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Patented Oct. 29, 1901.

J. C. BROYLES.

CHOKE ATTACHMENT FOR GUN BARRELS.

(Application filed Jan. 4, 1901.)

(No Model.)

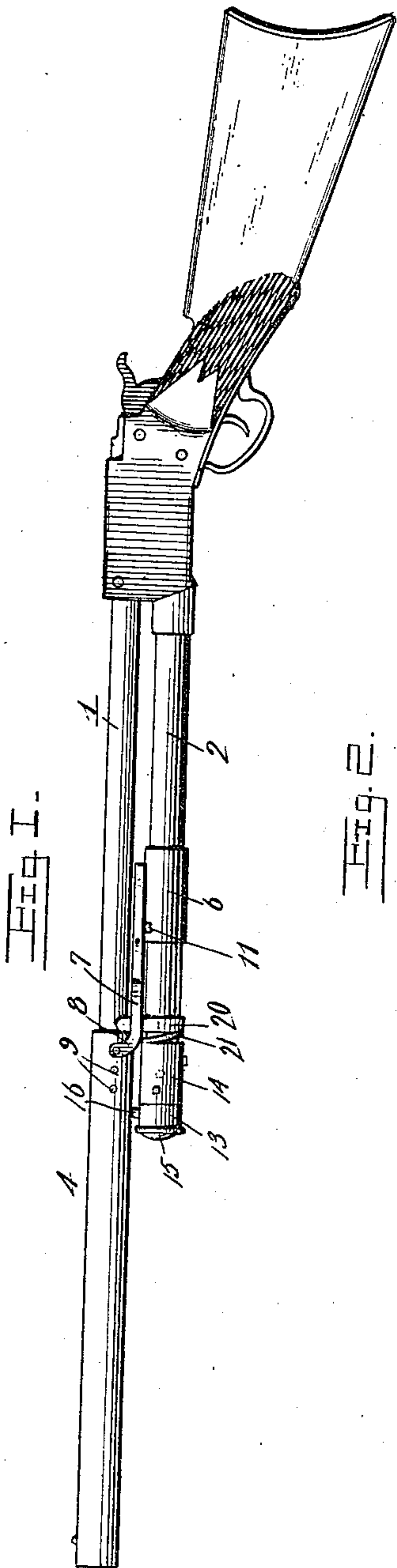


Fig. 1.

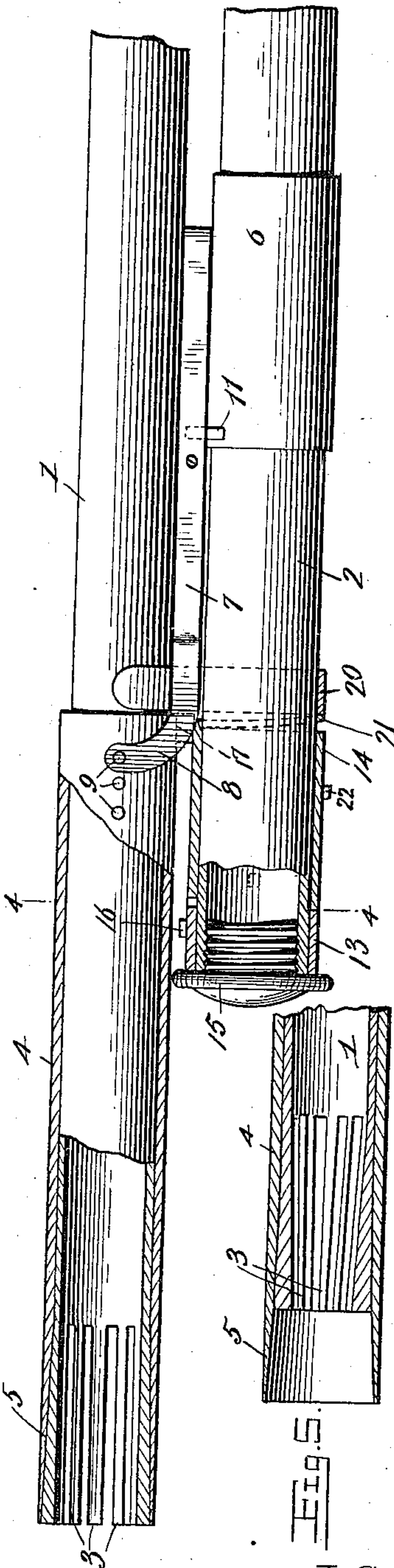


Fig. 2.

