No. 792,799. PATENTED JUNE 20, 1905.

H. F. SOWLE.

COUCH BED.

APPLICATION FILED MAY 8, 1902. RENEWED NOV. 18, 1904.

2 SHEETS—SHEET 1.

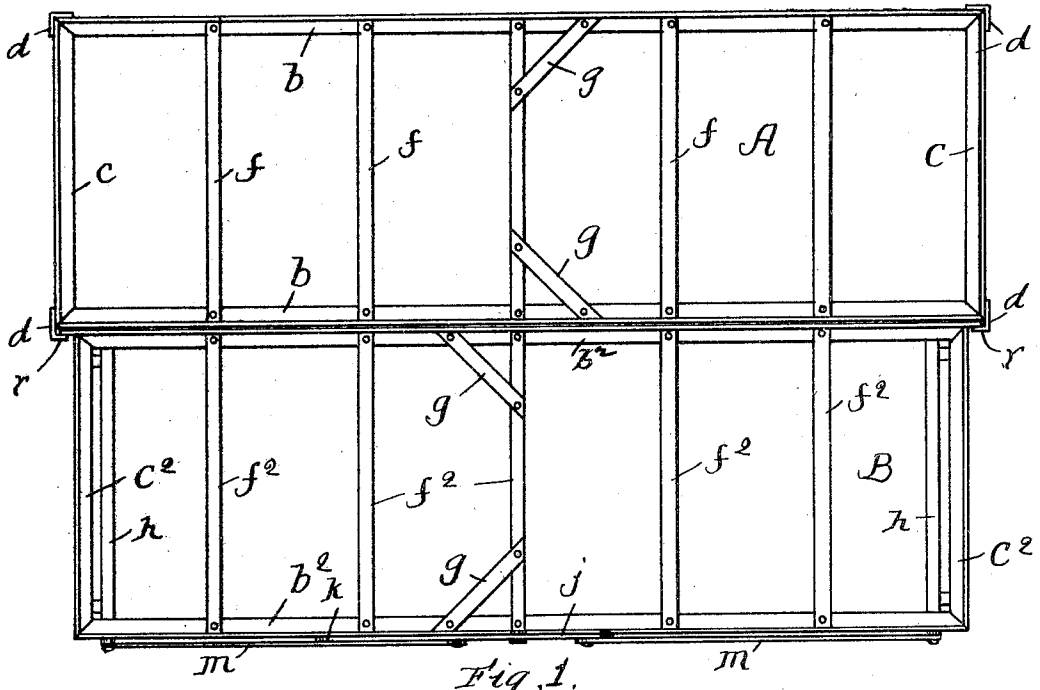

Fig. 1.

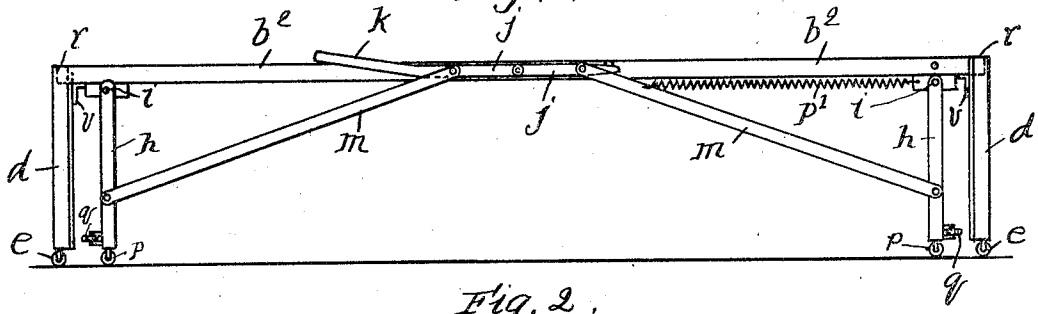

Fig. 2.

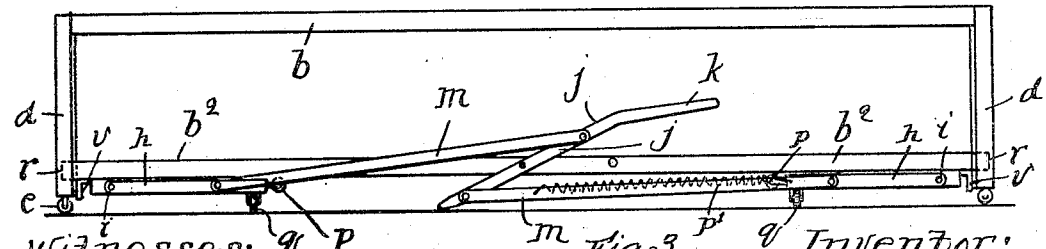

Fig. 3.

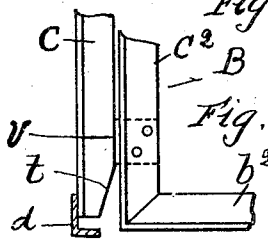

Fig. 7.

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2 SHEETS—SHEET 2.

