No. 659,659.

Patented Oct. 16, 1900.

F. M. GARLAND.

AMMUNITION CASE.

(No Model.)

(Application filed Apr. 25, 1899.)

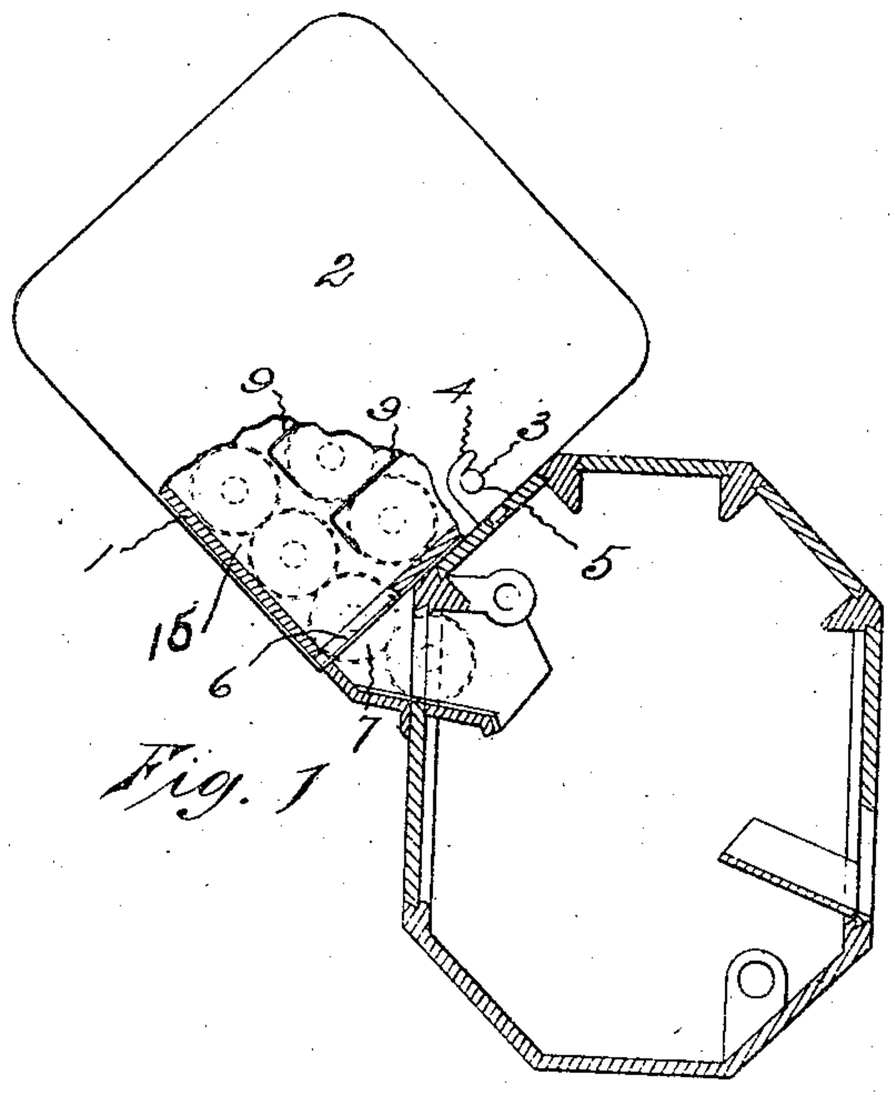


Fig. 1

Fig. 2

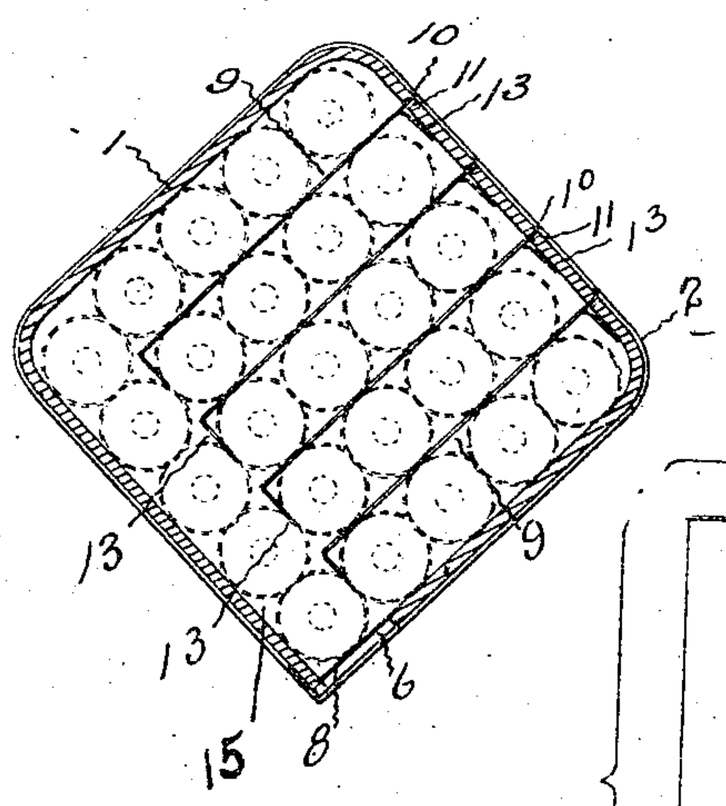


Fig. 4

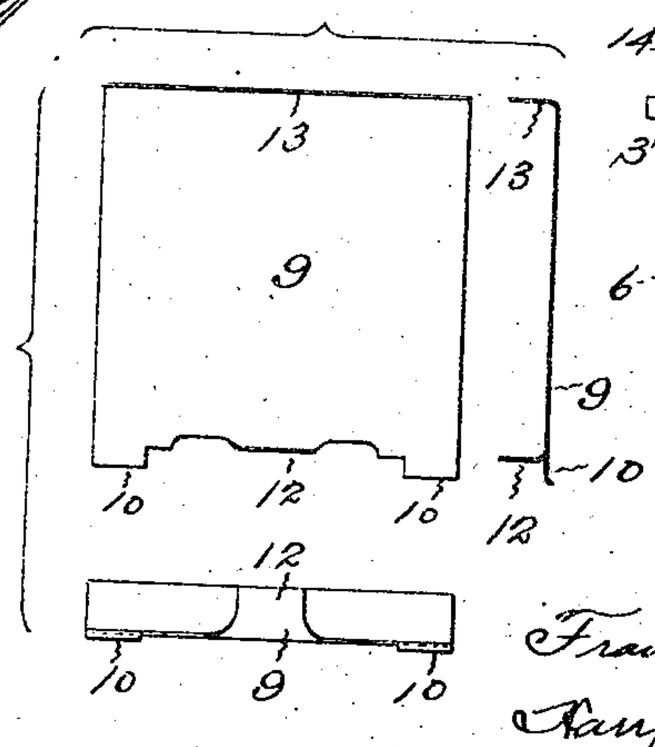
