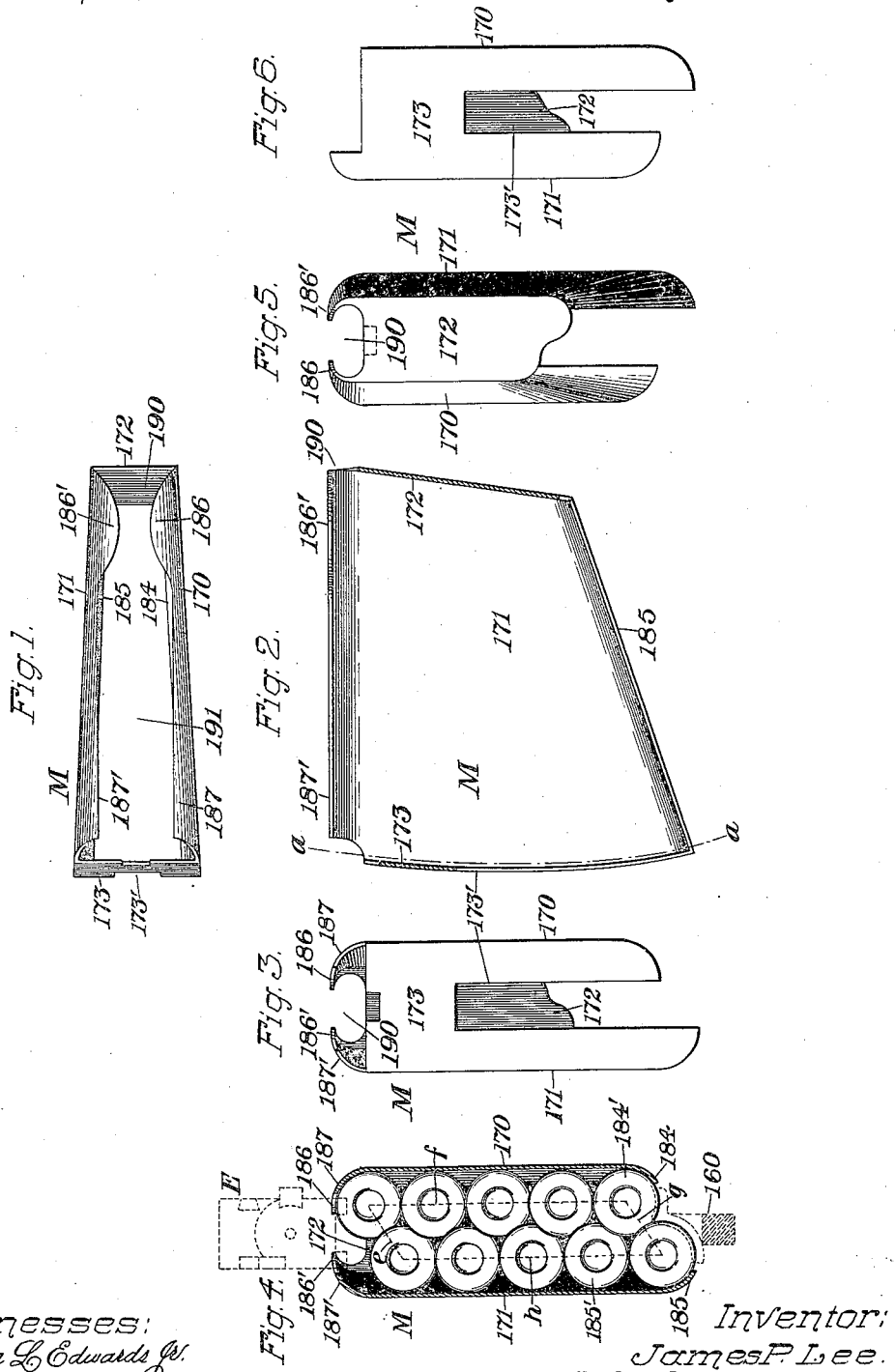
(No Model.)

J. P. LEE.

CARTRIDGE PACKET.

No. 522,603. Patented July 10, 1894.



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UNITED STATES PATENT OFFICE.

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CARTRIDGE-PACKET.

SPECIFICATION forming part of Letters Patent No. 522,603, dated July 10, 1894.

Application filed December 5, 1893. Serial No. 492,860. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. LEE, 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" or "ammunition-pieces" adapted to be used in breech-loading fire-arms.

The present invention, as to some of its features, is in the nature of an improvement on the magazine-case shown and described in Patent No. 506,323, heretofore granted to me.

