May 9, 1933. B. B. ENGLANDER 1,907,526

EXTENSIBLE TWIN DAY BED

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Fig. 2.

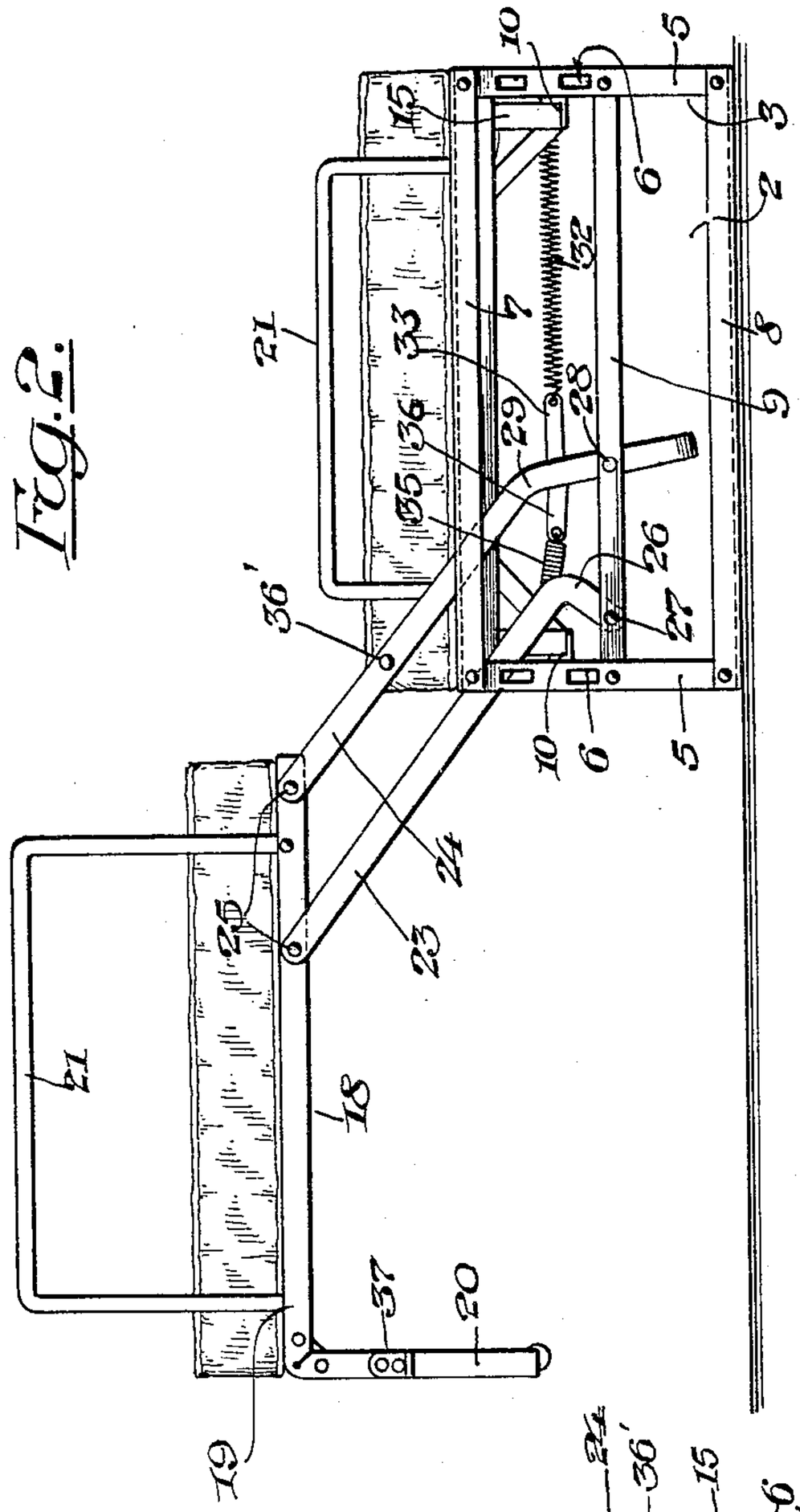


Fig. 3.

