

Sept. 20, 1960

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2,953,258

DETACHABLE SELF WEDGING SHELF DIVIDER

Filed Sept. 5, 1957

2 Sheets-Sheet 1

Fig. 1

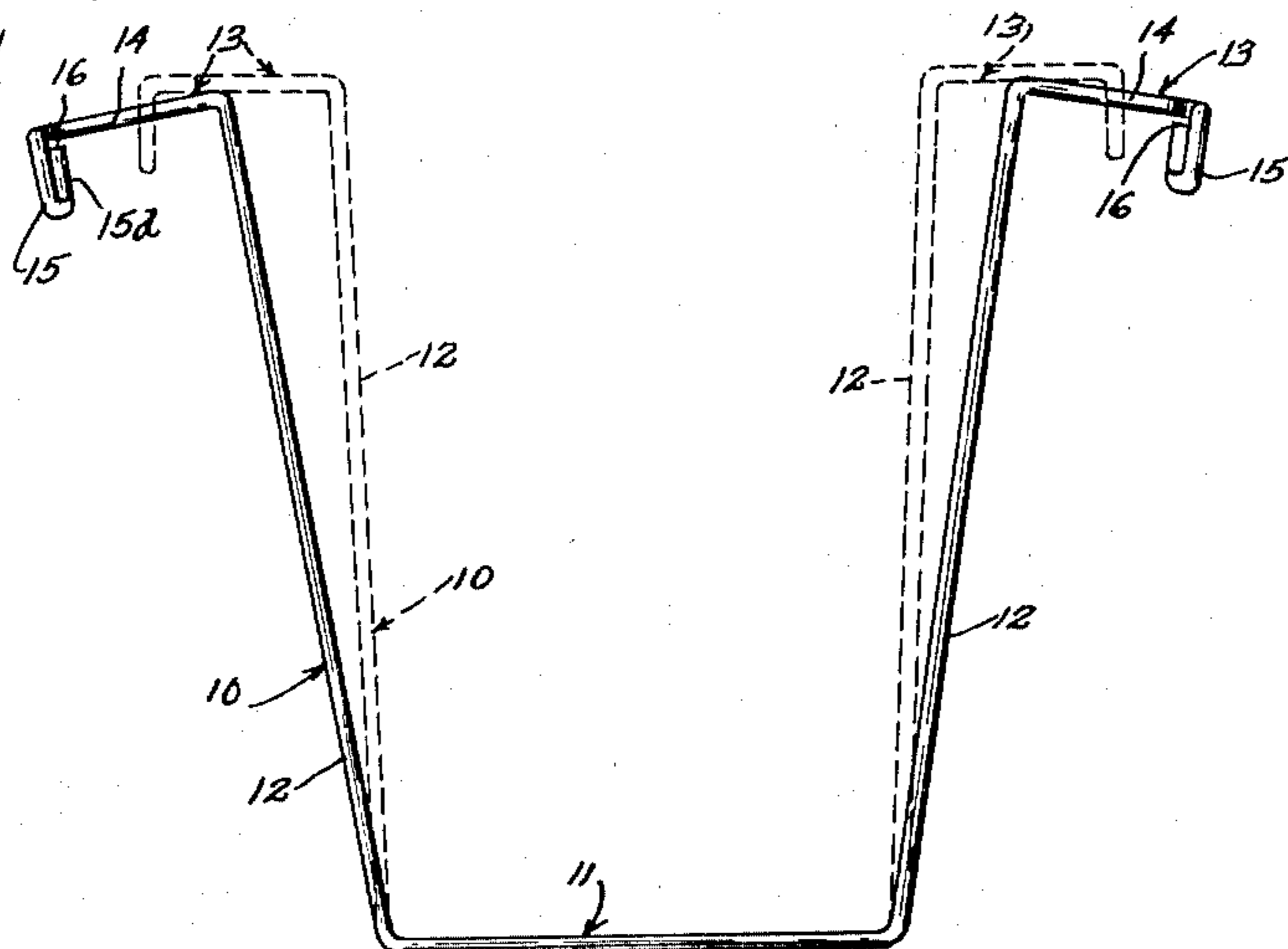
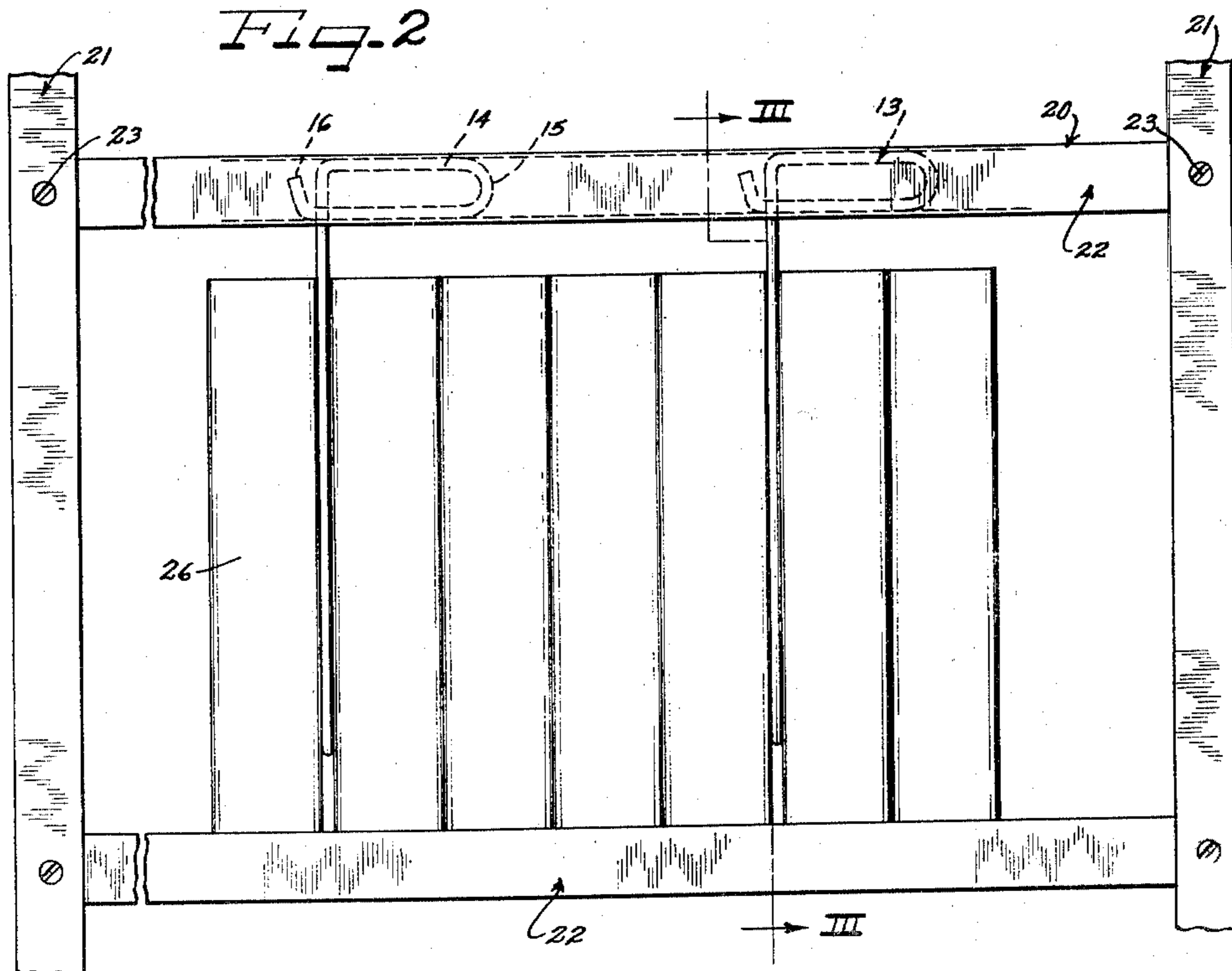


