

898,981.

J. LUPPINO.
SLIDING COUCH BED.
APPLICATION FILED MAY 9, 1908.

Patented Sept. 15, 1908.
2 SHEETS—SHEET 1.

FIG. 1.

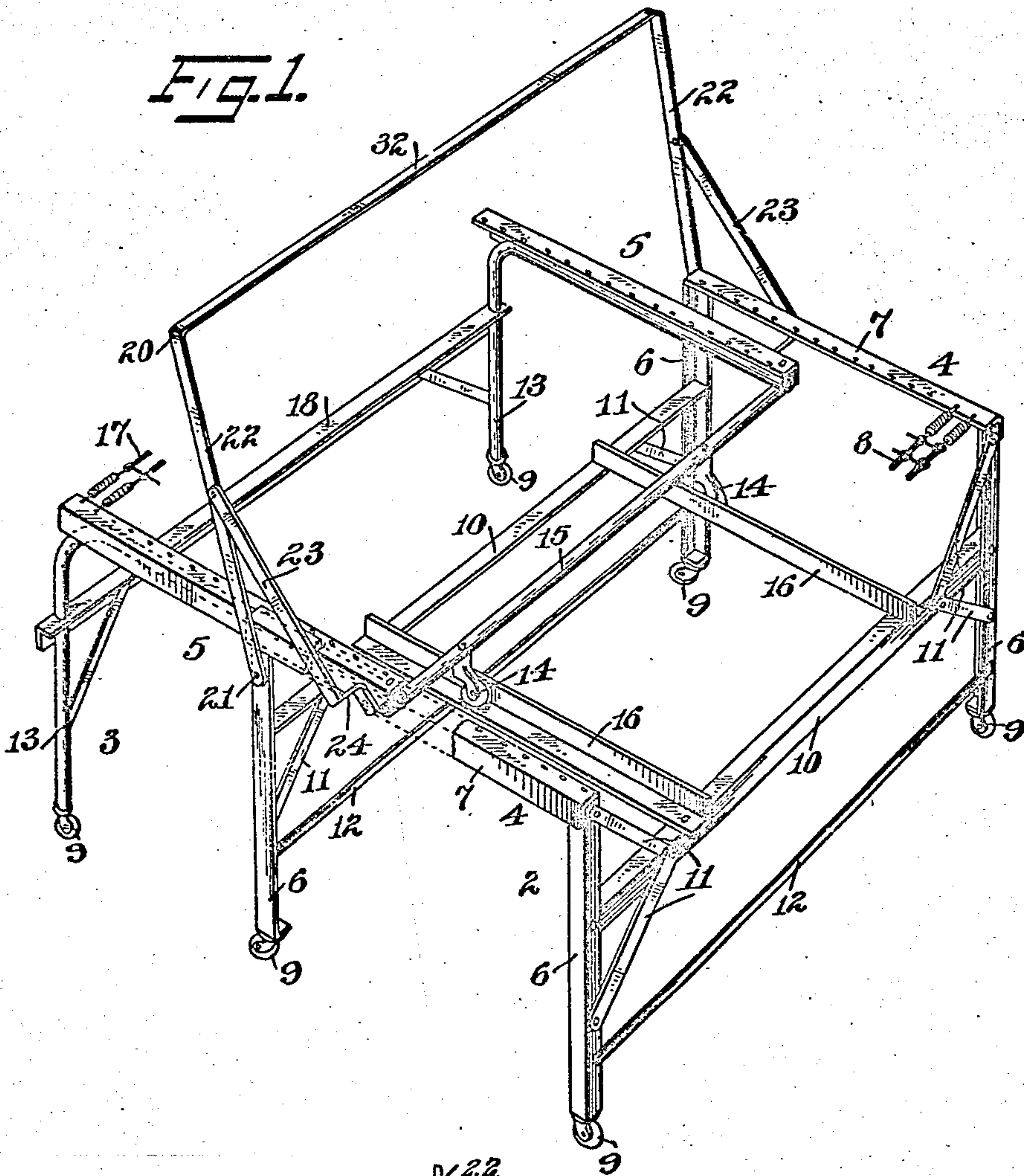
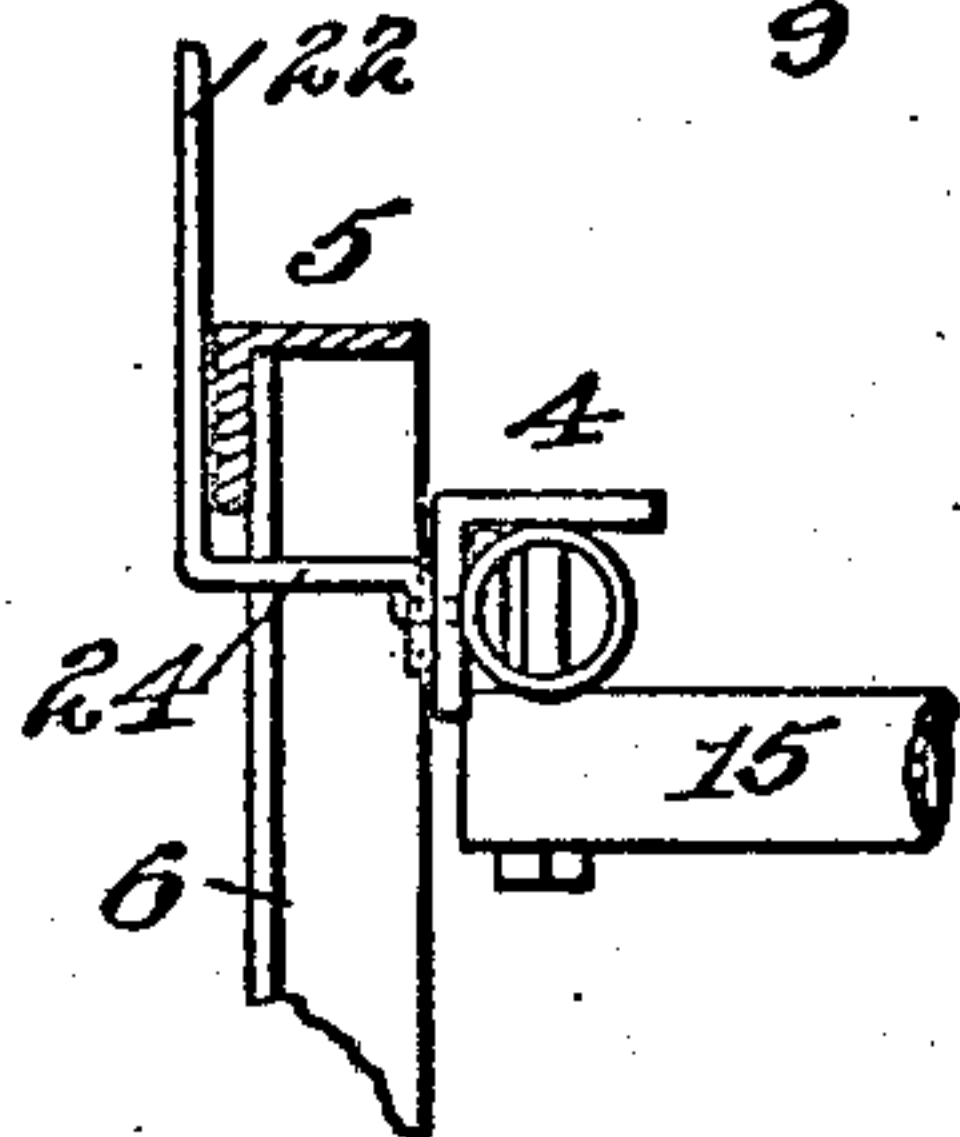