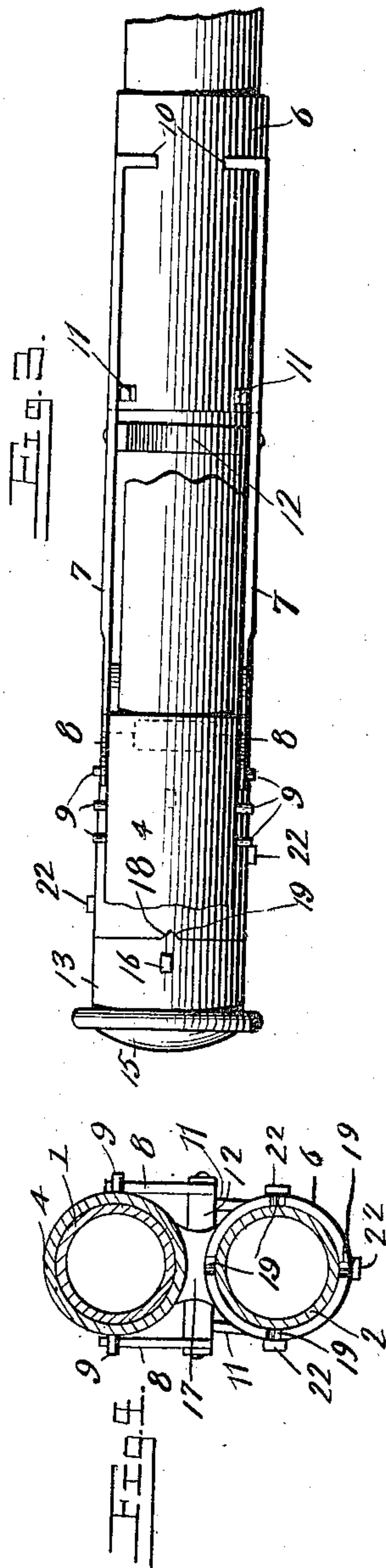


Fig. 3.

Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES C. BROYLES, OF COLUMBUS, MISSISSIPPI.

## CHOKE ATTACHMENT FOR GUN-BARRELS.

SPECIFICATION forming part of Letters Patent No. 685,669, dated October 29, 1901.

Application filed January 4, 1901. Serial No. 42,115. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. BROYLES, a citizen of the United States, residing at Columbus, in the county of Lowndes and State of Mississippi, have invented a new and useful Choke Attachment for Gun-Barrels, of which the following is a specification.

This invention relates to choke attachments for shotguns, and is particularly designed to improve the construction shown in my prior patent, No. 653,613, and dated July 10, 1900. It is furthermore designed to have the attachment adjustably controlled by the hand-operated loading and cocking slide mounted upon the magazine of a magazine-gun and to provide certain improvements in the mounting of the several parts, so as to limit the adjustment of the device for varying the degree of choke.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an elevation of a magazine-shotgun equipped with the present attachment. Fig. 2 is an enlarged detail sectional elevation of the muzzle end of the barrel and the attachment. Fig. 3 is a detail plan view, parts being broken away. Fig. 4 is a transverse sectional view taken on the line 4-4 of Fig. 2. Fig. 5 is a detail sectional view of the muzzle of the barrel, illustrating the limit of the choke thereof.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

To illustrate the application of the present form of choke attachment, I have shown in Fig. 1 of the drawings a magazine-shotgun having the usual barrel 1 and the tubular magazine 2 offset below and parallel with the barrel, the attachment being mounted partly upon the barrel and partly upon the magazine.

