

J. P. LEE.  
CARTRIDGE PACKET.

No. 547,582.

Patented Oct. 8, 1895.

Fig. 1.

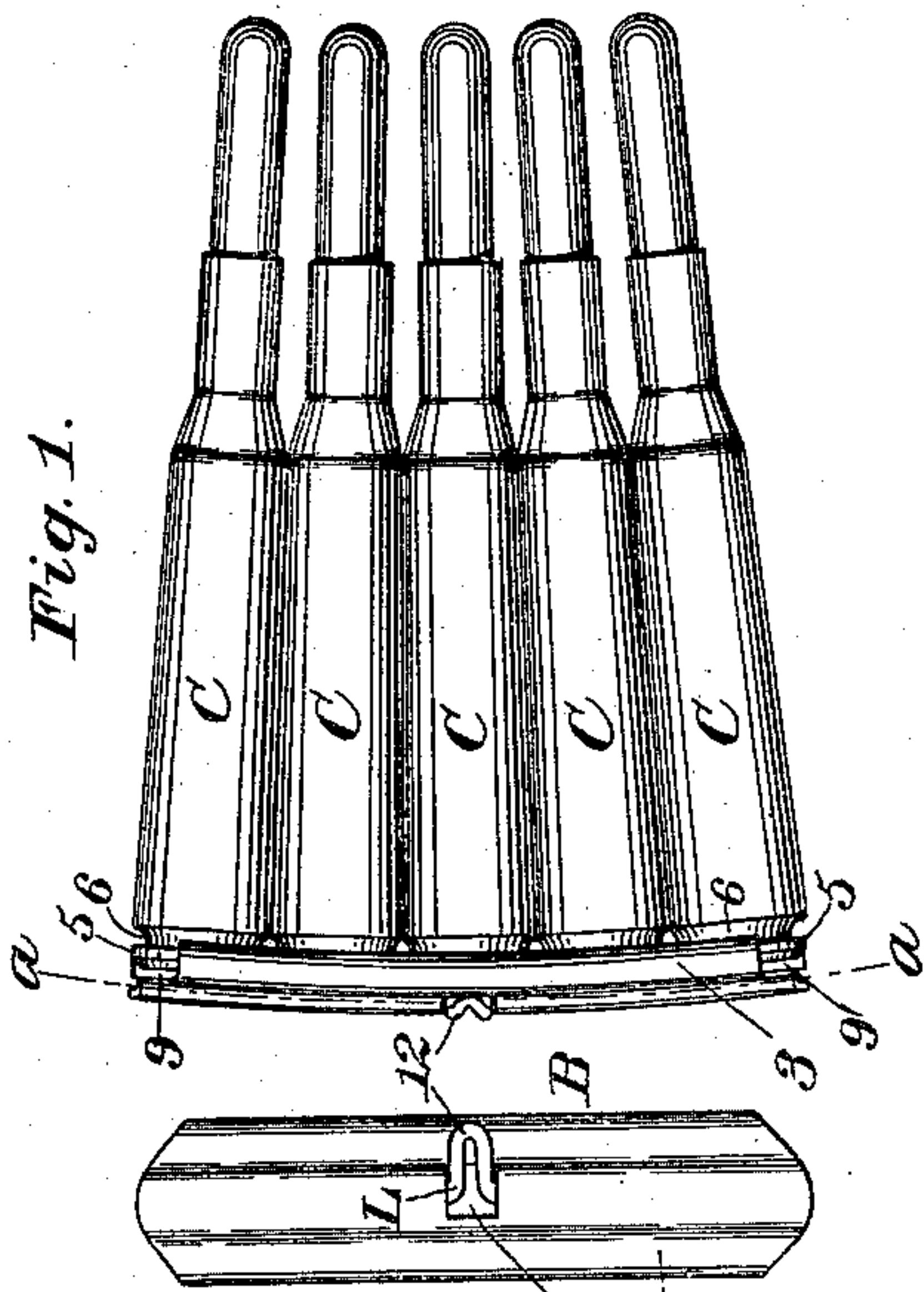


Fig. 2.

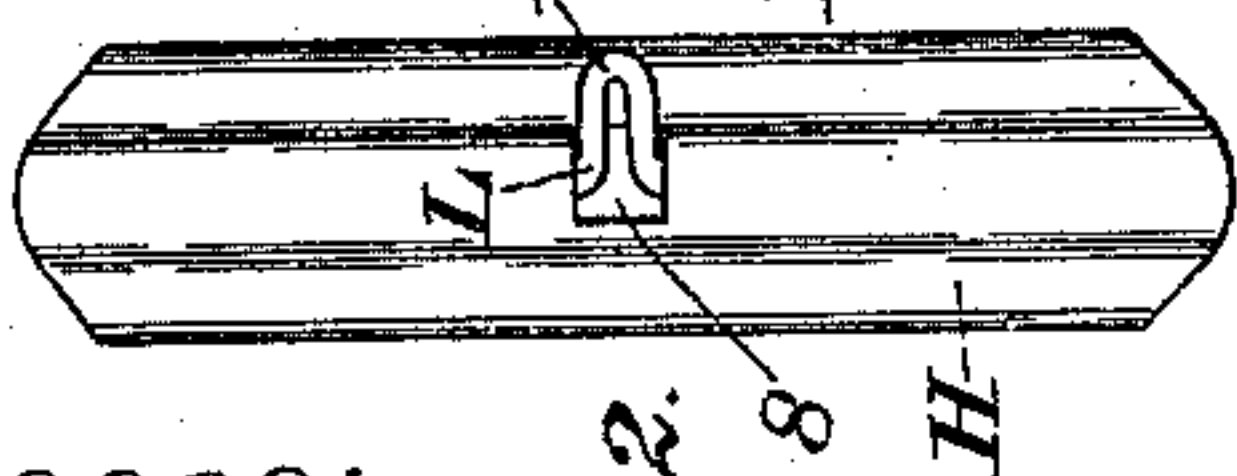


Fig. 3.

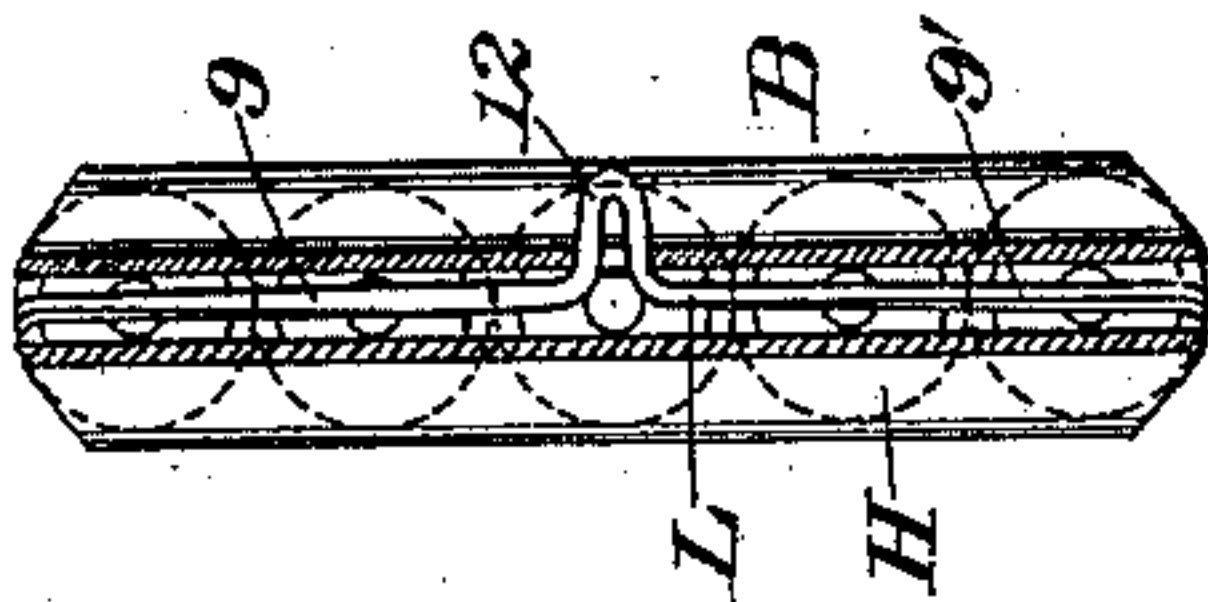


Fig. 4.

