

No. 746,619.

PATENTED DEC. 8, 1903.

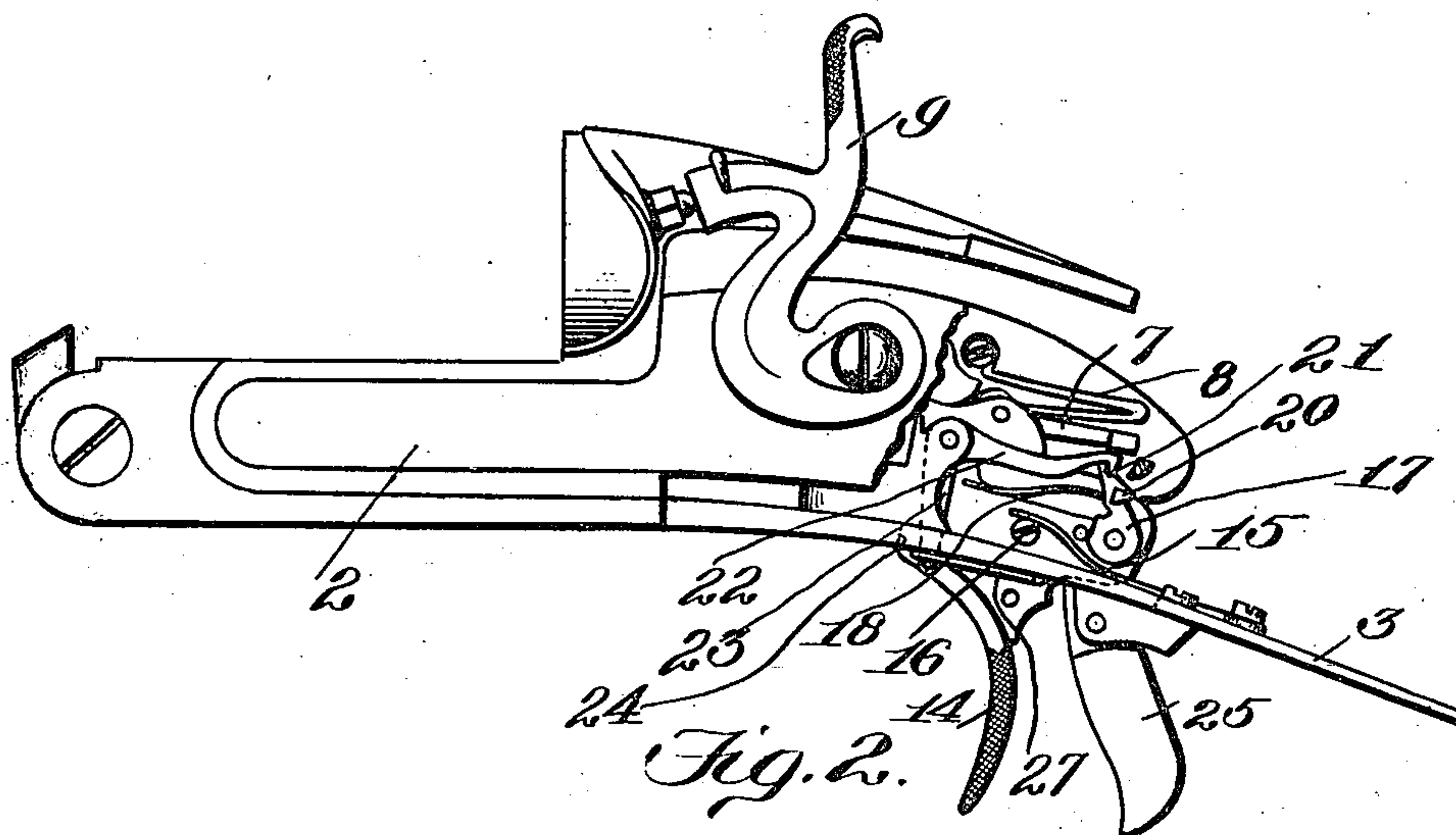
J. P. WHITE.  
SINGLE TRIGGER MECHANISM.

APPLICATION FILED MAY 2, 1903.

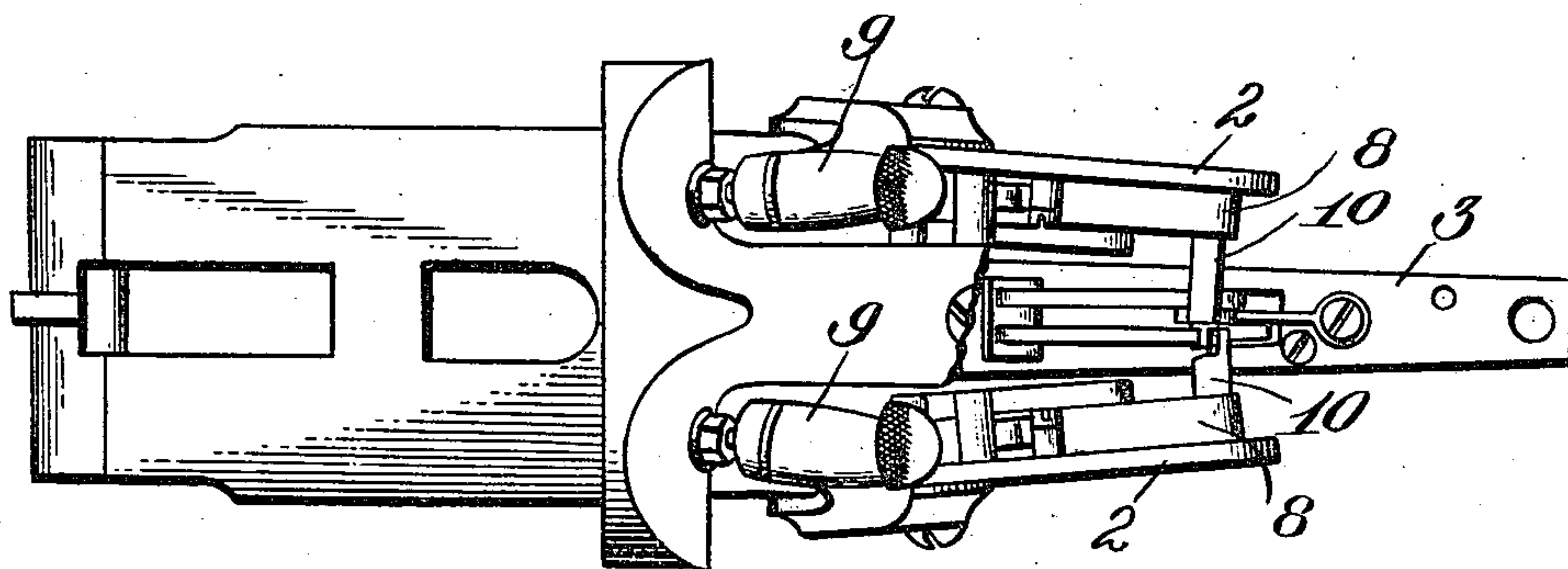
NO MODEL.

