G. CORDELL.

PERISCOPE ATTACHMENT FOR RIFLES.

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1,260,285. Patented Mar. 19, 1918.

Fig. 1.

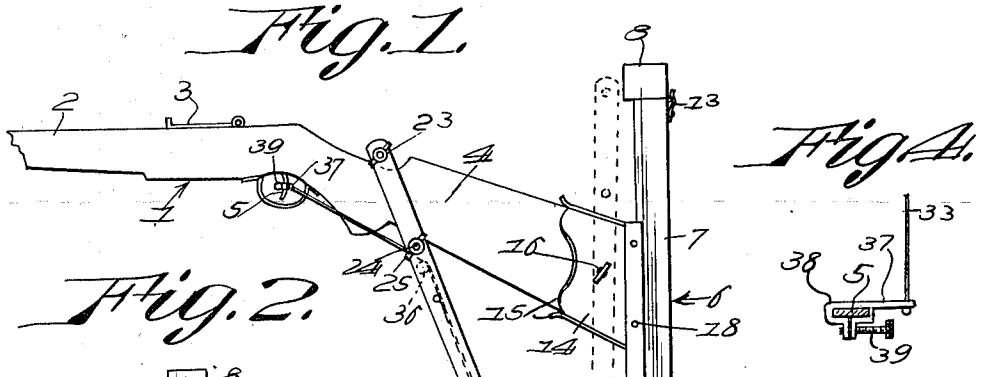


Fig. 4.



Fig. 2.

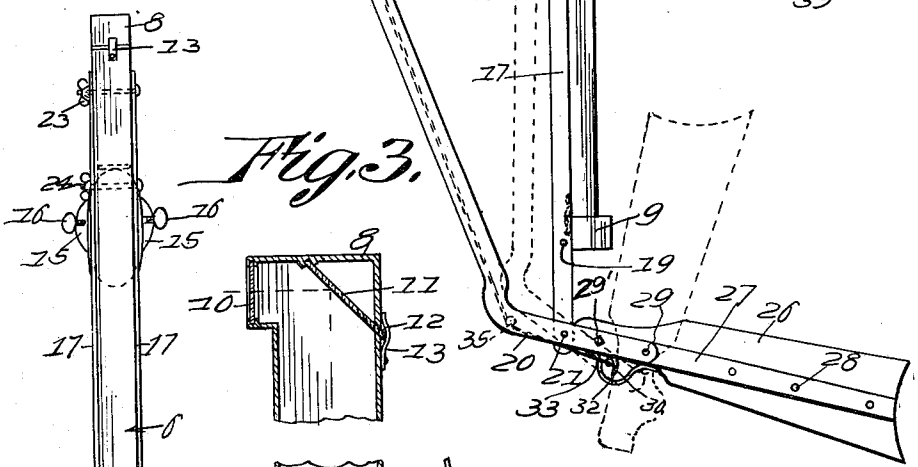


Fig. 3.



Fig. 5.



Inventor

George Cordell,

By E. Thume Talbert

Attorney.

# UNITED STATES PATENT OFFICE.

GEORGE CORDELL, OF KEARNEY, MISSOURI.

## PERISCOPE ATTACHMENT FOR RIFLES.

1,260,285. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed August 8, 1917. Serial No. 185,107.

*To all whom it may concern:*

Be it known that I, GEORGE CORDELL, a citizen of the United States of America, residing at Kearney, in the county of Clay and State of Missouri, have invented new and useful Improvements in Periscope Attachments for Rifles, of which the following is a specification.

The present invention comprehends generally improvements in fire arms and more particularly has reference to a periscope attachment for rifles.

As the primary aim and object this invention contemplates the provision of a device of the above character designed for attachment to a rifle of a conventional construction so as to adapt the rifle for effective use in trench warfare by assuring of the accurate aiming of the rifle by a soldier or user concealed in a trench and without causing the soldier to expose himself to the fire of the enemy when firing the rifle.

It is an equally important object of this invention to provide a device of the above mentioned character wherein the construction is novel and permits of a quick application and removal of the attachment to a frame of a rifle and is capable of being folded into a compact form when not in use so that it can be conveniently carried by a soldier, etc.

More particularly this invention embraces the provision of a periscope attachment for rifles wherein an auxiliary or secondary stock and trigger are employed in conjunction with the periscope proper while suitable means connects the secondary trigger with the main trigger so that the operator or soldier may aim the barrel of the rifle without exposing himself to the enemy and fire the rifle when holding the secondary stock by merely pulling the secondary trigger.

