E. G. PARKHURST, DEC'D. J. E. PARKHURST, EXECUTRIX. CARTRIDGE PACKET.

APPLICATION FILED NOV. 2, 1898. Fig. 4 Fig. 6 Fig. 5

11 16 25 16 24 16 24 Witnesses: H. Mallner H. L. Reekand. Inventor Fig. 7 E. G. Parkhurst By his Atty. 18. Homes.

United States Patent Office.

EDWARD G. PARKHURST, OF HARTFORD, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO JULIA E. PARKHURST, OF HARTFORD, CONNECTICUT; JULIA E. PARKHURST EXECUTRIX OF SAID EDWARD G. PARKHURST, DECEASED.

CARTRIDGE-PACKET.

SPECIFICATION forming part of Letters Patent No. 794,680, dated July 11, 1905.

Application filed November 2, 1898. Serial No. 695,313.

To all whom it may concern:

Be it known that I, EDWARD G. PARKHURST, a citizen of the United States of America, and a resident of 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 packets for hold-10 ing together in a unitary form suitable for storage and transportation a series of cartridges of the number ordinarily required for charging the magazines of repeating breechloading firearms. Such a packet is technically 15 known as a "cartridge-clip" when it is inserted in its entirety into the magazine of the firearm, and it is technically termed a "magazine-filler" when it is applied to the mouth of the magazine so as to transfer its file of car-20 tridges thereto. Previous to being inserted in or attached to the magazine of the firearm the functions of a filler and a clip are identical—that is, to hold the packet of cartridges securely together until required for use, so 25 that they may be readily and quickly handled and applied at either end to their respective magazines.

The objects of the present invention are to provide a light, simple, inexpensive, conven-30 ient, and effective locking-packet, which may be made from a single piece of sheet metal and which securely holds together the desired number of cartridges in a unitary packet without adding materially to their weight or bulk; 35 to adapt it so that it may be reversibly applied to the magazine; to provide for retracting the locker of that end of the packet which is applied to the magazine; to retain the packet securely in position during the charging op-40 eration; to adapt the packet to be ejected from its charging position when empty—as, for example, by the closing movement of the magazine-cover, and to so construct and organize the members of the packet that it will resili-45 ently clasp the heads of the terminal cartridges

of the packet.

Figure 1 of the drawings is a rearward view, and Fig. 2 is a side view projected therefrom, showing my improved cartridge-packet containing a file of five cartridges and applied as 50 a magazine-filler in charging relation to the magazine of a firearm of the Krag-Jorgensen type, the characteristic features of that magazine being herein shown sufficiently to enable the charging operation thereof to be under- 55 stood. Fig. 3 is a rearward view, in enlarged scale, showing the construction of the filler. Fig. 4 is a side view in section, taken substantially along the line 44 of Fig. 3, showing the packet engaging a file of five cartridges. Fig. 60 5 is a front view showing further details of the construction of the packet and illustrating the manner in which the resilient bifurcated ends of the cartridge - head - guiding flanges of the packet are contracted so as to 65 clasp the terminal members of the file of cartridges between them. Fig. 6 is a fragmentary view of the upper end of a cartridge-packet, showing the locker in its closed position when the packet is empty. Fig. 7 is an underneath 70 view of the packet of Fig. 4, illustrating the manner of gripping and locking the terminal cartridges.

As a unitary article of manufacture and commerce my improved cartridge - packet is 75 formed from a single piece of sheet metal, preferably spring-steel, of which the side flanges 8 and 9 are turned over to form the cartridge-head-receiving channel 10. This channel, along with the rearward wall 12 of 80 the packet, should be curved to suit the cartridges to be used or the form of packet to be made, so as to bring the points of the file of cartridges as close together as their form will permit. In order to form the resilient arms 85 or tongues 13 and 14, which perform the combined functions of locking the cartridges in position in the holder-when used as a cartridge-packet and of retaining the filler in position relative to the magazine while transfer- 90 ring the cartridges thereto, the rearward wall 1 12 of the body of the packet is slit or punched

