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O. A. HOFFMANN.

MAGAZINE PISTOL.

(Application filed June 12, 1899.

No Model.)

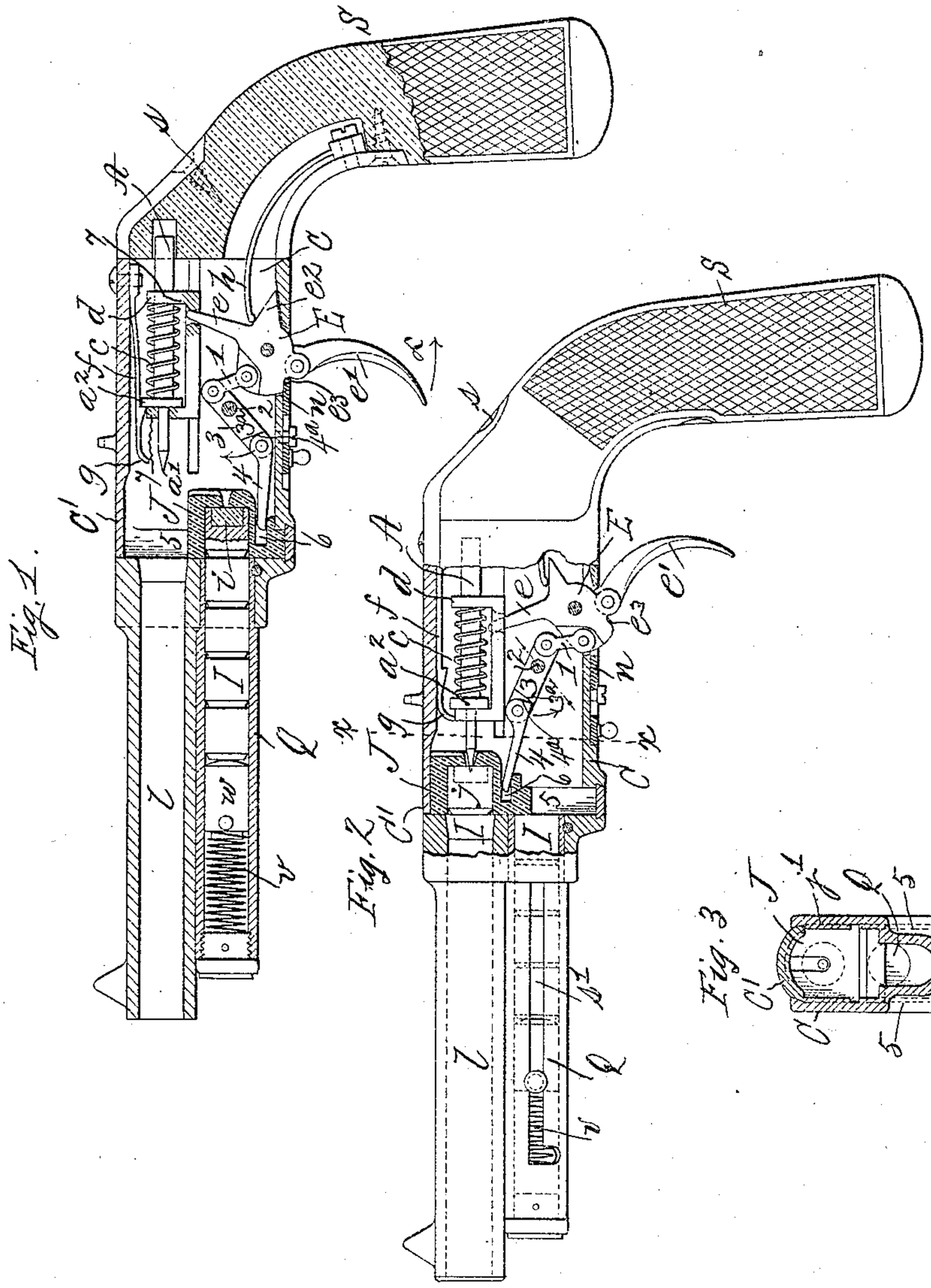

Fig. 1.

Fig. 2.

Fig. 3.

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MAGAZINE-PISTOL.

SPECIFICATION forming part of Letters Patent No. 658,010, dated September 18, 1900.

Application filed June 12, 1899. Serial No. 720,286. (No model.)

