

No. 791,719.

PATENTED JUNE 6, 1905.

D. T. OWEN.
COMBINED BED AND COUCH.
APPLICATION FILED JAN. 9, 1904

3 SHEETS—SHEET 1.

FIG. 1.

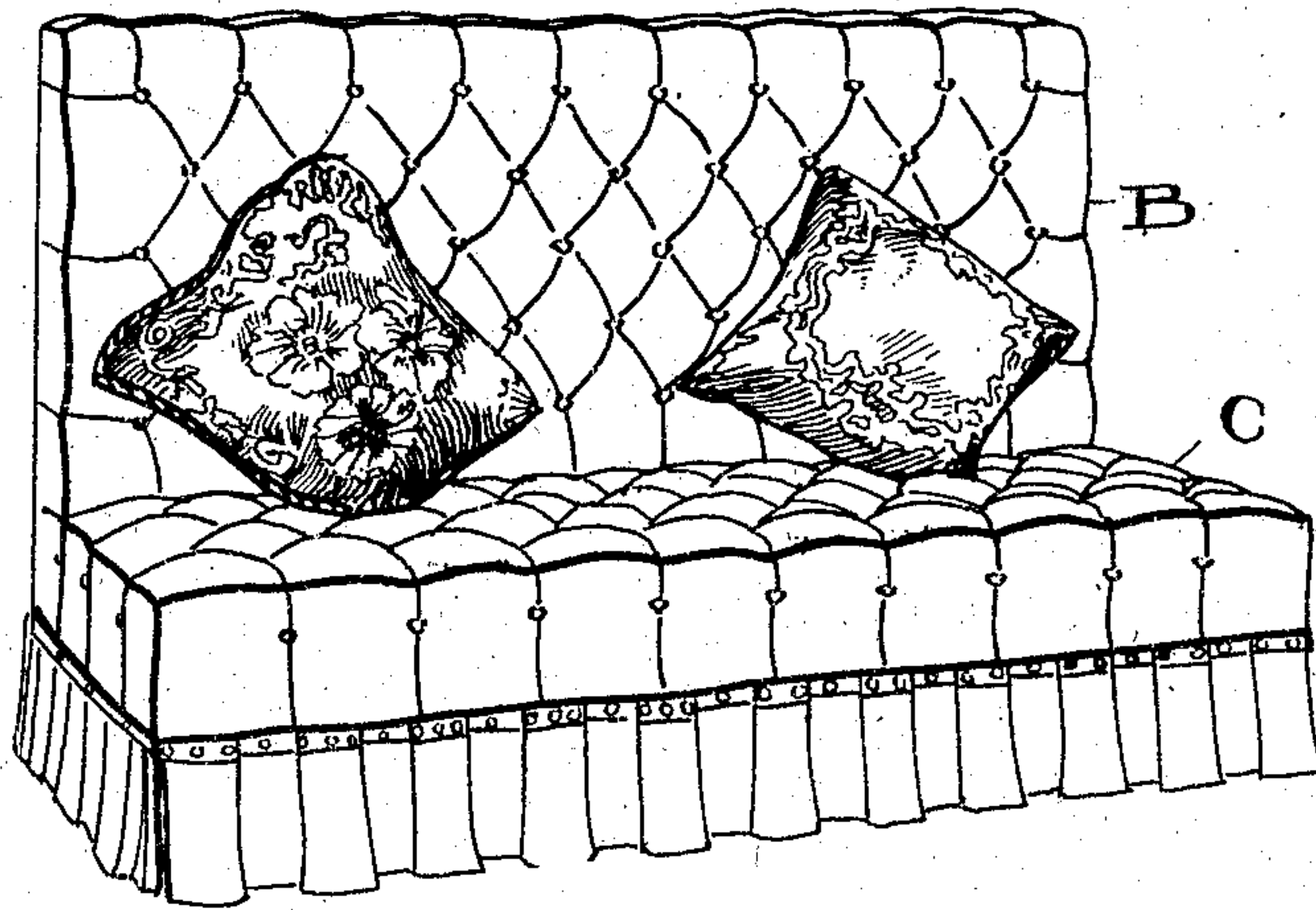
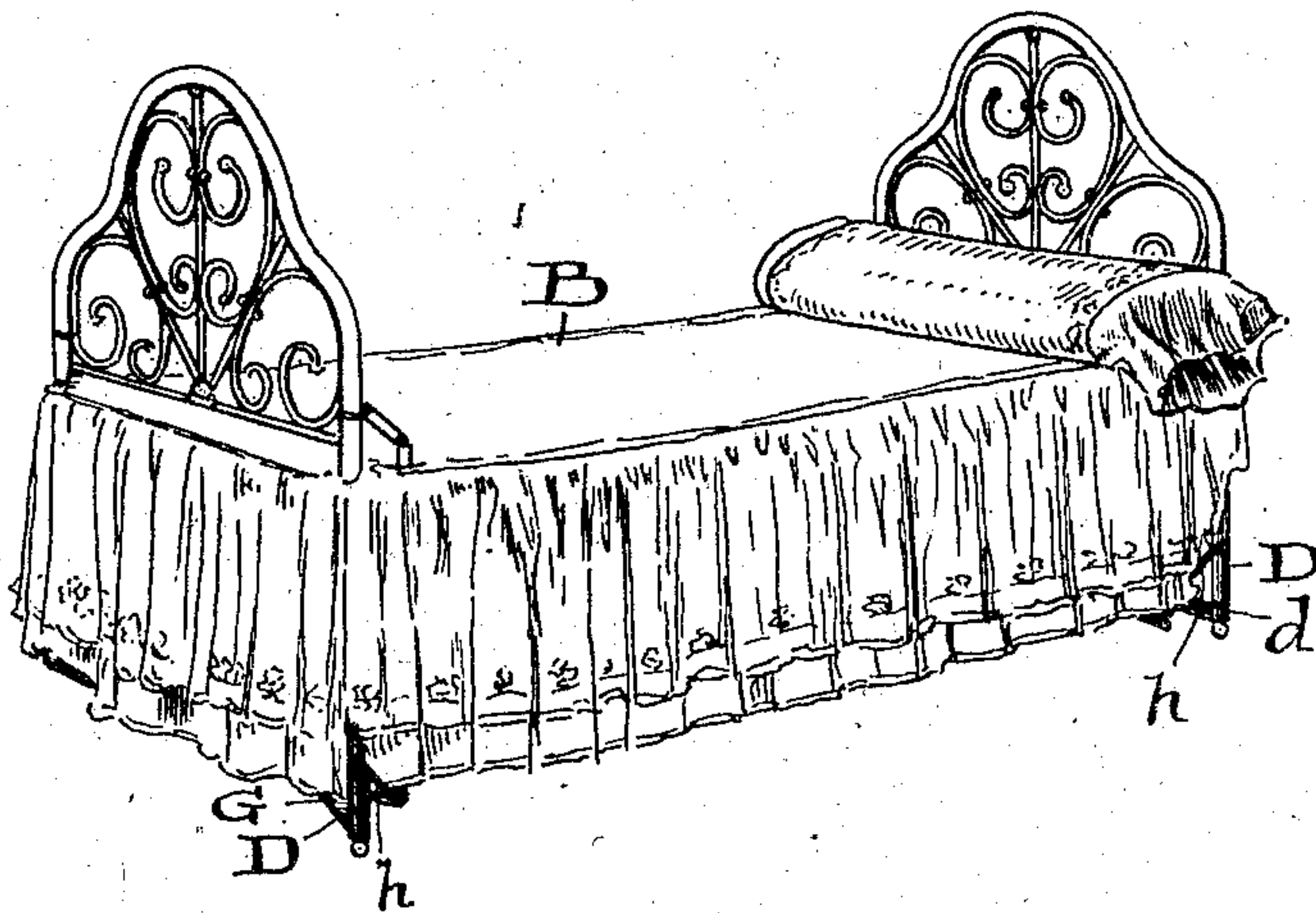


FIG. 2.



