

J. C. HILLS.  
 ARTICLE OF FURNITURE.  
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1,002,844.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 1.

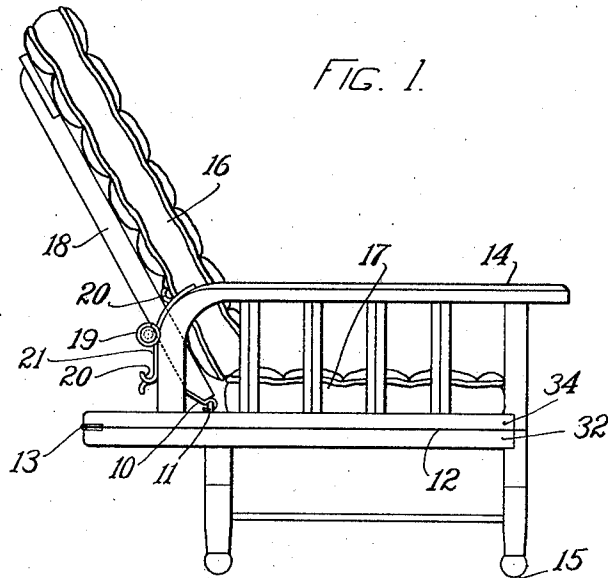


FIG. 1.

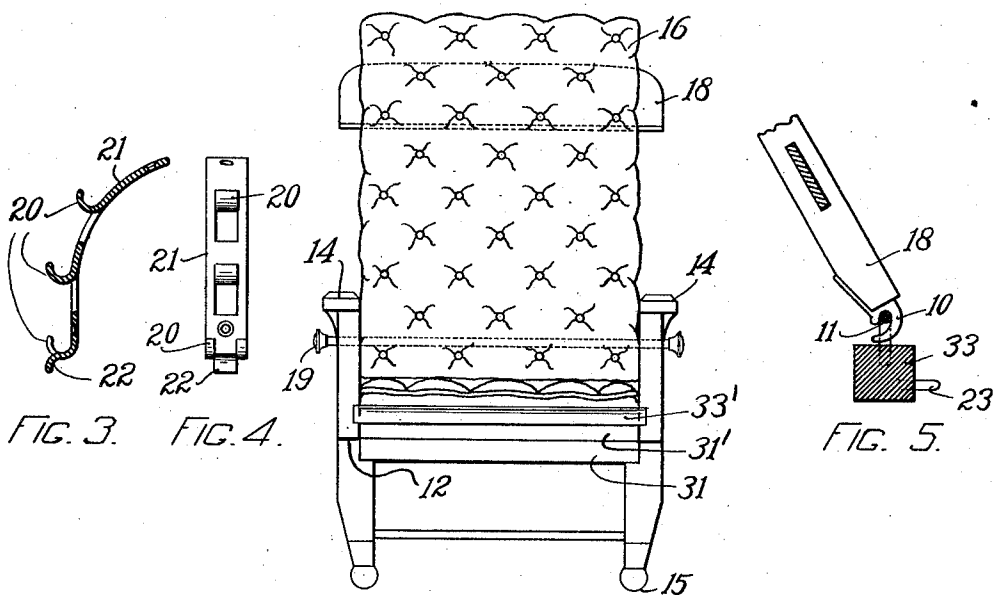


FIG. 2.

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2 SHEETS-SHEET 2.

FIG. 6.

