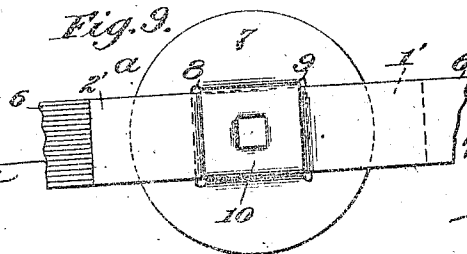
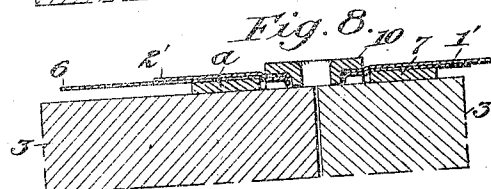
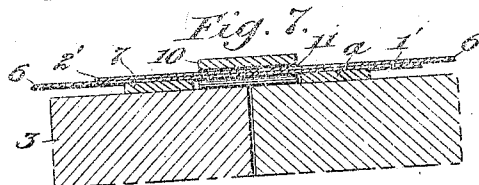
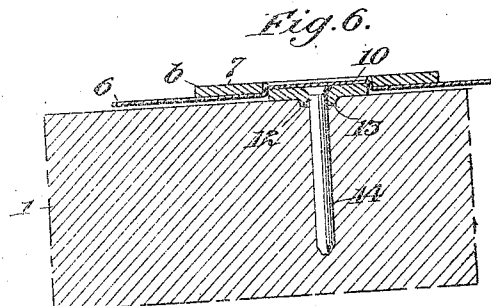
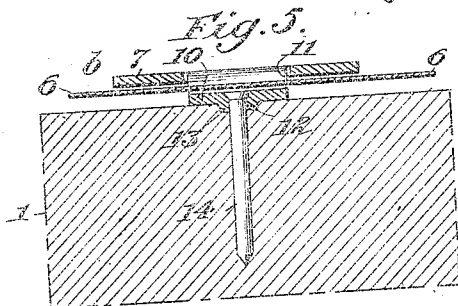
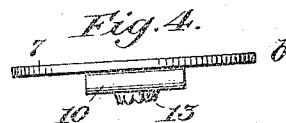
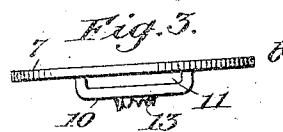
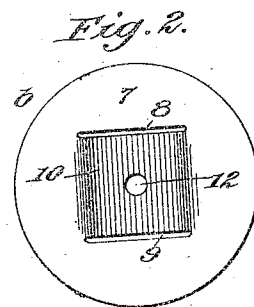
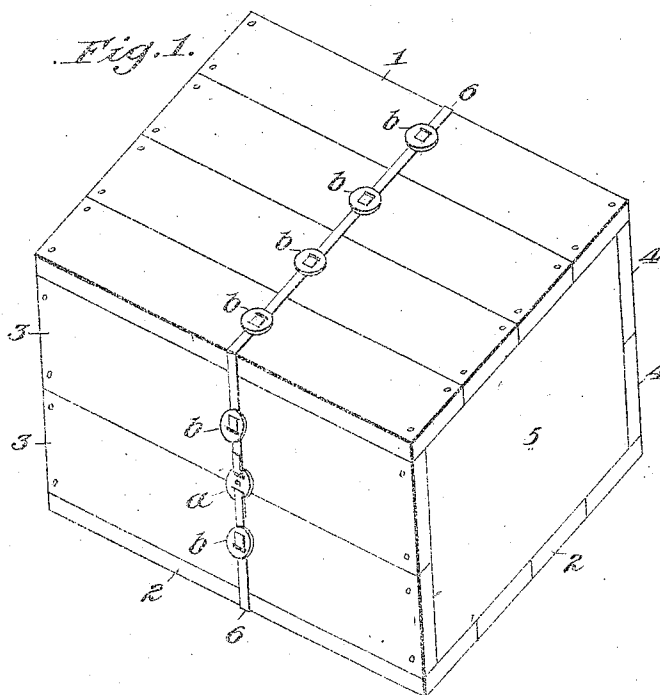


W. M. BROOKS.
BOX SEAL.
APPLICATION FILED JUNE 23, 1909.

Patented Oct. 26, 1909.