out along the lines 15. The ends of these tongues project somewhat beyond the ends of the rear wall 12 and are turned forwardly and downwardly to form the locking faces or 5 hooks 16 and 17, which project forwardly across the ends of the cartridge-channel 10 and substantially at right angles thereto, so that when the packet is filled with cartridges c the locking-faces project over the rims r of 19 the terminal members of the file of cartridges, thus locking the ends of the packet. The combined locker-detent tongues 13 and 14 are preferably bent backwardly at 18 and 19 out of the plane of the wall 12 in order to allow 15 of the free lateral movement of those tongues. to provide a clearance for the cartridgeprimers, and to form a channel for receiving and permitting the escape of the dust, grit, and other extraneous substances which are 20 liable to enter and clog the channel, tending to impede or to obstruct the freedom and uniformity of the passage of the cartridge-heads along the channel. The ogee-bends 18 and 19 appreciably shorten the tongues, thereby 25 drawing their tapering sides away from the lines of severance 15, and thus providing a clearance for the ends of the tongues where they pass between the clasps 22 and 23 and project over the channel 10.

3º In the use of this cartridge-packet, whether as a clip or a filler, it is intended to unlock the desired end by means of an inclined or wedgeshaped actuator, and in order to engage with that actuator the locker-detents 13 and 14 are 35 provided with the arms 20 and 21, respectively, which are so located with relation to their respective ends of the packet and to the actuator as to bring the foremost cartridge of the packet into proper relation to the magazine 40 when the corresponding locker-detent is retracted by its actuator, as shown in Fig. 2. The arms 20 and 21 are also utilized as a means for engaging with a recessed seat in the magazine or receiver of the firearm, 45 each serving, in connection with its resilient tongue, as a detent for retaining the packet in the desired endwise relation to the magazine when discharging the cartridges therefrom. In order to adapt these arms to this pur-5° pose they are beveled or turned upwardly at each edge, as shown in Figs. 4 and 6, in the arc of a circle, which may or may not extend entirely across the respective tongues, as herein shown. Correspondingly beveled or 55 rounded recesses or seats for the arms are provided in the magazine or packet-holder of the gun immediately adjacent to the lockeractuator thereof, so that the arms of the leading locker-detent tongue after sliding along 60 the inclined actuator snap into the aforesaid curved seats, thus enabling the tongue upon being withdrawn from service as a locker to

serve in the capacity of a detent for retaining

the packet against accidental or unintentional

65 dislodgment. The resiliency of the locker-1

detent allows its arms to be dislodged from their retaining-seats only in response to a definite and positive ejecting operation. In the case of the Krag-Jorgensen type of firearm herein shown this ejecting operation is 70 to be performed by the closing movement of the magazine-cover at the conclusion of the charging operation, the packet being supported for that operation with its lower end in suitable engaging relation to the magazine- 75 cover C, as shown in Figs. 1 and 2. In order to adapt the packet to cooperate properly with the closing magazine-cover in the ejecting operation, its ends are beveled or rounded at 24, so that the magazine-cover in its clos- 80 ing movement upon reaching the position shown in dot-and-dash outline in Fig. 1 will engage with the rounded or beveled end of the packet-body and eject it upwardly from its seat. By shutting the cover quickly, as is 85 usual and desirable in the operation of the gun, the emptied packet will be ejected clear of the firearm and ordinarily will fall on the right-hand side thereof. After the arms 20 or 21 are dislodged from their detaining-seats 90 31 in the firearm the ejecting operation is facilitated by the contracting action of the locker against its inclined actuator, which thus supplements the action of the magazine-cover in ejecting the emptied packet from the fire- 95 arm.

The slitting or shearing of the rear wall 12 incidental to the formation of the locker-detents 13 and 14 serves to bifurcate the ends of the packet, thus forming the oppositely- 100 disposed resilient pairs of clasps 22 and 23 for the rims of the terminal cartridges. These bifurcated ends of the cartridge-guiding channels of the packet are bent slightly toward each other, so as to clasp the edges of the rims 105 of the terminal cartridges with sufficient tension to impart a suitable degree of firmness to the packet, thereby holding the terminal cartridges firmly in a radial relation to the curve of the packet-body, thus holding the 110 series of cartridges close together at their points and making a firm yet sufficiently-flexible packet for convenient handling and transportation. This clasping capacity compensates for the slight variations in size attend- 115 ant upon the commercial manufacture both of the cartridges and of the packets, as it is exceedingly difficult, if not impossible, to manufacture them so accurately to gage that all cartridge-heads would fit equally well in any 120 one or all of a large number of packets. The cartridge-rim-receiving channels of these packets are made equal to or slightly wider than the diameter of the largest cartridgerim, as shown in Fig. 5, since it is allowable 125 to have the intermediate cartridges of the packet somewhat loose, the integrity of the packet as to form and tightness'being secured by the clasping of the rims of the terminal cartridges by the resilient bifurcated ends of 130

