the opposing ends of which are slightly spaced apart, and means to cover the spaced apart ends of these parts while securely connecting them together.

Still another object of this invention is to provide means to connect separated aligned stock and forearm extension portions together and which is of such form that the surface continuity of the assembled parts is not interrupted.

A further object is to provide in a firearm, stock and forearm extension connecting means, a sling strap loop for the firearm, and common means to secure the sling strap loop and the connecting means to these parts.

A still further object of this invention is to provide an improved form of firearm which will be relatively inexpensive to manufacture, simple in construction, pleasing in appearance, and which is very efficient and durable in use.

With these and other objects in view, which will appear as the description proceeds, there has been illustrated in the accompanying drawing, two forms in which the invention may be conveniently embodied in practice.

In the drawing, wherein like reference numerals designate like parts throughout the several views:

Figure 1 is a side view of a firearm embodying the features and principles of this invention;

Figure 2 is a broken enlarged sectional view of the front end of the firearm shown in Figure 1;

Figure 3 is an enlarged cross-sectional view taken on the line 3-3 of Figure 2;

Figure 4 is an enlarged exploded view of the opposing ends of a combined stock and forearm portion, a forearm extension portion, and a novel connecting means therefor;

Figure 5 is an enlarged broken top plan view of the jointure between the stock and forearm extension portions, and the connecting means therefor;

Figure 6 is a cross-sectional view similar to Figure 3 of a modified form of the invention;

Figure 7 is a bottom view of the jointure between the stock and the forearm extension portions of the form shown in Figure 6; and

Figure 8 is a broken sectional view showing the means for securing the forearm extension to the firearm barrel, when a tubular magazine is not provided.

Referring now to the drawing, and particularly to Figures 1 and 2, the numerals 11 and 12 denote the stock and forearm portions respectively of a combined stock and forearm formed of one piece of wood and which for purposes of descriptive brevity will be hereinafter termed a gun stock. In this instance, the forearm portion 12 of the gun stock is extended toward the muzzle end 13 of a barrel 14 and by means of a so-called take-down screw 15, which screw threads into a post 16 extending downwardly from the receiver 17 from which the barrel 14 extends, the gun stock is firmly secured to the receiver 17 and the barrel 14. In this instance, suitable sights 18, secured to the receiver 17, 19 secured to the rear end of the barrel 14, and 21, secured at the muzzle end of the barrel, are provided. The firearm shown is of bolt action type, and has a bolt 22, a bolt operating handle 23, a trigger 24, and a trigger guard 25, as well as a tubular magazine 26 which, in this instance, extends along beneath the barrel 14 and is hung from and secured thereto by a ring 27 having a threaded stud 28 which is screw-threaded into the barrel 14.

In accordance with the features, objects, and principles of this invention, a forearm extension 31 is provided which extends from the forward end 32 of the forearm portion 12 of the gun stock to a point closely adjacent the muzzle end of the barrel 14. When the forearm extension 31 is reasonably long, its forward end may be secured to the magazine retaining ring 27 by means of a screw 33 which is screw-threaded into the ring 27, see Figure 2. The opposing ends 32 and 34, of the gun stock and the forearm extension 31 respectively, are slightly spaced apart to obviate the necessity of accurate fitting and to allow for any elongation of either, lengthwise, due to atmospheric conditions. Both the forearm portion 12 of the gun stock and the forearm extension 31, in this instance, are provided with a longitudinally extending groove 35 in their upper surface, to receive the tubular magazine 26 and to form a seat 36 for the barrel 14. The sides of these stock and forearm parts extend upwardly about the barrel 14 at either side thereof to substantially its axis, and axially along the barrel substantially parallel with its axis.

In the form shown in Figure 8 no tubular magazine is provided and hence no groove to receive the same is provided. The upper surface of the gun stock and forearm extension, however, is grooved out to provide a seat 37 for the barrel 38. In this form the forearm extension 39 may be secured directly to the barrel 38 by a screw 41 passing through the extension 39 and being screw-threaded into the barrel 38.

A band 42, generally U-shaped in cross-section, and preferably made of sheet spring steel, is provided to cover the spaced apart ends 32 and 34 of the gun stock and the forearm extension 31 respectively and to connect them together. The band 42 has its upper edges 43 and 44 spaced apart to permit the barrel 14 to pass therebetween a sufficient amount to seat upon the gun stock and forearm extension 31 upon the seat 36 provided therefor. The edges 43 and 44 are each intumed toward the barrel 14 and are in engagement with the same on either side

thereof, and lie upon the upper edge of the gun stock and forearm extension 31 at either side thereof.

