

(No Model.)

2 Sheets—Sheet 1

J. BOYD.
FOLDING COUCH.

No. 551,253.

Patented Dec. 10, 1895.

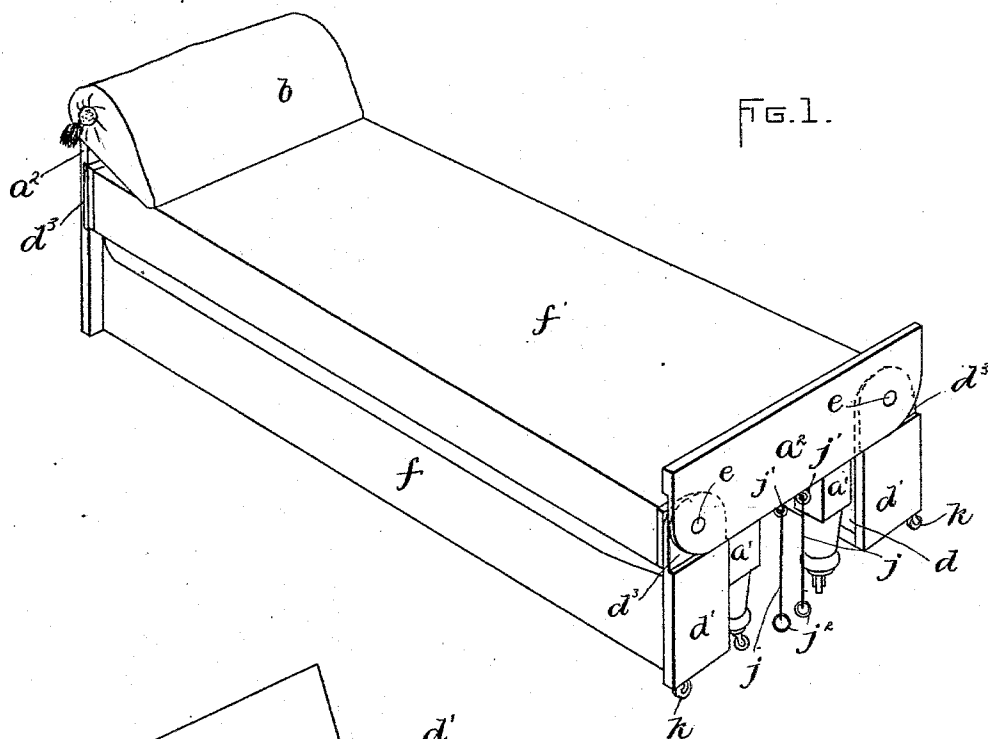


FIG. 1.

