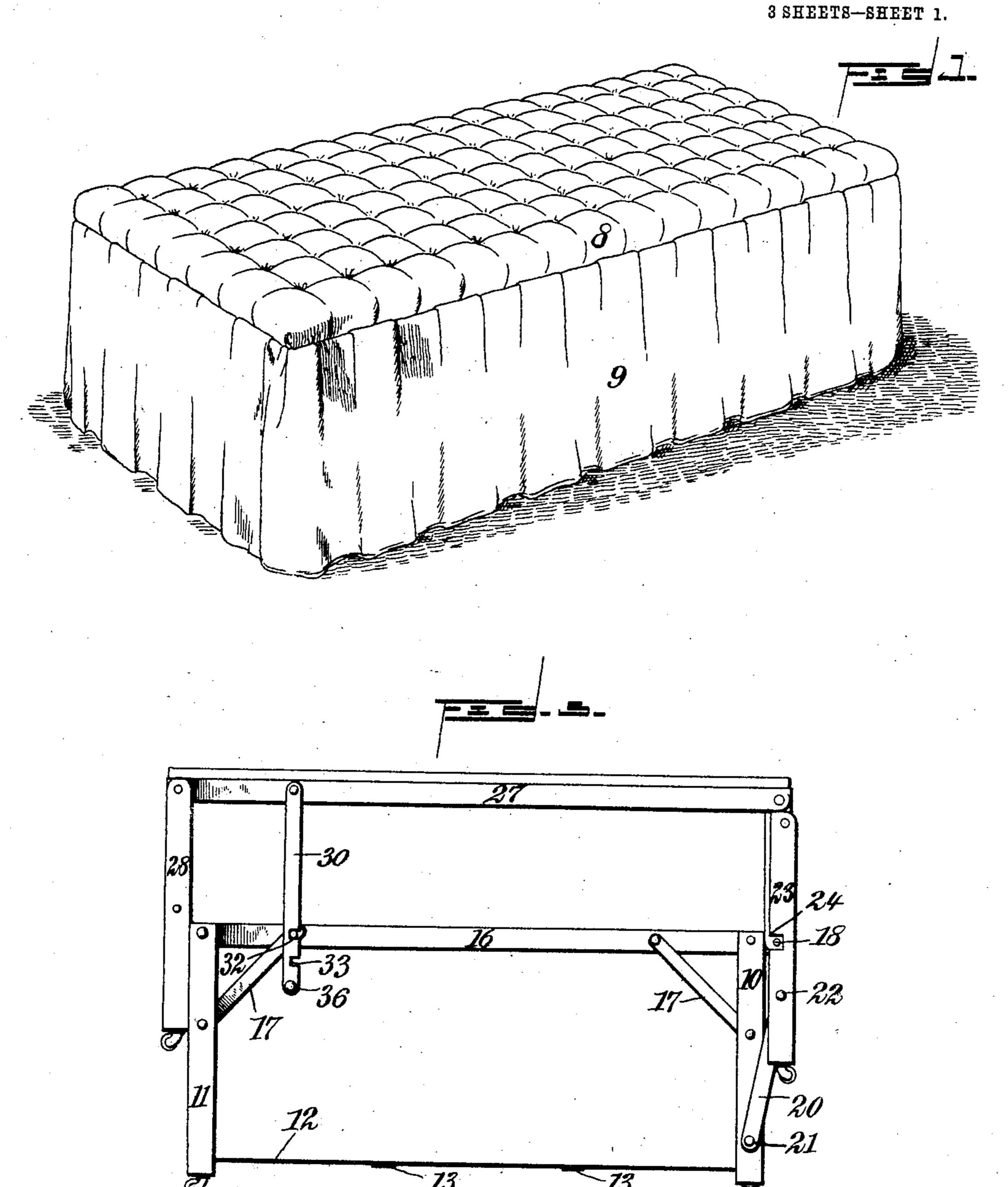
W. THOMPSON. DIVAN FOLDING BED. APPLICATION FILED MAY 17, 1904.

FLICATION FILED MAX 17, 1904.



