C. E. BLIZARD.

VENTILATED SIGHT RIB FOR FIREARMS.

APPLICATION FILED APR. 26, 1919.

1,323,149.

Patented Nov. 25, 1919.

3 SHEETS—SHEET 1.

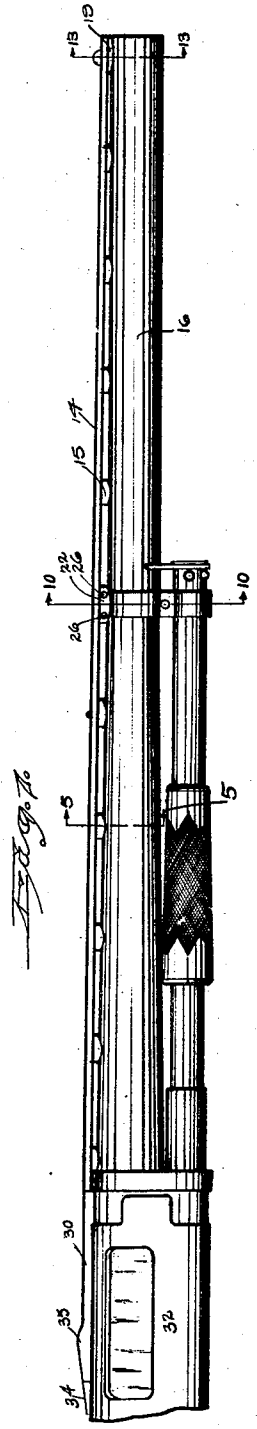


Fig. 1.

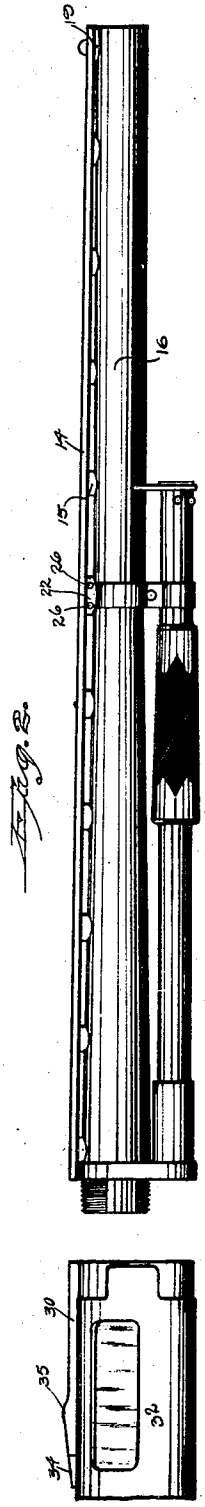


Fig. 2.

Inventor
Charles E. Blizard
by Seymour Keech
Atty

C. E. BLIZARD.

VENTILATED SIGHT RIB FOR FIREARMS.

APPLICATION FILED APR. 26, 1919.

1,323,149.

Patented Nov. 25, 1919.

3 SHEETS—SHEET 2.

Fig. 5.

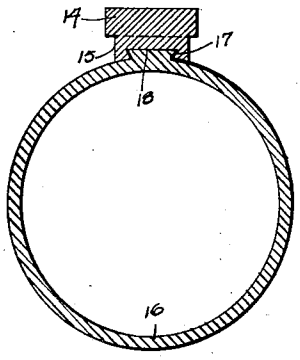


Fig. 3.

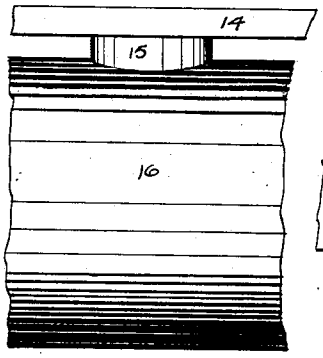


Fig. 4.

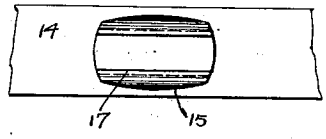


Fig. 10.

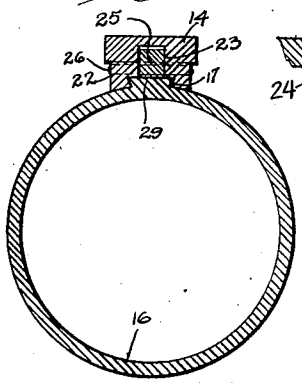


Fig. 6.