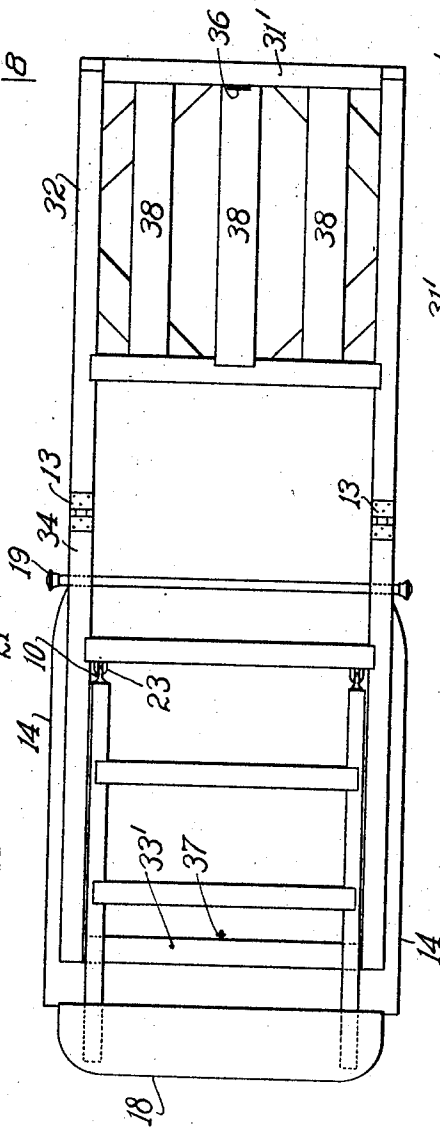
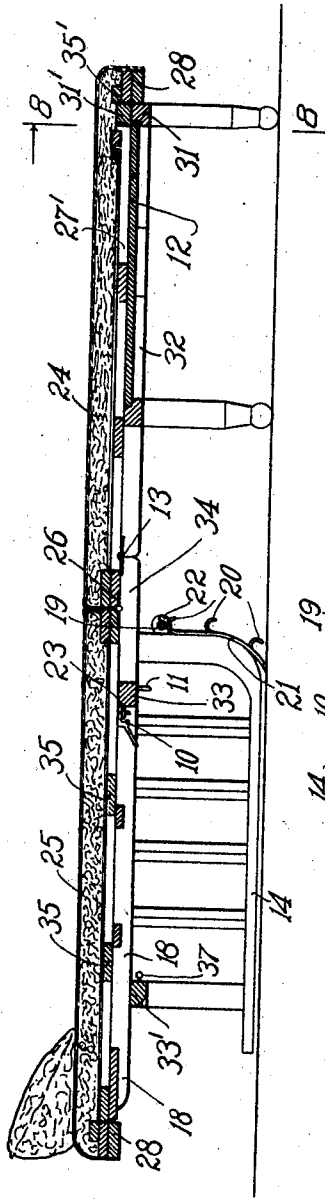


FIG. 7.

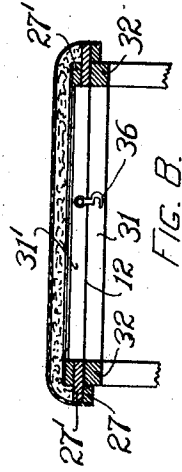


FIG. 8.

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# UNITED STATES PATENT OFFICE.

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## ARTICLE OF FURNITURE.

1,002,844.

Specification of Letters Patent. **Patented Sept. 12, 1911.**

Application filed February 24, 1908. Serial No. 417,268.

*To all whom it may concern:*

Be it known that I, JOHN C. HILLS, a citizen of the United States, and resident of Melrose, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Articles of Furniture, of which the following is a specification.

This invention relates to improvements in chairs convertible into couches.

The object of the invention is to provide an article of furniture which will be convertible either as a chair or a couch and which may be easily converted from one to the other and will be strong and durable in either form.

The objects of the invention are accomplished by the structure illustrated in the accompanying drawings which show one embodiment of the invention.

In the drawings:—Figure 1 represents a side elevation of a chair embodying the invention; Fig. 2 represents a front elevation of the same; Fig. 3 represents an enlarged vertical section through a detail of Fig. 1; Fig. 4 represents an enlarged rear elevation of the same detail; Fig. 5 represents an enlarged vertical section through another detail of Fig. 1; Fig. 6 is a vertical longitudinal section through the device when in use as a couch; Fig. 7 is a plan of the same; with the top cushion removed. Fig. 8 is a vertical section viewed from the end on the line 8—8 of Fig. 6.