2 SHEETS—SHEET 1.

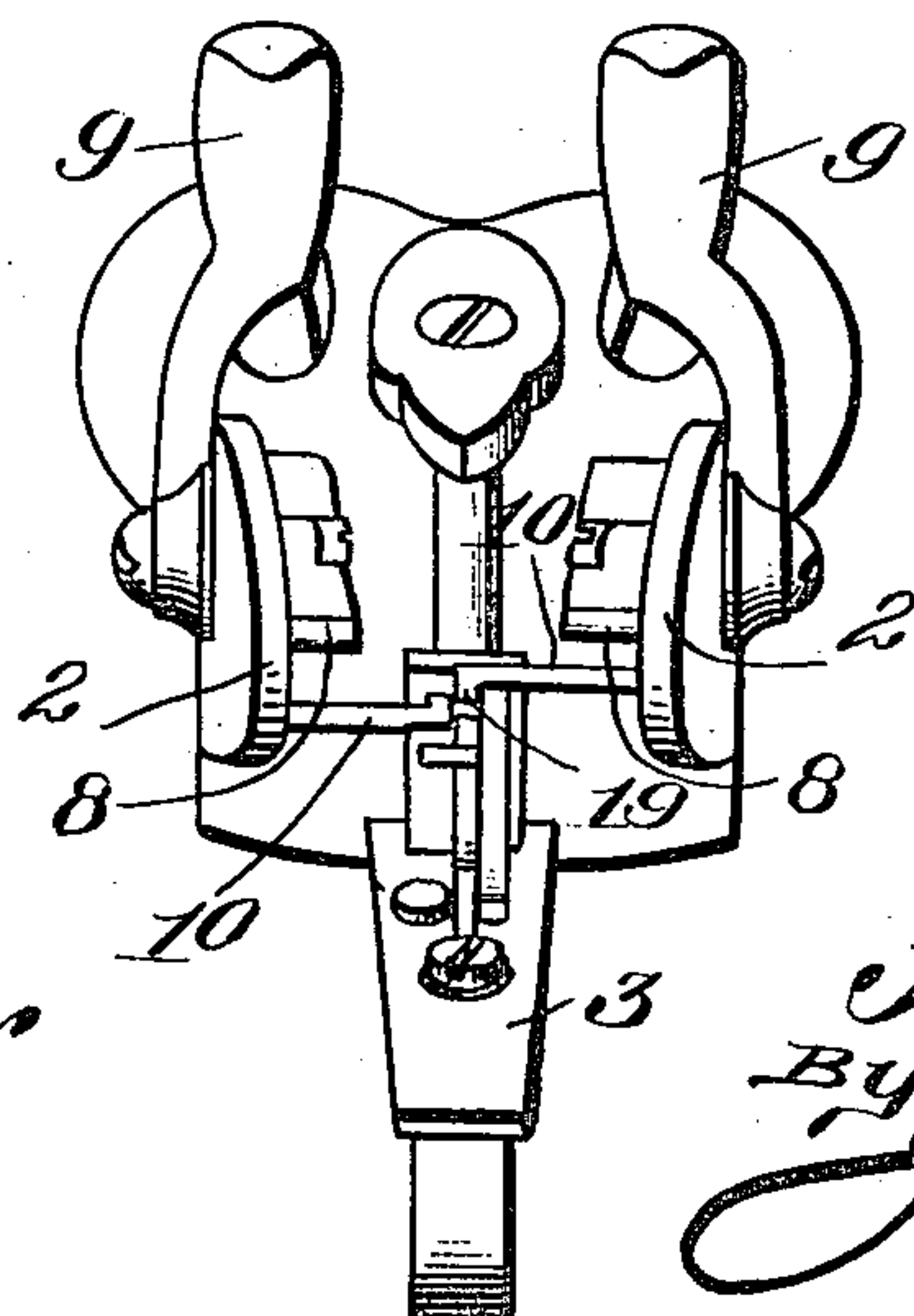
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:  
C. L. Kesler  
J. B. Keefe

Inventor  
Joseph P. White  
BY James L. Norris  
attys.

No. 746,619.

PATENTED DEC. 8, 1903.

