No. 710,392. Patented Sept. 30, 1902.

W. J. PFLUGRADT & M. RIES.

BOX COVER FASTENER.

(Application filed Mar. 31, 1902.)

(No Model.)

Fig. 1.

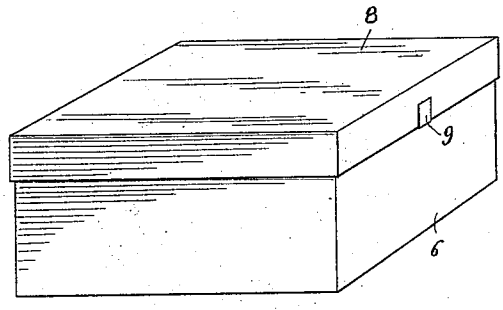


Fig. 2.

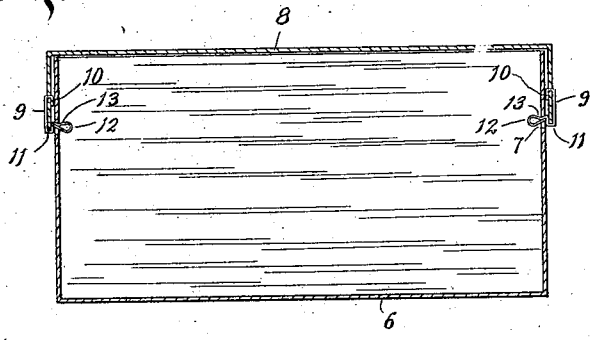


Fig. 3.

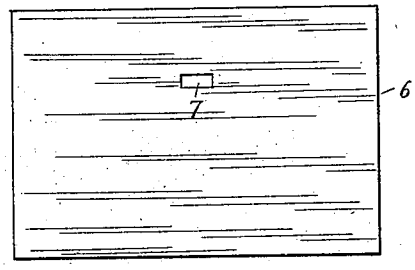


Fig. 4.

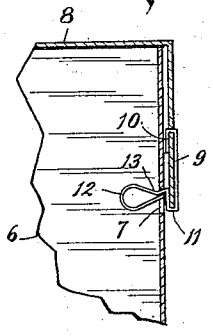
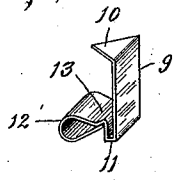


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. PFLUGRADT AND MOSES RIES, OF MILWAUKEE, WISCONSIN.

BOX-COVER FASTENER.

SPECIFICATION forming part of Letters Patent No. 710,392, dated September 30, 1902.

Application filed March 31, 1902. Serial No. 100,694. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. PFLUGRADT and MOSES RIES, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Box-Cover Fasteners, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Our invention has relation to improvements in box-cover fasteners.

Box-covers, especially in the case of paper boxes, are ordinarily secured to the box proper by means of a cord. This manner of securing the covers not only requires considerable time, but is, furthermore, open to the objection of insecurity, as the boxes are frequently lifted by the securing-cord, which often results in the breaking of the cord and the spilling of the contents of the boxes. Particularly is this true where a number of boxes are shipped in a large box, as frequently the consignee removes the contained boxes in the manner stated—*i. e.*, by lifting them by the cords with which they are tied.

It is the object of our invention to provide an improved fastening means for detachably connecting a paper or other flexible cover to a box, more especially, although not necessarily, to a paper box, and which shall be exceedingly simple in construction and inexpensive of production.

With the above primary object in view the invention consists of the devices and parts or their equivalents, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a perspective view of a box and its cover equipped with our improvements. Fig. 2 is a longitudinal sectional view through Fig. 1. Fig. 3 is an end view of the box. Fig. 4 is a detail fragmentary view, on an enlarged scale, of one end of the box and its cover; and Fig. 5 is a detail view of one of the fasteners.

Referring to the drawings, the numeral 6 indicates the box, which may be constructed of any desirable material, although the invention is preferably applied to a paper or pasteboard box or a box constructed of other flexible material, such pasteboard or other flexible boxes being commonly employed for containing confectionery or shoes or for containing other articles. Each end piece of the box is provided with a slot 7.

The cover of the box is indicated by the numeral 8, and this cover should be of paper, pasteboard, or other flexible material, or at least the depending flanges thereof should be of such material in order to adapt the fastening devices secured thereto to be pushed through the slots 7 and to be pulled out of engagement with said slots. Two at least of the depending flanges of the cover, and preferably two oppositely-located flanges, should have the fastening devices secured thereto. In the accompanying drawings we have shown one fastening device secured to each of the two opposite depending flanges. It is obvious that a greater number may be secured thereto, if desired.

The fastening device (illustrated in detail in Fig. 5) consists of a main portion 9, which may be secured to the depending flange of the cover in any desirable manner. We prefer to secure it, however, by providing the upper end of said main portion with an inwardly-extending prong 10. The said main portion is then placed against the outside of the depending flange of the cover and the prong forced through a slot in the flange and then bent downwardly against the inner side of said flange. The lower end of the main portion 9 is bent inwardly slightly and then upwardly for a short distance to form a U-shaped recess 11, which receives the lower edge of the depending flange of the cover, as clearly shown in Figs. 2 and 3. The fastener from the short upwardly-bent portion is bent inwardly and then around and outwardly and upwardly to form a rounded tubular, and preferably spring or elastic, projection 12, the said tubular projection gradually enlarging toward its extremity. Near its outer end the upper portion of this tubular spring projection is depressed slightly to form a groove 13.

