No. 739,487. PATENTED SEPT. 22, 1903.

R. GAIR.

PACKING STRIP FOR PRIMERS AND CARTRIDGES.

APPLICATION FILED JAN. 15, 1903.

NO MODEL.

Fig. 1.

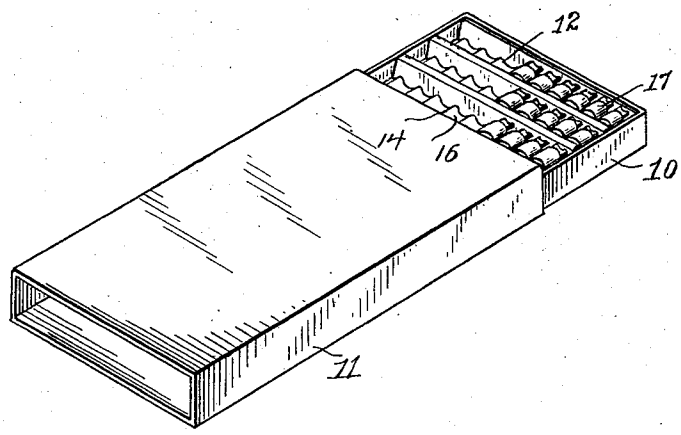


Fig. 2.

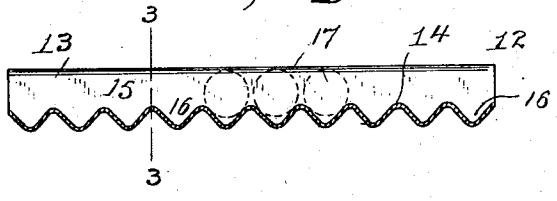
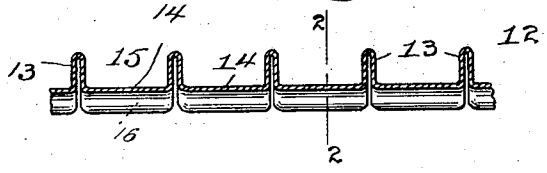


Fig. 3.



WITNESSES.

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No. 739,487. Patented September 22, 1903.

UNITED STATES PATENT OFFICE.

ROBERT GAIR, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE UNION METALLIC CARTRIDGE COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

PACKING-STRIP FOR PRIMERS AND CARTRIDGES.

SPECIFICATION forming part of Letters Patent No. 739,487, dated September 22, 1903.

Application filed January 15, 1903. Serial No. 139,148. (No model.)

To all whom it may concern:

Be it known that I, ROBERT GAIR, a citizen of the United States, residing at Brooklyn, county of Kings, State of New York, have invented a new and useful Packing-Strip for Primers and Cartridges, of which the following is a specification.

My invention has for its object to provide a packing-strip adapted for use in boxes for general packing purposes, and especially adapted for use in packing primers and cartridges.

It is of course well understood that in some kinds of primers the exploding-anvil extends outward beyond the open end of the primer-shell and that in some kinds of loaded shells the head of the primer lies flush with or may extend outward slightly beyond the face of the head. It is a matter of great importance in preparing ammunition of this character for shipment that it should be packed in such a manner as to practically eliminate the danger of explosion under all ordinary and even extraordinary conditions of transportation—for example, the dropping, accidental or otherwise, of a case of primers or cartridges in a warehouse or upon a wharf or into the hold of a vessel. In order to render assurance doubly sure and fully satisfy carriers and transportation companies generally, it is desirable that the individual primers or cartridges be not only retained out of contact with each other both longitudinally and laterally, but that the separation between the individual articles and the rows, more especially the separation between the rows, which is, in fact, an endwise separation between individual articles, should be quite elastic or resilient—that is, capable of yielding to quite an appreciable extent, but returning to and retaining its original shape as soon as pressure is relieved. With this and other objects in view I have devised the novel packing-strip which I will now describe, said strip having major and minor yielding separating walls or abutments lying at right angles to each other and said strip, with its walls or abutments, being formed in dies at a single operation and of a size to fit any box from a single blank of paper of the necessary shape and size.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective illustrating the application of my invention in the packing of primers; Fig. 2, an enlarged detail view showing the minor walls in transverse section on the line 2 2 in Fig. 3, one of the major walls appearing in elevation; and Fig. 3 is a detail sectional view on a line at right angles to the line of Fig. 2, said line being indicated by 3 3 in Fig. 2, the major walls appearing in transverse section and the minor walls in longitudinal section.

