

1,021,091.

A. G. EYLES.
COUCH BED, &c.
APPLICATION FILED APR. 1, 1911.

Patented Mar. 26, 1912.

2 SHEETS-SHEET 1.

Fig. 2.

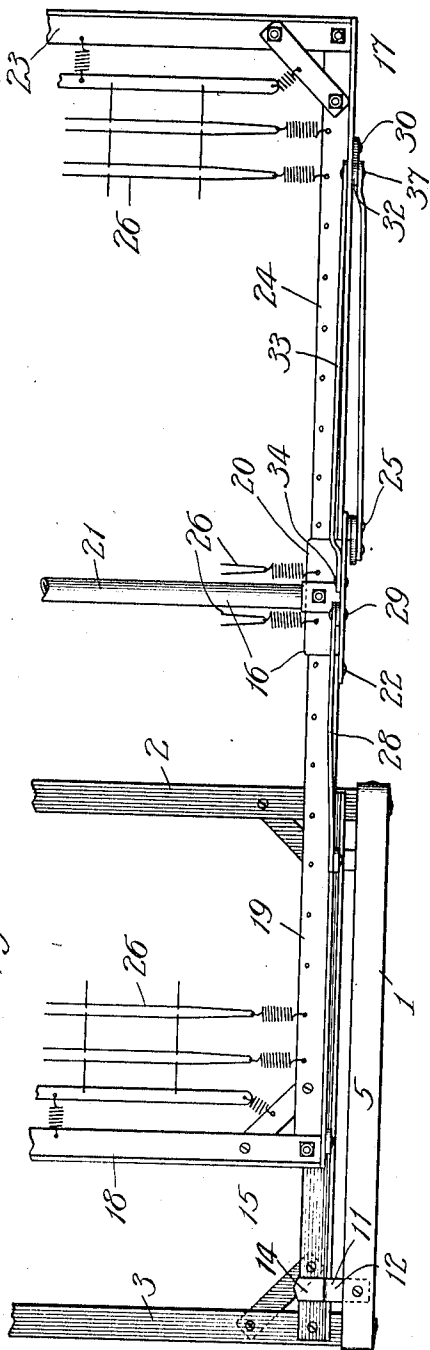
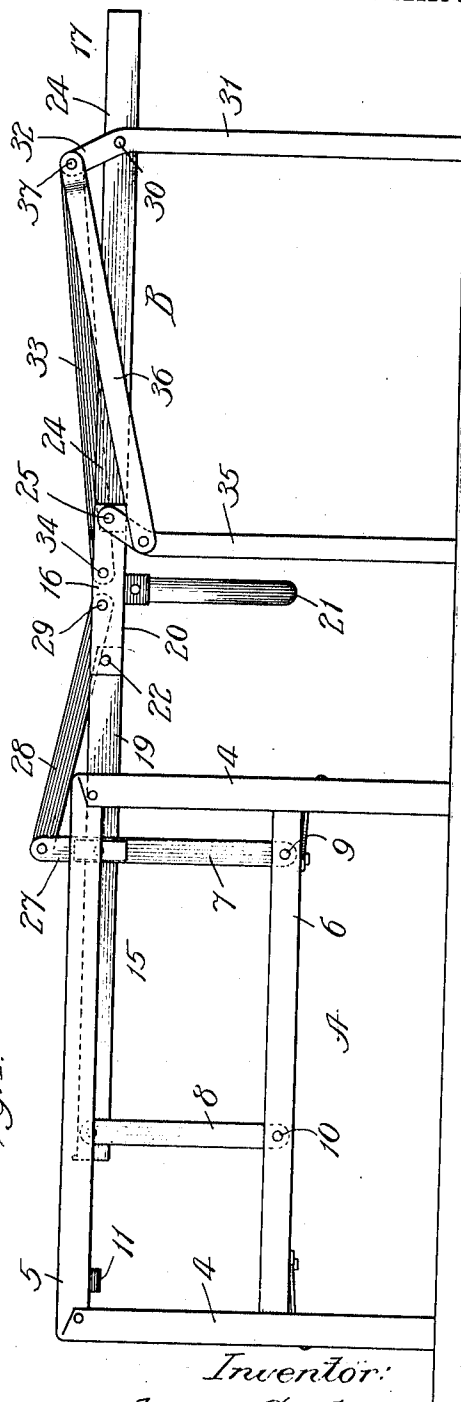


Fig. 1.