In the embodiment of the invention portrayed in the drawings the device when used as a chair is in the form of a Morris chair with the peculiarity that the back is detachable, having hooks 10 which fasten into loops 11; and the seat frame is divided by a horizontal plane at 12 into two portions hinged together at 13; and the distance from this division plane to the top of the arms 14 of the chair is the same as the distance from the division plane to the bottom 15 of the legs of the chair. After removing the chair cushions 16, 17 and the back 18 by unhooking it as above described, the arms 14 may be turned about hinge 13 to the position shown in Fig. 6 and the part which in Fig. 1 forms the top of the arms rests upon the floor, the two pieces 32 and 34 which in Fig. 1 together form the seat frame being open about hinge 13 and standing at an equal elevation above the floor. When arranged as a chair as in Fig. 1 the angle of

the back may be adjusted pivotally about loop 11 with the aid of a cross-rod 19 which rests in any one of several notches 20 after the manner customary with Morris chairs. These notches may conveniently be formed by tongues punched and bent from the middle of a metal strip 21, being formed concave upward; and the lower end of this strip may be formed concave downward as at 22, thus serving as a rack in which to hold rod 19 when the device is arranged as a couch, the downward concavity then having become upward as shown in Fig. 6.

It will be observed in Fig. 1 that the side bar of the seat frame is extended well back of the place where the legs of the chair join it. The distance from front to back legs may be any distance which is desired or suitable in a chair. The distance from front of the seat frame to its hinge at the back is substantially half the distance from head to foot of the couch.

When used as a couch a separate cushion, spring or mattress frame is used. This is shown in Figs. 6 and 8 but is absent in Fig. 7. This frame is composed of two rectangular portions 24 and 25 hinged together at 26 and has side bars 27 and end bars 28 which fit outside of and drop a little below the level of the top of the opened couch frame above described, the top bars of the couch being marked 31 and 32 for the frame to which the chair legs are attached and 33, 33' and 34 for the frame to which the chair arms are attached. By thus inclosing this couch frame, the cushion frame is held rigidly thereon and at the same time it strengthens the structure of the couch frame by holding it firm and rigid notwithstanding its hinged connection in the middle. The head end of the cushion frame extends beyond the head bar 33' of the seat and by this means the desired total length available for use is obtained without the necessity of having the two portions which form the legs each half of that length. By reason of this extension the hinges 26 of the cushion frame do not register with the hinges 13 of the couch frame and therefore, a structure rigid in both of its component frames is obtained, notwithstanding each of them contains the elements of weakness which are inherent in hinges. The head bar 33' is set low enough to allow the back piece 18 to rest upon it; and the inside cross-bars 35 of the cushion frame rest

thereon, thus holding firmly the main portion of the back frame 18 so that its projecting portion in Fig. 6 furnishes a support for the projecting portion of the cushion frame at the left of said figure. When the arm and leg portions are folded together as in Fig. 1, the bar 33' rests upon a cross-bar, 31', which rises above the level of division line 12 and thus fits between the two side bars 34 of the arm portions, which close down on each side of it like the side bars 27' of the cushion frame in Fig. 8. Thus the piece 31' constitutes a sort of tongue which rises from the leg portions into the arm portion when they are closed together. These two are thus firmly engaged or locked together with respect to all sidewise motion and the upper portion rests firmly on the legs when used as a chair and cannot be skewed sidewise notwithstanding the only actual fastening between it and the lower portion is at the hinges 13. It is preferable however to provide some simple fastening such as a hook 36, Figs. 7 and 8, on the inside of bar 31' adapted to swing up and engage an eye 37 upon bar 33'. When these two are fastened together, the whole chair may be lifted by lifting the arms 14.