As a further improvement the present invention includes the provision of a device of the above character wherein improved means is employed for assuring of an effective attachment of the device to a rifle so that the periscope proper will be positioned to reflect the sight of the gun barrel to the operator or soldier in the trench enabling the soldier to accurately aim and fire the rifle.

Among the other aims and objects of this invention may be recited the provision of a device of the character described with a view to compactness, and in which the number of parts are few, the construction simple, the cost of production low and the efficiency high.

Other improvements and novel details in the construction and arrangement of the various parts of the apparatus will be brought out more in detail in the accompanying description which for a clear understanding of the invention should be considered in connection with the drawings forming a part hereof, and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention. It is to be noted in this connection that minor changes in the construction and arrangement of the parts may be made without departing from the principle of operation of the various parts.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the device attached to a rifle, the dotted lines showing the position assumed by the attaching arms and the secondary stock with respect to the periscope proper, when the device is in a folded position;

Fig. 2 is a front elevation of the invention;

Fig. 3 is an enlarged vertical sectional detail of the periscope proper;

Fig. 4 is a detail of the trigger clamp;

Fig. 5 is a fragmentary elevational detail of the secondary stock and trigger.

Similar characters of reference are employed in all the above described views, to indicate corresponding parts.

Referring now, more particularly to the accompanying drawings, there is provided a rifle indicated in its entirety by the numeral 1, being preferably of a conventional type and including generally a barrel 2 in the upper surface of which is mounted a sight 3. A stock 4 serves to support the barrel while a trigger 5 is mounted in the rifle to assure of the firing thereof. It is to be appreciated that this invention is not to be limited to the particular form or construction of the rifle, the latter being merely illustrated that a comprehensive understanding of the invention may be obtained.

Removably mounted on the stock 4 is the improved periscope attachment which in the present instance may be said to consist of a periscope proper, indicated in its entirety by the numeral 6 and consisting of a tube 7 on the upper and lower ends of which are respectively formed sight boxes 8 and

9. Pieces of plain glass 10 are mounted in the outer ends of the sight boxes for protecting the diagonally arranged mirrors 11 removably insertible through openings 12 in the sides of the tube so as to be maintained at an angle in the sight boxes. Spring clips 13 carried by the outer surfaces of the tube are designed for removably holding the mirrors in position while ears 13′ project from the lower sight box 9, as indicated, for a purpose that will presently appear.

With a view toward removably securing the tube in position on the stock 4, a socket 14 is carried by one face of the tube in proximity to the upper end thereof, the outer end being flared as at 15 to facilitate the application of the free end of the stock 4, while suitable fastening devices such as set screws 16 are employed for removably maintaining the stock within the socket. The socket is formed at a suitable point beneath the upper sight box 8 so as to maintain the latter in substantial alinement with the sight 3 to assure of the reflecting of the sight through the tube to the lower sight box for a purpose that will hereinafter become apparent. Bracing arms 17 are arranged on opposite sides of the tube 7 and have their upper ends connected to the tube and to the socket through the instrumentality of suitable fastening devices 18 to increase the rigidity of the tube in the socket while suitable fastening devices 19 are also employed for fastening the lower portions of the arms to the ears 13′. The extreme lower portions of the arms terminate below the lower sight box 9 to facilitate the supporting of the periscope. Spaced attaching and bracing arms 20 are now employed and are arranged adjacent the lower ends upon the outer surfaces of the lower portions of the arms 17 being pivotally connected thereto through the instrumentality of a suitable pintle 21. The attaching arms are bent upwardly as indicated by the numeral 22 and have their upper ends arranged upon opposite sides of the forward portion of the stock 4 of the rifle. Bolts 23 and 24 are extended through the sections at points adjacent the upper and lower edges of the stock 4 while suitable adjusting elements, such as wing nuts 25, are threaded upon the projecting extremities of the bolts and serve as a means for clamping the upper portions of the arms 20 upon opposite sides of the stock 4.

A secondary or auxiliary stock 26 is now employed while bars 27 are connected on opposite sides and longitudinally of the stock by means of suitable fastening devices 28 the inner ends of the bars 27 being pivotally connected through the instrumentality of suitable fastening devices 29 to the extreme lower ends of the arms 20 so as to dispose the stock 26 below and in the rear of the lower sight box 9. In this connection it will be observed that the downward movement of the stock is limited when the inner end thereof abuts the adjacent side edges of the bracing rod 17. A set screw 29′ is mounted through the angularly bent portion of one of the arms 20 and is designed to be frictionally engaged against the end of the secondary stock 26 so as to removably hold the latter in the position indicated in full lines in Fig. 1. A secondary trigger 30 is pivotally mounted as at 31 on the secondary rifle stock while a trigger guard 32 depends from the under edge of the stock adjacent the inner end as indicated.