FIG. 2.

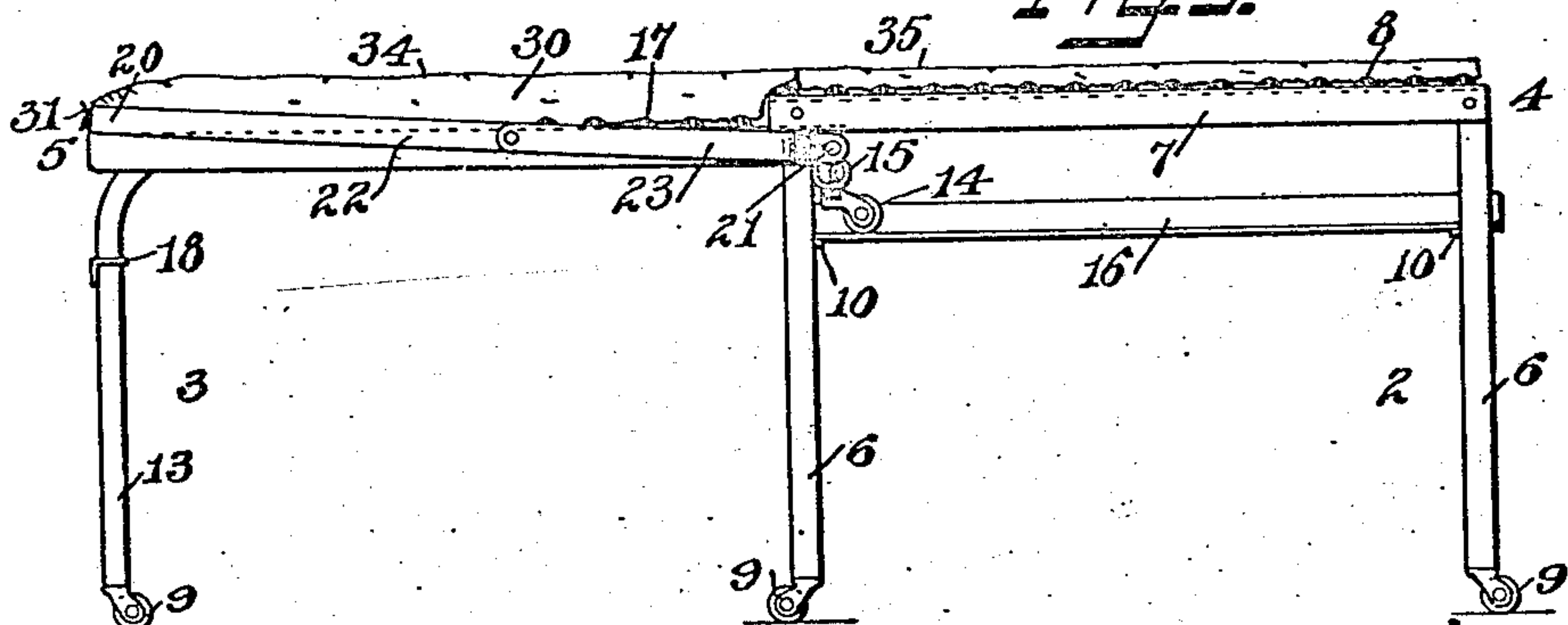
