April 13, 1937. J. G. WEBER 2,076,927

FIREARM

Filed Nov. 29, 1935

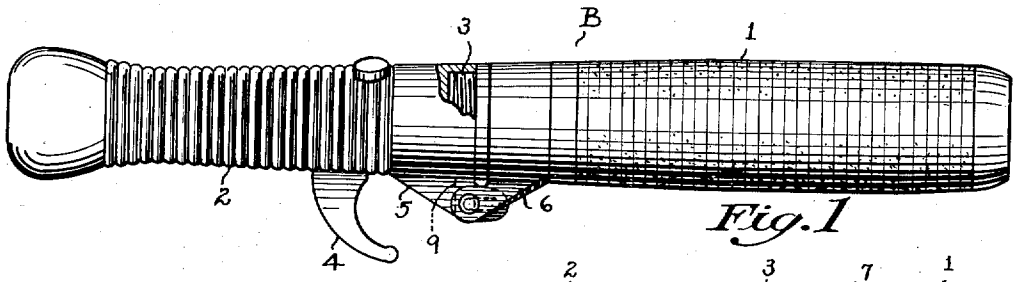


Fig. 1

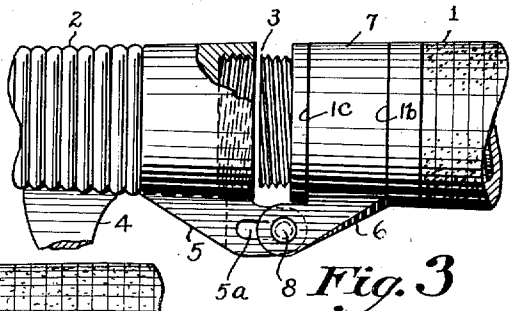
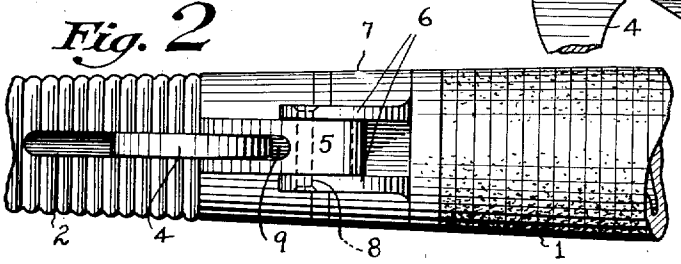


Fig. 3

Fig. 2



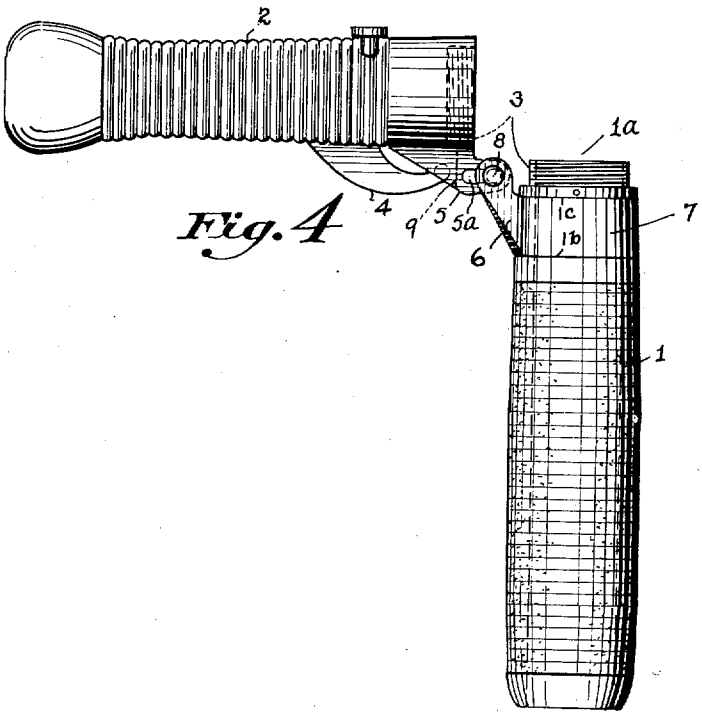


Fig. 4

INVENTOR

John G. Weber

by Christy and Wharton

his attorneys

Patented Apr. 13, 1937 2,076,927

UNITED STATES PATENT OFFICE

2,076,927

FIREARM

John G. Weber, Pittsburgh, Pa., assignor to Screw Machine Specialty Company, a corporation of Delaware

Application November 29, 1935, Serial No. 51,976

2 Claims. (Cl. 42—1)

The invention relates to firearms, and is found in means for securing the usual barrel to the stock or body portion of such a weapon. The invention is particularly adapted for tear-gas billies, and in such embodiment it will be described.

