

(No Model.)

R. TOWNSEND.
RECOIL ATTACHMENT FOR GUN STOCKS.

No. 488,855.

Patented Dec. 27, 1892.

Fig. 1.

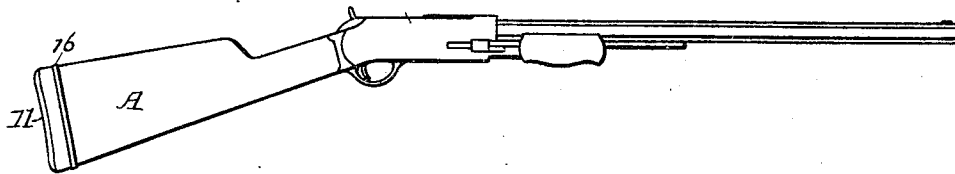


Fig. 3.

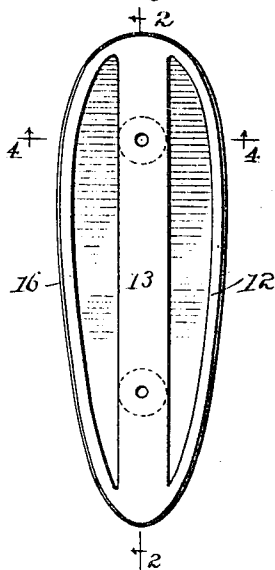


Fig. 2.

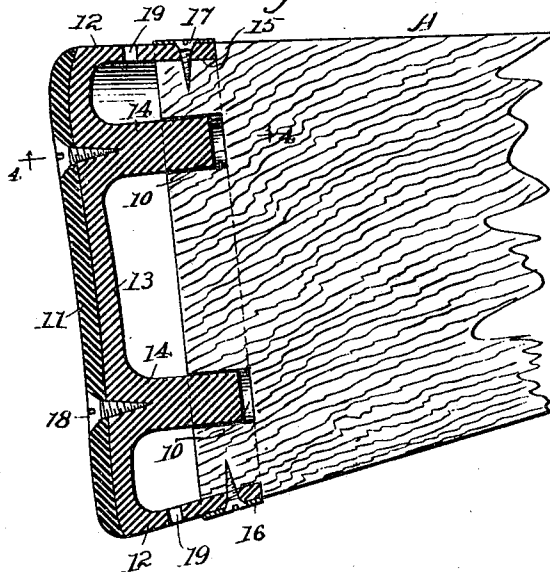


Fig. 4.

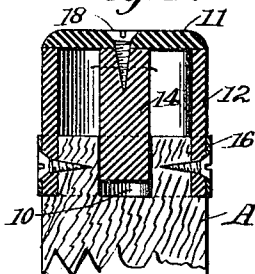
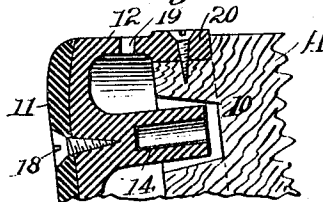


Fig. 5.



WITNESSES:

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RALPH TOWNSEND, OF NEW YORK, N. Y.

RECOIL ATTACHMENT FOR GUN-STOCKS.

SPECIFICATION forming part of Letters Patent No. 488,855, dated December 27, 1892.

Application filed August 23, 1892. Serial No. 443,848. (No model.)

To all whom it may concern:

Be it known that I, RALPH TOWNSEND, of New York city, in the county and State of New York, have invented a new and Improved Recoil Attachment for Gun-Stocks, of which the following is a full, clear, and exact description.

My invention relates to a recoil attachment for gun stocks, and has for its object to provide a device capable of attachment to any gun stock in a convenient and expeditious manner, and to so construct the device that an air chamber will intervene the stock and the inner wall of the device, and whereby the device will have a guided movement at its central portion in the stock, its margin being rigidly secured thereto.

Another object of the invention is to construct the device mainly of an elastic material, and to provide a means whereby the ordinary stock plate may be attached to the device, and whereby also when the device is affixed to a stock it will not detract in the least from the appearance thereof.

Another feature of the invention is to construct the device in an exceedingly simple manner, and also to so construct it that the recoil of the gun when fired will be felt at the shoulder of the marksman in an infinitesimal manner or not at all.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a gun having the improvement applied thereto; Fig. 2 is a vertical section taken about centrally through the gun-stock and the improved device connected with the stock, the section being taken practically on the line 2—2 of Fig. 3; Fig. 3 is a plan view of the device, the stock plate being removed; Fig. 4 is a transverse section through the stock plate, the device and a portion of the stock, the section being taken practically on the lines 4—4 of Figs. 2 and 3; and Fig. 5 is a partial vertical longitudinal

section through the device, the stock plate and the stock, illustrating a slight modification in the construction of the device.

