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R. M. BAIR

GUN CLEANER

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Fig. 1.

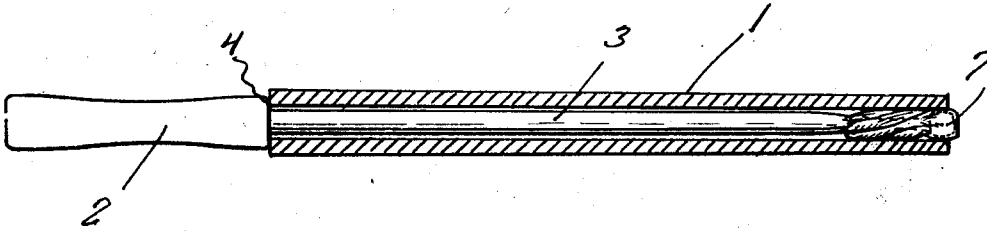
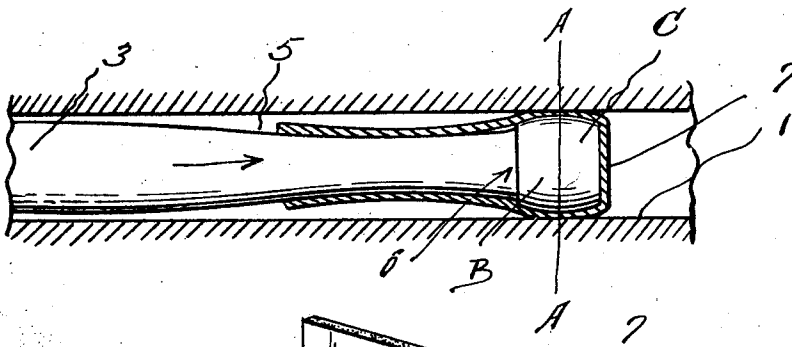
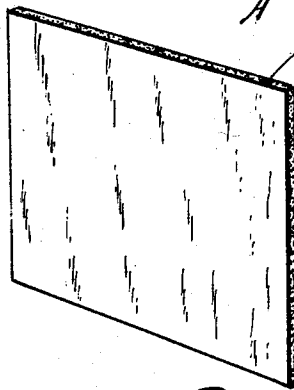


Fig. 2.



Глф. 3.



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GUN CLEANER.

Application filed April 13, 1926. Serial No. 101,743.

This invention relates to a new and improved article of manufacture which may be conveniently referred to as a gun cleaner, the same having more particular reference to an especially constructed plunger rod which is adapted to be inserted in and reciprocated through the barrel of a gun, pistol, or other similar firearm for the purpose of loosening and removing powder deposits, burnt particles, and the like, to promote accurate shooting.

Briefly, the invention comprises a rod having an appropriate hand grip, a cylindrical shank extending from the hand grip, an especially shaped head or knob on the end of the shank, and a lubricated patch which is placed over the head and around the shank for literally scrubbing the interior of the barrel.

As far as I have been able to ascertain from prolonged investigation and study, the ordinary barrel cleaning rod is constructed from metal, being sometimes provided with a metallic bristle brush to facilitate in scraping the bore. Obviously, metal cleaners of this kind are injurious in that they forcibly rub the metal of the barrel and eventually distort it in one way or another. This results in an inaccurate flight of the projectile.

It follows that one of the outstanding features of this invention is to make the entire plunger of hard wood sufficiently rigid to permit it to be properly reciprocated in the cleaning operation, but not hard enough to any way injure the wall of the bore.

An equally important advantage is derived from the use of a small lubricated cloth patch which is used in association with the plunger for softening the powder deposit and wiping the same from the wall of the bore, and ejecting the same in lump formation.

Other structural features and advantages will become apparent from the following description and drawing.

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a side elevation of a barrel cleaning device constructed in accordance with this invention showing its association with the barrel of a fire arm.

Figure 2 is an enlarged fragmentary view showing more plainly the structural advantages

derived from the special shape of the device.

Figure 3 is a perspective view of one of the patches.

It is to be stated before the detailed description is entered, that the device is usable in connection with various kinds of fire arms, and inasmuch as it is more particularly adapted for use in cleaning the interior of the barrel of a gun, pistol, or the like, I have simply shown a tube gun which may be conveniently referred to as a gun barrel. I might state, however, that the device may be used with good success for cleaning bullet chambers, the ordinary rotary cylinder of a pistol.