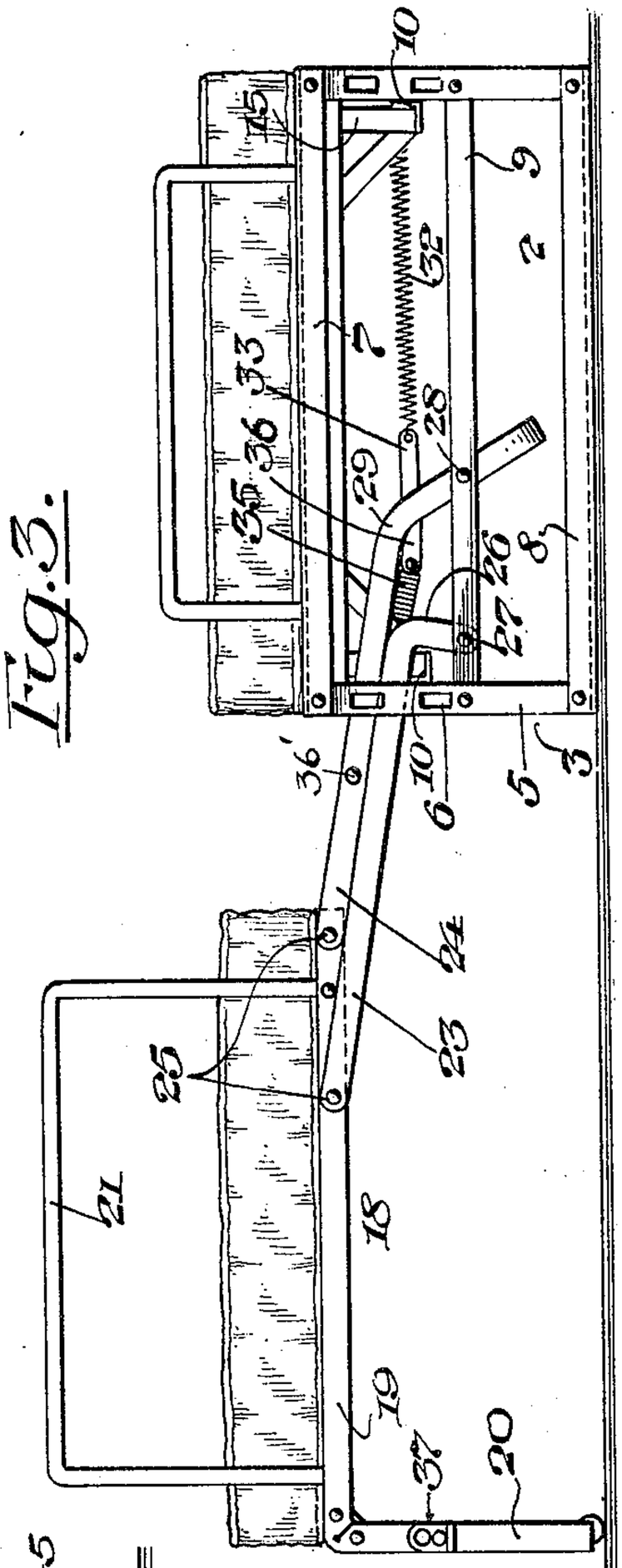
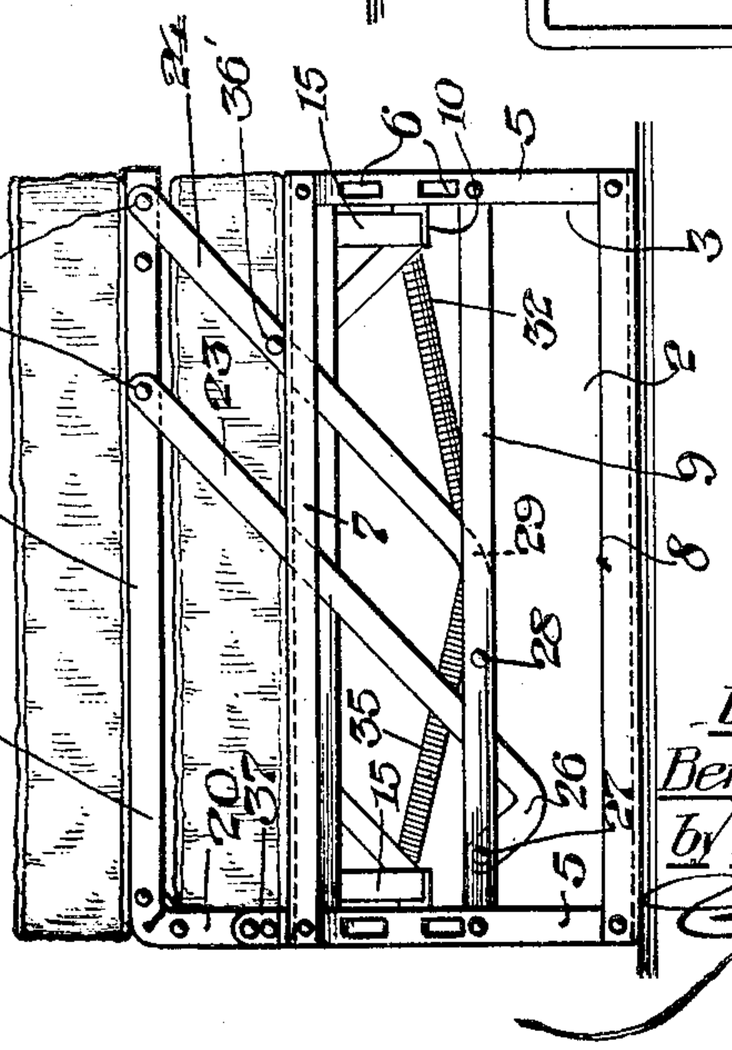