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the packets. When the terminal cartridges are thus held, even with slight tension, they are much less liable to cramp in the flanged guideways or channels of the packet, since 5 the tension, however slight, serves to sustain them in proper radial relation to the curved body of the packet. This edgewise clasping of the terminal members of the file or packet of cartridges serves also a useful purpose in to connection with the charging of magazines like those of the Krag-Jorgensen type, as shown in Fig. 2, in which, on account of the absence of the cooperating resistance of the follower-spring of the magazine, the car-15 tridges are, if allowed to fall freely upon the retracting of the locker, liable to displacement, which, especially in the case of cartridges having projecting rims like those herein shown, would block the feeding oper-20 ation of the gun by the interlocking of the rims.

In employing this cartridge-packet as a clip within a magazine from which the cartridges are fed upwardly by the spring of the follower or elevator it is important to have the tension of the clasps slight enough to be readily overcome by the elevator-spring, or means may be provided in the firearm for springing the bifurcated ends of the leading pair of clasps slightly apart, so as to free the cartridges from the edgewise tension of those clasps upon inserting the packet into the magazine, or when it arrives at its discharging position.

The projecting ends 25 of the rear wall 12 of the packet may also be utilized either with or without the cooperation of the clasps 22 and 23 in holding the terminal cartridges with added firmness in their desired positions by 40 bending them slightly forward into the plane of the cartridge-head-receiving channel 10, as best shown in Fig. 6. The inclined abutments 11 of the lockers 13 and 14 by bearing against the outer edges of the beveled rims 45 of the cartridge-heads, as shown in Fig. 4, may also be utilized to assist in holding the file firmly in position with the points of the cartridges close together. Thus by the organization of this packet the desired clasping 50 tension may be applied to the terminal cartridges by the clasps 22 and 23, the inclined abutments 11 of the locker-detents, the forwardly-bent ends 25 of the wall 12, or by the cooperation of all these members, as may best 55 suit the form of the cartridges, the type or construction of the magazine, or other particular circumstances or conditions under which this packet may be employed. These resilient members, while holding the car-60 tridges with sufficient firmness under normal conditions, will yield to inequalities due to differences in size, to dents, bruises, or distortions of the cartridge-heads, or due to the presence of dust or grit in the channel of the 65 packet, and will yield also to the definite

pressure of the operator's hand in the charging operation.

It is not essential to the satisfactory operation of the locker-detent tongues 13 and 14 that they be each provided with a pair of arms 7° 20 and 21, since these tongues would perform all of the functions herein contemplated for them with a certain degree of excellence, even if each locker-detent were provided with but a single arm at one side thereof. I prefer, 75 however, wherever permissible, to provide each tongue with a pair of these locker-arms arranged on opposite sides both for utility and symmetrical appearance. These arms when thus employed in pairs serve, in conjunc- 80 tion with the corresponding locker-actuating inclines, to open the lockers more freely and squarely, besides holding the packet more securely and squarely to its seat on the magazine when serving as detents, as shown in Fig. 85 2; nor is it essential that the locker-detent tongues 13 and 14 shall be bent backwardly out of the plane of the wall 12 in the ogee curves 18 and 19 or otherwise, inasmuch as the desired freedom of lateral movement of 90 those tongues may be attained by dressing away the edges of the metal after shearing it along the lines of severance 15 or by punching out a narrow strip of the metal along those lines. These slots would serve in a 95 measure to receive and permit the escape of the dust and grit from the cartridge-channel, even with the locker-detents 13 and 14 located approximately in the plane of the rear wall 12. I prefer, however, to bend the locker-detents 100 backwardly at 18 and 19, as hereinbefore described and as shown in the drawings. In order to distinguish clearly the outlines of the various members, the width of the slots along the lines 15 is somewhat exaggerated, so that 105 those lines appear in the drawings as slots.

