April 3, 1956 A. DEL CAMPO 2,740,132

CUSHION ALIGNER FOR FOLDAWAY BED SOFA

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Fig. 1

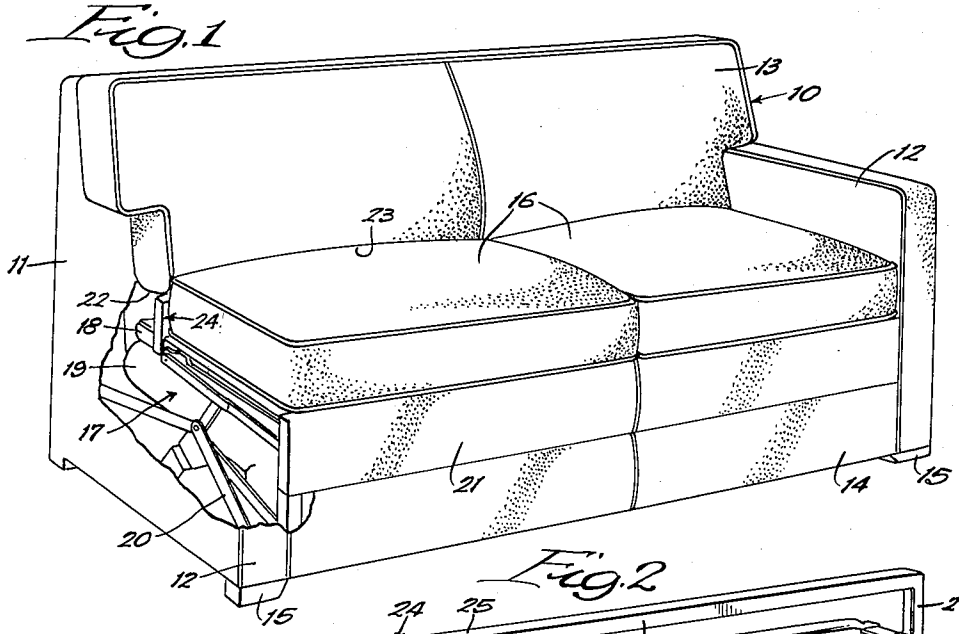


Fig. 2

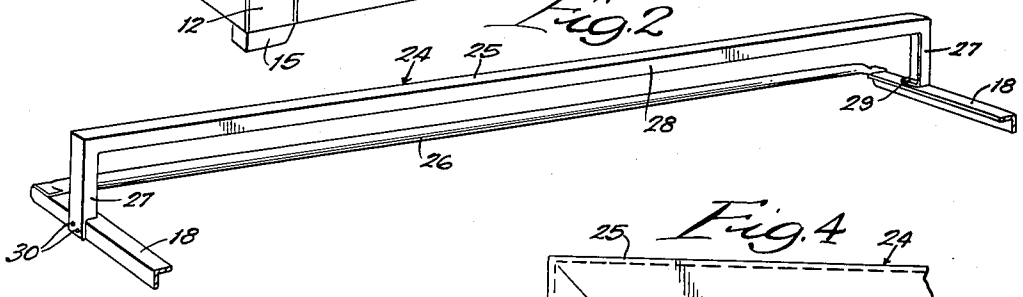


Fig. 3

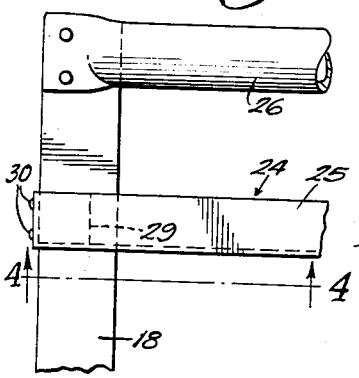


Fig. 4

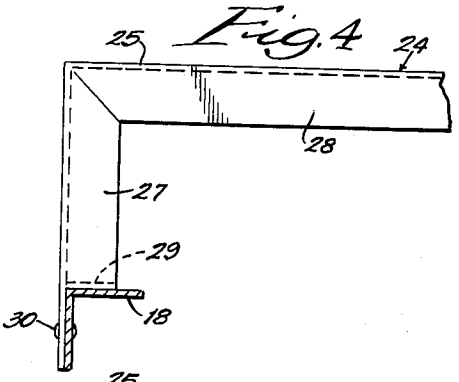
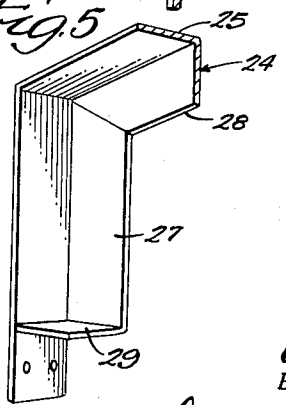


Fig. 5



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CUSHION ALIGNER FOR FOLDAWAY BED SOFA

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4 Claims. (Cl. 5—51)

This invention relates to convertible furniture such as a foldaway bed and sofa combination and, more particularly, to a cushion aligner for a foldaway bed sofa.

