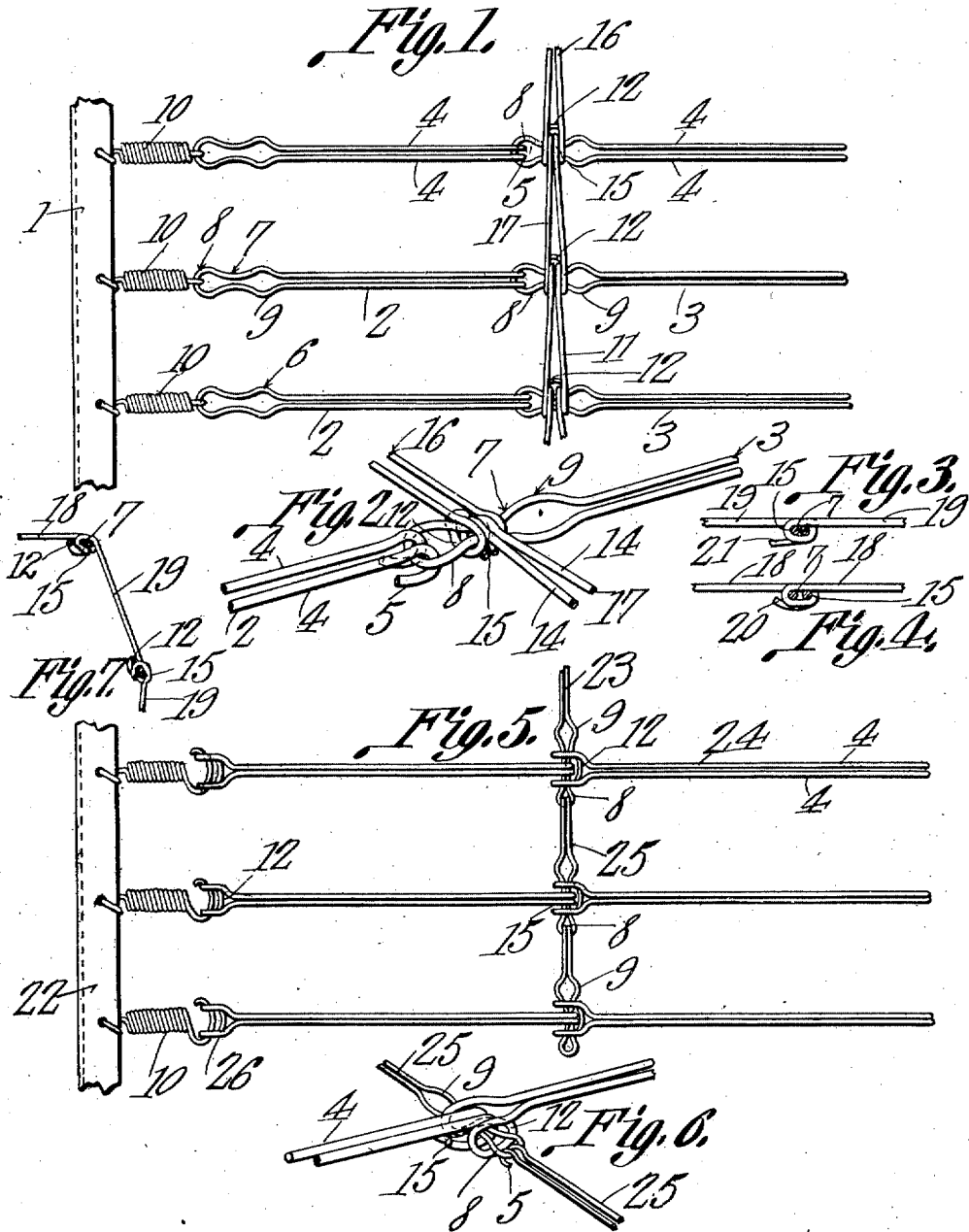


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INTERLOCKING HOOK FABRIC.
APPLICATION FILED MAY 5, 1910.

981,888.

Patented Jan. 17, 1911.



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INTERLOCKING-HOOK FABRIC.

981,888.

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To all whom it may concern:

Be it known that I, GARY B. SMITH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Interlocking-Hook Fabric, of which the following is a specification.

