

Sept. 20, 1938.

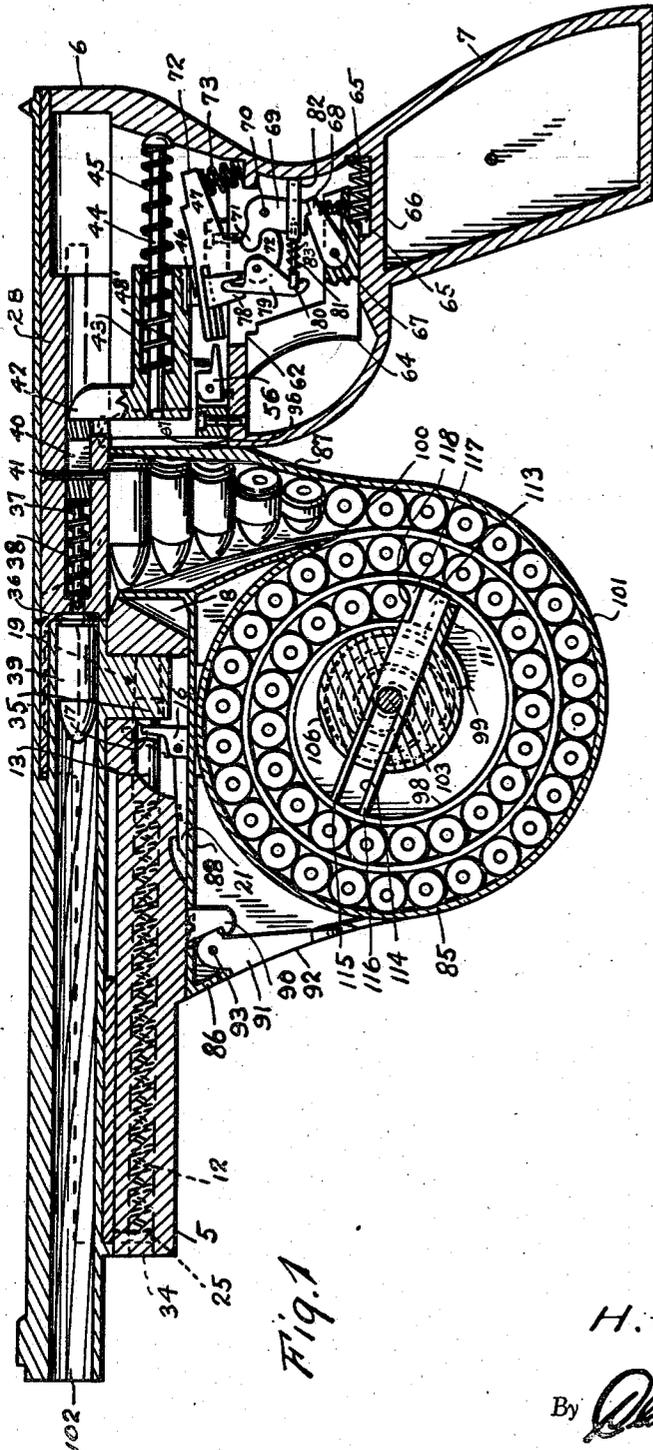
H. J. KOBE

2,130,722

MAGAZINE FOR MACHINE GUN PISTOLS

Filed Dec. 11, 1934

2 Sheets-Sheet 1



H. J. Kobe

By Clarence A. O'Brien
Attorney

Sept. 20, 1938.