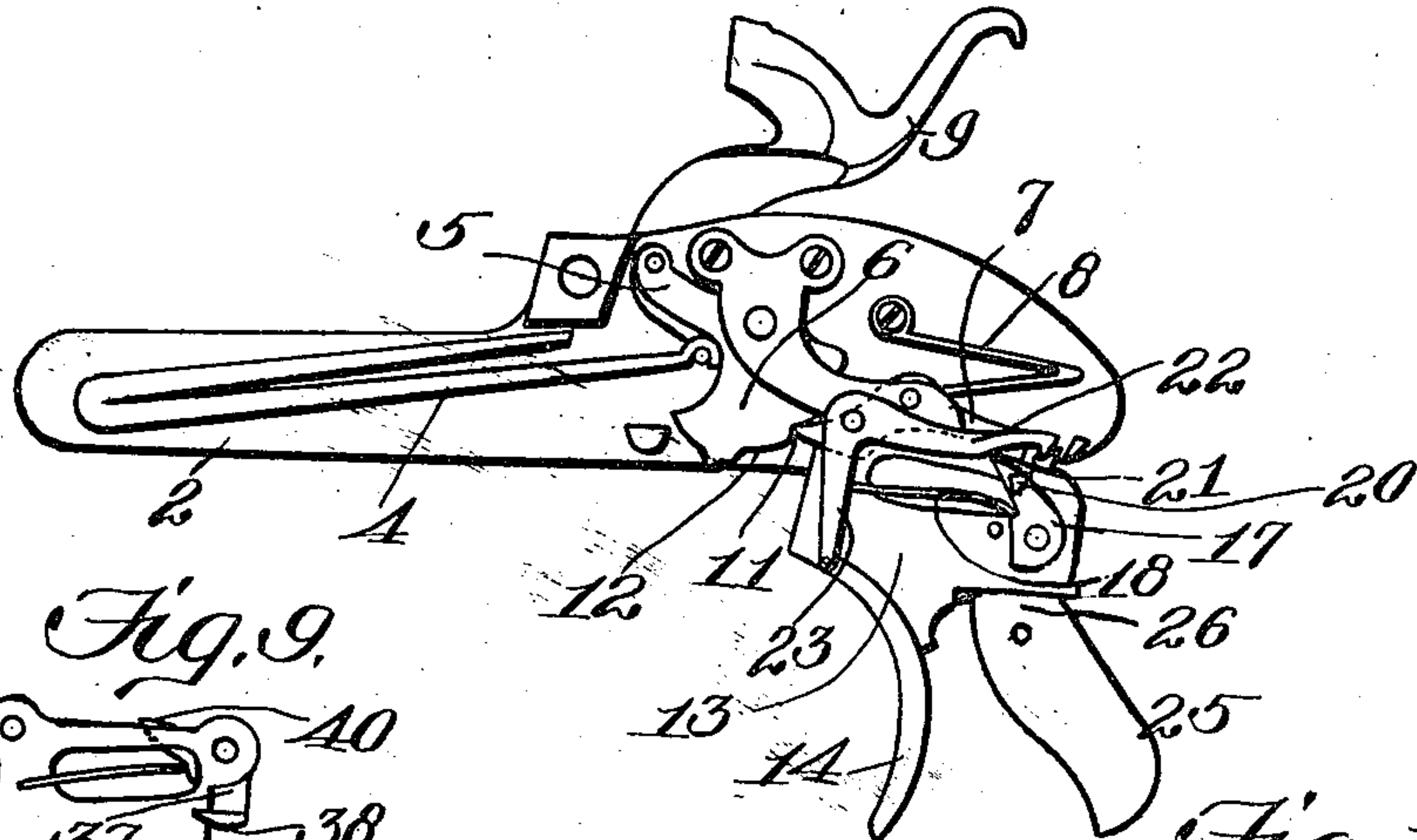
J. P. WHITE.  
SINGLE TRIGGER MECHANISM.

APPLICATION FILED MAY 2, 1903.

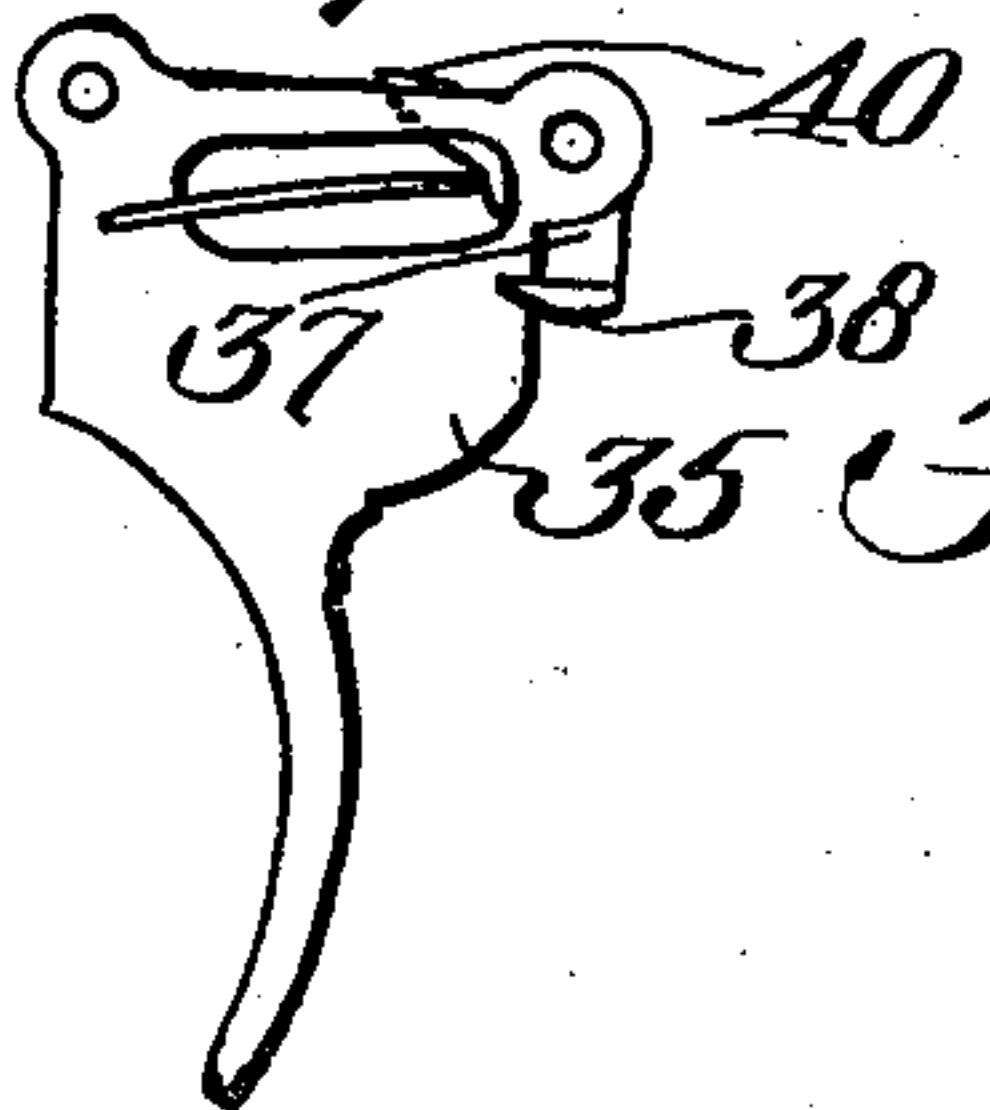
NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 4.*

