J. HOEY.

FOLDING COUCH.

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1,080,217.

Patented Dec. 2, 1913.

Fig. 1.

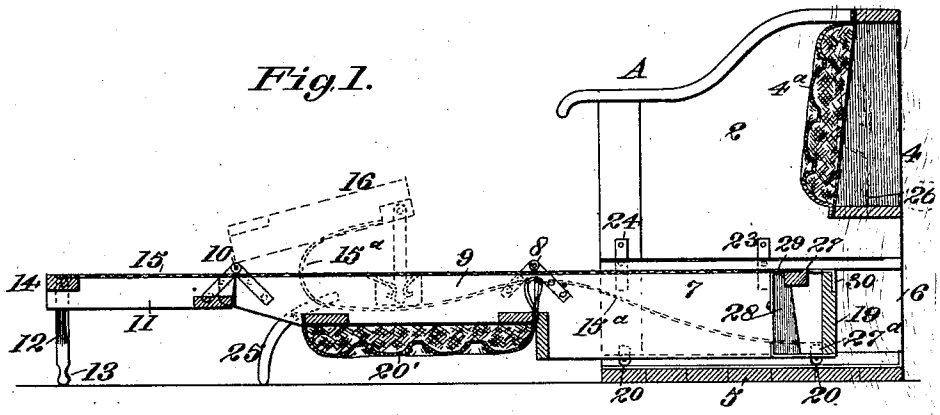


Fig. 2.

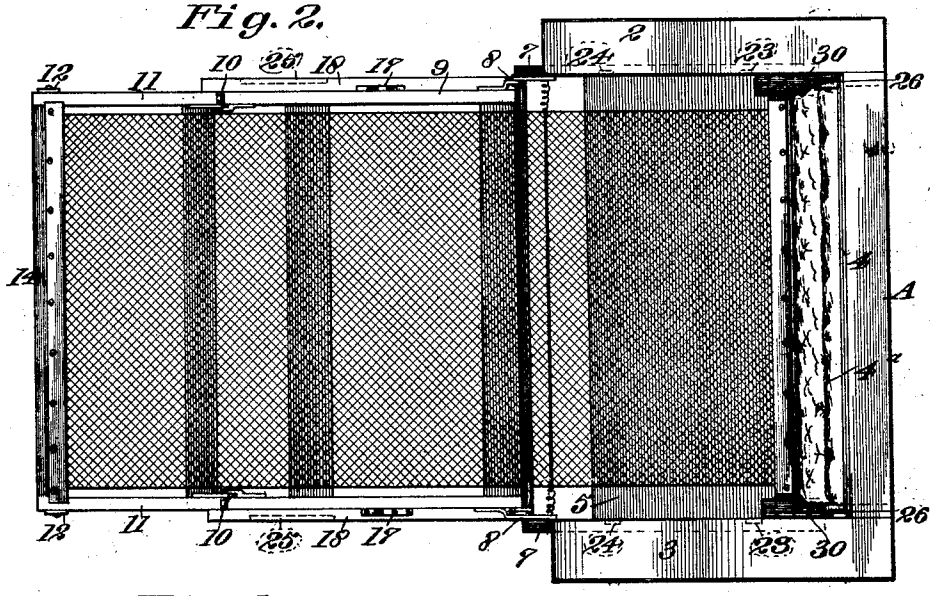


Fig. 3.

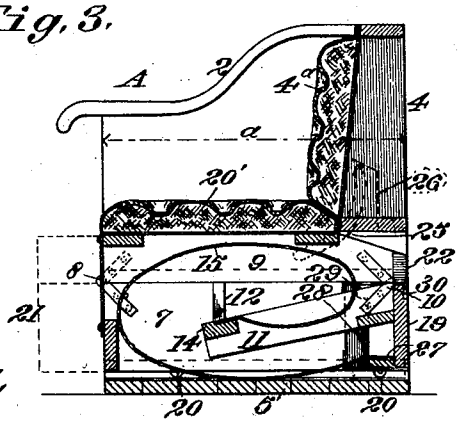
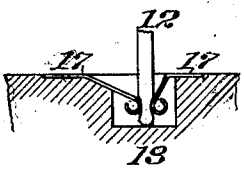


Fig. 4.



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FOLDING COUCH.

1,080,217. Specification of Letters Patent. Patented Dec. 2, 1913.