Fig. 1.



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EXTENSIBLE TWIN DAY BED

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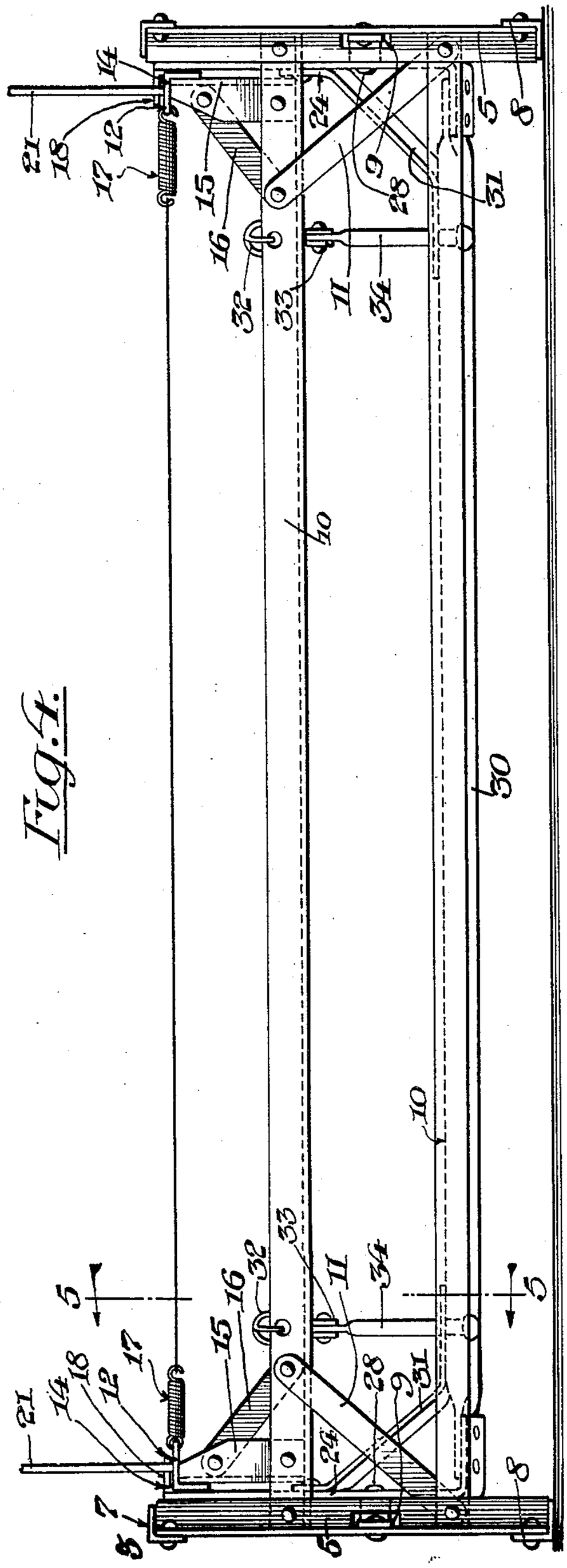

Fig. 1.