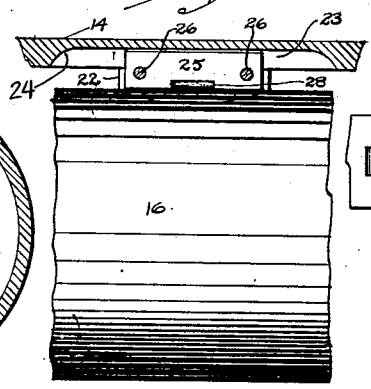


Fig. 7.

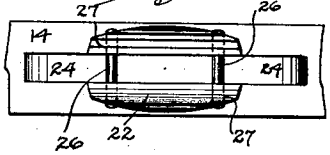


Fig. 8.

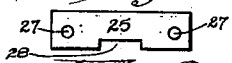


Fig. 9.

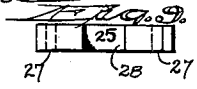


Fig. 13.

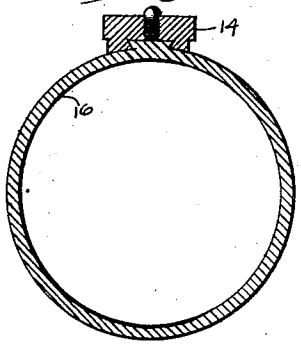


Fig. 11.

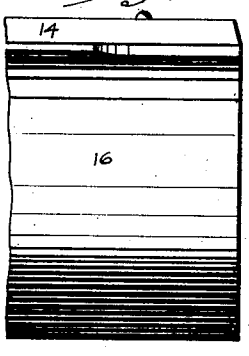
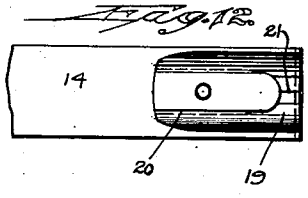


Fig. 12.



Inventor
Charles E. Blizard
by Seymour & Earle
Attys

C. E. BLIZARD.

VENTILATED SIGHT RIB FOR FIREARMS.

APPLICATION FILED APR. 26, 1919.

1,323,149.

Patented Nov. 25, 1919.

3 SHEETS—SHEET 3.

Fig. 14.

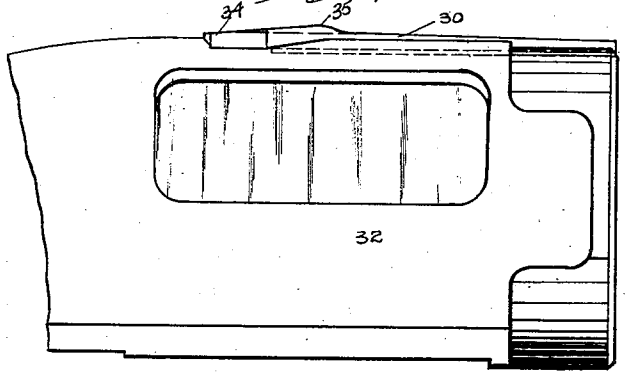


Fig. 15.

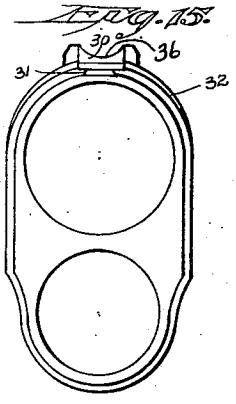
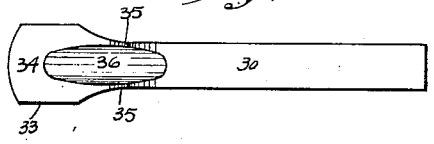
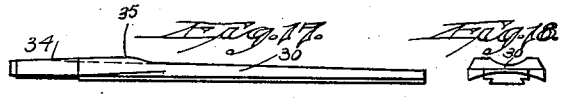


Fig. 16.





Inventor.
Charles E. Blizard
by Seymour & Earle
Atty

UNITED STATES PATENT OFFICE.

