No. 771,491. PATENTED OCT. 4, 1904.

E. G. PARKHURST.

CARTRIDGE PACKET.

APPLICATION FILED FEB. 8, 1896.

NO MODEL.

Fig. 1.

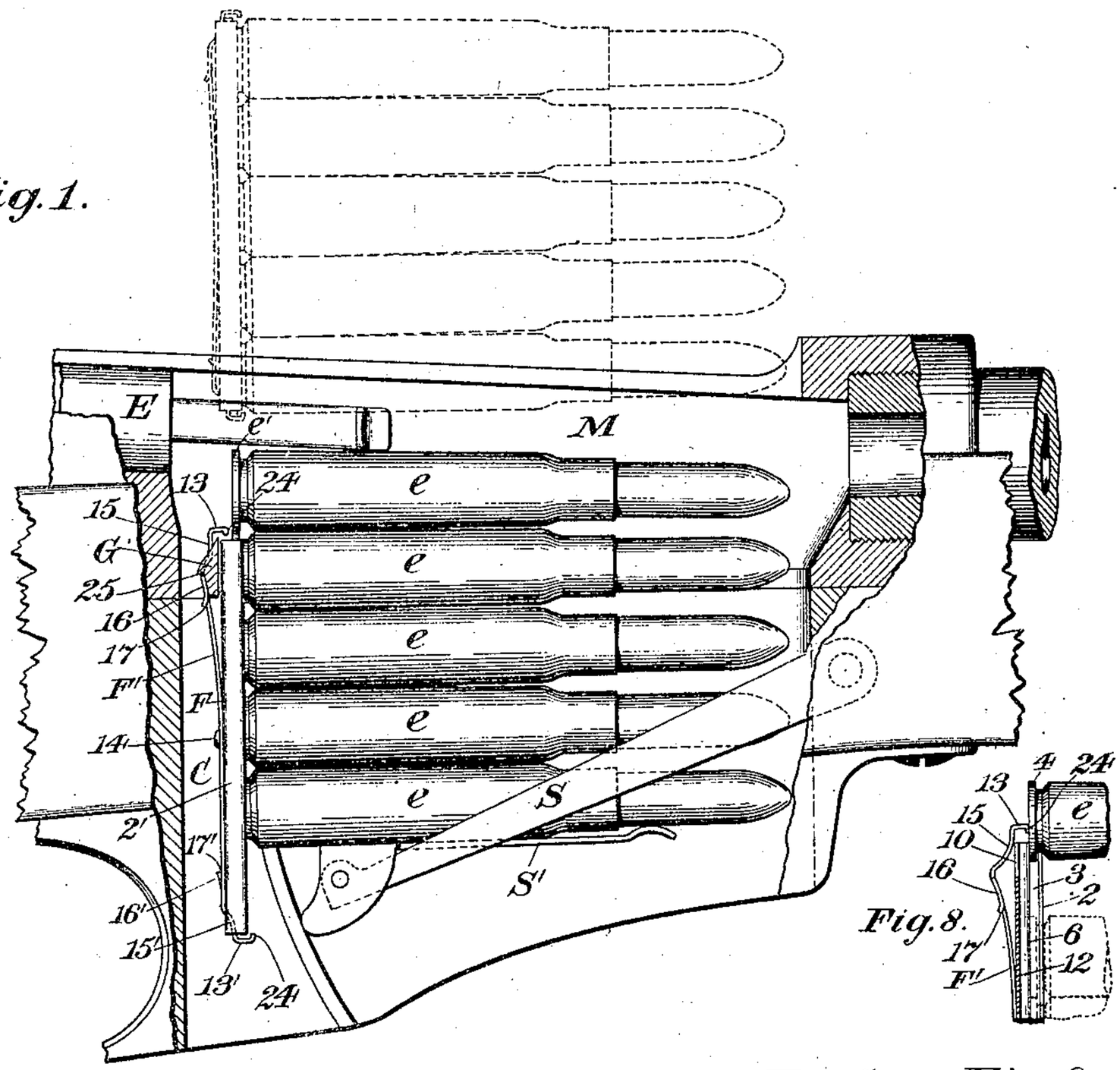


Fig. 8.

