March 21, 1933. E. H. INGALLS 1,902,127

GAS GUN

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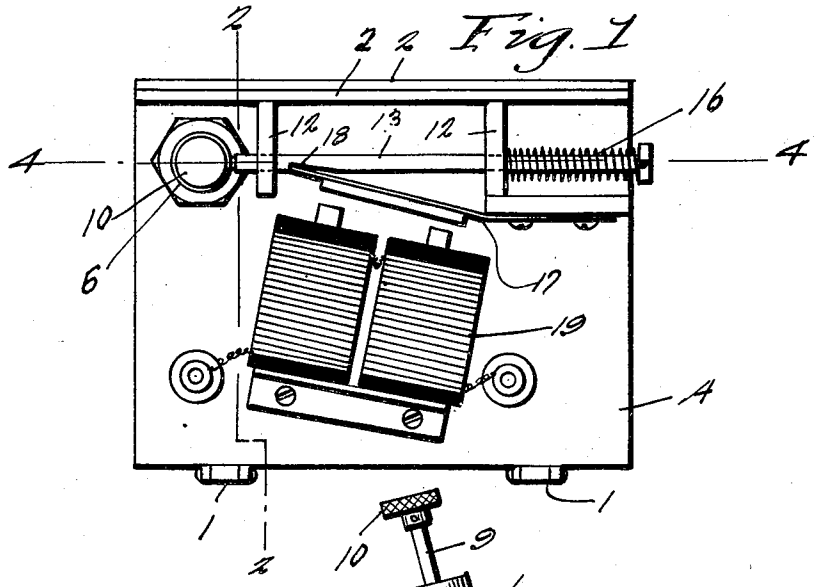


Fig. 1.

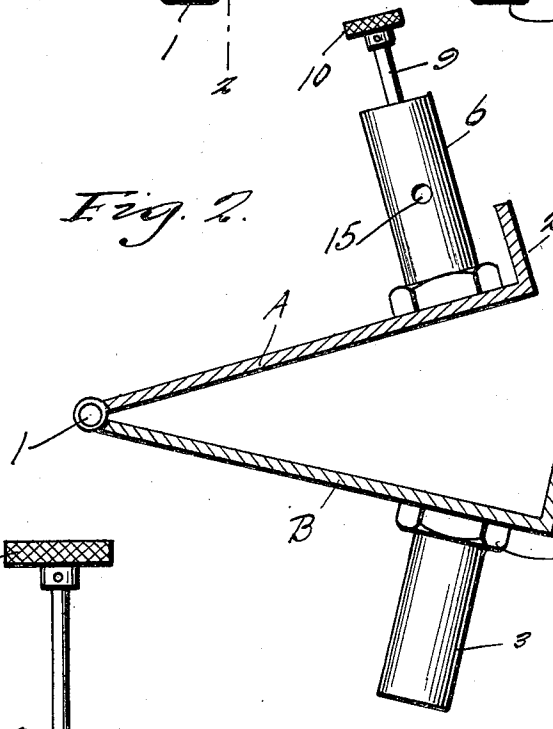


Fig. 2.

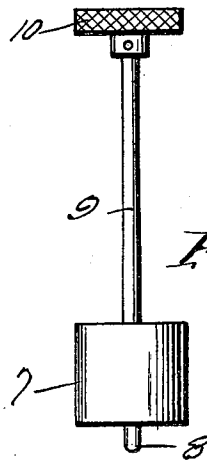


Fig. 3.