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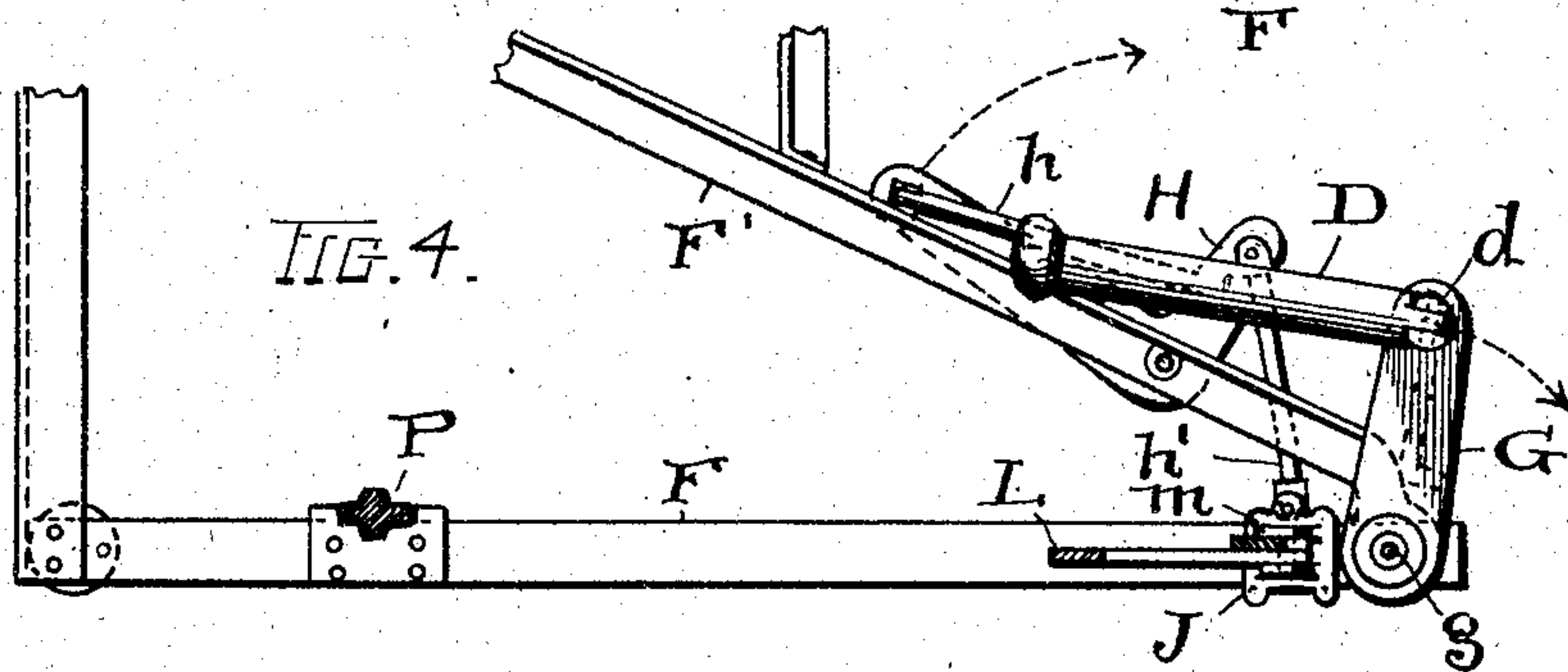
