

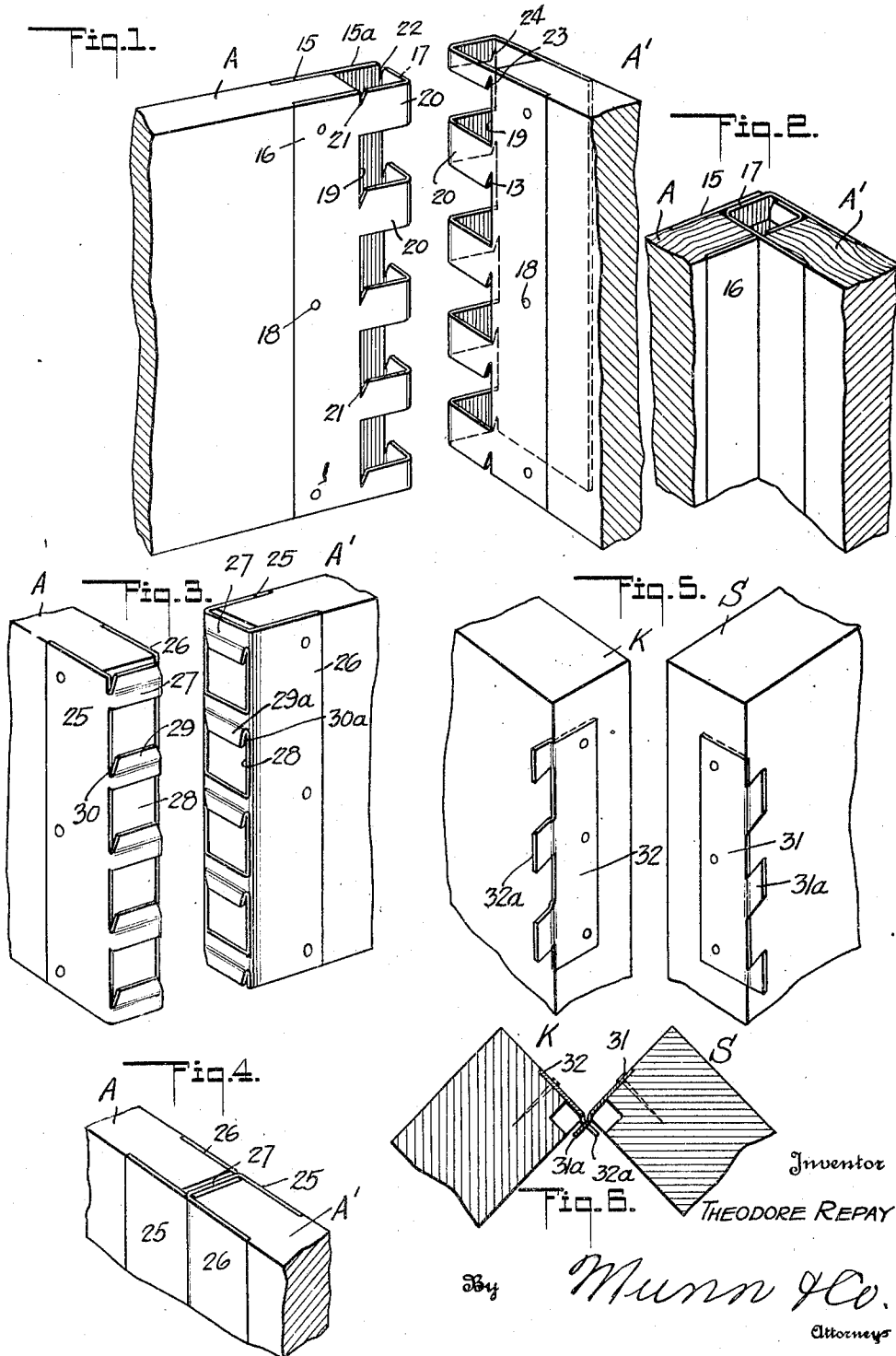
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SEPARABLE CONNECTER FOR SECTIONAL CONTAINERS AND SUPPORTS

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SEPARABLE CONNECTER FOR SECTIONAL CONTAINERS AND SUPPORTS.