It is the object of this invention to provide a fabric adapted to be mounted upon folding couch frames and upon bed frames, the construction being such that certain elements of the fabric may pivot, telescope and yield, under a superposed weight, or when one of the constituent portions of a foldable couch frame is disposed at an angle to another portion of said frame.

Another object of the invention is to devise a spring bed fabric certain alined elements of which are adapted to move upon each other, without moving transversely upon certain connecting elements, whereby the alined parts are united to form the fabric.

The drawings show typical embodiments merely, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

In the accompanying drawings—Figure 1 shows in top plan, a portion of a fabric constructed in accordance with the invention, the said fabric being connected with a portion of a frame structure; Fig. 2 is an enlarged detail perspective adapted to show the manner in which the fabric-forming elements are united; Fig. 3 is a fragmental transverse section showing one manner in which the transverse elements of the fabric may be connected with the longitudinally extended elements thereof; Fig. 4 is a fragmental transverse section designed to show a slight modification of the structure delineated in Fig. 3; Fig. 5 is a fragmental top plan of a modification of the structure delineated in Fig. 1, the showing of Fig. 5 being adapted peculiarly for use upon bed frames which do not fold; Fig. 6 is an enlarged detail perspective, adapted to show the manner in which the fabric-forming elements of Fig. 5 are united; and Fig. 7 is a detailed section of Fig. 1, adapted to show the manner in which the fabric set forth in Fig. 1 may be disposed, when one of movable portions of a couch frame is dropped into a depending position.

As a preliminary statement, it may be remarked that in Fig. 1 of the drawings, those elements which are denoted by the numerals 2 and 3 are supposed to extend longitudinally of the couch structure, those elements denoted by the numeral 11 extending transversely of the couch structure, and that portion of the couch frame which is denoted by the numeral 1, obviously extending transversely of the structure. Likewise, in Fig. 5 of the drawings, the longitudinally extended elements of the fabric are denoted by the numeral 24, the transversely extended elements being denoted by the numeral 25.

The form of the invention shown in Fig. 1 is adapted to be used upon those couch frames, portions of which are pivotally mounted, so that they may be dropped down into a vertical position. Since this construction in a couch frame, is common and well known, I have considered it sufficient to illustrate an end portion only of such a frame, and to denote the same by the numeral 1, the manner in which the fabric operates in a folding couch frame, being sufficiently clear from the showing of Fig. 7, taken in connection with the other figures, without a specific delineation of the foldable elements of a couch frame.

The fabric includes a plurality of one-piece members 2 and 3, disposed in alinement and extended from one of the end portions 1 of the couch frame, to a similar end portion. Each of these one-piece members is bent upon itself to form arms 4 disposed in close parallel relation, the arms 4 being bent to form a hook 5 at one end of the said members, and being spaced apart at the other end of said members, to form a loop-shaped head 6, alined with the arms 4. This loop-shaped head 6 is contracted, as denoted by the numeral 7, intermediate its ends, to form spaced seats 8 and 9. In the terminal seat, denoted by the numeral 8, the hook 5 of the next adjoining member is adapted to be inserted, thus pivotally connecting together in alinement, the similar members 2 and 3. The member 2 which is located adjacent the end of the couch frame, may be connected with the said frame in any desired manner. A helical spring 10 may be connected at one end, with the end frame 1 of the couch, and at the other end engaged in the seat 8 of the member 2; all as shown most clearly in Fig. 1. A plurality of these

elements 2 and 3 go to make up the longitudinally extended members of the fabric. These longitudinally extended members are connected by transverse ties, denoted generally by the numeral 11. The ties 11 are formed by bending a single piece of material sharply upon itself to form converging arms 14, the loop-shaped portion of the tie being bent to form a hook 12, while the free ends of the converging arms 14 are bent to form another hook 15. The hook 15 of one transverse tie, say that denoted by the numeral 17 in Fig. 2, is engaged in the contracted portion 7 of the member 3, intermediate the seats 8 and 9, the hook 15 engaging the contracted portion 7 so that, although the tie may move pivotally upon the member 3, the tie will, nevertheless, be restrained against sliding, in the direction of its length, upon the said member 3. The loop-shaped hook 12 of another tie, say that denoted specifically by the numeral 16, is engaged in the contracted portion 7 of the member 3, upon the outside of the hook 15 of the member 17. This loop-shaped hook 12 engages the contracted portion 7 removably; that is, in such a way that the said hook 12 may be slid off the contracted portion, the ties 16 and 17 telescoping within each other. It is, however, to be noted, that, although the elements 16 and 17 may thus telescope, the loop-shaped hook 12, when the parts are telescoped, is extended beneath the diverging arms 14, so that the members 16 and 17 cannot become separated.