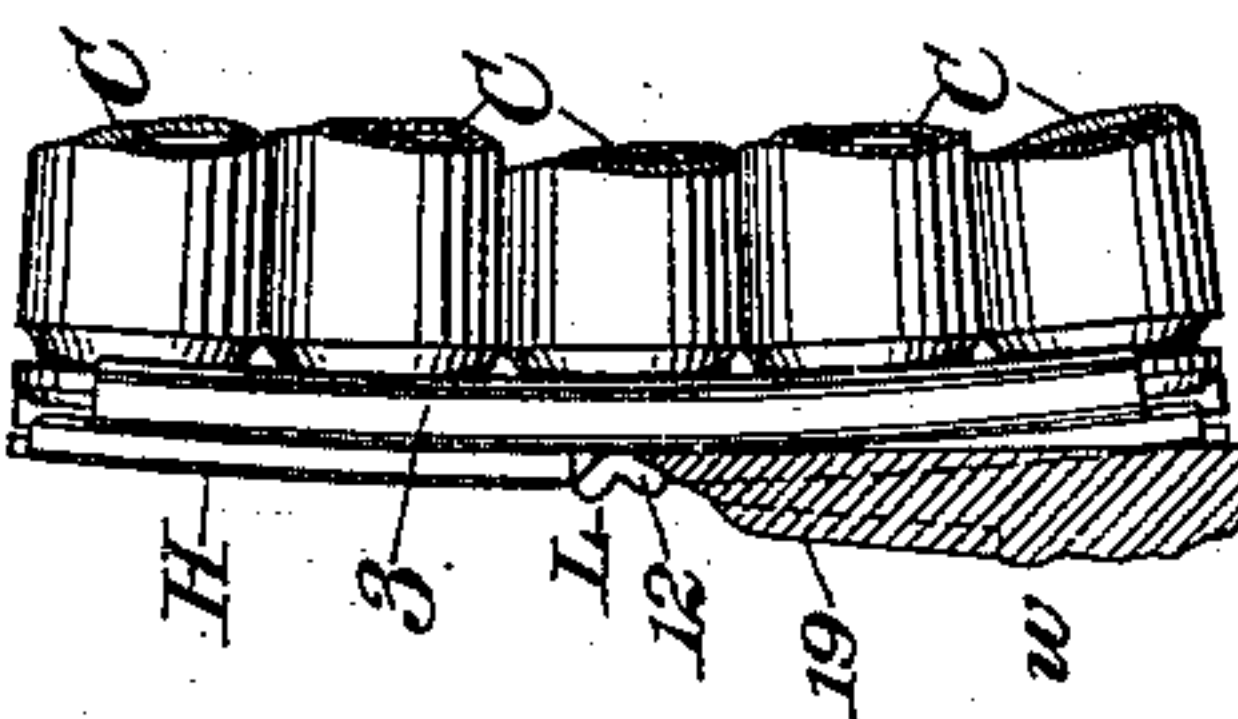


Fig. 5.

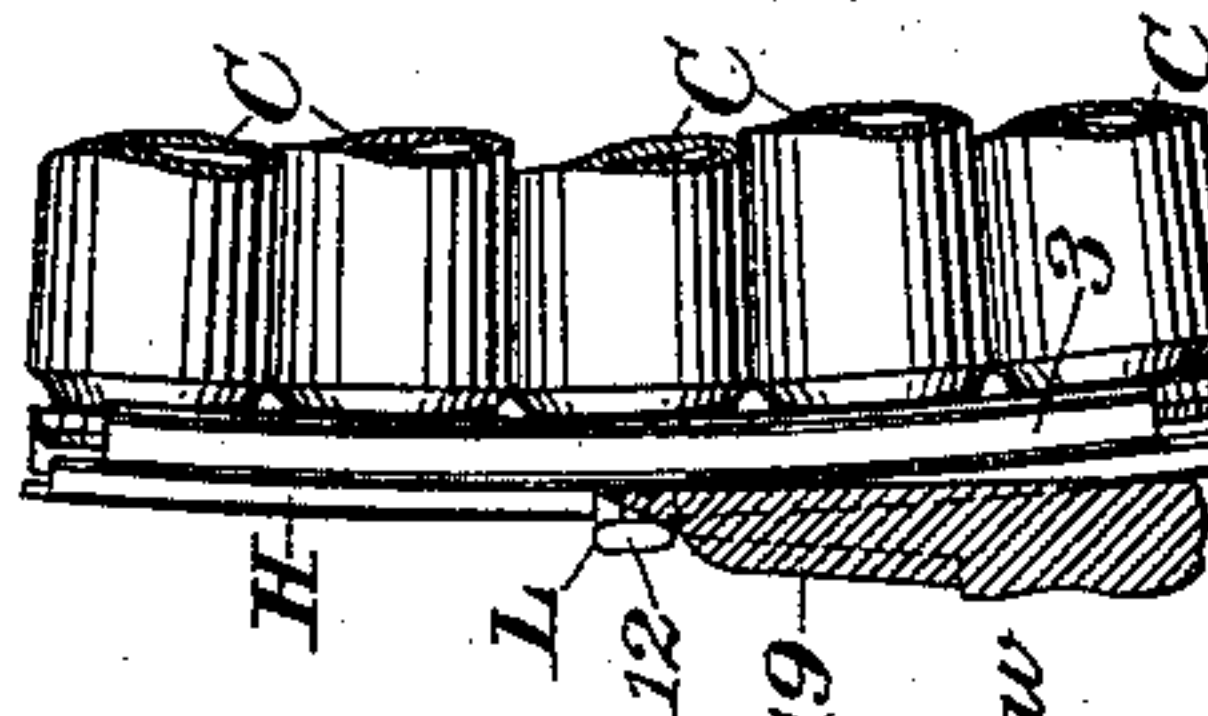


Fig. 6.

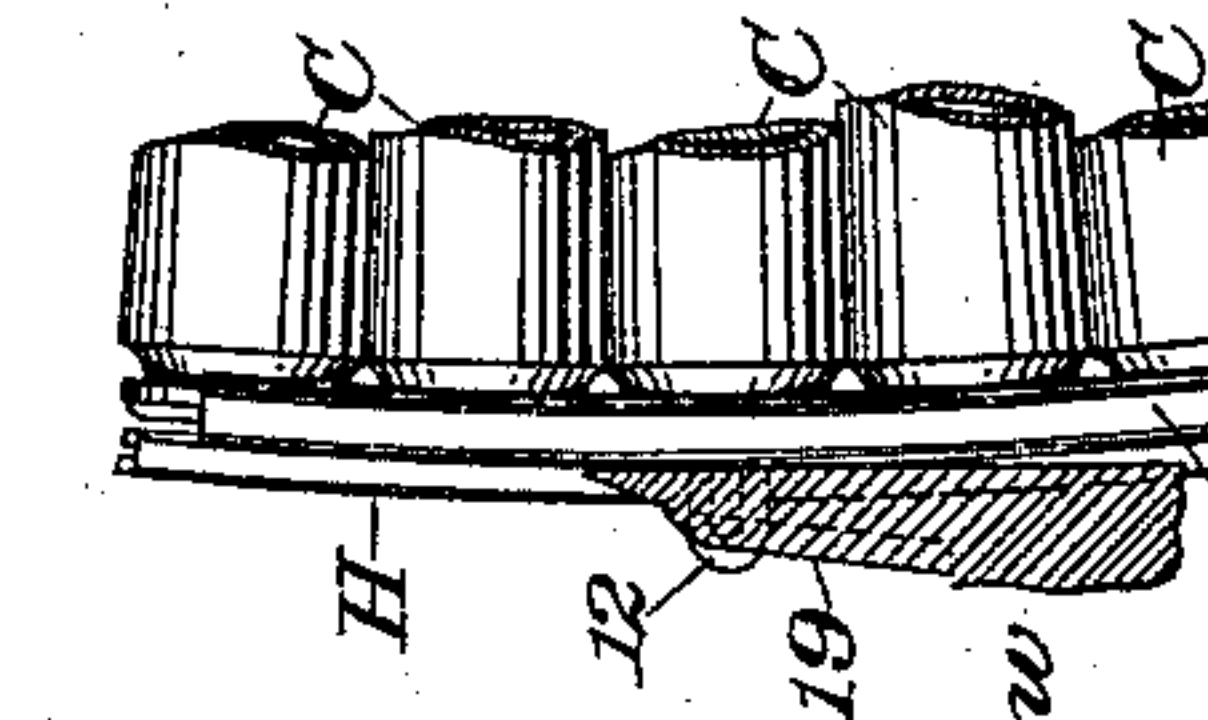


Fig. 7.

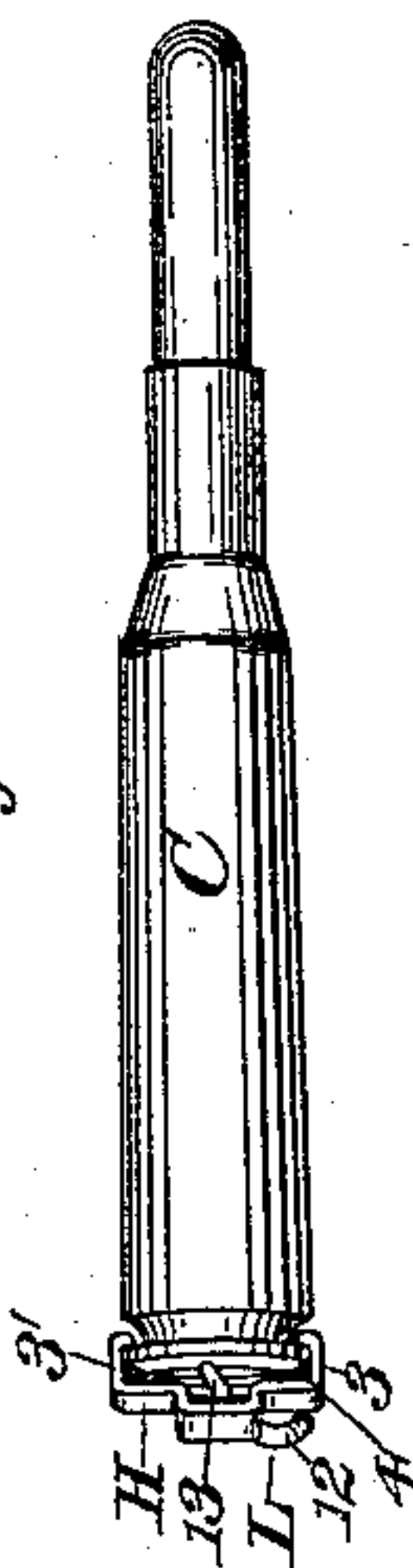


Fig. 8.