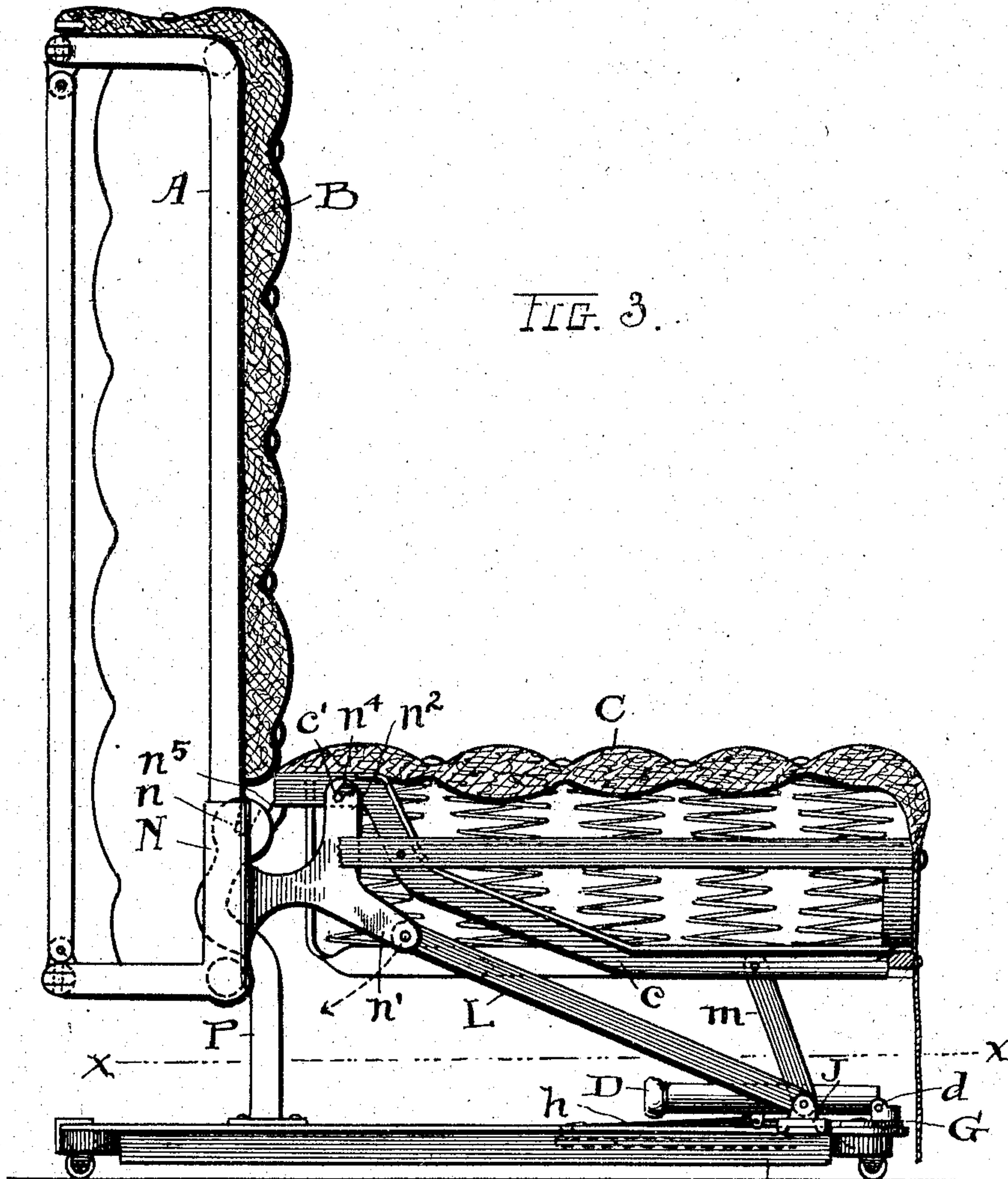
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3 SHEETS—SHEET 3.