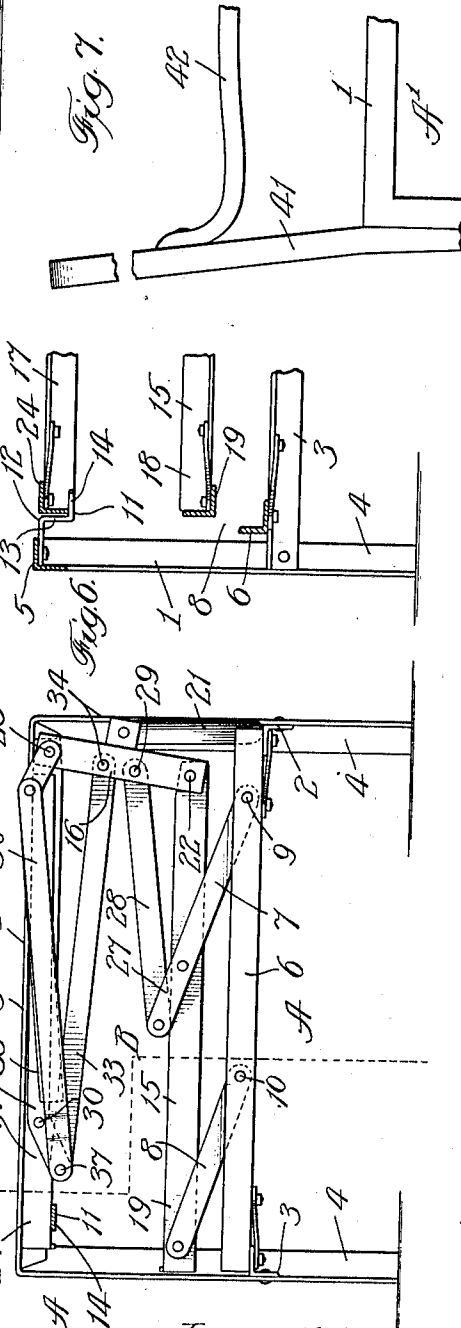
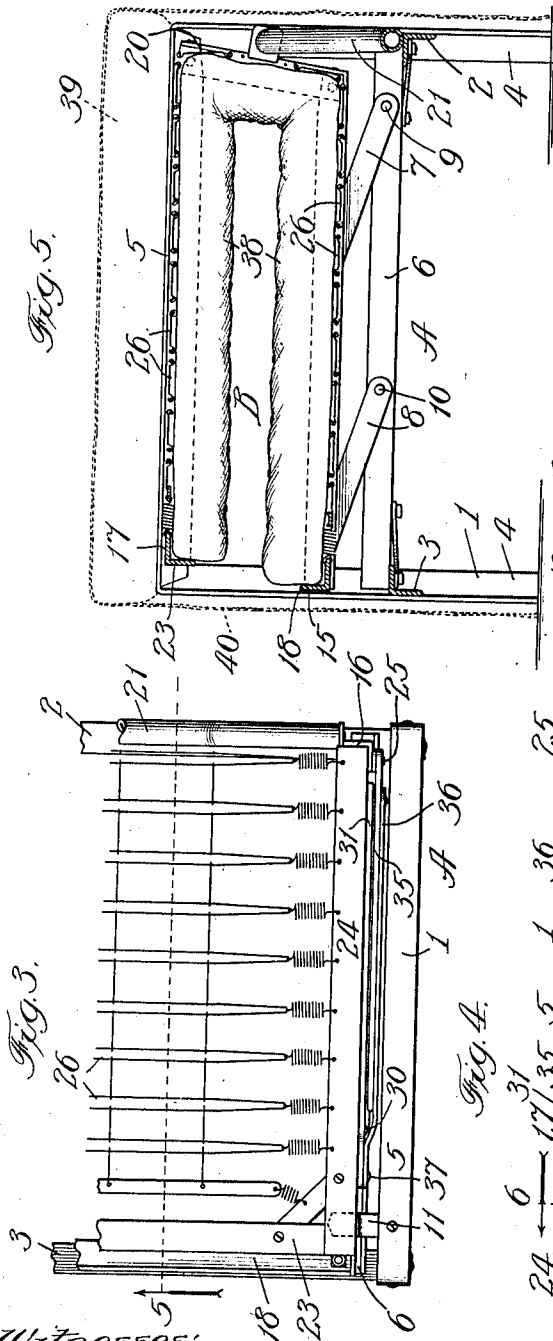
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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COUCH-BED, &c.

