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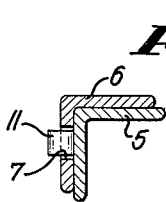
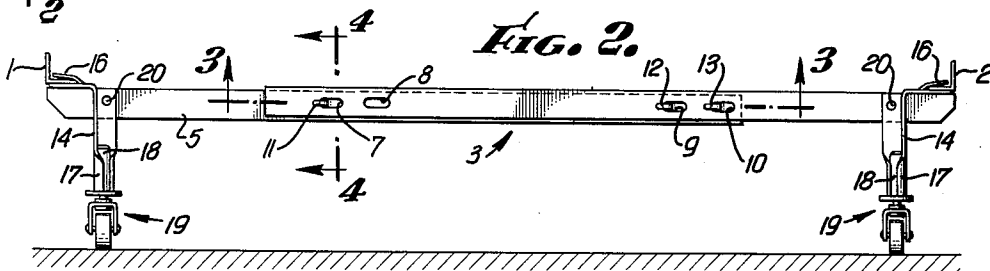
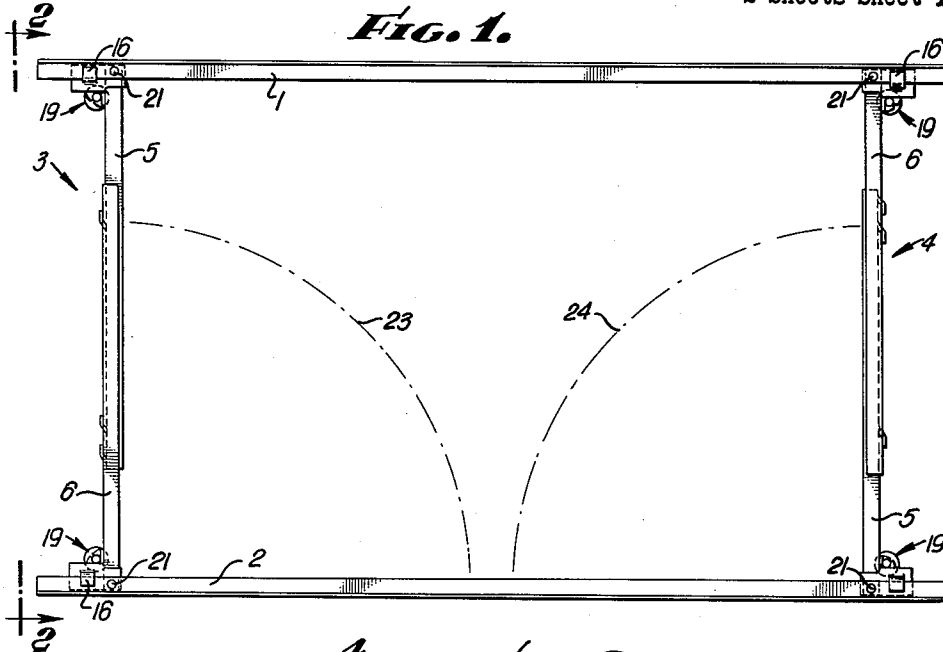
J. M. BRANDLIN ET AL

