This invention relates to guns, and more particularly to double barrel guns of the shotgun type.

Double barrel shotguns have been provided with both one and two triggers, that is to say, certain of the guns have been provided with separate triggers for each barrel, while other guns have had a single trigger which requires releasing a second and a pull of the trigger to fire each barrel. In such guns the right barrel ordinarily fires first, and upon the second pull of the trigger the left barrel fires. Certain improvements on this mechanism have been made in order to allow the shooter to select which barrel he will fire, and various mechanisms for the selection of the barrel to be fired have been devised. Most of the selective one-trigger guns have been objectionable because of balking and doubling, that is to say, when the trigger was pulled the second time in order to fire the second barrel, the gun would not fire and is said to “balk.” In a one-trigger gun the firing finger is always on the trigger and the rebound of the gun from the shoulder drives the trigger against the finger. This often causes the second barrel to explode and is what is known as “double.”

A great many shooters, especially when hunting, like to carry two different types of load in their gun for use on different types of target. A selective gun—that is, one in which the shooter can select which barrel to fire—is therefore most desirable.

An object of this invention is to provide a selective one-trigger mechanism in which the shooter can select which barrel will fire first and in which balking and doubling will be eliminated.

A further object is to provide a gun with a better safety mechanism.

A still further object is to provide a mechanism which is simple in its construction, has few working parts, and will not be affected by wear or shock.

In the accompanying drawings—

Fig. 1 is a sectional view of a shotgun breech frame partly cut away to show the construction; Fig. 2 is a cross-sectional view taken on the line 2–2 of Fig. 1;

Fig. 3 is a sectional view showing the mechanism in cocked position;

Fig. 4 is a sectional view showing the mechanism as the left-hand barrel is fired while the right hammer is still cocked;

Fig. 5 is a sectional view showing the right side of the mechanism in position after the left barrel has been fired and while the right hammer is still cocked;

Fig. 6 is a detailed view of a sear trip block;

Fig. 7 is a perspective view of the trigger.

Referring particularly to the drawings—

Fig. 1 shows the conventional double barrel shotgun frame 10 provided with hammers 11 and 12. In Fig. 1 the left-hand hammer 11 is shown as having been fired while the right-hand hammer 12 is in cocked position. In Fig. 2 it will be noted that the firing pin 13 of the hammer 11 protrudes through the breech block. The hammers 11 and 12 are operated by sears 14 and 15. In the cocked position the end 16 of the sear 14 engages the shoulder 17 to hold the hammer 12 back. The sears are pivoted at 18 and when the rear end 19 of the sear 14 is raised the forward end 16 disengages the shoulder 17 and allows the hammer 12 to be pressed forward under pressure of the hammer spring 20, thus firing the shell.

In my mechanism I provide a conventional trigger 21 which includes an upwardly extending blade 22. In the trigger 22 is an opening 23 adapted to receive a spring 24 which is held in place by a pin 25. The spring 24 engages the trigger 23 and the frame 10 to normally hold the trigger in a downward and forward position. The trigger 22 is pivoted at its forward end in the customary manner to the frame at 32 so that pressure upon the trigger will move the trigger upwardly pivoting it at 32.

The blade 22 of the trigger 21 is provided with pins which may be in the nature of screws 26 and 27. The pins 26 and 27 are adapted to engage slots 28 and 29 in the sear trip block 30. The sear trip block 30 is mounted on the trigger 21 and fits into a recess 31 therein.

Extending through the frame 10 alongside of the trigger 21 is a selective latch 33 which is mounted in a groove 34. On the latch 33 is a spring member 35 with a depressed portion 36 and an upwardly extending portion 37. The spring member 35 rides over a pin or screw 38 and holds the latch 33 in an adjustable position.

When the latch 33 is in the forward position, the upwardly extending portion 37 of the spring 35 rests on the pin 38. When the latch 33 is moved to a rearward portion, pressure is exerted on the spring 35 in view of the depressed portion of the latch 33, and when the latch 33 is moved all the way to the rearward position the depressed portion 36 has ridden over the pin 38 and is to the rear of the pin 38.