Fig. 2



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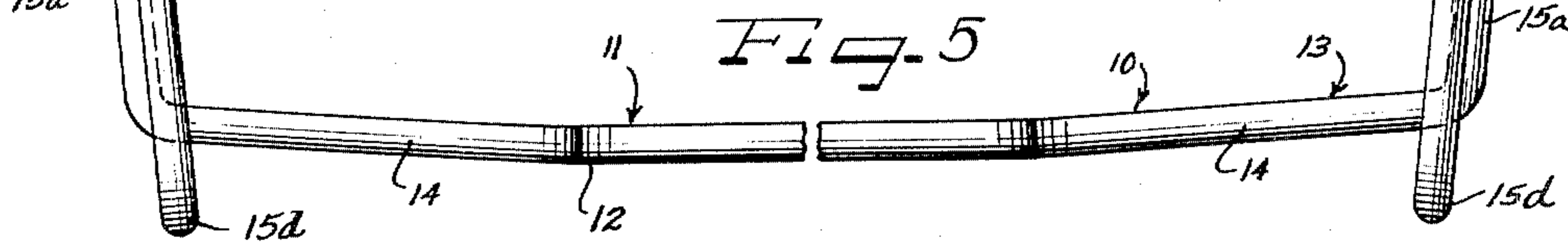
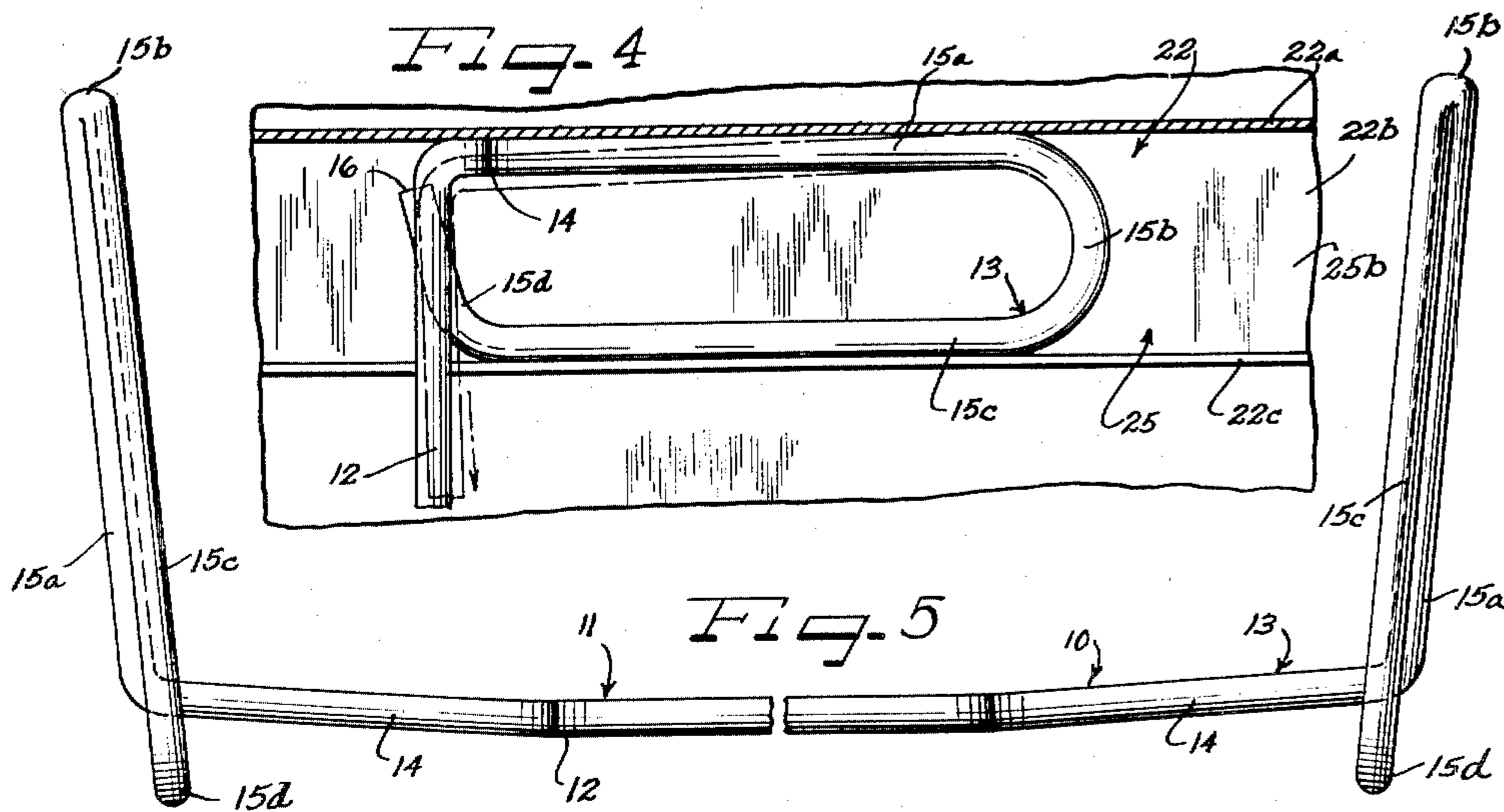
