

J. SURMANN.  
COLLAPSIBLE PACKING.  
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1,121,948.

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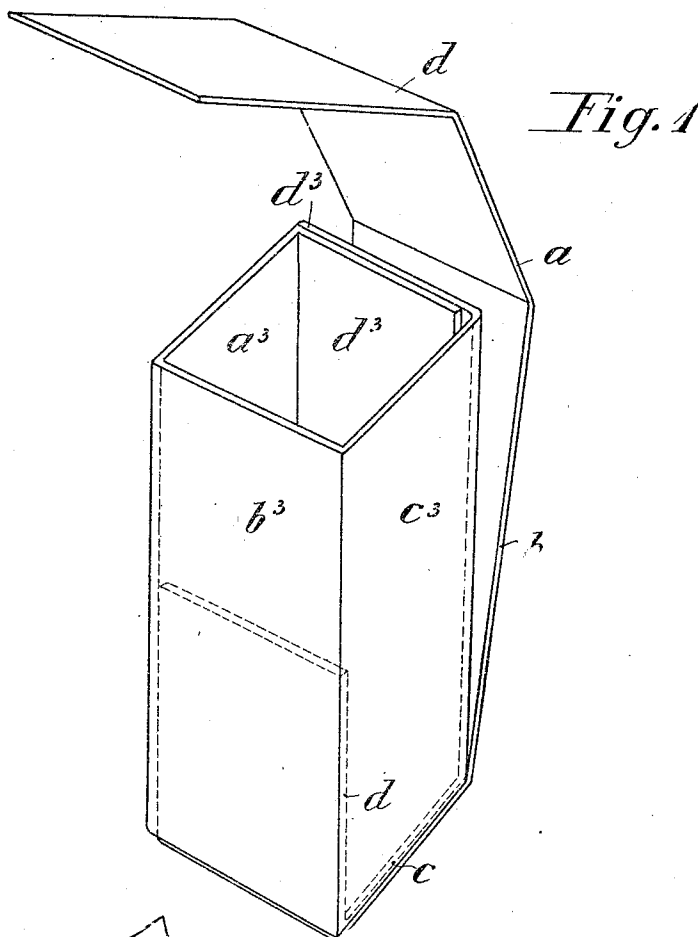


Fig. 1

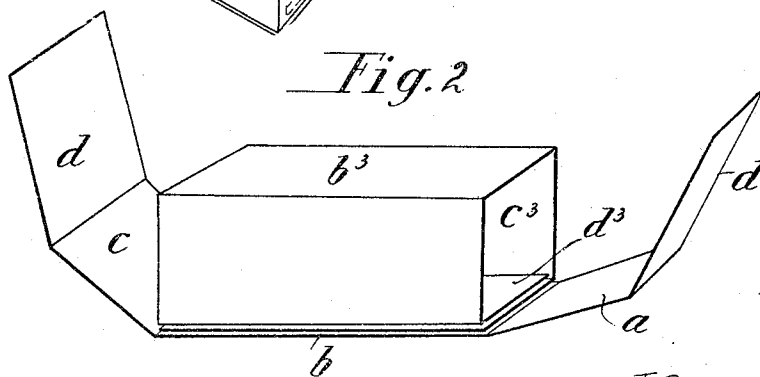


Fig. 2

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# UNITED STATES PATENT OFFICE.

JOHANNES SURMANN, OF HOLZHAFEN, BREMEN, GERMANY.

## COLLAPSIBLE PACKING.

1,121,948.

Specification of Letters Patent.

Patented Dec. 22, 1914.

Original application filed September 27, 1912, Serial No. 722,604. Divided and this application filed January 22, 1913. Serial No. 743,435.

To all whom it may concern:

Be it known that I, JOHANNES SURMANN, a subject of the German Emperor, residing at Holzhafen, Bremen, Germany, have invented certain new and useful Improvements in Collapsible Packings, of which the following is a specification.

This invention relates to a collapsible packing wherein strips of suitable material for instance corrugated cardboard, are arranged crosswise and are bent up to form a kind of box.

The invention of the present application which is a division of my application Serial No. 722604, has for object to provide an improved packing wherein no fastening means such as rivets, slits, flaps or adhesive are necessary, the box being held together solely by friction.

The packing is especially suitable for cylindrical and similar articles which would not in cross section occupy the whole of the internal space of the erected packing.

According to this invention the improved packing is composed of two strips each being adapted to be bent transversely to form five panels, one strip containing five full size panels, the other containing three full-size panels and two half-size end panels, so that when folded together and built up to form the box, the end panels of one of the strips overlap and are clamped between the contents of the packing and the wall of the same, thus securing the packing from unintentioned opening.

The invention is illustrated in the accompanying drawings.

Figure 1 is a perspective view, and Fig. 2 is a perspective view illustrating the manner in which the two strips are combined to form the box shown in Fig. 1.

In these drawings, the article is inclosed in a shell  $d^3$   $a^3$   $b^3$   $c^3$   $d^3$ , both end panels  $d^3$  of which overlap each other. This shell is placed with its end panel  $d^3$  upon the panel

$b$  of the strip  $d a b c d$ , and then the two panels  $a$  and  $b$  are turned up and over the shell, whereupon the two half panels  $d d$  are slipped into the shell and underneath the panel  $b^3$  where they form a butt joint.

The two half panels  $d$  are gripped and held in position between the article and the outer panel  $b^3$ , and also between the panels  $a^3$  and  $c^3$  which contact with the edges of the half panels.

The use of two full end panels  $d^3$ , which overlap render the packing suitable for cylindrical and the like articles, the overlapping panels being gripped between the inclosed article at its line of contact, and the outer panel  $b$ .

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

A collapsible packing suitable for cylindrical articles, comprising two five paneled strips arranged crosswise to each other, one strip having its end panels of full size and overlapping each other when the strip is bent up to form a rectangular shell the overlapping end panels of said strip being covered by the middle panel of the second strip, the end panels of said second strip forming a butt joint when said strip is bent up to form a second rectangular shell, said end panels being together substantially equal in size to the middle panel of the second strip said butt joint being covered by the middle panel of the first strip when the packing is erected and the packing being held together solely by friction of the end panels held between the inclosed article and the respective middle panel.

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

JOHANNES SURMANN.

Witnesses:

WILLIAM STRUP,  
FREDERICK HOYERMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."