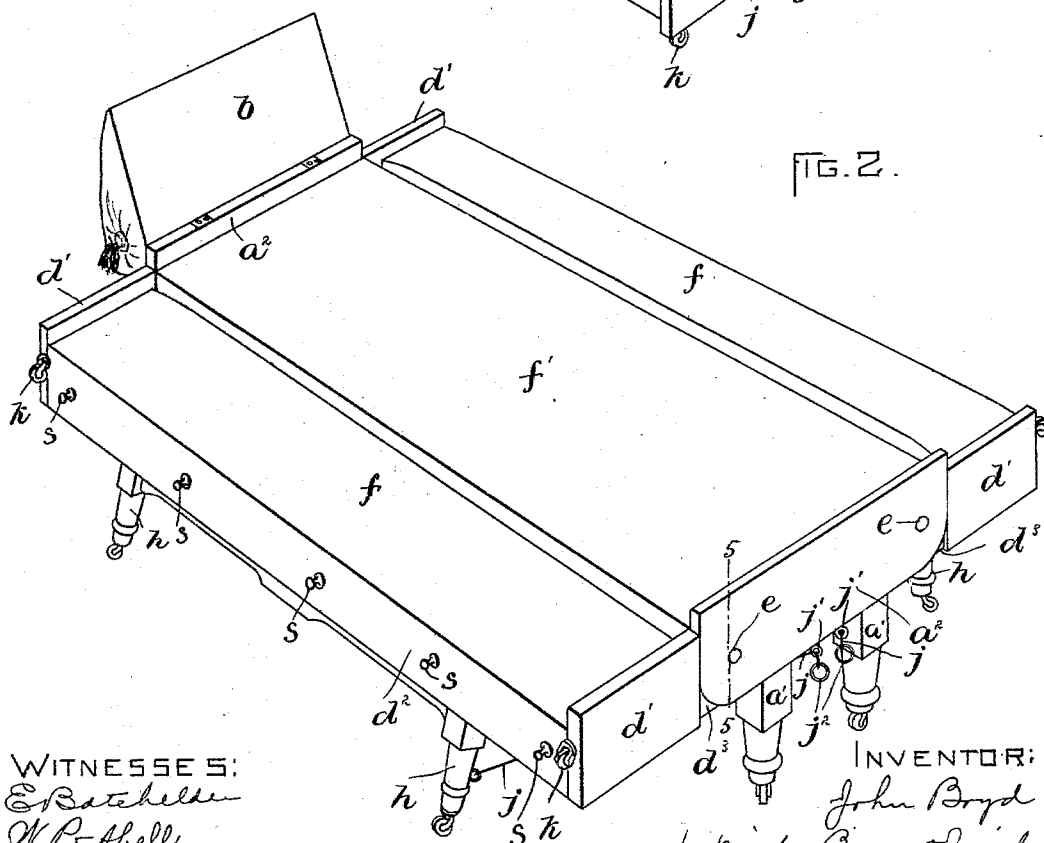


FIG. 2.

WITNESSES:
E. Batchelder
W. P. Abell.

INVENTOR:
John Boyd
by *Myer & Co. & Co.*
Attys.

(No Model.)

2 Sheets—Sheet 2.

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FOLDING COUCH.

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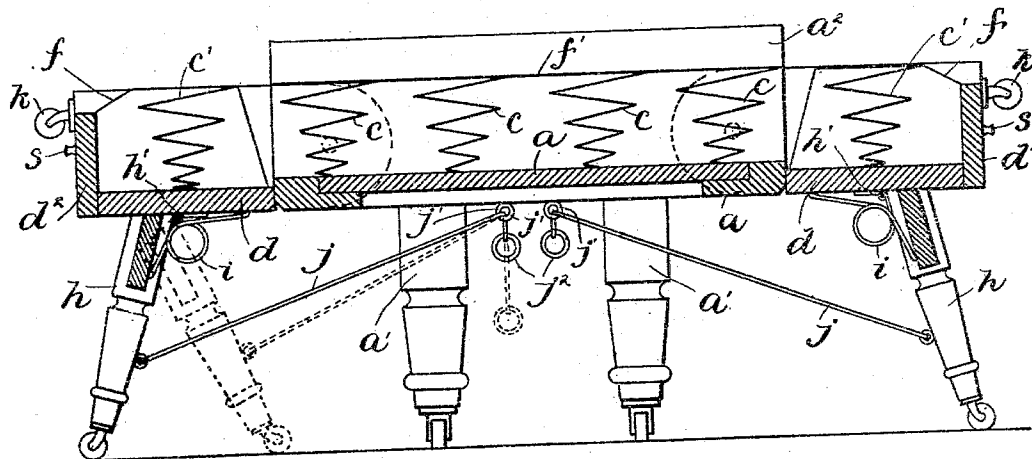
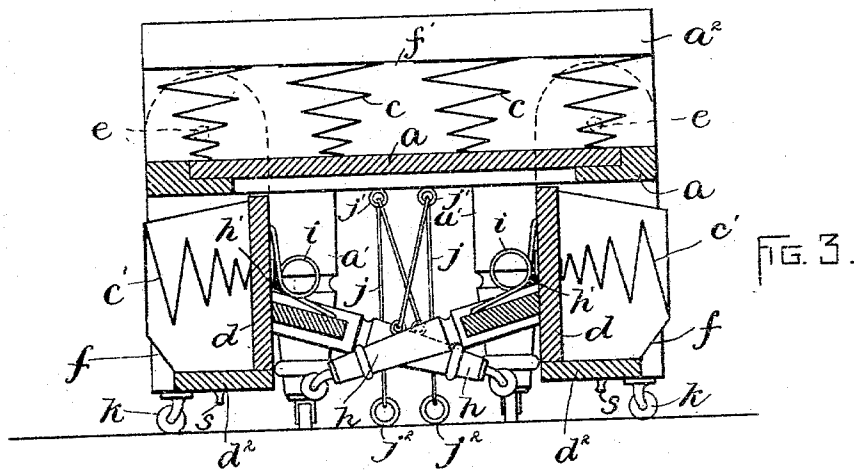
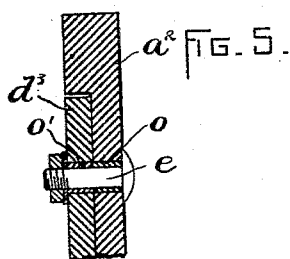