FIG. 5.

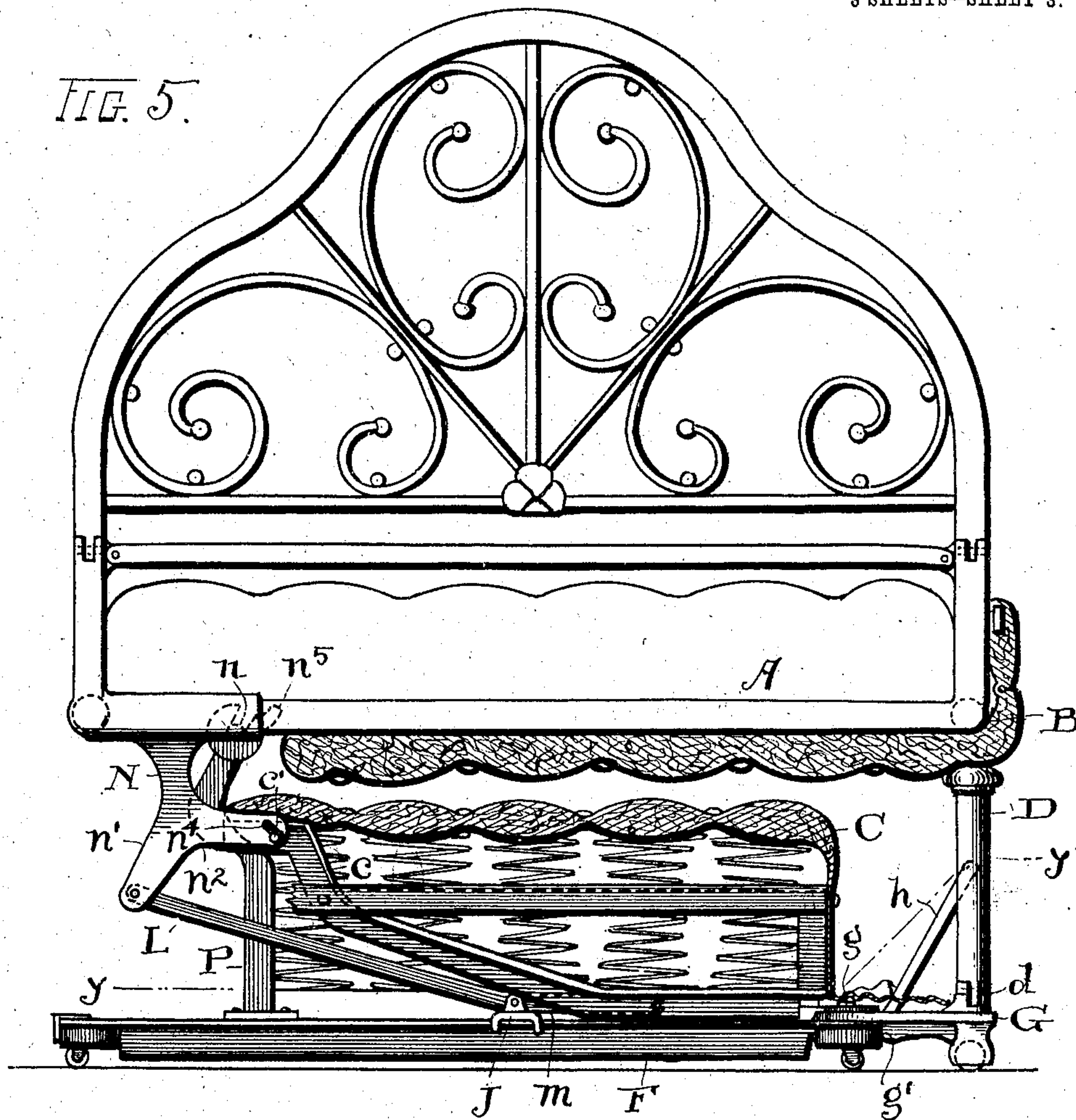