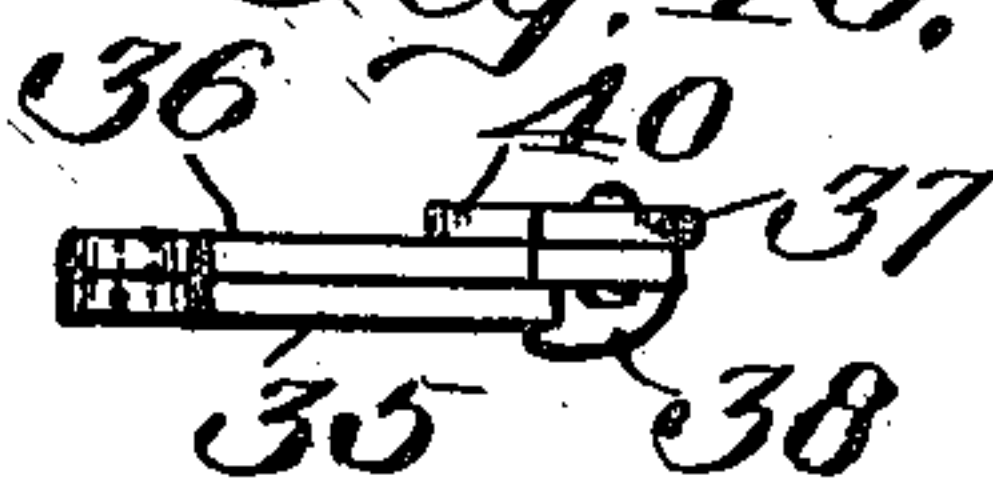


*Fig. 9.*

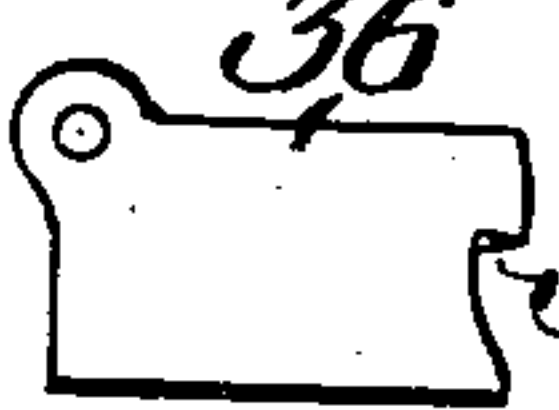


*Fig. 5.*

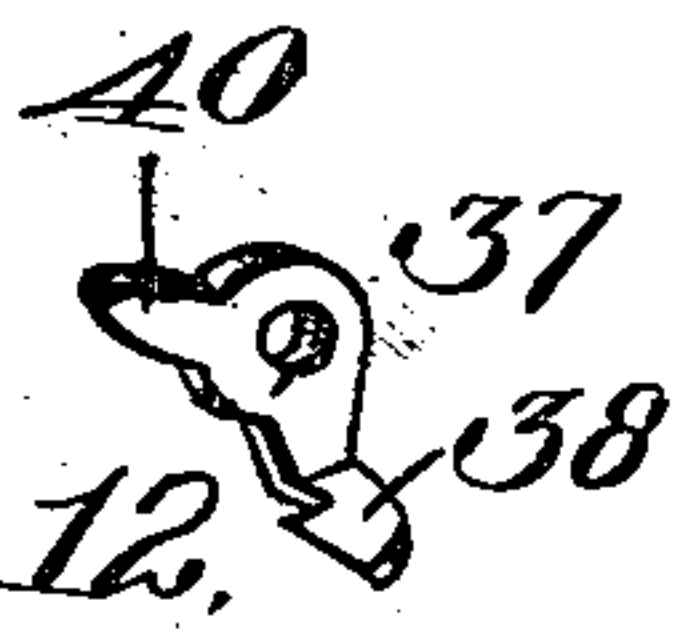
*Fig. 10.*



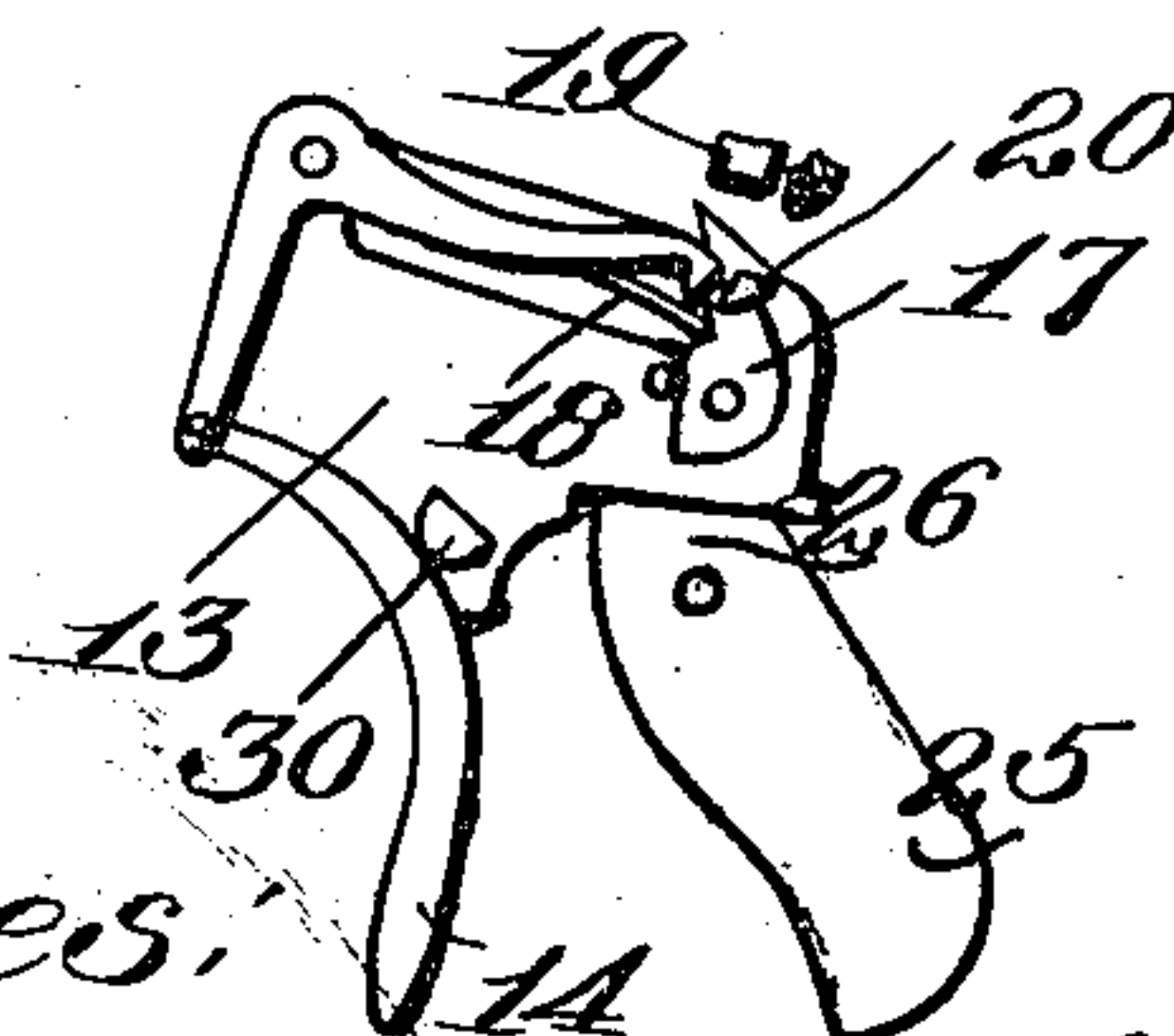
*Fig. 11.*



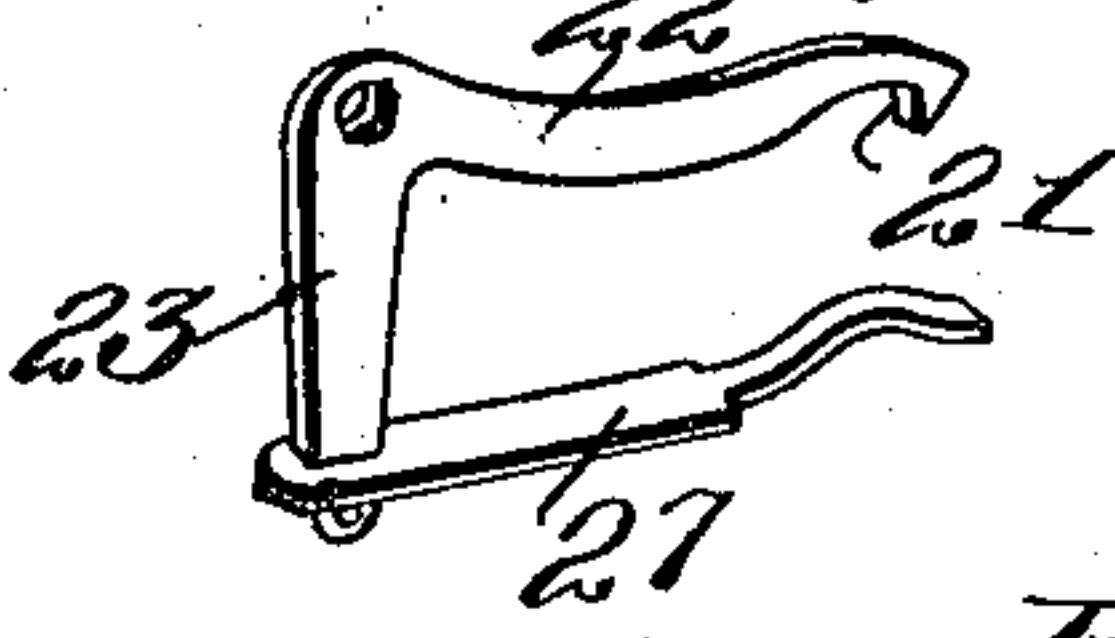
*Fig. 6.*



*Fig. 12.*



*Fig. 7.*



Witnesses:  
C. S. Kessler

*[Signature]*

Inventor  
Joseph P. White

By  
James L. Norris  
*[Signature]*  
att'y.



## UNITED STATES PATENT OFFICE.

JOSEPH P. WHITE, OF SAVANNAH, GEORGIA.

## SINGLE-TRIGGER MECHANISM.

SPECIFICATION forming part of Letters Patent No. 746,619, dated December 8, 1903.

