

Feb. 17, 1953

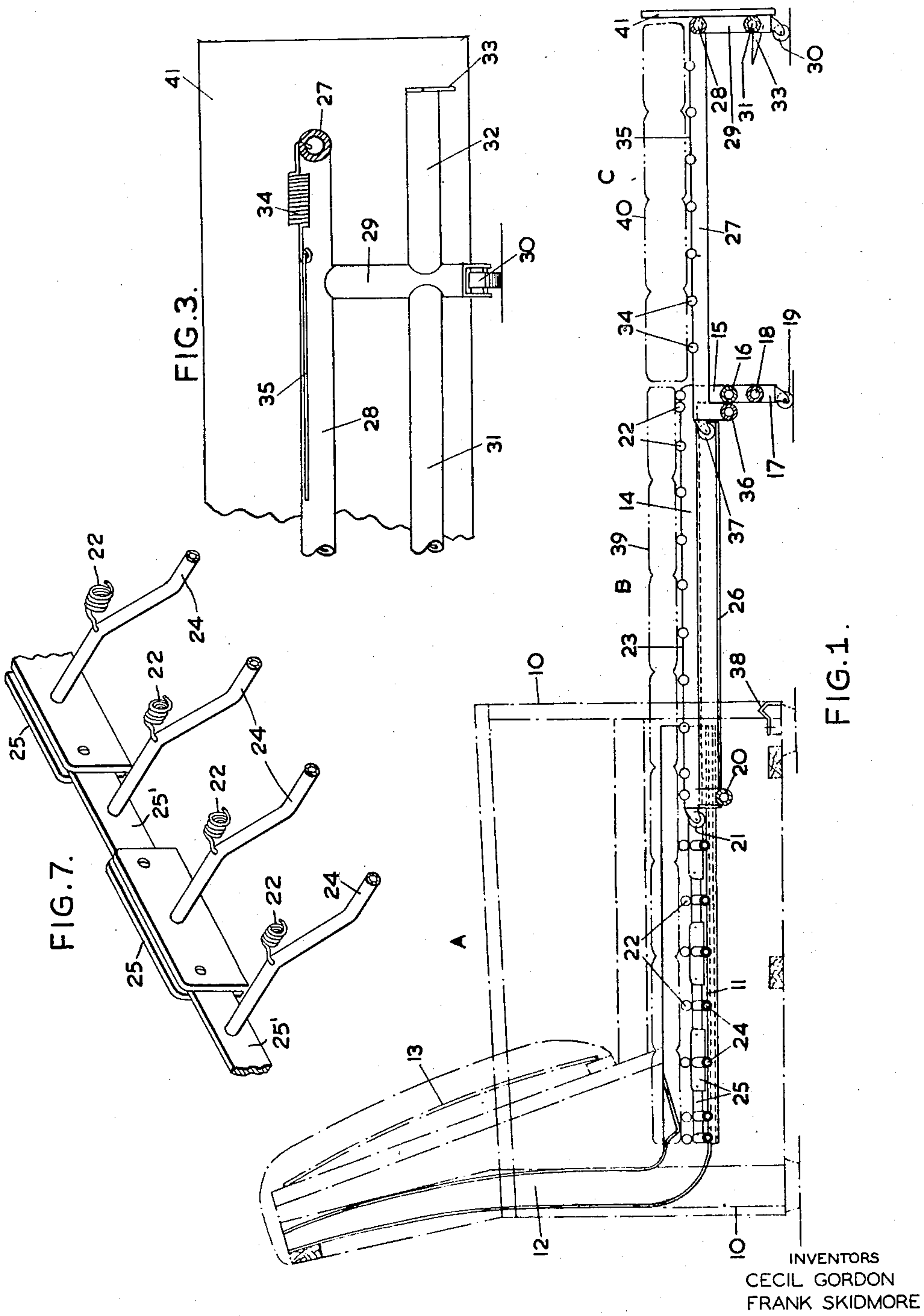
C. GORDON ET AL

2,628,368

BED CHAIR OR BED SETTEE

Filed March 16, 1950

3 Sheets-Sheet 1



