No. 768,028. PATENTED AUG. 23, 1904.

R. BRAUN.

SPRING GUN.

APPLICATION FILED APR. 30, 1902.

NO MODEL.

Fig. 1.

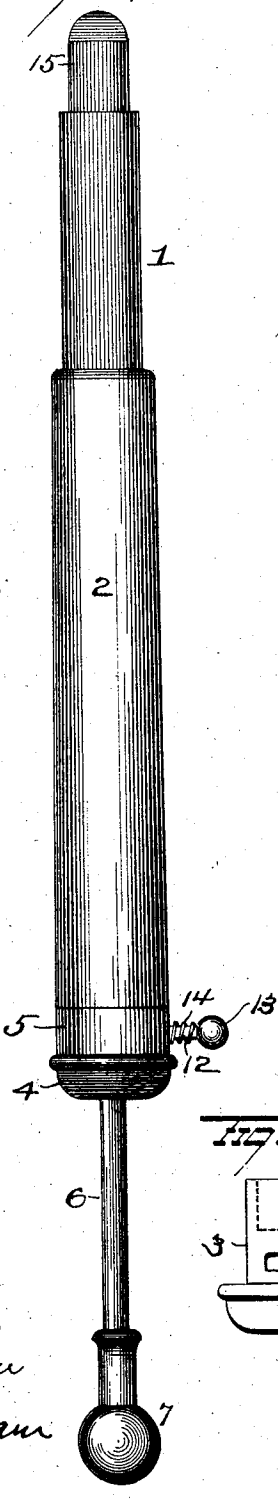


Fig. 2.

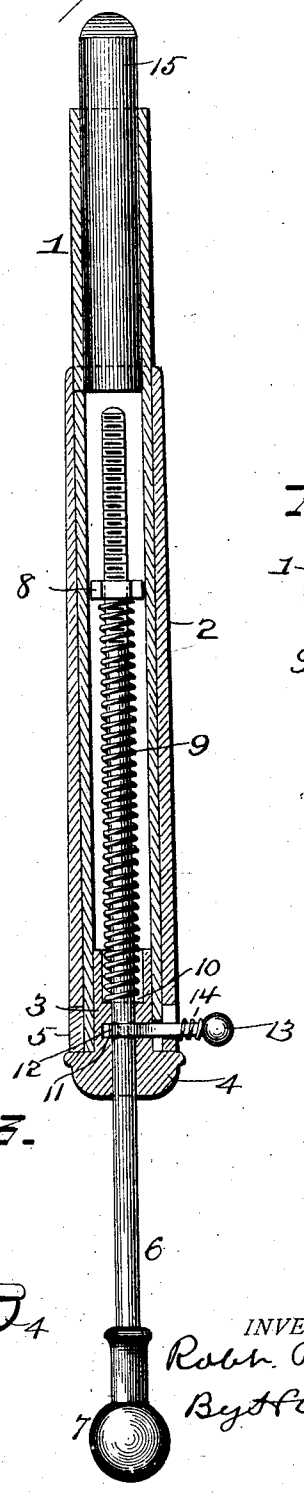


Fig. 4.

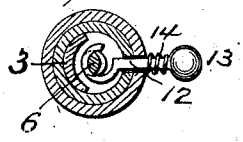


Fig. 5.

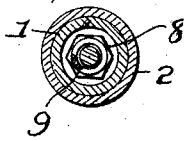
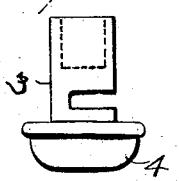


Fig. 3.



WITNESSES

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No. 768,028. Patented August 23, 1904.

UNITED STATES PATENT OFFICE.

ROBERT BRAUN, OF ELGIN, ILLINOIS.

SPRING-GUN.

SPECIFICATION forming part of Letters Patent No. 768,028, dated August 23, 1904.

Application filed April 30, 1902. Serial No. 105,398. (No model.)