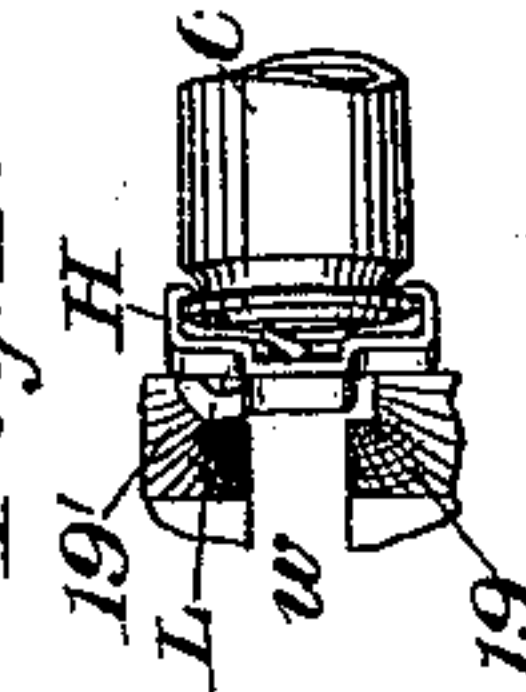


Fig. 9.

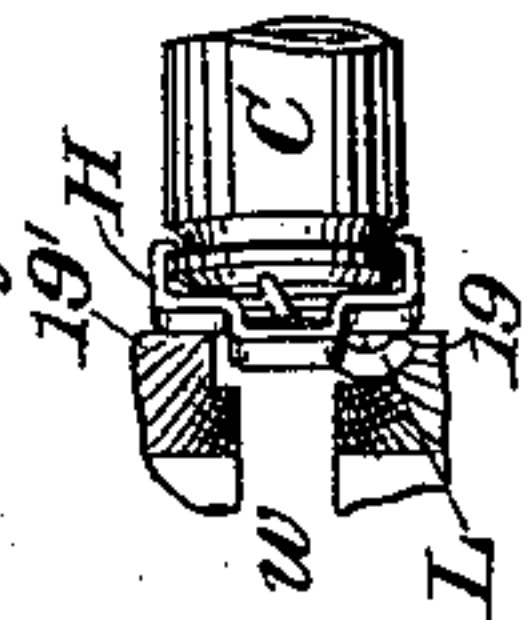


Fig. 10.

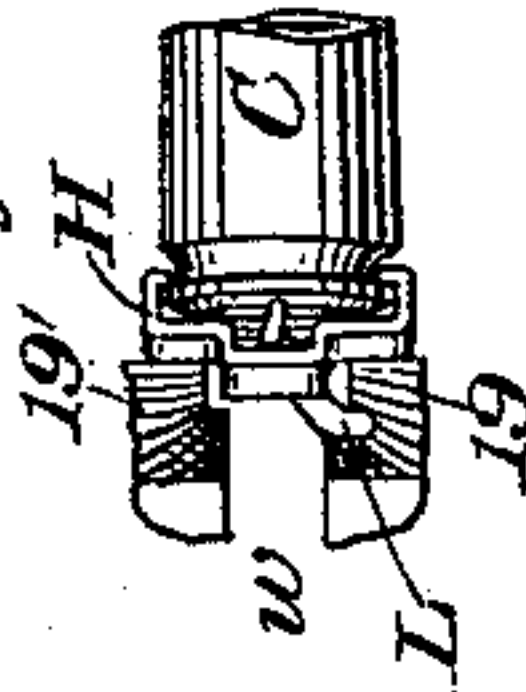


Fig. 11.

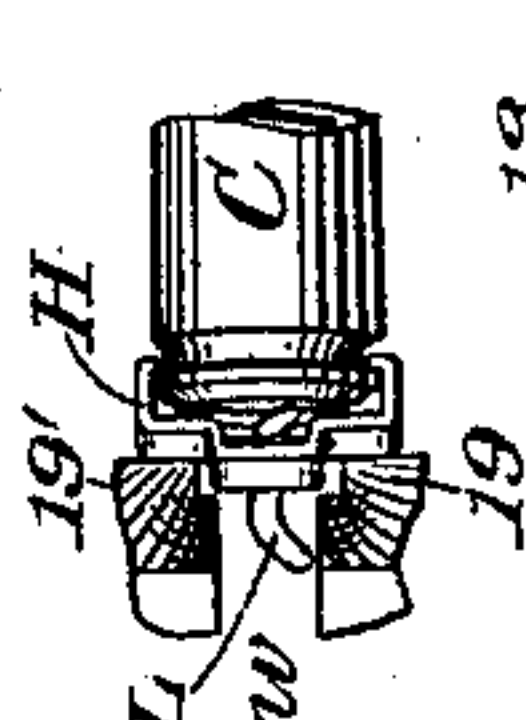


Fig. 12.

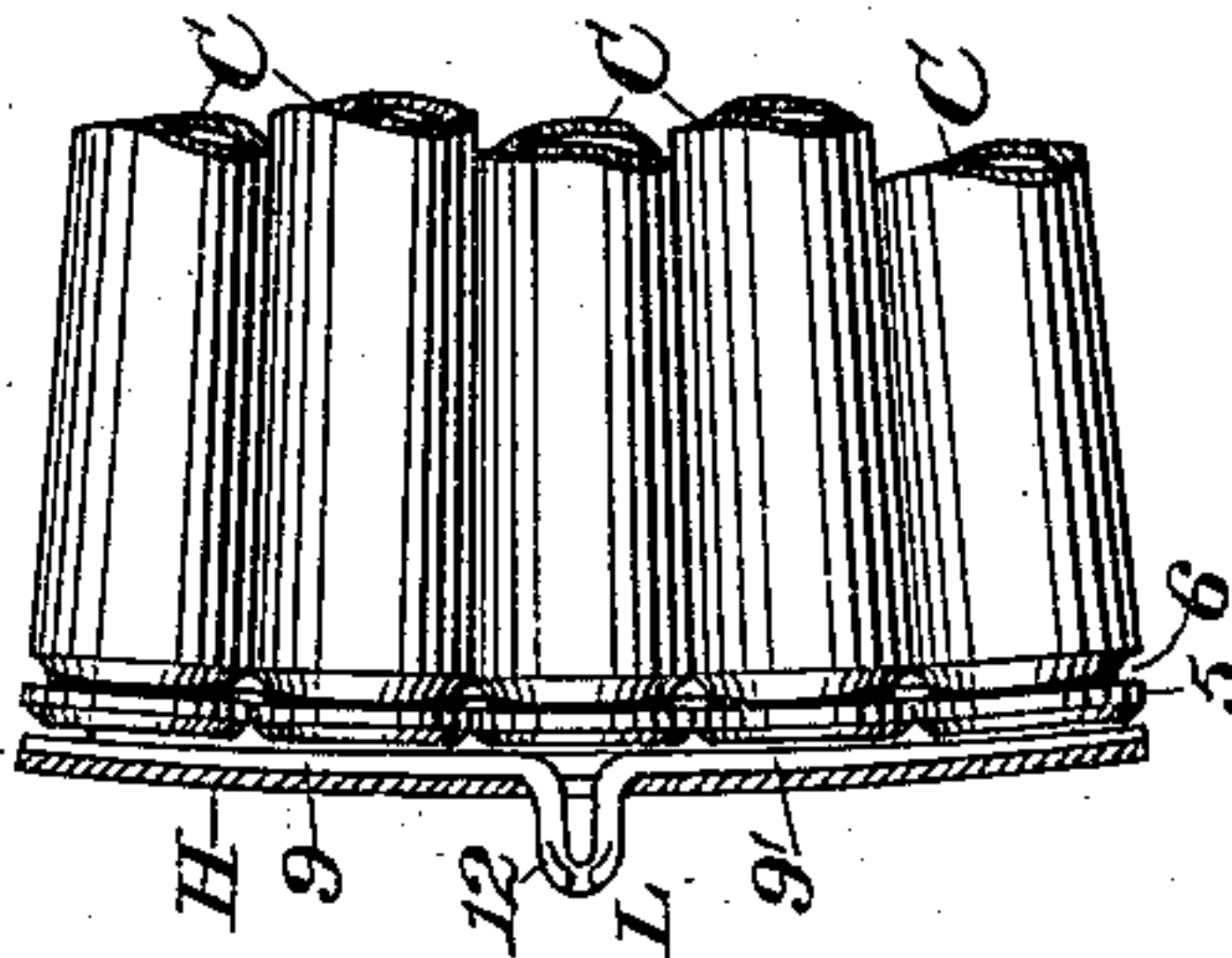


Fig. 13.