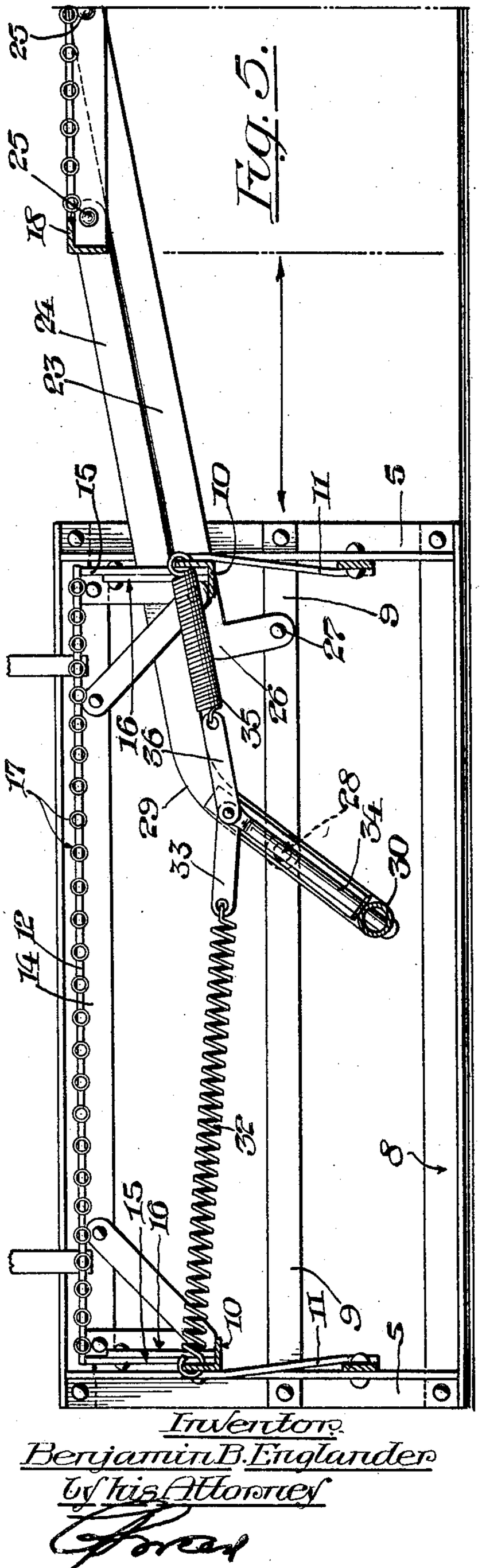

Fig. 2.