Le Genfard Handy

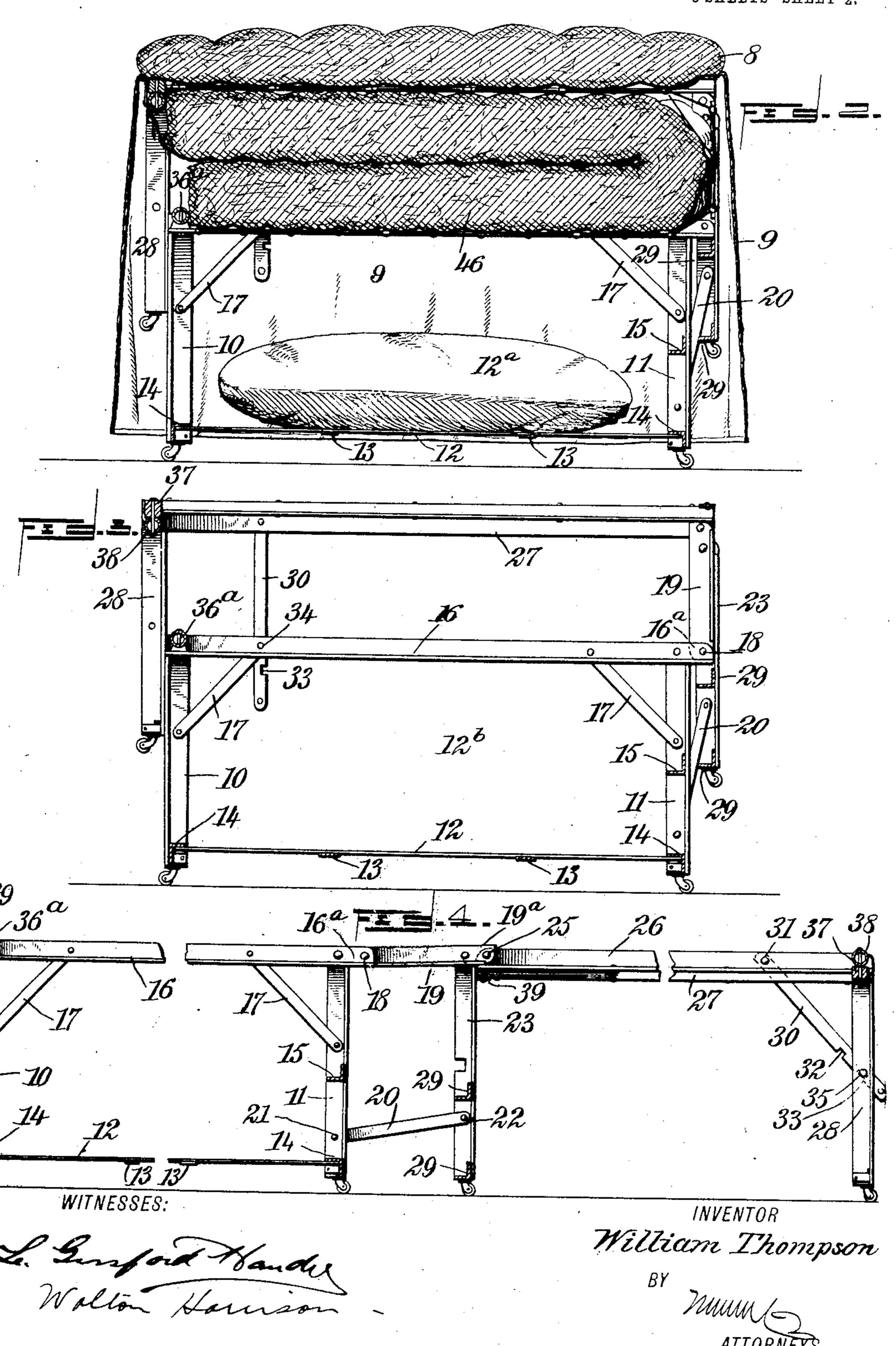
INVENTOR
William Thompson

BY MUULL

ATTORNEYS

W. THOMPSON. DIVAN FOLDING BED. APPLICATION FILED MAY 17, 1904.

3 SHEETS-SHEET 2,



W. THOMPSON. DIVAN FOLDING BED. APPLICATION FILED MAY 17, 1904

APPLICATION FILED MAY 17, 1904. 3 SHEETS-SHEET 3. WITNESSES: INVENTOR William Thompson

, PHOIG-LITH COMAPHED BY SACKETT & WILHELMS LITHO, & PTE. CO. NEW YORK.

UNITED STATES PATENT OFFICE.

WILLIAM THOMPSON, OF NEW YORK, N. Y.

DIVAN FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 779,819, dated January 10, 1905. Application filed May 17, 1904. Serial No. 208,340.

To all whom it may concern:

Be it known that I, WILLIAM THOMPSON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, 5 in the county of Kings and State of New York, have invented a new and Improved Divan Folding Bed, of which the following is a full, clear, and exact description.