3,100,304

ADJUSTABLE AND FOLDABLE BED FRAME

Filed Feb. 7, 1961

2 Sheets-Sheet 1



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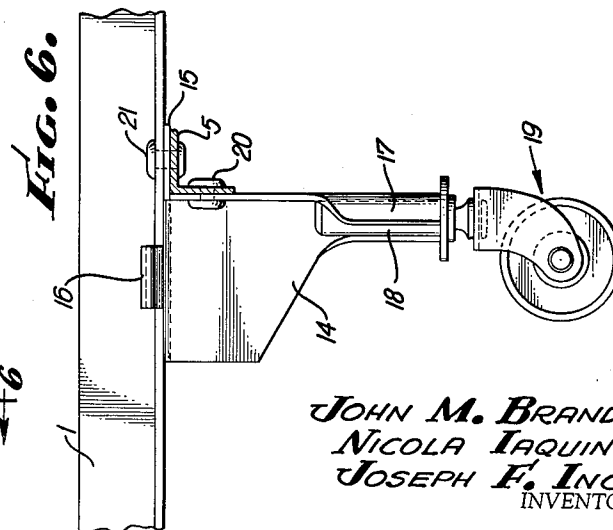
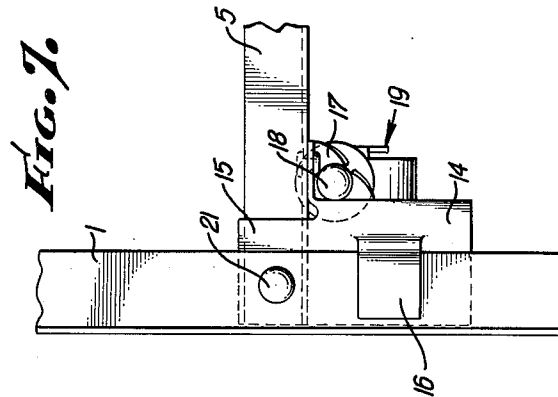
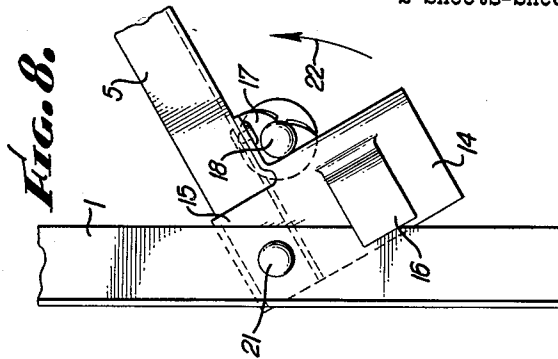
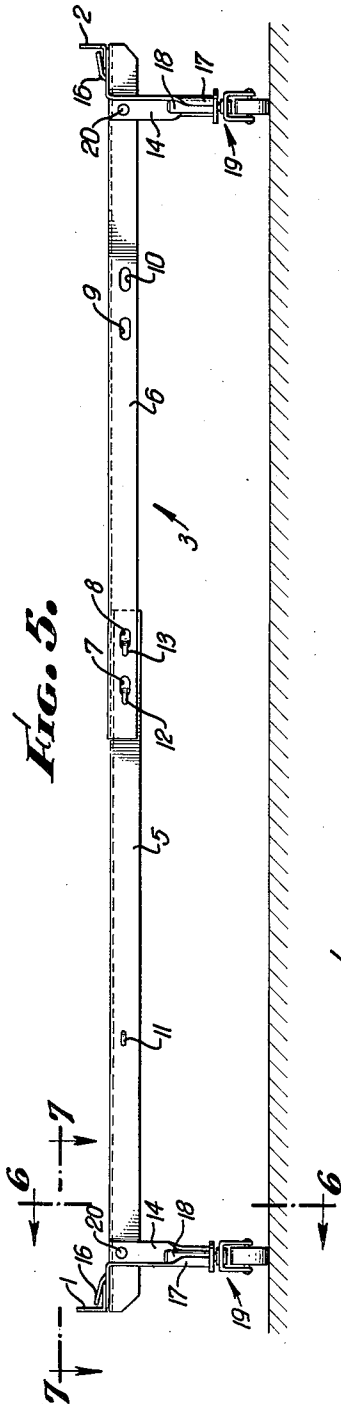
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ADJUSTABLE AND FOLDABLE BED FRAME

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1 Claim. (Cl. 5—202)

This invention relates to bed or couch frames, and particularly to metal rectangular frames upon which a mattress and spring may be supported.

It is one of the objects of this invention to improve, in general, frames of this character, and particularly to simplify adjustment from twin size to double bed size.

It is another object of this invention to provide a folding frame of simple construction and that can be assembled and disassembled without any tools.

This invention possesses many other advantages, and has other objects which may be made more clearly apparent from a consideration of one embodiment of the invention. For this purpose, there is shown a form in the drawings accompanying and forming part of the present specification. This form will now be described in detail, illustrating the general principles of the invention; but it is to be understood that this detailed description is not to be taken in a limiting sense, since the scope of the invention is best defined by the appended claim.

Referring to the drawings:

FIGURE 1 is a plan view of a bed frame incorporating the invention, the frame being adjusted for a narrow or twin size spring or mattress;

FIG. 2 is an end view of the bed frame, taken from the direction indicated by line 2—2 of FIG. 1;

FIG. 3 is an enlarged fragmentary sectional view, taken from the plane corresponding to line 3—3 of FIG. 2;

FIG. 4 is a detail enlarged sectional view, taken along the plane corresponding to line 4—4 of FIG. 2;

FIG. 5 is a view similar to FIG. 2, but showing the frame adjusted for a wider bed;

FIG. 6 is an enlarged sectional view, taken along the plane corresponding to line 6—6 of FIG. 5;

FIG. 7 is a fragmentary enlarged plan view, taken from the plane corresponding to line 7—7 of FIG. 5; and

FIG. 8 is a view similar to FIG. 7, showing a portion of the bed frame being folded.

The bed frame includes two angle iron side rails 1 and 2.