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EXTENSIBLE TWIN DAY BED

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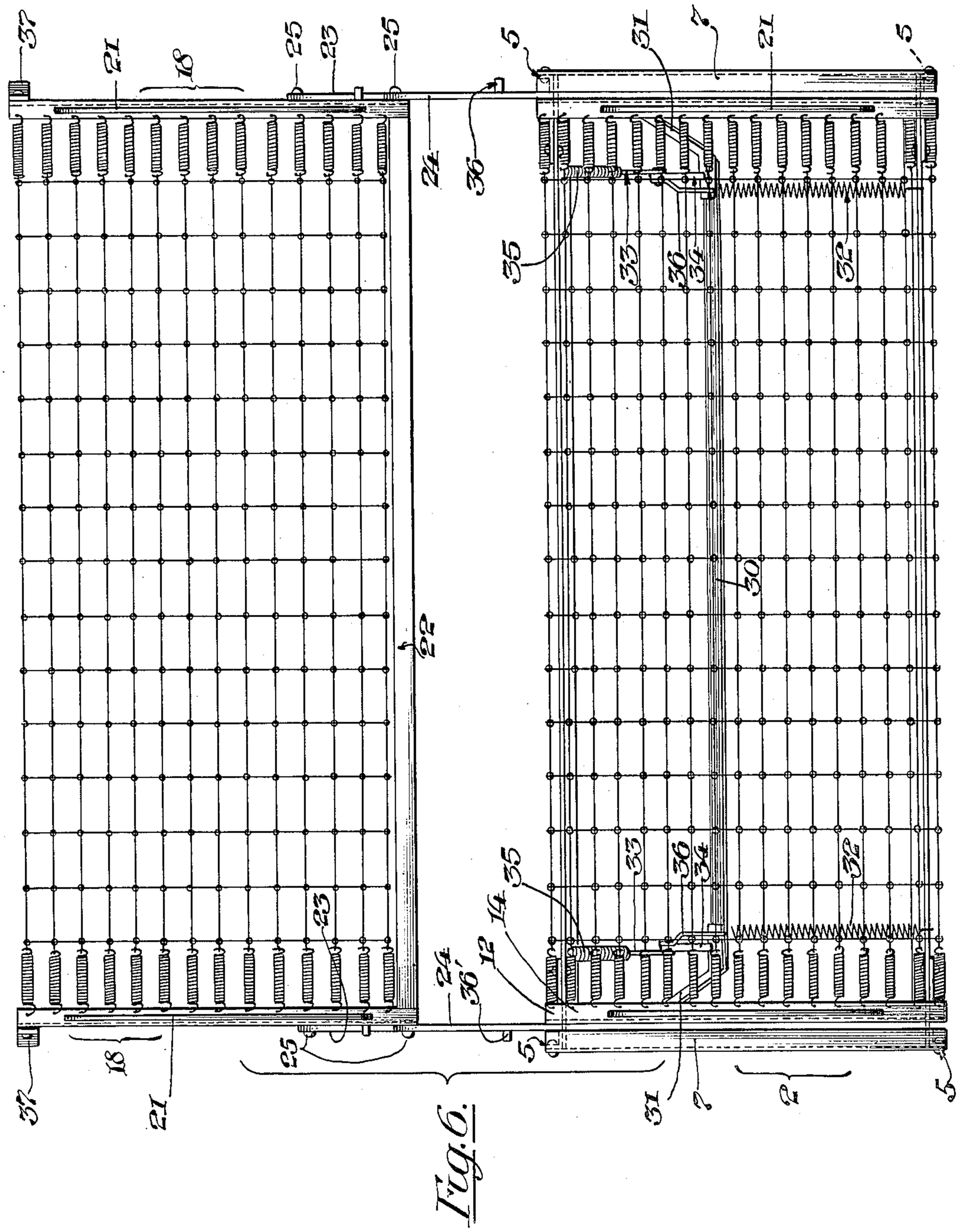

Fig. 6.

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Patented May 9, 1933 1,907,526

UNITED STATES PATENT OFFICE

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EXTENSIBLE TWIN DAY BED

Application filed December 15, 1927. Serial No. 240,109.

This invention relates to beds, the object of the invention being to provide an improved extensible twin bed of simplified form in which the beds are linked together so as to be superimposed one upon the other to form a day bed, with ample space therebetween for the mattress and bed clothing of the under bed and an ample passageway between the beds when extended to permit the proper manipulation and tucking in of the bed clothing at the inner sides of the beds.

A further object of the invention is the provision of a twin day bed simple in construction, comparatively inexpensive to make and easily operated, the extensible section of which is so connected with the main section that the inner side thereof is not only efficiently supported by the main section but at a considerable distance from the main section, whereby ample passageway is obtained for the making up of the beds on the inner sides thereof, and in which also the connecting or linkage means between the beds is located inside of the ends of the main bed section, whereby not only is a more presentable appearance obtained, but there is less liability of injury to the person or damage to the clothes of the operator of the bed.

I am aware that various forms of what is commonly called "double beds" have been patented, in which one section slides relatively to its companion section, or one section folds upon its companion section, but these beds are not twin beds in the commonly accepted meaning of this term, in which the occupants are entirely separated so that the restlessness of one cannot disturb the other, but are simply double beds, in which the inner side of one rests upon or is directly supported by the inner side of the other and, therefore, requires the occupants to sleep side by side and the use of double-width bed clothing, it not being practical to use therewith or tuck in single-width bed clothing, and the object of the present invention is the provision of an extensible twin bed in which the supporting means for the extensible section is in the form of linkage connections so constructed, organized and located that the extensible section will be connected with the main bed by a simplified form of linkage connections and yet it will be effectively supported when in extended position by the main bed but with an ample passageway therebetween to permit the bed clothing to be manipulated from the inner sides of the sections and yet notwithstanding this spaced distance apart of the two sections, the beds will close in such manner that the extensible section will rest upon the top of the main section so as to present a day bed or couch appearance when in use and yet have ample space between the springs of the two sections to house the bedding of the main section.