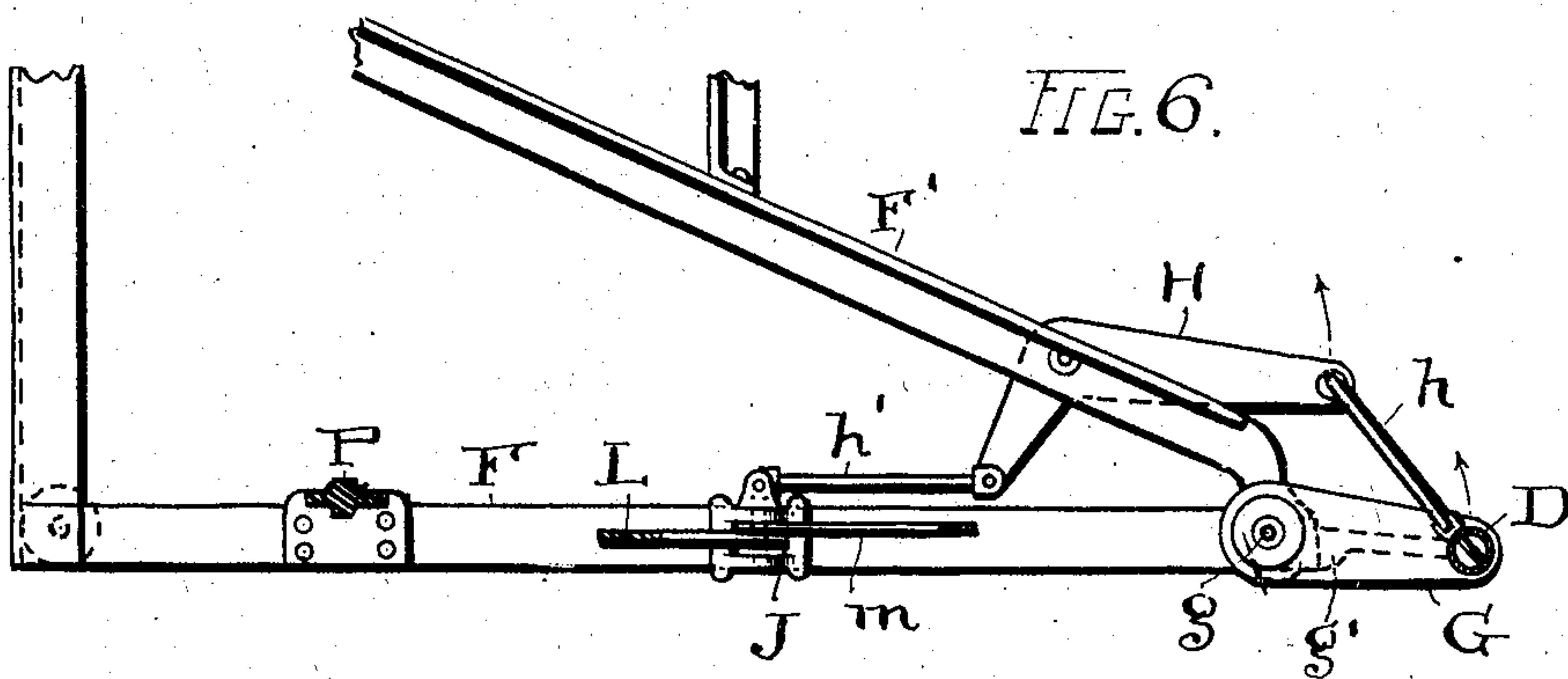


