J. HOEY.

FOLDING COUCH.

APPLICATION FILED APR. 7, 1913.

1,067,736. **Patented July 15, 1913.**

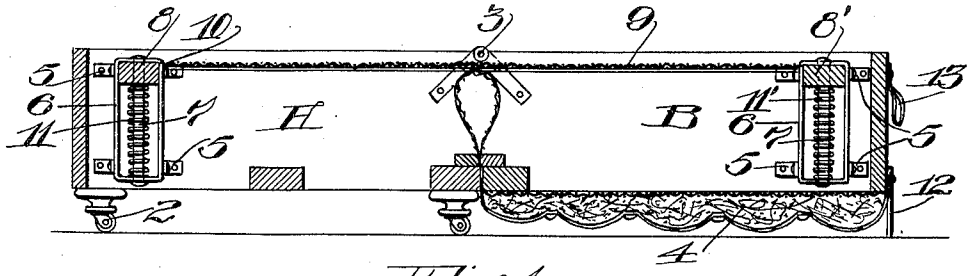


Fig. 1.

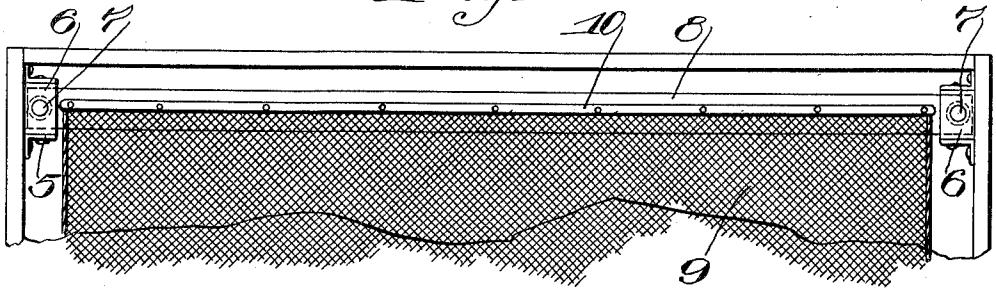


Fig. 2.

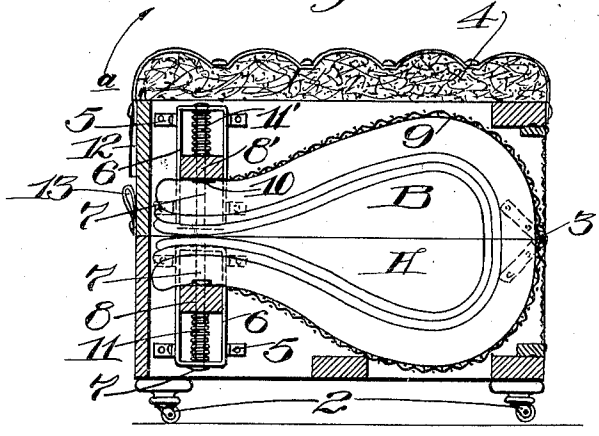


Fig. 3.

WITNESSES:

Thos. Eastberg.

Charles Pickles

INVENTOR

John Hoey.

BY G. H. Strong.

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN HOEY, OF SAN FRANCISCO, CALIFORNIA.

FOLDING COUCH.

1,067,736. Specification of Letters Patent. **Patented July 15, 1913.**

Application filed April 7, 1913. Serial No. 759,352.

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 a folding couch.

The object of the invention is to provide a simple, cheaply manufactured folding couch in which the bed spring supporting side rails are slidably and resiliently mounted for the purpose of permitting these to spread apart when the couch is folded, thus providing sufficient clearance within the couch to receive the mattress and bedding.

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 cross section of the couch sections, showing the parts extended to form a bed. Fig. 2 is a plan view partly broken away, showing the side rail and guide frames. Fig. 3 is a cross section, showing the couch sections folded to form a seat.

Referring to the drawings: A indicates a stationary rigid box-like structure having the desired length and width to form a chair, sofa, davenport, or the like, which is adapted to be mounted upon casters 2, to make the structure easily movable.

Secured by hinges 3 to the main body portion A is a secondary box-like structure B which is adapted to be folded out, as shown in Fig. 1, to form a bed; or closed to form a seat, as shown in Fig. 3; the top portion of same being suitably upholstered, as at 4, for this purpose.