Fig. 2.

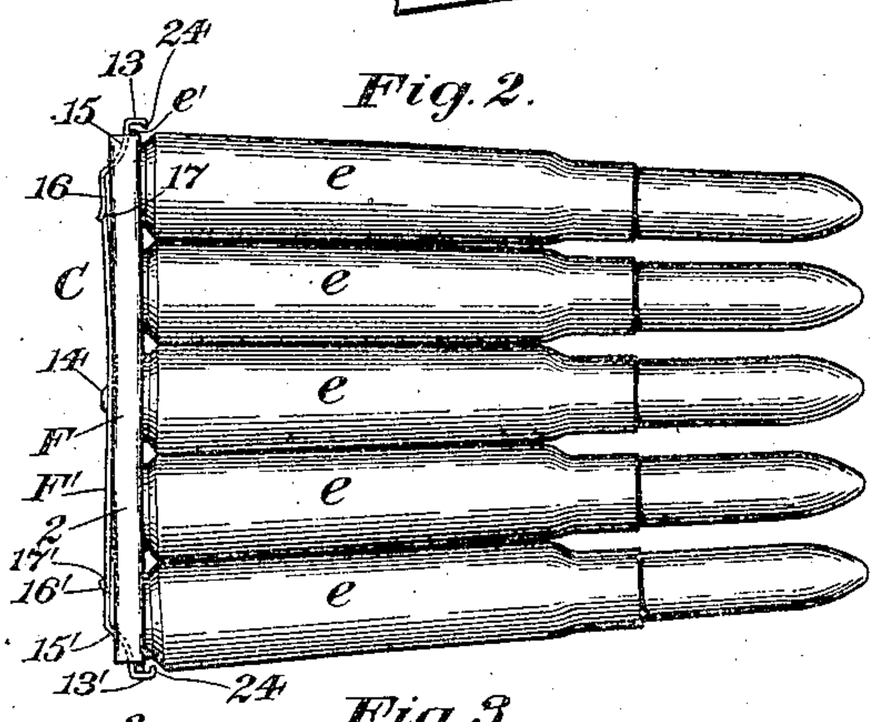


Fig. 4.

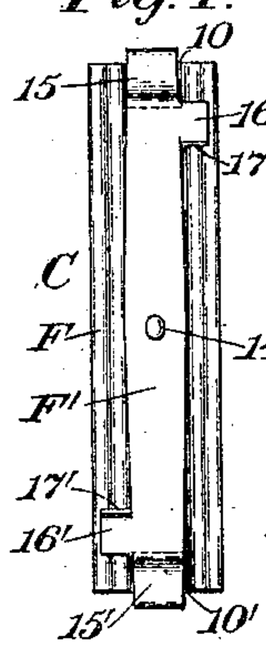


Fig. 5.

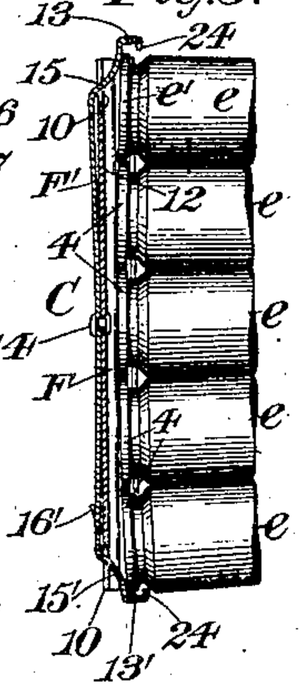


Fig. 6.

