June 14, 1932. R. ORTHWINE 1,863,381

FASTENER

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Fig. 1.

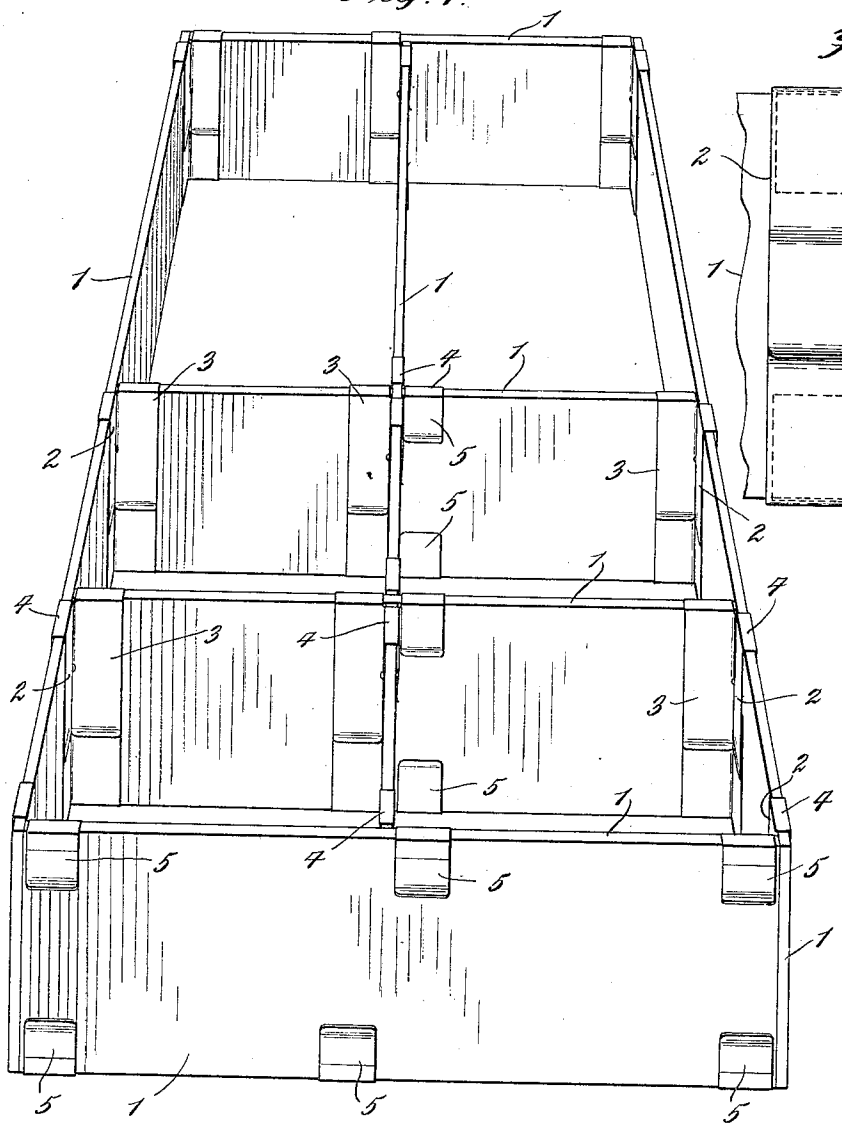


Fig. 6.

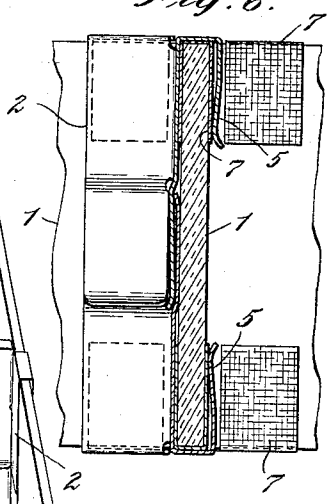


Fig. 7.

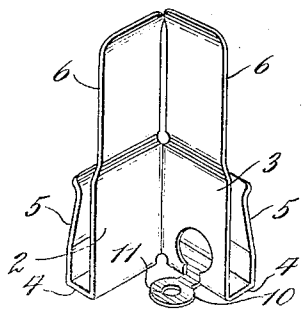
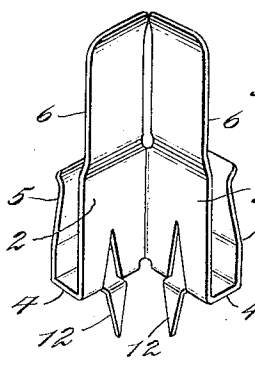


Fig. 8



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Fig. 2.