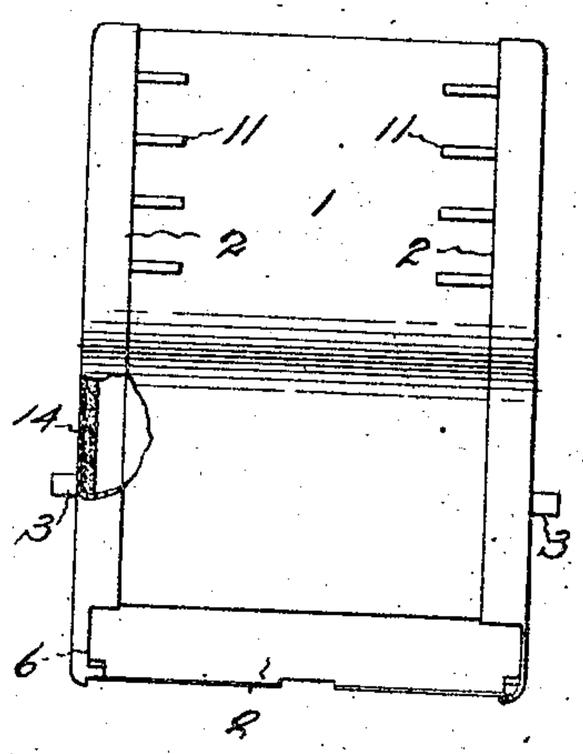


Fig. 3



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UNITED STATES PATENT OFFICE.

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AMMUNITION-CASE.

SPECIFICATION forming part of Letters Patent No. 659,659, dated October 16, 1900.