Mounted in the latch 33 is a spring 39 which we
will refer to as the trip block spring. The spring 39 communicates with the vertical channel 45 in the sear trip block and controls the movement of the sear trip block 30. Accordingly when the latch 33 is moved to a forward position, the spring 39 will cause the sear trip block 30 to move on the pins 26 and 27 to a forward position, and likewise when the latch 33 is moved to a rearward position the sear trip block 30 will likewise be moved to a rearward position. The spring 39 is a yielding spring and allows a certain amount of lateral motion in the sear trip block without a corresponding lateral motion in the selective latch 33.

When the left barrel of the gun is to be fired first the selective latch 33 is moved into a forward position, as shown in Fig. 1, Fig. 3 and Fig. 5. The hammer is released when the trigger is pulled by upward pressure on the contact elbow 41 of the sear 14 by the shoulder 43 of the sear trip block 30. When the gun is cocked for fire of the left barrel first, the rear of the contact elbow 41 of the sear 14 exerts pressure on the cam surface 44 of the sear trip block 30 and causes it to move rearwardly against the spring 39 so that the contact elbow 42 of the sear 15 registers with the channel 45 of the sear trip block 30 and the sear 15 is not affected by the raising of the trigger and the sear trip block 30 when the trigger 21 is pulled. As soon as the left barrel is fired, the pressure exerted on the cam surface 44 by the contact elbow 41 is released and the spring 39 moves the sear trip block 30 into the full forward position so that a second pull of the trigger will cause the shoulder 46 of the sear trip block 30 to exert pressure on the contact elbow 42 of the sear 15 to release the right hammer.

When it is desired to fire the right barrel first the selective latch 33 is moved to a rearward position. Pressure on the inside 47 of the contact elbow 42 will then be exerted against the cam surface 48 of the sear trip block 30 to move the sear trip block slightly forward against the spring 39 so that the contact elbow 42 will register with the shoulder 49 and the contact elbow 41 of the sear 14 will register with the channel 40. When the trigger is pulled, the pressure exerted by the shoulder 49 against the contact elbow 42 will fire the right barrel. The pressure will release the pressure exerted by the inside 47 of the contact elbow 42 against the cam surface 48 and allow the sear trip block to move to a full rearward position. This will cause the shoulder 50 to register with the channel 40 and upon a second pull of the trigger the left-hand barrel will be fired. The sears 14 and 15 are provided with the customary sear springs 51 which exert a downward pressure upon the rear of the sears 14 and 15 when the hammers are cocked.

My improved mechanism is provided with the customary breech lever 52 and the safety thumb piece 53. The operation of the breech lever 52 will cause the rod 54 to move rearwardly against the depending pins 55 of the safety thumb piece 53 to place the safety thumb piece in a rearward or safe position. Between the depending pins 55 is an elbow 56 pivoted to the bottom of the frame at 57 so that the rearward movement of the safety thumb piece 53 will cause the elbow 56 to pivot at 57 and the end thereof 58 will be raised. This will cause the forward motion of the spur 59. The spur 59 is pivoted at 60 and is provided with a pin 61. The rear end of the blade 22 of the trigger 21 is extended behind the trigger 21 and when the spur 59 is moved forward by the action of the elbow 56 the pin 61 will lock over the corner 62 of the blade 22, thus militating against the upward movement of the trigger 21 and making it impossible to fire the gun.

The lower portion of the rear end of the blade 22 has a concave surface 63 terminating in a hook 64. Pivot void below the hook 64 at 65 is a weight 66 normally held in a rearward position by the spring 67 which I have shown fastened to the elbow 56 at 68 but which may be of any suitable construction. The weight 66 is provided with a serrated surface 69 adapted to engage the hook 64 of the blade 22. When the gun is fired the recoil will cause the pivoted weight 66 to move forwardly and under the blade 22 of the trigger 21 against the spring 67, as shown in Fig. 4. This will prevent doubling or unintentional firing of the second barrel. A slight pressure on the trigger will remove the hook 64 from the serrated surface 69 and the spring 67 will return the pivoted weight to its normal position, as shown in Fig. 1.

It will be seen that in use the shooter has the option of operating with only one barrel or both. He may elect which barrel he desires to fire first by a slight movement of the selective latch by which he pleases. The operation of cocking the gun the safety is put on and the spur 59 with its pin 61 prevents any accidental firing. The operation of the pivoted weight 66 with its serrated contact surface 69 prevents any accidental doubling since the sear trip block is held in the proper position by the contact elbows of the sears until the trigger is allowed to return to the forward position when the sear trip block will move to proper position for the second firing.