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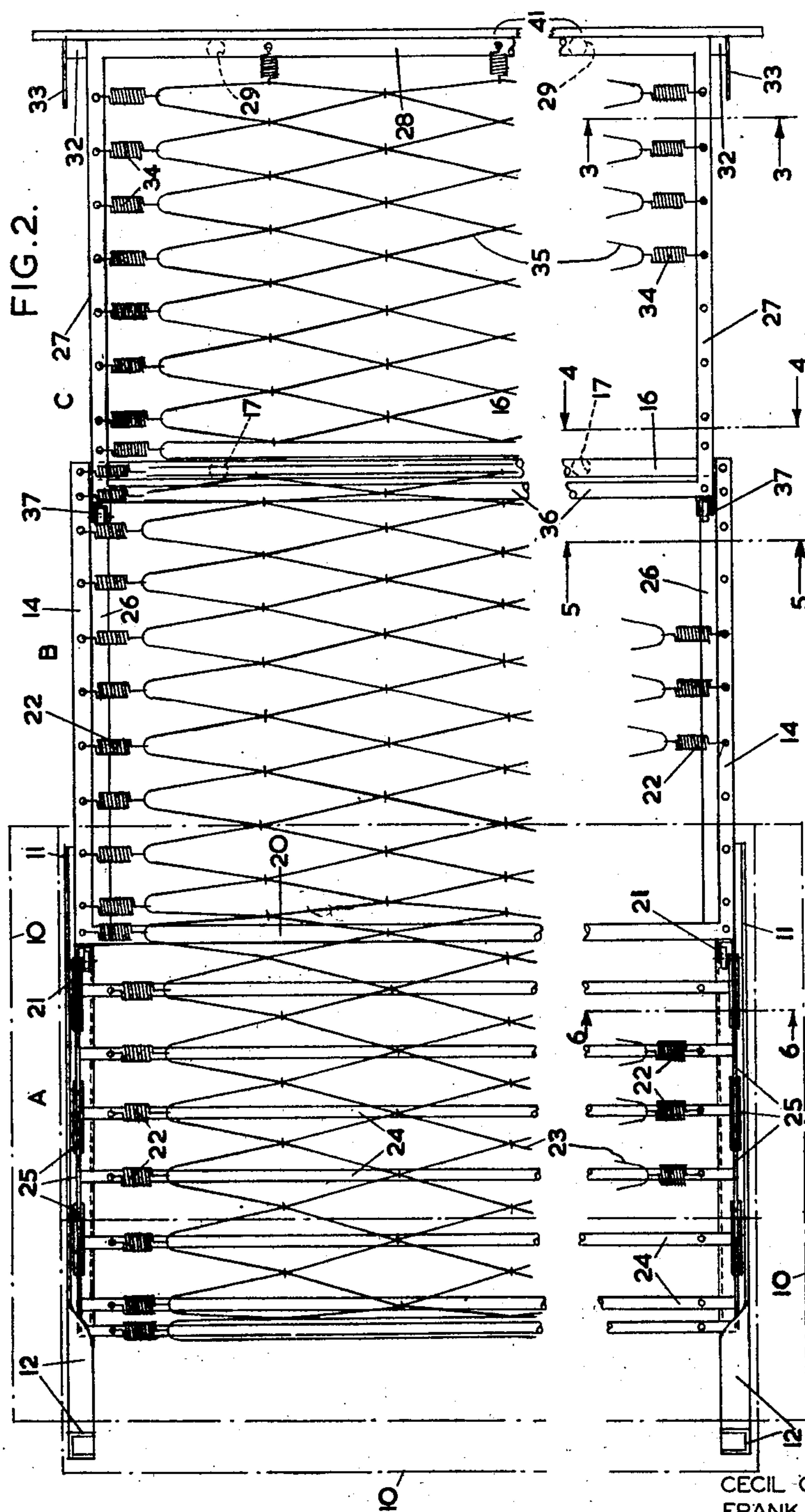
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FIG. 6.