Application filed April 25, 1899. Serial No. 714,388. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. GARLAND, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Ammunition-Cases, of which the following is a specification.

This invention relates to cases for containing ammunition, which are designed to be attached to machine-guns and similar rapid-fire ordnance that require a continuous feed of ammunition.

The object of the invention is to provide a case of this nature which is so constructed that ammunition will as needed be fed by gravity rapidly and positively from the case into the gun.

The embodiment of the invention illustrated has a case arranged to be attached to the shell of the gun adjacent to the feed-opening, with interior partitions that separate the several rows of cartridges, which partitions are yieldingly secured to the said case in such a manner that the weight of the cartridges in one row upon the top of the partition holds the same in its inoperative position; but as soon as the weight of the cartridges has been removed the partition is thrown upwardly by spring action and the cartridges in the next lower row are released and drop by gravity into the feed-outlet passage, thus insuring a free automatic feed of cartridges from the case into the gun.

Referring to the drawings, in which like numerals designate like parts in the several views, Figure 1 is a fragmentary elevation of the case attached to the shell of an automatic machine-gun. Fig. 2 is a transverse section thereof. Fig. 3 is a side view with a portion of one of the side walls broken away; and Fig. 4 shows plan, side, and edge views of one of the yielding partitions.

The case illustrated is substantially rectangular in cross-section, although it may be of any other desired shape, and is provided with side walls 1, having rounded corners, upon which are fitted caps 2, that form the ends of the case. These parts may be made of brass, steel, or any other desired material fitted for this class of work. Projecting laterally from each of the caps are studs 3, which are adapted to be engaged with hooks 4 on the shell of the gun 5 for retaining the case in position, with the outlet-opening 6 in the case registering with the inlet-opening 7 through the shell of the gun. The outlet-opening through the case extends from end to end and may be temporarily closed by a slide 8, that is so constructed that it may be readily withdrawn when it is desired to open the outlet-passage and permit the cartridges to enter the gun.

The side walls of the case shown are formed from a single piece of metal; but, if desired, they can be made of different pieces and the end caps secured in place by any preferred means. Within the case are a number of parallel partitions 9, preferably of steel or other spring metal, which extend from one side nearly to the opposite side, a distance from each other that is substantially the same as the diameter of a cartridge. At one end each of the said partitions is secured to the side wall of the case with the other end free. It is preferred that the partitions shall be loosely held, which is done by passing the portions 10 of each partition through slots 11 in the side wall and bending over the outer ends thereof. The end of each of the partitions that is attached to the side walls of the case has a downwardly-turned portion 12, that tends to spring the free end up, which free end has a downwardly-turned finger 13. The distance between the side walls and the fingers 13 is equal to the diameter of a cartridge and forms the feed-outlet passage 15. A lining 14 of felt, asbestos, or other suitable material may be applied to the inside of the case to prevent any undue concussion being transmitted from the case to the primers of the cartridges.

Cartridges having projectiles weighing a pound, more or less, are placed in the case between the partitions from one end and when the case is filled that end is closed by one of the caps. The case is then attached to the shell of the gun so as to stand obliquely—that is, with the partitions lying at an angle with the line of gravity.

When the slide 8, closing the outlet-opening 6 in the case, is withdrawn, the cartridges can pass through the outlet-opening and into the gun. The cartridges in the feed-outlet

passage 15 will be first discharged successively from the outlet-opening 6, the row of cartridges on the top partition sliding down upon the said partition and dropping off the end thereof into the feed-outlet passage as the original cartridges in said passage are discharged by gravity through the said opening.

When the last cartridge in the top row has been discharged into the feed-outlet passage, the weight upon the uppermost partition is removed and the spring-finger 12 throws the forward end of the partition upward, lifting the finger 13 from in front of the first cartridge. The passage for this row of cartridges into the feed-outlet passage now being unobstructed the cartridges slide or roll by gravity down the upper side of the next partition and drop off the end thereof into the feed-outlet passage, following the last cartridge in the row first discharged. This operation continues until all of the several rows of cartridges have been discharged into the feed-outlet passage and from thence through the outlet-opening 6 into the gun-body.