Application filed May 2, 1903. Serial No. 155,346. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH P. WHITE, a citizen of the United States, residing at Savannah, in the county of Chatham and State of Georgia, have invented new and useful Improvements in Single-Trigger Double-Barreled Guns, of which the following is a specification.

This invention relates to a single-trigger double-barreled gun; and the objects of the invention are to provide an effective, light, and inexpensive article of this character having means for preventing the discharge of the second barrel after the discharge of the first one.

The improvements are of such a character that they may be readily incorporated in double-barreled guns of the ordinary kind without any material changes in the structure thereof.

While I have termed the invention a "single-trigger double-barreled gun," some of the features of such invention may be used with advantage in other types of guns.

The invention is illustrated in one simple embodiment thereof in the accompanying drawings, forming a part of this specification, with a hammer-gun; but of course it is not limited in this respect, nor is it limited to the arrangement and exact construction of the parts set forth in the following description, for many variations as to these points may be adopted within the scope of my claims.

In said drawings, Figure 1 is a side elevation of a portion of a gun including my invention with a portion of the left lock-plate broken away to illustrate the interior mechanism of said gun. Figs. 2 and 3 are respectively top plan and rear views of the improved gun. Fig. 4 is an inside elevation of the right lock-plate, its hammer, and certain coacting parts, such hammer being shown cocked. Fig. 5 is a like view showing the hammer down. Fig. 6 is a detail view in elevation of the trigger mechanism and illustrates the fly which actuates the secondary sear as locked against shifting movement. Fig. 7 is a detail view in perspective of the detent which coöperates with said fly and its arm and controlling-spring. Fig. 8 is a similar view of said fly. Fig. 9 is a side elevation of a modified form of trigger mechanism. Fig. 10 is a plan view of the same. Figs. 11

and 12 are detail views of the left blade and fly constituting a part of said modified arrangement.

Like characters of reference indicate corresponding parts in each of the figures of the drawings.

In the drawings I have shown the breech mechanism of a double-barreled gun involving my invention, such breech mechanism including in its organization the two lock-plates (each denoted by 2) and the trigger-plate 3, which are mounted, constructed, and related in a manner familiar in this field. Each lock-plate is provided with a main-spring 4, bridle 5, tumbler 6, sear 7, and sear-spring 8, these parts also being mounted and related to each other in a familiar way. The tumblers 6 of course are connected with the firing devices or hammers 9, respectively, mounted upon the outside of the respective lock-plates and coöperating with the ordinary firing-pins. Of course in a hammerless gun the relation of the parts would not be the same as that described; but, as previously indicated, the invention is not limited in its use to a hammer-gun.

The outer ends of the sears 7 have inwardly-projecting arms 10, adapted to be engaged by the trigger mechanism in order to successively operate the sears to effect release of the hammers and consequent discharge of the barrels.

The parts are so arranged that the right barrel is initially fired, means being provided, as will hereinafter appear, to prevent the reaction of the trigger upon the discharge of the initial barrel, whereby the second barrel cannot be accidentally discharged by the recoil due to the discharge of the first barrel. From the foregoing it will be evident that the gun therefore includes primary and secondary locks, each having a tumbler and a sear, trigger mechanism being provided for operating the sears in sequence, such trigger mechanism being of a peculiar character and constituting one of the important features of the present invention.

In order that the arms 10, extending inward from the respective sears, may after firing be lifted clear of the trigger mechanism, the respective tumblers 6, just below the cocking-notches 11 therein, are provided with cam-faces 12, which as the hammers are re-



leased ride against the forward ends of the sears, thereby to raise said arms. This is important, as after the first barrel is discharged the sear coöperative therewith is raised clear of the trigger-blade, so as not to interfere with the firing of the second barrel, by reason of which the pull upon the trigger to discharge each barrel is the same.

The trigger consists of a blade 13 and a finger-piece 14, depending therefrom, the blade being suitably pivotally carried upon the upper side of the trigger-plate 3. The trigger-spring is denoted by 15, it being fastened to the upper side of the plate 3 well to the rear of the pivotal point of the blade 13 and its free end being adapted to engage the cam-head of a screw 16, tapped into the left face of the blade. By turning the cam-headed screw into or out of the blade, the working surface of which engages the free end of the spring 15, the tension of said spring may be regulated in order to adjust the pull of the trigger.

In Fig. 1 the trigger is shown as in its forward or normal position and both hammers down. As the right hammer is cocked the cam-face 12 on the coöperating tumbler 6 will ride against the inner free end of the sear 7, the arm 10 at the outer end of the sear being lowered into contact with the trigger-blade by the usual sear-spring, the two parts being caused to engage at about the time the inner end or toe of the sear enters the cocking-notch 11 of the right or primary locking mechanism. By pulling upon the finger-piece 14 of the trigger the blade thereof will be thrust upward, thereby moving the right or primary sear-arm 10 in a corresponding direction and throwing the point or toe of the sear out of the cocking-notch 11, releasing the primary tumbler and the corresponding hammer 9, which is operated by its spring.

The primary sear 7 is operated directly by the trigger-blade, the secondary sear being actuated by what I term a "fly," pivotally mounted upon the trigger-blade in proximity to the primary-sear-engaging portion thereof, said primary sear being adapted to throw the spring-actuated fly or pawl to an inoperative or ineffective position as the primary hammer is cocked, said fly being maintained in such position temporarily by a detent, as will hereinafter appear. The spring-actuated fly is denoted by 17, it being held in a normal or working position by the leaf-spring 18, suitably fastened at one end in a slot in the trigger-blade and the free end of the spring bearing against the upper end of the fly. The free end of the primary sear-arm 10 is provided with the depending fly-engaging portion 19, which, it will be seen, is above the head of the fly, it being understood from this that the said primary sear-arm 10 extends across the trigger-blade. As the primary hammer 9 is cocked in the manner hereinbefore described the primary sear-arm 10 is lowered into contact with the trigger-blade