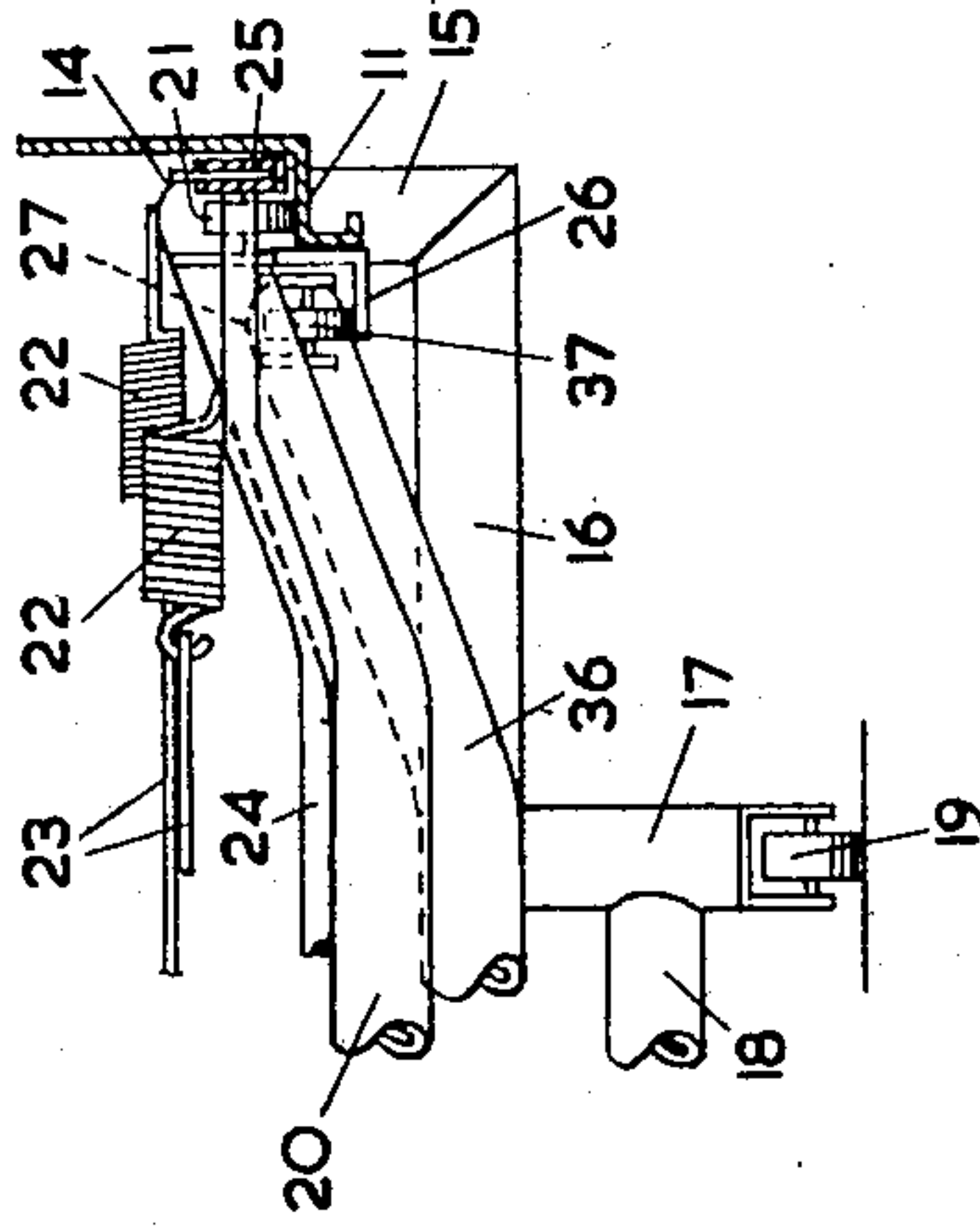


FIG. 5.