To all whom it may concern:

Be it known that I, OTTO ANTON HOFFMANN, a subject of the Emperor of Germany, residing at Csepel, near Buda-Pesth, Austria-Hungary, have invented certain new and useful Improvements in Repeating Pistols; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

This invention has relation to repeating or magazine pistols; and it has for its object the provision of means whereby the loading and firing are controlled by movements imparted to the trigger—that is to say, by the usual pull upon and release of the trigger.

That my invention may be fully understood I will describe the same in detail, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are longitudinal vertical sections showing the firing mechanism in its loading and firing position, respectively; and Fig. 3 is a section taken on line *x x* of Fig. 2 looking toward the barrel.

In Figs. 1 and 2, *l* indicates the barrel, and Q the magazine-tube below the same, both opening into the frame C. The magazine-tube contains a spring-actuated follower *w*, provided with a radial pin projecting through a longitudinal slot *s'* in the magazine-tube Q, said pin carrying a button and said slot merging into a radial slot, into which the radial pin can be turned when the follower is moved forward therethrough to compress the feed-spring *v* and lock it and the follower out of action, said pin and button also serving as an index, indicating the number of cartridges in the magazine.

The breech-block J is a substantially-polygonal block provided in its front face with a circular cartridge receiving or firing chamber *j*, an aperture for the percussion-point of the firing-pin A being formed in the rear wall of the breech-block in line with the axis of said firing-chamber. The upper face of the breech-block J is convex transversely to fit the concave under side of a cover for the frame C, said cover having a dovetail connection with said frame (see Fig. 3) and a tang at its rear end extending down onto the stock or butt S, to which it is secured by a screw *s*, so that ready access may be had to the breech-action. The breech-block J is furthermore provided on either side with a vertical guide-rib *j'*, (shown in dotted lines in Fig. 3,) fitting vertical guide-grooves 5, formed in the opposite vertical walls of the frame C, said ribs also serving to take up the recoil.

The front face of the breech-block J is of such area vertically as to partly cover the delivery-opening of the magazine-tube Q when said breech-block is in the firing position, as shown in Fig. 2, for the purpose of holding back the cartridges and preventing their passage into chamber C.

Below the firing-chamber *j* the breech-block J is provided with a transverse groove 6, formed in its rear face, engaged by a finger 4, pivoted to the outer end of the longer arm of a two-armed lever 3, mounted on a transverse pin 2 in frame C. As shown, the circular knuckle-joint of the finger 4 has a straight portion 4^a, adapted to abut against a corresponding shoulder 3^a on lever 3 to afford the required movements to said finger in lifting and lowering the breech-block. The rear shorter arm of the lever 3 is pivotally connected with the trigger-hub E by means of a link 1, and said trigger-hub has a shoulder e^2, upon which bears the free end of the trigger-spring *h*, and, as will be readily seen from Figs. 1 and 2, said shoulder e^2 is so located that the spring *h* will retain the trigger and therethrough the breech-block against motion when the latter is in the firing position. The frame C is provided with a locking-slide *n*, adapted to engage a shoulder e^3 on the trigger when in its normal position, Fig. 1, in which position the arm or shoulder e^2 of said trigger bears upon the bottom of the frame C, thus locking said trigger against motion in either direction.

The trigger *e'* is secured to its hub in any usual manner, and said hub has an arm *e* in perpetual engagement with a slide *d*, having

longitudinal to-and-fro motion in guide-grooves formed in the opposite side walls of frame C, and said slide has a vertical extension 7 at either end, in which is mounted the firing-pin A, having the attenuated percussion portion a' at its forward end. The firing-pin A has a stop-collar a^2 and carries the impelling-spring c, abutting against said collar and the rear extension 7 of the slide d, and said collar, together with the forward extension 7 of sleeve d, serves to limit the throw of the firing-pin A.

To the under side of the cover C' of frame C is secured a sear-spring f, provided with a lock-notch adapted to engage the collar a^2 on the firing-pin A, the forward free end of said spring being bent down, as shown at g, into the path of the forward extension 7 of the slide d, and to the aforesaid cover C' is secured the rear sight.