FIG. 6.



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UNITED STATES PATENT OFFICE.

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COMBINED BED AND COUCH.

SPECIFICATION forming part of Letters Patent No. 791,719, dated June 6, 1905.

Application filed January 9, 1904. Serial No. 188,332.

To all whom it may concern:

Be it known that I, DAVID THOMAS OWEN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in a Combined Bed and Couch; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a combined bed and couch; and the invention consists in the construction and combination of parts, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the invention in the form of a couch, and Fig. 2 is a perspective view of the invention in the form of a bed. Fig. 3 is a cross-section of the invention as a couch and enlarged as compared with Fig. 1. Fig. 4 is a plan view on line *xx*, Fig. 3, of the means for raising and lowering the legs for the front of the couch and showing the leg as down or folded. Fig. 5 is a part section end view of the invention shown as a bed and the mechanism for raising and lowering the bed and couch. Fig. 6 is a plan view on line *yy*, Fig. 5, showing the parts for controlling the front legs as they appear when the legs are raised, Fig. 5.

In the construction thus shown, both the bed B and the couch C are lowered together or simultaneously when the bed is lowered for use, and both also are raised when the bed is raised and the couch is up for use, and the operating mechanism at each end of the structure for this purpose has connected therewith also the means for controlling the front supporting-legs D for the bed. Thus the lowering and raising of the bed and couch and the raising and lowering of said legs D is a conjoint and simultaneous operation, and these results are all accomplished by grasping the front edge of the bed by hand and raising or lowering or folding or unfolding it according to the position wanted. Now, having in mind, first, the leg or legs D for the front portion of the bed,

and there is one leg for each end of the bed, it is to be especially observed that the said legs are not carried by the bed or bed-frame A or by the couch and that they are pivotally connected with the base or base-frame F for the bed and couch and adapted to lie down when the couch is used and to stand up in erect position when the bed is used and to serve as front supports therefor, as clearly seen in Fig. 5. Furthermore, it is designed that the said leg or legs shall also be moved outward from beneath the couch and raised when the bed is to be used and to be withdrawn or folded beneath the couch when retired from use, and the said legs therefore have this back-and-forth and up-and-down movement in respect to their support and are adapted to turn on their pivots *d* when raised to a supporting position. Now following the details of this arrangement the leg D at each end is carried by an arm G, pivoted at *g* on the base or base-frame F of the bed and adapted to swing horizontally thereon. As here shown, the said frame has casters upon which it may be moved about and serves as the support upon which the bed and couch rest as a whole. Said base or frame may therefore have any suitable construction and come within the plan of my invention. A shoulder *g'* limits the open throw of the arm G, so that it cannot swing back beyond a certain point. Leg D is pivoted upon the outer extremity of said arm and is controlled for raising and lowering by means of a bell-crank lever H, pivoted in its angle in a fixed portion F' of the base-frame F, and a link *h* connects the longer arm of said bell-crank with leg D at about its middle portion, as here shown. Another link *h'* connects the short arm of the said bell-crank lever with a shoe J, slidably engaged upon the base F and adapted to slide back and forth thereon, according as will be seen farther along. The turn of lever H on its pivot operates to carry leg D and its supporting-arm G forward and then to stand the leg upright with link *h* as a controlling and bracing part. The lever H has a long sweep to accomplish this purpose, as seen in Fig. 6, compared with Fig. 4. When

legs D have been raised, bed B is ready to rest itself down upon said legs, and as the legs come immediately beneath the front corner of bed-frame A they make a strong and satisfactory support for the bed at its front, and so that any one can seat himself upon the bed and not affect any of the parts.

Now in order that the bed and couch may be supported at their rear and raised and lowered correspondingly and at the same time, I provide two rear posts P, fixed upon the base F and of such strength and character as to afford a firm support for all the depending parts. These posts or standards preferably have open slots at their top, and upon the ends of the rear of the bed-frame A are brackets N, with rounded bearing n engaged in said slots and forming pivots for the bed or bed-frame. The said brackets N practically are at the rear of pivot-points n and are each provided with two arms n' and n'' , which stand at about right angles to each other and project downward away from frame A. The lower or larger arm n' is connected with sliding shoe J by long link L, while the upper arm n'' serves primarily as a support for the couch. At each end the couch-frame shows an angle-iron bar c , raised at its rear end to clear its movements and provided with a pivot-lug c' , engaged in the inclined slot n^4 in arm n'' , so that the couch is not only afforded a pivot-support from the bracket N, but when it is lifted to a raised position to be occupied it is carried bodily rearward in said inclined slot sufficiently to cause the rear portion of the couch-frame to rest upon leg n^5 , projecting inward at the top of post P. This rests the rear of the couch upon said lugs at each end and forms a strong and fixed support therefor independently of the mechanism, whereby the couch is otherwise carried, and especially relieves bracket N and all tendency to pull down on the bed.

It has been observed that the bracket N comes behind the pivots of the bed on posts P, and hence said bracket is in a position to swing from the relation seen in Fig. 3 to position Fig. 5, which is the other extreme of its movement—that is to say, when the bed is up and the couch in use the parts are in position, as in Fig. 3. When the bed is used and the couch is down, the said parts are as seen in Fig. 5. The link m , which connects the couch with shoe J, serves also as a support for the couch when it is raised. The couch is lowered with the lowering of the bed, and by drawing shoe J to the rear the link m comes down into a horizontal position, Fig. 5, and the otherwise elevated arm n'' comes down into a corresponding horizontal position at the rear, so that the couch is practically lowered down upon base-frame F. Then as the bed is raised by tilting upon its pivots n the shoe J is carried forward by link L, and link m is moved to a raised position, and arm n''

assumes an upright position again, as seen in Fig. 3. This operation also reverses the movements whereby the legs D were thrown into an erect position, and by such reversed position said legs are folded as originally beneath the couch. When raised, the supporting-links m for the couch are preferably inclined rearward at their top to erect a bracing effect in holding the couch in its place, and the said braces serve practically as front legs for the couch.