The construction of this twin day bed is such that either flat springs of various forms, such as of linkage form or woven wire, or spiral springs, or a box form of mattress may be used. In Figs. 1 to 3 the box form of spring is shown and in Figs. 4 to 6 a flat spring is shown.

In the drawings accompanying and forming a part of this specification:

Figure 1 is an end view of this improved twin bed in its closed position;

Fig. 2 is an end view thereof, partly open;

Fig. 3 is an end view of the beds in their extended or open position;

Fig. 4 is a side view of the main bed;

Fig. 5 is a cross-sectional view of the main bed taken on line 5—5, Fig. 4 and looking in the direction of the arrow, and

Fig. 6 is a top view of this improved twin bed in its extended position.

Similar characters of reference indicate corresponding parts in the several views.

Before explaining in detail the present improvement and mode of operation thereof, I desire to have it understood that the invention is not limited to the details of construction and arrangement of parts which are illustrated in the accompanying drawings, since the invention is capable of other embodiments, and that the phraseology which I employ is for the purpose of description and not of limitation.

This improved extensible twin day bed in the preferred form thereof shown comprises a main bed or section 2, consisting of a pair of end supporting frames 3, each made up in

the present instance of a pair of angle-iron legs 5 having slots 6 for the reception of the hooks of suitable ornamental heads which may be used. The legs of each pair are connected at their tops and bottoms by angle-iron cross-bars 7 and 8 and midway of their lengths by a cross-brace 9 and these main end frames are also connected lengthwise thereof by suitable side bars 10 which are also connected to the end frames by suitable diagonal braces 11. The side bars are shown of angle-iron formation and supported thereby adjacent to these end frames, but spaced inwardly therefrom are a pair of supplemental end frames 12 each comprising a top cross-bar 14 and a pair of depending members or legs 15 riveted or bolted to the side bars and also diagonally braced therefrom, as by braces 16. These supplemental end frames 12 support the spring 17 of whatever form is used. Thus between the main end frames 3 and the supplemental end or spring supporting frames 12, a clearance space is formed for the linkage levers hereinafter referred to. The extensible bed or section likewise comprises a pair of end frames 18 preferably of angle-iron, each consisting of a transverse or cross-bar 19, and a depending leg 20 at its outer side, and in some forms thereof this extensible section may be provided with suitable headrests or extensions 21. These end frames are connected by suitable side bars 22 and support the spring of whatever form is used.

To properly support the extensible section from the main section and permit the swinging thereof into an extended or closed position relatively to the main section, a pair of parallel links or levers 23 and 24 are provided at each end of the sections, these levers being pivotally connected to the outside of the cross bar 19 of the extensible section with their pivots 25 in alinement. The lower ends of these levers are bent, the lever 23 being bent at a right angle as at 26 and pivotally connected at its end 27 to the inside of the intermediate brace 9 of the main section while the other lever 24 is bent at a greater angle than a right angle and likewise pivotally connected as at 28 intermediate the length of the bent portion thereof as at 29 to the inside of the brace of the main section, the pivots 27 and 28 of the two links being in alinement, whereby these levers are parallely spaced. Both of the levers 24 extend below the braces 9 and are connected together below these braces 9 by a lengthwise extending bar 30 which may be formed integral with or riveted to the levers 24 and this lengthwise extending bar 30 is in turn connected at each end by a diagonal brace 31 with the levers 24.

For assisting in the closing and opening of the extensible bed two pair of springs are provided, one 32 of each pair being connected with one side of the main section, as one of the side bars, and with a pivoted link 33 pivotally connected to a bolt 34 carried by the lengthwise extending bar 30 while the other spring 35 of the pair is connected to the opposite side bar of the main section and to a bent link 36 also pivotally connected to the bolt 34, whereby the weight of the extensible section in closing or opening will be largely compensated for by these springs.