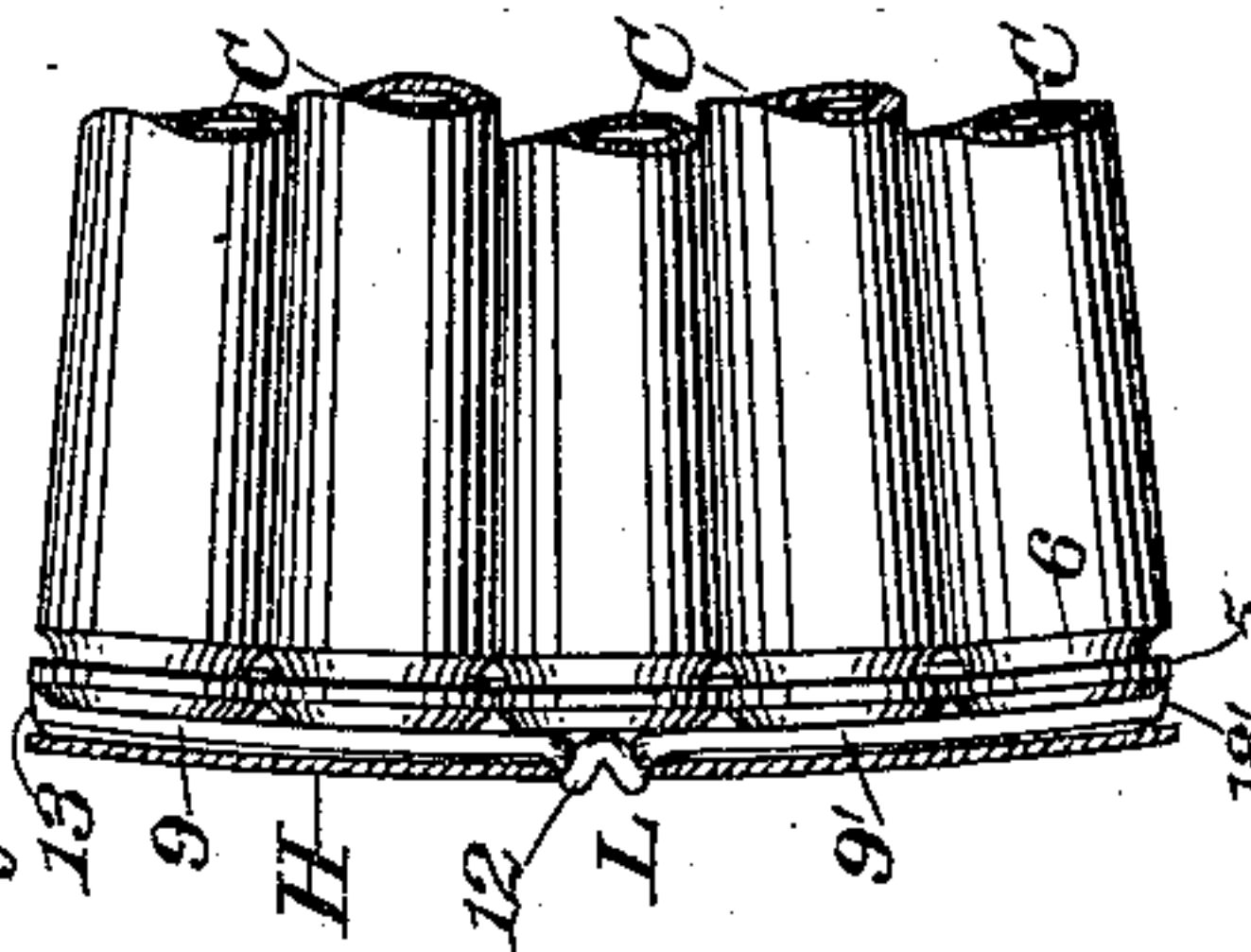


Fig. 14.

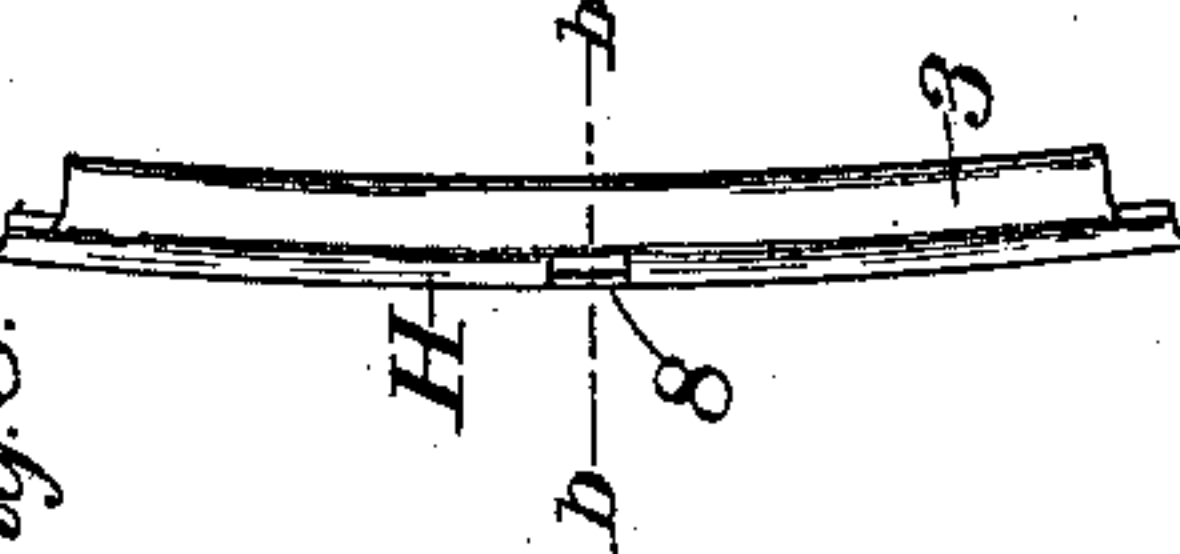


Fig. 15.

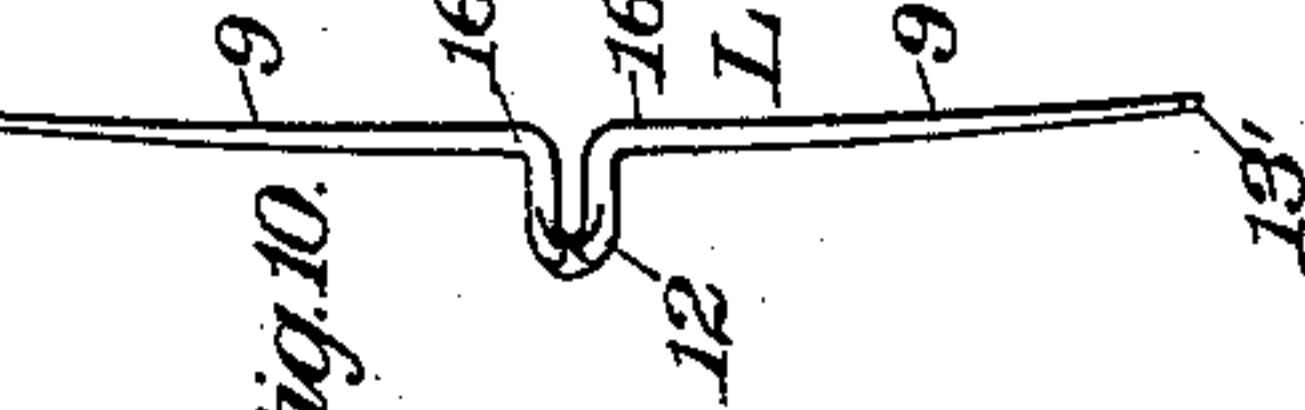
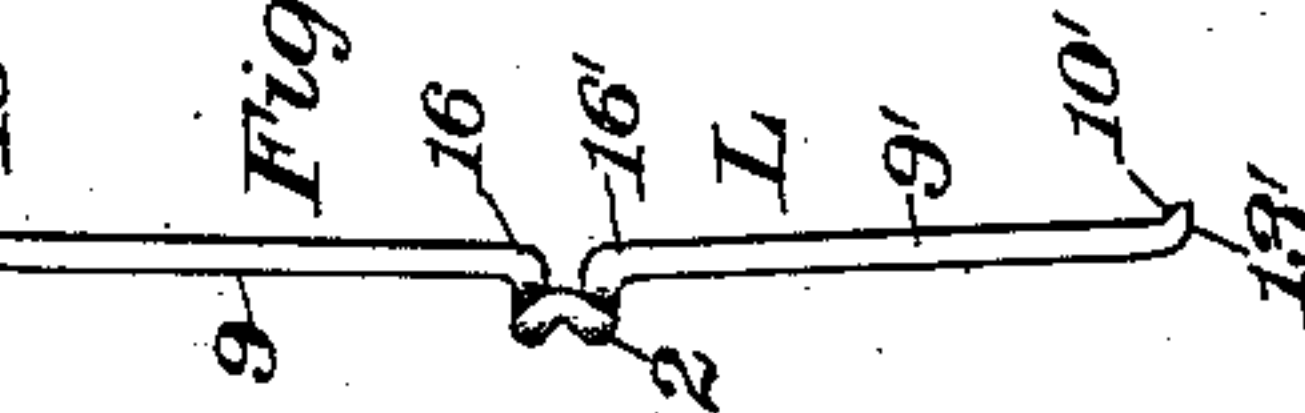


Fig. 16.