938,206.



Witnesses:
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A. M. Spofford

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W. L. Davis

UNITED STATES PATENT OFFICE.

WINFRED MUDGE BROOKS, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO E. J. BROOKS CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

BOX-SEAL.

938,206.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed June 22, 1909. Serial No. 503,690.

To all whom it may concern:

Be it known that I, WINFRED MUDGE BROOKS, a citizen of the United States of America, and a resident of East Orange, in the State of New Jersey, have invented a new and useful Improvement in Box-Seals, of which the following is a specification.

This invention relates to means for securing the fastenings of wooden packing cases or boxes by means of box straps of strap iron or like flat metal and metallic seals, with reference to insuring the detection of abstractions or attempted abstractions of the contents of such boxes during storage or transportation.

It relates especially to the "nailless" box seals and seal accessories set forth respectively in the specifications of Edward J. Brooks forming part of his applications for United States Letters Patent, Serial No. 484,347, filed March 19, 1909, patented June 22, 1909, No. 925,450; Serial No. 484,362, filed March 20, 1909, patented June 22, 1909, No. 925,451; and Serial No. 491,271, filed April 21, 1909, patented July 6, 1909, No. 927,217; and in my specification forming part of an application for United States Letters Patent, Serial No. 489,661, filed April 13, 1909, patented July 13, 1909, No. 928,176.

The present invention consists in a new article of manufacture adapted for use alternatively as the seal part of a nailless box seal and also as an accessory of such seals in such number as may be required, and in a novel combination of parts including a nailless box seal and seal accessories of such construction, as hereinafter particularly described and claimed.

The leading objects of this invention are to adapt a simple sheet-metal part for such alternative uses, and, by means of such accessories to protect the individual boards forming the top, bottom and sides of wooden boxes of large size against withdrawal from beneath a central box strap after their nails have been withdrawn.

Other objects will be set forth in the general description which follows.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 is a perspective view of a wooden

box sealed according to this invention; Fig. 2 is a face view of the new article of manufacture; Figs. 3 and 4 are edge views thereof; Figs. 5 and 6 are sectional edge views illustrating the employment of the article as a seal accessory; Figs. 7 and 8 are like views illustrating the employment of the article as a nailless box seal; and Fig. 9 is a face view of the fastened box seal represented in Fig. 8.

Like reference characters refer to like parts in all the figures.

An ordinary wooden box having narrow top, bottom and side boards, 1, 2, 3 and 4, in connection with solid ends, 5, is represented in Fig. 1, together with an ordinary metallic box strap, 6, a nailless sheet-metal seal part, *a*, uniting the ends of the box strap, and sheet-metal seal accessories, *b*, one to each board of the box, for protecting the latter against withdrawal from beneath the central box strap.

The seal part *a* and each of the seal accessories *b* are preferably and conveniently of one and the same construction, as illustrated by Figs. 2, 3 and 4, although the latter show what is primarily designed as a seal accessory.

The construction common to the seal part *a* and seal accessories *b* consists in making them with a flat disk-shaped or equivalent body portion, 7, having a pair of slots, 8 and 9, parallel with each other, cut therethrough, and the portion, 10, between the slots pressed into a second plane so as to form a passage-way, 11, parallel with said body portion 7, of sufficient dimensions to freely admit two thicknesses of the box strap. The metal of which said article is constructed is preferably a thick grade of sheet iron, free or substantially free from resiliency, while the box strap used in connection therewith is preferably and conveniently of thin and hard metal. The thickness of the seal part or seal accessory relative to the box strap insures the supremacy of the former, and renders the supplemental bends of the box strap hereinafter described sufficient to materially assist in tightening the box strap. The said article as specially designed for seal accessories is further provided at the factory

with a central nail hole, 12, in said passage-forming portion 10, and the metal from within the hole is preferably and conveniently allowed to project in the form of a bur, 13.