The linkage levers are so located and pivotally connected to the bed sections that when the extensible section is extended, one lever 24 will rest upon the other 23, and thus effectively support the inner side of the extensible section in its extended position, the legs thereof supporting the outer side of the extensible section. The link levers 24 are provided with suitable stop pins 36′ which act both as stops to engage the transverse cross bars 7 of the main section and thus limit the closing movement of the extensible section and also to support the inner side of the extensible section at a spaced distance from the top of the main section.

The legs of the extensible section are provided with angle-iron rests 37 at a spaced distance below the tops thereof, which, when the extensible section is closed, rest upon the cross-bars 7 of the main section and together with the stop pins 36′ effectively support the extensible section at the desired spaced distance above the main section for the housing of the mattress, when a box mattress is used, and the bed clothing of the main section.

It will be observed that by reason of the construction of the link levers 24 wherein they extend below their pivotal connection with the main section and connected at their lower ends by a lengthwise bar carrying the spring connected bolts, that this portion of the link levers acts as a counterbalancing means for the extensible section and together with the springs, very much facilitate the shifting of the extensible section and relieve the housewife of the weight thereof in manipulating the extensible section. It will also be seen that the linkage levers 23 and 24 project between the supplemental end frames 12 and the main end frames 3 and are on the inside of the main end frames and thus out of the way, so that any danger of catching in the clothes of the housewife or injuring her hands is avoided, while a more presentable twin bed is obtained.

By reason of the combined spring and counterbalanced construction and the location of the springs in the manner set forth, the extensible section may be easily manipulated, and by reason of the construction and location of the parallel links, the extensible section is spaced just the proper distance above the main section to house the bedding thereof, while in its extended position, an ample passageway is provided to permit the

manipulation of the bed clothing at the inner sides of both bed sections.

It is to be understood that by describing in detail herein any particular form, structure or arrangement, it is not intended to limit the invention beyond the terms of the several claims or the requirements of the prior art.

Having thus explained the nature of my said invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I claim:

1. An extensible twin bed comprising a main bed section having a pair of spaced, stationary, permanently connected, end frames at each end forming a clearance space therebetween, the outer frames at each end being connected by side bars and the other frames supporting a spring, said frames having their tops at substantially the same level, an extensible bed section connected to the main section to have the inner side thereof supported by the main section at an ample distance therefrom to provide a passageway therebetween when in extended position and also supported by the main section in superposed position when closed with sufficient space therebetween to receive the bedding of the main section, and parallel levers connecting said sections at each end with the levers located in the clearance space between the end frames thereof.

2. An extensible twin bed comprising a main bed section having a pair of spaced, stationary, permanently connected, end frames at each end forming a clearance space therebetween, the outer frames at each end being connected by side bars and the other frames supporting a spring, said frames having their tops at substantially the same level, an extensible bed section connected to the main section to have the inner side thereof supported by the main section at an ample distance therefrom to provide a passageway therebetween when in extended position and also supported by the main section in superposed position when closed with sufficient space therebetween to receive the bedding of the main section, and parallel levers connecting said sections at each end with the levers located in the clearance space between the end frames thereof, said levers being pivotally connected to the inner sides of a pair of the end frames of the main section.

3. An extensible bed comprising a main bed section having main end frames and spring-carrying supplemental end frames spaced inwardly from the main end frames thereof, side bars connecting the main end frames, a swinging extensible bed section, and linkage connections pivotally connected with said sections and located between the end and supplemental frames of the main section, the frames at each end of the bed being spaced apart with tops substantially level and the linkage connections being between the frames at each end of the bed, said frames forming a guide-way for said connections.

4. An extensible twin bed comprising a main bed section, a swinging extensible bed section spaced, when in extended position, an ample distance from the main section to form a passageway therebetween, said main section having spaced main and supplemental end frames, the latter being supported between the main end frames, side bars connecting the main end frames, parallel linkage connections at each end pivotally connected with the extensible section and with the main section between the main and supplemental frames thereof, a counterbalancing bar connected to part of said linkage connections at each end of the bed, upstanding bolts on said bar and springs connected with said bolts and main section for facilitating the shifting of the extensible section.

5. An extensible twin bed comprising a main bed section, a swinging extensible bed section spaced, when in extended position, an ample distance from the main section to form a passageway therebetween and from the main section, when in closed position, to form a bedding space, and each having end frames, said extensible section having a leg at each outer end provided with a rest, and parallel linkage connections pivotally connected to the main and extensible sections at each end thereof, one of said linkage connections carrying a stop, said rest and stop being in position to engage the main section at the top and space the sections apart when in superposed position.