One of the chief objects of my present invention is to furnish a unitary article of commerce, consisting of a cartridge packet or ammunition-piece containing two independent columns of cartridges located in parallel lines longitudinally but in a different plane transversely of said packet, and of such organization as to permit said packet to be inserted bodily into the cartridge-receiving chamber of the gun in its entirety and to be used as an "ammunition-piece" of said gun without any preliminary operation on the part of the user.

Another object of the invention is to provide a "case" for the cartridge packet in which the two rows or columns of cartridges (when the case is filled), will be held under tension by the case itself against accidental displacement, and in which the case will also act, when the packet is inserted into the cartridge chamber of the gun, and the cartridge lifter is thrown into engagement therewith, to sustain the ammunition-piece in said chamber until all the cartridges thereof shall have been used.

A further object of the invention is to so construct the casing of the packet that it will be light and strong and at the same time will be so cheaply manufactured that it may, without material loss, be thrown away when emptied of cartridges.

In the drawings accompanying and forming a part of this specification,—Figure 1 is a plan view of my improved cartridge packet-case. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a rear end view of the said case drawn in projection with Fig. 2. Fig. 4 is a vertical cross-sectional view of the complete "cartridge-packet," in line *a*—*a*, Fig. 2, looking toward the right-hand in said figure, to show more clearly the relative positions therein of the cartridges. Fig. 5 is a front view of the cartridge-case as seen from the right-hand in Fig. 2. Fig. 6 is a rear view similar to Fig. 3, of the packet-case of a slightly modified construction.

The cartridge packet constituting the subject-matter of this invention is intended to be used with breech-loading fire-arms having a vertical cartridge-receiving space or chamber, and also having a cartridge-lifting device which may form a permanent element of the gun itself.

One form of cartridge-lifter applicable for use in connection with my improved packet case consists of a cartridge-lifting arm pivotally supported between the side-walls of the gun-frame in the rear of the cartridge-receiving space, or packet-chamber, which arm projects into said space and is adapted to bear against the under side of and lift the two columns of cartridges contained therein, to feed said cartridges, one from each column alternately, to the firing-chamber of the gun, said cartridge-lifting arm being usually actuated by a spring engaging its rear end.

The special mechanism for elevating the cartridges constitutes no part of my present invention.

My improved packet-case is intended to be manufactured and be filled with cartridges at the factory and to be sold to the trade as an article of commerce capable of being used by the consumer in its organized state without preliminary changes or additions, it being constructed and organized for insertion in the cartridge-receiving chamber of the gun in its entirety and to constitute, when so inserted, the ammunition-piece for the gun. The cartridge packet "case" is also intended to constitute in itself, a unitary device, or article of manufacture, devoid of any accessories or operative mechanical devices, which may be supplied to manufacturers of cartridges to be filled and placed upon the market by them. And said packet-case is constructed for supporting two corresponding and independent

columns of cartridges in longitudinal parallelism but in different planes transversely of said case.

The cartridge packet-case comprises the two side-walls, 170 and 171, respectively, and forward end wall, 172, and the rearward end wall, 173; the one 173, as shown most clearly in Fig. 3, being recessed as at 173′ to permit the entrance and operation of the cartridge-lifter, which cartridge-lifter will (when a cartridge-packet of this construction is used) form an element of the gun-mechanism proper.

For the purpose of supporting the columns of cartridges in different planes, the two side walls 170 and 171 of the packet-case are inwardly flanged at their lower edges as shown at 184 and 185, respectively; said flanges being located at different planes transversely of the packet-case, the one flange 185 being on a lower plane than the other flange 184.

One of the columns of cartridges designated by 184′ in Fig. 4, rests upon the "step" or flange 184, at the right-hand, while the other column, designated by 185′ in said figure rests upon the step or flange 185, at the left-hand, this step being elevated above said lower step by a distance of about one-half the diameter of a cartridge. The adjacent cartridges of the two columns of cartridges are allowed to slightly intermesh, as shown in Fig. 4, for the purpose of properly steadying one column against and by means of the other column. By this arrangement, both columns of cartridges may be fed upwardly in the packet-case, by means of the cartridge-lifter 160 partially shown in Fig. 4, without crowding or jamming therein.

The two side-walls 170 and 171, will, in the manufacture of the "case," be bent inwardly to form the oppositely disposed forward lips 186 and 186′, and the oppositely-disposed rearward lips, 187 and 187′, the space between which lips will be only sufficient for the passage between them of one cartridge at a time. These lips will preferably be curved diametrically as shown in Figs. 3, 4 and 5, to correspond to the peripheral curvature of the cartridges.