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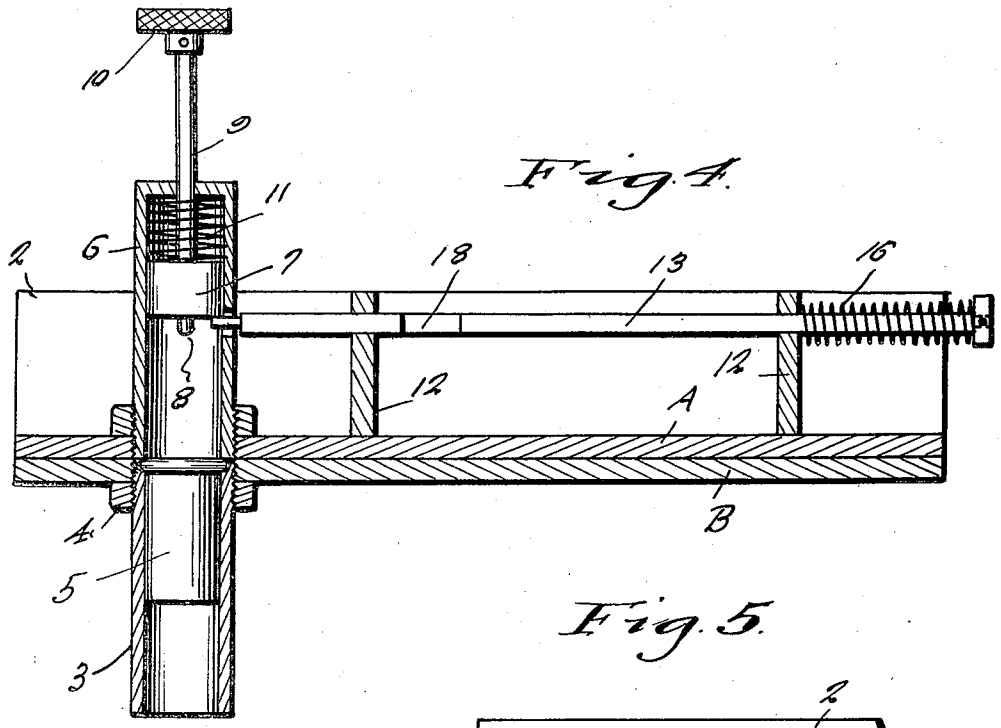


Fig. 4.

Fig. 5.

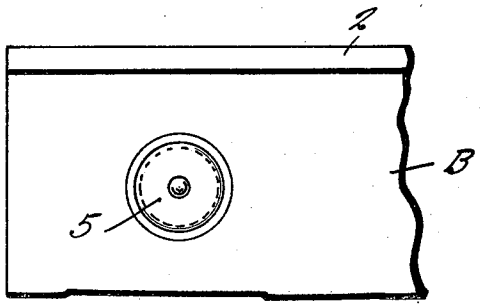
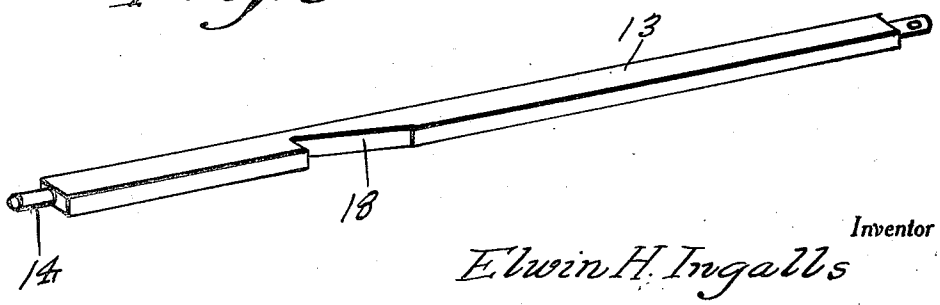


Fig. 6.



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UNITED STATES PATENT OFFICE

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GAS GUN

Application filed January 19, 1932. Serial No. 587,590.

This invention relates to a gas gun, the general object of the invention being to provide means for exploding a cartridge containing tear gas or the like, which can be operated by electric means for use in protecting banks and the like from robbers and for other purposes.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a plan view of the device.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a view of the firing plunger.

Fig. 4 is a section on line 4—4 of Fig. 1.