When the device is to be used as a chair the seat cushion rests upon slats 38. When the article is used as a couch ledges 27' on the side bars of the cushion-frame shown in Fig. 6 rest directly on the side bars 32, as shown in Fig. 8 and the weight of a person lying on the couch is by the cushion cross bars 35 carried directly to the cushion side bars 27' and by them is imposed directly over the main supports of the structure. The upward projecting piece 31' fits into a recess at the foot of the cushion frame 24, between the two cross bars 35' 35' and thus this tongue locks the cushion frame from slipping out of place longitudinally. The cushions 24, 25 may contain springs or may serve as a mattress without springs as desired; when made up as a couch the unusual character of the supporting legs will ordinarily be concealed by the use of a suitable couch cover.

From the above description, in connection with the drawings, it will be seen that I have provided a convertible article of furniture comprising a two-part frame of permanent length, said parts being hingedly connected, and combinedly forming a couch frame when extended and a chair frame when not extended, one of the parts of the frame having a seat portion of permanent and predetermined length, this length being less than the length of the frame when not extended, the predetermined length of the seat portion being provided by the permanent position of the loops 11, so that whatever additional length the side bars of

the frame extend in rear of said loops, does not increase or vary the length of the seat portion. It is by reason of this fact that the two frames will provide a chair seat of normal length, and permit of the movement of the frame in such manner as to form a full length couch when the frame members are opened out or extended, and eliminating any requirement for an extension for this purpose.

It is to be understood that by the term "length" used herein, reference is made to the direction running from the front to the rear of the chair seat, and from the head to the foot of the couch, this direction being the important and controlling feature in an article of furniture capable of being used for both chair and couch, it being assumed that the direction of length is in the same direction in both cases, the direction of length of the chair seat being simply continued and extended when the frame is formed into the couch. The distance between the side arms of the chair (which distance is not included within the term "length" as used herein) is immaterial, as it may accommodate one or more persons without affecting the character of the invention, since, such distance would not affect the direction of length or the distance from head to foot of the couch regardless of the number of persons the couch is adapted to provide for.

I claim:—

1. A convertible chair and couch, comprising a frame in two parts adapted to be superposed to form a chair and to be alined one behind the other to form a couch; the frame when the parts are superposed having a section extending beyond the seat and embodying an extra length of frame which, when the parts are alined as aforesaid, with the doubled dimension of this extra length added to the doubled length of the seat portion, makes a normal length couch.
2. An article of furniture comprising a chair having a frame divided horizontally, legs on the lower portion, arms on the upper portion, and a hinge at one end between the portions, the lower portion having a front cross bar with a portion raised above the division plane and the upper portion a corresponding bar, with raised portion forming a recess between the side bars of the frame, into which recess the raised under-bar fits, forming a locked joint; and an extension piece adapted to lie within said upper portion when opened on its hinges and to project out through said recess, thereby extending the couch frame.
3. A chair, having a divided seat frame, one part having legs and supporting the other; the other having arms, and being hinged to the first and thus adaptable with it to form a couch frame, there being projec-

tions from the chair frame at the level of  
said division, at the ends of which the  
hinges are set; in combination with two  
stiff frames hinged together endwise and  
5 adapted to fit upon said couch frame, said  
hinges being in advance of the hinges of  
the couch frame.

4. A chair, having a divided seat frame,  
one part having legs and supporting the  
10 other; the other having arms, and being  
hinged to the first and thus adaptable with  
it to form a couch frame; the said parts be-  
ing of equal length from their hinges; in  
combination with a cushioned frame having

two stiff sections of equal length hinged to- 15  
gether, its total length being greater than  
the total length of said couch frame, and  
means to lock one end thereof together with  
one end of said couch frame, the other end  
projecting beyond the couch frame, whereby 20  
the hinges of the two are not in register.

In testimony whereof I hereto affix my  
signature, in presence of two witnesses.

JOHN C. HILLS.

Witnesses:

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EVERETT E. KENT.

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