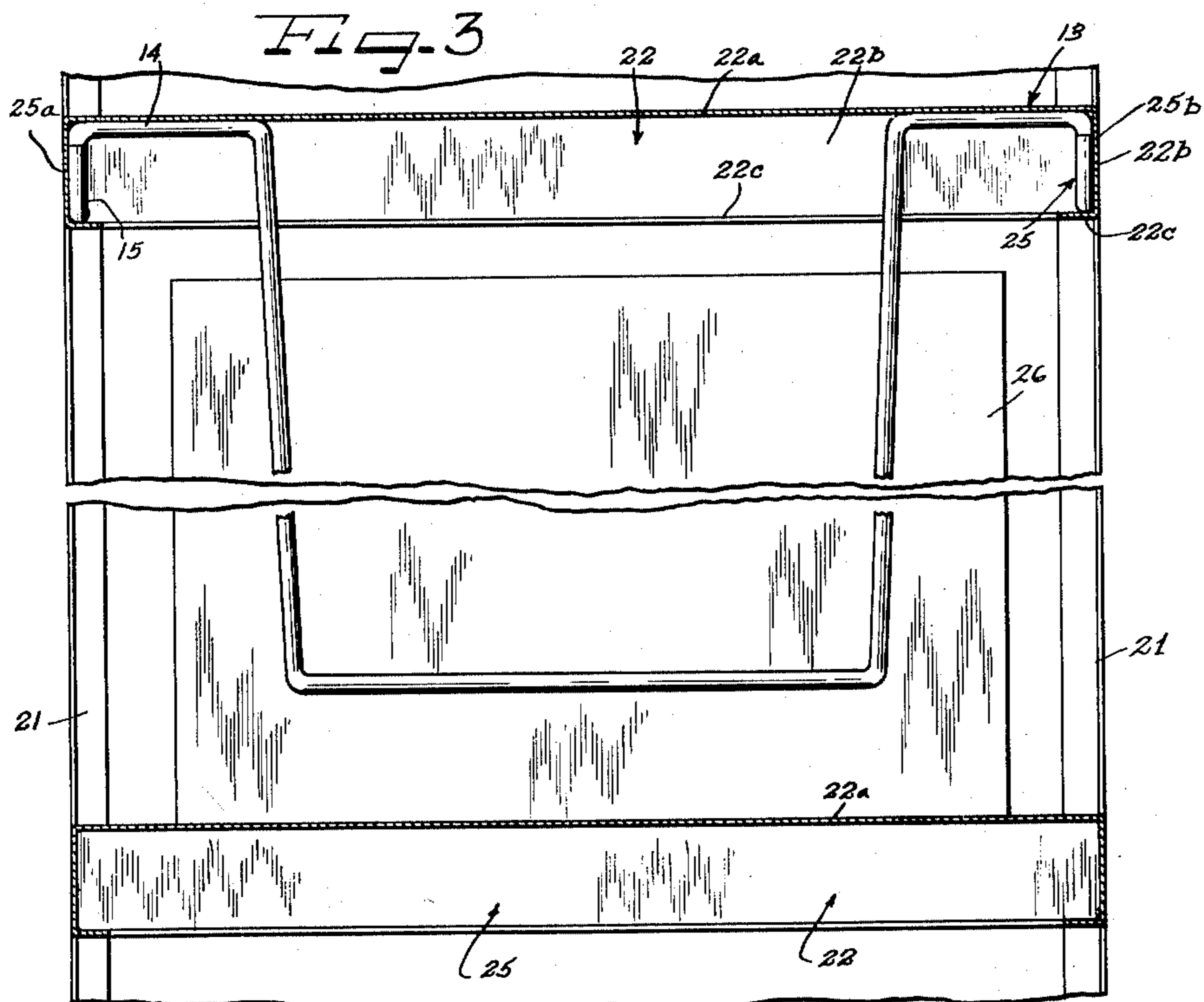
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DETACHABLE SELF WEDGING SHELF DIVIDER

