

Dec. 30, 1930.

L. H. DARLING

1,786,520

GUN CLEANER

Filed April 11, 1929

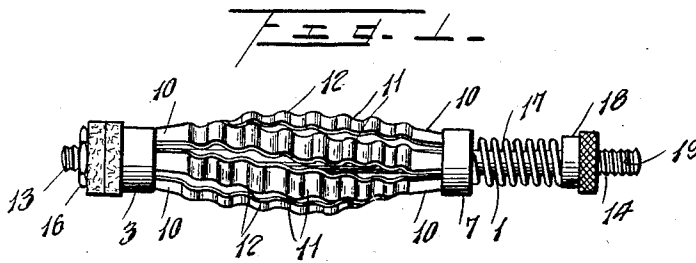


FIG. 1.

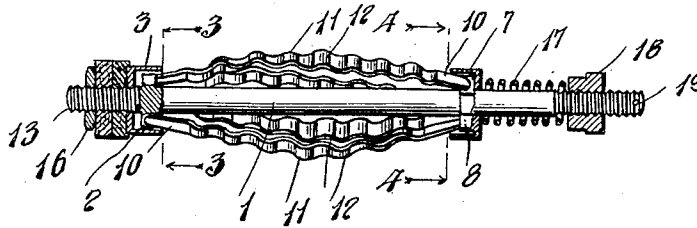


FIG. 3.

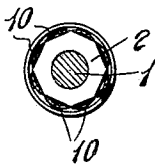


FIG. 4.

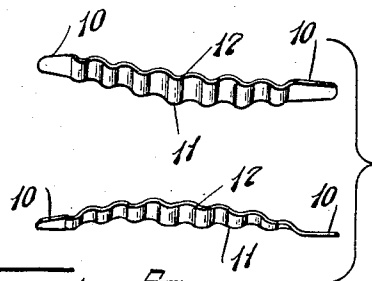
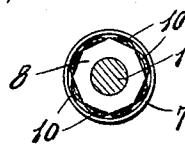


FIG. 5.

Inventor

L. H. Darling.

By *N. J. Handberg*
Attorney

UNITED STATES PATENT OFFICE

LOUIS H. DARLING, OF VALLEJO, CALIFORNIA

GUN CLEANER

Application filed April 11, 1929. Serial No. 354,361.

The invention provides a device for cleaning the barrels of small guns and firearms which is effective in operation in removing rust, lead, carbon and other matter tending to foul the gun, said device being adjustable and adapted to have the cleaning element readily replaced or inverted, as required, to meet existing conditions.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the application:

Figure 1 is a side view of a gun cleaner embodying the invention,

Figure 2 is a central longitudinal section thereof, the stem being in full lines,

Figure 3 is a sectional view on the line 3—3 of Figure 2, looking to the left, as indicated by the arrows, the blades being omitted.

Figure 4 is a sectional view on the line 4—4 of Figure 2, looking to the right as designated by the arrows, the blades being omitted,

Figure 5 is a detail perspective view of two of the cleaner blades.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 designates a stem which consists of a rod having opposite end portions 13 and 14 screw threaded for a short distance. A collar 2 is provided at one end of the stem 1 and is preferably of polygonal form. A retainer 3 cooperates with the collar 2 and is mounted on the threaded end 13 of the stem. A swab 15 is mounted upon the threaded end 13 of the stem 1 and is confined between the retainer 3 and a nut 16. The swab 4 may be of any suitable material or construction adapted for the required work. A slide loose upon the opposite threaded end 14 of the stem 1 comprises a band 7 and an inner

polygonal boss 8. The faces of the boss 8 are flat and receive the flat ends 10 of the cleaner elements 11 which are confined by the band 7. A stout helical spring 17 is mounted on the stem, between the slide and a nut 18 on the threaded end 14 and yieldably holds the said slide pressed inwardly to confine the cleaner elements 11 between the retainer 3 and slide. The spring 17 is expansible and its tension is regulated by the nut 18.

The cleaner elements 11 consist of narrow blades of spring metal, outwardly bowed between their flat ends 10 and having the latter secured in the manner stated. The cleaner blades 11 are transversely corrugated as indicated at 12, whereby to provide scraper elements for positively removing the matter adhering to the wall of the gun barrel. The collar 2 and retainer 3 occupy a fixed position, whereas the slide is adjustable longitudinally on the stem 1 whereby to regulate the curvature and bulge of the cleaner blades. The blades have a helical or spiral arrangement to insure contact of the scraping elements 12 with every part of the inner wall of the barrel of the gun to thoroughly clean the same.

In practice, a rod (not shown) may be applied to either threaded end of the stem 1 so as to reciprocate the cleaner in the barrel of the gun. A transverse opening 19 may be provided in an end of the stem 1 to receive a cord or wire (not shown), whereby the cleaner may be drawn through the gun barrel when cleaning the same.

What is claimed is:

1. A gun cleaner comprising a stem, cleaner elements arranged lengthwise of the stem and grouped about the same, said cleaner elements being outwardly curved intermediate their ends, and confining means on the stem engaging opposite ends of the cleaner elements, one of said means being resilient and adjustable to admit of regulating the bulge of the cleaner elements.

2. A gun cleaner comprising a stem, longitudinally disposed cleaner elements grouped about the stem and outwardly curved intermediate their ends, confining means on the stem engaging opposite ends of the cleaner elements, one of said means including an

expansible spring, and a set nut threaded on the stem to adjust the tension of said spring to regulate the bulge of the cleaning elements.

3. A gun cleaner comprising a stem, a collar at one end of the stem, a retainer associated with said collar, a slide loose upon the opposite end portion of the stem, outwardly bowed cleaner elements confined between said retainer and slide, said cleaner elements being transversely corrugated from end to end, and a set nut threaded on the stem for regulating the bulge of the cleaner elements.

4. A gun cleaner comprising a stem having opposite end portions screw threaded, a retainer at one end of the stem, a slide upon the opposite end of the stem, spring means engaging the slide, outwardly curved cleaner blades disposed helically about the stem and confined between said retainer and slide and having transverse corrugations, and a set nut for adjusting the tension of said means and for regulating the bulge of the cleaner blades.

5. A gun cleaner comprising a stem, longitudinally disposed cleaner elements grouped about the stem and outwardly curved intermediate their ends, confining means on the stem engaging opposite ends of the cleaner elements, one of said means being loose, a helical spring on the stem, and a set nut threaded on the stem for varying the tension of said helical spring whereby to adjust the loose confining element to regulate the bulge of the cleaning elements.

6. A gun cleaner comprising a stem, a collar at one end of the stem, a retainer associated with said collar, a slide loose upon the opposite end portion of the stem, outwardly bowed cleaner elements confined between said retainer and slide, a helical spring on the stem, and a set nut threaded on the stem for regulating the tension of said helical spring and the bulge of the cleaner elements.

7. A gun cleaner comprising a stem having opposite end portions screw threaded, a retainer at one end of the stem, a swab on the end of the stem adjacent said retainer, a slide upon the opposite end of the stem, outwardly curved cleaner blades confined between said retainer and slide and having transverse corrugations, a helical spring on the threaded end of the stem adjacent the slide, and a set nut for regulating the tension of the spring and the bulge of the cleaner blades.

In testimony whereof I affix my signature.
LOUIS H. DARLING.