In some cases it may be desirable to flange but one side wall at its upper edge, as shown in Fig. 6, but while the construction shown in Figs. 1 to 5 inclusive is preferable, it is not intended to limit this invention to its particular construction shown in said figures.

The adjacent edges of the forward lips 186 and 186′ are closer than the adjacent edges of the backward lips 187 and 187′, the distance between said lips 186—186′ being but fractionally greater than the diameter of the bullet end of the cartridge, while the distance between the lips 187—187′ is fractionally greater than the diameter of the rim of the cartridge. These lips 186—186′ are curved inwardly from the outer end of the packet-case, as shown clearly in Fig. 1, thus leaving a passage-way, 190, in advance thereof whose length in a direction crosswise of the case is greater than the distance between the lips 186—186′, which lips being curved as set forth tend to hold down the point of the cartridge until this is projected through the opening or passage-way 190 by means of the bolt (designated by E and shown in dotted lines Fig. 4) after which said lips serve as guides for properly steadying the point of the cartridge during its further forward and lifting movement while being discharged from the packet into the firing-chamber of the gun.

The space 191 at the upper end of the rear wall between the lips 187—187′ will be of a length cross-wise of the packet-case slightly greater than the width of the bolt as shown in dotted lines in Fig. 4, to thereby permit an unobstructed longitudinal reciprocation of said bolt when the cartridge-packet is in place in the gun.

The packet-case will, in practice, be constructed from a sheet metal blank having resilient qualities, and cut to proper shape to be bent or folded into the form shown in the drawings. By constructing said packet-case of resilient sheet metal and in the form shown, I am enabled to secure a yielding pressure against the columns of cartridges, thus retaining them under pressure within the packet-case and insure close intermeshing of cartridges and an impingement of the uppermost cartridge of one column and the lowermost cartridge of the other column between the upper lip as 186′ and the lower flange, as 184, or vice-versa; the two lips 186—186′ and 187—187′ co-acting with the flanges 184 and 185 to hold the cartridges against lateral displacement.

As will be seen by reference to Fig. 4 of the drawings, the packet-case is so constructed, and the two vertical columns of cartridges are so disposed and intermeshed that the axial centers of the cartridges of one column come horizontally opposite or in approximate horizontal alignment with the adjacent peripheries of the cartridges in the adjoining column, or in other words—the cartridges of the two columns are arranged in equilateral triangular order, the base line of the two lowermost cartridges being at an angle of about sixty degrees with relation to the side walls of the packet-case. By this construction and arrangement, it will be seen that the bearing force upon the cartridges (when packed in the case) is equally distributed from end to end of the two columns of cartridges, as indicated by the dotted lines *e*, *f*, *g*, *h*, of the parallelogram in Fig. 4; this being so a unitary movement of the two columns of cartridges is insured when these are acted upon by the cartridge-lifter 160, in the operation of feeding the cartridges upward in the case into position to be alternately pushed forward as described into the firing-chamber of the gun.

Having thus described my invention, I claim—

1. The herein described article of manufac-

ture, it consisting in a cartridge packet-case having two side-walls with inwardly projecting flanges at their lower ends at relatively different heights, and adapted for supporting two intermeshing columns of cartridges in longitudinal parallelism, but in different planes, transversely, substantially as described.

2. The herein described cartridge-packet or ammunition piece, consisting of a case having two side-walls with inwardly projecting flanges at their lower ends in, relatively, different heights, and two intermeshing longitudinally parallel columns of cartridges supported upon said flanges in different planes transversely, substantially as described.

3. As an article of manufacture, a box-like cartridge packet-case having an inwardly projecting cartridge-sustaining lip at its upper end, and having two remotely disposed inwardly projecting side flanges at its lower end located in parallel lines but at different relative heights, and adapted for supporting two independent columns of cartridges in longitudinal parallelism, but in different transverse planes, substantially as described.

4. The herein described sheet metal cartridge packet-case, it consisting of two remotely disposed parallel side walls joined together at their front and rear ends by the front wall 172 and recessed rear wall 173, respectively, and terminating at their extreme lower edges in inwardly projecting cartridge supporting flanges located in different planes transversely of the case, substantially as described and for the purpose set forth.

5. The herein described article of manufacture, it consisting of a cartridge-packet-case having two side walls with an inwardly projecting flange at the lower edge of one wall thereof and an inwardly projecting flange at the upper edge of the opposite wall thereof, and adapted for supporting side by side between said walls and flanges two longitudinally parallel columns of cartridges in intermeshing engagement, and for holding the respective cartridges of the two columns and at different elevations, substantially as described.

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