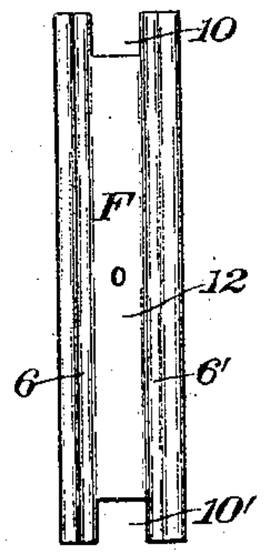


Fig. 3.

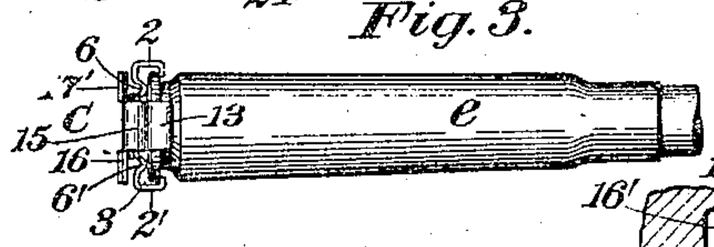
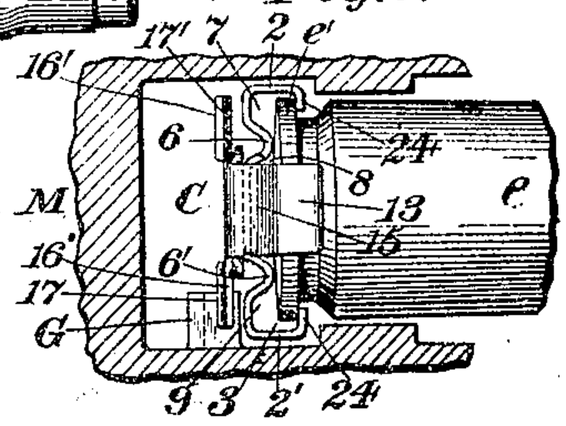


Fig. 7.



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No. 771,491.

Patented October 4, 1904.

UNITED STATES PATENT OFFICE.

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CARTRIDGE-PACKET.

SPECIFICATION forming part of Letters Patent No. 771,491, dated October 4, 1904.

Application filed February 8, 1896. Serial No. 578,551. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. PARKHURST, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Cartridge-Packets, of which the following is a specification.

This invention relates to cartridge-packets for breech-loading small-arms of the class known as "magazine bolt-guns" and to means for actuating the locking member of said packet to release the cartridges.

One object of this invention is to furnish a cartridge-packet for guns of the class specified comprising a cartridge-clip body having a longitudinal cartridge-head channel adapted for receiving the headed ends of a series of cartridges, a series of superimposed cartridges having their headed ends seated in the longitudinal channel of the clip-body, and a cartridge-locker supported on said clip-body and having locking-faces for engaging the terminal cartridges of the series of cartridges whereby to hold said cartridges securely in place, and to so organize the parts of said packet that the same may be inserted as a unitary article into the magazine of the gun with which the cartridge-packet is used and whereby the same may be inserted into said magazine either side up, as will be hereinafter more fully described.

A further object of the invention is to furnish a cartridge-clip having a shiftable resilient cartridge-locker having means at opposite ends thereof for engaging the extreme rear headed ends of the terminal cartridges of a row of cartridges, and having means whereby the opposite cartridge-engaging ends of the locker may be actuated independently to throw one or the other end out of engagement with the adjacent terminal cartridge, and to provide an actuator whereby one or the other end of the cartridge-locker may be automatically disengaged from the adjacent terminal cartridge of the series simultaneously with the insertion of the clip and cartridges into the magazine of the gun, and to so construct the cartridge-clip that the same will be light, strong, and serviceable and may be readily operated to lock the cartridges in place in said clip.

A further object of the invention is the provision of means located within the magazine of the gun for releasing the locker from the cartridges contained within the clip, so that they may be forced upward by the follower carried by the cartridge-lifting member.