In this instance, and to insure that the outer surface of the band 42 is flush with the outer surface of both the gun stock and the forearm extension 31, outer peripheral surfaces of the opposing ends of these parts are cut away so that the band 42 is set into the same with its end edges 45 and 46 abutting shoulders 47 and 48 respectively formed at the ends of the gun stock and the forearm extension 31. Preferably the length of the band 42 is somewhat greater than its height so that it will extend over each of the opposing ends 32 and 34 sufficiently to firmly support the forearm extension 31 in connection with the gun stock without it sagging out of alignment therewith. The band is also spring tensioned to urge its sides 49 and 51 toward each other whereby these sides will firmly grip against the side portions of the gun stock and the forearm extension 31 disposed therebetween.

In addition to the connection between the band 42 and the opposing ends 32 and 34 of the gun stock and the forearm extension 31 respectively, screws 52 and 53 may be provided which pass through openings provided therefor in the band 42 and screw into the undersurface of the gun stock end 32 and the forearm extension end 34 respectively. In Figures 1, 2, and 3 the screws 52 and 53 also secure the base plate 54 of a sling strap loop 55 which, in this instance, is pivotally and detachably connected to the base plate 54 by a cylindrical stud 56 having a cross tongue 57 on its outer end adapted to pass through a slot (not shown) but formed in the base plate 54 to allow the tongue to pass therethrough and be rotated to lock the loop 55 to the base plate. A leaf spring 58 is provided to releasably lock the tongue in place. A detail description of the form of sling strap loop shown herein will be found in Patent No. 2,102,964 issued December 21, 1937, to Oscar F. Mossberg.

In the form shown in Figures 6 and 7, the strap loop is secured directly to the band 61 by having its tongue 57 passed through a longitudinally directed slot 62 provided in the band 61 and then rotated to lock it to the band 61, the leaf spring 58 snapping into the slot 62 to releasably lock the tongue in its rotated position.

By the provision of a band 42 of the form shown and described, which connects the gun stock and forearm extension 31 together, no interruption in the smooth streamlined surface of the barrel 14 is present, the connected gun stock and forearm extension are rigidly held in alignment, and their surfaces are spaced apart sufficiently so that differences in the color and graining of these parts is substantially unnoticeable. The shape of the band 42 whereby the forearm extension is firmly supported upon the end of the gun stock without sagging out of alignment therewith is particularly useful and novel, and forms a simple and inexpensive means into which the opposing ends of the gun stock and forearm may be telescopically inserted, and by which they are rigidly supported and connected.

While there have been shown and described herein two forms of an improved firearm, it is to be understood that the features and principles of this invention may be embodied in other forms without departing from the spirit and essential attributes thereof. It is therefore desired that the present embodiments be considered in all re-

spects as illustrative and not restrictive, and it will be further understood that each and every novel feature and combination thereof, present in, or possessed by, the improved firearm herein disclosed forms a part of the invention included in this application.

What is claimed as new and for which it is desired to secure Letters Patent, is:

1. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed relation, a barrel removably seated on said gun stock and forearm extension, and a band substantially U-shaped in cross-section overlying the opposing ends of said gun stock and forearm extension and having its upper edges intumed toward either side of said barrel below its upper surface and over the upper edges of said opposing ends, said intumed edges being spaced apart to allow ready removal of the barrel from said gun stock and said forearm extension.

2. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed relation, a barrel removably seated on said gun stock and forearm extension, and a band substantially U-shaped in cross-section overlying the opposing ends of said gun stock and forearm extension and having its upper edges intumed into engagement with either side of said barrel substantially at its longitudinal axis, whereby the barrel may be removed without effecting the band, and lying upon the upper edge of said opposing ends.

3. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed relation, a barrel removably seated on said gun stock and forearm extension, and a band substantially U-shaped in cross-section overlying the opposing ends of said gun stock and forearm extension and having its upper edges intumed toward either side of said barrel below its upper surface and over the upper edges of said opposing ends, said intumed edges being spaced apart to allow ready removal of the barrel from said gun stock and said forearm extension without effecting said band, said band being spring tensioned to firmly engage the outer surface of said opposing ends.

4. In a firearm, a gun stock, a forearm extension, each having a barrel receiving groove formed therein and extending lengthwise thereof, an end of said gun stock and an end of said forearm extension being in opposed relation, and a U-shaped band of resilient material extended under the bottom of and upwardly at each side of the stock and forearm extension ends where they are opposed, to springably grip each and connect them together.