13, and as the said arm 10 is lowered the depending fly-engaging portion 19 on said arm strikes the upper end or head of the fly 17, thereby throwing the upper spring-actuated portion of the fly forward, it being seen that the fly is pivoted below the point at which the spring 18 engages the same, thereby carrying the beveled lug 20 upon the said fly under the notch 21 at the free end of the detent 22, pivoted upon a lug upon the upper side of the trigger-plate 3 and having a depending right-angular arm 23 extending through the inner end of a longitudinal slot 24 in the trigger-plate. The function of the arm 23 will hereinafter appear. The beveled lug 20 upon the fly 17 is adapted to engage the arm 10 of the secondary sear, it being seen that the inner end of said secondary arm is slightly cut away, so as not to interfere with the proper action of the detent 22. As the primary hammer 9 is cocked the projecting depending portion 19 upon the primary sear-arm 10 engages the upper end of the spring-actuated fly 17, so as to swing the upper portion of the fly forward in order to bring the lug 20 under the notch 21 of the detent 22, said lug being carried from under the inwardly-projecting secondary sear-arm 10. The secondary hammer is then cocked. When the finger-piece 14 of the trigger is pulled, the rear portion of the trigger-blade 13 will be elevated, so as to engage the primary sear-arm 10, and thereby lift the outer end of the primary sear-arm in order to release the primary hammer, the blade as it is elevated carrying the lug 20 of the fly into the detent-notch 22 in order to positively hold the fly in its ineffective position. Immediately on the firing of the primary barrel of the gun the recoil-operated means is brought into action for locking the trigger against reaction, as in case it immediately returns to its initial position the accidental operation of the secondary hammer might follow. Such means will now be described.

Pivoted upon the under side of the trigger-plate 3 is a swinging recoil-operated block or check 25, having at its upper end a nose 26, which projects through a slot in said plate and coöperates with the trigger-blade 13. This nose 26 is located a short distance forward of the axis of motion of the block or check 25. The latter is represented, for example, in Fig. 1 as occupying its normal position, at which time the nose is engaged by the under side of the blade 13 (see Fig. 4) to hold the block in the angular position represented in said figure. As the trigger-blade 13 is operated to effect the discharge of the primary barrel under the action of the finger-piece 14 it frees the nose 26. The instant the right or primary barrel is discharged the recoil resulting therefrom throws the block 25 to a perpendicular position, bringing the nose 26 under and in solid engagement with the trigger-blade 13, then in its extreme backward position, as indicated in Fig. 5, so as



to retard or check the immediate return movement of the trigger-blade. This checking of the trigger-blade is only momentary, but during the same the finger of the user 5 can engage the finger-piece to hold back the trigger-blade. When the finger-piece is released by the user taking his finger therefrom, the blade will be also released to permit the spring 15 to return said blade to its 10 original position, as shown in Figs. 1 and 4, to effect subsequently the discharge of the second barrel. The said blade as it is returned to such original position by its spring acts against the nose 26 of the block or check 25 15 to return the latter to its primary position, as also represented by said two figures. As the said parts return to their primary positions, the blade 13 of course being lowered, the lug 20 of the fly will consequently be carried out 20 of the notch 21, and the instant said lug leaves the notch the spring 18 of the fly throws the upper end thereof rearward, carrying the lug under the secondary sear-arm 10, a suitable stop upon the trigger-blade holding the 25 fly in its working position with the lug under the secondary sear-arm. When the finger-piece 14 is pulled, the blade 13 will be elevated, so as to move the lug 20 against the secondary sear-arm 10 in order to elevate the 30 rear end of the secondary sear, and thereby release the secondary firing mechanism.

The free end of the detent 22 may be thrown down against the inner side of the lug 20 in case it is desired to use simply one barrel, 35 as will now appear. It will be remembered that the detent 22 is pivotally mounted and that it has a depending arm 23 projecting through the longitudinal slot 24 of the trigger-plate. A leaf-spring 27 is suitably connected to the lower end of this depending arm, 40 and the free end of the spring is bowed and extends through the said slot 24 and bears against the upper side of the trigger-plate, the spring serving to maintain the detent in 45 its two positions. When the two hammers are down and the other parts are in their normal position, the lower end of the arm 23, when it is desired to use simply the left barrel of the gun, will be moved forward—say by 50 a thumb—so as to lower the notched end of the detent 22 and carry the same into engagement, or approximately so, with the inner face of the lug 20 on the fly, thereby positively locking the fly in its secondary hammer-operating position. When the fly is 55 locked in such position, the primary hammer cannot be cocked, for the primary sear-arm 10 cannot be lowered sufficiently to enable the primary hammer to be cocked, for just 60 before the full motion is completed the depending fly-engaging portion 19 of the primary sear-arm will strike the head of the fly, which at this time is locked in its secondary hammer-operating position in order to prevent the full or cocking movement of the 65 primary hammer. The secondary hammer, however, may be freely cocked in order to bring

the secondary sear-arm 10 over the lug 20. When, therefore, after the secondary hammer has been cocked the finger-piece 14 is 70 pulled, the lug will engage and lift the secondary sear-arm 10 to effect the release of the secondary hammer and consequent discharge of the left barrel of the gun.

I provide means for adjusting the pull or 75 movement of the trigger, and the means shown for this purpose will now be set forth. Referring more particularly to Fig. 5, the trigger-blade 13 is shown provided with a screw 30, tapped therein, the head of the screw being 80 cam-shaped and being adapted to engage the fixed trigger-plate 3 to thereby adjust the length of pull of the trigger.