According to well-known practice the head of a tear-gas billy is fashioned internally to serve as a firing barrel, and the handle of the billy includes mechanism, responsive to a trigger or the like, for firing a gas-producing cartridge in such barrel. Normally, the head and stock of the billy are rigidly secured in axial alignment, and normally the trigger is locked in safety position in the stock, whereby the weapon may be used as a bludgeon. Alternately, the trigger may be moved into firing position, and the weapon may then be operated as a tear-gas gun. Essentially loading and unloading are done at the breech end of the barrel, and for such reason the barrel is in the usual types of billy made separable from the handle or stock. In service such separation of the barrel from the handle is objectionable, in that the operator must hold the two portions of the weapon in one hand while he unloads and reloads with the other, it being understood that in service the job must be done quickly, and that it is inadvisable to lay the handle of the billy aside while charging the barrel. More particularly the invention consists in improved means which, when the barrel is disengaged from the handle for loading, secure the barrel in articular union with the handle, in such manner that the handle may be secured in one hand with the barrel depending angularly therefrom in convenient position for loading.

In the accompanying drawing Fig. 1 is a view of a tear-gas billy embodying the invention; the view is in side elevation, save that a medial portion of the structure is shown in longitudinal section, and the billy is shown in assembled position and ready for firing. Fig. 2 is a fragmentary view, showing the billy to larger scale and in plan from beneath. Fig. 3 is a fragmentary view, comparable with Fig. 1, on the scale of Fig. 2, and illustrating the initial axial disengagement of the barrel from the handle or stock. And Fig. 4 is a view of the billy in side elevation, and on the scale of Fig. 1, showing the disengaged barrel swung downward from the handle and in position for loading.

Referring to the drawing, the reference numeral 1 is applied to the barrel and 2 to the stock or handle of a billy B. The barrel is, by means of a threaded socket joint 3, normally secured in axial alignment and rigid assembly with the handle. The weapon includes a trigger 4. In Figs. 2 and 4 the trigger is shown in safety position, collapsed against the handle, and in Figs. 1 and 3 it is shown in firing position, ready to be pressed in such way as to effect the discharge of a cartridge in the barrel.

In accordance with the invention, the barrel and handle are pivotally interconnected in such manner that the barrel 1 may readily be unscrewed from its normal position of assembly with the handle 2 (Fig. 1) and swung into the angular position indicated in Fig. 4, in which position, while the handle 2 is firmly held in one hand of the user, the breech end 1*a* of the barrel is accessible for the introduction of a cartridge with the other. More specifically, the pivotal interconnection of the barrel and handle is provided by means of two hinge elements 5 and 6; the hinge element 5 is integrated with the breech end of the handle or body 2, and is provided with a slot 5*a* extending substantially in parallelism with the axis of the weapon; and the hinge element 6, being bifurcated and embracing the slotted portion of element 5, as shown, is integrated with a collar 7. The collar 7 is rotatably secured against axial movement between shoulders 1*b* and 1*c* on the barrel 1, and a pin 8 provides articular union of the two hinge elements. The hinge element 5, it will be observed, is recessed at 9, providing a pocket for the distal end of trigger 4 in its illustrated safety position, Figs. 2 and 4.

It will be understood that the normal assembly of the barrel 1 with the handle 2 must be sturdy and hermetic, to prevent the fumes or gases discharged under high pressure in the barrel from escaping laterally of the weapon and annoying or incapacitating the user. A telescoping threaded joint, such as the joint 3 illustrated, has been found very efficient in the light of these requirements, and it is noteworthy that the structure 5, 6, 7, 8 lends itself to the use of such a threaded joint. When the barrel 1 is unscrewed from the handle 2, the barrel rotates idly within the collar 7, and the pin 8 slides within the slot 5*a*, affording accommodation for the axial movement of the barrel relatively to the handle. When the male portion of the joint 3 clears the female portion, note Fig. 3, the barrel may readily be swung angularly into the loading position shown in Fig. 4. The movements of the parts are simply reversed, to restore the weapon to normal service condition.

It will be readily perceived that variations and

modifications of the structure described above may be made without departing from the invention defined in the following claims.

I claim as my invention:

1. In a combination firearm and billy embodying a barrel member, a handle member including firing mechanism, and a threaded union for normally securing said members in assembly, the combination of two hinge elements severally secured to said members, at least one of said members being rotatable relatively to the hinge element secured thereto, and each hinge element being secured against axial movement with respect to the member to which it is secured, and a sliding pivotal connection uniting said hinge elements, whereby said members may be rotated and moved axially relatively to one another for engaging and disengaging said threaded union, substantially as described.

2. The structure of the next preceding claim, in which said firing mechanism embodies a trigger angularly movable between alternate positions externally of said assembled members, and a pocket formed in said hinge structure to receive the distal end of said trigger in one of its alternate positions.

JOHN G. WEBER.