10 denotes a flat primer-box adapted to receive one hundred primers, 11 a sliding cover therefor, and 12 my novel packing-strip. This strip is pressed to shape from a blank of paper, the blank being of suitable size to form a strip that will just fit into the box for which it is intended and in which it is ordinarily secured in any suitable manner, as by the application of a little glue between the bottom of the box and the under side of the strip. The essential features of my novel packing-strip are the yielding walls or abutments lying at right angles to each other, which for convenience I term the "major" and "minor" walls.

13 denotes the major walls or abutments, which when the strip is in place in a box extend entirely across the box. These walls are formed by rounded folds of the paper and extend approximately the full height of the box, as clearly shown in Fig. 1. These walls in use separate rows of the primers (indicated by 17) lying side by side, so that each end of each primer rests against one of the major walls. It will be readily understood from Fig. 3 that while these major walls hold the primers or other articles firmly in place they possess a great amount of resiliency, so that in the event of a case of primers being dropped in such a manner as to throw the contents of the case in one direction the force of the blow will be entirely taken up by the several major and minor walls, so that it is, in fact, practically impossible for anything approaching a firing blow to be delivered to any of the primers, cartridges, or other pieces of ammunition when packed in this manner.

In order to separate the individual primers

or other articles from each other, I provide other walls or abutments 14, which I term "minor" walls or abutments, and which extend between the major walls and at right angles thereto, each individual primer, cartridge, or other article lying in an independent socket or groove, which I have indicated by 16. The position of the individual primers in each row relatively to each other will be understood from the dotted circles in Fig. 2. The long spaces between the major walls, each of which receives a row of primers or other articles, are indicated by 15. It should be understood that the object accomplished by my novel strip is to retain each primer or other article against contact with any other article and by a yielding wall or abutment—that is to say, the rows of primers or other articles are separated by the yielding major walls and the individual primers in each row are separated from each other by the yielding minor walls.

Owing to the fact that the two thicknesses of material comprising the major walls or abutments are substantially parallel with each other, the said walls or abutments are vertical when the strip or box is in a horizontal position or, in other words, are perpendicular to the plane of the strip. Therefore there is no liability of the articles in each row being forced upward from their horizontal position between the minor walls by any endwise jarring movement of said articles against the major walls. If the sides of said major walls were inclined, there would be a tendency of the articles to move upward and slide upward along the inclined surface if subjected to any endwise jarring or blow. If the ends of the articles were to move upward, they would be liable to be forced over the top or partly over the top of the major wall, forcing the top of the box upward in such movement. Moreover, in such a case the ends of the articles would pass beyond the yielding portion of the major wall.

Owing to the fact that the minor walls are of less height than the major walls and the sides of said minor walls being oppositely inclined, so that the said minor walls together form substantially a corrugated bottom, primers or cartridges in each row are separated from each other, but will still permit a series of the articles in a row to be readily rolled into a bunch for removal.

Having thus described my invention, I claim—

A packing-strip for primers and cartridges pressed to shape from a blank of paper and comprising yielding major walls or abutments formed of two thicknesses of material extending one dimension of the strip, said two thicknesses being separated by a space and substantially parallel to form vertical walls or abutments whereby rows of the primers or cartridges are separated from each other without liability of being forced from position by endwise jarring against said walls, and yielding minor walls or abutments of less height than the major walls and having oppositely-inclined sides whereby individual primers or cartridges in each row are separated from each other, the inclined sides of the minor walls and their lowness relatively to the major walls permitting a series of the articles in a row to be readily rolled into a bunch for removal.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT GAIR.

Witnesses:
GEO. W. GAIR,
W. B. RUSSELL.