June 6, 1944. D. M. WILLIAMS 2,350,484

FIREARM WITH SLING-STRAP

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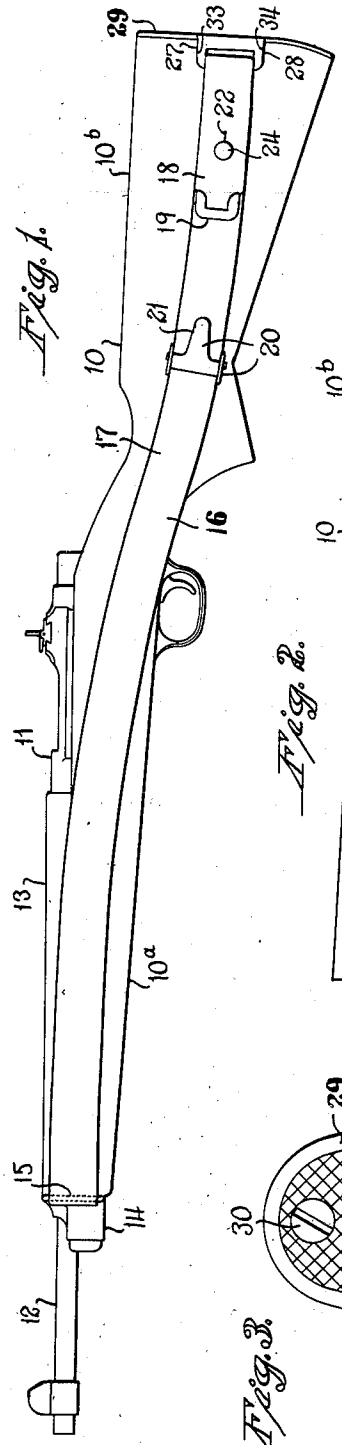


Fig. 1.

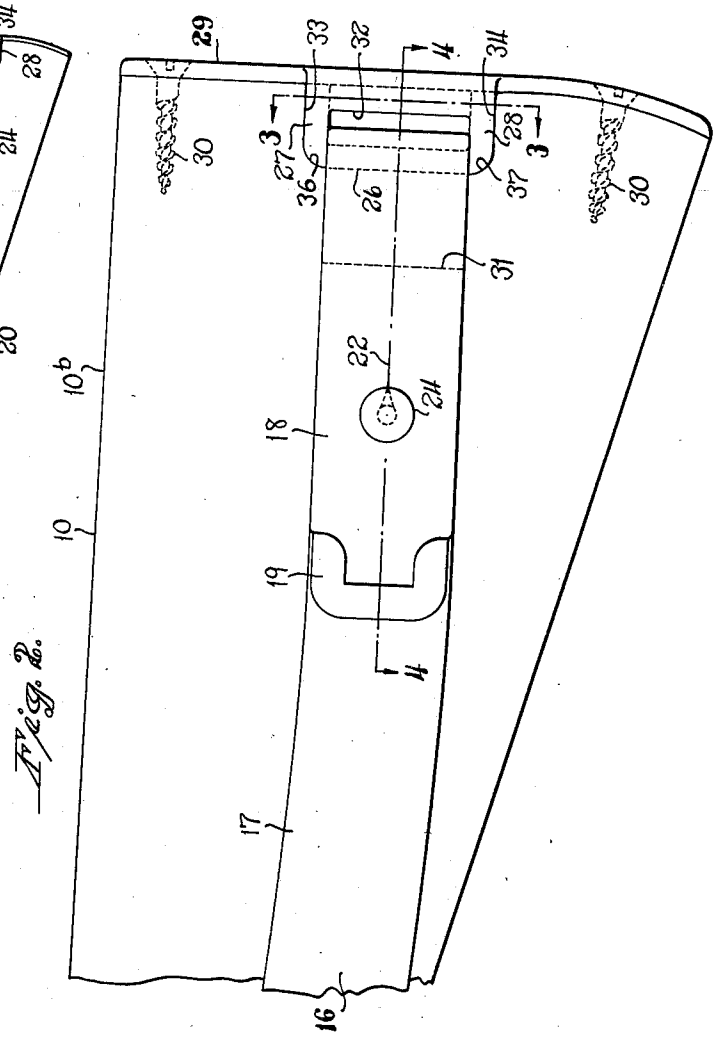


Fig. 2.