1,021,091.

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Application filed April 1, 1911. Serial No. 618,431.

To all whom it may concern:

Be it known that I, ANTON G. EYLES, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Improvement in Couch-Beds, &c., of which the following is a specification.

My invention relates particularly to combination couches and beds, or combination sofas and beds, of the type in which a folded bed is normally housed within a main frame, the folding bed being of such a character as to enable the bed-mattress, bed linen and covers to fold between the foldably related bed-sections of the structure.

My primary object is to provide a structure of this character of improved operation and simplified and otherwise improved construction.

It may be stated that in the preferred embodiment of the invention, the main frame, as well as the folding bed-frame, are of metal; and that the foldably related sections of the bed-frame have applied thereto a flexible bed-bottom or wire-fabric adapted to fold with the bed-frame, the parts of the structure being so related that one portion of the flexible bed-bottom will constitute a seat, or a support for a seat-pad, when the structure is in the folded condition.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a side elevation; Fig. 2, a broken plan view of the same; Fig. 3, a broken plan view showing the structure in couch form; Fig. 4, a vertical sectional view showing the structure in couch form; Fig. 5, a section taken as indicated at line 5 of Fig. 3, but showing the structure surmounted by a seat-pad having skirts which envelop the sides and ends of the couch, the pad, or cover, being shown in dotted lines; Fig. 6, a broken sectional view taken as indicated at line 6 of Fig. 4, and showing the relation of the parts at one end of the structure, in the folded condition of the structure; and Fig. 7, a broken end elevational view illustrating a modification of the main frame, that is a frame of davenport form.

In the construction illustrated, A represents a main frame; and B, a folded bed normally contained or housed in said frame.

In the construction illustrated, the frame A is of angle-bar construction, comprising

end-standards 1, a front longitudinal connecting member 2, and a rear longitudinal connecting member 3. Each end-standard 1 has uprights 4 and a top member 5, which may be of integral formation, if formed by notching an angle-bar and bending the end-portions at right-angles to the intermediate portion, so that the intermediate portion affords the horizontal member 5 and the end-portions afford the uprights, or legs, 4. The longitudinal connecting members 2 and 3 are suitably joined to the legs 4 some distance above the lower ends of the legs, and the end-standards rise a suitable distance above said longitudinal members, so that the upper cross-members 5 are disposed a suitable distance above said longitudinal members. Mounted on said longitudinal members, near the ends thereof, are cross-members 6, which may comprise angle-bars. Upon said bars are mounted front and rear bed-carrying links 7 and 8 respectively, the front or lower ends of the links being connected with said cross-members by pivots 9 and 10 respectively. The top members 5 of the end-standards 1 are equipped near their rear ends with brackets, or rests, 11. Each rest 11 is of L-shape, having an arm 12 secured to the inturned flange of the corresponding cross-member 5, a depending web 13, and an inturned arm 14 adapted to support the free edge of the upper bed-section in the folded condition of the structure.

The folding bed comprises a rear bed-section 15, an intermediate bed-section 16, and a front bed-section 17.

The rear bed-section is of U-form, having a longitudinal member 18 and forwardly-extending arms, or end-members, 19. The intermediate bed-section comprises end-members 20 and a connecting truss 21 which is pivotally connected at its extremities with the members 20. The members 20 of the intermediate bed-section are joined to the front ends of the arms 19 of the rear bed-section by pivots 22. The front bed-section 17 comprises a longitudinal member 23 and end-members, or arms, 24, which are joined to the end-members of the intermediate bed-section 16 by pivots 25. A flexible bed-bottom, or wire-fabric, 26 is connected with the folding frame at all edges of the fabric. Said flexible bed-bottom is adapted to fold with the bed-frame; and when the bed-frame is in the folded condition the portion

of the fabric which is connected with the front bed-section 17 is located in position to serve as a seat, or as a seat-pad support.

