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H. BARRY

2,828,490

DETACHABLE BED LEGS

Filed May 15, 1956

2 Sheets-Sheet 1

FIG. 1.

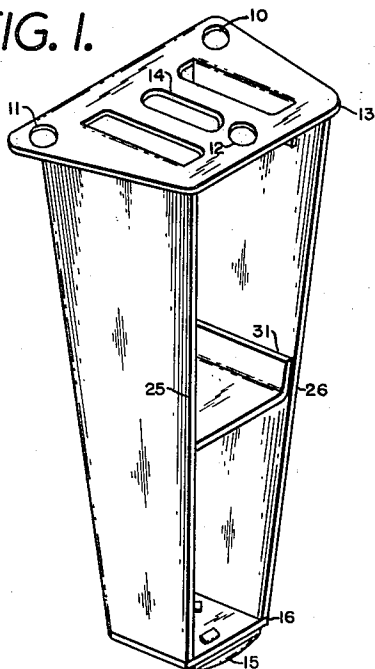


FIG. 2.

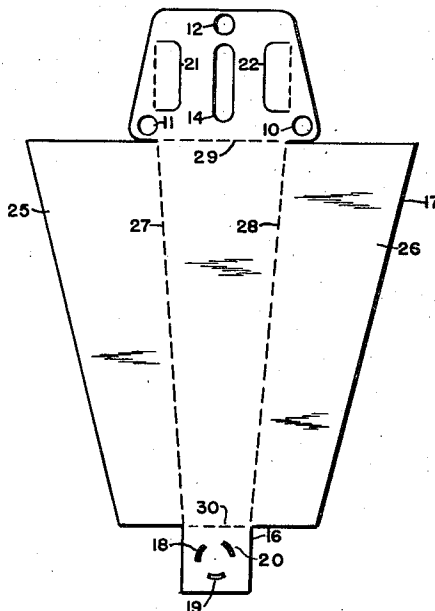


FIG. 3.

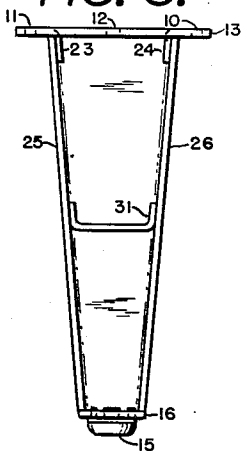


FIG. 4.

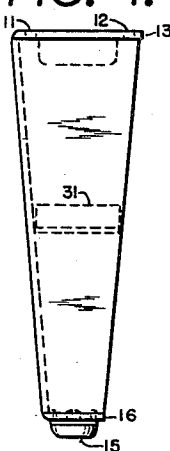


FIG. 6.

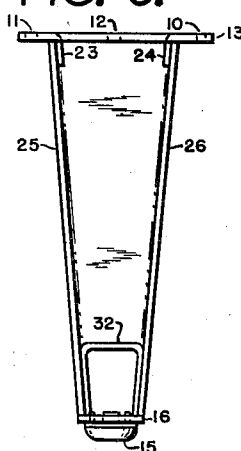


FIG. 5.

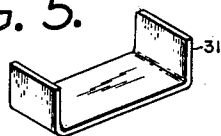
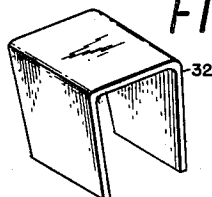


FIG. 7.