As best indicated in Figs. 2 and 5, the muzzle end of the gun-barrel is provided with a

plurality of longitudinal incisions or slots, thereby dividing the muzzle into a plurality of longitudinal spring-fingers 3. The exterior of the muzzle is flared or increased in diameter outwardly, thereby making the spring-fingers thickest at their outer free ends. As in my former patent, it is designed to draw inwardly the free ends of the fingers, so as to contract the bore of the muzzle, and thereby adjust or vary the choke thereof. To effect this result, I employ a sleeve or tube 4, which is slidable in opposite directions upon the muzzle of the gun-barrel and has its bore tapered outwardly, as indicated at 5, so that when the outer ends of the gun-barrel and the sleeve are even the spring-fingers occupy their normal outwardly-sprung positions, whereby the diameter of the bore of the barrel is constant throughout. To contract the muzzle of the barrel, the sleeve is slid forwardly, whereby the inclined or beveled faces of the sleeve and the spring-fingers force the latter inwardly, as indicated in Fig. 5, thereby choking the gun-barrel. When the barrel is choked, the sleeve is projected beyond the muzzle thereof, and as the inner diameter of the sleeve is greater than the outer diameter of the barrel the projected portion of the sleeve does not interfere with the outward passage of the shot when the gun is discharged.

For convenience in controlling the choking sleeve the latter is connected to the hand-operated slide 6 on the magazine, which is commonly employed for ejecting an exploded shell and replacing the same by a loaded shell from the magazine. In connecting the sleeve to the slide there are employed the opposite arms 7, which lie at opposite sides of the gun-barrel and opposite the interval between the barrel and the magazine. The forward ends of the arms 7 are bowed upwardly and reduced in thickness to form spring-jaws 8, which overlap the rear end portion of the sleeve 4 and are provided with perforations for the interchangeable reception of a series of lateral projections or studs 9 upon opposite sides of the sleeve. These spring-jaws are sprung or snapped into engagement with the studs, so as to be conveniently adjusted from one stud to another, thereby securing



an adjustable connection between the arms and the sleeve, which has the effect of adjusting the length of the sleeve or the throw thereof. The rear end of each arm is provided with a lateral inwardly-directed shoulder or projection 10, which extends inwardly into the interval or space between the gun-barrel and the magazine and is designed to engage the rear side of a stud or projection 11, carried by the slide 6, when the choke-sleeve is at its forward limit. When the slide is drawn rearwardly to recharge the gun, the choke-sleeve is also drawn rearwardly to return the muzzle of the gun-barrel to its normal open condition. The arms are connected by a cross-bar 12, extending between the gun-barrel and the magazine and located in advance of the forward limit of the slide 6, so as not to interfere with the manipulation thereof.

To adjustably limit the outward movement of the choke-sleeve there are provided two bands or cuffs 13 and 14, which are mounted upon the forward end of the tubular magazine. The outer and smaller band is held against accidental outward displacement by means of the usual flanged closure 15, for the outer open end of the magazine, and in fact may be a part thereof. A stop projection 16 is provided upon the exterior of the band 13 and is located between the same and the gun-barrel for engagement by a similar stop projection or shoulder 17, carried by the rear end of the choke-sleeve, whereby the outward movement of the latter is limited. Upon the rear edge of the band 13 there is provided a pointed stud 18, of substantially V shape, to fit a plurality of corresponding notches or recesses 19, formed in the adjacent edge of the inner band 14 for the purpose of adjustably fixing the rotatable inner band. To permit of the inner band being disengaged from the outer band, the former band has a slight longitudinal movement, which is limited by the clip 20, which connects the forward portion of the magazine to the gun-barrel. The rear end of the inner band has a portion thereof cut away and bent slightly outward, so as to form a spring 21, which bears against the clip 20, and thereby yieldingly holds the inner band in interlocked engagement with the outer band and permits of said inner band being slid inwardly and out of engagement with the other band in order that it may be adjustably rotated upon the magazine. This rotatably-adjustable band is provided with a plurality of external projections or studs 22, each of which may be brought into the path of the forward movement of the shoulder 17 on the choke-sleeve for the purpose of adjustably limiting the forward movement of said sleeve, and thereby adjusting the amount of choke to the gun-barrel by varying the inward drawing or contraction of the spring-fingers at the muzzle of the barrel. It will of course be understood that the studs

22 are disposed spirally about the band, and are also arranged at different distances from the ends of the band, while the lateral interval between adjacent studs is such as to permit of the passage of the shoulder 17 on the choke-sleeve. Moreover, the notches in the forward end of the band occupy a predetermined relation with respect to the corresponding studs, preferably aligned longitudinally therewith, as indicated in Fig. 4 of the drawings, so that each stud may be brought into proper relation for engagement by the shoulder on the choke-sleeve.