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My invention relates to separable connectors for sectional containers, such as collapsible boxes, crates and cases, or sectional stage scenery and similar supports.

A purpose of my invention is the provision of a separable connection of the above described character which is simple and inexpensive of construction and capable of ready application to the sections of a container or stage scenery for securely holding such sections in assembled formation and yet permitting the easy disassembling of the sections.

I will describe only three forms of separable connections embodying my invention, and will then point out the novel features thereof in claims.

In the accompanying drawings

Figure 1 is a view showing in perspective the meeting ends of a pair of sections of a container or stage scenery having applied thereto one form of separable connection embodying my invention:

Figure 2 is a plan perspective view showing the sections secured to each other by the separable connection shown in Figure 1;

Figure 3 is a perspective view of a pair of sections having applied thereto another form of separable connection embodying my invention;

Figure 4 is a plan perspective of the sections, with a separable connection in connecting or assembling position;

Figure 5 is a view similar to Figure 3, showing a third form of separable connection embodying my invention;

Figure 6 is a horizontal sectional view showing the separable connection in connecting position.

Similar reference characters refer to similar parts in each of the several views.

Referring specifically to the drawings, and particularly to Figures 1 and 2, I have here shown one form of separable connection embodying my invention, in which the sections of the container or stage scenery designated at A and A' are adapted to be connected in right angular relation. The connector comprises a pair of complementary members adapted to be secured respectively to the meeting edges of the sections, and each member being constructed from a plate of metal or other suitable material, which is bent in the form of a U to provide parallel portions 15 and 16 and an intermediate portion 17. The opposite sides of each section

A or A' are recessed to accommodate the parallel portions 15 and 16 and the latter are firmly secured to the section and within the recessed portions by means of suitable fastening members 18. The plate is recessed at intervals along its length, as indicated at 19, and the portions of the plate between the recesses provide tongues 20 of L-shaped form, with the long arm of each tongue constituting a continuation of the parallel portion 16 and the short arm actually constituting the intermediate portion of the plate or that portion connecting the parallel portions 15 and 16. That part of the parallel portion 15 projecting beyond the vertical edge of the corresponding section A or A' and designated at 15^a constitutes a limiting partition against which the tongues 20 of the other member are adapted to abut so as to properly position said tongues with respect to the tongues of the first member and thereby facilitate the interlocking engagement of the two groups of tongues.

As clearly shown in Figure 1, each tongue 20 of the member for the section A is formed with notches 21 and 22, the notches 21 being at the junction of the parallel portion 16 and the long arm of the tongues, and the notches 22 at the junction of the partition 15^a and the short arms of the tongue. The tongues of the member for the section A' are likewise provided with notches 23 and 24, but these notches are formed by recessing the lower edges of the tongues 20 instead of the upper edges of the tongues as is the case in the member of the section A.

In assembling the separable connector in order that the sections A and A' may be rigidly connected in right angular relation, the members are positioned as illustrated in Figure 1, so that the tongues of one member are opposite the openings 19 of the other member. With the tongues so positioned it will be clear that by moving the sections toward each other the tongues will pass into the openings, and by moving the partitions vertically in opposed directions the notches 21 and 23 and 22 and 24 will register and permit a continued movement of the members so that the tongues will have interlocking engagement with each other in the manner illustrated in Figure 2, and thus securely lock the sections in right angular formation.

In order to separate the members of the connection to permit the disconnection of

the sections A and A', it is only necessary to move the members vertically and in opposite directions, and sufficiently to move the walls of the notches out of engagement with each other when the tongues of one member can be withdrawn from between the tongues of the other member.