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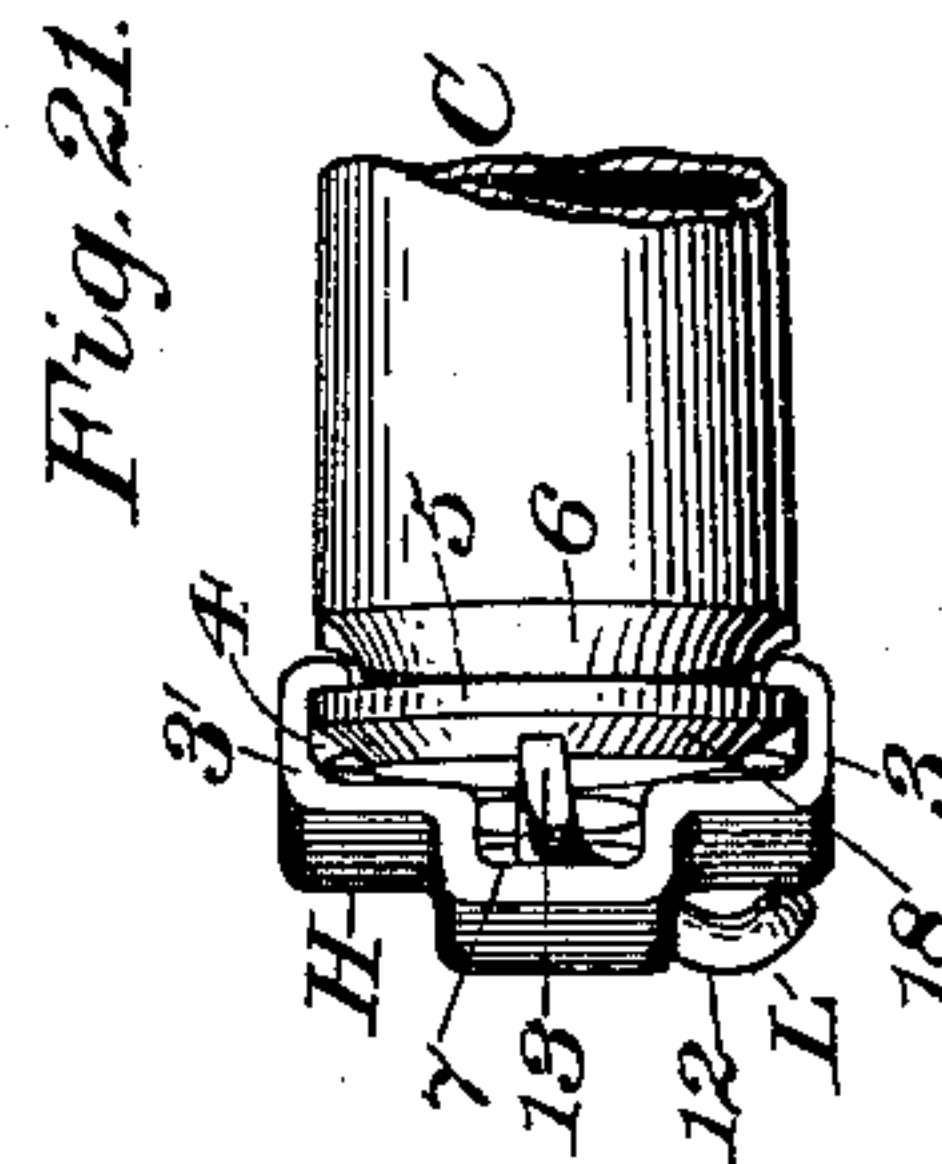
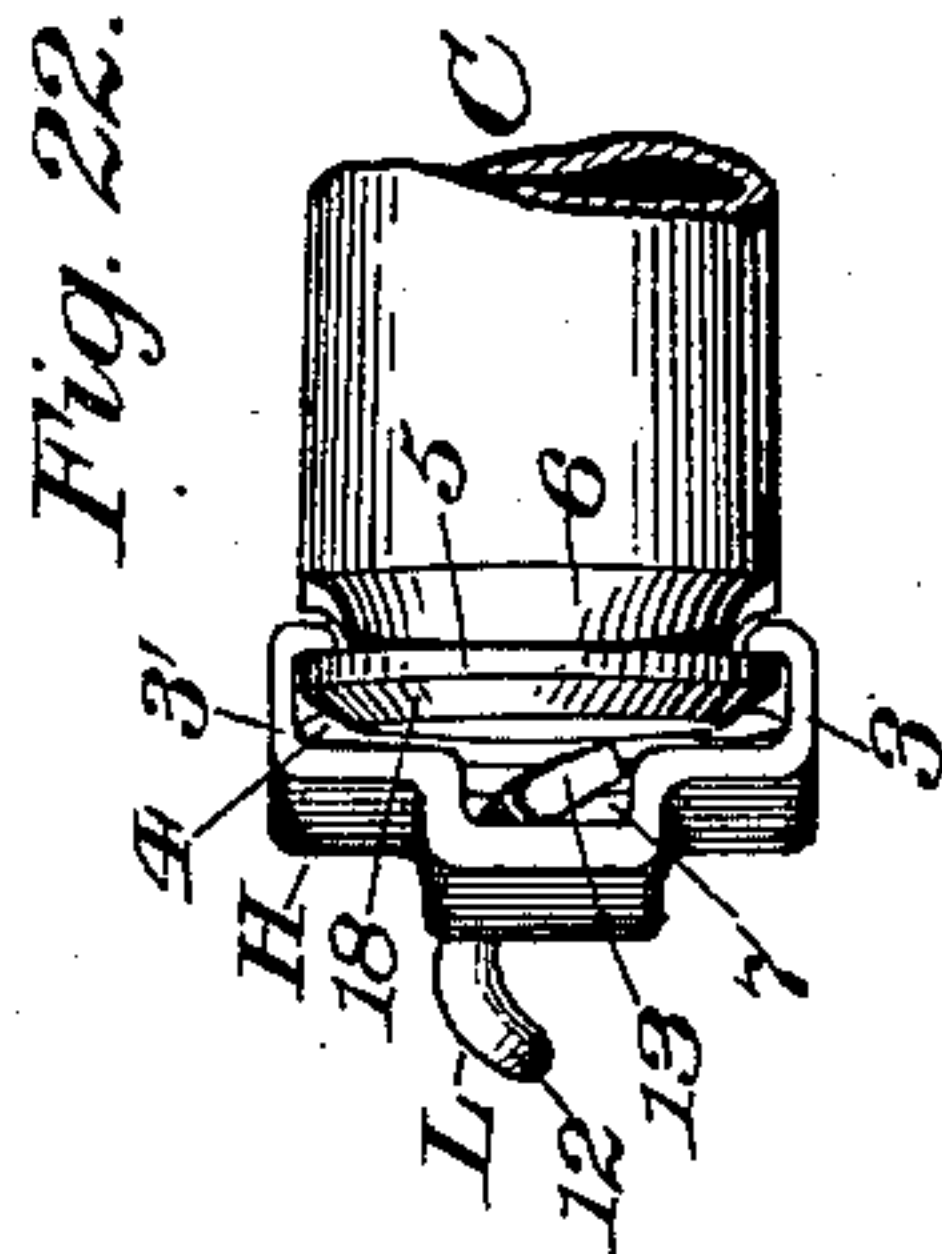
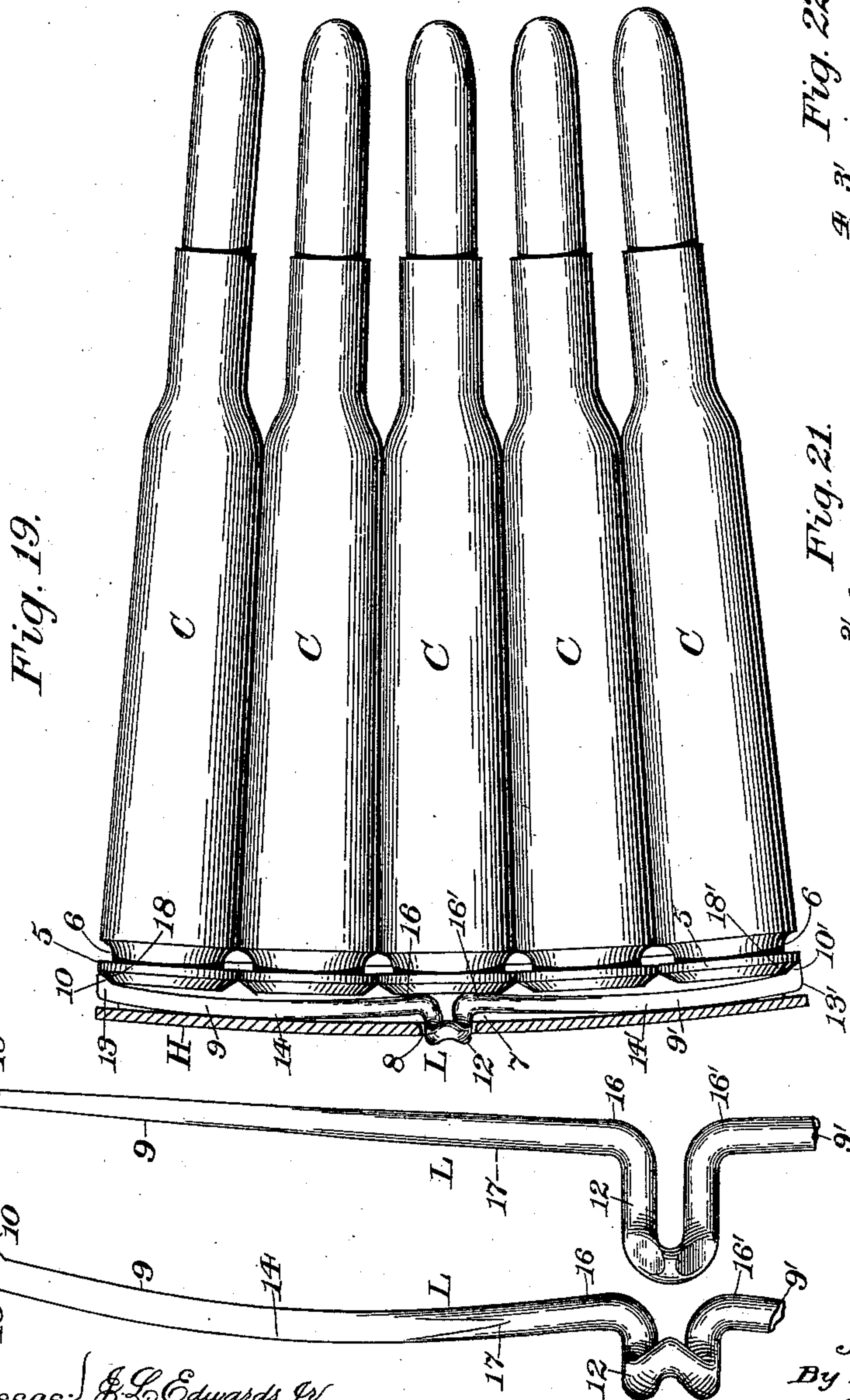
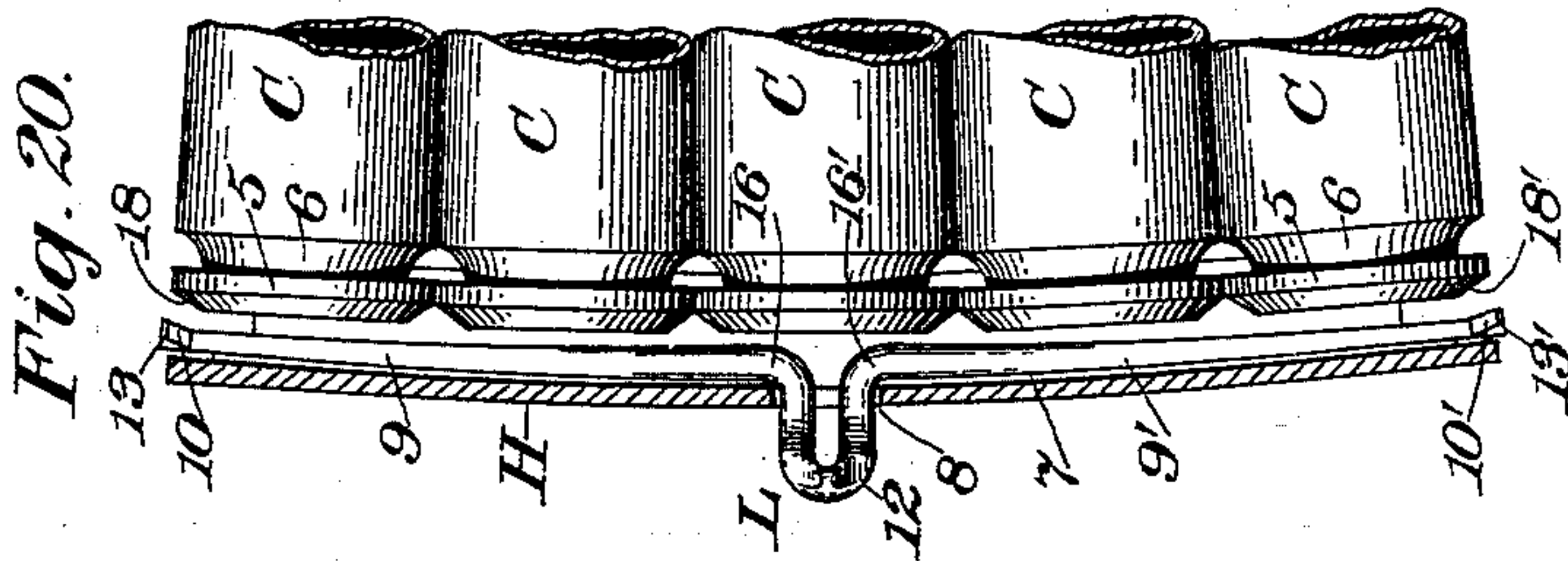
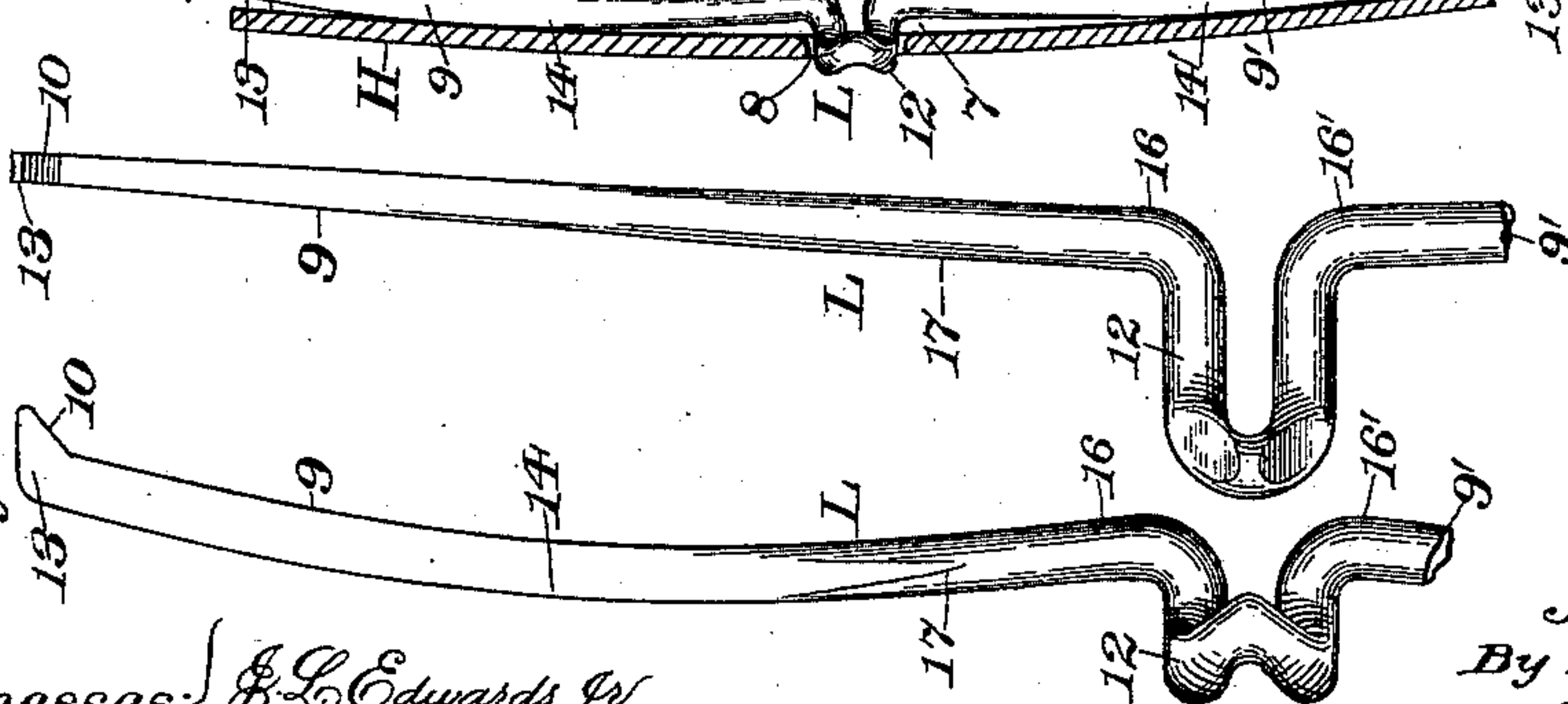