What is claimed is—

1. The combination with a gun-barrel having an exteriorly-smooth muzzle, which is provided with a plurality of longitudinal incisions, and a cocking and loading slide mounted at one side of the barrel, of an interiorly-smooth choke-sleeve slidable in opposite directions upon the muzzle of the barrel, and having a tapered bore, which increases in diameter outwardly, there being an operative connection between the choke-sleeve and the slide.
2. The combination with a gun-barrel having an exteriorly-smooth muzzle, which increases outwardly in external diameter, and is provided with a plurality of longitudinal incisions dividing the muzzle into a plurality of spring-fingers which increase in thickness outwardly, and a cocking and loading slide mounted at one side of the barrel, of an interiorly-smooth choke-sleeve slidable in opposite directions upon the muzzle, and having its bore tapered or flared outwardly to correspond to the increase in diameter of the muzzle of the gun-barrel, there being an operative connection between the choke-sleeve and the slide.
3. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a choke attachment slidably mounted upon the barrel, a hand-operated slide mounted upon the support, and an operative connection between the choke attachment and the slide.
4. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a slidable choke device mounted upon the barrel, a hand-operated slide upon the support, and an adjustable connection between the choke device and the slide.
5. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a choke device slidably mounted upon the barrel, a hand-operated slide mounted upon the support, and an operative connection between the slide and the choke device, comprising opposite members in connection with the slide, and having opposite perforate spring-jaws, the choke device having a longitudinal series of projections or studs with which the perforate spring-jaws are adapted to be adjustably engaged.
6. The combination with a gun-barrel, hav-



ing a longitudinal laterally-offset support, of a choke device slidably mounted upon the barrel, a hand-operated slide mounted upon the support, and an operative connection carried by the choke device and constructed for operative engagement with the slide only when the latter is moved rearwardly, said slide also being capable of a forward movement independently of the connection carried by the choke device.

7. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a choke device slidably mounted upon the barrel, a hand-operated slide upon the support, and having a lateral stud or projection, and a connection carried by the choke device, and arranged for engagement with the projection of the slide only during the rearward movement thereof.

8. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a choke attachment slidably mounted upon the barrel, and an adjustably-rotatable normally-locked and longitudinally elastically yieldable stop device mounted upon the support, and constructed to limit the slidable movement of the choke attachment.

9. The combination with a gun-barrel, having a longitudinal laterally-offset support, of a slidable choke device mounted upon the gun-barrel, and an adjustable stop to limit the movement of the choke device, comprising a longitudinally-yieldable and rotatably-adjustable band mounted upon the support, opposite stops for the band, the latter having a plurality of notches in one end, and also provided with a plurality of stop projections for engagement by the choke device, one of the stops for the band having an inwardly-directed projection for interchangeable engagement with the notches in the band, and a spring interposed between the opposite end of the band and the adjacent stop to hold the

notched end of the band in yieldable engagement with the projection.

10. The combination with a gun-barrel, having a longitudinal laterally-offset support, an attaching-clip between the support and the barrel, and a detachable flanged cap at the outer end of the support, of an adjustable choke device slidably mounted upon the barrel, and an adjustable stop to limit the movement of the choke device, comprising a removable band bearing against the flanged cap and having an inner end projection, a rotatably-adjustable and longitudinally-slidable band mounted upon the support and located between the first-mentioned band and the clip, the outer end of the adjustable band having a plurality of notches for the interchangeable reception of the projection, a plurality of radial stop projections upon the adjustable band and corresponding to the notches thereof, the inner end of the adjustable band having a portion cut away and bent outwardly forming a spring to bear against the clip and yieldingly hold the notched end of the adjustable band in detachable engagement with the projection of the other band.

11. The combination with a gun-barrel, having a longitudinal laterally-offset magazine, and a cocking and loading slide mounted upon said magazine, of a choke device slidably mounted upon the barrel and having an operative connection with the slide, and an adjustable stop mounted upon the magazine and constructed to limit the slidable movement of the choke device.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES C. BROYLES.

Witnesses:

JOHN HAWKINS,  
BERNARD H. CHERES.