

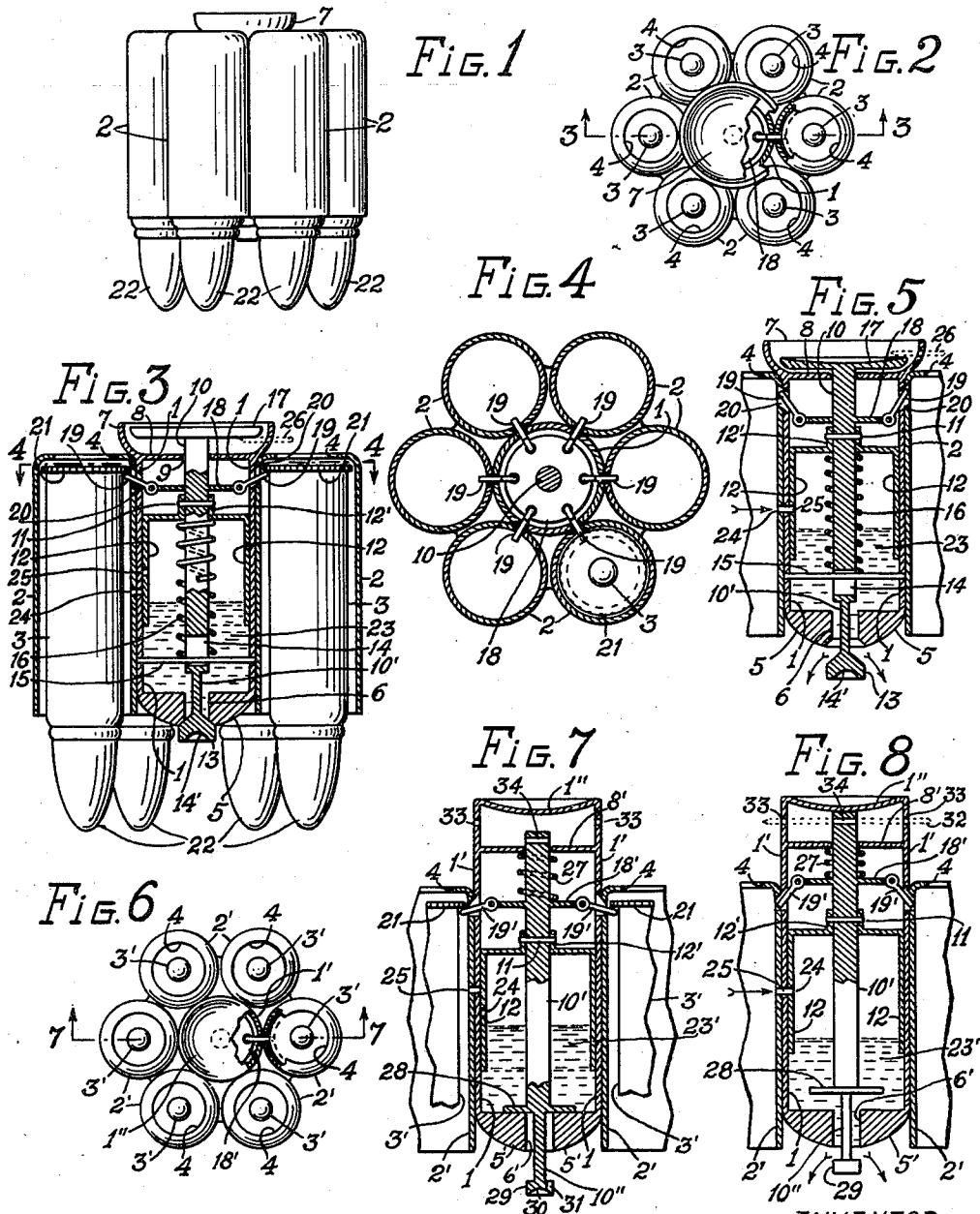
Aug. 20, 1946.