CHARLES E. BLIZARD, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

VENTILATED SIGHT-RIB FOR FIREARMS.

1,323,149. Specification of Letters Patent. Patented Nov. 25, 1919.

Application filed April 26, 1919. Serial No. 292,939.

To all whom it may concern:

Be it known that I, CHARLES E. BLIZARD, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Ventilated Sight-Ribs for Firearms; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a broken view in right hand side elevation of a takedown firearm embodying my invention.

Fig. 2 a corresponding view showing the barrel and magazine of the arm separated from the receiver thereof.

Fig. 3 an enlarged broken view in side elevation showing one of the sliding supports of the rib as it rests upon the barrel.

Fig. 4 a broken reverse plan view of the same portion of the rib showing the sliding support.

Fig. 5 a view in vertical transverse section on the line 5—5 of Fig. 1.

Fig. 6 a broken view of the barrel in side elevation and the sight-rib in longitudinal central section showing the key by means of which the barrel and the rib are prevented from relative longitudinal movement at this point.

Fig. 7 a broken reverse plan view of that portion of the rib shown in Fig. 6, the key being removed from the standard but the key-pins being shown in place.

Fig. 8 a detached view in side elevation of the key.

Fig. 9 a reverse plan view thereof.

Fig. 10 a view in vertical transverse section on the line 10—10 of Fig. 1.

Fig. 11 a broken view showing the muzzle-end of the barrel and sight-rib.

Fig. 12 a broken reverse plan view of the muzzle-end of the rib.

Fig. 13 a view in transverse section on the line 13—13 of Fig. 1.

Fig. 14 a broken view in side elevation of the receiver showing the sight-rib extension in place.

Fig. 15 a view in front elevation of the receiver and the sight-rib extension.

Fig. 16 a detached plan view of the sight-rib extension.

Fig. 17 a detached view thereof in side elevation.

Fig. 18 a detached view thereof in front elevation

My invention relates to an improvement in ventilated sight-ribs for firearms, the object being to provide a simple, reliable and efficient construction in which the effect upon the rib due to the contraction and expansion of the barrel is minimized, and in which such a rib may be applied to a takedown gun if desired.

With these ends in view, my invention consists in a single barrel firearm having a ventilated sight-rib attached to the barrel between the ends thereof.

My invention further consists in a single barrel firearm having a sight-rib mounted upon the barrel and an interchangeable sight-rib extension mounted upon the receiver.

My invention further consists in certain details of construction as will be hereinafter described and pointed out in the claims.

As herein shown, my invention is applied to a takedown shot-gun, but I would have it understood that my invention is neither limited to takedown guns nor to shotguns, but is applicable to solid frame guns and to rifles as well as to shot-guns.

As shown, the ventilated sight-rib 14 is provided throughout its length with a series of depending integral supports 15 arranged in line with the rib and barrel 16 and all having their lower faces concaved in conformity with the curvature of the barrel so as to adapt them to rest thereupon. All of the said supports 15 have their lower faces formed with undercut or dovetail longitudinal slots 17 receiving upstanding, integral dovetail lugs 18 arranged in line upon the top of the barrel and spaced in correspondence with the spacing of the said supports 15. All of the supports are slotted throughout their length except the front support 19 the undercut slot 20 of which has its forward end left solid as at 21 for the sake of appearance and finish.

The slotted supports 15 and upstanding lugs 18 couple the rib and barrel against all movement except longitudinal movement in which the ends of the barrel are free to move

independently of the rib and vice versa, it being understood that the repeated firing of the gun heats the barrel so as to cause its elongation which would result in buckling unless provision were made for the barrel to elongate and contract independently of the rib.

In order to prevent the rib from being longitudinally displaced with respect to the barrel owing to the shock of recoil, it is necessary to rigidly fasten the rib and barrel together at some point. Heretofore, this has been done at either the muzzle-end or breech-end of the barrel. Under my invention I rigidly attach the rib and barrel together at some point between the ends of the barrel so that the ends of the barrel on opposite sides of this point of rigid attachment may be free to contract and expand under the rib, while the rib at this fastening point will be bodily moved but within exceedingly narrow limits, with the movement of this particular part of the barrel as the entire barrel contracts and expands.