The improvements made by me in the Krag-Jorgensen firearm to adapt it to coöperate with the packet herein described form the subject-matter of a contemporaneously-pend- 110 ing application. They comprise a holder 26 for receiving the packet and supporting it in proper charging relation to the magazine, wedge-actuator inclines 30 for unlocking the lower end of the packet, a recessed seat 31 for 115 receiving and detaining the arms 20 and 21 of the packet, and a deflector 33. These devices are so organized in correlation with my present packet as to support the latter not only in suitable charging relation to the magazine, 120 but in such a relation to the swinging magazine-closer that the latter upon being closed after the operation of charging the magazine will engage with the lower end of the emptied packet and positively eject it clear of the fire-125 arm.

This improved cartridge-packet is or can be exceedingly light, as it requires only an area of thin sheet metal sufficient to form a channel for the cartridge-heads. None of that 13° area is wasted by lapping or doubling the metal; but all is utilized and distributed to best advantage among the several members for the suitable performance of their respective functions, thus constituting a packet combining the maximum of efficiency with the minimum of weight and cost. A packet containing five cartridges of the United States Government caliber weighs two thousand one hundred and five grains, while the weight of the empty packet is but approximately seventy grains, or about one-thirtieth of the entire weight of the filled packet.

I claim as my invention—

15 1. A cartridge-packet made in an integral piece, comprising a body portion forming a cartridge-head-receiving channel and having the ends of the said body divided to form a plurality of resilient side members at each end of the packet for receiving the opposite sides of the cartridge-rims, and a resilient locker at each end of the packet, between the said side members, formed integral with the rearward wall of the cartridge-channel, the lockers being each provided with a shouldered end projecting over the cartridge-rims, and with a pair of oppositely-disposed actuating-arms adapted to coöperate with unlocking and clip-retaining devices of the firearm.

2. In combination with a packet-holder having an inclined locker-actuator, and a retaining recess therefor at the base of the incline, a cartridge-packet made in an integral piece, comprising a body portion forming a cartridge-head-receiving channel, and a resilient locker at each end of the body portion, parted from the rearward wall of the cartridge-channel and bent backwardly to a plane out of the plane of the rearward wall of the cartridge-thannel, the lockers being each provided with a shouldered end projecting over the cartridge-rims, and with a pair of oppositely-disposed actuating-arms adapted to ride over the incline of the locker-actuator and to drop

into the recess at the bottom of that incline 45 to resiliently sustain the clip in charging position and to return backwardly out of the recess over the incline when the packet is ejected from the holder.

3. The combination of a cartridge clip or 50 packet, having a positive locker, and having the end of its cartridge-head-receiving channel resiliently contracted for yieldingly retaining the cartridges in the clip independ-

ently of the positive locker.

4. A cartridge-packet comprising a cartridge-head-receiving channel, bifurcated and contracted edgewise at its end to form a resilient clasp for the edges of the cartridgerims.

5. A cartridge-packet comprising a cartridge-head-receiving channel, having a resilient locker-detent formed from, and integrally with, its rear wall, the end of the said rearward wall adjacent to the locker being bent 65 into the plane of the cartridge-head-receiving channel to form resilient clasps for the

cartridge-heads.

6. A cartridge-packet comprising a cartridge-head-receiving channel, having the end 70 of its rearward wall rounded in substantial conformity with the end of the terminal cartridges in the packet, and having a resilient locker-detent formed from and integrally with the rear wall, with its end projecting cen-75 trally over the head of the terminal cartridge, the projecting bifurcated end of the rearward wall upon each side of the locker being bent forward into the plane of the cartridge-head-receiving channel to form resilient clasps for 80 yieldingly retaining the cartridges in the clip after the retraction of the locker.

Signed by me at Hartford, Connecticut,

this 26th day of October, 1898.

EDWARD G. PARKHURST.

Witnesses:

JENNIE NELLIS, W. H. Honiss.