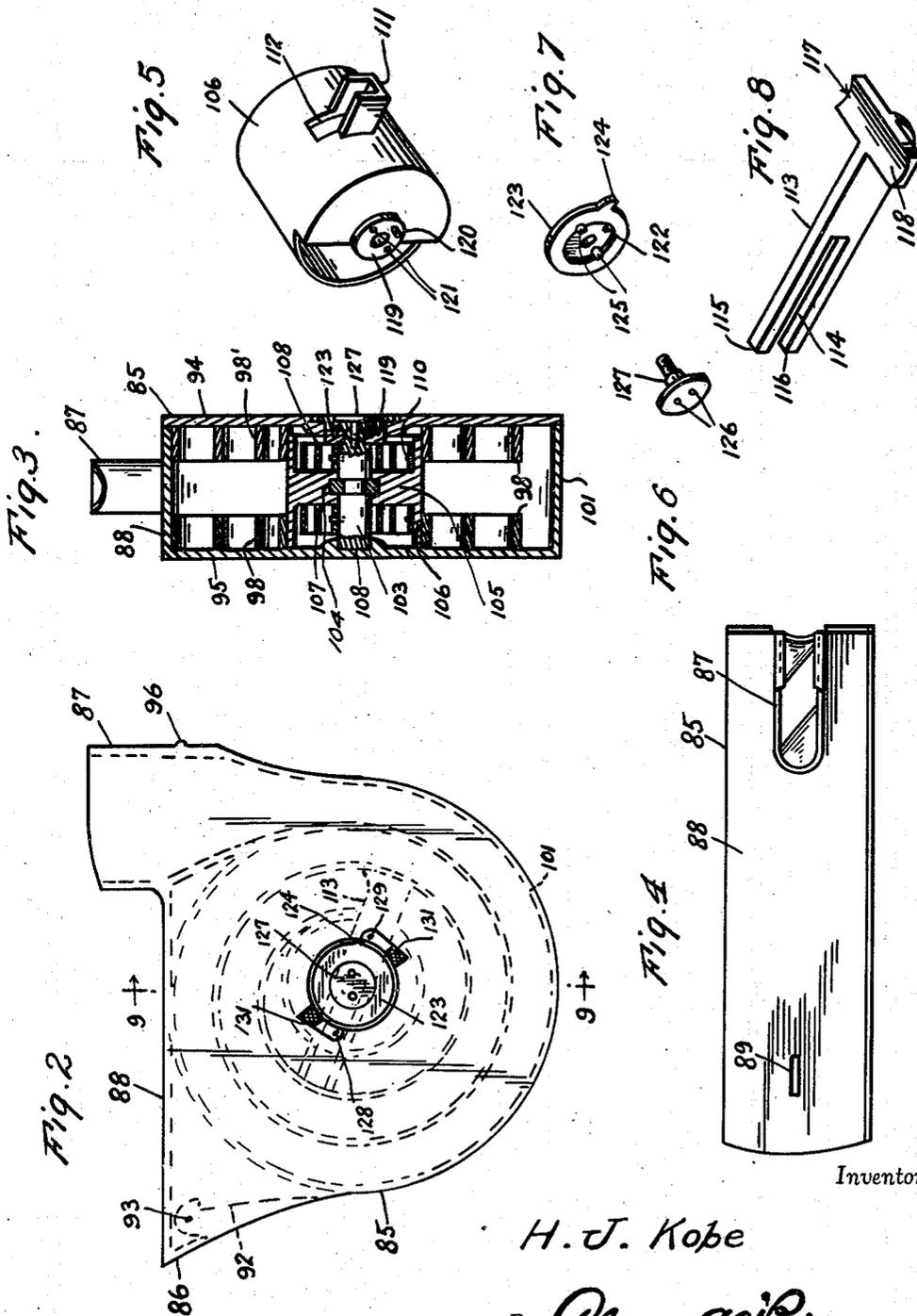
H. J. KOBE

2,130,722

MAGAZINE FOR MACHINE GUN PISTOLS

Filed Dec. 11, 1934

2 Sheets-Sheet 2



Inventor

H. J. Kobe

By *Clarence A. O'Brien*
Attorney

UNITED STATES PATENT OFFICE

2,130,722

MAGAZINE FOR MACHINE GUN PISTOLS

Herman J. Kobe, Bryan, Ohio, assignor of one-tenth to Lisle M. Weaver, Bryan, Ohio

Application December 11, 1934, Serial No. 757,013

7 Claims. (Cl. 42—19)

My invention relates generally to firearms and particularly to a machine gun pistol involving a cartridge magazine enabling setting the pistol to fire continuously automatically until the supply of cartridges is exhausted, or to fire a predetermined number of the cartridges less than the total number thereof which are in the magazine in the mentioned continued automatic manner, or to fire single cartridges automatically each time the trigger is pressed, and an important object of my invention is to provide an automatic pistol of the character indicated which is small in size and light in weight, and can be carried in a holster.

Another important object of my invention is to provide a cartridge magazine for an automatic or machine gun pistol which is small and compact and narrow and lies chiefly within the plane of the handle of the pistol, and which does not protrude laterally beyond the sides of the pistol.