To all whom it may concern:

Be it known that I, ROBERT BRAUN, a resident of Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Projecting Devices for Fireworks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved projecting device for fireworks, and more particularly to an improved apparatus for igniting or exploding and ejecting a cartridge of inflammable material, the object of the invention being to provide improvements of this character which will absolutely prevent accidental discharge of the cartridge and which will be especially adapted for fireworks display and for signaling.

A further object is to provide improvements of this character which will be extremely simple in construction, cheap to manufacture, easily operated, and entirely safe in use.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation illustrating my improvements. Fig. 2 is a view in longitudinal section of the same, and Figs. 3, 4, and 5 are views of details of construction.

1 represents a tubular barrel over which a tightly-fitting tubular handhold 2 is placed. Into the barrel 1 a tubular plug 3 is forced and provided on its lower end with an enlarged head 4, between which and the end of the handhold 2 and around the barrel 1 a ring 5 is tightly held.

An elongated plunger or rod 6 is located in the barrel 1, projects through the plug 3, and is provided on its outer end with an enlarged knob 7 to facilitate movement of the plunger. The inner end of the plunger is screw-threaded for the reception of a nut 8, and a coiled spring 9 is located on the plunger 6 and bears at one end against the nut 8 and at its other end against an internal shoulder 10 in the plug 3, the tension of said spring being regulated by the position of the nut 8, thus permitting the spring tension on the plunger to be adjusted at will. This plunger or rod 6 is provided between its ends with a peripheral groove 11, and a trigger or catch 12 is provided to spring into this groove and lock the plunger in its withdrawn or cocked position. The trigger 12 is made at one end in the shape of a hook to encompass the plunger 6 and projects at its other end through slots in the plug 3 and ring 5 and is made on its outer end with an enlargement or fingerhold 13, between which and the ring a coiled spring 14 surrounds the trigger or catch and is adapted to press the trigger outward to its locking position.

In the front end of the barrel 1 a cartridge 15 is placed. This cartridge may be of any desired construction. For instance, it may be made to ignite and form a ball of fire when ejected, or it may eject a stream of fire or explode and scatter stars. In fact, its construction will depend greatly on the use to which it is put.

The operation of my improvements is as follows: The operator grasps the tubular handhold 2 with one hand and with the other withdraws the plunger 6, thus contracting the spring 9, and when the groove 11 alines with the trigger 12 the latter will spring thereinto and hold the plunger in its withdrawn or cocked position. The cartridge is now placed in the end of the barrel 1, as shown, and when the operator is ready to discharge the cartridge he presses in the trigger 12, which operation releases the plunger 6 and permits the spring 9 to drive the plunger against the cartridge with sufficient force to ignite the same and eject it some distance from the barrel, when the cartridge of its own force will be projected into the air, and its burning or detonations are so timed as to take place only after leaving the apparatus, thus preventing possibility of injury to the operator.

A great many slight changes and alterations might be made in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it

understood that I do not wish to limit myself to the precise construction set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the class described, comprising a barrel, a plug projecting into the breech of said barrel, a rod carried by said plug and projecting into the barrel, said rod having a diameter at its forward end appreciably less than the internal diameter of the barrel, a trigger carried by the plug and adapted to engage the rod, a spring encircling the rod within the barrel, and means on the rod for adjusting the tension of said spring.

2. A device of the class described, comprising a barrel, a plug projecting into the breech of the barrel and having a socket in its forward end, a rod carried by said plug and freely movable through the same, the forward portion of said rod having screw-threads, a nut on the threaded portion of the rod, a spring encircling the rod and having a bearing at one end against said nut and seated at its other end in the socket in the plug, a trigger mounted in and carried by the plug and adapted to engage the rod and means for securing the plug and operating parts carried thereby, in the breech of the barrel.

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

ROBERT BRAUN.

Witnesses:
A. F. SCHADER,
FRANK GROENER.