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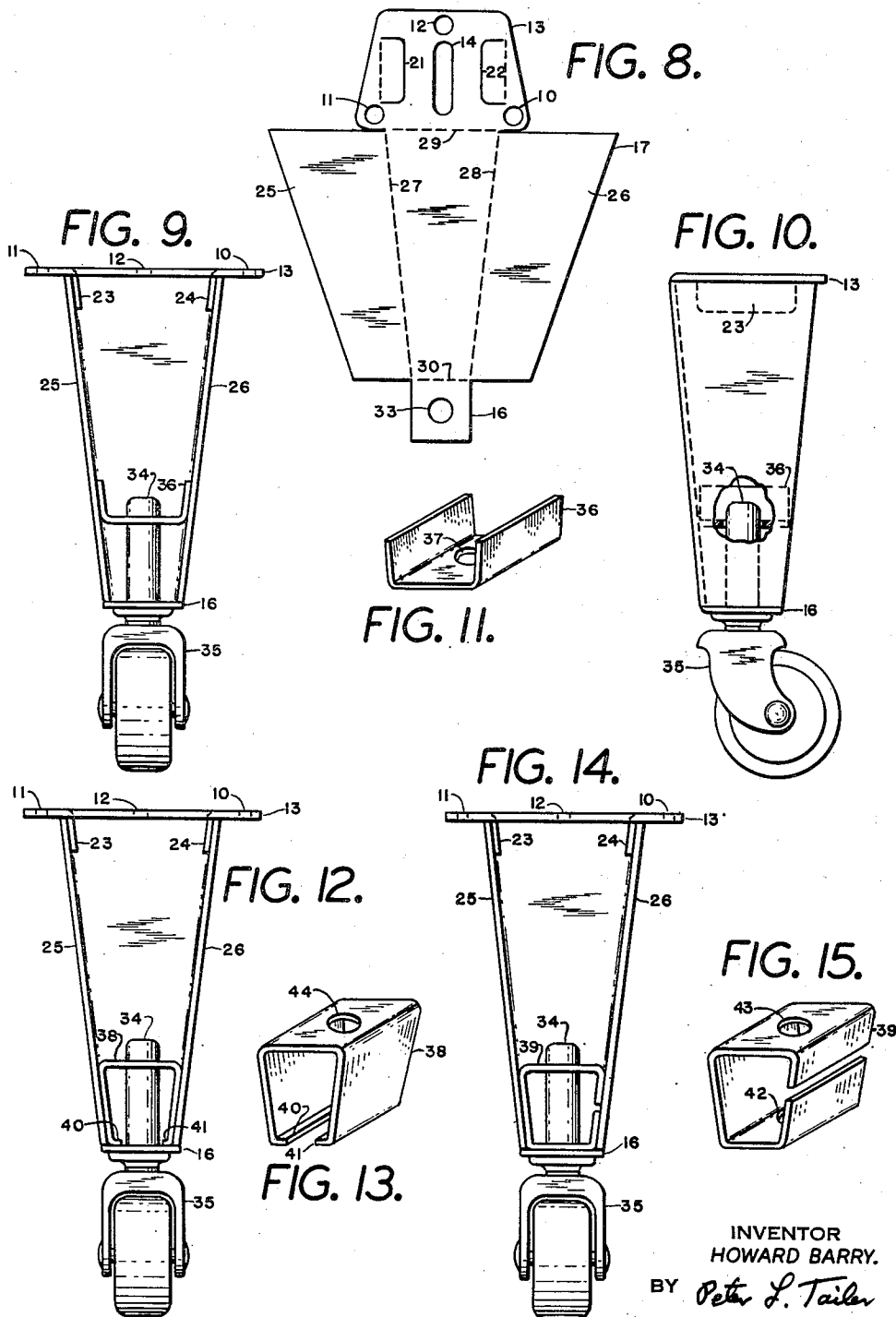
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DETACHABLE BED LEGS

Howard Barry, Brooklyn, N. Y.

Application May 15, 1956, Serial No. 585,031

4 Claims. (Cl. 5—310)

This invention relates to detachable bed legs.

For many years in the past it was common practice to manufacture bed frames of steel. Therefore many bed legs have been developed to be attached to these steel bed frames. In recent years, however, a large proportion of the bed frames manufactured are incorporated in a box spring that has at least two wooden side members to which bed legs are attached.