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2 Sheets-Sheet 2



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DETACHABLE SELF WEDGING SHELF DIVIDER

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This invention relates generally to a follower block or divider construction for shelving and the like.

In the past, many people have tried to place files on shelves, but this practice has never been entirely satisfactory because a satisfactory follower block or divider has not previously been developed which is suitable for this purpose. In order for the files to be properly supported upon the shelf, the files must have lateral support. If files are to be satisfactorily carried upon the shelves, lateral support means must be provided for compensating for when at least some of the files are removed from the shelf or for when the shelf is not completely loaded.

According to the present invention, the follower block or divider is comprised of a wire strip having resiliently yieldable legs and retaining portions disposed at the end of each of the legs so that when the legs are deflected out of a normal position, the retaining portions may be engaged within channel structure along the confronting margins of the shelf panel. Upon the release of the leg portions, the retaining portions are allowed to move outwardly into tensioned engagement with the confronting channel structures at the outer periphery of the shelf panel. The present follower block or divider construction has been found to be highly satisfactory since the follower block can be very readily moved side ways or longitudinally along the length of the shelf as the number of files are increased or decreased, and the instant a load is placed against the follower block or divider, the divider will not slide or move longitudinally of the shelf as the divider is firmly secured in place by the retaining portions.

Accordingly, an object of this invention is to provide a follower block or divider for shelving which may be very readily moved sideways as the files are expanded or contracted, and which maintains itself in position upon the application of a load against the divider.

Another object of this invention is to provide an economically constructed follower block or divider which may be readily manufactured.

Yet another object of this invention is to provide a follower block or divider construction which may be very readily assembled and may be effectively utilized with shelving despite the usual manufacturing tolerances in equipment of this type.

According to the general features of this invention, there is provided in a shelf structure with a series of stacked shelves with the shelves including a shelf panel having confronting shelf channel structure depending from opposite marginal edges of the shelf, a shelf divider comprised of a wire strip having a main channeled portion including resiliently yieldable leg portions and retaining portions comprising end portions of the wire strip being connected to the ends of the resiliently yieldable leg portions. The retaining portions are engageable in assembly with the confronting shelf channel structure along the opposite marginal edges of the shelf panel so that upon the deflection and release of the resiliently yieldable

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leg portions the leg portions are sprung causing the distance between the retaining portions to be reduced when in assembly with the confronting shelf channel structures as compared to the distance between the retaining portions when the retaining portions are disengaged from the shelf and when the forces applied to leg portions are released. Each of the retaining portions includes a spacer leg angularly extending away from the yieldable leg and a looped terminal including a free tip end which looped terminal engages against inside surfaces of the channel structure in snug assembly therewith.

Figure 1 is a side elevation of a follower block or divider for shelving;

Figure 2 is a fragmentary front elevation of a cabinet or shelving structure with the follower block or divider in assembly therewith;

Figure 3 is a fragmentary cross sectional view taken substantially on the line III—III of Figure 2 looking in the direction indicated by the arrows;

Figure 4 is an enlarged fragmentary partially cross-sectioned view illustrating the looped terminal portion in full and dotted lines with respect to the shelf channel when in assembly; and,

Figure 5 is an enlarged fragmentary bottom end view of the divider or follower block illustrated in Figure 1.