The weight of a single cartridge is sufficient to hold the partition upon which it rests in its inoperative position, so that the last cartridge must be discharged into the feed-outlet passage before the partition is released and before the cartridges in the next row can enter said passage. By this operation it will be noted that the cartridges in the upper row pass regularly into the outlet-passage and are followed by the cartridges in the row next below and so on until all have been discharged. This arrangement prevents clogging or jamming of the cartridges and insures a continued unobstructed stream of cartridges into the gun-body.

If perchance the cartridges in the second row, being heavier than the last cartridge in the upper row, should prevent the said last cartridge from feeding down through the outlet-passage before the second row of cartridges enters, the practical result is always the same, because the said last cartridge is bound ultimately to pass down through the said passage.

The width of the feed-outlet passage is only slightly larger than the diameter of the cartridges themselves, so that two cartridges cannot be in the passage at the same time, and hence cannot clog and the last cartridge in the second row cannot hold back the last cartridge from the upper row, as they both have a rounded contour and one will crowd by the other and drop into the feed-outlet passage and finally be discharged throught the outlet-opening.

The vibration of the gun, to which the ammunition-case is attached, consequent upon the successive discharges and the rounded form of the cartridges insures the ultimate disposition of the same into the outlet-passage.

These cases are easily and readily filled with cartridges and can be quickly and securely attached to a gun without danger of accident or chance of error.

It is apparent that there are minor changes and alterations that can be made within my invention, and I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but claim all that falls fairly within the spirit and scope of my invention.

I claim as my invention—

1. An ammunition-case consisting of a receptacle having interior partitions with portions extending through one side wall, a portion engaging with that side wall and tending to throw upwardly the free end, the free end of said partition having downturned fingers, substantially as specified.

2. In an ammunition-case adapted to hold a plurality of cartridges, the combination with the outer case or receptacle having an outlet-opening therethrough; of a plurality of partitions yieldingly secured therein to one side thereof and provided with a downwardly-projecting finger at its free end to prevent the premature discharge of the cartridges below said partition, substantially as specified.

3. In an ammunition-case, adapted to hold a plurality of rows of cartridges, the combination with an outer case or receptacle, of partitions 9, having the sustaining portions 10 and spring portions 12 at one end and the lip portion 13 at the other end, all constructed and operating substantially as specified.

4. An ammunition-case adapted to hold a plurality of cartridges and consisting of a receptacle having interior partitions for separating said rows of cartridges, secured at one end to the wall of the receptacle and having a bent portion at the opposite end, which normally obstructs the passage through which one of the rows of cartridges is discharged, each of said partitions having a spring that tends to throw the free end of said partition upwardly and carry the said bent portion away from the said row of cartridges, substantially as specified.

5. An ammunition-case adapted to hold a plurality of rows of cartridges and consisting of a receptacle having interior partitions for separating said rows of cartridges, which partitions have one free end formed with a bent portion, that normally obstructs the passage through which one of the rows of cartridges is discharged, and provided with portions extending through one side wall and other portions engaging with the interior of said side wall and tending to throw upwardly the said free end and carry the said bent portion away from the said row of cartridges, substantially as specified.

6. In an ammunition-case adapted to hold a plurality of rows of cartridges, the combination with an outer case or receptacle, of independent partitions yieldingly secured at one end within said case to one side thereof and extending nearly to the opposite side, each of said partitions having a bent portion at its

free end which obstructs the outlet of the chamber beneath it, whereby a single unobstructed chamber is formed within two sides of said case, and a plurality of independent chambers formed between the said partitions and means, as springs, for throwing upward the free end of said partitions, substantially as specified.

7. In an ammunition-case adapted to hold a plurality of rows of cartridges, the combination with an outer case or receptacle having an outlet-opening therethrough, of independent partitions yieldingly secured within the said case to one side thereof, and extending nearly to the opposite side terminating in bent portions which close the outlet of the chambers beneath said partition, whereby a single chamber is formed above the said opening and a plurality of chambers at substantially right angles thereto, and means, as springs, for throwing upward the free end of said partitions substantially as specified.

8. An ammunition-case adapted to hold a plurality of rows of cartridges and consisting of a receptacle having interior partitions for separating said rows of cartridges, which partitions have one free end provided with a finger portion, which finger portion normally retains the row of cartridges beneath the partition against movement, and means, as springs, for throwing upward the free end of said partitions and lifting the said finger portions away from the said row of cartridges, when all of the cartridges have passed from above said partition, substantially as specified.

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