At the present time when beds are sold, it is a general practice for the customer to select a box spring and mattress. Then he may select a head board and a foot board of his choice to be attached to the box spring and he must choose suitable bed legs to be attached to the box spring. Therefore the customer generally selects the combination of component parts that he desires and these component parts are assembled by the bedding store and delivered to the customer. For the aforementioned reason there has been a great need for a stronger, cheaper and more rugged bed leg which is easily attached to a bed frame or box spring and which will look attractive to a purchaser.

An object of this invention is to provide a detachable bed leg formed from sheet metal which may be easily attached to a wide variety of beds.

A further object of this invention is to provide a detachable bed leg formed from sheet metal which can be both cheaply and easily produced and which will be both strong and rugged.

A still further object of this invention is to provide a detachable bed leg which is formed from a single piece of sheet metal to which may be added a single internal bracing member.

Yet another object of this invention is to provide a detachable bed leg which is formed by stamping a form from sheet metal, folding the form into a box like shape, welding portions of the form together, and welding an internal brace into position.

An additional object of this invention is to provide a detachable bed leg made from sheet metal that tapers and gives the appearance of a solid leg.

Additional objects, advantages and features of invention reside in the construction and combination of parts involved in the embodiment of the invention and its practice otherwise as will be understood from the following description and the accompanying drawings wherein—

Figure 1 is a drawing in perspective of the bed leg;

Figure 2 is a plan view of the material forming the outer portion of the bed leg before being folded into position;

Figure 3 is a back elevation of the bed leg with a central bracing member in position;

Figure 4 is a side elevation of the bed leg with a central bracing member in position;

Figure 5 is a drawing in perspective of the central bracing member;

Figure 6 is a back elevation of the bed leg with a lower bracing member in position;

Figure 7 is a drawing in perspective of a lower bracing member;

Figure 8 is a plan view of the material forming the outer portion of the bed leg modified to receive a caster, before being folded into position;

Figure 9 is a back elevation of the bed leg modified to receive a caster with a central brace member in position;

Figure 10 is a side elevation of the bed leg modified to receive a caster with a central brace member in position and with a portion broken away to reveal interior detail;

Figure 11 is a drawing in perspective of a central brace member adapted to support a caster;

Figure 12 is a back elevation of the bed leg modified to receive a caster with a lower brace member in position;

Figure 13 is a drawing in perspective of one type of lower brace member adapted to support a caster;

Figure 14 is a back elevation of the bed leg modified to receive a caster with a second type of lower brace member in position; and

Figure 15 is a drawing in perspective of a second type of lower brace member adapted to support a caster.

Figure 1 shows a complete bed leg ready to be mounted in position by means of the screw holes 10, 11 and 12 in the upper flange 13. If the wooden member to which the bed leg is being fastened is too narrow to accommodate screws from holes 10 and 11 and from hole 12, then a screw may be run through slot 14. If it is considered desirable in construction, the hole 13 may be omitted and the slot 14 extended in its place. The three prong glide 15 is fixed in position on the bottom plate 16 of the bed leg.

Figure 2 shows a stamping 17 punched from suitable sheet metal. As said stamping is being punched out, the holes 10, 11 and 12, the slot 14, the cuts 21 and 22 and the openings 18, 19 and 20 may be formed. The openings 18, 19 and 20 serve to anchor the three prong glide 15. The cuts 21 and 22 allow the projections 23 and 24 to be bent downwards from the upper flange 13 so that they may be spot welded to the side portions 25 and 26 after the stamping 17 has said side portions folded into position on lines 27 and 28, said upper flange folded on line 29 and said bottom plate folded on line 30. This entire operation of punching out said stamping, forming said holes, said cuts, said slot and said openings, bending down said projections and folding into position said upper flange, said side portions and said bottom plate may be accomplished in one operation or in several successive steps depending on the tools, dies, fixtures or metal working machines used.