The connections between the members 20 of the intermediate bed-section 16 and the arms 19 of the rear bed-section 15 are preferably such as to afford butt contacts when the structure is open. The rear or upper ends of the front links 7 are provided with extensions 27 which are joined, by links 28, to pivots 29 carried by the end-members 20 of the intermediate bed-section. The links 28 serve to actuate the bed-carrying links 7 and 8 in the operation of unfolding the bed, thereby to elevate the rear bed-section. The arms 24 of the front bed-section have connected therewith, by pivots 30, legs 31 which have extensions 32 which are joined by links 33 to pivots 34 with which the end-members 20 of the intermediate bed-section are equipped. The links 33 serve to fold and unfold the legs 31 in the operation of folding and unfolding the bed. At the junction of the front and intermediate bed-sections are connected legs 35. These legs are pivotally joined, and in the illustration given the pivots 25, which serve to connect the arms of the front bed-section to the end-members of the intermediate bed-section, are also employed to support the legs 35. The legs 35 have connected with them, beneath the pivots 25, links 36, whose opposite ends are joined to pivots 37 carried by the extensions 32 of the legs 31, said pivots 37 serving also as a means for connecting the links 33 to the leg-extensions 32. The leg-extensions 32 are offset or bent inwardly edgewise above the plane of the front bed-section 17, as it will be understood from Fig. 1; and the legs 35 are offset below the pivots 25. The purpose is to secure a more compact folding of the legs.

The operation will be readily understood from the foregoing detailed description.

Assuming the structure to be in the open condition shown in Fig. 1, the bed is made up, and the bed-mattress, bed linen and covers are secured to the folding bed-frame. The structure may then be converted from bed-form to sofa-form by lifting on the front edge of the front bed-section 17 and swinging the front bed-section to a position above the rear bed-section, as shown in Fig. 5. In this operation, the links 7 and 8 swing rearwardly and carry the bed-structure rearwardly while the bed is lowered to its proper position within the main-frame. During the folding operation, the legs 31 and 35 are automatically folded, and at the completion of the movement the swinging edge-portion of the front bed-section rests upon or is supported by the brackets 11 mounted on the top members 5 of the end-standards of the main-frame. As shown in Fig. 5, the end-members 20 of the interme-

mediate bed-section assume practically a vertical position, while the truss 21 depends or drops to a position parallel with one side of the couch. In Fig. 5, a bed-mattress 38 is shown in folded condition. The numeral 39 indicates a couch-cover or seat-pad (shown in dotted lines), which is supported on the fabric for a bed-bottom of the front (now upper) bed-section 17. The pad 39 is provided with skirts, or flaps, 40 which depend to the floor and cover the structure.

In converting from couch-form to bed-form, the upper bed-section is swung from the position shown in Fig. 5 to the position shown in Fig. 1, thus extending the bed-sections in the same plane, and unfolding the legs 31 and 35, the links 7 and 8 being actuated through the medium of the links 28 to elevate the rear bed-section.

It will be noted from Figs. 5 and 6, that in the folded condition of the structure, the upper bed-section is substantially flush with the top members 5 of the end-standards of the main-frame, so that the couch-cover will properly cover the structure and form a seat or lounge.

In the modification shown in Fig. 7, A¹ represents a main-frame of the general construction shown in Fig. 1, but equipped with a back 41 and arms 42. This provision converts the main-frame into davenport-form, and it is evident that, since the folding bed moves and unfolds in the forward direction in the operation of converting to bed-form, the back will not interfere with the operation of the structure.

My invention provides a combined sanitary bed and couch. It is simple of construction, easy of operation, and thoroughly durable.

The foregoing detailed description has been given for clearness of understanding only and no undue limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

What I regard as new and desire to secure by Letters Patent, is—

1. In a structure of the character set forth, the combination of a main-frame, bed-carrying links mounted thereon, a folded bed comprising a rear bed-section mounted on said links, an intermediate bed-section pivotally connected with said rear bed-section, and a front bed-section pivotally connected with said intermediate bed-section, legs pivotally connected with the front portion of the front bed-section and linked to one of the other bed-sections, legs pivotally connected with the folding bed-frame structure near the junction of the front and intermediate bed-sections, and links connecting the front legs with the rear legs.

2. In a structure of the character set forth, the combination of a main-frame,

bed-carrying links mounted thereon and adapted to swing forwardly and upwardly, a rear bed-section pivotally connected to said links, the front links having extensions, 5 an intermediate bed-section pivotally connected with the rear bed-section and linked to said extensions, a front bed-section pivotally connected with the intermediate bed-section and equipped with pivotally mounted legs provided with extensions, links con- 10

necting said leg-extensions to said intermediate bed-sections, legs pivotally connected with the folding bed-structure at the juncture of the front and intermediate bed-sections, and links connecting said leg-extensions with said last-named legs. 15

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In presence of—

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R. SCHAEFER.