Preferably and as herein shown, I permanently attach the rib and barrel midway between the ends of the barrel. For this purpose, I utilize the central support 22 which in addition to being formed with a longitudinal undercut slot 17, is formed with a deep slot 23 leading out of the top of the slot 17 and extending at its ends into the lower face of the rib as at 24. The slot 23 provides for the reception of a key 25 secured to the support 22 by means of two key-pins 26 passing through the said support and through holes 27 in the ends of the key the lower face of which is formed with a transverse slot 28 adapting it to fit over the ends of the dovetail lug 29 which corresponds to the lugs 18 aforesaid. The key 25 is held by the ends of the lug 29 against longitudinal movement with respect to the barrel and by the pins 26 against longitudinal movement with respect to the rib, whereby the rib and barrel are fastened together, there being no longitudinal or sliding movement between the barrel and rib or vice versa at this point. However, the ends of the barrel on the opposite sides of the lug 29 are left entirely free to have relative longitudinal movement with respect to the rib which is also entirely free to have relative longitudinal movement with respect to the barrel on the opposite sides of this point. As already stated, the entire rib has bodily movement with that portion of the barrel where this fixed connection is made, the amount of such bodily movement of the rib depending upon the point where this fixed connection is made and increasing as the point is moved forward.

The other outstanding feature of my invention is an interchangeable sight-rib extension 30 having dovetail or beveled edges adapting it to be entered into a longitudinal dovetail slot 31 in the top of the receiver 32, the rear end of the extension 30 being broadened as at 33 and rearwardly beveled as at 34 to form a head. The opposite edges of the head are slightly raised to form what may be termed sighting-ridges 35, 35, which are parallel and extend with the length of the extension and which are substantially in line with the respective edges of the ventilated sight-rib 14. Between these ridges, I form a shallow sight-notch 36 the ends of which merge into the bevel 34 of the head and the upper face of the extension 30. When the sight-rib extension is mounted upon the top of the receiver, the forward end of the extension is flush with the forward end thereof so that when the gun is put together it abuts against the rear end of the sight-rib 14 with which it is exactly in line. I thus provide for furnishing a takedown gun with a ventilated sight-rib. But I do not limit the use of my improved interchangeable sight-rib extensions to takedown guns as they are also applicable to solid-frame guns whether rifles or shot-guns. In a broader view of this phase of my invention, it enables guns provided with ventilated sight-ribs to have their sight-rib extensions interchanged to meet the idiosyncrasies of the consumer so that any given gun may be manufactured in large numbers and converted to meet the requirements of the consumer without any other change whatever, thus effecting a great saving to the manufacturer as well as to the consumer.

As thus mounted the sight-rib 14 is almost entirely insulated from the barrel, is substantially unaffected by the longitudinal contraction and expansion thereof and remains comparatively cool when the barrel becomes hot under the repeated firing of the gun.

Although I have shown my improvement as applied to a takedown shot-gun, it is not limited to takedown guns, nor to shot-guns, but may also be applied to solid frame guns and to rifles, its characteristic feature being the fixed connection of the rib to the barrel between the ends of the barrel, preferably, though not necessarily, midway the length thereof, so that the barrel on the opposite sides of this point of fixed connection is free to contract and expand with respect to the rib and so that the rib is free to contract and expand with respect to the same.

The other characteristic feature of my invention is an interchangeable sight-rib extension mounted upon the receiver so as to aline with the sight-rib proper.

I claim:—

1. In a firearm, a ventilated sight-rib rigidly attached at one point only to the top of the barrel between the ends thereof to permit the ends of the barrel to expand and

contract on opposite sides of such attachment without disturbing the rib.

2. In a firearm, a ventilated sight-rib rigidly attached to the top of the barrel at a point between the ends thereof and so attached thereto at other points thereon as to have longitudinal freedom of relative motion.

3. A firearm having a ventilated sight-rib rigidly attached to the top of the barrel at one point only between the ends thereof and movably attached thereto by longitudinal dovetails distributed throughout the length thereof so as to permit longitudinal freedom of relative motion between the barrel and rib except at the point of their rigid attachment.

