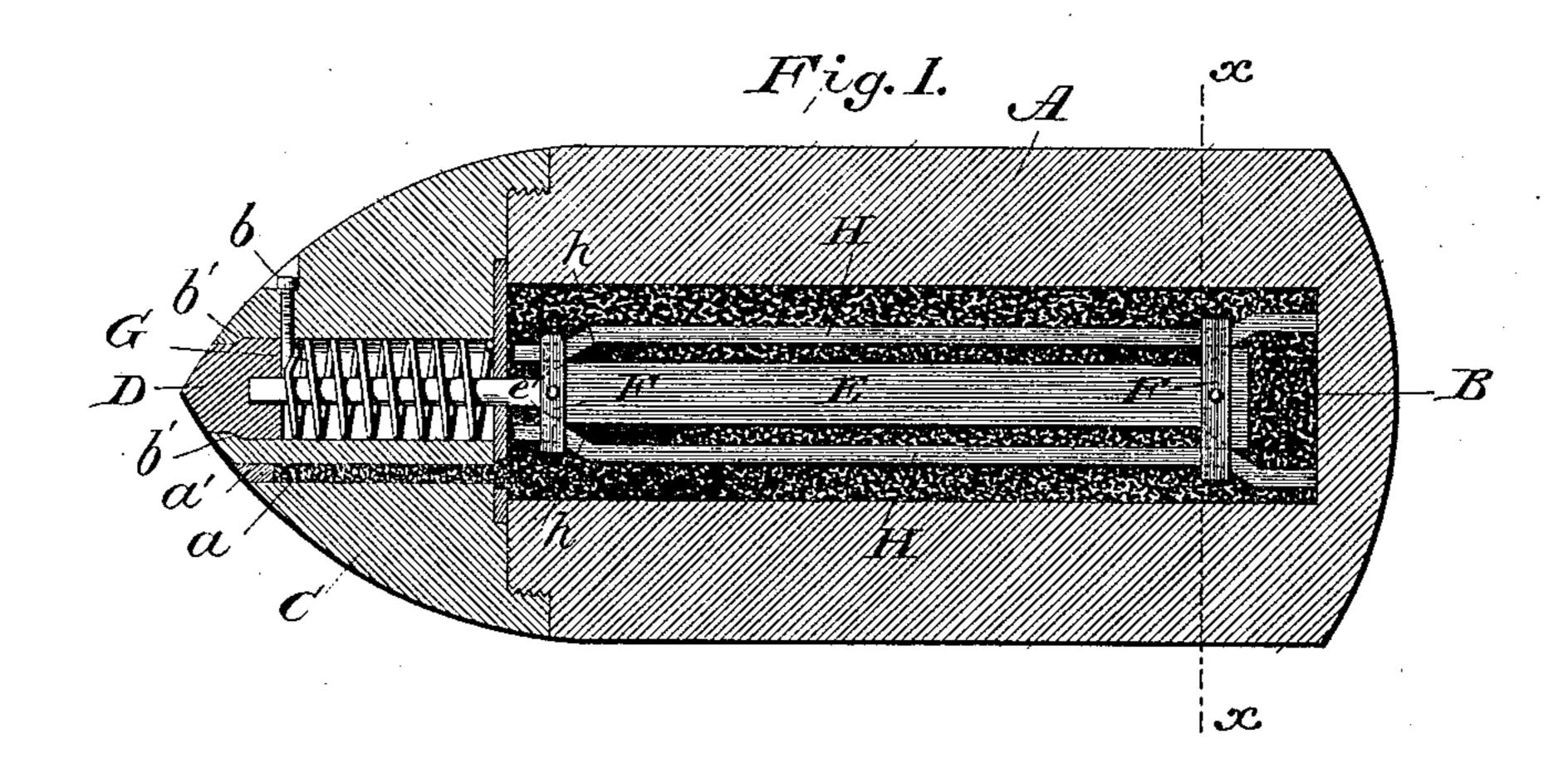
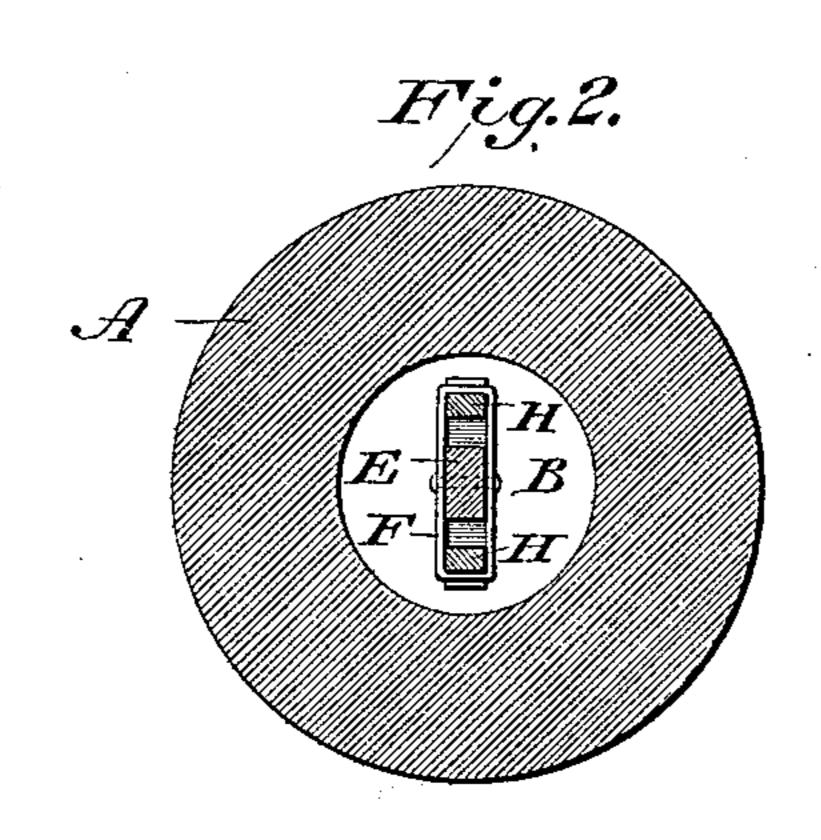
(No Model.)