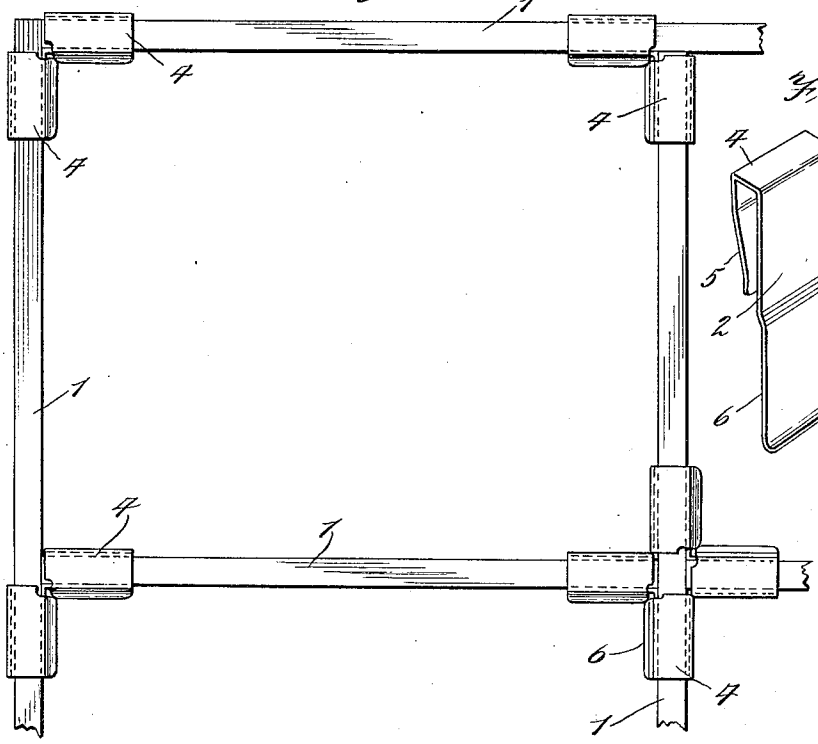


Fig. 4.

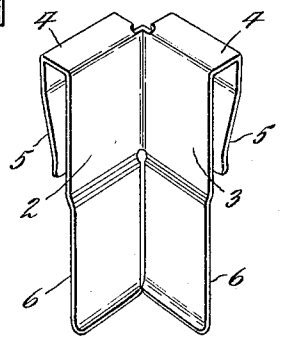


Fig. 3.

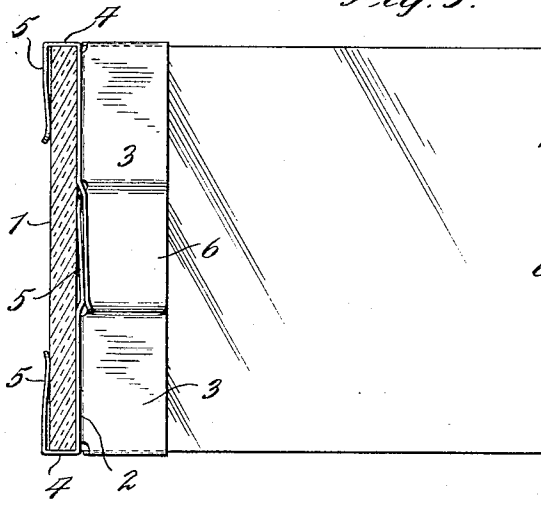
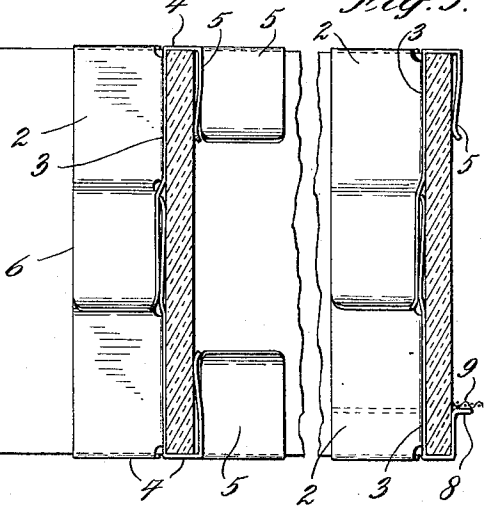


Fig. 5.



