Aug. 28, 1951 J. LUDWIG 2,565,613

BED LEG

Filed Aug. 5, 1948

FIG. 1

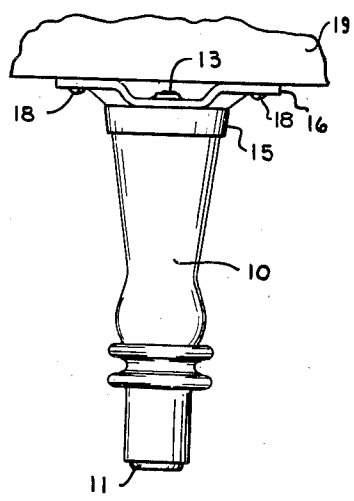


FIG. 2

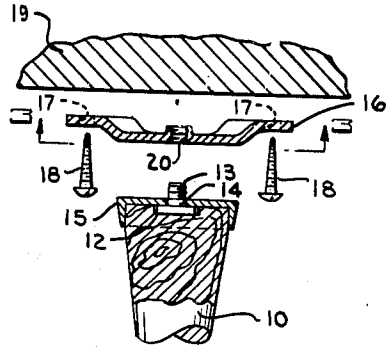


FIG. 3

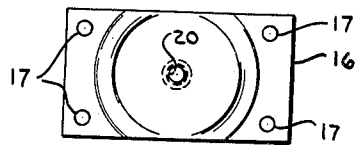


FIG. 4

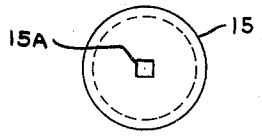


FIG. 5

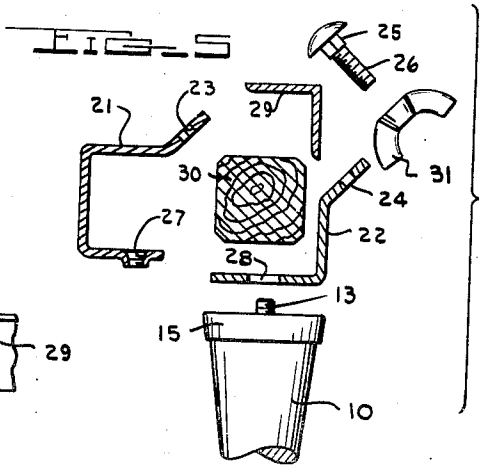
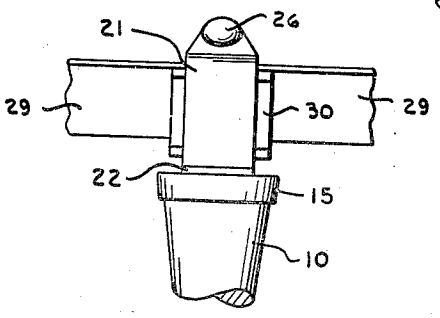


FIG. 6



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BED LEG

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9 Claims. (Cl. 5—310)

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The present invention relates to a detachable bed leg and in particular to a bed leg having a wood shank and new and improved means for connecting said leg to a bed member.

Detachable wooden bed legs of conventional design have a tendency to split because most of them have caps or plates which are attached to the legs by a plurality of screws which extend into the end grain of the leg and frequently cause it to split when loads or strains are imposed thereon.

Another source of trouble with conventional types of detachable bed legs is found in the inadequate means for rigidly connecting the legs in a vertical position to a spring frame or bed slat.

Therefore, a principal object of the present invention is to provide a detachable wooden bed leg which eliminates screws in its construction and thus avoids danger of splitting the leg. The device strengthens the leg at the point of attachment to the bed and improves its appearance.

Another object of the present invention is to provide a detachable bed leg which is relatively simple and which may be readily manufactured at a relatively low cost by mass production methods.

A further object of the present invention is to provide a detachable bed leg which is sturdy in construction and which provides a strong attaching means for connecting the leg to a portion of a spring frame, bed slat or the like.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawings:

Fig. 1 is a side elevation showing a fragment of a bed frame member having the bed leg of the present invention attached thereto.

Fig. 2 is an exploded fragmentary sectional view of the device shown in Fig. 1.

Fig. 3 is a plan view of the attaching plate of the device shown in Fig. 1.

Fig. 4 is a plan view of the leg top cap member of the device of the present invention.

Fig. 5 is an exploded fragmentary sectional view of a bed leg embodying the present invention adapted for attachment to a spring frame or channel iron.

Fig. 6 is a fragmentary side elevation of the device shown in Fig. 5 attached to a spring frame with all parts secured in place.

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Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

The bed leg of the present invention consists of a leg member 10 which is provided at its bottom with an anti-friction member 11. The leg member 10 is provided at its top with a rectilinear recess 12 into which is placed the rectilinear head of a vertically extending connector bolt 13. The connector bolt 13 is provided with a rectilinear locating shoulder 14. A metal cap 15, which has a centrally located rectilinear hole 15A adapted to fit over the shoulder 14 of the bolt 13 is placed over the top of the leg member 10, and is fitted tightly thereon by any suitable means to provide a "shrink fit" thereon.