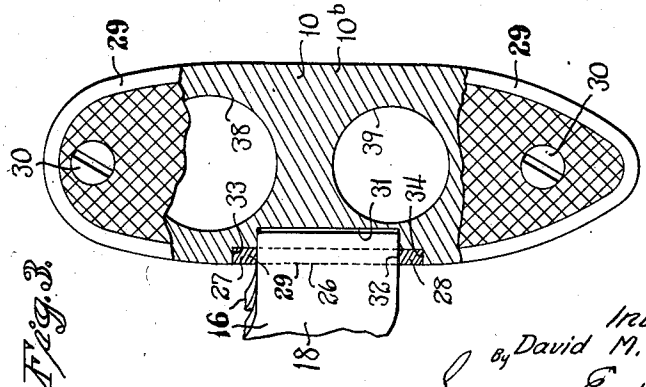


Fig. 3.

Inventor
By David M. Williams
Seymour Earle & Nichols
Attorneys

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Fig. 4.

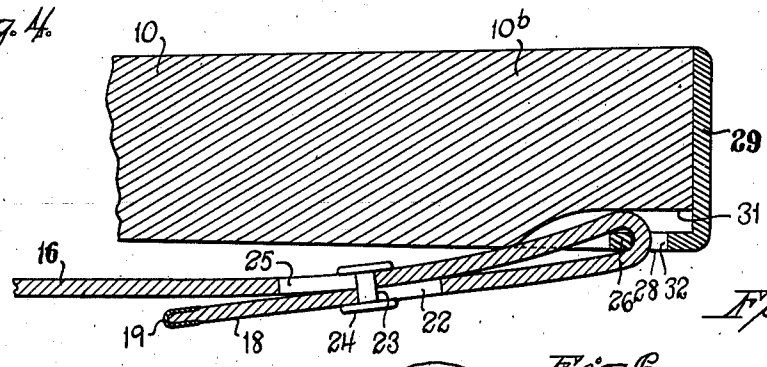


Fig. 7.

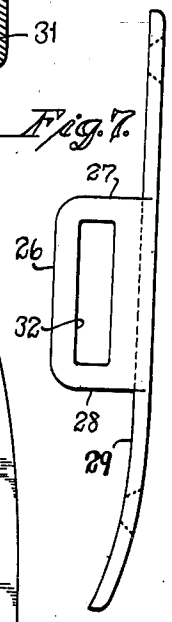


Fig. 5.

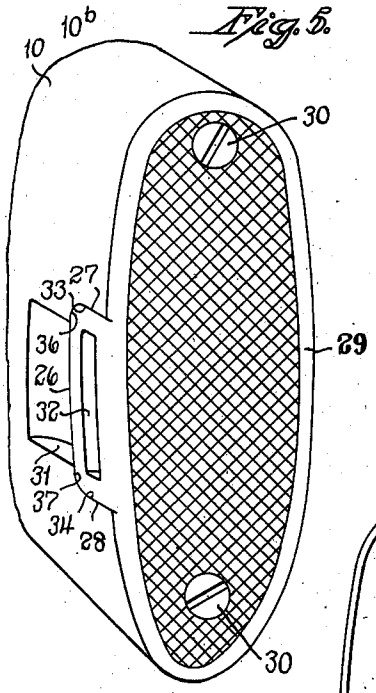


Fig. 6.