In the drawings accompanying and forming part of this specification, Figure 1 is a sectional side view of a portion of a magazine bolt-gun, showing in full lines one of my improved cartridge-packets in place therein, said figure showing the upper end of the cartridge locker or clip thrown backward out of engagement with the upper cartridge of the packet by means of the locker-actuator and also showing the cartridges supported upon the cartridge-lifter of the gun. This figure further shows in dotted lines a packet in position to be inserted into the magazine of the gun. Fig. 2 is a side elevation of the cartridge-packet assembled for use. Fig. 3 is a plan view of the cartridge-packet shown in Fig. 2, a portion of the cartridges being broken away. Fig. 4 is a rear view of the cartridge-clip seen from the left hand in Figs. 2 and 3. Fig. 5 is a central longitudinal section of the clip, showing the headed ends of the cartridges in side elevation. Fig. 6 is a rear view of the clip-body with the cartridge-locker removed. Fig. 7 is a sectional plan view, upon a relatively large scale, of a portion of the gun-magazine and cartridge-packet therein, said figure showing the wedge which actuates the cartridge-locker to release the cartridge. Fig. 8 is a side view of a portion of one end of the clip and a cartridge, illustrating in full and dotted lines the manner in which the cartridges are assembled relatively to the clip.

Similar characters designate like parts in all the figures of the drawings.

As a unitary article of commerce the cartridge-packet herein shown and described comprises a cartridge-clip, which is designated in a general way by C, and a series of superimposed cartridges normally held against lon-

gitudinal and lateral movement by means of holding devices upon the clip, as will be hereinafter more fully described. The clip C in the preferred construction and organization thereof herein shown and described comprises an oblong clip-body or carrying member (designated in a general way by F) and a cartridge-locking member (designated in a general way by F′) carried upon and adapted for movement relatively to the clip-body. The clip-body F, which may be constructed of sheet-steel or other suitable material of a rigid or slightly-resilient character, is shown having longitudinal flanges 2 and 2′ at opposite side edges thereof, which flanges project forwardly and then inwardly and form a relatively wide cartridge-head-receiving channel 3 for receiving the flanged heads 4 of the cartridges *e*, said flanges extending from end to end of the clip-body and being in practice separated sufficiently to permit a free and unobstructed movement of the flanged heads of the cartridges in the channel 3, formed by said flanges, when the cartridges are unlocked relatively to the clip. These rectangular flanges 2 and 2′ constitute retaining-hooks which engage over the flanged heads of and hold the cartridges in superimposed alinement and against movement transversely of the clip-body, as will be understood by reference to Figs. 2, 3, and 7 of the drawings. For the purpose of providing clearance-spaces between the end faces of the cartridge-heads and the adjacent face of the clip-body for receiving dirt, grease, and analogous substances, which would otherwise tend to obstruct the channel in the clip-body and interfere with the proper action of the cartridges in said channel, and also for the purpose of preventing the accidental cramping or jamming of the cartridges in said channel and for facilitating the removal of the cartridges with little frictional resistance I have shown the clip-body formed with two longitudinally-disposed ribs or beads 6 and 6′, located upon the inner face of the back wall of the clip-body, one at each side of the longitudinal axis of said body and extending, preferably, from end to end thereof. These ribs or beads 6 and 6′ practically constitute narrow tracks or slideways, against which the end faces of the cartridge-heads bear and along which said cartridges may slide during their insertion into and removal from the clip-channel 3. The countersunk portions, or those portions of the rear wall of the cartridge-head channel 3 which are located, respectively, between the cartridge-supporting ribs and between said ribs and the side flanges 2 and 2′, are located some distance from the end faces of the cartridge-heads and form clearance-spaces or furrows 7, 8, and 9, which extend from end to end of the clip-body and furnish repositories for any dirt, grit, or extraneous matters which may accidentally enter the cartridge-head channel 3 of the clip-body and which would otherwise tend to clog said channel and obstruct the free movement of the cartridges as they are being forced out of the clip by the cartridge-lifter of the magazine of the gun with which the packet is being used. In practice the alternating ribs and furrows will usually be formed by corrugating the metal of the back plate of the clip-body between correspondingly-corrugated dies, and the furrows 7 and 9 will be so formed that the furrow or clearance-space 8 at the middle portion of the clip-body will be of relatively large capacity as compared with the capacity of the furrows 7 and 9, which are separated from the furrow 8 by the ribs 6 and 6′, which is a matter of considerable importance for the purpose of keeping the middle part of the channel of the clip-body free from obstruction. In the drawings these furrows 7, 8, and 9 are shown of substantially equal depth, and it will be obvious that the inner face of the back wall of the furrow or clearance-space 8 might be more remote from the front faces of the ribs 6 and 6′ (against which the end faces of the cartridge-heads bear) than the inner face of the back walls of the furrows 7 and 9, which would form a middle furrow or clearance-space of greater depth than the furrows located at opposite sides thereof and would also provide a raised longitudinal middle portion or bearing-face 12 for the locking member F′ upon the outer or rear side of the clip-body, which would in this case lie in a plane parallel to but extend beyond the adjacent side portions of said clip-body. The opposite ends of the clip-body are shown centrally notched, as at 10 and 10′, respectively, to furnish convenient ways for the operation of the cartridge-head-engaging ends of the cartridge-locker F′.