It will be especially noticed that the legs D for supporting the bed are pivoted on base F and foldable thereon when not in use. Otherwise they are carried therefrom by arms G and brought into position to stand beneath the edge of the bed or bed-frame, which is considerably wider than the couch, as shown in this instance. When the said legs are retired, they are concealed by the fringe of the couch.

What I claim is—

1. In a combined bed and couch, a couch and a bed adapted to be folded over the couch, a base-frame to support both bed and couch, legs to support the front of the bed pivoted at their lower ends upon said base, and means connected with said bed adapted to automatically raise said legs to supporting position when the bed is lowered.

2. A combined bed and couch and means to raise and lower said parts simultaneously, a base-frame to support the bed and couch, front legs pivotally supported at the front of said base, and mechanism to lower said legs when the bed is raised, said mechanism having initial actuating connection with the rear of the bed-frame.

3. In a combined bed and couch, the couch and bed and base therefor, legs to support the front of the bed pivotally supported upon the front portion of said base, and means for bracing said legs adapted to fold the legs beneath the couch when the bed is raised.

4. In a combined bed and couch, a base supporting the bed and couch, pivoted legs to support the front of the bed, a supporting member for each leg pivotally connected with said base, and link-and-lever connections for operating said legs and member when the bed is raised and lowered.

5. The combined bed and couch and a base supporting the same, front legs for the bed pivotally connected with said base, mechanism mounted on said base for said bed and couch to simultaneously raise and lower the bed and couch, and connections between said mechanism and said legs to raise and lower the legs when the couch and bed are raised and lowered.

6. The base and the legs pivotally supported thereon, in combination with the bed pivotally supported on said base and adapted to rest upon said legs, and mechanism connect-

ing the bed with said legs and adapted to erect the legs when the bed is lowered, said mechanism comprising a member slidable on the said base and link connections from said member to the bed and to the said legs.

7. The bed and the couch pivoted thereto and supports at the rear of the couch on which said bed is pivoted, a base and sliding parts thereon, arms projecting from the bed and links connecting said arms with said sliding parts, and link-supports for the front of the couch pivotally connected with said sliding parts, whereby the elevation or lowering of the couch is determined by the raising and lowering of the bed.

8. A base, a bed pivotally supported upon said base, a couch pivotally connected with said bed, supporting-links for the front of the couch adapted to slide on said base, means connected with the bed beneath its pivots to cause said links to rise to a supporting position for the couch, and fixed supports on said base for the rear of the couch.

9. A bed support and a bed pivoted thereon, and a couch pivotally connected with said bed, a movable support for the couch at its front, a fixed support for the couch at its rear, and means to initially shift said couch from the fixed support upon the initial lowering movement of the bed and to lower the couch be-

neath the bed upon a further down movement of the bed.

10. The combination of a folding bed with a lowering couch and operative lowering and raising connections between said bed and couch, a base for said bed and couch, leg-supports for the front of the bed pivotally mounted upon said base and adapted to be moved outward therefrom, and connecting and operating means between said leg-supports and said bed.

11. The combination of a bed and couch pivotally connected and pivotally supported and a common base therefor, with legs for the front of the bed supported upon said base and adapted to be folded underneath the couch when the bed is raised, and means for operatively connecting said bed, couch and legs for joint action.

12. In a folding bed, the bed and a base therefor, folding legs pivotally mounted on said base at its front, and mechanism connecting said bed and legs to fold said legs upon said base when the bed is folded.

In testimony whereof I sign this specification in the presence of two witnesses.

DAVID THOMAS OWEN.

Witnesses:

R. B. MOSER,
C. A. SELL.