(No Model.)

T. G. BENNETT.

CARTRIDGE PACKAGE.

No. 260,153. Patented June 27, 1882.

Fig. 1

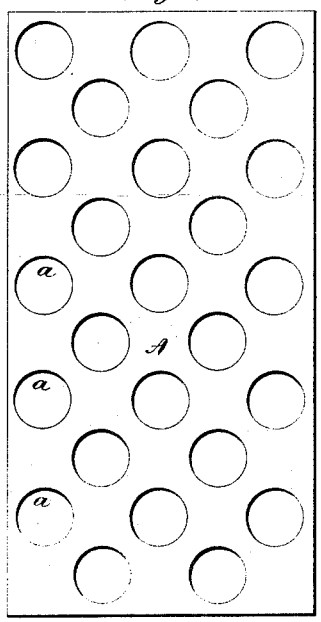


Fig. 2

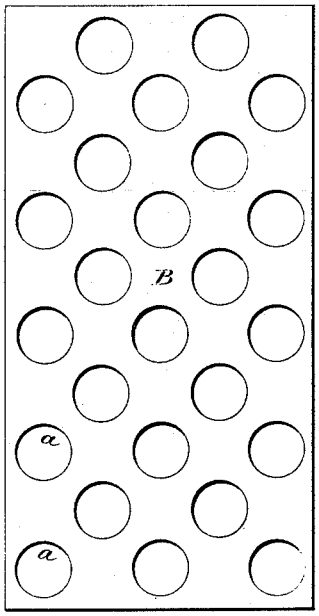


Fig. 3

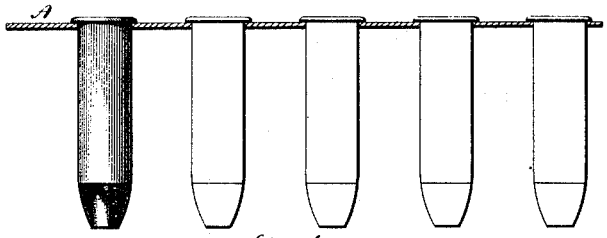


Fig. 4

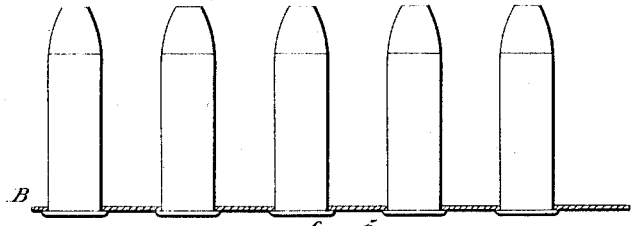
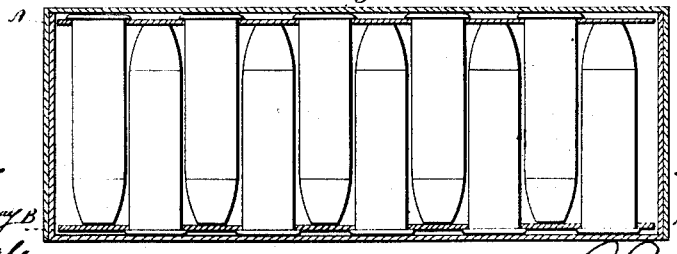


Fig. 5



Witnesses.
J. N. Shumway, Jr.
Jos. C. Earle

Thos. G. Bennett
Inventor
By Atty:

UNITED STATES PATENT OFFICE.

THOMAS G. BENNETT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

CARTRIDGE-PACKAGE.

SPECIFICATION forming part of Letters Patent No. 260,153, dated June 27, 1882.

Application filed May 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS G. BENNETT, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Packing Cartridges; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figures 1 and 2, the two perforated plates; Fig. 3, a longitudinal section of the plates through the perforations with the cartridges therein; Fig. 4, a corresponding section of the other plate inverted; Fig. 5, a longitudinal section of the package.

This invention relates to an improvement in the method of packing cartridges in their cases.