5. In a firearm, a gun stock, a forearm extension, each having a barrel receiving groove formed therein and extending lengthwise thereof, an end of said gun stock and an end of said forearm extension being in opposed relation, and a U-shaped band of resilient material extended under the bottom of and upwardly at each side of the stock and forearm extension ends where they are opposed, to springably grip each and connect them together, the upper edges of said band being intumed over the upper edges of said stock and forearm extension toward the groove therein, and means to secure the bottom of the stock and forearm ends to the U-shaped band.

6. In a firearm, a gun stock, a forearm extension, a barrel supported by said stock and fore-

arm extension, an end of said gun stock and an end of said forearm extension being in opposed and aligned position, and a band generally U-shaped in cross-section extending about said opposing ends and having upper edges intumed over and seated upon the upper edges thereof substantially in transverse alignment with the axis of the barrel.

7. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed and aligned position, a band generally U-shaped in cross-section extending about said opposing ends and having upper edges intumed over and seated upon the upper edges of said ends, a sling strap loop having a base plate, and common means to secure said base plate and said band to each of the opposing ends.

8. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed and aligned position, a band generally U-shaped in cross-section extending about said opposing ends and having upper edges intumed over and seated upon the upper edges of said ends, a sling strap loop, and means to removably secure said loop to said band.

9. In a firearm, a gun stock, a forearm extension, an end of said gun stock and an end of said forearm extension being in opposed and aligned position, a band generally U-shaped in cross-section extending about said opposing ends of the stock and forearm extension and having upper edges intumed over and seated upon the upper edges of said ends, a sling strap loop, means to removably secure said loop to said band, and means to secure said band to each of said opposing ends.

10. In a take down firearm, a gun stock having a forearm portion, a forearm extension in line with said forearm portion with an end opposing an end thereof, a barrel removably supported by said stock forearm portion and said forearm extension, and a band generally U-shaped in cross-section extending under the opposing ends of the forearm portion and extension and having its sides extending upwardly on either side thereof, the upper edges of said band sides terminating substantially parallel to the axis of the barrel and being transversely spaced apart an amount substantially equal to the diameter of the barrel whereby the barrel may be removed without disturbing said band.

11. In a firearm, a barrel, a gun stock, a forearm extension having an end opposing an end of said stock, said stock and forearm extension extending upwardly at each side of said barrel with their upper edges substantially parallel to and in transverse alignment with the axis of said barrel, a U-shaped band extending under the said opposing ends and having its sides extending upwardly at each side thereof to the upper edges of said stock and forearm extension, and means to secure said band to the underside of said stock and forearm extension.

12. In a firearm, a barrel, a gun stock, a forearm extension having an end opposing an end of said stock, said stock and forearm extension extending upwardly at each side of said barrel with their upper edges substantially parallel to and in transverse alignment with the axis of said barrel, a U-shaped band extending under the said opposing ends and having its sides extending upwardly at each side thereof to the upper

edges of said stock and forearm extension and its upper edges intumed toward said barrel over the upper edges of the stock and forearm extension, and means to secure said band to each of said stock and forearm extension.

13. In a firearm having a stock and a forearm separate from the stock, said stock and forearm having a barrel groove formed therein extending lengthwise thereof and of sufficient width to receive a barrel, and having ends in opposed and aligned relationship, means to secure said stock and forearm together comprising a band substantially U-shaped in cross-section extended under the bottom surface of the opposing ends of the stock and forearm and upwardly at each side thereof with its upper edges spaced apart an amount not less than the width of the barrel groove in said stock and forearm, and means to secure said band to each end.

14. In a firearm having a stock and a forearm separate from the stock, said stock and forearm having a barrel groove formed therein extending lengthwise thereof and of sufficient width to receive a barrel, and having ends in opposed and aligned relationship, means to secure said stock and forearm together comprising a band substantially U-shaped in cross-section extended under

the bottom surface of the opposing ends of the stock and forearm and upwardly at each side thereof with its upper edges spaced apart an amount not less than the width of the barrel groove in said stock and forearm, said band being of spring material and tensioned to tightly grip said opposing ends and hold them together in lengthwise alignment.

15. In a firearm having a stock and a forearm separate from the stock, said stock and forearm having a barrel groove formed therein extending lengthwise thereof and of sufficient width to receive a barrel, and having ends in opposed and aligned relationship, means to secure said stock and forearm together comprising a band substantially U-shaped in cross-section extended under the bottom surface of the opposing ends of the stock and forearm and upwardly at each side thereof with its upper edges spaced apart an amount not less than the width of the barrel groove in said stock and forearm, means to secure said band to each end, and a sling strap loop detachably attached to said band where it extends about the bottom surface of the stock and forearm ends.

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