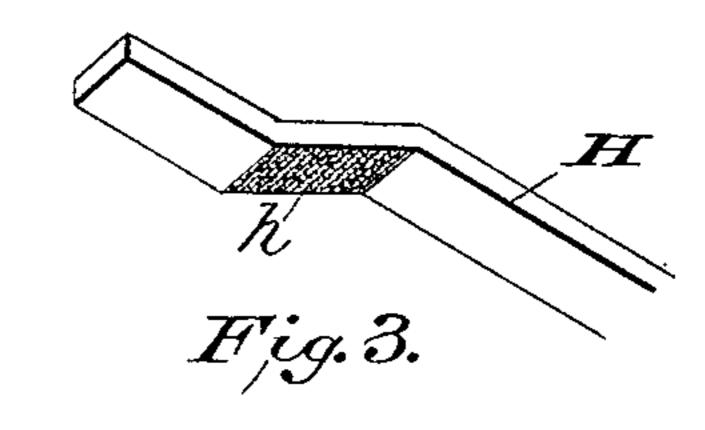
## J. E. SCHLORFF. PROJECTILE.

No. 480,142:

Patented Aug. 2, 1892.







Joseph E. Schlorff.

Witnesses

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## United States Patent Office.

JOSEPH E. SCHLORFF, OF PESOTUM, ILLINOIS.

## PROJECTILE.

SPECIFICATION forming part of Letters Patent No. 480,142, dated August 2, 1892.

Application filed March 24, 1892. Serial No. 426, 290. (No model.)

To all whom it may concern:

Be it known that I, Joseph E. Schlorff, a citizen of the United States of America, residing at Pesotum, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Projectiles; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in projectiles of that class known as "shells;" and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a longitudinal section of a shell constructed in accordance with my invention. Fig. 2 is a sectional view taken on the line x x of Fig. 1. Fig. 3 is a detail view.

A designates the body portion of the shell, which is provided with a chamber B. The forward portion C of the shell is secured to the body portion in any suitable manner, and this forward portion or cap is apertured to receive the point D and is also provided with an aperture a, through which the powder or other suitable explosive is passed into the body portion of the shell, and this opening a is closed by a suitable plug or stopper a'.

E designates a bar having inclined shoulders ee, which are located within the chamber B, and this bar carries straps F, located adjacent to said inclined shoulders, as shown. The bar E extends forward and is rigidly secured to the point D, and said point may be held fixedly to the forward portion C of the shell by a pin or set-screw b, the forward movement of the point being prevented by the shoulders b'.

In front of the chamber B and resting upon the forward end of the body portion A of the shell is a disk or washer, through which the forward portion of the bar E passes, an ap-

erture in said disk being also provided, which registers with the aperture a.

G designates a helical spring located within the chamber in rear of the point D, so as to bear against said point and upon the washer, 55 said spring serving to hold the point projected or beyond the forward end of the shell.

HH designate bars, which pass through the loops or straps F and have inclined portions h h, which are adapted to slide upon the in- 60 clined faces of the bar E when said bar is moved rearward by the straps F F, riding upon the inclined shoulders of the bars H H and drawing them toward each other and against the bar E. The inclined faces e e 65 and h h may be roughened and coated with fulminate, so as to ignite the powder contained in the chamber B; but when other explosives which ignite by concussion are used the fulminate on the inclined faces of the 70 bars E and H may be dispensed with. The bars H H are adapted to rest upon the rear inner portion of the chamber B, while their front ends may abut against or be in close proximity to the washer at the front end of 75 the chamber.

Before the shell or projectile is placed in the gun the set-screw or pin b is removed, and when fired from a gun the point striking an object will be forced rearward and carry 80 with it the bar E, which will ignite the explosive.

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

1. In combination with a shell or projectile having a chamber for the reception of explosive material, a movable spring-projected point attached to a bar E and a bar or bars H, having inclined surfaces upon which 90 the inclined surfaces of the bar E slide when the point is moved inward, substantially as shown, and for the purpose set forth.

2. The combination, in a shell or projectile having a chamber which contains explosive 95 material, of a bar E, having inclined faces, said bar being connected to a movable point, and bars H H, with inclined faces, adapted to slide upon the inclined surfaces on the bar E, said bars H H bearing upon the rear wall of the 100

chamber B and connected to the bar E by straps, substantially as shown, and for the

purpose set forth.

3. The combination, in a shell or projectile constructed substantially as shown and provided with a point which is held normally projected by a spring, said point carrying a bar E, having inclined faces e e on opposite sides and near the front and rear ends of the chamber containing the explosive, of straps or guides F F, secured to the bar E adjacent to its inclined portions, and bars H H, which en-

gage with the guides and have inclined portions, said bars being held against longitudinal movement by abutting against the front and 15 rear walls of the chamber B, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in

presence of two witnesses.

JOSEPH E. SCHLORFF.

Witnesses:

AUG. KRUEGER, W. L. NICHOLS.