In the usual foldaway or hideaway bed and sofa combination, the spring and mattress is extensible when the bed is to be used and when the structure is to be used as a sofa, the bed and mattress fold inwardly and into the sofa frame where it becomes hidden. In withdrawing the bed spring and mattress, it is generally necessary to raise, at least slightly, the forward edge of the spring frame above the front baseboard of the sofa. During this operation the rear portion of the folded spring and mattress pivot upwardly and room must be provided therefor between the upholstered back of the sofa and the spring frame to permit this pivotal movement. Since the back of the sofa is spaced from the folded bed spring which serves as the support for the sofa cushions, when a person sits upon the cushions they are compressed and in a short time slip rearwardly under the lower edge of the sofa back and between the folded spring frame. This movement of the sofa cushions is undesirable in that it results in a structure that is unattractive and at the same time the sliding movement of the rear ends of the cushions under the sofa back wears the upholstering material and it must, therefore, be replaced if an attractive appearance is to be provided. Further, there is danger that when the cushion has slipped a considerable distance under the back of the sofa, that it may catch a sharp edge of the spring frame and when it is withdrawn from this position the upholstery material may be torn or otherwise damaged.

It is accordingly an object of this invention to provide a hideaway bed and sofa combination wherein the sofa cushions are prevented from sliding rearwardly and under the lower edge of the sofa back. Another object of the invention is to provide an aligner or stop member carried by the spring frame of the hideaway bed and sofa combination and that projects upwardly and serves as a stop to prevent movement of the sofa cushions under the sofa back. Still another object of the invention is to provide an aligner or stop member that is operative to provide a stop or abutment that positively positions the sofa cushions forwardly of the sofa back and that at the same time reinforces the sofa cushions when a weight is imposed thereon, as when people are sitting upon the soft. Additional objects and advantages will appear as the specification proceeds.

An embodiment of the invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a perspective view of a hideaway bed and sofa combination incorporating my invention and in which an arm of the sofa is broken away; Fig. 2 is a broken perspective view of a spring frame incorporating my invention; Fig. 3 is a broken top plan view of the structure shown in Fig. 2; Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3; and Fig. 5 is a broken perspective view of the stop or cushion aligner member.

The convertible furniture incorporating my invention

may be of any conventional and well known construction. Generally, a hideaway or foldaway bed is incorporated in a sofa, and in Fig. 1 such a sofa is illustrated and is designated generally with the numeral **10**. The sofa **10** is equipped with a frame **11** having arms or end pieces **12** rigidly secured thereto and a back **13** mounted against the vertical wall of the frame member. A front board or baseboard **14** extends from one of the arms **12** to the other arm and is rigidly secured thereto. If desired, the sofa **10** may be equipped with the usual feet **15**. The sofa **10** may also have one or more cushions **16** that are removable and are lifted therefrom when the bed structure **17** is to be extended for use.

It should be understood that the sofa illustrated and described may be of any construction, and the one illustrated is to be taken as exemplary only. In the usual construction, the frame, arms, back and cushions are all padded and upholstered and this is the preferable construction.

The hideaway bed portion **17** may also be of any usual and well known construction and includes a peripheral frame **18** that is foldable, a mattress **19** that is also foldable, and the usual and customary linkage **20** that support the frame **18** in extended position when it is withdrawn from the sofa and that is collapsible to permit the bed frame to be folded and moved into the sofa frame. Usually, a spring is carried by the peripheral frame **18** and this is also designed so it is foldable. The spring is not illustrated in the drawings, and since bed constructions of the hideaway or foldaway type are well know in the art, it is believed that a further detailed discussion of the same is not necessary to an adequate disclosure of the invention.

In the bed-sofa construction, when it is desired to extend the bed from the sofa, the cushions **16** are removed and the forward cover member or board **21** is lifted upwardly so that the lower portion of the frame will clear the baseboard **14**. When this occurs, the bed frame may be pulled outwardly from the sofa. In this operation the rear portion of the bed frame turns upwardly and the space between the lower edge **22** of the sofa back **13** and the bed frame is reduced. It is, then, necessary that the lower edge **22** of the sofa back be positioned at some height above the bed frame **18** when the bed frame is folded and received within the sofa frame. It is clear from the illustration in Fig. 1 that normally the cushions **16** of the sofa engage the back **13** at some height above the lower edge **22** of the back. However, when the weight of a person is received upon the cushions, the focal point of the weight is toward the rear of the cushion and the rear edge **23** thereof moves downwardly and assumes an elevation that is generally slightly below the lower edge **22** of the back. Since the weight of the person is also moving rearwardly when he sits upon the cushion, the tendency is to force the cushion rearwardly and the rear edge **23** thereof slides under the lower edge **22** of the back **13**.