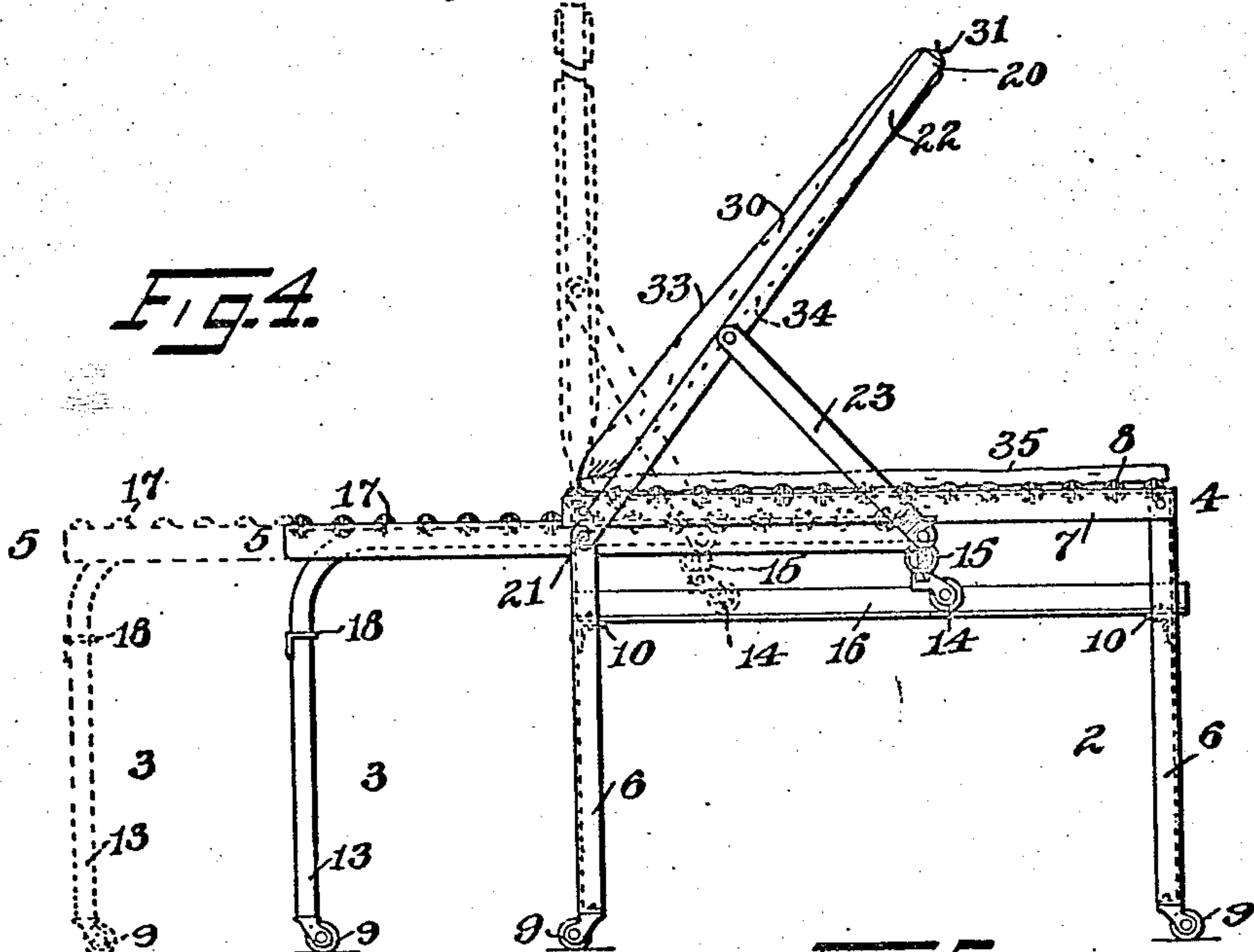
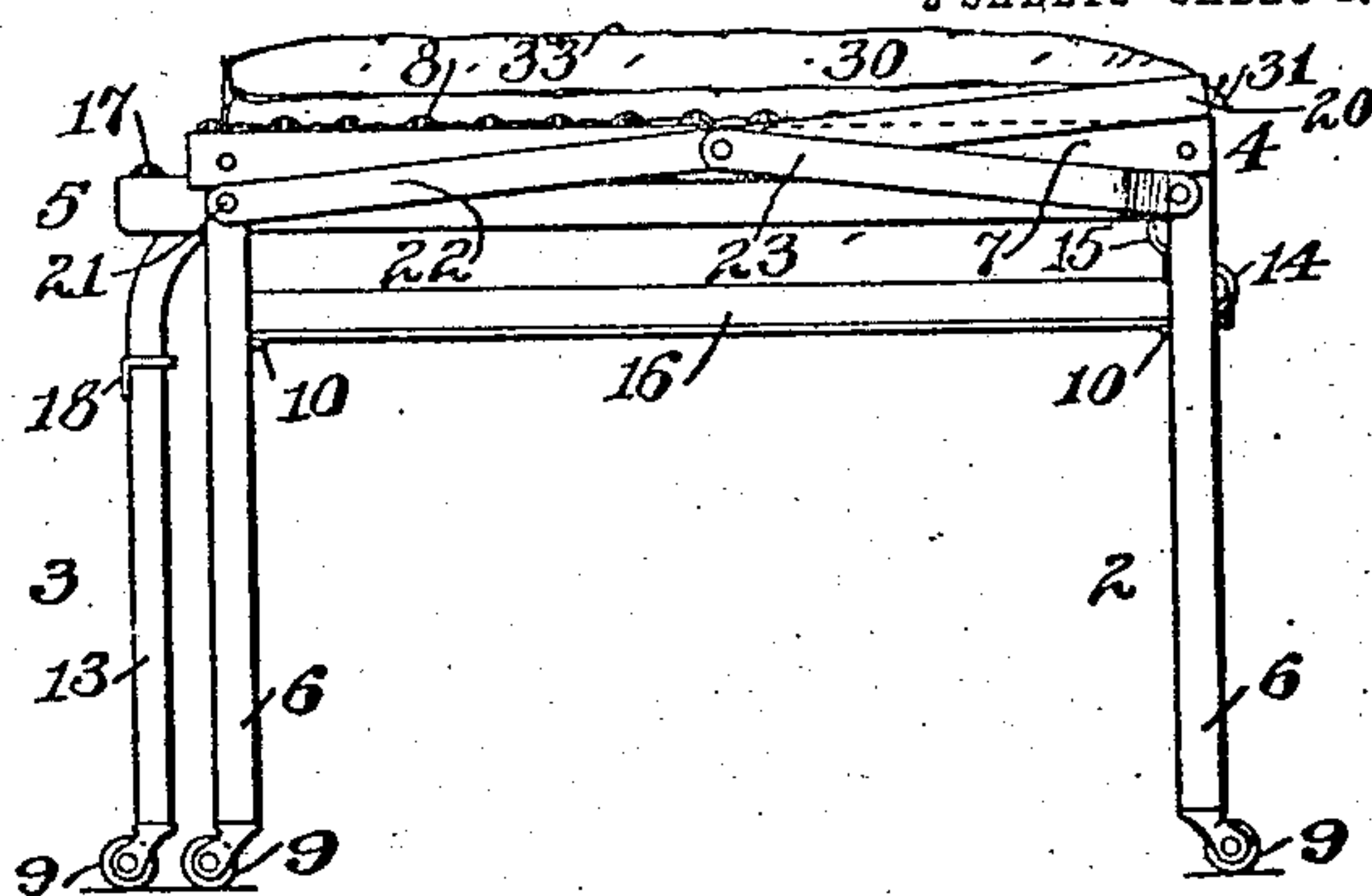