FIG. 4.



WITNESSES:
E. Satchelder
W. P. Abell.

INVENTOR:
John Boyd
by Knight Brown & Company
Atty.

UNITED STATES PATENT OFFICE.

JOHN BOYD, OF BOSTON, MASSACHUSETTS.

FOLDING COUCH.

SPECIFICATION forming part of Letters Patent No. 551,253, dated December 10, 1895.

Application filed August 17, 1895. Serial No. 559,611. (No model.)

To all whom it may concern:

Be it known that I, JOHN BOYD, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful

Improvements in Folding Couches, of which the following is a specification.

This invention relates to couches which are adapted to be folded so as to serve as a couch and to be extended to serve as a bed.

The invention has for its object to provide an improved construction of folding couch whereby when the couch is folded its central or body section will present a couch-surface of desirable width and uniform elasticity from edge to edge, and when extended will constitute a comfortable and commodious bed.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of my improved couch folded. Fig. 2 represents a similar view of the same extended. Fig. 3 represents a transverse section of the couch in the condition shown in Fig. 1. Fig. 4 represents a transverse section in the condition shown in Fig. 2. Fig. 5 represents a section on line 5 5 of Fig. 2.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the frame of the body portion of my improved couch, the same being provided with legs *a'* *a'* and with suitable end pieces *a*², to one of which may be hinged a head-piece *b*, said head-piece being adapted to be turned over upon the supporting-surface when the structure is in use as a couch, as shown in Fig. 1, and to be swung backwardly, as shown in Fig. 2, when the structure is in use as a bed. Upon the frame *a*, which is in substance a horizontal platform from which the end pieces *a*² project upwardly, are mounted a series of helical springs *c*, the upper ends of which stand preferably somewhat below the upper edges of the end pieces *a*², said springs being closely arranged and constituting a yielding supporting-surface for a covering, which may be a sheet of suitable ornamental fabric or a mattress.

The main or body section above described is supplemented by two wings or extensions, each composed of a frame *d*, which is sub-

stantially flush with and constitutes an extension of the frame *a* when the structure is in use as a bed, as shown in Figs. 2 and 4, end pieces *d'* *d'* attached to the ends of the frame *d*, and side pieces *d*² attached to the outer edge of the frame *d* and to the outer ends of the end pieces *d'*. The end pieces *d'* are provided with ears or extensions *d*³, which are overlapped by the end pieces *a*² of the body-section and are connected to said end pieces *a*² by means of pivots *e*. Said pivots are arranged so that the wings in swinging downwardly from the position shown in Fig. 4 to that shown in Fig. 3 will fold entirely under the body-section of the couch, the pivots *e* being at a considerable distance below the top surface of the body-section and at the same distance from the top or outer surfaces of the wings. This construction enables the surface of the body-section to be carried out close to the edge of said section and to afford a resilient support extending the entire width of said section, so that when the structure is in use as a couch it has a supporting-surface of ample width and of uniform resilience from edge to edge.