Application filed October 6, 1913. Serial No. 793,659.

To all whom it may concern:

Be it known that I, JOHN HOEY, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Folding Couches, of which the following is a specification.

This invention relates to improvements in the construction of folding couches.

The main object of this invention is to provide a simple, cheaply manufactured, easily operated folding couch having three folding sections which are so positioned that a comparatively narrow davenport frame may be utilized to house the folding couch.

Other objects will appear hereinafter.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed having reference to the accompanying drawings, in which—

Figure 1 is a vertical cross section, showing the folding sections in the extended position in full lines, and in the partly extended position in dotted lines. Fig. 2 is a plan view of same, showing the sections extended. Fig. 3 is a cross section of the davenport, showing the folding sections in the closed position. Fig. 4 is an enlarged detail of the leg latch.

Referring to the drawings: A indicates in general a couch, davenport, or like frame, consisting of the two end frames 2 and 3 which are secured together by a back frame 4, and bottom boards 5.

Slidably mounted in recesses 6, formed in the inner sides of the end frames 2 and 3, is a box-like structure 7 to which is secured by hinges 8 a foldable frame 9; and secured by hinges 10 to the outer end of the frame 9 is a second foldable frame 11. The outer frame 11 is provided with a pair of hinged leg members 12, the lower ends of which are slightly concave and rounded, as indicated at 13.

The outer foot rail 14 of the bed, to which the mattress 15 is secured, is supported in the frame 11 and said frame is adapted to be folded into the dotted line position indicated at 16, in which position it is supported and locked by the legs 12; suitable catch springs 17 having been provided in sideboards 18 secured to the frame 9 for the purpose of forming pockets for the catch springs 17.

By referring to Fig. 4 it can easily be seen that the ends of the legs in passing into and between the catch springs 17 will be locked in this position. The bed is then further closed by turning the frame 9 about the hinge 8 until the outer end of the frame rests on the back portion 19 of the sliding frame 7; this frame being slidably mounted on casters 20 within the main davenport structure is then moved back into the full line position shown in Fig. 3 where the upholstered section 20′ secured to the frame 9 will form a seat for the davenport and give it its natural appearance and utility.

In extending the couch it is only necessary to move the sliding frame 7 out into the dotted line position 21, indicated in Fig. 3, which will bring the outer end 22 of the frame 9 into position where it can be unfolded without interfering with the back frame 4, or the upholstery 4ª formed upon its front face. The outward sliding movement of the box-like structure 7 is limited by stops 23, while the inward movement of same is limited by the back frame 4. The stops 23, together with the secondary downwardly extending projections 24 secured to the end frames 2 and 3, not only act as stops, but also act as guides between which and the end frames the box-like structure is slidable. The outer end of the frame 9 is provided with a pair of stationary supporting legs 25, and the back frame 4 is provided with receiving pockets 26 on each side to receive the legs, as indicated in Fig. 3; the legs are entirely hidden in these pockets when the sliding frames are closed to form the davenport structure shown.

For the purpose of providing the largest space possible within the box-like structure, for the mattress 15 and bedding, a slidable head rail 27 has been provided. The outer ends of the head rail 27 engage with a pair of cam-like members 28, which are secured to the sides of the box-like structure 7. The upper ends of the said cam-like members are slightly recessed, as indicated at 29, to act as a support for the head rail 27 when this assumes the elevated position shown in Fig. 1; the elevated upward position being limited by a strap iron 30 which extends over the top of the cam members 28 and the end board 19 of the sliding box. When folding the bed back into the davenport frame, or when folding the frame 11 into

the dotted line position shown at 16, it can easily be seen that the spring naturally assumes the slack dotted line position indicated at 15ª. The slack position of the mattress permits the head rail 27 to drop into the lower position in the bottom of the box-like structure, indicated at 27ª, thus adding to the space within the structure. However, when unfolding the bed into the extended position shown in Fig. 1, it can easily be seen that the moment tension is placed upon the springs 15, a sufficient pull will be exerted upon the head rail to raise this up on the inclined surface of the cam members 28 into the upper position, indicated at 27, where it is supported partly by the recesses 29 formed thereon and partly by the tension of the spring. This part of the structure, relating to a head rail which is adapted to be raised and lowered within the box-like structure, is, however, being covered in a co-pending application, Serial Number 784,341.

