H. RUSCHMEYER.

SPRING BED SUPPORT.

APPLICATION FILED SEPT. 3, 1918.

1,283,318.

Patented Oct. 29, 1918.

Fig. 1.

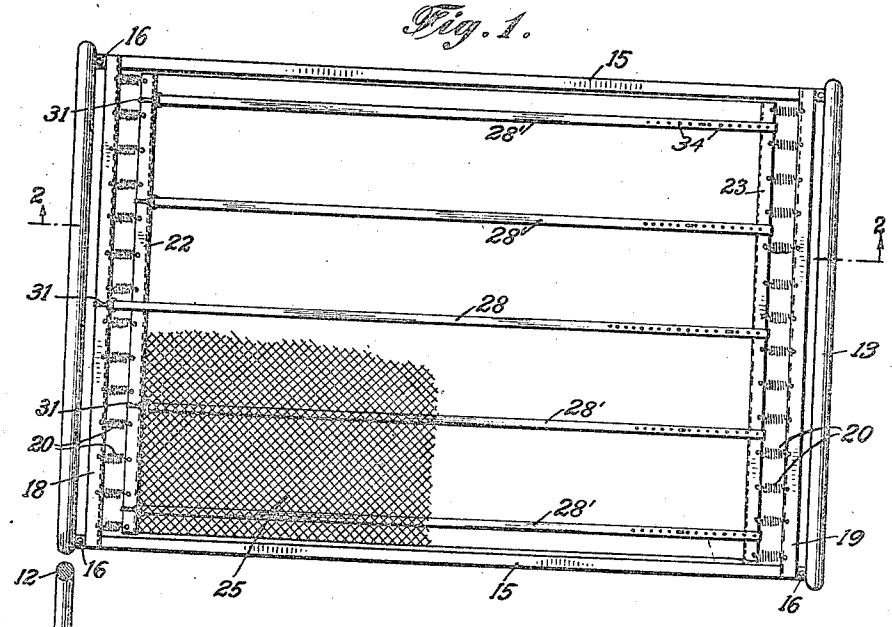


Fig. 2.

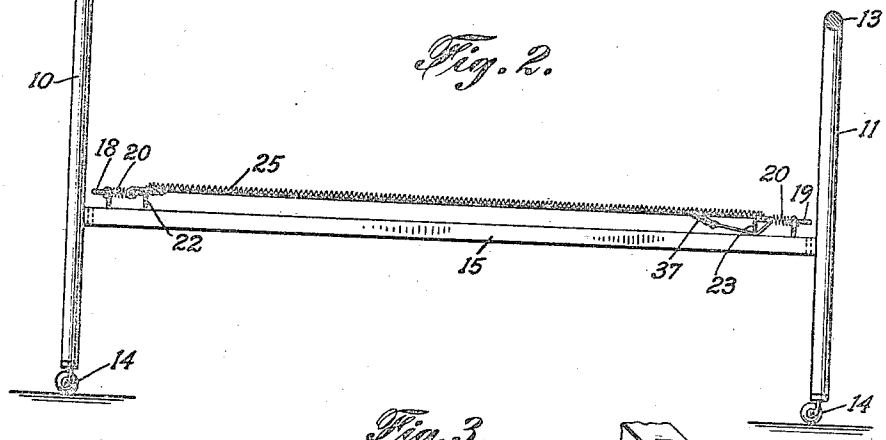


Fig. 3.

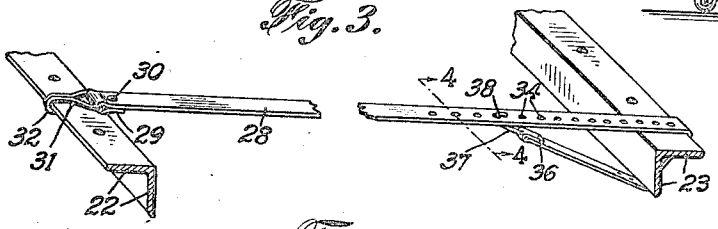
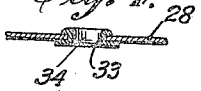


Fig. 4.



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SPRING-BED SUPPORT.

1,283,318. Specification of Letters Patent. Patented Oct. 29, 1918.

Application filed September 3, 1918. Serial No. 252,285.

To all whom it may concern:

Be it known that I, HENRY RUSCHMEYER, a subject of the Emperor of Germany, and a resident of Brooklyn, in the county of Kings, and State of New York, have invented certain new and useful Improvements in Spring-Bed Supports, of which the following is a specification.

This invention relates to improvements in beds, couches and the like, and particularly to supporting means used in connection with the springs or wire mattresses combined therewith.

The principal object of the invention is to provide an adjustable supporting device whereby the weight of the person or persons using the same is distributed over a relatively wide area so that sagging and consequent discomfort is prevented.

A further object is to provide such devices in the form of attachments which can be readily applied to the bed frame construction without in any way interfering with its functions or appearance.

A still further object is to provide strap-like supports of yielding character and which may be tightened to any desired extent without disruption or damage to themselves.

These and other like objects are attained by the novel construction and combination of parts hereinafter described and shown in the accompanying drawings, forming a material part of this disclosure, and in which:—

Figure 1 is a top plan view of a conventional type of bed and indicating the application of the invention, parts being broken away to disclose the constructions.