In Fig. 7 of the drawings, the spring bed fabric is shown in the position which it will assume when one of the sides of a couch frame is dropped into a vertical position. One of the horizontally disposed ties is, in Fig. 7, denoted by the numeral 18, while those ties which hang in a vertical, depending position, are denoted by the numeral 19. By referring to Fig. 2 of the drawings, and comparing the same carefully with Fig. 7, it will be seen that when the bed fabric is bent, as shown in Fig. 7, the telescoping relation between the elements 19 and 18, will prevent any strain upon the bed fabric at its point of bending, the elements 18 and 19 pivoting freely upon each other, and telescoping as hereinbefore described. By this construction, the fabric is adapted peculiarly for use upon a folding couch frame, or in like structures, in which fabrics, when of common construction, are more or less strained by the dropping of the foldable sides of the couch.

Referring to Fig. 3 of the drawings, it will be seen that the hooks 12 of the elements 19 are, as denoted by the numeral 21, left open, so that these hooks may have free pivotal movement upon the elements 2 and 3; and this construction may, if desired, be carried out throughout the entire couch

proper. However, if desired, those ties which, in a folding couch frame, are maintained in a horizontal position, may have their hooks 12 clenched, as denoted by the numeral 20, so that the elements 18 are connected with the elements 2 and 3 pivotally, but not for telescoping movement. Thus, the elements 19 which are adapted to drop into a vertical, depending position, may both telescope and pivot upon the elements 2 and 3, the members 18 pivoting upon the elements 2 and 3 without telescoping.

In Fig. 5 of the drawings, a modification of the invention is shown; the fabric there delineated being adapted for use upon a bed frame which does not fold. The construction depicted in Figs. 5 and 6 is similar to that of Figs. 1 and 2, with the exception that the hooks 12 and 15 of Fig. 1, are, in Fig. 5, introduced into the longitudinally extended members 24 which are connected with the end frame 22 of the bed; while the hooks 5 and the seats 8 and 9 of Fig. 1 are, in Fig. 5, fashioned in those members 23 which extend transversely of the bed. Likewise, in Fig. 5, the arms of the members 23 may be disposed in parallel relation, as shown at 25. The showing of Fig. 5 is a reversal of the showing of Fig. 1, so far as the connecting elements are concerned, and Fig. 5 will be readily understood by comparison with Fig. 1, without a more detailed description. In Fig. 5, the heads 26 of the helical springs 10 may broaden slightly, to accommodate the hooks 12.

From the foregoing it will be seen that I have provided a spring bed fabric adapted to be employed either upon folding couch frames, or rigid bed frames, proper relative movement between the constituent elements of the fabric being provided, without weakening the fabric, or so constructing the same that the parts thereof will tangle, become wedged, or break, when, as shown in Fig. 7, the fabric is folded upon itself.

Having thus described the invention, what is claimed is:—

1. A spring bed fabric including a one-piece member bent upon itself to form arms disposed in close parallel relation, the arms being bent to form a hook at one end of said member and being spaced apart at the other end to form a loop-shaped head alined with the arms, the head being contracted intermediate its ends to form spaced seats, in one of which the said hook of a similar member is adapted to be inserted; and a transverse tie having a hook engaging the contracted portion of the loop, between the seats.

2. A spring bed fabric including a one-piece member bent upon itself to form arms disposed in close parallel relation, the arms being bent to form a hook at one end of said member and being spaced apart at the other end to form a loop-shaped head alined with

the arms, the head being contracted intermediate its ends to form spaced seats in one of which the said hook of the similar member is adapted to be inserted; and like, oppositely extended ties having hooks to engage the contracted portion of the head, between the seats, one of the last named hooks being engaged against longitudinal sliding in the seat, the other of the last named hooks
10 being a loop-shaped structure removably en-

gaging the seat and inclosing, and slidable upon the other tie.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GARY B. SMITH.

Witnesses:

W. H. CLARKE,
L. G. HOOVER.