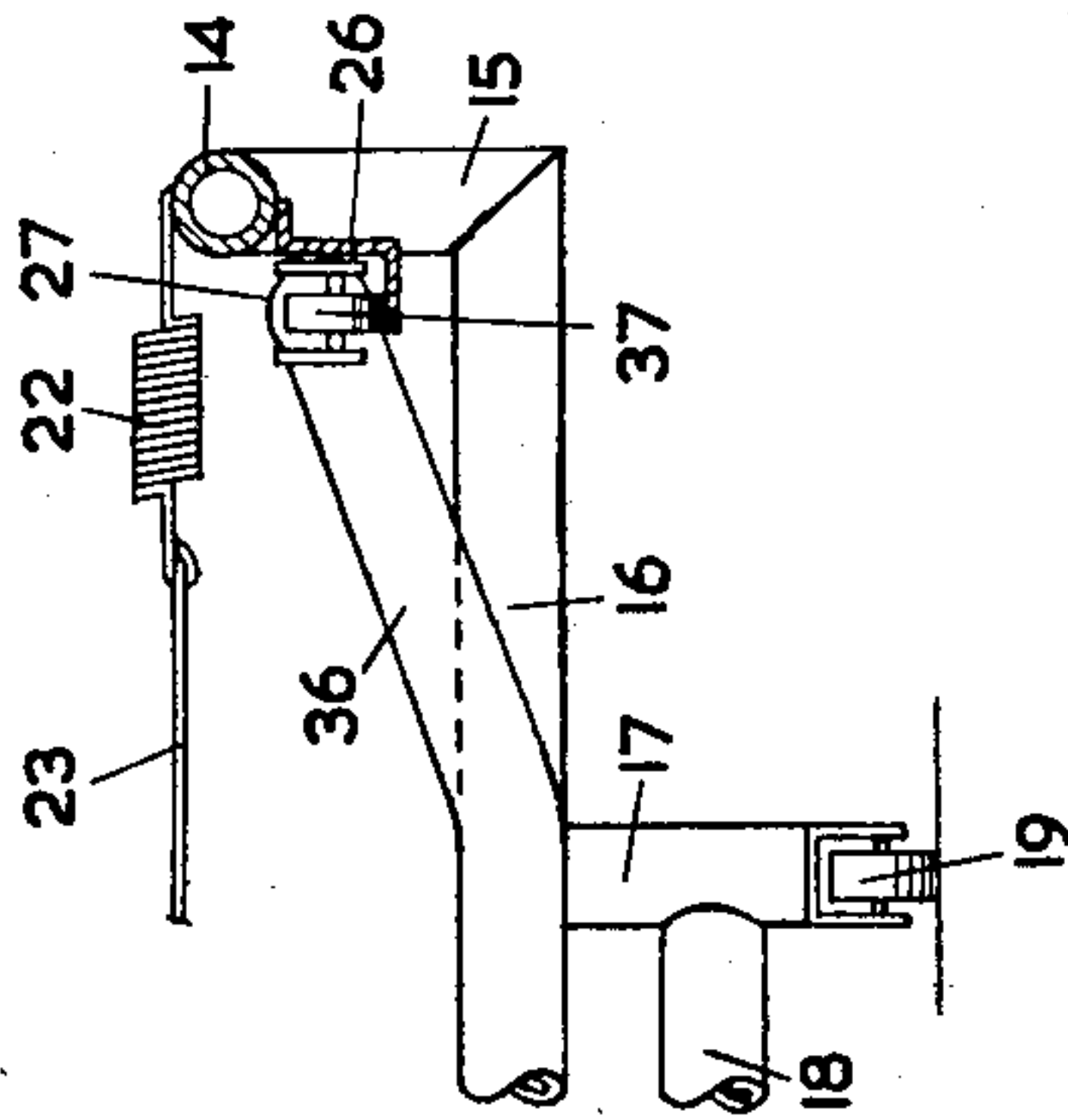
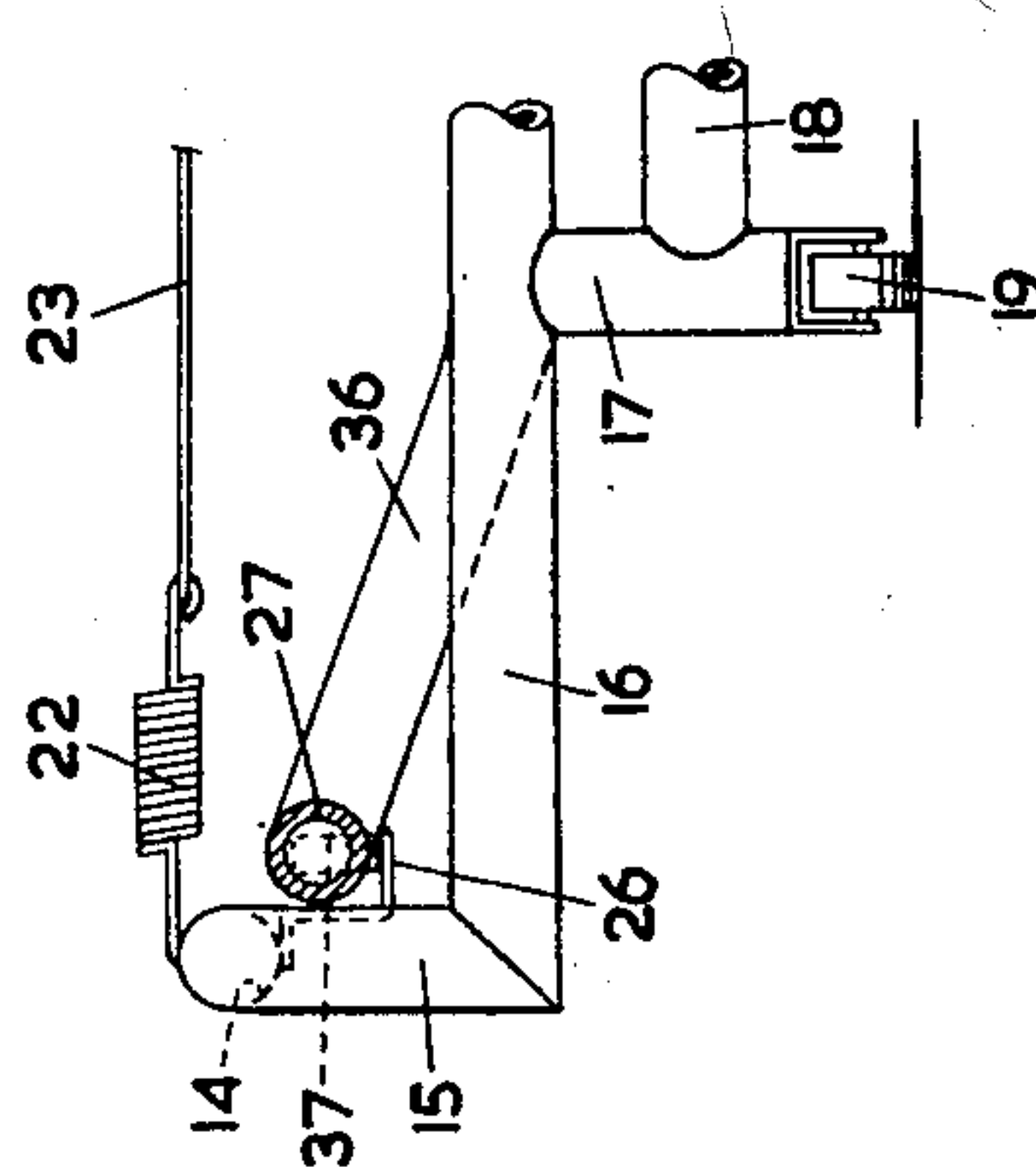