6. An extensible twin bed comprising a fixed main bed section, a swinging extensible bed section spaced, when in extended position, an ample distance from the main section to form a passageway therebetween and from the main section when in closed position, to form a bedding space, the main section having spaced apart frames at each end with their tops at substantially the same level, and parallel linkage connections at each end and comprising a pair of levers, one of each pair bent at substantially a right angle and the other at an angle greater than a right angle, and both having their angular portions pivotally connected to the main section, between the frames at each end thereof.

7. An extensible twin bed comprising a fixed main bed section, a swinging extensible bed section spaced, when in extended position, an ample distance from the main section to form a passageway therebetween and from the main section when in closed position, to form a bedding space, the main section having spaced apart frames at each end with their tops at substantially the same level and

parallel linkage connections at each end and comprising a pair of levers between the frames at each end, one of each pair bent at substantially a right angle and the other at an angle greater than a right angle, and both having their angular portions pivotally connected to the main section at the forward side of the longitudinal axis of the main section and to the rearward side of the longitudinal axis of the extensible section.

8. An extensible twin bed comprising a fixed main bed section, a swinging extensible bed section spaced, when in extended position, an ample distance from the main section to form a passageway therebetween and from the main bed, when in closed position, to form a bedding space, the main section having spaced apart frames at each end with their tops at substantially the same level, and parallel linkage connections at each end of the bed and pivotally connected to the extensible section and to the inside of the end frames of the main section and comprising a pair of levers, said levers being disposed between the frames at each end of the bed, one of each pair bent at substantially a right angle and pivotally connected at the end thereof to the main section and the other bent at an angle greater than a right angle and pivotally connected to the main section intermediate the length of such bent portion.

9. An extensible twin bed comprising a main bed section, a swinging extensible bed section spaced, when in extended position an ample distance from the main section to form a passageway therebetween and from the main section when in closed position, to form a bedding space therebetween, said main section having frames at each end, said main section having a pair of supplemental frames spaced inwardly from its said end frames for supporting a spring, longitudinal bars connecting the first-named end frames, a pair of parallel linkage connections at each end of the bed and pivotally connected with the extensible section and the main section in position between the first-named and supplemental end frames, whereby they are located on the inside of the first-named end frames of the main section, said extensible section having a leg at each end provided with a rest, one of each pair of linkage connections carrying a stop, said rest and stop being in position, when the bed sections are superposed, to engage the top of the main section and space the extensible section thereabove.

10. A twin bed comprising a main section and an extensible section, the main section having spaced apart frames at each end with their tops substantially at the same level, the linkage connections between the said frames at each end of the bed and pivotally connecting the sections, the extensible section having a leg at each end with a rest at its side and the linkage connections carrying a stop, the rest and the stop being adapted to engage the top of the main section at the ends to support the extensible section above the main section, a bar connecting the ends of part of the linkage connections at the two ends of the bed and swinging therewith, upstanding bolts carried by said bar and springs connecting the bolts to the sides of the main section.

11. A folding twin-bed comprising a main section with main end frames and longitudinal connecting bars, a supplemental frame within the main frame at each end of said section supported on said bars, an extensible section, and levers secured to the main section between the frames at each end thereof and to the ends of the extensible section, one of the levers having a projecting stud and the extensible section a leg with a projecting rest, said rest and said stud engaging the top of the main section at each end to hold the extensible section when folded, in elevated position above the main section.

12. The twin-bed according to claim 6, wherein the levers at each end come into contact when the extensible section is extended and support one end thereof.

13. A bed comprising an extensible section and a main section, connections comprising links at each end to pivotally unite said sections, a bar at the lower ends of said links, diagonal braces connecting the ends of the bar to the links, projecting bolts carried by said bar and springs connecting said bolts to the sides of the main section.

14. A twin bed comprising a main section and an extensible section, the main section comprising a frame at each end, longitudinal bars connected to said frame, and a supplemental frame at each end supported on said bars and spaced from the adjacent main frame and linkage connections between the sections mounted to swing in the space between the main and supplemental frames.

Signed at Brooklyn, New York, this 13th day of December, 1927.

BENJAMIN B. ENGLANDER.