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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOSEPH LUPPINO, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN COUCH COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

SLIDING COUCH-BED.

No. 898,981.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed May 9, 1908. Serial No. 431,767.

To all whom it may concern:

Be it known that I, JOSEPH LUPPINO, a subject of the King of Italy, residing in New York, borough of Manhattan, county of New York, and State of New York, have invented certain new and useful Improvements in Sliding Couch-Beds, of which the following is a specification.

This improvement relates to couch beds, and more particularly to that class of couch beds in which one section is movable with relation to the other to form either a double or a single bed or couch, the object of the present invention being to provide an improved means for shifting one of said sections relatively to the other and also to provide means whereby on the shifting of one of said sections the mattress, usually of a book form, will be opened or closed, the same means, in the present embodiment of the invention, being effective to shift one section of the couch bed and at the same time to open or close the mattress.

A further object of the invention is to provide an extremely simple and inexpensive means which in operation will shift or slide one section of a pair of nesting couch sections so as to form either a single or a double bed, and which will also simultaneously swing open or close the mattress, and which means may be of such construction that it can be readily attached to sliding couch beds already in use if desired.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of the framework of this improved couch bed, the metallic fabric of both and the end bar of one section, as for instance the main section, being broken away to more clearly illustrate the improvement; Fig. 2 is a detail view illustrating the arrangement of the parts at the point where one of the end-frames is broken away; Fig. 3 is an end view of this improved couch bed in closed position; Fig. 4 is an end view of the same partially open, the dotted lines illustrating the same when opened about half way; and Fig. 5 is an end view illustrating the parts entirely opened to form a double bed.

Similar characters of reference indicate corresponding parts throughout the different figures of the drawings.

The present improvement may be applied to various forms of couch beds, but in the present embodiment it is shown particularly

adapted for use with a sliding couch bed, for instance that form thereof in which a pair of sections are nested one to slide with relation to the other. In this form of couch bed it is the practice to provide a pair of sections, usually designated as the main section and extensible section, in which one, as for instance, the extensible section has its metallic fabric sliding between a side bar and the metallic fabric of the other, or main, section. This sliding section may be made up in substantially the same way as its companion or the main section, or it may be provided with guiding means, such as rollers at one side thereof for engagement with suitable tracks carried by the main section.

In the present embodiment this improved couch bed comprises a pair of sections 2 and 3, one of which slides with relation to the other, although either one of them may slide, but for the present purposes one section, as 2, will be designated the main section and the other, as 3, the extensible section, the latter, in the present embodiment, being the sliding section. Each of these sections comprises a pair of end-frames 4 and 5, each end-frame of the main section comprising a pair of legs 6 united at the top by a cross or end bar 7, and which cross bars are rigidly connected by means of a metallic fabric 8. The lower ends of the legs, or feet, are usually provided with rollers 9, while these two end-frames are suitably braced, and for this purpose it is the usual practice to connect such end-frames by means of side bars 10, which are sometimes further braced by diagonal braces 11, and sometimes a stiffening member or members 12 are used, the connection of the end-frames and the bracing and character thereof all depending upon the material used and the manner in which the braces are located. The sliding section is constructed in substantially the same manner as the main section, except that, in the present embodiment, the outer side is provided with a pair of short legs or rollers 14, shown as connected to a side bar 15 connecting the end frames, said rollers being movable on a pair of tracks or ways 16 carried by the main section and which tracks are, in the present instance, shown as connected to the side bars of such main section. The end frames of this movable section are likewise connected by a suitable metallic fabric 17 and a side bar 18. In the present instance the two sections are so