Referring now to Figures 3 and 4, I have here shown another form of separable connector embodying my invention, which is designed for connecting the pair of sections in longitudinal alinement and against separation longitudinally. In this form of my invention, the connector comprises a pair of metal plates secured to the confronting edges of the sections A and A', each plate constituting a member of the connector. Each plate is bent in the form of a U to provide parallel portions 25 and 26 secured to the opposite sides of the corresponding section A or A', and an intermediate portion 27, the latter spanning the vertical edge of the section and being formed at regular spaced intervals along its length with openings 28. Between the openings 28 the intermediate portion is formed with tongues, the tongues of the section A being designated at 29 and extending upwardly, as shown, while the tongues of the member of the section A' are extended downwardly and are designated at 29^a. All of the tongues are flared outwardly by the provision of notches 30 and 30^a, respectively, at opposite ends of the tongues, and the notches of one group of tongues cooperate with the notches of the other group in allowing the tongues to have interlocking engagement to rigidly connect the sections A and A' against separation horizontally and vertically.

From the foregoing description, it will be clear that the openings 28 of one member are adapted to receive the tongues of the other member so that the latter, by vertical movement, can have interlocking engagement with the tongues of the other member and thus hold the vertical edges of the sections A and A' in contiguous relation, as illustrated in Figure 4, and to prevent longitudinal or horizontal separation of the sections.

The tongues 29 are shown as of sufficient width and sufficiently offset or flared from the intermediate portions 27 so that when the tongues of one member are in interlocking relation to the tongues of the other member they will engage the inner sides of the intermediate portions 27 in such manner that the latter performs the function of cams to firmly hold the tongues and thus lock the members against accidental disengagement. It will be understood that the tongues 29 can be less flared or offset whereby the tongues of one member will merely engage the tongues of the other member and in the intermediate portions 27. Such engagement of the tongues will be sufficiently effective to

secure the members in interlocking relation.

Referring now to Figure 5, I have here shown a third form of my invention which is particularly adapted for hingedly connecting two sections, the invention being particularly designed for hingedly supporting a door or other form of closure upon a stationary support. In this form of my invention the stationary support is designated at S and the door or closure member at K. The vertical edges of the elements S and K are recessed to accommodate plates 31 and 32, respectively, and these plates constitute the two members of the separable connector. The plates 31 and 32 are constructed to provide at regular spaced intervals along one vertical edge a plurality of tongues 31^a and 32^a, respectively, the latter extending upwardly and the former downwardly so that when the two groups of tongues are assembled as illustrated in Figure 6, they cooperate in providing a pivotal support for the closure member K and at the same time allow the ready separation of the two by a slight lifting of the member K with respect to the support S. It is to be particularly noted that the inclination of the tongues 31^a and 32^a allows an alternate arrangement of the tongues, that is to say, the tongues 31^a are disposed in the openings between the tongues 32^a and vice versa. In actual practice, the tongues 32^a are swingingly supported by the tongues 31^a, such swinging movement, however, being limited by the engagement of the tongues with each other when the vertical edge of the closure member K is in parallel relation to the confronting vertical edge of the support S.

Although I have herein shown and described only three forms of separable connectors embodying my invention, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. A separable connector comprising a pair of complementary members, and notched tongues on the members, the tongues of one member being arranged in alternate relation to the tongues of the other member and having interlocking and releasable engagement with each other.

2. A separable connector comprising a pair of complementary members, and notched tongues on each of the members, the tongues of one member extending upwardly and those of the other member downwardly, and the tongues of both members being spaced apart for the purpose described.

3. In a separable connector of the character described a plate having cut out portions at intervals to provide notched tongues between the portions.

4. A separable connector comprising a

plate having cut out portions at intervals to provide notched tongues of rectangular formation.

5 5. A separable connector as embodied in claim 2, wherein the tongues are notched at their points of connection with the plate.

6. A separable connector comprising complementary members, each comprising a U-

shaped body, one parallel portion of which is extended beyond the other, and L-shaped 10 portions connecting the parallel portions at intervals and having notches therein at their points of connection with the parallel portions.

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