As shown on the drawings:

The reference numeral 10 indicates generally my detachable self-wedging divider or follower block for shelving. In the illustrated form, the divider 10 is shown as comprising a single strip of material preferably of a resilient metal construction. The shelf divider includes a main channeled portion 11 which channeled portion is illustrated as being generally U-shaped and includes resiliently yieldable leg portions 12, 12 which leg portions are resiliently yieldable or flexible in the manner shown in Figure 1 by the full and dotted lines. Retaining portions 13 are connected to the leg portions 12 which retaining portions comprise the terminal ends of the wire strip or rod going to make up the divider 10.

As is clearly shown in Figure 1, the leg portions 12 are adapted to diverge outwardly with respect to one another with the retaining portions 13 disposed at the outer ends thereof. The retaining portions 13 are disposed generally at right angles with respect to the leg portions 12. Each of the retaining portions includes a spacer leg 14 which is disposed generally at right angles with respect to the leg portion 12. Connected to the outer terminal ends of the spacer leg 14 are looped terminals 15, each of which diverges away from the adjacent leg 14, and which may be disposed in parallel planes with respect to the divergent leg 12 regardless of whether or not the leg portion 12 is resiliently stressed.

The looped terminal portion 15 is comprised of a series of connected segments 15a, 15b, 15c, and terminal segment 15d. The terminal segment 15d has a terminal edge 16 which faces in a direction away from the channeled portion 11. As is clearly apparent in Figure 4, the segments 15a and 15c are disposed in generally parallel relation with respect to one another on each of the retaining portions 15.

The divider or follower block 10 is adapted to be used with a shelving structure 20 of the type shown in Figures 2-4. The shelving structure is comprised of a series of vertical posts 21—21 which are linked together at vertically spaced intervals by shelves 22—22. The shelves may be fastened to the vertical posts in any suitable manner, such as by means of screws 23—23.

With respect to the present invention, it will be appreciated that the shelving structure 20 is more or less a conventional structure. It will further be appreciated, however, that the novel divider 10 is adapted to coop-

erate with the more or less conventional shelving structure 20 in a completely new manner.

Each of the shelves 22, as is most clearly seen in Figure 3, is comprised of a main panel portion 22a, which has disposed about its periphery continuous flanges or portions 22b and 22c. The main panel 22a and the flanges 22c are disposed in generally parallel planes and the linking flange or portion 22b is disposed generally in a plane at right angles to the main panel 22a and the flange 22c. The flanges 22b and 22c cooperate with the main panel 22a to define a channel designated generally by the reference numeral 25. This channel 25 is illustrated as extending about the perimeter of the shelf 22, and includes opposed or confronting channel segments 25a and 25b which are cooperable with the divider 10 (Figures 3 and 4).

Parallel opposite portions 22a and 22c of the channel 25 are adapted to cooperate with the retaining portions 15 of the divider 10 when the divider 10 is assembled with the shelving structure 20. When the divider 10 is in assembly with respect to the channel 25, it will be noted that the retaining portions 13 both cooperate with the channel in much the same manner. Accordingly, the same reference numerals are applied to both of the retaining portions.

In the assembly of the divider 10 with the shelf 22, the leg portions 12, 12 are moved toward one another in a manner to allow the retaining portion 15—15 to be engaged within the opposite channel surfaces on the channel portions of the channel 25. When the divider is in assembly, the spacer leg 14 is engaged against the underneath or lower inside surface of the main panel 22a. In addition, the outside surfaces of the looped portions 15a, 15b, 15c, and 15d are engaged against the inside or linking surface of the flange 22b. Finally, the bottom surface of the looped portion 15c is engaged against the upper inside surface of the flange 22c.

