No. 650,182.

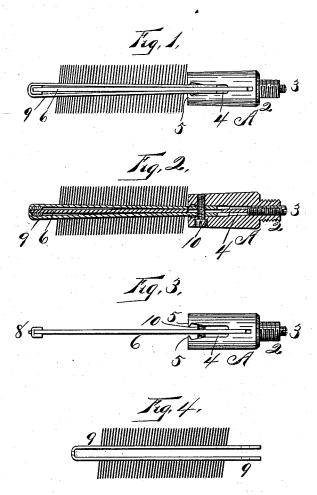
Patented May 22, 1900.

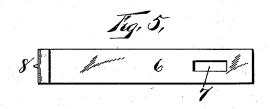
D. M. & C. F. LEFEVER.

GUN CLEANER.

(Application filed June 14, 1899.)

(No Model.)





WITNESSES:

UNITED STATES PATENT OFFICE.

DANIEL M. LEFEVER AND CHARLES F. LEFEVER, OF SYRACUSE, NEW YORK.

GUN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 650,182, dated May 22, 1900.

Application filed June 14, 1899. Serial No. 720,523. (No model.)

To all whom it may concern:

Be it known that we, DANIEL M. LEFEVER and CHARLES F. LEFEVER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Gun-Cleaners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

Our invention relates to gun-cleaners.

Our object is to provide an improved cleaner comprising a body, a holder inserted into and adjustable in said body, and a wire brush removably mounted upon said holder, so that 15 the wire bristles will remove all leading from and otherwise clean a gun-barrel, the bristles being usually arranged in opposite directions, so as to present part of their points inclined in the direction of the movement of the 20 cleaner. It is constructed as follows, reference being had to the accompanying drawings, in which-

Figure 1 is a side elevation of a cleaner. Fig. 2 is a vertical longitudinal section. Fig. 25 3 is a side elevation without the brush. Fig. 4 is a like view of the wire brush, and Fig. 5 is a plan of the holder.

A is a body having on one end a tubular boss 2, exteriorly and interiorly threaded and 30 receiving a set-screw 3. It also has a lengthwise slit 4 and inward lips 5, said slit being enlarged for part of its length. A brush-holder 6, comprising a strip of metal, is provided with a slot $\bar{7}$ near one end and a spur $\bar{8}$ at the other.

35 A strip of suitable material 9, as a piece of canvas or leather, in which wire bristles have been secured in the well-known or ordinary manner in which "wire-brush" material is made, is doubled onto said holder, the spur 8 enter-

40 ing it. Its free ends and the holder are inserted into the slit 4, the screw 10 inserted through the body and slot 7, causing the lips to grip the wire-brush ends, and the set-screw

3 is screwed in, forcing said holder outward until the wire brush is drawn taut and the 45

implement is ready for use.

Preferably the brush material is so constructed that the wire bristles, when they are mounted in the cleaner, will incline both forward and rearward, so that the points of the 50 bristles on one side will project in the direction of the forward movement of the cleaner or implement and on the other side in that of the reverse movement, thus causing the points to dig when moving in one direction and to 55 scrape on the reversal of such movement. This double action thoroughly cleans the interior of a gun-barrel, loosens all adhering matter, and particularly all the leading so common in choke-bores, without damaging, 60 marring, or scratching the barrel.

What we claim as our invention, and desire

to secure by Letters Patent, is-

1. In a gun implement the combination with a body having a lengthwise slit, and lips pro- 65 jecting thereinto, of a holder having a slot, a wire brush mounted upon said holder and with it inserted into said slit, a clamping-screw inserted through all of said parts, and an adjusting-screw bearing against said holder to 70 regulate the tension of said brush.

2. In a gun implement, the combination with a flat holder provided with a spur, of a strip of suitable material folded over the end of said holder and onto said spur, and provided with 75 wire bristles projecting in opposite directions from the opposite sides of the holder, a body receiving said holder and the ends of said strip and means to secure them therein.

In witness whereof we have hereunto set our 80 hands this 8th day of May, 1899.
DANIEL M. LEFEVER.

CHARLES F. LEFEVER.

Witnesses:

C. W. SMITH, HOWARD P. DENISON.