Fig. 24.

Fig. 23.



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# UNITED STATES PATENT OFFICE.

JAMES P. LEE, OF HARTFORD, CONNECTICUT.

## CARTRIDGE-PACKET.

SPECIFICATION forming part of Letters Patent No. 547,582, dated October 8, 1895.

Application filed June 25, 1895. Serial No. 553,962. (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 especially adapted for use in connection with that class of breech-loading firearms commonly known as "bolt-guns" or "magazine-guns."

One of the principal objects of my present invention is to furnish as a unitary article of commerce a cartridge-pocket comprising a clip and a series of cartridges adapted for use with the class of guns above specified, and to so organize the parts of said packet that the packet may be inserted in its entirety into the magazine of the gun either side up and be used as an "ammunition-piece" for said gun without any preparation on the part of the user and without care being exercised as to the manner in which the same is inserted into the magazine, to thereby facilitate the charging of the gun with which my improved cartridge-pocket is used and to correspondingly increase the rapidity with which said gun may be fired.

A further object of my invention is to furnish a clip adapted for holding a series of cartridges one above another and tightly clamped together, which clip shall engage the extreme rear ends of said cartridges and will occupy the least possible space over and above that which is actually required for the cartridges alone, and to so construct and organize the cartridge-clip that the same will be light, strong, and serviceable, may be quickly operated to lock the cartridges in place in said clip, may be automatically operated by a device or fixture of the gun with which the same is used and simultaneously with its insertion in the magazine of said gun for automatically releasing the cartridges from locked engagement with the clip, and may be so cheaply manufactured as to permit them to be thrown away after once being used without material loss.

In the drawings accompanying and forming part of this specification, Figure 1 is a side elevation of a cartridge-pocket or ammu-

munition-piece embodying my present invention, said figure showing a column of five cartridges supported one above and by the other and held against relative movement longitudinally and transversely by means of my improved cartridge-clip. Fig. 2 is an end elevation of the cartridge-pocket as seen from the left hand in Fig. 1. Fig. 3 is a plan view of the cartridge-pocket as seen from above in Fig. 1. Fig. 4 is a sectional end view of the cartridge-pocket as seen from the left hand in Fig. 1, the section being taken in dotted line *a a*, Fig. 1. Fig. 5 is a sectional side elevation of a portion of the cartridge-pocket, the clip-body being shown in longitudinal section and the cartridge-locker being shown in its locked or cartridge-engaging position. Fig. 6 is a view similar to Fig. 5 of a portion of the cartridge-pocket and shows the cartridge-locker in its unlocked or cartridge-releasing position. Fig. 7 is a rear elevation of the cartridge-clip body or holder detached from the other elements of the cartridge-pocket. Fig. 8 is a side elevation of said cartridge-clip body or holder as seen from the right hand in Fig. 7. Fig. 9 is a cross-sectional view of a cartridge-clip body or holder, taken in dotted line *b b*, Fig. 8, and as seen from above in said figure. Fig. 10 is a front elevation of the cartridge-locker detached and as it appears when viewed from the right hand in Fig. 6. Fig. 11 is a side elevation of the cartridge-locker detached and as it appears when viewed from the right hand in Fig. 5. Fig. 12 is a side elevation, similar to Fig. 1, of a portion of the cartridge-pocket and shows the lever or actuator of the cartridge-locker in position to be engaged by a locker-opening wedge, which will usually constitute a fixture of the magazine of the gun with which the cartridge-pocket is inserted, and which will in practice be in position to enter between the locker-lever and the rear face of the clip-body as the cartridge-pocket is inserted into the magazine of the gun. Fig. 13 is a plan view showing the parts illustrated in Fig. 12 and in a like position. Fig. 14 is a side elevation of the parts illustrated in Fig. 12 and shows the cartridge-clip depressed relative to the locker-opening wedge, so as to effect a partial opening movement of the cartridge-locker, said figure fully