Cartridges of the larger sizes are packed in paper or other boxes or cases containing, say, fifty, (more or less,) and are arranged alternately one cartridge with the head in one direction and the next in the opposite, and so on, so that the point or ball of one cartridge stands between the flanges or heads of the two adjacent cartridges. By this arrangement the cylindrical part of the cases are brought into contact and thus make a closely-packed package.

As heretofore practiced the cartridges have been placed by hand and singly in their cases, which is an expensive operation.

The object of my invention is to avoid this hand-labor and facilitate the packing; and it consists in the employment of a pair of plates of substantially the area of the case into which the cartridges are to be placed, each perforated with series of holes substantially the diameter of the body of the cartridge underneath the head, the said holes being in longitudinal series, the holes in each series being distant from each other substantially the diameter of the cartridge-shell, and those of one being in a position between those of the other—that is, the holes in one alternating with the holes in the other—so that the cartridges may be "shaken" in mass upon these plates until all the holes in the plate are filled. Then, inverting the one plate with its cartridges, the other plate with its cartridges may be set upon the first, the cartridges in the second plate passing down between the cartridges of the first plate, thus bringing a mass together into precisely the position they will occupy in the case, and thus arranged they may be placed in their cases together with the plates which support them, and as more fully hereinafter described.

A, Fig. 1, and B, Fig. 2, represent two plates of the same size and each corresponding to the size of the box or case which is to receive the cartridges. They are each punched with several series of openings, *a*, the openings corresponding in size substantially to the size of the cartridge under the head, and so that the cartridges may be introduced through the openings point downward, as seen in Fig. 3, until the head or flange will rest on the plate. The openings are distant from each other substantially one diameter. The openings in one plate are intermediate between those of the other plate, as seen in Figs. 1 and 2. These plates are made from common tin, pasteboard, or other cheap or inexpensive material. The plates thus prepared are arranged upon a suitable frame or over an opening in a table, and a mass of cartridges placed over them and shaken or agitated in the usual manner for shaking cartridges or plates for the purpose of filling holes in the plates with cartridges until all the holes are filled. The cartridges, readily entering, fall through the openings, point downward, until the flange rests upon the plate, as seen in Fig. 3. When the plates are filled, one—say B—is inverted, as seen in Fig. 4, and may be placed directly into the packing-case, as seen in Fig. 5, leaving the points of the cartridges standing upward. Then the other plate, A, is set over the cartridges thus introduced and dropped onto the first, so that the cartridges of the second plate pass down between those of the first, as seen in Fig. 5. Then the case is closed in the usual manner, and the package is ready for market.

By this construction the hand-labor of packing the cartridges singly is dispensed with to a very great extent, one person by this method being able to do many times what a single person could do by the old method. Another advantage of this method is that each cartridge is held in the case independent of the others. Again, the cartridges when packed are always

freshly greased, and in handling in the old method the cases would be unavoidably more or less soiled and the grease more or less disturbed, which is avoided by my improved method.

While I have illustrated but one way of introducing the plates and cartridges to the package, it will be readily understood that this may be done in various ways. For illustration, instead of being placed into a box-like package, the two plates of cartridges may be placed together and wrapped in paper; or they may be placed together and otherwise introduced into the case; or several sets may be placed in a case.

I claim—

1. The method herein described for arranging cartridges for packing, consisting in the employment of a pair of plates of substantially the size of the package to be made, each perforated with series of holes corresponding in diameter to the body of the cartridges, the holes in one alternating with those of the other, the cartridges introduced through the holes in the said plates, and the two filled plates of cartridges set together, substantially as described.

2. A cartridge-package consisting of a pair of plates, each perforated with series of holes corresponding in diameter to the body of the cartridge, the holes in one plate alternating with those of the other, the cartridges arranged through the perforations of the respective plates, and then the two plates of cartridges set together and inclosed to form the package, substantially as described.

THOMAS G. BENNETT.

Witnesses:
WM. W. CONVERSE,
J. N. KIMBALL.