The cartridge-locker F′, which may be constructed of resilient material, such as spring-steel, is shown supported upon the clip-body and is provided at opposite ends thereof with cartridge-head-engaging hooks or locking-faces 13 and 13′ in position and adapted for engaging the heads of the opposite end cartridges *e* of the row of cartridges, as will be hereinafter more fully described. The engagement and disengagement of the locking-faces 13 and 13′ with and from the cartridges will be effected by a rocking movement of the cartridge-engaging ends of the cartridge-locker. In the preferred form thereof herein shown the cartridge-locker is in the nature of a flat sheet-metal spring of a width equal to the width of the raised bearing-face 12 of the clip-body, is secured approximately midway of its length, preferably by a rivet 14, to the clip-body F, and is shown having its opposite ends bent inwardly in the plane of the body portion thereof to form the opposing cartridge-head-engaging hooks or locking-faces 13 and 13′. Inclined cartridge-head abut-

ments 15 and 15′ are formed between the hooks or locking-faces 13 and 13′ and the ends of the body portion of the cartridge-locker, which abutments normally extend through notches 10 and 10′ of the clip-body. No claim is made in this application to a clip provided with said inclined faces or abutments, as such subject-matter is set forth and covered by my divisional application, filed June 9, 1897, Serial No. 640,001.

Referring to Figs. 2, 5, and 7 of the drawings, it will be observed that when the cartridges are locked in their assembled positions in the clip one of the locking-faces, as 13, of the cartridge-locker engages over the flange *e′* of the uppermost cartridge of the series, while the other locking-face, as 13′, engages under the flange of the lowermost cartridge of the series, the opposite ends of the locker extending through the notches 10 and 10′, whose walls constitute a means for holding the locker against movement transversely of the clip-body. It will be obvious, however, that the means for holding the cartridge-locker against accidental movement transversely of the cartridges might be variously modified within the scope of my invention.

The cartridge-engaging hooks or locking-faces 13 and 13′ are preferably located at such a distance apart that they will exert but little, if any, pressure upon the flanges of the terminal cartridges, their functions being simply to hold the cartridges in place in the clip and at the same time permit a slight movement of said cartridges relatively to each other and longitudinally of the clip-body. This is desirable, as it renders the cartridge-packet as a whole slightly flexible and, owing to the movement of the cartridges relatively to each other and to the clip-body, which would occur in the ordinary handling of the packet, prevents in a great measure the injurious accumulation of dirt, &c., between the cartridge-head and the clip-body.