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Fig. 9.

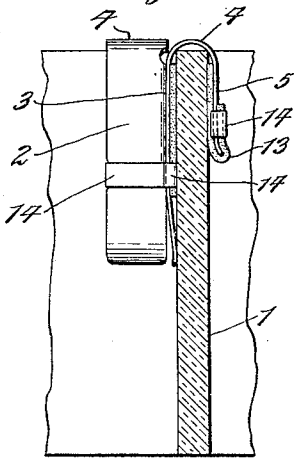


Fig. 10.

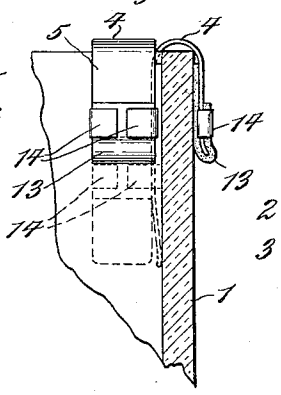


Fig. 11.

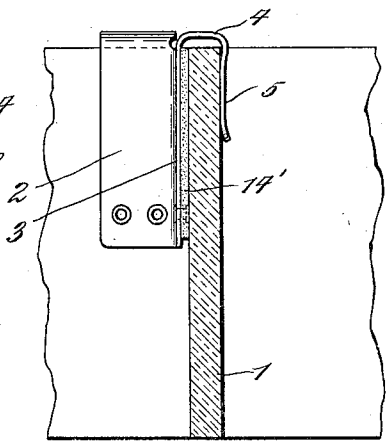


Fig. 13.

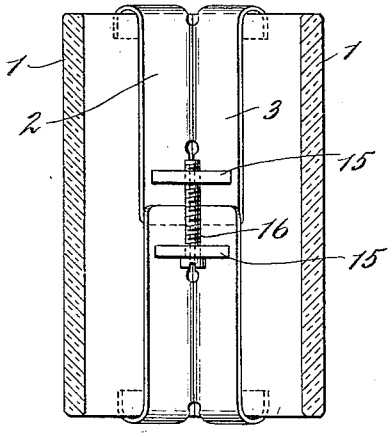


Fig. 12.

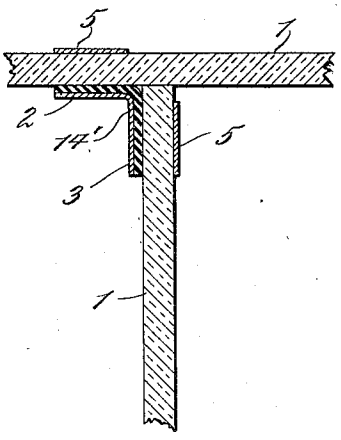
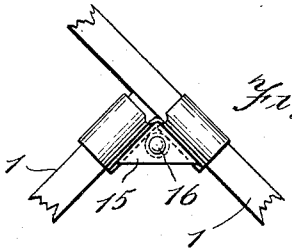


Fig. 14.



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1,863,381

UNITED STATES PATENT OFFICE

RUDOLPH ORTHWINE, OF NEW YORK, N. Y.

FASTENER

Application filed December 18, 1929. Serial No. 414,875.

My invention relates to fasteners for securing partitions together to form bins. In particular, the invention contemplates a fastener for securing partitions together to form a series of bins on a sales counter or table for the reception and display of small articles and from which the articles may be dispensed or sold.

In displaying for sale and dispensing certain merchandise, especially mechandise sold in bulk, it is often desirable to form a plurality of bins upon a sales counter in which the different species of the class of merchandise being sold at that counter may be displayed and from which the merchandise may be dispensed. Such bins are usually formed by partitions which are secured together. Usually it is desirable to have the partitions forming the bins removably secured together so that the size of the bins may be varied at will to accommodate different merchandise requiring a different size bin, or to vary the quantity of merchandise contained in the respective bins in proportion to the rapidity with which it is dispensed. A further desirable feature is to have the bins formed of transparent partitions, such for example as glass, so that the merchandise may be seen through the partitions.