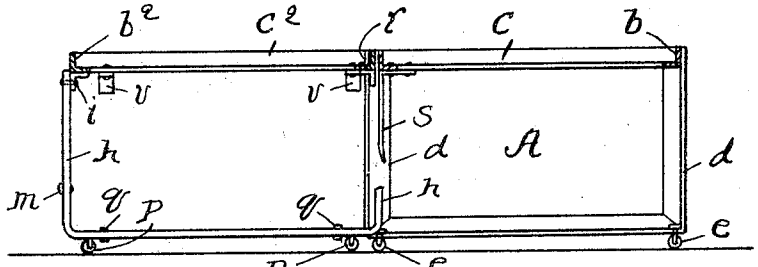

Fig. 4.

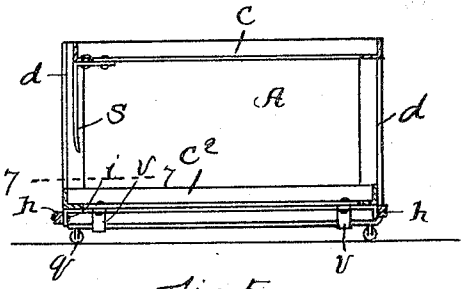

Fig. 5.

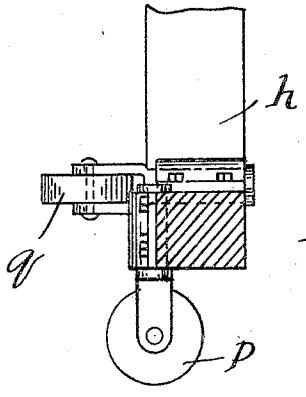

Fig. 6.

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No. 792,799. Patented June 20, 1905.

UNITED STATES PATENT OFFICE.

HERBERT F. SOWLE, OF BOSTON, MASSACHUSETTS.

COUCH-BED.

SPECIFICATION forming part of Letters Patent No. 792,799, dated June 20, 1905.

Application filed May 8, 1902. Renewed November 18, 1904. Serial No. 233,270.

To all whom it may concern:

Be it known that I, HERBERT F. SOWLE, a citizen of the United States, residing at Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Couch-Beds, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a top plan view of my improved couch-bed frame, the two sections being opened. Fig. 2 represents a front elevation of the same. Fig. 3 represents a front elevation showing the supplemental section as collapsed. Fig. 4 represents a central cross-section, the parts being opened. Fig. 5 represents a similar view, the supplemental section being within the main section. Fig. 6 represents a detail hereinafter referred to. Fig. 7 represents a sectional detail of the corner angle-irons on the line 7 7 of Fig. 5.

The same reference characters indicate the same or similar parts throughout the several views.

In general characteristics the invention claimed herein resembles that described in my application, Serial No. 98,876, filed March 19, 1902. In that a main section and a supplemental section are so combined that by collapsing the latter it may be slid under and concealed within the main section. In the present form, as well as that in my said other application, I provide means whereby the supplemental section may be supported by foldable legs independent of the main section, and I also, as in that case, provide means whereby the supplemental section when prepared for use will be in the plane of the top of the main section.

The particular object of the present invention is to simplify the structure shown in said prior application and also to provide a spring for resisting the folding movement of the legs, which spring counterbalances to a large degree the weight of the upper part or frame of the collapsible section.

On the accompanying drawings the main frame is indicated as a whole at A and comprises side bars *b* and end bars *c*, said frame being supported by angle-iron legs *d*, the lower ends of which are provided with casters *e*. The side bars *b* are connected by brace-straps *f*, and I preferably connect one or more of said brace-straps *f* with the side bars by means of angular braces *g*.

The supplemental collapsible section is represented as a whole at B and comprises side bars b^2, end bars c^2, braces f^2, and angular straps or braces *g*. As thus far described the construction of the supplemental frame is substantially similar to that of the main frame; but said supplemental frame is shorter than the main frame in order that it may pass under the main frame between the legs *d* thereof.

The supplemental section instead of having rigid legs is provided with legs *h*, which are pivoted, as at *i*, to suitable blocks under the corners of the frame, and said legs are connected by links *m* with a lever *j*, having a handle *k*, said lever *j* being pivoted to the front side bar b^2. It will be readily understood from the above description, with the accompanying drawings, that the lever *j* may be swung on its pivot, so as to, through the links *m*, cause the legs *h* to be either held in the position shown in Fig. 2 or to be folded as shown in Fig. 3, so that the top frame will rest upon said legs.

In order to prevent the folding operation from being too sudden and noisy and also to facilitate the raising of the mattress-frame b^2 c^2 of the supplemental section B, I connect a spring *p'* with one of the links, the other end of said spring being connected to a suitable portion of the upper frame.

The lower end of each leg *h* is provided with two casters, swiveled thereto and arranged at a right angle to each other. The caster *p* of each leg is adapted to rest in contact with the floor when the leg is in upright position, and the caster *q* of each leg rests upon the floor when the leg is folded. Inasmuch as it is desirable that the supplemental section may be freely moved to more or less

extent on the floor either when collapsed or when expanded, these casters serve a very useful purpose, particularly owing to their being swiveled, since this will permit of the free movement of the bed as a whole, including the two sections, whether the collapsible section is within the main section or not.