FIG. 4.



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2,628,368

BED CHAIR OR BED SETTEE

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In Great Britain April 14, 1949

4 Claims. (Cl. 5—48)

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This invention relates to bed chairs or bed settees of the type which comprises three sections, one of which is a main or head section, another of which is a forward or foot end section and the third of which is an intermediate section, the sections being relatively movable so that they can occupy positions in which they jointly afford an extended bed, or be collapsed in relation to one another so as to afford a chair or settee, and in which the forward or foot section and the intermediate section have each a spring mattress or the like attached thereto, the arrangement being such that, when the forward or foot section is moved in in relation to the intermediate section, the spring mattress or the like of the forward or foot section passes to beneath that of the intermediate section. The spring mattress or the like of the intermediate section has a rearward extension which is flexible and is slidable on or in guides in the head section, whereby when the intermediate section is moved in in relation to the head section the said rearward extension passes rearwardly and either upwardly into the chair or settee back or downwardly to below the seat of the chair or settee.

In bed chairs or bed settees of this type the spring mattresses or the like have supported one or more upholstered mattresses.

According to the invention, the forward or foot section and the intermediate section each comprises a frame of rectangular form in plan and of tubular construction, the forward end of each being supported by legs and the rear end of each being fitted with wheels, the wheels of the forward or foot section running upon or in guides on the intermediate section and the wheels of the intermediate section running upon or in guides on the head section.

The invention will now be described with reference to the accompanying drawings which show a constructional embodiment, by way of example, and in which:

Fig. 1 is a longitudinal section of a bed settee in the fully extended state for use as a bed.

Fig. 2 is a plan of Fig. 1.

Figs. 3, 4, 5 and 6 are fragmentary sections taken on the lines 3, 3; 4, 4; 5, 5 and 6, 6 respectively of Fig. 2 but drawn to a larger scale for the sake of clearness.

Figure 7 is a fragmentary perspective showing the link construction in detail.

Referring to the drawings, the bed settee is of the type comprising three sections, generally indicated as A, B and C respectively, and which are relatively movable so that they can jointly afford

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an extended bed, as shown, or be collapsed in relation to one another to afford a seat or settee. The first section A is the main or stationary head section and comprises the wooden settee frame 10, whilst the second and third sections B, C comprise tubular metal frames of rectangular form in plan and with supporting legs at their forward edges, C being a forward or foot end section and B being an intermediate section.