The central bracing member 31 may be stamped from sheet metal, have its ends bent upwards and be welded to the side portions 25 and 26 to add strength to the leg, or the lower bracing member 32 may be formed and installed in a like manner. The weight and strength of the metal used in fabricating the leg and the use for which the leg is intended will decide the type of internal brace that can be best employed. In some applications, as on studio couches, no brace may be necessary, and in other applications even more rugged internal braces may be needed.

Figure 8 shows a stamping 17 which may be formed into a bed leg modified to receive a caster. The bottom plate 16 has a single hole 33 formed in it to receive the shank 34 of a caster assembly 35. The bracing and caster support member 36 as shown in Figure 11 has a hole 37 formed in it to receive the upper portion of said caster assembly shank. Figure 9 and Figure 10 show said bracing and caster support member in position in the bed leg holding the caster assembly 35.

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Because said casters are offset from said shank portions, there is a turning moment produced on said shank portions when the bed leg supports a load. This may require the stronger bracing and caster support members 38 and 39 which are formed from sheet metal by punching out a suitable form, forming holes in said form and folding said form. The bracing and caster support member 38 reinforces the bottom plate 16 with the lower bends 40 and 41 while it receives the shank 34 through the hole 44. The bracing and caster support member 39 contains holes 42 and 43 through which the shank 34 may pass.

Because the outer portion of this bed leg may be made entirely from a single piece of sheet metal using appropriate dies and fixtures, it is exceptionally cheap to manufacture in quantity. In addition this bed leg appears to be solid from three sides and can therefore replace the conventional wooden bed legs. If it is desired, a brass ferrule may be slipped over the bottom portion of the leg to enhance its aesthetic appeal. But most important, this bed leg, because it has a unique construction, is much stronger than any conventional leg. The tapered channel form of the body of the leg offers the maximum resistance to any deformation; and the upper flange 13, being a part of the body portion of the leg and being additionally secured by the welding of the projections 23 and 24 to the side portions 25 and 26, is very strongly secured to the body portion of the leg. As well as having strength, this leg is relatively light because it has a sheet metal construction.

While I have disclosed my invention in the best forms known to me, it will nevertheless be understood that these are purely exemplary and that modifications in the construction and arrangement of parts, substitution of materials and substitution of equivalents mechanically and otherwise may be made without departing from the spirit of the invention except as it may be more particularly limited in the appended claims wherein I claim:

1. A detachable bed leg formed from a single piece of sheet metal comprising a rear member, a first side member folded forward from said rear member, a second side member folded forward from said rear member, an upper flange folded downward from said rear member into contact with the upper edges of said side members to extend beyond said side members and contain apertures with which to secure said upper flange and

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thereby said bed leg, means to attach said upper flange to said side members, and a bottom plate folded upward from said rear member to contact and lie under the lower edges of said side members to support the weight sustained by said bed leg.

2. The combination according to claim 1 wherein said side members and said rear member taper downward so that the body of said bed leg tapers downward.

3. The combination according to claim 2 wherein said means to attach said upper flange to said side members comprises at least one tab cut partially free from said upper flange and folded outwards to be secured to the inside surface of each of said side members.

4. A detachable bed leg formed from sheet metal comprising a rear member, a first side member folded forward from said rear member, a second side member folded forward from said rear member so that said rear member and said side members taper downward to form the downward tapering body of said bed leg, an upper flange folded downward from said rear member into contact with the upper edges of said side members to extend beyond said side members and contain apertures with which to secure said upper flange and thereby said bed leg, at least one tab cut partially free from said upper flange and folded outwards to be secured to the inner side of each of said side members, a bottom plate containing an aperture and folded upward from said rear member to contact and lie under the lower edges of said side members, and an inside brace having an aperture and being secured within said bed leg so that a caster shank may extend through the aperture in said bottom plate and into the aperture in said inside brace with the weight sustained by said bed leg supported by said bottom plate which rests upon a caster.

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