To move the divider between the posts 21—21, each of the leg portions 12 adjacent their junction with spacer leg portions 14 may have forces exerted thereagainst alternatively so that the retaining portions 13 may slide along the channel surfaces which define the channel 25. Once the proper spacing of the dividers is attained, the dividers 10 are extremely difficult to move, since when a load is placed against the divider the retaining portions will not slide as they hold very firmly in place with respect to the channel 25. Thus, the divider or follower block can be moved sideways as files of the type shown at 26 in Figure 2 are expanded or contracted so that the files may be supported in position, and so that the load of the files will not cause the dividers to be moved out of the position that they have been placed in.

When a force is applied in the direction indicated by the arrow in Figure 4, against the divergent legs 12, the spacer leg 14 and the segments 15a resiliently flex and pivot with respect to the arcuate segments 15b on the retaining positions 13 and the segments 15c act as backups for the segments 15a.

As will be perceived from Figure 3, when the divider is in assembly with respect to the shelf channel portions 25a and 25b, the legs 12 are disposed in generally parallel relation with respect to the shelf segments 22b and at generally right angles with respect to the portion joining the legs 12 together.

Where the shelf is approximately 12 inches wide and it is desirable to have the divergent legs have a length of about 10½ inches, the wire may have a diameter of about ⅜ of an inch, and the wire or rod may have an overall length of about 25 inches. The distance between the looped portions 15 may measure about 14½ inches when the deflectable legs 12 are in a normal position free of the shelf 22.

I have, in the drawings and specification, presented a detailed disclosure of the preferred embodiment of my invention, and it is to be understood that I do not intend to limit the invention to the specific form disclosed, but intend to cover all modifications, changes and alternative constructions falling within the scope of the principles taught by my invention.

I claim as my invention:

1. In a shelf structure with a series of stacked shelves with the shelves including a shelf panel having confronting shelf channel structures depending from opposite marginal edges of the shelf and with each channel structure having three inside channel surfaces, a shelf divider removably mounted on the shelf structure comprised of a wire strip having a main channeled portion including resiliently yieldable leg portions and retaining portions comprising end portions of the wire strip being connected to the ends of the resiliently yieldable leg portions which retaining portions are engageable in assembly with the confronting shelf channel structures along the opposite marginal edges of the shelf panel upon the deflection and release of the resiliently yieldable leg portion in such manner that the leg portions are sprung causing the distance between the retaining portions to be reduced when in assembly with the confronting shelf channel structures as compared to the distance between the retaining portions when the retaining portions are disengaged from the shelf and when the forces applied to leg portions are released, each of said retaining portions including a spacer leg angularly extending away from the yieldable leg and a looped terminal disposed generally in a vertical plane which looped terminal engages against the three inside channel surfaces of the channel structure in snug assembly therewith, the spacer legs being engaged with the underside of the shelf panel and being cooperable with the retaining portions to resist sliding of the shelf divider relative to the shelf panel.

2. In a shelf structure with a shelf including a main shelf panel having channel structure defined by spaced upper and lower channel surfaces joined together by a linking channel surface, a detachable self-wedging divider carried on the shelf structure, the divider having resiliently deflectable spaced legs which are joined together at one end and which have opposite end portions of their legs bent away from the legs in opposite directions with respect to one another and engaged against the underside of the main shelf panel, retaining looped terminals connected to the opposite end portions, each of the looped terminals being disposed generally in a vertical plane and being freely movable back and forth in unison with the leg with which each of the looped terminals is immediately connected in the assembly and removal of the divider with respect to the shelf, said retaining looped terminals each having outside surfaces which surfaces are in retained engagement with the upper and lower and linking channel surfaces whereby the retaining looped terminals are engaged with the channel structure and the end portions of the legs are engaged with the underside of the main shelf panel to the end of securing the divider in assembly with the channel structure and to prevent accidental slippage of the divider longitudinally of the shelf.

References Cited in the file of this patent

UNITED STATES PATENTS

65	691,628	Hoffman	Jan 21, 1902
	935,560	Stone	Sept. 28, 1909
	999,974	Fauth	Aug. 8, 1911
	1,188,227	Woods	June 20, 1916
	1,336,490	Staples	Apr. 13, 1920
70	2,346,150	Brown	Apr. 11, 1944

FOREIGN PATENTS

848,331	France	Oct. 26, 1939
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