The main or head section A is provided on the inner faces of its side walls with confronting angle guides 11 which extend horizontally from the front and at their rear ends lead to upswep confronting channel guides 12 extending up within the sides of the settee back almost to the top thereof and to the rear of and spaced away from the spring surface 13 upon which the backrest upholstery is secured.

The frame of the intermediate or second section B comprises two tubular side members 14 having at their forward ends, downwardly directed extensions 15 which, at their lower ends, are interconnected by a cross bracing tube 16, and the upper ends of leg tubes 17 are welded to this cross tube 16. The legs 17 are braced by a cross tube 18 and are fitted, at their lower ends, with castor wheels 19. The rear ends of the side tubes 14 are interconnected by a cross tube 20 which has cranked or offset extremities, to carry its straight centre portion at a somewhat lower level, and said rear ends are fitted with brackets carrying wheels or rollers 21 which run on the inwardly directed flanges of the angle guides 11 and thereby support the rear end of the section B.

The side members 14 are formed with a series of holes, spaced apart in their length and on the upper parts, which afford anchorages for the helical tensioning springs 22 of a wire mesh mattress supporting means 23 which has an extension rearwardly beyond the cross bracing tube 20. The wire mesh of this mattress supporting means extension is tensioned by its corresponding helical tensioning springs 22 being anchored to the opposite cranked end portions of transverse rods or tubes 24, the centre portions of which afford a clearance below the wire mesh, and the rods or tubes 24 are maintained in spaced relation by being connected at their ends to rigid links 25 which are pivotally connected together in end to end relation to form flexible linkages, one at each side, which linkages ride upon the inwardly directed flanges of the angle guides 11. Alternate links in each flexible linkage are plain metal strips 25' arranged on edge, and the links 25 between them are of narrow channel section,

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whilst each link is pivoted centrally to an end of one of the rods or tubes 24. The foremost links of the two flexible linkages are pivotally connected to the spindles of the wheels or rollers 21 on the section B. The arrangement is such that when the intermediate section B is pushed rearwardly into the main or head section A, the flexible linkages ride up the channel guides 12, to carry the rearward extension of the mattress 23 into the space behind the back rest upholstery, and the wheels 21 travel to the rear ends of the angle guides 11.

Welded to the undersides of the tubular side members are longitudinally disposed sheet metal guides or trackways 26 having inwardly directed flanges.

The forward or foot section C comprises side tubes 27 interconnected at their forward ends by a cross tube 28 to which are welded depending tubular legs 29 fitted with castor wheels 30 and braced by a cross tube 31. Short laterally projecting tubes 32, carrying rearwardly directed catch plates 33 at their outer ends, are welded one to each leg 29. The side tubes 27 are perforated to form anchorages for tensioning springs 34 of a wire mesh mattress 35, and the rear ends of the tubes 27 are interconnected by a cross tube 36 with a depressed centre portion. Also the rear ends of the side tubes 27 are fitted with brackets carrying wheels or rollers 37 which run on the inwardly directed flanges of the guides 26 on the section B. The side tubes 27 of the forward section C extend over the cross bracing tubes 16 of the section B, and the centre portion of the cross tube 36 of section C is to the rear of and in the same horizontal plane as the cross tube 16 of section B, so that these tubes co-operate as stops to prevent complete horizontal separation of the sections B, C when the latter section is drawn out to its extended position. When the sections B, C are pushed rearwardly into the section A, the wheels 37 run on the guides 26 and the mattress supporting means 35 passes below the mattress supporting means 23. In the fully closed or collapsed state, the catch plates interlock with fixed catch plates 38 in the section A to retain the sections in position. By lifting the foot end of the section C slightly the catch plates 38 can be disengaged to allow the sections C, B to be drawn forward into their extended positions.

When extended as a bed the wire mattress supporting means 23 supports an upholstered mattress 39 and the mattress 35 supports a seat cushion 40. When the sections B, C are pushed rearwardly, the seat cushion 40 is first removed and the mattress 39 is moved rearwardly by the section B. The rear half of the mattress 39 is carried up, by the rearward extension of the wire mattress supporting means 23, into the space behind the back rest upholstery, whilst finally, the seat cushion 40 is placed on the forward half of the mattress 39. The foot section C, as shown, may carry a foot board 41 the upper portion of which will cover the front edge of the mattress 39 when the sections B, C, are pushed fully into the section A, said board then serving also to hide the legs and frames of the sections B, C.