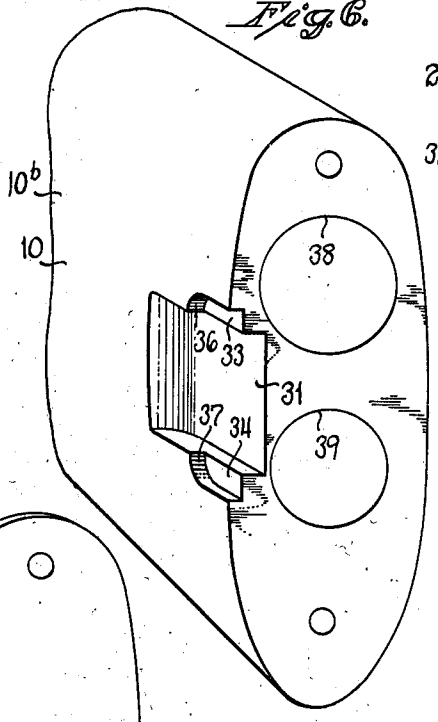
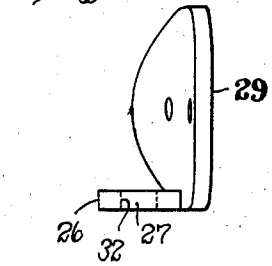


Fig. 8.



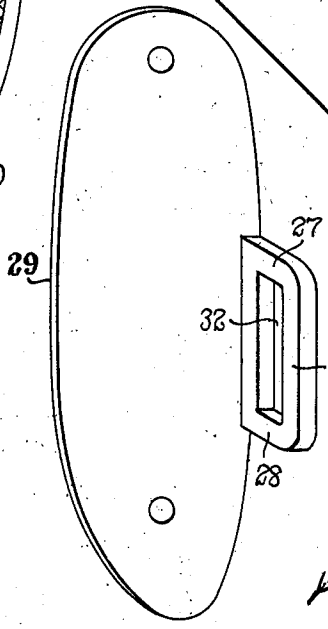


Fig. 9.

Inventor
By David M. Williams
Seymour Earl Nichols
Attorneys

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UNITED STATES PATENT OFFICE

2,350,484

FIREARM WITH SLING STRAP

David M. Williams, New Haven, Conn., assignor to Western Cartridge Company, New Haven, Conn., a corporation of Delaware

Application January 3, 1942, Serial No. 425,502

5 Claims. (Cl. 42—85)

The present invention relates to improvements in firearms, and relates more particularly to improvements in firearms of the military type having sling-straps to enable the firearm to be slung across a person's shoulder and for the other obvious purposes for which sling-straps are employed.

One of the objects of the present invention is to provide a firearm with superior means for attaching a sling-strap thereto.

Another object of the present invention is to provide a firearm with superior means for attaching a sling-strap thereto, which means is simple, reliable and low in cost of production and installation.

A further object of the present invention is to provide a superior firearm-structure embodying a sling-strap and in which the said sling-strap is securely attached to the rear portion of the stock with a minimum amount of projection to thus avoid the tearing of clothing and interference with rapid manipulation of the firearm.

With the above and other objects in view, as will appear to those skilled in the art from the present disclosure, this invention includes all features in the said disclosure which are novel over the prior art and which are not claimed in any separate application.

In the accompanying drawings, in which certain modes of carrying out the present invention are shown for illustrative purposes:

Fig. 1 is a view in side elevation of a firearm embodying the present invention;

Fig. 2 is a broken view of the left side of the rear portion of the stock with the sling-strap in place thereon;

Fig. 3 is a view partly in rear elevation of the stock and butt-plate and partly in vertical section taken on the line 3—3 of Fig. 2;

Fig. 4 is a broken view in longitudinal section taken on the line 4—4 of Fig. 2;

Fig. 5 is a broken perspective view of the rear portion of the stock with the butt-plate secured thereto;

Fig. 6 is a broken perspective view of the rear portion of the stock omitting the butt-plate;

Fig. 7 is a side view of the butt-plate unit detached;

Fig. 8 is a top or plan view of the butt-plate unit detached; and

Fig. 9 is a perspective view of the butt-plate unit detached and viewing the same mainly from the front.

The particular firearm herein chosen for purposes of illustrating the present invention includes, in the main, a stock 10, a receiver 11, a barrel 12 and a barrel-cover or hand-guard 13. The receiver 11 and barrel 12 are preferably formed of high-grade steel, while the stock 10 and barrel-cover 13 are preferably formed of wood or other suitable heat-insulating material.