My invention relates to folding beds, my 10 more particular object being to produce such

a bed suitable for use as a divan.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indi-15 cate corresponding parts in all the figures.

Figure 1 is a perspective view showing the device ready for use as a divan. Fig. 2 is an enlarged vertical cross-section through the same. Fig. 3 is a vertical cross-section of the 20 framework in folded position, the upholstered cushion being omitted. Fig. 4 is a cross-section of the mechanism disclosed in Fig. 3, but showing the same as unfolded. Fig. 5 is an end elevation showing the framework as fold-25 ed, the mechanism being otherwise as shown in Fig. 3. Fig. 6 is a fragmentary plan view of the mechanism shown in Fig. 4, and Fig. 7 is a fragmentary perspective view showing the means for preventing the upholstered 3° cushion from sagging at its edges.

The upholstered cushion is shown at 8 and is provided with a curtain 9, these parts being of any desired construction. The four posts 10 11 are connected together by cross-strips 35 12, these in turn being connected together laterally by means of longitudinal strips 13. Side rails 14 15, made of angle-iron, are connected with the posts 10 11. End rails 16, each provided with a projection 16a, are 4° mounted upon the posts 10 11 and secure the same together. Braces 17 are connected with the end rails 16 and with the posts 10 11, as shown more particularly in Fig. 3. The projections 16^a are provided with pivots 45 18, connected with links 19, which are free to swing relatively to the end rails 16. Links 20 are journaled upon the posts 11 by means of pivots 21 and are also journaled, by means of pivots 22, upon the posts 23, as indicated in 5° Fig. 4. The links 19 are provided with pro-

jecting ends 19^a, these ends being provided with pivots 25, whereby the end rails 26 are partially supported and are free to swing relatively to the links 19. The end rails 16 26 and the links 19 are made, preferably, of 55 angle metal. Cross-bars 27 are connected with the end rails 26, as indicated in Fig. 4. The posts 28 are pivotally mounted upon the outer ends of the end rails 26. Side rails 29 connect the posts 23 rigidly together. The 60 braces 30 are connected by a pivot 31 with the end rails 26 and are adapted to swing relatively thereto. These braces are provided with notches 32 33 and with handles 36. The posts 28 are provided with pins 35, 65 projecting therefrom, and the notches 33 are adapted to engage these pins. The end rails 16 are somewhat similarly provided with projecting pins 34, which may be engaged by the notches 32, as indicated in Fig. 3. A 70 side rail 37 is connected with a side rail 38, the latter being preferably of tubular form and riveted to the rail 37. The side rail 36° is rigidly connected with the end rails 16 by means of rivets 39. The pillows 12^a or bed-75 clothes of any kind may occupy the position indicated in Fig. 2.

The spring mechanism of the bed consists of the plates 40, connected together by means of hooks 43 and supported by spiral springs 80 41, which are connected with the end rails 16 and 26, as indicated in Fig. 7. A supporting-strip 43^a is connected by hooks 44 with divers of the plates 40, this supporting-strip being connected by spiral springs 45 with an- 85 chorages 42 at the ends of the bed. The purpose of this supporting-strip 43^a is to sustain the outer edges of the upholstered cushion 8 in such a position as to prevent the same from sagging down, thus maintaining the top 90 of the cushion approximately in the position indicated in Figs. 1 and 2. The mattress is

shown at 46.

The operation of my device is as follows: The cushion 8 is not removable. It is rigidly 95 connected with the top of the frame. The front part is supported on the supportingstrip 43°, this being preferably a steel band, as indicated in Fig. 7, and this steel band is supported and held straight by the hooks 44. 100

This gives the divan a comparatively straight edge in front, thus avoiding the roll in the fabric when used as a divan. In order to unfold the bed, the braces 30 on both ends are 5 released from the pins 34 and the end rails 16 are raised angularly upward and lowered into the position indicated in Fig. 4, which movement straightens out the links 19, so that the end rails 16 and the posts 23 are lowered in ro such position that the latter reach the floor. The posts 28 are pivoted upon the end rails 27, as above described, and are swung around relatively thereto and brought into engagement with the floor. The braces 30 are dis-15 connected from the position which they occupy in Fig. 3 and brought into the position they occupy in Fig. 4—that is to say, the notch 32 is disengaged from the pins 34 and the notch 33 brought into engagement with 20 the pins 35. The bed is now in the position indicated in plan view in Fig. 6, the mattress 46 resting thereupon. In order to fold the bed, the braces 30 are disengaged from the pins 35 and the rails 27 are raised angularly up-25 ward and carried over, so that the links 30 can be brought into proper position for the notches 32 to engage the pins 34, as indicated in Fig. 3. This movement bends the mattress over. as indicated in Fig. 2. The braces 30 prevent 30 the end rails 27 from sagging relatively to the end rails 26, the weight of the rails 27 resting partially upon the braces 30. The posts 28 are now bent downwardly, as indicated in Figs. 2 and 3, and the apparatus is ready for 35 use as a divan.