Means of connecting the leg assembly to a wooden bed member such as the side or end frames of a box spring are shown in Figs. 1, 2 and 3. A connecting plate 16 is provided with holes 17 into which screws 18 are inserted and fastened to the frame element indicated by the numeral 19. The plate 16 is formed with a centrally located circular depression having a centrally located pierced or extruded screw-threaded hole 20. The depression in the plate provides clearance beneath the slat 19 to accommodate the end of the connector bolt 13 which is screwed into the hole 20 of the plate 16.

A second connecting means which is used to attach the leg assembly of the present invention to a channel iron or frame member of a conventional type of bed spring is shown in Figs. 5 and 6. These connecting means comprise two brackets 21 and 22 which are provided with rectilinear holes 23 and 24 in their respective flanges to accommodate the rectilinear shoulder 25 of an adjusting bolt 26. The bracket 21 is provided with a pierced or extruded screw-threaded hole 27, the collar formed by such extrusion fitting into a larger hole 28 in the bracket 22.

A channel iron or frame member of such a bed spring unit is represented in the drawings by the numeral 29. In attaching the bed leg of the present invention to such a member, the bottom

of the bracket **21** is placed over the bottom of the bracket **22** and around a wooden block **30** which fits within the channel iron **29**. The leg assembly is attached to the brackets by the connector bolt **13** which communicates with the screw-threaded hole **27**. The adjusting bolt **26** is then inserted through the holes **23** and **24** in the flanges of the brackets **21** and **22**, and the shoulder **25** is seated in one of the holes **23** or **24**. A wing nut **31** is attached to the bolt **26**, thus securing the channel iron **29** between the block **30** and the brackets **21** and **22**.

By shrink-fitting the cap **15** on the leg **10**, a strong bond is created which eliminates unsightly plates and screws, and which also eliminates the danger of splitting the leg **10**.

Another advantage of the present invention is the provision of the connector bolt shoulder **14**, and the shoulder accommodating slot **15A** in the cap **15**. With this arrangement, the bolt is automatically aligned in a vertical position for connection with the attaching means and bed or spring frame.

A particularly advantageous feature of the embodiment of the invention shown in Figs. 1, 2 and 3 is the annular upturned collar formed around the hole **20** by piercing or extruding the plate **16**. This collar, formed by the metal extruded from the hole **20**, provides additional metal surfaces surrounding the screw-threaded hole and consequently provides a much stronger connection between the plate **16** and the leg **10**.

By piercing or extruding the hole **27** in the bracket **21**, an upturned collar as described above is formed. The hole **28** in the bracket **22** is punched large enough to receive the annular collar formed in the bracket **21**, and thus an additional interlocking feature between the brackets is introduced. Also, additional metal is provided for screw-threading by the formation of the collar around the hole **27**.

Having thus described my invention, I claim:

1. In combination, a bed spring frame, a bracket detachably affixed to said frame and having a screw-threaded opening therein, a bed leg detachably affixed to said bracket and depending downwardly directly beneath said frame, a cap secured to said bed leg, a screw-threaded connector bolt having a head embedded in the top of said leg and extending upwardly through said cap for screw-threaded engagement in the screw-threaded opening in said bracket.

2. The combination as claimed in claim 1 wherein said cap has a tight fit on the end of said leg to prevent splitting thereof and said connector bolt is fixed against rotation relative to said cap.

3. The combination as claimed in claim 2 wherein the connector bolt is formed with a rectilinear shoulder near its head, and a mating rectilinear opening is provided in said cap.

4. The combination as claimed in claim 1 wherein the head of said connector bolt is rectilinear and is adapted to fit into a mating rectilinear recess formed in the top of said bed leg whereby turning of the bolt relative to the bed leg is prevented.

5. The combination as claimed in claim 1 wherein said bracket is provided with a depression around said female screw-threaded opening to provide space for the end of said connector bolt when the leg is attached beneath a bed or spring member.

6. The combination as claimed in claim 5 wherein the bolt hole is pierced or extruded to form an annular upturned collar around said hole, and said collar is provided with internal screw-threads.

7. The combination as claimed in claim 1 wherein the bracket comprises two clamping members which are so formed that the bottom of one will fit over the bottom of the other, said members having centrally located holes adapted for passage of said connector bolt to provide a clamping action on the bed spring frame.

8. The combination as claimed in claim 7 wherein the hole in one clamping member is pierced or extruded and screw-threaded to form an annular upturned screw-threaded collar, and wherein the hole in the other clamping member is large enough to receive the said annular upturned screw-threaded collar to provide a lock between the two clamping members.

9. The combination as claimed in claim 8 wherein a block member is provided between the clamping members to permit use of the device with an angular channel frame member of a bed spring.

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