In connection with a central box strap 6 as in Fig. 1, one of said accessories *b* is attached to each of the box boards 1, 2, 3 and 4, in a straight row, by a small nail or tack, 14, driven through said nail hole 12 into the wood, and said bur 13 is or may be driven into the wood at the same operation. See Fig. 5. The box strap 6 is then threaded through the row of accessories, and one of them, *b*, Fig. 6, near one end of the box strap 6, is then tightened to hold that end of the box strap during the tightening or stretching operation. The accessory *b* is tightened by the blow of a hammer flattening it and bending the box strap 6 around the edges of the passage-forming portion 10. Both ends, 1' and 2', of the box strap 6 are then threaded through the passage 11 of the seal part *a* as in Fig. 7. After the sealing operation all the other accessories *b* may be fastened in the manner above described, and are preferably so fastened, to take up additional slack in the box strap 6, and to inseparably attach them thereto.

After the stretching operation and while the box strap is still under tension the seal part *a* is fastened as illustrated by Figs. 8 and 9. In this operation rigid lips of the metal of said passage-forming portion 10 of the seal part *a* are pressed into positions substantially at right angles to the top of the seal part, and the underlying portions of the two box-strap ends 1' and 2' are bent therewith into like form, so as to permanently interlock the box-strap ends with each other and with the seal part. See Fig. 8.

Suitable and preferred means for stretching the box strap 6 are set forth in the specification of Edward J. Brooks forming part of his application for United States Letters Patent Serial No. 481201 filed March 3, 1909, patented June 22, 1909, No. 925990 and a suitable and preferred seal press for press fastening the seal part *a* is set forth in the specification of Edward J. Brooks forming part of his application for Letters Patent Serial No. 494441, filed May 6, 1909, patented August 31, 1909, No. 932438.

It will be obvious that the body portion 7 of the article of manufacture common to the seal part *a* and seal accessories *b* may be square or of other shape instead of disk-shaped, and that the article may be used as a seal part in the same position as in the seal accessories, if preferred; and other like modifications will suggest themselves to those skilled in the art.

The seal part *a* may preferably be closed or tightened on the box strap ends by a blow

of the hammer preliminary to applying the seal press.

The new article of manufacture in sufficient numbers may also be used as seal accessories in connection with a pair of nail covering box straps as set forth in said previous specification forming part of my application Serial No. 489661 (Patent No. 928176.)

Having thus described said improvement, I claim as my invention and desire to patent under this specification:

1. The within described new article of manufacture constructed in one part of thick sheet-metal substantially free from resiliency and having a flat body portion, parallel slots therethrough and a passage between said slots fitted to a flat-metal box strap.

2. A box-seal accessory constructed in one part of thick sheet-metal substantially free from resiliency and having a flat body portion, parallel slots therethrough, a closable passage between said slots fitted to a flat-metal box strap, and a passage-forming portion provided with a central nail hole.

3. A box-seal accessory constructed in one part of thick sheet-metal substantially free from resiliency and having a flat body portion, parallel slots therethrough, a closable passage between said slots fitted to a flat-metal box strap, a passage-forming portion provided with a central nail hole, and a bur surrounding said nail hole on the bottom of the passage-forming portion.

4. The combination with a wooden box having bottom, top and side boards attached at their ends, of a flat metal-box strap crossing such boards between their ends, a seal part inseparably uniting the ends of said box strap, and seal accessories inseparably attached to the several boards and having closable passages through which the box strap is threaded, whereby the box strap may be preliminarily fastened at one end for the stretching operation, the box strap and accessories may be inseparably and immovably united with each other by flattening said accessories and the individual boards are secured against withdrawal from beneath the sealed box strap.

5. The combination with a wooden box having bottom, top and side boards attached at their ends, of a flat metal-box strap crossing such boards between their ends, a seal part inseparably uniting the ends of said box strap, and seal accessories inseparably attached to the several boards and having closable passages through which the box strap is threaded, whereby the box strap may be preliminarily fastened at one end for the stretching operation, the box strap and accessories may be inseparably and immovably united with each other by flattening said accessories and the individual

boards are secured against withdrawal from
beneath the sealed box strap; said seal part
and seal accessories being constructed in
common each in one part of thick sheet
5 metal substantially free from resiliency as
compared with the thin and hard metal of
the box strap, and having passage-forming

portions between parallel slots therethrough,
substantially as hereinbefore specified.

WINFRED MUDGE BROOKS.

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