Fig. 2 is a vertical sectional view of the same, the section being taken on line 2—2 of Fig. 1.

Fig. 3 is an enlarged fragmentary perspective view showing the manner in which the supports are engaged with the elements of the bed frame, and

Fig. 4 is a further enlarged transverse sectional view taken on line 4—4 of Fig. 3.

Referring to the drawings, a conventional type of bed is shown, the same having posts or legs 10 and 11, respectively at the head and foot, integrally connected by transverse members 12 and 13 at their upper ends and having at their lower ends ordinary casters 14, so that the bed may be moved from place to place in a convenient manner.

Rigidly engaged between the posts 10 and 11, upon each side of the bed, are longitudinal frame rails 15, held by the usual tenon and mortise joint securing means 16 and engaged transversely therebetween, at the head and foot. are cross bars 18 and 19. Secured at spaced intervals in these cross bars are the ends of a plurality of coiled tension springs 20, their opposite ends being similarly connected in the flanged elements of other cross bars 22 and 23, preferably of ordinary commercial L shaped cross section, and of a lesser length than the distance between the side rails 15.

Securely attached to the elements 22 and 23, are the end edges of a highly flexible, elastic woven wire spring mattress 25, the same covering the entire upper surface of the bed.

This spring structure may be of any of the ordinary forms, that are considered preferable consisting of a plurality of interengaged, spirally wound springs adapted to be readily flexed under pressure and which are of a well known type, as is the entire construction thus far described.

The improvement consists in reinforcing or supplementing the spring structure so that it is prevented from sagging or yielding unduly under weight or pressure applied upon its upper surface. For this purpose there are provided straps 28 and 28′ having one end 29, bent closely upon itself and secured by a rivet 30, while engaged in the bight of the loop thus formed is a hook 31 the inturned member 32 of which is adapted to engage over the edge of the fixed cross bar 18, at the head of the bed, the strap extending to the foot and bent to encircle the spring supported cross bar 23, this construction materially supporting the mattress at its center where the weight is likely to be concentrated.

Formed in the foot end of the strap are a plurality of relatively closely spaced openings 33, in which are fixed tubular eyelets 34, adapted to reinforce rather than weaken the strap, the extreme end of which has a closely folded end 36, engaging a hook 37, its bent end 38 being engageable in any of the several eyelets 34, so that the strap may be stressed in accordance with requirements.

This strap is disposed substantially central longitudinally of the bed frame and arranged upon both sides thereof, are similar straps 28′, being of duplicate construction,

except being shorter in length and having the hooks 31, engaged over the upper elements of the inner transverse rail 22, at the head of the bed while their opposite ends are looped over the opposite rail 23 at the foot of the bed, as is the central support element 28, and adjustably engaged by the hooks 37.

From the foregoing it will be seen that a conveniently applied, positively operating device has been provided to prevent the sagging of a woven wire or other form of spring support or mattress and that the same presents no obtrusive or objectionable appearance whatever, while the use of the straps which are preferably made of metal in no wise interferes with the resiliency imparted to the bed by the action of the end springs 20.

It will further be apparent that these supports may be applied at any time and by any person without special skill, rendering a bed, which has become uncomfortable by reason of the laxity of the springs, to attain its original resiliency and operativeness.

Having thus described my invention and set forth the manner of its construction and application, what I claim as new and desire to secure by Letters Patent, is:—

1. In a spring bed support, the combination with the bed frame of a pair of bars rigidly engaged with said frame at the foot and head of said bed, a second pair of bars adjacently parallel to the first named bars, a plurality of coiled tension springs engaged between the first and second pairs of bars, and a spring mattress engaged with said spring supported bars, of a metallic strap having a plurality of perforations, a hook at the end of said strap adapted to be engaged over one of the outer rigid bars said strap being bent to encircle the opposite disposed spring supported bar, a hook secured at the bent end of said strap engageable in the mentioned perforations, so that the operative length of said strap may be adjusted and a plurality of similar straps extending between said spring supported bars, all of said straps being disposed below said spring mattress.

2. In a spring bed support, the combination with the frame of a bed and a pair of horizontal transverse bars rigidly engaged therewith, of a second pair of bars adjacent to the first named bars, spring supporting connections between said second bars and said rigid bars, a mattress engaged at its ends with said spring supported bars, a plurality of straps extending betwten said spring supported bars, a center strap engaged between the resilient supported bar at the foot of said bed and the rigidly supported bar at the head of said bed, a plurality of eyelets set in closely spaced intervals in said straps at the foot end thereof, and hooks formed at the terminals of said straps adapted to engage in said eyelets whereby the operative length of said straps may be adjusted.

3. In a supporting means for bed springs, the combination with a pair of transverse bars rigidly engaged with the frame of the bed at the head and foot thereof of a second pair of transverse bars resiliently engaged with the first named bars adjacently thereto, a spring mattress disposed between and normally supported by said second pair of bars, a metallic strap, a hook on said strap adapted to engage over the rigid bar at the head of said bed and encircling the resiliently supported bar at the foot of said bed, a plurality of other straps engaged between said resilient supported bars, all of said straps being closely adjacent to said wire mattress, tubular eyelets fixed in said straps near the encircling ends thereof, and hooks formed at the extremities of said straps adapted to engage in said eyelets, whereby said straps may be adjusted in their operative lengths.

In testimony whereof I have signed my name to this specification.

HENRY RUSCHMEYER.