The foregoing description relates particularly to the organization illustrated in full by 85 Figs. 1 to 8, inclusive. In Figs. 9 to 12, inclusive, I illustrate a modified trigger mechanism which I will now describe. The right blade (there being two blades forming part of the modified mechanism) is denoted by 35 90 and the left one by 36, the right blade having the usual finger-piece. Upon one side of the right blade is a pivotally-mounted spring-actuated fly 37, having at its lower end a lug 38, adapted under certain conditions to be 95 thrown into a notch 39 in the rear face of the left blade 36, which latter is movable freely upon the arbor of the right trigger-blade. The said fly has at its upper end a lug 40, co-operative with the primary sear-arm 10, it 100 being understood that the sears and the other mechanism are the same as that hereinbefore described, the only change being in the trigger mechanism. When the right trigger is 105 cocked, the primary sear-arm 10 will engage the upper lug 40 of the spring-actuated fly 37, and will thereby throw the lower lug 38 out of the notch 39 in the left blade, so that the two blades are thereby uncoupled. The 110 secondary hammer is then cocked. Then by pulling upon the finger-piece of the right blade 35 said blade operates the primary sear in order to release the primary trigger, and as soon as the right blade returns to its initial position the lower lug 38 will be thrown 115 into the notch 39 of the left blade by the power of the spring of the fly, so that the right and left blades are thereby positively coupled. When, therefore, the finger-piece is pulled, the left blade 36 will be carried up- 120 ward in order to operate the secondary sear to effect the release of the secondary hammer.

It will be evident that in both cases the gun includes primary and secondary locks each having a tumbler and a sear, a trigger 125 for operating the primary sear, means for operating the secondary sear, including a shift-able fly connected with said trigger, said primary sear serving to throw the fly into an ineffective position on one of its movements. 130

Having thus described the invention, what I claim is—

1. A gun including primary and secondary locks each having a tumbler and a sear, a



trigger for operating the primary sear, a shift-  
able fly carried by the trigger for operating  
the secondary sear, the primary sear serving  
to shift the fly into an ineffective position as  
it is moved toward its operative position, and  
means for holding the fly in its ineffective po-  
sition after the operation of the primary sear  
by the trigger.

2. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear, a  
spring-actuated fly on the trigger for operat-  
ing the secondary sear, the primary sear serv-  
ing to shift the fly into an ineffective posi-  
tion as it is moved toward its operative po-  
sition, and means for holding the fly in its  
ineffective position after the operation of the  
primary sear by the trigger.

3. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear and  
one of the tumblers having a cam-face for  
operating the sear when said tumbler is re-  
leased, to positively carry the sear clear of  
the trigger, a shiftable fly on the trigger for  
operating the secondary sear, the primary  
sear serving to shift the fly to an ineffective  
position as it is moved toward its operative  
position, and means for holding the fly in its  
ineffective position after the operation of the  
primary sear by the primary trigger.

4. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger having a blade for actuating the pri-  
mary sear, a spring-actuated fly shiftable  
mounted on said blade, for operating the sec-  
ondary sear, the primary sear serving to shift  
the fly into an ineffective position as it is  
moved toward its operative position, a detent  
supported independently of the blade for hold-  
ing the fly in its ineffective position as the  
blade is operated to actuate the primary sear,  
and a recoil-operated block for locking the  
trigger-blade against retraction after the said  
blade has actuated the primary sear.

5. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger having a blade for actuating the pri-  
mary sear, a spring-actuated fly shiftable  
mounted on said blade, for operating the sec-  
ondary sear, the primary sear serving to shift  
the fly into an ineffective position as it is  
moved toward its operative position, a detent  
supported independently of the blade for hold-  
ing the fly in its ineffective position as the  
blade is operated to actuate the primary sear,  
and a pivotally-mounted block, recoil-oper-  
ated, provided with a nose for engaging un-  
der the trigger-blade after the operation of  
the primary sear by the trigger, to hold said  
blade against retraction.

6. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear, a piv-  
oted secondary-sear-operating fly upon the  
trigger, the primary sear serving, as it is  
moved toward its operative position, to shift

said fly into an ineffective position, a detent  
supported independently of the trigger for  
holding the fly in its ineffective position after  
the trigger has been operated to effect the re-  
lease of the primary sear, and recoil-oper-  
ated means movable into working position  
to hold the blade against retraction after re-  
lease of the primary sear.

7. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear, a sec-  
ondary-sear-operating fly shiftable supported  
by the trigger, said fly being shiftable into  
ineffective position by the primary sear as  
the latter is moved toward its operative po-  
sition, a notched detent supported independ-  
ently of the trigger, the fly being provided  
with a lug to enter said notch as the trigger  
is operated to release the primary sear, and  
recoil-operated means for holding the trigger  
against retraction after the release of the pri-  
mary sear.

8. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear, a fly  
shiftable carried by the trigger for operating  
the secondary sear, the primary sear serving  
to shift the fly into an ineffective position as  
it is moved toward its operative position, and  
means for locking the fly in its effective po-  
sition thereby to prevent the normal action  
of the primary sear.

9. A gun including primary and secondary  
locks each having a tumbler and a sear, a  
trigger for operating the primary sear, a  
spring-actuated fly carried by the trigger and  
provided with a lug for operating the second-  
ary sear, a pivotally-mounted detent sup-  
ported independently of the trigger, having  
a notch for engaging said lug and also hav-  
ing a spring-controlled arm, said detent be-  
ing shiftable into position to hold the fly in  
its effective position, and recoil-operated  
means coöperative with the trigger for lock-  
ing the same against retraction after the re-  
lease of the primary sear.

10. A gun including a lock provided with  
a tumbler and a sear, a trigger for operating  
the sear, and a screw upon the trigger hav-  
ing a cam-head to engage a fixed part of the  
gun to thereby adjust the length of the pull  
of the trigger.

11. A gun including primary and second-  
ary locks each having a tumbler and a sear,  
a trigger for operating the primary sear,  
means for operating the secondary sear, in-  
cluding a shiftable fly connected with said  
trigger, said primary sear serving to throw  
the fly into an ineffective position on one of  
its movements.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

JOSEPH P. WHITE.

Witnesses:

ALLAN SWEOE,  
E. S. ABRAHAM.