H. C. LIMA

2,406,232

LOADER FOR REVOLVERS

Filed Oct. 9, 1944



INVENTOR.
Hector Consequa Lima,
BY Singer, Ehlert, Stern & Carlberg,

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,406,232

LOADER FOR REVOLVERS

Héctor Consuegra Lima, Habana, Cuba

Application October 9, 1944, Serial No. 557,782
In Cuba October 22, 1943

2 Claims. (Cl. 42—89)

1

This invention relates to loaders for revolvers of any type, and it has for its object to provide an improved loader wherein the pins adapted to retain and release the cartridges, instead of being rotated in a horizontal plane as in a previous application to be filed as a division of application Serial No. 514,801 filed December 18, 1943, are slidable longitudinally within the central cylinder of the loader by means of the pivotal connection of the pins with a disc carried by a longitudinal central stem subjected to the elastic tension of a coil spring surrounding it and carrying exteriorly thereof a disc adapted to receive the pressure of one of the user's fingers, whereby a slight pressure will be sufficient to get the simultaneous re-loading and cooling of a revolver's chambers, thereby giving certain self-acting character to such kind of mechanisms, without altering their efficiency.

Another object of the invention is to provide said loaders with means whereby the discharge of oil or other lubricating liquid will be obtained more safely and efficiently than by mere outlet holes in an inner vessel movable within the central cylinder as is provided in my prior application, the central cylinder being adapted to serve as an oil vessel and the oil being discharged through a seat valve governed by the central longitudinal stem carrying the pins for retaining and releasing the cartridges, so that upon a light pressure being exerted by a finger to actuate the cartridge releasing mechanism, the oil valve will be opened also and the oil will be allowed to freely flow through a wide opening in the bottom portion of the central cylinder, which opening also serves for injection of oil therethrough into the cylinder.

The invention is described with reference to the figures of the accompanying drawing, of which:

Figure 1 is an outer elevational view of the improved loader of my invention.

Figure 2 is a top plan partly broken away view of same.

Figure 3 is a longitudinal vertical section view on line 3—3 of Figure 2, in the cartridge holding position.

Figure 4 is a horizontal section view on line 4—4 of Fig. 3, the cartridges being omitted.

Figure 5 is a section view similar to that of Fig. 3, showing the position of the inner mechanism for cartridge release.

Figure 6 is a top plan view of a modified form of the loader.

Figure 7 is a longitudinal vertical section view

2

on line 7—7 of Fig. 6, showing the position in which the cartridges are held.

Figure 8 is a similar section view to that of Fig. 7, showing the position of the inner mechanism for cartridge release in the modified form.

In Figs. 1, 2, 3, 4 and 5 of the drawing, the numeral 1 indicates the central cylinder of the loader to which are rigidly joined by means of vertical joint lines which can be made by soldering, a plurality of outer cylinders 2 all parallel to the central cylinder 1 and being of the same diameter which will preferably be smaller than the diameter of the central cylinder 1 but larger than the diameter of the cartridges 3 so as to be apt to respectively receive the latter therein, the length of the central cylinder 1 being at least equal to that of the outer cylinders 2.

The outer cylinders 2 are open below and have at their top portion a big opening 4 to permit the examination of the percussion cap of each cartridge. The central cylinder 1 has a thickened bottom portion 5 provided with a wide opening 6 and at its top portion it has an enlarged extension in the shape of a cup 7 the bottom of which is a disc 8 having a central opening 9 and which constitutes the top portion of the central cylinder thereby closing it.

Through the opening 9 of the disc 8 is slidably mounted at the axis of the cylinder 1 a stem 10 carrying fixedly thereon by means of a pin 11 through a sleeve 12 a cylinder 12 closed above and open below which smoothly fits into the central cylinder 1 and has its length equal to about half the length of the central cylinder, its upper portion remaining normally at a certain distance from the disc 8 obturating the cylinder 1 and its lower edge remaining at about the same distance from the bottom 5 of central cylinder 1. The stem 10 has its lower portion 10' of reduced diameter to pass loosely through the wide opening 6 of the bottom 5 of central cylinder 1 and said lower portion ends exteriorly of the bottom 5 in a valve 13 adapted to seat on the lower edge of the opening 6 and provided with a lower recess 14' adapted to rest on a projection usually provided at the top center of the magazine of some revolvers. The stem 10 has near the upper end of the reduced portion 10' a transversal notch 14 which is crossed by a horizontal pin 15 having its ends rigidly secured to the peripheral wall of the cylinder 1 beneath the inner cylinder 12 and said stem 10 is surrounded between the upper portion of the inner cylinder 12 and the pin 15 by a coil spring 16 tending to maintain the stem 10 raised, so that its upper end will project upward