While in the drawings I have shown a number of parts not specifically described in this specification, it will be understood that these parts are conventional and are only shown for the purpose of showing the relationship between them and my improvement.

I claim:

1. In a double barrel shotgun having two sears, a trigger mechanism comprising a trigger, and a sear trip block slidably mounted on said trigger, means for yieldingly holding said sear trip block in selective position, said sear trip block being provided with cam surfaces, channels and contact shoulders, whereby the cocking of the gun causes one of said sears to exert pressure against one of said cam surfaces to move said sear trip block against said spring means placing one of said shoulders against the said sear and causing one of said channels to register with the opposing sear, whereby the operation of the trigger will exert pressure against the first-mentioned sear firing the barrel, releasing the pressure against said cam surface, allowing said sear trip block to be moved under the pressure of said spring means and placing another of said contact shoulders against the second sear.

2. In a double barrel shotgun having two sears, means for selective single trigger firing comprising a trigger, a sear trip block slidably mounted on said trigger, means for yieldingly holding said sear trip block in either of two positions, said block being provided with contact shoulders, channels, and opposing cam surfaces, whereby the placing of the sear trip block in one position will place the said cam surfaces, channels and contact shoulders in such a position with relation to said sears that the successive opera-
tion of the trigger will cause the firing of first
one barrel and then the other, and when the
sear trip block is placed in the other selected
position the order of firing of said barrels will
be reversed.

3. In a double barrel shotgun having two sears,
means for selective single trigger firing com-
prising a trigger, a sear trip block slidably
mounted on said trigger, means for yieldingly
holding said sear trip block in one of two posi-
tions, a spring allowing limited motion between
said block and said means, said block being pro-
vided with contact shoulders, channels and cam
surfaces so placed that the cocking of the gun
causes one of said sears to exert pressure against
one of said cam surfaces to cause said block to
move slightly against said spring and to place
one of said shoulders against said sear, whereby
the operation of the trigger will exert pressure
against and release said sear, removing the
pressure from said cam surface and placing an-
other of said contact shoulders under the sec-
ond sear, and means for freely reversing said
process, said means comprising opposing cam
surfaces, channels and contact shoulders on said
block operable when said block is placed in the
other position.

4. In a double barrel shotgun having two sears,
means for selective single trigger firing com-
prising a trigger, a sear trip block slidably mounted
on said trigger, a spring means for yieldingly
holding said sear trip block in either one of two
positions on said trigger, means communicating
with said spring means for freely changing the
position of said sear trip block, said sear trip
block being provided with opposing cam surfaces,
shoulders adjacent said cam surfaces, and a sec-
ond pair of shoulders separated from the first-
mentioned shoulders by means of a channel, el-
bows on each of said sears, one of said elbows
exerting pressure on one of said cam surfaces
when said gun is cocked and said sear trip block
is in one position to move said sear trip block
against said spring means and to bring the
shoulder adjacent said cam surface into contact
with said elbow, and the opposing cam surface
contacting the other sear elbow when the sear
trip block is in the other position to move said
sear trip block against said spring means and
to bring the adjacent shoulder into contact with
said second sear elbow.

5. In a double barrel shotgun having two sears,
means for selective single trigger firing, com-
prising a trigger, a sear trip block slidably
mounted on said trigger and means for yieldingly
holding said sear trip block in one of two posi-
tions, said sear trip block having a pair of oppo-
sitely facing cam surfaces, shoulders adjacent
each of said cam surfaces, and additional shoul-
ders being separated from said first-mentioned
shoulders by channels, each of said channels
registering with the first-mentioned shoulders
adjacent said opposing cam surfaces.

6. A sear trip block having two sides, a cam
surface, a shoulder adjacent said cam surface,
an additional shoulder spaced from said first-
mentioned shoulder by a channel on one side of
said sear trip block facing in one direction and a
 corresponding cam surface, an adjacent shoul-
der, channel and second shoulder on the oppo-
site side of said sear trip block facing in the op-
posite direction and so arranged that the shoul-
der adjacent each of said cam surfaces is oppo-
site the channel separating the shoulders on the
opposite side of said sear trip block.

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