5 nested that the extensible section moves between a side bar and the metallic fabric of the main section, whereby the two fabrics are nearly level when extended to form a double bed. The side bars are merely used to connect, strengthen and brace the end frames and secure a rigid structure and, of course, the relative positions of the side bars is immaterial, the gist of the present improvement being to provide a pair of couch bed sections adapted to be opened and closed to form a double or a single bed or couch, in connection with improved means for opening and closing the same, and which means is also effected to adjust the mattress to accord with the open or closed condition of the sections.

20 Secured to one section, in the present instance shown as the main section, is a frame 20, shown as U-shaped, it being pivoted at its lower ends to the main section preferably adjacent to the upper ends, as at 21, of a pair of legs thereof. To the end bars 22 of this frame a pair of bars 23 are pivotally connected, the opposite ends thereof being pivotally connected to the other section, as for instance the extensible section of the bed. In practice these connecting bars 23 may be pivoted in the manner shown, in which case they may be bent, as indicated at 24, so as not to interfere with the sliding of one section relatively to the other, or the position thereof may be reversed, that is to say, instead of being pivoted adjacent to the inner 35 or rear end of the sliding section they may be pivoted adjacent to the front end thereof, the difference in the position of these bars merely determining whether the sliding section will be pushed open or pulled open. In the present instance the sliding section, on 40 the movement of the angular frame 20, is pulled open, which is somewhat easier for the operator.

45 In the usual form of these beds two mattresses are provided, one slightly thicker than the other, the thicker mattress resting on the sliding section, the increased thickness thereof thus making the tops of the two sections level when the bed is open for use as a double bed, and in practice it has been usual to connect these two mattresses together lengthwise along the inner or adjacent edges thereof to form what is known as a book mattress, but after the sliding section 55 has been moved out it has been necessary to separately open the mattress for use. In the present improvement, however, the outer edge of one mattress, as for instance the mattress 30 adapted to rest on the sliding section, is secured by tapes 31 or other suitable means to the upper or lengthwise extending bar 32 of the frame 20, whereby as this frame is swung upwardly from its closed position, shown in Fig. 3, to the open position, 65 of Fig. 5 the mattress will be opened also

without any further effort and the bed ready for use as soon as the sliding section has been moved out the proper distance. Thus, by one and the same means, and by the same operation, I am able to close or open the sliding section to form either a single or a double bed and to also adjust the mattress without any further work, to correspond with the adjustment of the sections.

In practice the outer side 33 of the mattress 30 may be formed of some suitable material to give a pleasing appearance to the cushion when folded in the position shown in Fig. 3, while the inner side 34 thereof may have the usual ticking, as may also the top of the companion portion 35 of said mattress.

By means of the foregoing improvement it will be observed that when the couch bed is used as a single bed or couch the folding mattress is so folded or doubled that one half rests upon the other half, while the latter rests directly upon its metallic fabric, so that the two parts of the mattress are closely folded to form a cushion of double thickness the full width of the couch, but that when the bar frame, which is of skeleton formation, is swung upwardly it not only shifts the extensible, movable or sliding section of the couch bed from under the main or stationary section thereof, but it unfolds or opens out the mattress and swings it over upon the top of the metallic fabric of the extensible section, this simultaneous opening or closing of the couch bed sections and of the mattress thus being accomplished by a single bar, comparatively light in weight and readily accessible and easy to manipulate either at the end thereof or by grasping it midway of its length, thus obviating the use of any independent mattress carrying frame or other cushioned support. It will also be observed that the sliding bed is shifted outwardly and the mattress opened and spread out by a single forward motion of the bar.

I claim as my invention:

1. In a couch-bed, the combination of a pair of telescoping bed-sections each having a metallic fabric permanently connected thereto and one movable relatively to the other, a folding mattress therefor, and means attached to said sections and to said mattress and operative by a movement of said means in one direction to open both the bed and the mattress to form a double bed.

2. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric directly connected thereto and one slidable relatively to the other, a folding mattress therefor, and means attached to said sections and to said mattress and operative by a single forward movement to open both the bed and the mattress to form a double bed.

3. In a couch-bed, the combination of a pair of telescoping bed-sections each having

a metallic fabric connected directly thereto and one movable relatively to the other, a folding mattress therefor, and swinging means pivotally connected to the stationary section and having connection with the movable section and also attached to said mattress and adapted on the swinging of said means to open both the bed and the mattress to form a double bed.

10 4. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric permanently connected thereto and one slidable relatively to the other, a folding mattress therefor, and swinging means pivotally connected to the stationary section and operatively connected to the sliding section and also attached to said mattress and effective by a single forward motion to open both the bed and the mattress to form a double bed.

20 5. In a couch-bed, the combination of a pair of bed-sections one sliding relatively to the other and each having a metallic fabric directly secured thereto, a folded mattress resting upon one of said metallic fabrics, and means attached to said sections and to one part of said mattress and adapted on the pulling forward thereof to simultaneously open said sections to form a double bed and unfold said mattress to spread the same into position for use.

30 6. In a couch bed, the combination of a pair of bed-sections, one sliding relatively to the other and each having a metallic fabric, a folded mattress resting upon one of said metallic fabrics, and a swinging bar attached to said sections and to one part of said mattress and adapted on the pulling forward thereof to simultaneously open one of said sections to form a double bed and unfold said mattress and spread the same into position for use.

40 7. In a couch-bed, the combination of a pair of bed-sections one sliding relatively to the other and each having a metallic fabric, a folding mattress therefor resting upon one of said metallic fabrics, a swinging bar attached to said sections and to one edge of said mattress and adapted on the pulling forward thereof to open the sections to form a double bed or to close the same to form a single bed and simultaneously to unfold or fold the mattress.

50 8. In a couch bed, the combination of a pair of bed-sections, each comprising a pair of end frames and side bars and a metallic fabric stretched between said end frames, the metallic fabric of one section sliding between the metallic fabric and a side bar of the other section, a folding mattress for said bed, and means for sliding one of said sections relatively to the other and simultaneously opening or closing said mattress.

55 9. In a couch bed, the combination of a pair of bed-sections, each comprising a pair

of end frames and side bars and a metallic fabric stretched between said end frames, the metallic fabric of one section running between a side bar and the metallic fabric of the other section, tracks carried by one of said sections, guiding devices carried by the other of said sections for engaging said tracks, a folding mattress for said bed, and means for sliding one of said sections relatively to the other and simultaneously opening or closing said mattress.

10. In a couch-bed, the combination of a pair of telescoping bed-sections each having a metallic fabric permanently attached thereto and one shiftable relatively to the other to form either a single or a double bed, a folding mattress therefor, and swinging means pivotally attached to the stationary section and connected to the shiftable section and also attached to one edge of said mattress and adapted on the swinging of said means to open or close the bed and simultaneously to open or close the mattress.

11. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric attached thereto and one shiftable relatively to the other, and means for shifting said section to form either a double or a single bed and comprising a swinging bar pivoted to the stationary section to swing above the top of both sections and into position adjacent to the outer edge of the shiftable section and connected by levers with said shiftable section.

12. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric attached thereto and one shiftable relatively to the other, and means for shifting said section to form either a double or a single bed and comprising a swinging U-shaped bar pivoted to the stationary section and connected by levers to the shiftable section to swing above both sections from a point adjacent to the outer edge of one section to a point adjacent to the outer edge of the other section.

13. In a couch-bed, the combination of a pair of bed-sections one shiftable relatively to the other and each having a metallic fabric attached thereto, a folding mattress for said sections, and a swinging bar connected to said sections and to which said folding mattress is attached, said bar resting adjacent to the outer edge of one section when the mattress is folded and the section closed and swinging above the beds into position to rest adjacent to the front or outer edge of the other or shiftable section when the latter is extended and adapted to open or close the bed sections and mattress simultaneously.

14. In a couch bed, the combination of a pair of bed-sections each having a metallic fabric forming a part thereof and one shiftable throughout its entire movement in the plane of the other section, a folding mattress there-

for, and means attached to said sections and mattress for simultaneously opening and closing said sections and mattress to form either a single or a double bed.

15. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric forming a part thereof and one shiftable throughout its entire movement in a plane parallel to the other, a folding mattress therefor, and means attached to said sections and mattress for opening and closing said sections and mattress to form either a single or a double bed and pivoted adjacent to the front of one section and connected by levers adjacent to the rear of the other section.

16. In a couch bed, the combination of a pair of bed-sections, each comprising end frames, side bars and a metallic fabric stretched between said end frames, the metallic fabric of one section sliding between a side bar and the metallic fabric of the other section, a folding mattress for said bed, and a swinging bar pivoted to one section and connected to the other section and also connected to one part of said folding mattress and effective to shift the sliding section to form either a single or a double bed and simultaneously to open or close the mattress.

17. In a couch bed, the combination of a pair of bed-sections, each comprising end frames, side bars and a metallic fabric stretched between said end frames, the metallic fabric of one section sliding between a side bar and the metallic fabric of the other section, a folding mattress for said bed, a swinging bar pivoted to one section and connected to the other section and also connected to one part of said folding mattress and effective to shift the sliding section to form either a single or a double bed and simultaneously to open or close the mattress, and means for guiding one section on the other.

18. In a couch-bed, the combination of a pair of sections each having a metallic fabric forming a part thereof and one shiftable throughout its entire movement in a plane parallel to the other section to form either a double or a single bed, a book mattress therefor, and means connected to said bed and to one part of said mattress and shiftable in a plane transversely of the plane of movement of said section to open or close the mattress and the bed.

19. In a couch-bed, the combination of a pair of sections each having a metallic fabric forming a part thereof and one shiftable throughout its entire movement in a plane parallel to the other section to form either a double or a single bed, a book mattress therefor, and a bar attached to said bed and connected to one edge of the mattress and shiftable in a plane transversely of the plane of movement of said section to open or close the mattress and the bed.

20. In a couch-bed, the combination of a pair of bed-sections each having a metallic fabric attached thereto and one shiftable relatively to the other, a folding mattress therefor, and means connected with said bed and to which said folding mattress is attached and shiftable in one direction from a point adjacent to the longer outer edge of one section to a point adjacent to the longer outer edge of the shiftable section thereby to simultaneously open the bed and the folding mattress by one forward motion of said means.

21. In a couch-bed, the combination of a pair of bed-sections, one a stationary section and the other a sliding section, each having a metallic fabric attached thereto, a book mattress therefor, and swinging means connected with the stationary section and with one part of said mattress and also connected with the sliding section and shiftable in a plane transversely of the plane of movement of said sliding section to open or close the mattress and the bed.

22. In a couch bed, the combination of a pair of telescoping bed sections each having a yielding mattress supporting means connected thereto and one movable relatively to the other, a folding mattress therefor, and means attached to said sections and to said mattress and operative by a movement of said means in one direction to open both the bed and the mattress to form a double bed.

23. In a couch bed, the combination of a pair of bed sections each having a yielding mattress supporting means attached thereto and one shiftable relatively to the other, and means for shifting said sections to form either a double or a single bed and comprising a swinging bar connected with both of said sections to swing above the top of said sections to open or close the shiftable section.

24. In a couch bed, the combination of a pair of bed sections each having a yieldable mattress supporting means attached thereto and one slidable relatively to the other, a folding mattress therefor, and means attached to said sections and to said mattress and operative by a single forward movement to open both the bed and the mattress to form a double bed.

25. In a couch bed, the combination of a pair of bed sections one a stationary section and the other a sliding section, each having a yieldable mattress supporting means attached thereto, a folding mattress therefor, and swinging means connected with both of said sections and with one part of said mattress and shiftable in an arc of a circle the diameter of which is transverse to the plane of movement of said sliding section to simultaneously open and close the mattress and the bed.

26. In a couch bed, the combination of a pair of bed sections one a stationary section

and the other a sliding section, each having a yieldable mattress supporting means attached thereto, the yieldable supporting means of one section sliding between a side 5 bar and the yieldable supporting means of the other section, a folding mattress for said bed, and swinging means connected with the stationary section and with one part of said mattress and also connected with the sliding

section and shiftable in the arc of a circle the diameter of which is transverse to the plane of movement of the sliding section to simultaneously open and close the mattress and the bed.

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