The stock 10 is preferably formed in one continuous piece, but for convenience of description its forward portion, which mainly underlies the receiver 11 and the barrel 12, may be designated as a forestock-portion 10*a*, while the rear portion of the said stock, mainly to the rear of the receiver 11, may be designated as a buttstock-portion 10*b*.

Encircling the barrel 12 and the respective forward portions of the forestock-portion 10*a* and barrel-cap 13 is a front-band 14 of any suitable construction and which, in the instance shown, is provided on its left side (Fig. 1) with a rigid vertical loop 15.

Associated with the firearm in a manner as will be more fully hereinafter described, is a flexible sling-strap generally designated by the reference character 16 and which may be formed of textile material, leather, or other suitable flexible material. For purposes of description, the particular sling-strap 16 shown in the accompanying drawings may be considered as having a slide-end 17 and a coupling-end 18. The tip of the coupling-end 18 of the sling-strap 16 is preferably reinforced as shown by a metallic tip-guard 19, while the slide-end 17 is preferably rigidly attached to one end of a slide-buckle such as 20. The said slide-buckle is provided with a clamping-lever 21 in a manner common in the art of slide-buckles.

Adjacent its tip-guard 19, the coupling-end 18 of the sling-strap 16 is formed with a longitudinally-extending slit-like buttonhole 22 through which normally extends the rod-like shank 23 of a spool-shaped button 24. The rear portion of the shank 23 of the button 24 extends through a longitudinal slit-like buttonhole 25 formed in the coupling-end 18 of the sling-strap a few inches inwardly from the buttonhole 22 before referred to, as is especially well shown in Fig. 4.

The coupling-end 18 of the sling-strap 16 is normally looped around a substantially-vertical tie-bar 26 integrally united at its respective upper and lower ends by one of two substantially-horizontal end-bars 27 and 28 to a butt-plate generally designated by the reference character 29.

The butt-plate 29 is secured to the rear face of the buttstock-portion 10*b* of the stock 10 in any suitable manner such, for instance, as by means

of two screws 30—30 respectively located adjacent the upper and lower ends of the said butt-plate, as is shown especially well in Fig. 5. The said butt-plate may be formed of heavy sheet metal or produced in any other suitable manner such, for instance, as by die-casting.

In its left side about midway between its respective upper and lower edges, the buttstock-portion 10*b* is formed with a longitudinally-extending groove-like recess 31 intersecting the rear face of the said buttstock-portion and having its forward wall curved and merging into the contour of the left side of the buttstock-portion 10*b*, as is especially well shown in Fig. 4. The said recess 31 has a vertical width substantially corresponding to the similar width of a passage 32 formed in the butt-plate unit immediately to the rear of the tie-bar 26. The width of the recess 31 in the buttstock-portion 10*b* and the width of the passage 32 in the butt-plate unit 29 slightly exceed the width of the sling-strap 16. Respectively above and below the recess 31 above referred to in the buttstock-portion 10*b*, the said buttstock-portion is cut away to form complemental notches 33 and 34, the respective inner walls of which provide outwardly-facing seats against which respectively seat the upper and lower end-bars 27 and 28 of the butt-plate unit 29.

In producing the notches 33 and 34 above referred to, the buttstock-portion 10*b* is preferably cut away to such depth as will permit the outer faces of the tie-bar 26 and the end-bars 27 and 28 to be substantially flush with the left side-face of the buttstock-portion 10*b*. In effect, the forward walls of the cuts made in the buttstock-portion 10*b* to produce the notches 33 and 34 respectively, constitute rearwardly-facing abutments 36 and 37 against which the respective upper and lower ends of the tie-bar 26 may engage to absorb some of the forward stresses which will inevitably be imposed upon the said tie-bar by the sling-strap 16.

If desired and as shown in Fig. 3, the buttstock-portion 10*b* may be formed with two (more or less) bores 38 and 39 extending longitudinally thereof and serving to diminish the weight of the stock as a whole. Either or both of the said bores 38 or 39 may be utilized to store an oil-can or cleaning kit or both in a manner usual in military firearms.