3

above the disc 8 forming the top portion of the central cylinder 1, the projecting end of the stem 10 carrying a disc 17 having a slight recess at its upper face to facilitate the application of the user's finger for operation of the mechanism.

The stem 10 carries between the sleeve 12' and the fixed disc 8 through the opening 9 of which it runs, a transversal disc 18 having a diameter somewhat smaller than the central cylinder and being provided with a number of holes corresponding to the number of outer cylinders. Through said holes are pivotally connected the inner ring-shaped ends of eye-bolts or pins 19 mounted to slide across bevelled openings 20 formed at the joint of the peripheral wall of the central cylinder 1 and of each of the outer cylinders 2, the bolts 19 being sufficiently long to protrude in a position into the outer cylinders 2 until placed beneath the flange 21 of the cartridges 3 lodged in the respective outer cylinders 2 to retain the cartridges 3 within the cylinders 2 and to remain lodged in another position within the central cylinder 1.

The central cylinder 1 is filled with oil 23 in the space limited by the bottom 5 of the central cylinder and by a hole 25 at a middle point of the height of the inner cylinder 12, which can be made by means of an injector through the space between the reduced section 10' of the stem 10 and the wall of the opening 6 of the bottom 5 of the central cylinder 1. The entering of outer air to permit the egress of oil 23 is effected through a hole 24 in cylinder 1 and an adjacent cylinder 2 and hole 25 in inner cylinder 12, which holes register one another in the position in which the cartridges 3 are released.

To discharge the loader into a revolver, the same is placed in resting position of recess 14' of valve 13 on the projection usually carried by the magazine of a revolver of an appropriate caliber, so that the points 22 of the cartridges will partly penetrate into the chambers of such a magazine, and upon the user pressing with one finger the disc 17, the stem 10 will descend against the elastic tension of the spring 16, the valve 13 thereby withdrawing from its seat, and the pins 19 are caused to sufficiently slide downward within the bevelled openings 20 to withdraw them from the interior of the outer cylinders 2 until they free the flanges 21 of the cartridges 3 which will be released and will fall into the chambers of the revolver. This discharge position is shown in Fig. 5 of the drawing. At the same time, as the stem 10 descends, the orifices 24 and 25 will register one another thereby allowing outer air to enter, whereupon the oil 23 contained in the central cylinder will flow out through the opening 6 opened by the valve 13 and it will be spread over the revolver chambers and cool them.

To secure the loader mechanism in a safety position and to hold it in a determined position to facilitate its filling with oil or its undue discharge, a safety pin 26 may be used which is inserted across a hole in the cup 7 above the disc 17 or beneath same, according to the effect sought to be obtained.

In Figs. 6, 7 and 8 is illustrated a modified form of the inner mechanism for operating the pins 19. In this modified form the central cylinder 1' has its upper end closed by an upper portion 1'' slightly recessed toward its centre and the stem 10' is actuated against the elastic tension of a coil spring 27 surrounding the stem 10' between the disc 8' secured to the cylinder 1' and the disc 18' carrying the pins 19', the transversal pin 15

4

of the former form being omitted and the notch 14 being dispensed, the valve being an inner valve instead of an outer valve, by having the shape of a plate 28 projecting transversally from the stem 10' at the upper end of the reduced section 10'' of the stem 10', which reduced section 10'' ends outside the bottom 5' in an enlargement 29 provided with a lower recess 30 adapted to rest on a projection usually provided at the centre of the upper portion of the magazine of some revolvers. In this case the enlargement 29 can be provided with a vertical side groove 31 to facilitate the insertion into the opening 6' of the point of an injector for oil injection.