The main novelty in this invention resides in providing the sliding box-like structure to which the frames 9 and 11 are secured; and the further novelty resides in the latching mechanism provided by the outer supporting legs 12 and the catches 17. The real advantage secured by locking the frame 11 in the dotted line position, indicated at 16, is this: By being locked in this position and by referring to Fig. 3, it can be seen that sufficient space is provided between the bottom of the frame 11 and the bottom of the box-like structure to permit sufficient room for the mattress 15 and bedding. Furthermore, by being locked in this position, it prevents the bedding from being unduly crushed by the weight of the frame 11 and attached head rail and mattress. Furthermore, by providing the sliding structure to which the folding sections 9 and 11 are secured, it is possible to produce a davenport structure narrower in appearance, that is in the direction of arrow *a*, than it is usually possible to secure; furthermore, it is possible to provide the frame 9 with stationary legs 25, for the simple reason that the sliding movement of the box-like structure with relation to the davenport frame permits these to be moved into the recesses 26 where they are entirely hidden from view.

A couch constructed as here shown is neat in appearance, simple in construction, and reliable in action; and takes less space than similar couches constructed with the same object in view.

The materials and finish of the several parts of the couch or davenport are such as experience and judgment of the manufacturer may dictate.

Having thus described my invention what I claim and desire to secure by Letters Patent, is:

1. The combination with a frame, of a box-like structure slidably mounted in same, a foldable frame pivotally secured to the box-like structure, a secondary folding frame pivotally secured to the first folding frame, and a mattress spring secured at one end to the secondary folding frame and at the other end to the box-like structure.

2. The combination with a davenport, of a box-like structure slidably mounted between the end frames thereof, means for limiting the sliding movement of said structure within the davenport, a foldable frame pivotally secured to the box-like structure, a secondary folding frame pivotally secured to the first folding frame, and a mattress spring secured at one end to the secondary folding frame, and at the other end to the box-like structure.

3. The combination with a davenport having a back frame and end frames, of a box-like structure adapted to slide under the back frame and between the end frames, means for limiting the sliding movement of said structure with relation to the back frame, a folding frame pivotally secured to the box-like structure having an upholstered seat section secured on its upper side, a pair of stationary legs secured to said frame adapted to support the frame in its extended position, and a pair of pockets formed in the sides of the back frame adapted to receive the legs when the frame is folded.

4. The combination with a davenport having a back frame and end frames, of a box-like structure adapted to slide under the back frame and between the end frames, means for limiting the sliding movement of said structure with relation to the back frame, a folding frame pivotally secured to the box-like structure having an upholstered seat section secured on its upper side, a pair of stationary legs secured to said frame adapted to support the frame in its extended position, a pair of pockets formed in the sides of the back frame adapted to receive the legs when the frame is folded, a secondary folding frame pivotally secured to the first folding frame, and a mattress spring secured at one end to the secondary frame and at the other end to the box-like structure.

5. The combination with a frame, of a box-like structure slidably mounted in same, a foldable frame pivotally secured to the box-like structure, a secondary folding frame pivotally secured to the first folding frame, a mattress spring secured at one end to the secondary folding frame and at the other end to the box-like structure, a pair of latches pivotally secured to the secondary frame, and spring catches mounted in the first folding frame adapted to engage with the latches to lock the secondary frame in an angular position with relation

to the first folding frame, said latches being also adapted to act as supporting legs for the secondary frame when this is unfolded.

6. The combination with a davenport having a back frame and end frames, of a box-like structure adapted to slide under the back frame and between the end frames, means for limiting the sliding movement of said structure with relation to the back frame, a folding frame pivotally secured to the box-like structure having an upholstered seat section secured on its upper side, a pair of stationary legs secured to said frame adapted to support the frame in its extended position, a pair of pockets formed in the sides of the back frame adapted to receive the legs when the frame is folded, a secondary folding frame pivotally secured to the first folding frame, a mattress spring secured at one end to the secondary frame and at the other end to the box-like structure, a pair of latches pivotally secured to the secondary frame, and spring catches mounted in the first folding frame adapted to engage with the latches to lock the secondary frame in an angular position with relation to the first folding frame, said latches being also adapted to act as supporting legs for the secondary frame when this is unfolded.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN HOEY.

Witnesses:
CHARLES F. HOEY,
M. A. CUTTEN.