Another important object of my invention is to provide a pistol of the character described above which contains a magazine arranged so that the cartridges are moved from an initial position in the magazine at right angles to the barrel to a position in alignment with the barrel, in such a way as to positively preclude jamming of the cartridges during the firing of the pistol.

Other objects and advantages of my invention will be apparent from a reading of the following description in connection with the drawings, wherein for purposes of illustration I have shown a preferred embodiment of my invention.

In the drawings:

Figure 1 is a longitudinal sectional view taken through the pistol in a plane which lies slightly to the left of the longitudinal center of the pistol so as to show the interior mechanism of the magazine and the interior mechanism of the pistol per se.

Figure 2 is a left hand side elevational view of the magazine.

Figure 3 is an approximately central transverse sectional view through Figure 2 taken approximately on the line 9—9 and looking toward the right in the direction of the arrows.

Figure 4 is a top plan view of Figure 2.

Figure 5 is a perspective view of the spring containing drum of the magazine.

Figure 6 is a perspective view of the latch plate securing screw.

Figure 7 is a perspective view of the latch plate.

Figure 8 is a perspective view of the cartridge follower.

Referring in detail to the drawings, the numeral 5 generally designates a pistol body on which is mounted a slide and the barrel, and which includes a butt portion 6 and the handle portion 7. Just forward of the handle is the opening 8 through which the cartridges are fed from the magazine 85 into the firing chamber.

Depending from the underside of the front end of the barrel is a pair of keyhole-shaped members 34 which are arranged to be positioned in front of similarly formed members 25 on the slide when the barrel and the slide are assembled; and from the rear end of the barrel 20 depends the block 35 with the opposite side grooves 19 which engage the barrel locking pins 18 for locking the barrel engaged with the slide and with the body of the pistol.

The member 28 contains on its front end the extracting ring 36 and interiorly the firing pin 37 which is surrounded by an actuating spring 38 which normally retracts the firing pin inwardly through the opening in the front end of the member 28 after striking the cartridge 39. The body of the firing pin has a slot 40 in which is a retaining pin 41 relative to which the firing pin is slidable. The rear end of the firing pin which is normally retracted by the spring 38 extends into the hollow part of the butt portion of the body of the pistol as indicated in Figure 1 where it can be struck by the upright portion 42 of the hammer 43 which is L-shaped in form as shown and slidably mounted on the hammer mounting pin 44 which carries the spring 45 pushing the same forwardly. The underside of the rear and horizontal portion of the hammer 43 has a depending triangular dog 46 which is engaged by a part of the hammer lock 47. Pivoted to the trigger as indicated at 67 is a spring-pressed trigger latch 68 which is notched to engage with a dog on the trigger latch for the hammer lock which immediately engages the hammer lock release latch 69 which is pivoted in the body of the pistol as indicated at 70 and has a rounded nose 71 engaging in a rounded notch in the depending part 71 of the hammer lock 72 which has the spring 73 positioning the same forwardly and downwardly as shown in Figure 1, a lug on the bottom of the hammer lock being engaged with the upper end of the spring 73. The machine gun latch is slidably mounted in a slot in the forward part of the hammer lock and has a depending fork between the tines of which is engaged the rounded nose on the upper part of the spring-pressed lever 75 which is pivoted in the body and has its lower end

and the rear side thereof engaged by the spring-pressed trip 80 which is L-shaped in form and has the stem 81 working in the tube 82 which is mounted on the rear of the butt of the pistol body and is normally out pressed by the spring 83 so that a tendency exists to tilt the machine gun latch forwardly.

The magazine which is shown in Figure 1 and in Figures 2 through 8, inclusive, is generally designated 85 and comprises a sheet metal or other suitably fabricated shell the main portion of which is cylindrical and has the forward tangential extension 86 and the rear upward extension 87, and the horizontal wall 88 extending between these tangential extensions and abutting the underside of the body part 5 of the pistol. The wall 88 has a slot 89 through which passes the hooked lug 90 on the lower side of the body part for the purpose of engaging the hooked head 91 of the magazine latch 92 which is pivoted as indicated at 93 between the side walls 94 and 95. The lower part of the latch 92 is accessible through an opening in the front end of the magazine casing 85 as indicated in Figures 1 and 2. A boss or lug 96 on the rear wall portion of the upward extension 87 is arranged to engage a notch 97 in the rear wall of the opening 8 in the body through which the extension 87 extends into position to deliver the cartridges into the firing chamber of the pistol.