illustrating the duplex character of the wedge. Fig. 15 is a plan view of the parts illustrated in Fig. 14 and shows said parts in a like position. Fig. 16 is a side elevation of the parts 5 illustrated in Fig. 14 and shows the cartridge-clip further depressed relatively to the locker-opening wedge and in the position it would occupy in the gun when ready for use, and shows the locker in its unlocked or cartridge-releasing position and the cartridges free to 10 be lifted. Fig. 17 is a plan view of the parts illustrated in Fig. 16 and shows said parts in a like position. Fig. 18 is a plan view, similar to Fig. 13, showing the locker-lever or actuator in a reverse position, as when the cartridge-packet is inserted into the gun-magazine the other end up, and in a position to be operated by the opposite member of the duplex wedge. Fig. 19 is a side elevation, similar to 20 Fig. 1, but upon a relatively larger scale, of the cartridge-packet or ammunition-piece, and shows a slightly-modified form of cartridge-locker, the locker being shown in its cartridge-locking position. Fig. 20 is a side view, 25 similar to Fig. 19, of a portion of the cartridge-packet, showing the cartridge-locker in its unlocked position. Fig. 21 is a plan view of a portion of the cartridge-packet as seen from above in Fig. 19. Fig. 22 is a plan view 30 of a portion of the cartridge-packet as seen from above in Fig. 20. Fig. 23 is a side elevation, upon an abnormally-large scale, of a portion of the modified form of cartridge-locker shown in Fig. 19; and Fig. 24 is a front 35 view of said cartridge-locker as seen from the right hand in Fig. 22.

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

My improved cartridge-packet, as a unitary 40 article of commerce, consists of a cartridge-clip, which is designated in a general way by B, and a series of cartridges C, supported one above the other and normally held as against longitudinal and transverse movement by the 45 combined actions of the clip and the cartridges themselves, as will be hereinafter more fully described. The clip B in the preferred form thereof herein shown consists of two 50 principal members, to wit: a longitudinally-channeled clip-body or carrying member (designated in a general way by H) and a cartridge-locker or locking member (designated in a general way by L) in movable connection with the clip-body.

55 The clip-body H, which will usually be made of sheet-steel and practically rigid, is shown having flanges 3 and 3' at the opposite side edges thereof, which flanges project forwardly and inwardly a short distance to form a relatively wide cartridge-head channel 14, suitable 60 for receiving the beaded head 5 of the cartridge, said flanges being in practice arranged at such a distance apart as to permit the beaded head 5 of the cartridge-head to freely 65 slide within the channel 4, while that portion 6 immediately forward of the beaded portion of said cartridge will enter between the adja-

cent ends of the opposite flanges 3 and 3'. The clip-body is also shown dished or countersunk 70 longitudinally upon its inner face midway of its width to form a relatively narrow channel 7 to receive the cartridge-locker L, the rear wall of said locker-receiving channel 7 constituting a bearing for said locker rearward and 75 out of the plane of the cartridge-head channel 4. The clip-body H has a recess 8 formed therethrough, preferably midway between the ends of said clip-body, which recess communicates with the locker-receiving channel 80 and is adapted for facilitating the operation of the cartridge-locker L, as will be hereinafter more fully described.

The cartridge-locker L, which is an important element in my present invention, is in the form thereof herein shown in the nature 85 of a rock-shaft cranked or laterally extended at the middle portion thereof, as shown at 12, to form an operating arm or actuator, with two so-called "lever-arms" 9 and 9' at opposite sides of said actuator 12. These so-called 90 "lever-arms" 9 and 9' are shown having laterally-disposed and preferably oppositely-inclined locking-faces 10 and 10', respectively, at the outer ends thereof, which locking-faces 10 and 10' will usually be formed upon and constitute the inner or forward faces of relatively 95 short laterally-projecting arms 13 and 13', respectively. When the parts of the cartridge-clip are assembled, the actuator or extension 12 of the locker L extends through and is supported in the recess 8 in the clip-body H and 100 constitutes a lever, whereby the locker may be rocked to throw the locking or working faces 10 and 10', at opposite ends of said locker, into or out from locked engagement with their terminal cartridges of a series of cartridges supported one by the other between the flanges 3 and 3' of the clip-body and between said locking-faces 10 and 10', as will be readily 105 understood by reference to Figs. 1 to 6, inclusive, of the drawings. In the slightly-modified form of the locker L, (shown most clearly in Figs. 19 and 23) the arms 9 and 9', at opposite sides of the actuator 12, will each be curved or bent laterally and at an angle to 115 the plane of the longitudinal axis of the actuator 12 to form laterally-disposed portions 14 and 14' between the opposite ends of the lever-arms 9 and 9', respectively, which are eccentrically disposed relatively to the axes 120 of said arms. These portions 14 and 14' practically constitute cams, which when the locker L is rotated from the position shown in Fig. 20 to that shown in Fig. 19 will be brought into engagement with the inner face of the 125 wall of the locker-receiving channel 7, and thereby bring the outer and inner ends 10 and 16 and 10' and 16' of the two lever-arms 9 and 9', respectively, into bearing engagement with the terminal cartridges and middle cartridges of the series of cartridges, as will be 130 readily understood by a comparison of Figs. 19 and 20 of the drawings. It will be understood that I do not desire to limit myself to



the particular form of cartridge-locker illustrated in the drawings, as the form of the cartridge-locker is subject to various modifications within the scope and limits of my invention.

In practice the recess 8 in the back of the clip-body, which recess is made, as before stated, for the passage through the clip-body of the locker-actuating lever 12 and to facilitate the operation of the locker from the outside of said clip-body, may be formed centrally in the width of said body, so that the locker may be inserted in the locker-receiving channel 7 either end up and without the exercise of precaution to thereby facilitate the assembling of the parts of the packet.

For the purpose of securing additional torsional elasticity the cartridge-locker, which is preferably made of spring-steel wire and in one piece, has the inner ends 16 and 16' of the two arms 9 and 9' slightly remote from each other and connected together by the U-shaped actuator 12, and said arms 9 and 9' are made tapering and are thinned from points, as 17, near the inner adjacent ends thereof, to points near the extreme outer ends of said arms, as will be understood by reference to Figs. 23 and 24 of the drawings.

By constructing the cartridge-clip in the manner herein described it will be seen that when the parts are in the position illustrated most clearly in Figs. 20 and 22, with the cartridges in proper position to be locked in place by a lateral movement of the lever 12 of the cartridge-locker from the position shown in Fig. 20 to that shown in Fig. 19, the locking-faces 10 and 10' at the opposite ends of the lever-arms 9 and 9', respectively, will be forced into positive engagement with the heads of the terminal cartridges of the series owing to the partial rotation of the cartridge-locker, this movement of the lever or actuator 12 rocking the lever-arms 9 and 9' of the cartridge-locker, and causing the middle or eccentrically-disposed portions 14 and 14' of the arms 9 and 9', respectively, to be brought into frictional engagement with the back wall of the clip-body and forcing the locking-faces forwardly and outwardly into engagement with the heads of the terminal cartridges, a torsional stress being exerted which causes the inclined locking-faces to ride upward upon correspondingly-inclined faces 18 and 18' of the head of said cartridges, which locks the cartridges in place with a slightly-yielding pressure.

For the purpose of holding the locker in its cartridge-locking position and for preventing an accidental opening movement of said locker, which would otherwise accrue from the opposing resistance of the cartridges, the cam-faces 14 and 14' of the lever-arms 9 and 9' and the locking-faces 10 and 10' upon the laterally-disposed arms 13 and 13' are set at such an angle relatively to the angle of repose of the actuator 12 that the said cam-faces 14 and 14' and the locking-faces 10 and

10' will be carried slightly past the dead-centers of their movements upon the completion of the locking-stroke of the actuator 12, the torsional elasticity of the locker being thus utilized to effect a torsional stress sufficient to hold the lever 12 tightly in engagement with the clip-body and in its locked position as soon as the cam-like portions 14 and 14' and the locking-faces 10 and 10' of the locker have slightly passed the dead-centers of their movements.

The locking or working faces 10 and 10' of the locking-arms 13 and 13' are shown beveled to correspond with the bevel at 18 and 18' of the heads of the two terminal cartridges. These beveled working faces 10 and 10' of the locking member or cartridge-locker act, when the locker is actuated for locking the cartridges in the clip, as wedges or inclines for moving the cartridges in the guiding-channel 4 of the clip-body slightly forward and downward, so as to bring said cartridges firmly against one another and hold the entire series relatively rigid in the clip, so that in practice the user may handle the packet as one piece without any difficulty arising from the shaking about of the cartridges in the clip. In assembling the parts of the cartridge-packet the rocker L is first placed in the receiving-channel 7, with the operating-lever 12 thereof projected through the recess 8 in the clip-body and resting in the position shown in Fig. 6 of the drawings, after which the cartridges C are placed one after another with their beaded ends located between the inner faces of the guide-flanges 3 and 3'. When the channel 4 of the clip-body is filled, as shown in Fig. 6, the locker-actuating lever 12 is thrown from its open position (shown in Fig. 6) to the closed position thereof, (shown in Fig. 5,) which rocks the locker L and brings the inclined locking-faces 10 and 10' of the lever-arms 9 and 9' into bearing engagement with the similarly-inclined faces 18 and 18' of the heads of the two terminal cartridges of the series of cartridges and locks said cartridges firmly in place.