For the purpose of facilitating the unlocking movements of the cartridge-locker said cartridge-locker is provided at opposite ends thereof with laterally-projecting levers or actuators 16 and 16′, respectively. These levers are located at opposite sides, respectively, of the cartridge-locker, one of them extending outward from the right-hand side edge of the main body of the locker and the other extending outward from the left-hand side edge of the main body of the locker, as seen in Fig. 4 of the drawings, said levers extending over the opposite depressed portions of the clip-body and terminating near the extreme side edges thereof. The inner edges of these levers or actuators 16 and 16′ are shown bent outwardly to form inclined guides 17 and 17′, respectively, to facilitate the entrance between said levers or actuators and the clip-body of the wedge-like locker-actuator G, as will be hereinafter more fully described.

By forming the clip-body with a relatively elevated bearing-face 12 on the back side thereof, which extends substantially from end to end of the clip-body, and supporting the cartridge-locker on said bearing-face, as hereinbefore described, the cartridge-locker may lie closely against the bearing-face practically its entire length, while sufficient space will be provided between the locker-levers 16 and 16′ and the clip-body for the easy entrance of the locker-actuating wedge G between either of said levers and the clip-body.

As a means for actuating the cartridge-locker of the packet to release the cartridges I have shown in Figs. 1 and 7 a locker-actuator G, which in the preferred form thereof herein shown is in the nature of a wedge. This wedge will usually constitute a fixture of the magazine or receiver M of the gun and will be located (see Fig. 7) in such position with respect to the path traversed by the packet as it is forced into the receiver that it will engage between one of the laterally-projecting levers of the cartridge-locker and the rear face of the clip-body when the packet is pressed home in said receiver and will force said lever backward to thereby impart a rocking movement to and release one end of the cartridge-locker from engagement with the terminal cartridge of the series.

For the purpose of illustrating the manner in which the cartridges of the packet are automatically unlocked relatively to the clip as the packet is inserted into the magazine of a gun I have shown in Fig. 1 of the drawings a portion of a magazine bolt-gun and a cartridge-packet supported in operative position in the magazine thereof with the cartridge-locker of said packet in its unlocked position. In this figure M represents a magazine having the cartridge-locker actuator G, constituting a fixture of one of the side walls thereof, and S represents a cartridge-lifting member of the cartridge-elevator, which is pivotally supported near the front end of and extends into the magazine, and S′ designates the follower, which is pivotally carried at the free end of the cartridge-lifting member and supports the cartridges of the cartridge-packet. All of these elements of the gun with the exception of the locker-actuator may be of any well-known or desired construction and organization.

By constructing and organizing the parts of the clip as hereinbefore described and as shown in the drawings the cartridge-packet may be inserted into the magazine of the gun either side up, and owing to the peculiar relative disposition of the locker-levers 16 and 16′ the uppermost locker-lever will when the packet is inserted into the magazine come into coöperative relation with and be engaged by the locker-actuating wedge G, said wedge entering between the locker-lever and the clip-body as the packet is forced downward into

the magazine of the gun, imparting a rocking movement to the upper end of the cartridge-locker and disengaging the locking-face or cartridge-head-engaging hook thereof from the flange of the upper cartridge of the series of cartridges in the packet, as shown in Fig. 1, this action releasing the cartridges and permitting the same to be moved upward relatively to the clip-body and successively into position to be engaged and forced forward into the firing-chamber of the barrel of the gun by means of the sliding bolt E of said gun.

As a means for preventing the accidental movement of the clip in the magazine after the same has arrived at its unlocking position in said magazine I have provided an abutment, which in the present instance is shown in the nature of a rearwardly-projecting catch 25 upon the locker-actuating wedge G, which abutment is located at such distance from the extreme upper end of the wedge that when the clip is forced downward a sufficient distance to unlock the cartridges the locker-lever will pass over the end and engage under the projecting abutment, which will prevent the accidental upward movement of said clip. In other words, the locker-arm constitutes, owing to its resilient nature, a detent which cooperates with the abutment on the wedge for holding the clip against retractive movement.