Transversely spaced guide strips 98 and 99 spiral radially outwardly from the point 99 to form the cartridge channels, which spiral until they meet the point 100 where they join the forward wall of the upward projection 87. Radially outwardly of the last-mentioned portion of the guide strips is the radially outward channel which is defined by the most radially outward portion of the guide strips and the curved wall 101 of the magazine casing, the last-mentioned channel leading directly into the lower part of the extension 87. The cartridges 39 lie across the space between the opposed guide strips and in the channels defined thereby so as to have their axes approximately at right angles to the longitudinal axis of the bore 102 of the barrel. Beginning at the lower part of the extensions 87 the channel is gradually turned from its transverse to a longitudinal position, so as to gradually turn the cartridges as they are fed therein from the mentioned transverse position to a position in which they are in longitudinal alignment with the axis of the bore of the barrel, and in this position ready to be received into the firing chamber. The smooth and even and gradual travel and change of position of the cartridges as they are fed into the firing chamber or into position to be deposited into the firing chamber positively prevent the occurrence of any jamming of the pistol during its operation.

It will be observed that the engagement of the wall 88 of the magazine casing with the barrel latch keeps the barrel latch positively locked so that disassembly of the barrel or loosening thereof cannot occur while the magazine is in position. It will be observed that left hand pulling of the magazine latch 92 will disengage the same from the hook member 90 and that when this disengagement has taken place the magazine may be pulled away from the pistol and another magazine substituted.

Approximately centrally within the guide strips 98 and centrally of the magazine casing and journaled in bosses on the side walls 94, 95 is the axle 103 which has engaged therewith as

indicated at 104 the web 105 of the drum generally designated 106 which contains on opposite sides of the web 105 the spiral springs 107 and 108, respectively, which are attached to the axle by the respective pins 108 and 109 at their inner ends and have their outer ends pinned as indicated at 110 to the interior of the circumferential portion of the drum. The drum has extending approximately normal to the periphery thereof the channel-shaped member 111 which communicates with the opening 112 adjacent thereto to permit the insertion in the drum of the follower which is generally designated 113 and which is bifurcated as indicated at 114 to provide legs 115 and 116 which go on opposite sides of the axle as indicated in Figure 3 when the follower is inserted through the opening 112 by passing the same through the channel 111, from which channel the transverse head 117 extends as indicated. The head 117 has a concave face 118 which engages the last shell in the guide channels as shown in Figure 1 for pushing the shells around in the magazine and out thereof through the extension 87 and into the firing chamber of the pistol. One end of the drum 106 is provided with a latch disk 119 which is located in an opening in the left side of the magazine and is provided with a peg 120 to engage a hole in a latch plate to be described and is additionally provided with holes 121.

The peg is to be engaged with the hole 122 in the latch plate 123 which has on its circumference the catch 124 which engages the latches to be described, the disk 123 also being provided with holes 125 to correspond with the holes 121, which holes selectively receive pins 126 on the head of a screw 127 which is threaded into the end of the axle 103 as shown at 109.

On diametrically opposite sides of the opening in the wall 94 in which the structure described immediately above is located are pivoted as indicated at 128 and 129 the 10-shot latch 130 and the 20-shot latch 131. The 10-shot latch 130 is arranged to be swung to a position to engage the catch 124 on the disk 123, which disk 123 is pinned to the axle 103 by the pins 126 which pass into the end of the axle, so that with the 10-shot latch 130 set, the gun can be fired only ten times subsequent to the point at which the latch is set. With the latch 131 similarly set and the latch 130 not set, the pistol may be fired twenty times from the point at which the latch is set. With the latches 130 and 131 disengaged, full automatic machine gun firing of the pistol to empty the magazine completely may be carried out, as well as single shot emptying of the magazine. The magazine is intended to hold fifty cartridges, although a greater or a less number may be arranged for.

It will be observed that the magazine need be no wider than the length of the cartridges used or not substantially so, so that the magazine need not be considerably wider and may be narrower than the thickness or width of the pistol and be of such dimensions to be not greatly larger than an ordinary trigger guard, if desired, so that no unwieldy enlargement of the ordinary pistol dimensions is necessitated for incorporating the invention. My construction is strictly adaptable to a pistol for carrying in a holster, which is impossible with pistols having magazines which extend laterally beyond the sides of the pistol or are in other respects unwieldy and projecting. It is obvious that my magazine may be modified without invention for use with automatic pistols.

other than that herein described for illustrative purposes.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not desire to limit the application of the invention thereto, and any change or changes may be made in the materials and in the structure and arrangement of the parts, within the spirit of the invention and the scope of the subjoined claims.