Considering now the barrel cleaning device, it will be seen that this comprises a body of wood which is turned to provide an appropriately shaped hand grip 2, from which a cylindrical shank 3 extends. It will be noted that the shank is of a diameter considerably less than that of the hand grip, and a shoulder 4 is thus provided. The outer end portion of the shank is gradually decreased in diameter as at 5 to take the approximate curvature shown plainly in Figure 2. The shank terminates however in an enlarged head 6, and it will be noticed that an abutment shoulder is provided at the juncture of the head and especially curved portion of the shank. Particular emphasis is to be laid on the shape of this head 6. The outer end is, of course, flat, while the peripheral portion is rounded somewhat in the longitudinal direction, thus making it of convex form. To bring out the feature of construction of this convex head, it is to be stated that the line A is drawn through the crown portion, thus dividing the head into half-sections B and C, the features of which will be hereinafter made clear.

Used in connection with the device, as before stated, is a substantially square patch 7 which is preferably of an absorbent cloth such as flannel. This patch is of a size governed somewhat by the length of the curvature 5 so that the edge portions thereof will terminate within the curve of this portion 5. In other words, the edge portions of the patch must not extend onto the enlarged portion of the shank due to the wedging action which would result. I might call attention at this time to the fact that the length of the shank from the shoulder 4

to the extremity of the head 6 is slightly greater than the length of the barrel 1 with which it is used. It follows that a special cleaner is made for each particular caliber, and length of barrel.

In using the device, it is to be assumed that the patch 7 has been previously lubricated with a kind of material used for loosening powder deposits and incrustations. Now, the flat end of the head 6 is placed against the approximate center of one side of the patch and the edge portion of the patch is doubled and folded back over the head, next, the patch covered head is forced into the muzzle end of the barrel, and the plunger is forced through the barrel by grasping the hand grip in an obvious manner.

In forcing the plunger through the barrel, the rifling on the interior will cause slight rotary or turning movement of the device. The edge portions of the patch will thus be wrapped about the curved reduced portion 5 of the shank. Owing to the thrust of the device, the patch will be drawn tautly about the head and owing to the compressible nature of the patch and also the properly proportioned diameter of the head, a snug fit is assured, but no binding will result. In Figure 2, I have shown the plunger in the act of being forced through the barrel and indicating how the cloth patch is compressed. In Figure 1 the plunger is shown forced all the way through the barrel with the shoulder 4 engaged with the muzzle end and cloth covered knob or head 6 projecting a fraction of an inch beyond the breech.

It will be noted that the projecting portion of the head is equal to the aforesaid section C (see Figure 2) and owing to the curvature of the head it will be seen that a clearance space exists between the patch and the wall of the bore and during the reciprocatory action of the plunger, this clearance space has become packed or filled with the

removed particles. Now, on the withdrawal of the plunger, the other half B provides a clearance space between the cloth and the wall of the barrel in which any surplus material is collected, and withdrawn through the muzzle as the plunger is pulled out. These clearance spaces are of great importance as they prevent jamming and it must be remembered that in a device of this kind, the proportions must be accurate with respect to the particular caliber of the gun barrel. It will be noted also that owing to the curved portion 5, the wrapped ends of the cloth will be such as not to interfere with the free reciprocatory motion, and the device may be moved back and forth without losing the patch. If the shank were of the same diameter throughout, the wrapped portions of the cloth would be such as to hang and the patch would become unduly rumped, and probably lost in the barrel.

No doubt, the device will be clear from the description taken in connection with the drawings, and in view of this a more lengthy description is thought unnecessary.

Minor changes coming within the field of invention claimed may be resorted to if desired.

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

As a new article of manufacture, a gun barrel cleaner comprising a hand grip, a cylindrical shank extending from said hand grip, said shank being of a diameter less than that of the hand grip to provide a shoulder between the hand grip and shank, the outer end portion of the shank being gradually reduced in diameter to provide a neck, the free end of the shank being constructed to provide a head, the outer end of the head being flat and the peripheral portion being of convex formation.

In testimony whereof I affix my signature.
ROBERT M. BAIR.