In carrying out the invention the butt of the stock A of the gun has preferably produced therein two openings 10, ordinarily of circular form in cross section, and these openings are placed one at each side of the center, as shown in Fig. 2. The stock plate 11 is of the ordinary shape, and may be made from rubber, metal, or any desired material. In the preferred construction of the device rubber or an equivalent elastic material is used, and the device mainly consists of a somewhat oval or elliptical body band 12, the said band being shaped in accordance with the exterior of the stock at the butt thereof. The depth or width of the band may be made to vary; ordinarily, however, the depth is about two inches, more or less, and the thickness of the band is regulated according to the character of the gun to which the device is to be applied. At the top portion of the band a bar 13 of rubber or like material is made to extend centrally and longitudinally from end to end of the band. The bar 13, which may also be properly termed a bridge, is usually made integral with the band, and the upper edges of the band and the upper face of the bridge or bar 13, are ordinarily and preferably made flush.

When two apertures or openings 10, are produced in the butt of the gun stock, two studs 14, are projected downward from the bridge or bar 13, and these studs are also of rubber or a like material, and their cross sectional shape, especially at their lower ends corresponds to that of the openings 10, as the lower ends of the studs are adapted to enter said openings. Normally, however, the inner ends of the studs do not touch the base walls of the openings 10, but are spaced some distance from them, as shown in Figs. 2, 4 and 5.

Exteriorly upon the butt portion of the gun stock an annular groove or channel 15, is made, and this groove or channel is adapted to receive the inner end portion of the band of the device. Preferably the band of the device is rigidly secured to the stock of the gun by a ring-like strap 16, of metal, hard rubber or an equivalent material, which closely clamps the outer face of the yielding

band of the device where said yielding band enters the channel in the stock, and screws 17, or their equivalents, are passed through the strap 16 at proper intervals from the yielding band of the device and into the gun stock.

Either before or after the application of the recoil attachment the stock plate 11 is applied to the device. The stock plate is secured to the device by passing screws 18 through the plate and into the bridge portion of the device immediately above the studs 14, and when the butt plate is secured to the device it completely covers the outer end thereof.

The band section of the device is provided at opposite sides with vent openings 19 in order that the air may escape when the stock is forced backward at the recoil of the gun. I desire it, however, to be distinctly understood that the bridge 13 may be substituted by a plate of metal or wood, or other material having the same marginal contour as the band 12, in which event the band is secured to the plate and likewise the posts 14; but the band and the posts are always made of rubber or like material, and if in practice it is found desirable a single post 14 may be used, or more than two as desired.

I further desire it to be understood that other fastening devices may be used for attaching a recoil device to the stock, as, for example, as illustrated in Fig. 5, that portion of the band which is to enter the channel 15 at the butt of the stock may be made much thicker than the remaining portion of the band, as illustrated at 20 in the said figure; and either the outer or the inner faces of the thickened portion 20 of the band, or the entire thickened portion, may be hardened so that screws may be passed directly through it into the stock and yet afford a secure fastening. In this event the tie strap 16, is dispensed with.

In the operation of the attachment, as there is a comparatively unbroken air space between the butt of the stock and the inner face of the end wall of the attachment, when the gun is carried to the shoulder and fired, the stock in recoiling is met by a cushion of air, and the effect of the air cushion thus encountered is augmented and rendered more positive by reason of the elastic posts 14 being

brought in engagement with the stock in the line of the rebound, the said posts sustaining whatever shock the air cushion alone would fail to take. The vents 19, are made of sufficient size to permit only a gradual exit of air from the interior of the device.

An attachment constructed as above described may be economically, expeditiously and conveniently applied to any gun, and when used the recoil of the gun will have little or no effect upon the shoulder of the marksman.

If in practice it is found desirable the posts 14 may be made partially or entirely tubular and the walls of the openings 10 into which the parts enter may be made flaring as shown in full lines, Fig. 5.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent,—

1. The combination, with a gun stock, of a device adapted to check the recoil of the gun, the said device consisting of a band of a yielding material securely fastened to the stock at the butt and extending beyond and surrounding the said butt, a rigid stock plate connected with the band at its outer margin, and posts of an elastic material extending forward from the inner face of the stock plate, the said posts being capable of guided movement in the stock, substantially as and for the purpose specified.

2. The combination, with a gun stock having apertures in its butt, of a device adapted to sustain the recoil of the gun, the said device consisting of a band securely attached at its forward end to the stock at the butt and surrounding and extending beyond the butt, a bridge connecting the top and bottom walls of the band, a body plate attached to the rear end of the band and its bridge whereby an air chamber is formed between the butt of the stock and the rear end of the device, the said air chamber having outlets or vents through the band, and posts of an elastic material forwardly projected from the bridge and entering the openings or apertures in the stock, substantially as and for the purpose set forth.

RALPH TOWNSEND.

Witnesses:

**J. FRED. ACKER,
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