By my invention, bins for displaying and dispensing merchandise may be constructed and have the partitions fastened together so that they are readily and easily adjusted to vary the size of the bins. I provide a fastener for securing the partitions together which comprises two flanges disposed at an angle to each other. Each of the flanges is provided with a means for securing the flanges around the edges of adjacent partitions.

Specifically, I provide a fastener for securing partitions together to form bins which comprise two flanges at an angle to each other. The flanges are adapted to extend in a vertical direction along the side of the partition. At corresponding ends, the flanges are reversely bent to form hook-shaped sections which clamp over the edges of the partitions and serve to hold the flanges to the partitions. The two flanges of a fastener engage adjacent intersecting partitions, the angle between the flanges being equal to the angle formed by the intersecting partitions which are to be secured together by the fasteners.

I shall now describe in detail the embodiment of my invention illustrated in the accompanying drawings in which:

Fig. 1 is a perspective of a plurality of bins, the partitions defining the bins being held together with fasteners embodying my invention;

Fig. 2 is a plan of a single bin;

Fig. 3 is an end elevation of the same;

Fig. 4 is a perspective of a fastener;

Fig. 5 is an end elevation of a partition showing fasteners applied thereto, the lower fastener being a modification of the form shown in Figure 4;

Fig. 6 is an end elevation of a partition illustrating one way in which the fasteners may be applied;

Fig. 7 is a perspective of modified form of fastener;

Fig. 8 is similar to Fig. 7 showing another form of the fastener;

Fig. 9 is an end elevation of a partition with another modified form of fastener applied thereto;

Fig. 10 is a side elevation of the same;

Fig. 11 is an end elevation of a partition with another modified form of fastener applied thereto;

Fig. 12 is a fragmentary section of the same showing the relation of the friction pads applied thereto.

Fig. 13 is an elevation of another modified form of fastener; and

Fig. 14 is a plan of the same.

In the drawings, I have illustrated a plurality of dispensing bins such as appear on a sales counter. The bins are formed by partitions 1 secured together by fasteners.

In the illustrations, the fasteners are shown as being applied to the partitions in pairs, one fastener of a pair being applied to the upper edge of the partitions and the other to the lower edge of the partitions. It is, however, to be understood that the fasteners may be used in pairs or independently as desired.

Each fastener is formed from a metal strip which is bent to form flanges 2 and 3. At

the apex of the angle formed by the flanges 2 and 3, the metal strip is slotted at both ends, leaving the flanges united at their transverse center through a substantial portion of their length. At one end, the flanges are reversely bent, corresponding ends of the flanges being formed in a similar manner, to form a clip section which clamps over the edge of the partitions. The web 4 uniting the opposed legs of the clip section formed by a flange and the leg 5 is made substantially equal to the thickness of the partition 1. At the other end, the flanges are offset to form parallel strips 6. Some of the flanges are offset in one direction and some in the other so that they may be used in pairs as shown, the offset portions of the flanges of one fastener of a pair overlapping the offset portion of the flange of the other fastener of a pair. The fasteners so formed are applied to the partitions by pressing the clip sections over the edges of the partitions, the two flanges of a fastener being secured to adjacent partitions.

If a fastener such as shown in Figures 1 to 4 is used with glass partitions, it may be advisable to apply a strip of tape 7 or the like, as shown in Fig. 6, to the glass partitions before clipping the fasteners to the partition. The friction between the tape and the clip is greater than the friction between the glass and the clip, and aids in holding the fastener to the partition.

In Figure 5 I have illustrated a modified form of fastener which is especially suitable for securing together the lower edges of the partitions. This fastener is provided with a ledge 8 formed by bending the end of the leg 5 of the clip section outwardly at right angles. The ledge 8 so formed is adapted to form a support for a screen bottom 9 used in bins in which certain classes of merchandise are displayed.

Another form of fastener is shown in Figures 7 and 8. This form is also especially adapted to fasten together the lower edges of the partitions forming the sales bins, and is provided with a means for securing the fastener to the sales counter. In the embodiment shown in Figure 7, the means provided for securing the fastener to the sales counter appears as a tongue 10 which is stamped in one flange of the fastener and bent into line with the web 4 uniting the legs of the clip. The tongue so formed is provided with an opening 11 through which a wood screw or tack may be inserted to secure the fastener to the sales counter.