From the foregoing it will be seen that the cartridges are held in place by the concerted and opposing action of the locker and the cartridge—that is, by the stress exerted by the two locking members upon the heads of the terminal cartridges and the resistance exerted by these cartridges intermediate to said terminal cartridges, said intermediate cartridges acting to hold the terminal cartridges against relative movement during the locking action of the cartridge-locker L.

By a comparison of Figs. 5 and 6 and 14 and 18 it will be seen that the locker acts as a positive locking and releasing means for cartridges, and is in no wise similar to an ordinary detent.

My present improvement not only positively locks the cartridges against movement relatively to the clip, but also releases said



cartridges, and therefore leaves them entirely free for sliding movement in said clip, the locker when in its unlocked position being entirely out of engagement with the cartridges and in no wise obstructing the free movement of said cartridges in the clip.

In using, my improved cartridge-packet may be inserted into the magazine of a gun suitable for using the cartridges thereof, either side up.

As it will be desirable to automatically release the cartridge-locker from locked engagement with the cartridges during the insertion of the packet into the magazine of the gun, I have for convenience illustrated in Figs. 12 to 18, inclusive, of the drawings one means for automatically operating the cartridge-locker to effect this end. This means in the form thereof herein shown is in the nature of a duplex wedge, which is designated in a general way by *w*, and which will in practice constitute a fixture of the magazine in which the packet is used. This wedge *w* is shown having two oppositely-disposed upwardly-extending wedge-prongs 19 and 19', adapted one for engaging and opening the lever 12 of the locker when said lever is in the position illustrated in Fig. 13, and the other of which is adapted for engaging and opening the lever 12 when the cartridge-packet is turned the other side up and the lever 12 is in the position shown in Fig. 18. One or the other of the wedge-prongs 19 and 19' will when the packet is forced relatively to the wedge enter between the lever 12 and the clip-body and throw the said lever into the locker-opening position, as shown, for instance, in Fig. 17, which releases the cartridges and leaves them free to be lifted out of the clip.

In Figs. 12 to 18, inclusive, of the drawings the automatic operation of the cartridge-locker to release the cartridges is fully illustrated. The means for unlocking the cartridge-locker shown and described herein does not constitute any part of my present invention, but forms a part of the subject-matter of my application for Letters Patent for magazine-guns, Serial No. 555,608, filed July 11, 1895, to which reference may be had, the means for effecting an opening movement of the cartridge-locker being simply shown and described herein to enable others to understand how the cartridges may be automatically released after the packet is inserted in the magazine of the gun and to illustrate the practicability of the packet when in actual use.

By the employment of a cartridge-packet such as herein shown and described the filling of the magazine of the gun is facilitated and the rapidity with which the gun may be recharged and fired is greatly increased, and owing to the compactness of the packet, the clip occupying but little additional space over and above the space actually required for the cartridges, a gun may be employed having a magazine whose area is but fractionally

greater than the aggregate areas of the cartridges, thus enabling a smaller gun to be used with a proportionate decrease in the weight thereof than has been heretofore used with cartridge-holding cases of ordinary construction, and owing to the material decrease in the weight of the cartridge-packet and the gun proper a soldier's equipment may be considerably lightened, which is a matter of considerable importance.

Having thus described my invention, I claim—

1. A cartridge-holder, consisting of a clip-body having a longitudinal cartridge-head channel adapted for receiving the headed ends of a series of cartridges; a cartridge-locker supported for rocking movement on the clip-body in said channel and having locking-faces adapted for engaging the heads of the terminal cartridges of the series of cartridges, whereby to hold the cartridges securely in place, and means for rocking the cartridge-locker in a plane transversely of the cartridge-head channel to engage and release the cartridges, substantially as described.

2. A cartridge-clip consisting of a clip body; a resilient cartridge locker loosely supported on the clip-body adjacent to and about midway of the plane of the head-faces of the cartridges and for transverse movement on said body, said locker having two lateral projections one at each end thereof, movable with said locker transversely of the clip body for engaging and releasing the terminal cartridges of a row of cartridges upon a transverse movement of said locker, and means for actuating said locker.

3. The herein-described cartridge-clip, it consisting of a clip-body having a longitudinal cartridge-head-receiving channel; a cartridge-locker supported on the clip-body, and having laterally-disposed locking-faces at opposite ends thereof; means for directly actuating the locker to throw the locking-faces into and out of engagement with the terminal cartridges of a series of cartridges carried by the clip; and means for normally holding the cartridge-locker in its locked position, substantially as described, and for the purpose set forth.

4. The herein-described cartridge-clip, it comprising, in combination, a clip-body having a longitudinal cartridge-head-receiving channel, and also having a transverse recess in communication with said channel; and a cartridge-locker supported for rocking movement on the clip-body, and having an actuator extended through the transverse recess of the clip-body, substantially as described, and for the purpose set forth.

5. The herein-described cartridge-clip, it consisting of a clip-body having a longitudinal cartridge-head-receiving channel, and also having a transverse recess communicating with said channel; combined with a cartridge-locker operatively supported on the clip-body, and having laterally-disposed lock-



ing-faces movable with said locker, and transversely of the cartridge-head-receiving channel; and an actuator carried by the cartridge-locker, and projecting through the transverse recess in the clip-body, whereby said cartridge-locker may be actuated from the outside of the clip-body, substantially as described.

6. In a cartridge-clip, the combination with a clip-body having a longitudinal cartridge-head-receiving channel; of a cartridge-locker supported for rocking movement relatively to the clip-body, and having locking-faces adapted for engaging and releasing the cartridges; and a locker-actuator operatively connected to said locker intermediate of the ends thereof, and adapted for rocking said locker, substantially as described, and for the purpose set forth.

7. The herein-described cartridge clip, it consisting of a clip-body having a relatively-wide longitudinal cartridge-head-receiving channel, and a relatively-narrow longitudinal locker-receiving channel in axial parallelism with and located intermediate of the width of the cartridge-head-receiving channel; a locker operatively supported in the locker-receiving channel, and having locking-faces movable toward and from and transversely of the cartridge-head-receiving channel to engage and release cartridges; and means for actuating the locker, substantially as described.

8. In a cartridge-clip, a clip-body having a longitudinal cartridge-head channel, and a transverse perforation communicating with said channel; in combination with a longitudinally-disposed cartridge-locker supported for rocking movement on the cartridge-body in juxtaposition to said cartridge-head channel, and having inclined laterally-disposed locking-faces at opposite ends in position and adapted for engaging the terminal cartridges of a series of cartridges carried by the clip; and an actuating-lever carried by the locker, and projecting through the transverse perforation in the clip-body, substantially as described, and for the purpose set forth.

9. The herein-described cartridge-clip, it consisting of a cartridge-carrying member; a torsionally-elastic cartridge-locking member supported for operative movement on the carrier, and having locking-faces which are obliquely disposed relatively to the longitudinal axis of said member; and means for swinging the locking-faces together with the locking-member in concentric planes, relatively to the longitudinal axis of said member and transversely of the carrying member, substantially as described, and for the purpose set forth.

10. The combination with the cartridge-carrying member; of a cartridge-locker carried by said carrying member, and consisting of two longitudinally-tapered resilient arms, each having a laterally-disposed inclined locking-face at the outer end thereof; and a lat-

erally-disposed actuating-lever connecting the inner adjacent ends of said arms, substantially as described and for the purpose set forth.

11. The combination with a clip-body having a longitudinal channel; of a cartridge-locker supported for rocking movement on the clip-body, and having laterally-disposed locking-faces at the opposite ends thereof, and also having a laterally-disposed bearing-face intermediate of said locking-faces; and means for actuating said locker, substantially as described, and for the purpose set forth.

12. The combination with a clip-body adapted for holding a series of cartridges; of a cartridge-locker supported for rocking movement on the clip-body and consisting of two longitudinally-tapered and torsionally-elastic lever-arms, each having a laterally-disposed inclined locker-face at the outer end thereof, and each arm also having a cam-like portion intermediate of the inner and outer ends thereof; and a laterally-disposed actuator connecting the inner adjacent ends of said lever-arms, substantially as described, and for the purpose set forth.

13. The combination with a clip-body having a longitudinal recess, and also having a transverse perforation; of a cartridge-locker supported for rocking movement in the longitudinal recess of the clip-body, and consisting of two laterally-curved resilient lever-arms, each having a laterally-disposed locking-face at the outer end thereof; and a U-like actuating-lever connecting the adjacent inner ends of the lever-arms, and extended through the transverse perforation in the clip-body, substantially as described, and for the purpose set forth.

14. The combination with a clip-body having a channel longitudinally thereof, of a cartridge-locker disposed longitudinally of the clip-body, adjacent to the plane of the head faces of the cartridges, and movably supported on the clip-body to be shifted transversely thereof, and having opposing locking-faces, one at each end thereof, adapted for engaging and releasing the heads of the terminal cartridges, respectively, substantially as described.

15. In a cartridge-clip, the combination with a clip body having a cartridge-head channel; of a cartridge-locker supported on the clip body for movement transversely of the cartridge-head channel, and comprising a cartridge-locking member located at, and operable from, one side of the clip body, and an actuating member located at, and operable from, the opposite side of the clip body, and in position to be actuated by a locker-operating device inserted between said clip body and said actuating member.

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Witnesses:

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