In the construction and organization thereof herein shown and described the cartridge-locker may be actuated to throw the opposite ends thereof out of locked engagement with the terminal cartridges of the series, one end independently of the other end, which is a matter of considerable importance, as it enables the gunner to force the cartridge-packet down into the magazine without fear of releasing the lowermost cartridge-engaging hook before the packet is in proper operative position or before the uppermost cartridge-engaging hook is released, as might occur if both cartridge-engaging hooks were arranged to be simultaneously actuated. This construction also facilitates the assembling of the cartridges in the clip, for the reason that one of said cartridge-engaging hooks may be retained in its closed position, while the opposite hook may be forced backward by the successive cartridges as they are entered with their flanges into the cartridge-head-receiving groove of the clip-body, as will be understood by comparison of Figs. 2 and 8 of the drawings, the closed hook preventing the exit of the cartridges and supporting them as they are being assembled.

Referring to Figs. 1, 2, and 5, it will be seen that the forward ends of the cartridge-engaging portions of the cartridge-locker are turned inwardly, as shown at 24, slightly toward each other, so as to hook over the flanges of the terminal cartridges, so that in case the packet is dropped or thrown some distance or otherwise subjected to sudden shock, which would tend to throw the terminal cartridges outwardly with sufficient momemtum to force back the cartridge-engaging end of the locker, the hooked ends 24 will engage the front faces of the flanges of the terminal cartridges, which will prevent the hook from being forced backward. The cartridges do not entirely fill the space between the two opposing hooks of the cartridge-locker, so that when the packet is pushed into the receiver of the gun by a downward pressure upon the uppermost cartridge of the series of cartridges the series of cartridges is pushed downward with the lower cartridge bearing against the lower hook of the locker, and the head of the upper cartridge is thereby carried below the bent or hooked end 24 of the upper cartridge-engaging end of the locker, so that this upper locker-hook may be retracted without hindrance from any engagement of said hook with the uppermost cartridge.

From the foregoing it will be seen that it would be impossible to liberate the cartridges of the packet accidentally.

In connection with the foregoing and in conclusion I desire to state that the invention is not confined or restricted to the precise details in the construction and arrangement of the several parts of the cartridge-packet herein shown and described, as various modifications thereof may be made without deviating from the principle or spirit of my invention.

Having described my invention, I claim—

1. The combination with a magazine-firearm having a clip-receiving passage and an inclined surface at the side of said passage, of a cartridge-clip having a resilient locker provided with a lateral arm, whereby as the clip is forced into the passage of the magazine it will engage the incline and will be withdrawn by said incline to release the cartridges, substantially as described.

2. The combination, with a gun-magazine provided with an inclined surface and with means for preventing the return movement of a cartridge-clip, of a cartridge-clip; and a locker on said clip provided with an actuating-arm, which arm, when the clip is inserted into the magazine of a gun, will come into contact with, and will be pressed backward by, said inclined surface, whereby the cartridges contained in the clip will be released, substantially as described.

3. The combination, with a gun-magazine, provided with an inclined surface terminating in an abutment, of a cartridge-clip; a locker carried by said clip and having an arm adapted to engage said inclined surface and to be retracted thereby to release the cartridges in the clip when the latter is inserted in the magazine, said arm snapping over and behind the abutment to prevent return movement of the clip, substantially as described.

4. A cartridge-clip consisting of a clip-body

having a cartridge-head-receiving channel; a longitudinal furrow or groove; and longitudinally-extending projections, said projections constituting ways upon which the heads of the cartridges rest and are guided; a locker at each end of the clip-body, each locker having a cartridge-head-engaging projection for retaining the cartridges in the clip-body, and each also having a laterally-projecting arm or lever adapted to be engaged by a wedge in the gun-magazine to cause the locker to release the cartridges contained in the clip.

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