Fig. 5 is a fragmentary view of the upper member showing the plunger cylinder and plunger in end view.

Fig. 6 is a view of the trigger bar.

In these drawings, the letters A and B indicate a pair of members hingedly connected together at one edge as shown at 1 and having flanges 2 at their opposite edges which overlap when the two members are placed together. A cylinder or barrel 3 is carried by the member B with its upper end threaded in a hole in said member and held in place by a nut 4. This barrel or cylinder is adapted to receive a cartridge 5 which contains tear gas or the like which is released when the cartridge is exploded. A cylinder or barrel 6 is carried by the member A and the two cylinders are in alinement with each other when the members A and B are in closed position as shown in Fig. 4, but when the members are separated as shown in Fig. 2, a cartridge can be removed or replaced on the cylinder 3.

A plunger is carried by the cylinder 6 and consists of a piston 7 having a small projection 8 for engaging the cartridge to explode the same, and a stem 9 is attached to the piston and passes through the hole in the upper or outer end of the cylinder and has a handle part 10 thereon for enabling the piston to be raised, the piston being forced downwardly to cause the projection 8 to explode the cartridge through means of a spring 11, located in the upper part of the cylinder 6.

Brackets 12 are carried by the member A and slidably support a trigger rod 13 which has a projection 14 on its inner end which passes through a hole 15 in the cylinder 6 and acts to hold the piston 7 in raised position when the trigger rod is moved inwardly as shown in Fig. 4. This rod is normally moved outwardly through the axis of the spring 16 thereon, and said trigger rod is held inwardly against the action of the spring 16 with its projection 14 under the piston 7 by means of a latch 17 having one end fastened to one of the brackets, and its other end adapted to engage a notch 18 in the trigger rod.

This latch is to be adapted to be moved to releasing position by the magnets 19 carried by the member A as shown in Fig. 1. Thus when the circuit to the magnets is closed, the latch 17 will be retracted so that the spring 16 can retract the trigger bar 13 which in turn releases the piston 7 so that the spring 11 can move the piston downwardly and thus cause the projection 8 to engage the cartridge and explode the same. The members A and B are then moved apart, the exploded cartridge taken from the barrel or cylinder 3 and a new one inserted, and the plunger moved upwardly and the trigger rod moved inwardly to place its projection 14 in engagement with the piston 7 to hold the plunger in raised position, the trigger rod being held in operative position by the latch 17.

The parts are then closed and the device is ready for another operation. As before stated, the device can be used as protective means for banks and the like or wherever desired and a number of these devices can be placed in convenient positions with the switches of the circuits placed where they can be readily operated by attendants in the bank or other places so that the cartridges can be fired when the bank is held up. The devices can be operated one or more, or as desired.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claims.

Having thus described my invention, what I claim as new is:—

1. A device of the class described comprising a barrel containing a gas shell, a spring actuated plunger in the barrel for exploding the shell, a spring actuated trigger member for holding the plunger in inoperative position, a latch for holding the trigger member in operative position, magnetic means for moving the latch to releasing position.

2. A device of the class described comprising a pair of members hingedly connected together, a barrel carried by each member, one of said barrels being adapted to receive a cartridge, a plunger in the other barrel, a spring-pressed trigger rod for holding the plunger in inoperative position, a latch member for holding the trigger in operative position, and magnetic means for moving the latch to releasing position.

3. A device of the class described comprising a pair of supporting members hingedly connected together, a barrel carried by one member and adapted to receive a cartridge, a second barrel carried by the other member, a plunger in the second barrel for supporting the cartridge when the two members are placed together with the barrels in alinement, a trigger rod for holding the plunger in operative position, supporting means on the second member for slidably supporting the rod, and a latch for holding the trigger rod in operative position and spring means for moving the trigger rod to released position when the latch member moves to releasing position.

In testimony whereof I affix my signature.

ELWIN H. INGALLS.