In the use of our invention the cover is adjusted to the box, and the flexible flanges of the cover, which carry the fastening devices, are pressed inwardly by finger-pressure. Inasmuch as the slots 7 are in line to receive the projections 12, said projections are forced through the slots, and as the tendency of

the projections 12 is to spring upwardly the grooves 13 in the upper portions thereof will engage the upper bordering edges of the slots 7, and consequently the cover will be detachably locked in position, and the tubular projection is effectually held against accidentally working out of the slot by reason of the provision of the enlarged inner end of said tubular projection. In order to remove the cover, all that is necessary to be done is to pull outwardly slightly on the flexible flanges of said cover, which carry the fastening devices, and this will have the effect of releasing the grooves 13 from engagement with the upper bordering edges of the slots 7, and consequently permit of the entire withdrawal of the projections 12 from the slots 7, and thereby admit of the removal of the cover.

From the foregoing description it will be seen that we provide an exceedingly simple form of fastening means which can be constructed at a minimum of expense and labor and which at the same time will effectually lock the cover against being accidentally detached from the box. From the fact that the fastening devices are preferably made of cheap tin it is evident that they may be readily shaped to the requisite form and will also be very inexpensive.

While we prefer that the fastening device be attached to the flexible flange of the cover and the slot be provided in the side of the box, so that the tubular projection of the fastening device may be forced inwardly through said slot, yet we do not wish to be understood as restricting ourselves specifically thereto, inasmuch as such arrangement could be reversed and successful results obtained—that is to say, the main portion 9 of the fastener could be secured to the box and the tubular member project outwardly from said main member in line to be forced through a slot in the depending flange of the cover. We therefore wish to be understood as including such modification within the spirit and scope of our invention.

Ordinarily the rough pasteboard or other material of which box-covers are made is covered with a sheet of paper in order to give a finished or ornate appearance to the cover. When this is done, our improved fasteners are first secured to the depending flanges of the cover, so that when the outer paper covering is applied the fastening devices will be covered thereby, and hence entirely hidden from view.

What we claim as our invention is—

1. In a box-cover fastener, the combination with a box provided with the usual side pieces and a cover therefor, the latter provided with depending flexible side pieces or flanges adapted to fit the upper portion of the side pieces of the box, and one of the side pieces of one of said parts provided with a slot, of a fastening device consisting of a main member provided with means for securing it to one of the side pieces of one of said parts, and having a member projecting at an angle therefrom and bent into a single loop, the portion of the loop nearest the main member being narrowed to form a contracted neck, and said loop being gradually widened toward and to its free end to form an enlarged extremity, the loop adapted to be forced through and into engagement with the slot of the other part when pressure is exerted on the side piece to which the fastening device is connected, the said loop when so engaged having its narrow neck portion fitting in the slot and its widened or enlarged extremity extending beyond the slot, whereby the two parts are releasably locked together, the enlarged extremity of the loop preventing accidental disengagement of said parts.

2. In a box-cover fastener, the combination with a box provided with the usual side pieces and a cover therefor, the latter provided with depending flexible side pieces or flanges adapted to fit the upper portion of the side pieces of the box, and one of the side pieces of one of said parts provided with a slot, of a fastening device having means for securing it to one of the side pieces of one of said parts, and having one end bent around and thence upwardly for a short distance to form a recess in which the edge of the side piece to which the fastening device is secured is received and clamped, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop.

3. In a box-cover fastener, the combination with a box provided with the usual side pieces and a cover therefor, the latter provided with depending flexible side pieces or flanges adapted to fit the upper portion of the side pieces of the box, and one of the side pieces of one of said parts provided with a slot, of a fastening device provided at one end with a projecting prong adapted to engage one of the side pieces of one of said parts, and having its opposite end bent around and thence upwardly for a short distance to form a recess in which the edge of the side piece to which the fastening device is secured is received and clamped, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop.

4. In a box-cover fastener, the combination with a box provided with the usual side pieces and a cover therefor, the latter provided with depending flexible side pieces or flanges adapted to fit the upper portion of the side pieces of the box, and one of the side pieces of one of said parts provided with a slot, of a fastening device having means for securing it to one of the side pieces of one of said parts, and having one end bent around and thence upwardly for a short distance to form a recess in which the edge of the side piece to which the fastening device is secured is received and clamped, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop, the portion of the loop nearest the main mem-

ber being narrowed to form a contracted neck, and said loop being gradually widened toward and to its free end to form an enlarged extremity, the loop adapted to be forced through and into engagement with the slot of the other part when pressure is exerted on the side piece to which the fastening device is connected, the said loop when so engaged having its inner neck portion fitting in the slot and its widened or enlarged extremity extending beyond the slot, whereby the two parts are releasably locked together, the enlarged extremity of the loop preventing accidental disengagement of said parts.

5. A box-cover fastener, consisting of a main member provided with means for securing it to the part to which it is to be attached, and having a member projecting at an angle therefrom and bent into a single loop, the portion of the loop nearest the main member being narrowed to form a contracted neck, and said loop being gradually widened toward and to its free end to form an enlarged extremity.

6. A box-cover fastener consisting of a main member provided with means for securing it to the part to which it is to be attached, and having one end bent around and thence upwardly for a short distance to form a recess in which the edge of the part to which the fastening device is attached is received and clamped, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop.

7. A box-cover fastener, consisting of a main member provided at one end with a projecting prong, and having its opposite end bent around and thence upwardly for a short distance to form a recess, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop.

8. A box-cover fastener consisting of a main member provided at one end with a projecting prong, and having its opposite end bent around and thence upwardly for a short distance to form a recess, the said fastening device being thence bent from the upwardly-extending portion at an angle and into a single loop, the portion of the loop nearest the main member being narrowed to form a contracted neck, and said loop being gradually widened toward and to its free end to form an enlarged extremity.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM J. PFLUGRADT.
MOSES RIES.

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