When the breech-action is in its normal position, Fig. 1, and the trigger e' is pulled rearwardly in the direction of arrow L against the stress of the spring h, the finger 4 lifts the breech-block, with a cartridge in its firing-chamber, into firing position, Fig. 2. Simultaneously with this upward movement of the breech-block J the slide d is moved forward by the arm e of the trigger-hub E, and as the firing-pin A is then held against motion with said slide by the sear-spring f the power-spring c will be brought under tension until the forward vertical extension 7 of the said slide impinges upon the turned-down free end g of sear-spring f and lifts the same out of engagement with the collar a^2 on the firing-pin A, thereby releasing the latter, the power-spring c impelling the firing-pin forward to explode the fulminate pellet i of the cartridge and fire the charge, Fig. 2. The described movements of the breech-block J and slide d are so timed that the firing-pin A will be released as soon as the said breech-block is in its firing position and is held in that position by the hold on the trigger e'. It is obvious that as soon as the trigger e' is released the spring h, acting upon the shoulder or arm e^2 and on the trigger-hub E, will tilt or turn the latter rearwardly, thereby lowering the breech-block into its loading position and returning the slide d and firing-pin into their normal positions, the lock-notch on the sear-spring f snapping over the collar a^2 on said firing-pin, thus placing the breech-action ready for firing the next shot by a rearward pull on the trigger e'.

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

1. In a breech-loading magazine-firearm, the combination with the barrel, a cartridge-magazine below the same, and opening into the frame of the arm, and suitable cartridge-feed mechanism in said magazine; of a vertically-movable breech-block provided with a cartridge receiving and firing chamber and with an aperture leading to said chamber for the percussion end of the firing-pin, a lever in perpetual engagement with the breech-block and adapted to move the same into position for loading or firing; a trigger connected with and actuating said lever, and a firing-pin cocked and released by the movements of the trigger, for the purposes set forth.

2. In a breech-loading magazine-firearm, the combination with the barrel, a cartridge-magazine below the same and opening into the frame of the arm, and suitable cartridge-feed mechanism in said magazine; of a vertically-movable breech-block provided with a cartridge receiving and firing chamber and with an aperture leading to said chamber for the percussion end of the firing-pin, a lever in perpetual engagement with the breech-block and adapted to move the same into position for loading or firing, a trigger connected with and actuating said lever, a firing-pin cocked and released by the movements of the trigger, and a spring acting on the trigger to return the breech-action into normal loading position, for the purposes set forth.

3. In a breech-loading magazine-firearm, the combination with the barrel, the magazine below the same and opening into the frame of the arm, suitable cartridge-feeding mechanism in said magazine, a vertically-movable breech-block provided with a cartridge receiving and firing chamber, and an aperture leading thereto for the percussion-point of the firing-pin, a rock-lever in perpetual engagement with the breech-block, a trigger and a connection between the same and the lever for rocking the latter; of a slide in perpetual engagement with the trigger and provided with a vertical extension at either end, the firing-pin mounted in said extensions and having a stop-collar a^2, the power-spring mounted on the firing-pin between said collar and the rear extension of the slide, and a sear-spring having a lock-notch adapted to engage the aforesaid collar a^2 and having its forward free end bent down into the path of the forward extension on the slide, substantially as and for the purpose set forth.

4. In a breech-loading magazine-firearm, the combination with the barrel, the magazine below the same and opening into the frame of the arm, suitable cartridge-feeding mechanism in said magazine, a vertically-movable breeck-block provided with a cartridge receiving and firing chamber, and an aperture leading thereto for the percussion-point of the firing-pin, a rock-lever in perpetual engagement with the breech-block, a trigger, and a connection between the same and the lever for rocking the latter; of a slide in perpetual engagement with the trigger and provided with a vertical extension at either end, the firing-pin mounted in said extensions and having a stop-collar a^2, the power-spring mounted on the firing-pin between said collar and the rear extension of the slide, a sear-spring having a lock-notch adapted to engage the aforesaid collar a^2 and having its forward

end bent down into the path of the forward extension on the slide, and a spring acting on the trigger to hold the breech-action in its normal position of loading, substantially as and for the purpose set forth.

5. The combination with the vertically-movable breech-block and the trigger, of the lever 3 linked to said trigger, a finger 4 in perpetual engagement with said breech-block and pivotally connected to the forward end of the lever, the latter and the finger provided with coacting abutments arranged to limit the movement of said finger independently of the lever, substantially as and for the purpose set forth.

6. The combination with the frame C and the firing mechanism, of a cover for said frame having dovetail connection with the frame-walls, and a tang adapted to be locked to the stock of the firearm, and the sear-spring *f* secured to the under side of said cover, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

OTTO ANTON HOFFMANN.

Witnesses:

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LAFOR BAIRS.