When the sling-strap 16 is looped around both the tie-bar 26 of the butt-plate unit 29 and the loop 15 of the front-band 14, rearward draft will be exerted upon the said loop 15 and forward draft upon the tie-bar 26 when the firearm is carried by means of the said sling-strap. The strains imposed upon the tie-bar 26 or its equivalent will, of course, draw forwardly upon the entire butt-plate unit 29, and the strain will be mainly taken up against substantially the entire rear face of the buttstock-portion 10*b*. If desired and as before pointed out, the forward draft upon the tie-bar 26 may be checked in part by the engagement of the respective upper and lower portions of the said tie-bar with the abutments 36 and 37 in the left side-wall of the buttstock-portion 10*b*.

It will also be noted by reference to the drawings that by means of the tie-bar 26 or its equivalent which is, in the instance shown, set flush with the adjacent side face of the buttstock-portion 10*b*, the rear portion of the sling-strap has a minimum projection beyond the side face of the said buttstock-portion. Thus, the said sling-strap and the means for its attachment afford a minimum amount of projection to thus avoid the tearing of clothing and interference with the rapid manipulation of the firearm. Furthermore, the seats forming the bottoms of the notches 33 and 34 serve to prevent the end-bars 27 and 28 from being bent inwardly and therefore serve to guard against the rear end of the strap being pinched by the tie-bar 26.

The invention may be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. A sling-strap firearm-structure including in combination: a stock provided in one of its side-faces with a strap-receiving recess; a butt-plate unit secured to the rear end of the said stock and provided with a vertical tie-bar unitary therewith end extending vertically across the recess in the said stock in a plane forwardly of the rear face of said stock; front strap-attaching means adjacent the forward end of the said stock; and a sling-strap attached to and extending between the said front strap-attaching means and vertical tie-bar of the said butt-plate unit.

2. A sling-strap firearm-structure including in combination: a stock provided adjacent its rear end with a strap-receiving recess extending longitudinally of the stock, the said stock also being formed on each of the respective opposite sides of the said strap-receiving recess with one of two notches; a butt-plate unit secured to the rear end of the said stock and provided with strap-attaching means unitary therewith and extending across the said recess in a plane forwardly of the rear face of said stock and seated at its respective opposite ends in the respective notches in the said stock; front strap-attaching means adjacent the forward end of the said stock; and a sling-strap having a forward portion attached to the said front strap-attaching means and having a rear portion connected to the strap-attaching means of the said butt-plate unit at a point intermediate the two said notches in the said stock.

3. A sling-strap firearm-structure including in combination: a stock provided in one of its side faces with a strap-receiving recess extending lengthwise of the said stock, the said stock also being formed above and below the said strap-receiving recess with one of two notches; a butt-plate unit secured to the rear end of the said stock and provided with a forwardly-projecting portion having a vertical tie-bar extending vertically across the recess in the said stock in a plane forwardly of the rear face of said stock and seated at its respective ends in the respective notches thereof; front strap-attaching means adjacent the forward end of the said stock; and a sling-strap attached to and extending between the said front strap-attaching means and the vertical tie-bar of the said butt-plate unit.

4. A sling-strap firearm-structure including in combination: a stock provided in one of its side-faces with a strap-receiving recess; and a butt-plate unit secured to the rear end of the said stock and provided with a vertical tie-bar unitary therewith and extending vertically across the recess in the said stock in a plane forwardly of the rear face of said stock.

5. A sling-strap firearm-structure including in

combination: a stock provided in one of its side-faces with a strap-receiving recess extending lengthwise of the said stock, the said stock also being formed above and below the said strap-receiving recess with one of two notches; and a butt-plate unit secured to the rear end of the said stock and provided with a forwardly-projecting portion having a vertical tie-bar extending vertically across the recess in the said stock in a plane forwardly of the rear face of said stock and seated at its respective opposite ends in the respective notches thereof.

DAVID M. WILLIAMS.