As intimated, improved means have been provided for operably connecting the triggers 5 and 30 so that upon actuation of the secondary trigger the main trigger will be simultaneously actuated to fire the rifle, subsequent, of course, to the correct sighting of the rifle. In reducing this feature of the invention to practice a cable 33 formed of wire has one end connected to an eye 34 formed on the trigger 30 and is trained about guide pulley wheels 35 and 36 journaled transversely of the arms 20 respectively at points adjacent the bend 22 and adjacent the upper ends of the arms while the opposite end of the cable is connected to an extension 37 formed on the clamp 38 which in turn is removably connected to the trigger 5 through the instrumentality of a fastening screw 39.

The mode of operation of the present invention may be reviewed as follows:—

Assuming that the parts have been assembled in the manner described and as indicated in the drawings, the operator of the device by merely holding the stock 26 against his shoulder in the manner of the usual gun stock by looking through the lower sight box will be able to see the reflection of the sight 3 and properly adjust the rifle barrel 2. Subsequently, of course, it is only necessary to pull the trigger 30 and by reason of the flexible cable 33 between the trigger 30 and the trigger 5 of the rifle the latter will be fired. Since the barrel of the rifle is adapted to rest on the top of the trench, not shown, the operator or soldier may aim and fire the rifle in the bottom of the trench without exposing himself to the fire of the enemy.

When it is not desired to use the device it is only necessary to loosen the set screws 16, the wing nuts 24 and the screw 39 in the clamp 38 to consequently respectively allow for the removal of the stock 4 from the socket 14, the arms from engagement with the stock and the clamp 38 from engagement with the trigger 4. After detaching the device it is only necessary to swing the attaching arms so that they will assume the position indicated in dotted lines in Fig. 1 and swing the secondary stock 26 to assume the dotted line position shown in Fig. 1 thus permitting of

the folding of the parts into compact form so that it can be readily and conveniently carried by the soldier, etc., when not in use.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof and it is intended that all matter contained in the above description or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limited sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:—

1. An attachment for rifles including a periscope, means carried by the periscope for receiving the rifle stock, bracing rods connected to the periscope and to the receiving means and terminating beneath the lower edge of the periscope, attaching arms pivotally connected to the bracing rods and removably clamped upon the rifle stock, a secondary rifle stock removably connected to the attaching arms and positioned beneath the periscope, a secondary trigger pivotally mounted on the secondary stock, and flexible means operably connecting the secondary trigger with the trigger of the rifle.

2. An attachment for rifles consisting of a periscope, a socket carried by the periscope for accommodating the stock of a rifle, bracing rods connected to the periscope and to the socket and terminating short of the lower end of the periscope, attaching arms pivotally connected to the lower ends of the rods, means for clamping the arms on the stock of the rifle, a secondary stock pivotally mounted on the extreme lower terminals of the attaching arms, a pivotally mounted trigger on the secondary stock, and flexible means connecting the trigger with the trigger of the rifle so that upon actuation of the secondard trigger the rifle will be fired.

3. An attachment for rifles including a periscope composed of a tube and sight boxes on the upper and lower ends thereof, a socket carried by the tube adjacent the upper end thereof for accommodating the rifle stock so as to position the sight of the rifle in alinement with the upper sight box, means for removably holding the stock in the socket, bracing rods secured upon opposite sides of the tube and socket and terminating beneath the lower sight box, attaching arms pivotally connected to the lower ends of the rods, means for clamping the upper ends of the attaching arms on the stock of the rifle, a secondary stock pivotally mounted between the extreme lower ends of the arms, a secondary trigger pivotally mounted on the secondary stock, and a flexible cable having its respective ends connected to the secondary trigger and to the trigger of the rifle.

4. An attachment for rifles including a periscope engageable with the stock of a rifle, bracing rods secured to the periscope and terminating beneath the lower end thereof, attaching arms pivotally connected to the lower ends of the bracing rods, bolts connecting the opposed attaching arms, means engageable with the bolts for clamping the arms rigid with the rifle stock, a secondary stock pivotally connected between the lower ends of the arms, a secondary trigger on the inner end of the secondary stock, a clamp removably mounted on the trigger of the main stock, guide pulleys mounted between the attaching arms, and a cable trained about the guide pulleys and having its respective ends connected to the secondary trigger and to the clamp of the rifle trigger whereby when the secondary trigger is actuated the trigger of the rifle will be actuated simultaneously therewith.

In testimony whereof I affix my signature.

GEORGE CORDELL.