This modified form of loader is operated similarly as the one described in the first place, by pressing with one finger the upper depressed portion 1'' of the cylinder 1', whereupon the latter descends carrying along with it the outer cylinders 2' with the cartridges 3', the stem 10' remaining immovable, whereupon the pins 19' will run upward into the cylinder 1' thereby releasing the cartridges 3' which will fall into the chambers of the revolver, and by the bottom 5' withdrawing from the valve plate 28, the oil 23' will be allowed to flow through the opening 6' which never remains closed below. In the modified form a safety position may be attained by means of a bolt 32 of sufficient length to pass across holes 33 in the projecting upper portion of the cylinder 1' and across a hole 34 formed in the upper end portion of the stem 10', as shown in Figs. 7 and 8.

It is obvious that changes may be made in the size, oil capacity and number of the outer cylinders, as well as in the construction details of the loader, without thereby altering the essential character of the invention which is such as claimed hereinafter.

What I claim is:

1. A loader for revolvers, comprising a hollow central cylinder having a side wall and closed at its top and at its bottom, a plurality of cartridge receiving cylinders each open at its lower end and arranged around said central cylinder and secured thereto to form a rigid unit, a cartridge control member in the form of a manually operable stem slidably mounted within the central cylinder and provided with a lower reduced portion loosely passing through an opening in the bottom of the central cylinder, a pin fixed transversely to the side wall of the central cylinder within the latter, and passing through a slot in the stem, an inner cylinder closed at its top and open at its bottom fixedly attached to the stem and frictionally engaging the inner wall of said central cylinder, a coil spring surrounding the stem between said transverse pin and the upper closed end of the inner cylinder, a transverse disc having a smaller diameter than the central cylinder fixedly secured to the stem above said inner cylinder, a series of pins pivotally connected to said disc and passing through registering openings formed in the adjacent side walls of the central cylinder and each cartridge receiving cylinder, said pins being adapted to normally hold the cartridges within the cartridge receiving cylinders in one position of said stem and being adapted to release the cartridges in another position of said stem, and finger operable means attached to the upper end of said stem for withdrawing the pins from the cartridge receiving cylinders to a position in which they are adapted to cause the release of cartridges placed in said cartridge receiving cylinders.

5

2. A loader for revolvers, comprising a hollow central cylinder having a side wall and closed at its top and its bottom, a plurality of cartridge receiving cylinders each open at its lower end and arranged around said central cylinder and secured thereto to form a rigid unit, a cartridge control member in the form of a spring pressed stem mounted slidably within the central cylinder and extending through an opening in the upper portion of the central cylinder, said stem being provided with a lower reduced section loosely passing through an opening in the bottom of said central cylinder, a valve fixed to the lower end of the reduced section of the stem and projecting through the opening in the bottom of the central cylinder and having in its outer face a depression adapted to be placed on a central projection usually provided at the top of the revolver to be loaded, an inner cylinder closed at its top and open at its bottom fixedly mounted on the stem and frictionally engaging the side wall of said central cylinder and forming a closed chamber between said inner cylinder and the lower por-

6

tion of the central cylinder for receiving a lubricating liquid adapted to be injected through the opening in the bottom of the central cylinder, which opening is normally closed by the valve on the lower end of said stem, a transverse disc of less diameter than the central cylinder fixedly secured to the stem between the upper end of the inner cylinder and the upper end of the central cylinder, a series of pins pivotally connected to said disc and adapted to move in opposite directions in response to slidable movements of the stem, said pins extending through registering openings formed in the adjacent side walls of the central cylinder and each cartridge receiving cylinder, said pins being adapted to normally retain cartridges placed within the cartridge receiving cylinders, and a finger operable disc on the upper end of the stem for causing the pins to be withdrawn from the cartridge receiving cylinders and thereby are adapted to release the cartridges which have been placed in said cartridge receiving cylinders.

HÉCTOR CONSUEGRA LIMA.