The application of the invention to a bed chair would be the same as above described, except that the widths of the three sections would be less.

Having fully described our invention, what we claim and desire to secure by Letters Patent is:

1. A bed settee comprising a frame, with an upwardly and rearwardly sloping back rest, L-shaped guideways behind and below said back

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rest and supported by said frame on opposite sides thereof, a first spring section including side members of pivotally connected links of a total length substantially that of the horizontal portion of the L-shaped guideways, rod means extending between corresponding links of said side members for maintaining said links in substantially equally spaced relation, mattress supporting means above said rod means, a second spring section extending forwardly from said first spring section, said second section having side members connected to forward links of said first section, said side members having trackways thereon extending longitudinally thereof, spring means connected to said side members for supporting a mattress thereon, a third spring section extending forwardly from said second section and having side tubes with rollers on the rearward ends of the side tubes engageable with the trackways of said second section, means for maintaining said side tubes in spaced apart relation, mattress supporting means supported from said side tubes, and downwardly extending legs on the forward ends of said second and third sections for supporting the sections above a supporting surface, said sections being extensible to form a bed and being movable to stored position by said third section being slideable below said second section, said third section and second section being movable to form the seat portion of the settee and said first section being slidably into stored position behind the back rest and on the upstanding portions of the L-shape guideways.

2. A bed and seat comprising a frame with an upstanding back rest, opposed L-shaped guideways behind and below said back rest mounted on said frame with the upstanding portion of the guideways being behind said back rest and supported by said frame in spaced apart relation a distance substantially the width of the seat, a first spring section including side members arranged in spaced apart relation, each of said members having a plurality of connected links of a total length approximately that of the horizontal portion of the L-shaped guideways, rod means extending between corresponding links of said side members for maintaining said links in substantially equally spaced relation for proper co-action with said guide ways, mattress supporting means above said rod means, a second spring section extending forwardly from said first spring section, said second section including side members arranged in spaced apart relation connected to the forward links of said first section, means to maintain said side members of said second section in spaced apart relation, trackways on said side members of said second section, mattress supporting means mounted on said side members of said second section, a third spring section extending forwardly from said second section, said third section including side members arranged in spaced apart relation and slideable in the trackways of said second section, means for maintaining said side members of said third section in spaced relation, and mattress supporting means on said side members of said third section below the mattress supporting means of said second section, and downwardly extending legs on the forward ends of said second and third sections for supporting the sections above a supporting surface, said sections being extensible to form a bed and being movable to a stored condition with said third section slideable below said second section and said third and second sections forming the seat portion, said

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first section being slideable into stored position behind the back rest and on the upstanding portions of the L-shaped guideways.

3. A bed and seat comprising a frame, an upstanding back rest on said frame, opposed L-shaped guideways behind and below said back rest mounted with the upstanding portions of the guideways behind said back rest, said guideways being maintained in spaced relation a distance substantially the width of said seat, a first spring section including side members arranged in spaced apart relation, each of said side members including a plurality of connected links of a total length approximately that of the horizontal portion of the L-shaped guideways, rod means extending between corresponding links of said side members for maintaining said links in substantially equally spaced relation for proper co-action with said guide ways, mattress supporting means above said rod means, a second spring section extending forwardly from said first spring section, said second section including side members arranged in spaced apart relation connected to the forward links of said first section, rollers mounted on the rear end of each of said side members of said second section for supporting said second section from said guideways, means to maintain said side members of said second section in spaced apart relation, trackways on said side members of said second section, mattress supporting members mounted on said side members of said second section, a third spring section extending forwardly from said second section, said third section including side members for supporting said third section on the track-

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way of said second section, means for maintaining said third section side members in spaced relation, mattress supporting means on said third section below the mattress supporting means on said second section, downwardly extending legs on the forward ends of said second and third sections for supporting the said sections above a supporting surface, said sections being extensible to form a bed and being movable to a stored position with said third section slideable below said second section and said second and third sections in stored position forming the seat portion, said first section being slideable into stored position behind the back rest and on the upstanding portions of the L-shaped guide ways.

4. The invention according to claim 3 in which the links are alternately of channel shape cross section and flat cross section and said channel shaped links and flat links form the side members of the first sections.

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FRANK SKIDMORE.

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