4. A firearm having a ventilated sight-rib rigidly attached at one point only to the top of the barrel by a pin and key fastening located between the ends thereof, and slidably attached to the barrel by a plurality of longitudinal dovetail fastening-members, whereby the ends of the barrel are permitted to expand and contract without disturbing the rib.

5. In a firearm, a ventilated sight-rib having a plurality of standards on its under surface, one of these standards, located at a point between the ends of the rib, having a removable rigid attachment to the barrel, and the other standards having longitudinally slidable attachment thereto.

6. In a firearm, a ventilated sight-rib having a plurality of standards on its under side, one of these standards, located between the ends of the rib, having a slot for the reception of a key pinned thereto, in combination with a lug formed on the barrel, dovetailed longitudinally for engagement with the said standard and adapted to hold the said key against longitudinal motion relative to the barrel.

7. In a single barrel firearm, the combination with the receiver and the barrel thereof, of a ventilated sight-rib located upon the top of the said barrel, and an interchangeable sight-rib extension mounted upon the receiver in line with the said ventilated sight-rib.

8. In a single barrel take-down firearm, the combination with the receiver and the barrel thereof, the said parts being adapted to be manually put together and taken down; of a ventilated sight-rib located upon the top of the said barrel, and an interchangeable sight-rib extension mounted upon the receiver in line with the said ventilated sight-rib.

9. In a single barrel firearm, the combination with the receiver and the barrel thereof, of a ventilated sight-rib located upon the top of the said barrel, and an interchangeable sight-rib extension mounted upon the receiver in line with the said ventilated sight-rib, the said receiver and sight-rib extension being respectively formed with the components of a dovetail joint.

10. In a single barrel firearm, the combination with the receiver and the barrel thereof, of a ventilated sight-rib located upon the top of the barrel, and an interchangeable sight-rib extension mounted upon the receiver and formed with two longitudinal sighting-ridges respectively located substantially in line with the edges of the ventilated sight-rib.

11. In a single barrel take-down firearm, the combination with the receiver and the barrel thereof, the said parts being adapted to be manually put together and taken apart, of a ventilated sight-rib removably mounted upon the top of the said barrel, and an interchangeable sight-rib extension mounted upon the receiver and extending above the same into the plane of the said ventilated sight-rib with which it is arranged in line.

12. In a single barrel take-down firearm, the combination with the receiver and the barrel thereof, the said parts being adapted to be manually put together and taken apart, of a ventilated sight-rib removably applied to the top of the barrel, and an interchangeable sight-rib extension mounted upon the receiver and rising into the plane of the said ventilated sight-rib, the rear end of the ventilated sight-rib and the forward end of the sight-rib extension abutting substantially in the plane in which the breech-end of the barrel and the forward end of the receiver abut when the gun is assembled.

13. In a takedown firearm, a sight-rib rigidly attached to its barrel at a point between the ends thereof and having other attachments thereto permitting longitudinal relative motion; and a sight-rib extension mounted on the receiver of the said firearm, the said sight-rib extension being in alinement with the sight-rib when the arm is assembled.

14. In a firearm, a sight-rib attached to the barrel by a plurality of longitudinal dovetails distributed throughout the length of the barrel and by a pin and key fastening located between the ends of the barrel, in combination with a sight-rib extension attached to the receiver of the arm and formed with two upstanding longitudinal sighting-ridges.

15. In a firearm, a sight-rib having a plurality of standards on its under side, one of these standards, located between the ends of the barrel, having a slot for the reception of a key, in combination with a lug formed on the barrel, dovetailed longitudinally for engagement with the said standard and adapted to hold the said key against longitudinal motion relative to the barrel, and a sight-rib extension attached to the receiver of the arm, formed with a rearwardly broadening

and downwardly sloping rear portion and with two upstanding longitudinal sighting-ridges.

16. In a takedown firearm, a sight-rib rigidly attached to the top of the barrel thereof at one point only between the ends of the said barrel and having longitudinally slidable attachment relative to the said barrel at a plurality of points thereon, in combination with a sight-rib extension mounted on the receiver of the arm and having a rearwardly and downwardly sloping, broadened rear portion formed with two longitudinal sighting-ridges and alining with and abutting against the said sight-rib when the arm is assembled.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES E. BLIZARD.

Witnesses:
THOMAS C. JOHNSON,
DANIEL H. VEADER.