What is claimed is:

1. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie within the sides and under the barrel of the pistol and having a vertical substantially tangential delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck holding and guiding the cartridges into said breech portion into substantial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel.

2. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie in the plane of the pistol and having a vertical substantially tangential delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck holding and guiding the cartridges into said breech portion into substantial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel, said breech portion being arranged to act as a stop for the uppermost cartridge in said delivery neck while said barrel is in initial position, said breech being arranged to assume another position in which it is remote from the upper end of said neck and the uppermost cartridge in said neck is permitted to be moved by said rotary spring actuated means from said neck into axial alignment with the bore of said barrel.

3. A cartridge machine for a machine gun pistol, said machine gun pistol including a body, a reciprocable barrel mounted on said body and having a loading breech, said body being formed with an opening affording access to said loading breech; said cartridge magazine comprising a casing, means detachably connecting the front end of said casing to a part of said body forwardly of said opening whereby the top of the casing is positioned along the underside of said body, a cartridge delivery neck rising from said casing at a point to the rear of said means and extending into said opening, parallel walls within said casing arranged to define a spiral cartridge handling channel leading into said cartridge delivery neck, the axis of said spiral channel being horizontal and transverse with respect to the longitudinal axis of said body, said cartridge delivery neck having a cartridge positioning conduit into which said cartridge handling channel leads, said cartridge positioning conduit being curved to turn the cartridges from their transverse position to a position in axial alignment with said barrel as the cartridges are

delivered to said breech, and spring operated follower means in said casing and working in said cartridge handling channel for pushing the cartridges through said cartridge positioning conduit.

4. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie within the sides and under the barrel of the pistol and having a vertical delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck defining a cartridge holding and guiding conduit opening into said breech portion into substantial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel and said conduit, said rotary spring actuated means comprising a spring operated rotor mounted within said casing and within the inner convolution of said spiral channel, and a radial arm projecting from said rotor and working through a slot formed in the radially inward wall of said spiral cartridge handling channel and engaging the last cartridge in the channel.

5. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie within the sides and under the barrel of the pistol and having a vertical delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck defining a cartridge holding and guiding conduit opening into said breech portion into substantial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel and said conduit, said rotary spring actuated means comprising a spring operated rotor mounted within said casing and within the inner convolution of said spiral channel, and a radial arm projecting from said rotor and working through a slot formed in the radially inward wall of said spiral cartridge handling channel and engaging the last cartridge in the channel, said radial arm being radially extensible to follow the outer convolutions of said cartridge handling channel.

6. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie within the sides and under the barrel of the pistol and having a vertical delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck holding and guiding the cartridges into said breech portion into substantial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel, said rotary spring actuated means comprising a spring operated rotor mounted within said casing and within the inner convolution of said spiral channel, and a radial arm projecting from said rotor and working through a slot formed in

the radially inward wall of said spiral cartridge handling channel and engaging the last cartridge in the channel, said radial arm being radially extensible to follow the outer convolutions of said cartridge handling channel, and means for coordinately extending said radial arm.

7. A cartridge magazine for a machine gun pistol of the type having a barrel including a breech portion, said magazine comprising a narrow container arranged to lie within the sides and under the barrel of the pistol and having a vertical delivery neck reaching to a position immediately below said breech portion, said container including a spiral cartridge holding and guiding channel in which the cartridges lie transversely of the pistol, said channel having a portion in said neck holding and guiding the cartridges into said breech portion into substan-

tial parallelism with the bore of the barrel, and rotary spring actuated means in said container pushing the cartridges along said channel, said rotary spring actuated means comprising a spring operated rotor mounted within said casing and within the inner convolution of said spiral channel, and a radial arm projecting from said rotor and working through a slot formed in the radially inward wall of said spiral cartridge handling channel and engaging the last cartridge in the channel, and lock means accessible from the exterior of said casing for predetermining the amount of rotation of said rotor and arm to limit the number of cartridges delivered by the magazine, said lock means having elements mounted on said casing and adjustable to engage parts of said rotor.

HERMAN J. KOBE.