Holding the side rails 1 and 2 in spaced parallel relationship are a pair of spaced transverse rests 3 and 4. Each transverse rest, for example such as the transverse rest 3, includes a pair of angle irons 5 and 6 (see particularly FIG. 4) which are respectively pivotally joined on a vertical axis to the rails 1 and 2 in a manner to be hereinafter described. These angle irons are disposed so that the flanges of the respective irons lie next to each other (FIG. 4). As shown most clearly in FIG. 1, the rails 1 and 2 extend beyond these rest structures 3 and 4.

In order detachably to join the angle irons 5 and 6, the angle iron 6 is provided with two pairs of spaced apertures 7—8 and 9—10. These apertures are elongated, as shown most clearly in FIG. 2, and are provided in the side flange of the overlying angle iron 6 which overlies the angle iron 5 in the manner illustrated in FIG. 4.

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Passing through three of these four apertures 7, 8, 9 and 10 are three fingers 11, 12 and 13 (FIGS. 3 and 4) which are struck outwardly from the angle iron 5. The fingers engage the outer surface of the angle iron 6. The apertures 7, 8, 9 and 10 are long enough to permit the passage of these fingers, and then by telescopic movement, the fingers are caused to overlie the angle iron 5 in the manner illustrated in FIG. 3.

The spacing of the two fingers 12 and 13 corresponds to the spacing between the pair of apertures 9—10, and can cooperate therewith, as in FIG. 2. The third finger 11 is so spaced as to cooperate with one of the set of apertures 7—8.

Accordingly, in the position of FIG. 2, the separation of the side rails 1 and 2 is at a minimum. If it is desired to widen the bed frame, all the fingers 11, 12 and 13 are disengaged and then the side rails 1 and 2 are moved apart to the position of FIG. 5. In this widened position, the fingers 12 and 13 engage through the apertures 7 and 8. Finger 11 is not in use. In this position, the overlap between the angle irons 5 and 6 is considerably less than in the overlap shown in FIG. 2.

The rest structure 4 is substantially the same as the rest structure 3. In this instance however, the inner angle iron 5 is carried by the rail 2, and the outer angle iron 6 is carried by the rail 1. In this way, the structure including the elements 1, 5 and 6 is identical with the structure including the elements 2, 5 and 6. In this way, fabrication of the parts is considerably simplified.

At each of the outer corners formed between the extensions of side rails 1 and 2 and the rest structures 3 and 4, there is located a caster structure. Thus, each caster structure includes a bracket 14 (see particularly FIGS. 6, 7 and 8). This bracket 14 is made of sheet metal and has an extension 15 overlying the horizontal flange of angle iron 5 or 6 which forms the corner where the caster structure is located. This extension is thus interposed between the horizontal flanges of these angle irons. Furthermore, a latching finger 16 is struck up from bracket 14. It overlies the horizontal flange of the corresponding side rail 1 or 2.

The lower end of the bracket 14 is formed to provide a socket structure 17 for the accommodation of the shank 18 of the caster structure 19. The bracket 14 may be appropriately attached to the vertical leg of the angle iron 5 or 6, as by the aid of the rivet 20.

A rivet 21, passing through the horizontal flange of the angle iron 5 or 6, as well as through the extension 15 and the horizontal flange of the corresponding side frame 1 or 2, serves as a pivot pin for folding the angle irons 5 and 6 inwardly of the side frames 1 and 2. The angular movement is illustrated by the arrow 22 of FIG. 8 and the phantom lines 23 and 24 of FIG. 1. In the folded position, the angle irons 5 and 6 are disposed generally parallel to the corresponding side frames 1 and 2. Thereby, the structure can be readily stored and shipped in a relatively small space. The finger 16, being substantially spaced from the pivot pin 21, serves, when the frame is extended, to lend additional rigidity to the structure. This added rigidity is accomplished without the addition of any parts.

The inventors claim:

In a bed frame: a pair of side rails, each having a horizontal flange; a pair of spaced transverse rests de-

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tachably joining the said side rails; each rest comprising a pair of support members respectively carried by the rails, the support members of each rest being separable from each other; a pivotal connection between each support member and the horizontal flange of a corresponding rail to permit folding angular movement between the rail and its two associated members; and a leg structure carried by each support member; said leg structure having a socket forming means and a horizontal projection through which the pivotal connection extends, said socket forming means being integral with the projection; said projection extending lengthwise of the support member when the support member is in operative position, said projection extending beyond said support member and having a portion located between the top surface of

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the support member and the bottom surface of the rail flange; said projection having a struck-up portion spaced from the pivotal connection and extending over the rail flange; said leg structure also having a vertical portion attached to the support member.

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