Referring to Figs. 1 and 2, it will be seen that the rear side bar b^2 is extended or made to project at each end, so as to form stops r, coöperating with the flanges of the legs d, to prevent accidental separation of the two sections of the bed. It will be observed, however, by referring to Fig. 1 that the front flanges of the legs d are disconnected from the front bar b of the main section, so as to leave a slight space which will permit the projecting ends or stops r to be lifted through said space to entirely disconnect the two sections, and thus permit either section to be used independently as a narrow bed. In other words, this construction enables the two sections to be entirely separated, so that each can be used as a narrow bed, each having a firm leg-support; but when not entirely separated the two sections may be used together as a wide bed, both mattress-supports being in the same plane.

Referring to Figs. 4 and 5, it will be seen that I provide a flange S on each of the forward legs of the main body, which serve to direct the upward throw of the frame of the supplemental section, the projecting ends or stops r moving up between the flanges S and the adjacent flanges of the legs d, the space between each flange S and the adjacent flange of the leg d being open to the top to permit the separation of the two sections, as above described.

Referring to Fig. 7, it will be seen that the end bars of the bottom frame of the main section A are chamfered at t, and the end bars c^2 of the collapsible member B are provided with lugs or projections v v, so that when the section B is being pushed in under the section A said section B will not engage the squared ends, but will be directed in horizontal or parallel lines without stop or hitch.

It is to be understood that the top frames of both sections A and B constitute mattress-supports, which are to be covered by mattresses in an ordinary manner—such as disclosed, for instance, in my application, Serial No. 98,876, filed March 19, 1902—and their angle-iron frames are particularly adapted for this purpose.

In the use of the invention, the parts being in the position shown in Fig. 3, if it is desired to adjust the couch for use with its full width the section B is drawn out from the member A until the stop r engages the front legs d of the section A. Then the operator shifts the handle k from the position shown in Fig. 3 to the position shown in Fig. 2, which will cause the extension r to slide upward between the flanges S and the legs d and insure vertical movement of the top frame of the supplemental section. As soon as the handle approaches a vertical position the spring p' is unable to exert its force, friction between the legs h and the floor being meanwhile avoided by means of the casters q. As soon as the spring begins to exert its force no further exertion is necessary by the operator, as said spring will complete the upward movement or expansion of the collapsible section. When the parts reach the position shown in Fig. 2, the legs h are supported on the casters p, and the upper bars b^2 of the collapsible section register with the upper frame of the main section in position to receive the mattresses in a single or uniform plane. The parts are locked against accidental collapsing by the lever j being "beyond the center."

By reversing the described direction of movement of the lever j all of the parts will quickly move to the position shown in Fig. 3, after which the collapsible section can be pushed under the main section.

Having thus explained the nature of the 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 declare that what I claim is—

1. An interconvertible bed and couch comprising a main section and a supplemental section, the latter having foldable legs and a spring for resisting the folding movement of the legs, the said foldable legs being capable of supporting said supplemental section separately from the main section and in a uniform plane therewith.

2. An interconvertible bed and couch comprising a main section and a supplemental collapsible section having a top frame, legs for supporting the latter independently of the main section, said legs being pivoted to said top frame, a lever centrally pivoted to the top frame, and links connecting said lever with the legs.

3. An interconvertible bed and couch comprising a main section and a supplemental collapsible section having a top frame, legs for supporting the latter independently of the main section, said legs being pivoted to said top frame, a lever centrally pivoted to the top frame, links connecting said lever with the legs, and a spring for resisting the folding movement of the legs.

4. An interconvertible bed and couch comprising a main section and a supplemental section, the latter being collapsible and movable under the main section and having its rear bar provided with extensions adapted to engage the front legs of the main section, the two sections presenting mattress-supports in a uniform plane when the supplemental section is prepared for use, and said supplemental section having means whereby it may be sepa-

rated from the main section and used while the mattress-supports of the two sections are in the same plane.

5. An interconvertible bed and couch comprising a main section and a supplemental section, the latter consisting of a top frame, legs for supporting the latter independently of the main section, said legs being pivoted to said frame at the ends thereof, a lever pivoted to the frame, and links connecting the pivoted legs with the lever at opposite sides of the pivot of the latter.

6. An interconvertible bed and couch comprising a main section and a supplemental section, the latter consisting of an angle-iron top frame, legs for supporting the latter independently of the main section, said legs being pivoted to said frame at the ends thereof, a lever pivoted to the frame, links connecting the pivoted legs with the lever at opposite sides of the pivot of the latter, and a spring connecting one of said links with the frame.

7. A collapsible couch having foldable legs, the lower ends of said legs having swiveled casters at right angles to each other, said casters being independently connected with the legs.

8. A collapsible couch comprising a frame having legs pivoted thereto, each of said legs being provided with two casters projecting at right angles to each other from the lower end of each leg, each pair of the said casters being independently connected with its leg.

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EUGENE A. FARREN.