I prevent this undesirable result by equipping the bed frame **18** with a stop member or cushion aligner and support member **24**. The member **24** is generally U-shaped and provides an elongated portion **25** that parallels the edge **26** of the frame **18**. The member **24** is also equipped with depending legs **27** that are preferably formed integrally with the elongated portion **25**. Most desirably, an L-shaped channel is used to form the stop **24** since such a member provides a relatively flat face **28** that abuts the rear edge of the cushions **16**. On the legs **27** and at the forward face **28** thereof, the legs are struck inwardly to provide flanges **29** that rest upon the upper surface of the L-shaped bed frame **18**. The outer surface portion of the member **24** below the flanges **29** are secured to the bed frame **18** by rivets **30**. It will be

apparent that bolts or welding, etc. may be used interchangeably with the rivets 30 to rigidly secure the stop 24 to the bed frame 18. Reference to Fig. 5 will show clearly the specific structure of the legs 27 and laterally-struck flanges 29.

In operation of the structure, the stop member 24 projects upwardly from the bed frame 18 and toward the lower edge 22 of the sofa back 13. It is necessary that the member 24 be spaced slightly below the lower edge of the sofa back so that sufficient clearance is provided and movement of the bed from the sofa is not impeded. Otherwise, the structure operates in the customary and usual manner. Preferably, the stop member 24 is spaced from the edge 26 of the spring frame and is desirably alinged with the forward surface of the back 13. Therefore, when the cushions 16 are in place upon the sofa and upon the folded bed frame, the member 24 engages the rear wall of the cushions. The member 24 serves as a stop or an aligner member that positively aligns the cushions 16 in proper position upon the sofa and prevents rearward movement of the cushions when a person sits upon the sofa. It has been found that the member 24 also performs an unusual function in that it reinforces the rear edge 23 of the cushions 16 and tends to prevent the complete collapse thereof when the cushions are subjected to the weight of a person or persons sitting thereon. This result is achieved when the member 24 is in substantial alignment with the forward surface of the sofa back 13. The stop member or aligning member 24, then, not only serves as a means for preventing sliding movement of the cushions 16 under the lower edge of the sofa back 13, but at the same time reinforces the cushions 16 along the rear edge thereof. The flat face 28 of the stop member 24 that engages the cushions, abuts the cushions over a wide area and offers considerable resistance to the compressing or collapsing of the cushions along the rear edge 23 thereof, while not damaging the cushions in any manner.

While in the foregoing specification an embodiment of the invention has been set out in considerably detail for purposes of illustration, it will be apparent to those skilled in the art that considerable variation may be made in these details without departing from the spirit and principles of the invention.

I claim:

1. In a bed and sofa combination, a frame, a foldable bed mounted therein and being adapted to be extended therefrom for use as a bed, said bed having a peripheral frame, a sofa back mounted on said first mentioned frame, said peripheral frame being adapted to carry cushions thereon, said sofa back providing a lower edge spaced above said peripheral frame, and in inverted, generally U-shaped stop member extending transversely across said peripheral frame and in substantial alignment with the forward surface of said sofa back, said stop member having a flat, relatively wide face adapted to engage cushions carried by said peripheral frame along the upper rear edges thereof for limiting rearward movement of such cushions, said peripheral frame having a portion thereof extending rearwardly beyond said sofa back, said stop member being carried by said peripheral frame a spaced distance from the end thereof projecting beyond said sofa back.

2. The structure of claim 1 in which said stop member is equipped with depending legs providing lips engaging said peripheral frame and being rigidly secured thereto, said legs each having flanges abutting the upper surface of said peripheral frame, whereby said stop member is effective to reinforce said peripheral frame.

3. In a hideaway bed and sofa combination having removable cushions and a back, said bed when folded providing a support for said cushions and being spaced below the lower edge of said back, said bed providing a foldable peripheral frame and when folded and in retracted position having an end portion extending rearwardly beyond said sofa back and thereunder, and an inverted, generally U-shaped stop member carried by said peripheral frame a spaced distance from the end thereof extending beyond said sofa back and extending transversely across said peripheral frame in substantial alignment with the forward surface of said sofa back, said stop member being engageable with cushions supported on said bed along the upper rear edge portions thereof to prevent rearward movement of such cushions.

4. In a convertible piece of furniture, a frame equipped with a back, a bed member comprising a peripheral frame carried by said first mentioned frame and being selectively foldable thereinto and extensible therefrom for use, said peripheral frame when folded being adapted to support cushions thereon and having a rear end portion extending beyond said back and at a spaced distance thereunder, and a stop member secured to said peripheral frame and extending transversely thereacross a spaced distance from the end of the peripheral frame extending beyond said back and in substantial alignment with said back, said stop member having face portions adapted to be engaged by cushions supported upon said peripheral frame to prevent the same from moving rearwardly beyond said back.

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