The wing-frames *d* support springs *c'*, which when the wings are raised, as shown in Fig. 4, co-operate with the springs *c* in forming the bed, the wing-frames being provided with flexible coverings *f* extending across the upper ends of the springs *c'*. When the wings are swung downwardly, they are caused by the described arrangement of the pivots *e* to swing inwardly, so that their outer surfaces are flush with the edges of the body-section.

The wings are provided with legs *h* *h*, which are hinged at *h'* *h'* to the wing-frames *d* and are normally held in the position shown in Fig. 4 by springs *i*, said springs permitting the legs to yield and swing inwardly toward the center of the structure, as shown by dotted lines in Fig. 4.

j *j* represent cords attached to the legs *h* and extending therefrom through eyes or guides *j'* affixed to the body-section of the couch at one end thereof, said cords being provided with rings or handles *j*², by which they may be grasped and pulled to draw the legs *h* inwardly and thus permit the downward swinging movement of the wings.

It will be seen by Figs. 1 and 3 that when

the structure is in use as a couch the wings are folded under the body-section, as already stated, and that the legs *h* occupy the space between the wings under the body-section, the wings being provided with casters *k*, which bear upon the floor and support the wings when they are depressed.

When it is desired to convert the structure into a bed, the wings are swung upwardly to the position shown in Fig. 4, the legs *h* swinging outwardly and automatically assuming positions to support the wings. The wings may be released and allowed to drop by simply swinging the legs *h* inwardly.

I am aware that a folding couch comprising a body-section having springs and wings hinged to said section and having additional springs is not new; but my structure is distinguished from any prior structure of this character of which I am aware by the construction of the wings and the arrangement of the hinges that connect them to the end pieces, whereby the wings are enabled to drop entirely under the body-section and the body-section is enabled to support the springs directly over its outer edges instead of requiring that the springs be set back from its outer edges, as heretofore, this arrangement making the body-section much more desirable and comfortable when used as a couch than in any prior construction of which I am aware.

The springs of the body-section are preferably provided with a permanent cover *f'*, which may be a sheet of any suitable strong textile fabric placed upon the upper ends of the springs and secured at its edges to the framework of the said section. The coverings *f* above alluded to as extending across the upper ends of the springs of the wings are similarly arranged and secured.

When the structure is folded, the exposed surfaces of the body-section and wings may be covered by a sheet of ornamental fabric having holes at or near its edges to engage studs or buttons *s* affixed to the wings. Said sheet may be removed when the apparatus is in use as a bed, a mattress being placed upon the sections of the structure.

The bolts or pivots *e* are inserted in metallic bushings *o o'*, driven tightly into holes formed for their reception in the end pieces *a²* and ears *d³*, as shown in Fig. 5, said bushings being sections of gas-pipe. The bushings prevent wear of the wood by the turning of the bolts therein.

I claim—

A folding couch comprising the main section or body composed of the supporting frame *a* having upwardly projecting end-pieces, springs arranged on said frame to constitute a yielding support extending to the edges of the frame, and a suitable covering for said springs; and the wings, each composed of a frame, inwardly projecting end-pieces *d'* overlapping the end-pieces of the main section, the side-pieces *d²*, springs supported by said frame, and coverings for said springs, the inner ends of the end-pieces *d'* being pivoted to the end-pieces of the main section at points below the supporting surface of the main section, so that the wings can swing inwardly under the main section.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 6th day of August, A. D. 1895.

JOHN BOYD.

Witnesses:

C. F. BROWN,
E. BATCHELDER.