Suitably secured, as at 5, in the end frames of the stationary structure and the secondary folding section 2, are guide frames 6, in which are centrally secured rods 7 upon which are slidably mounted side rails 8 and 8′ to which a wire mattress 9 is suitably secured as at 10, and interposed between the side rails and the bottom portion of the guide frames upon the rods 7 are coil springs 11 and 11′, which are provided for the purpose of projecting the side rails up against the head portion of the guide frames when the sections are unfolded to form a bed, and which will allow the side rails to assume the depressed position shown in Fig. 3 when the sections are folded, to allow sufficient room for the mattress and bedding.

The main box-like structure A may be provided with a suitable upholstered backrest and end frames not here shown, to give the couch the appearance of a davenport or like structure, or may be otherwise provided with ornamentations to produce various appearances.

The hinges 3, connecting the separate halves of the couch, are so positioned as to form a pivot point above the line of pull of the spring bottom 9 when this is extended, thus preventing accidental closing of the sections with relation to each other through the tension of the springs in the wire mattress section 9. The tension of the coil springs 11 and 11′ is sufficient to support the side rails 8 and 8′ against the head portion of the guide frames, as shown in Fig. 1, when the bed is extended; but is at the same time sufficiently resilient to permit the side rails to spread apart, as shown in Fig. 3, to allow sufficient room for the mattress and bedding.

The outer face of the hinged section 3 may be provided with any suitable form of supporting legs, indicated at 12, to support the section when in the extended position.

In operation when it is desired to open the sections out to form a bed, as shown in Fig. 1, it is only necessary to grasp the handle 13 and lift the section 2 about the section 3 in the direction of arrow *a* until the section is completely extended, as shown in Fig. 1. The side rails 8 and 8′ are then automatically elevated or extended by the pressure of the springs 11 and 11′, and will thus assume the elevated position shown. This elevated position will provide sufficient clearance between the wire mattress and the bottom portion of the folding sections, thus permitting perfect freedom and flexibility of the mattress. The mattress and bedding supported upon the flexible spring mattress will assume the position shown in Fig. 3 when the section B is folded up to form a seat, and will cause the side rails to spread apart, thus permitting sufficient clearance and room for the mattress and bedding; the weight of the hinged section 2 being sufficient to permit the spreading of

the side rails with relation to their supporting springs 11 and 11′.

A folding couch constructed as here shown can be very cheaply manufactured, as it is possible to produce a shallower structure than is usually provided, thus lessening the amount of material consumed in construction; this being produced by the slidable and resilient mounting of the side rails within the structure. The couch is neat in appearance and absolutely automatic and reliable in operation, and takes less space than the usual form of structure heretofore provided.

The materials and finish of the several parts of the couch 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 in a folding couch of a pair of foldable box-like sections, side rails movably mounted in each section, and a wire mattress secured to said side rails.

2. The combination in a folding couch of a pair of foldable box-like sections, guide frames secured to each section, side rails slidably mounted in said guide frames, and a spring mattress secured to said side rails.

3. The combination in a folding couch of a pair of foldable box-like sections, vertical guide frames secured to each section, side rails slidably mounted in said guide frames, a spring bottom secured to said side rails, and means for automatically raising and lowering the side rails within the guide frames.

4. The combination in a folding couch of a pair of foldable box-like sections, vertical guide frames secured to each section, rods secured in the guide frames, side rails slidably mounted on said rods, a spring mattress secured to said side rails, and means for automatically raising and lowering the side rails within the guide frames.

5. The combination in a folding couch of a pair of foldable box-like sections, vertical guide frames secured to each section, rods secured in the guide frames, side rails slidably mounted on said rods, a spring mattress secured to said side rails, and coil springs on said rods interposed between the bottom of the guide frames and the side rails to automatically raise or lower the side rails within the guide frames.

6. The combination in a folding couch of a pair of foldable box-like sections, side rails movably mounted in each section, a wire mattress secured to said side rails, and means for automatically raising and lowering the side rails within the guide frames.

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

JOHN HOEY.

Witnesses:
CHARLES F. HOEY,
JOHN H. HERRING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."