It will be noted that the end rails 16, the side rails 36°, the posts 10 and 11, and other parts shown at the left of Fig. 4 together constitute a bottom frame, whereas the parts 40 shown at the right of Fig. 4 constitute a top frame, these frames being loosely connected together by means of the links 19 20. It will also be seen that these links are approximately parallel with each other and that the posts 11 45 and 23 are also at all times approximately parallel with each other. It will also be noted that no particular crowding of the mattress occurs when the same is folded, as indicated in Fig. 2, for the reason that when the bed is 50 folded the links 19 20 each assume a general position crossing the general plane of the mattress, so that the end rails 16 are far enough from the end rails 27 so as to accommodate the full double thickness of the mattress and 55 bedclothes. It is not necessary, therefore, to use a so-called "broken-back" mattress, as a high-grade mattress of ordinary construction may be employed without any special effort being necessary to bend the same in the mid-60 dle. The links 19 20 are of such length that the mattress may be bent gracefully and without injury into the position indicated in Fig. 2, the braces 30 being of a length gaged ac-

cording to the length of the links 19 20, so as

65 to maintain all parts of the device in sym-

metrical relation and prevent one part of the mattress from being depressed relatively to another part thereof when the mattress is folded.

As shown in Fig. 2, the curtain 9 normally 70 hangs to within an inch or two of the floor or other supporting-surface, thus allowing good ventilation for the mattress and bedclothes. The curtain hangs loosely and may, if desired, be thrown over the upholstery or otherwise 75 raised so as to expose the mattress. The space immediately above the longitudinal strips 13 and the cross-strips 12 may be used for storing the pillows 12° and the bedclothes, which are inserted from the back between the 80

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

posts 10 into the compartment 12°.

1. In a device of the character described, the combination of upper and lower frames, 85 links connecting said upper and said lower frames together for the purpose of enabling said frames to be folded and unfolded, the length of said links being approximately double the single thickness of the mattress to be 9° supported upon said frame, and posts pivoted to the links and adapted to swing relatively to the frames.

2. In a device of the character described, the combination of a lower frame provided 95 with posts rigidly connected thereto, links connected with said lower frame, an upper frame connected with divers of said links and adapted to swing relatively thereto, posts connected with the links with which the upper 100 frame is connected, other posts connected with said upper frame and adapted to swing relatively thereto, and braces connected with said upper frame and provided with portions to be detachably connected with said last- 10. mentioned posts.

3. In a device of the character described, the combination of the upper and lower frames, links connecting the same together and movable relatively thereto, posts rigidly 11 connected with said lower frame, posts pivotally connected with the said links at a point adjacent to the connection of the links with the upper frame, and links connecting the last-mentioned posts with sundry of the posts II connected with the lower frame.

4. In a device of the character described, the combination of a lower frame provided with posts rigidly connected thereto, an upper frame, links connecting the upper and 12 lower frames together, posts pivoted to said upper frame to swing relatively thereto, braces connected with said upper frame and provided with means for engaging said posts, other posts connected with the said links, and 12 links connecting the last-mentioned posts with posts on the lower frame.

5. In a device of the character described. the combination of upper and lower frames each provided with posts for supporting it 13 upon a surface, links journaled upon said frames and connecting the same loosely together for the purpose of enabling said frames to fold into positions approximately parallel to each other, braces connected with said upper frames and movable relatively thereto, and means for connecting said braces to said posts connected with said upper frame, or to said lower frame, as desired.

6. In a device of the character described, a lower frame having its end bars provided with projecting ends, links pivoted to the projecting ends of said bars, posts pivoted to the links, an upper frame having its end rails

pivoted to the said links, posts pivoted to the 15 upper frame to swing relatively thereto, and braces pivoted to the end rails of the upper frame and adapted for interlocking engagement with the posts of the upper frame or the end rails of the lower frame.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM THOMPSON.

Witnesses:

NORMAN J. Ross, James S. Murray.