In the form shown in Figure 8, the means for securing the fastener to the sales counter comprises triangular tongues 12 stamped out of both flanges of the partition fastener and bent downward at right angles to the web 4. These triangular tongues 12 are adapted to be forced into the sales counter to hold the fastener in place.

Another embodiment of the invention is shown in Figures 9 and 10. In this embodiment, pads 13 of rubber or similar material are secured to the surfaces of the clip section of the fasteners to increase the frictional engagement between the surfaces of the fasteners and the partitions. The pads 13 are secured to the legs of the clip section by bands 14 pressed in place around the legs of the clip section. The pad secured to the surface of the flange of the fastener which forms one leg of the clip is secured to the surface of the flange opposed to the leg 5 of the clip, the pad secured to the leg 5 being secured to the outer surface thereof and being bent around the end of the leg 5 to lie adjacent the inner face. A separate pad 13 is provided for each leg of the clip section of the fastener as shown.

In Figures 11 and 12, a fastener is shown in which a single piece pad 14′ is secured to the flanges 2 and 3 of the fastener. The pad is equal in width to the width of the metal strip from which the fastener is made, and is secured to both flanges being bent similar to the flanges. The length of the pad is such as to cover the inner surface of the flanges which is opposed to the leg 5 of the clip.

A further modified form of fastener is shown in Figures 13 and 14. In this form of fastener, a triangular bracket 15 is rigidly secured to the flanges 2 and 3. These fasteners are to be used in pairs, one of the pair being secured to the lower edges of adjacent partitions and the other to the upper edges of the partitions. When so used, one bracket 15 is provided with an opening at the center through which a machine screw 16 may pass and the other bracket is provided with a similar opening which may be internally threaded to engage the thread on the machine screw passing through the opening in the upper ledge. In this way, the upper and lower fasteners are secured together, and by tightening the machine screw, may be moved longitudinally to firmly clamp the partitions between them.

Fasteners such as described above are readily and easily applied and removed, and consequently permit the size of the bins formed by partitions secured thereby to be changed at will.

It is obvious that various changes may be made in the modification shown in the drawings and particularly described above within the principle and scope of my invention as expressed in the appended claims.

I claim:

1. A fastener for securing partitions together to form bins in which articles may be displayed and from which the articles may be dispensed comprising two integral flanges disposed at an angle to each other, the flanges being reversely bent at corresponding ends thereof to form resilient hook-shaped sections

for securing the flanges to the edges of intersecting partitions, bands surrounding the reversely bent portions of the ends of the flanges, and rubber pads secured at one end of each by said bands to the outer faces of said reversely bent portions of said flanges and adapted to extend around the edges thereof between the partitions and the reversely bent portions of the flanges, said flanges having offset portions at the opposite ends adapted to overlap a portion of a fastener securing the opposite, corresponding edges of the same partitions.

2. In combination, two intersecting partitions adapted to form the sides of a bin in which articles may be displayed and from which articles may be dispensed, and a pair of fasteners for securing the partitions together secured to opposite corresponding edges of the partitions and each fastener including two integral flanges disposed at an angle to each other, the flanges being reversely bent at corresponding ends thereof to form hook-shaped sections for securing the flanges to the edges of the intersecting partitions and having offset portions extending past the centers of the partitions at the opposite ends, the offset portions of the flanges of one fastener overlapping the offset portions of the flanges of the other fastener.

3. In combination, two intersecting partitions adapted to form the sides of a bin in which articles may be displayed and from which articles may be dispensed, and a pair of fasteners for securing the partitions together secured to opposite corresponding edges of the partitions and each fastener including two integral flanges disposed at an angle to each other, the flanges being reversely bent at corresponding ends thereof to form resilient hook-shaped sections for securing the flanges to the edges of the intersecting partitions and having offset portions extending past the transverse centers of the partitions, the offset portions of the flanges of one fastener overlapping the offset portion of the flanges of the other fastener, and one of said fasteners having means for securing the fastener to a counter.

In witness whereof, I hereunto subscribe my signature.

RUDOLPH ORTHWINE.