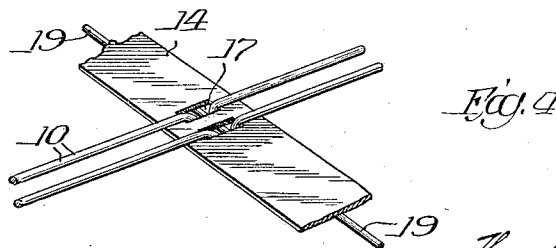
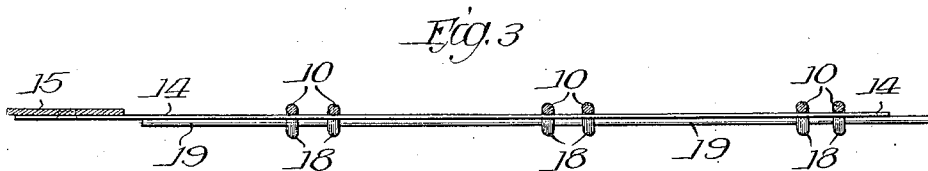
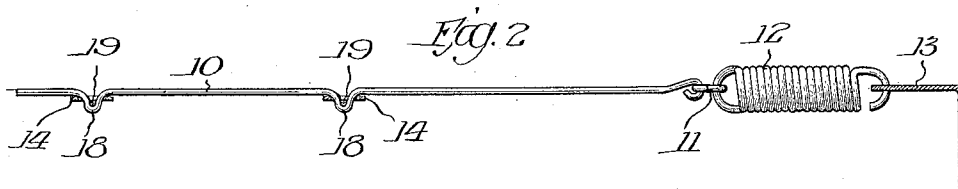
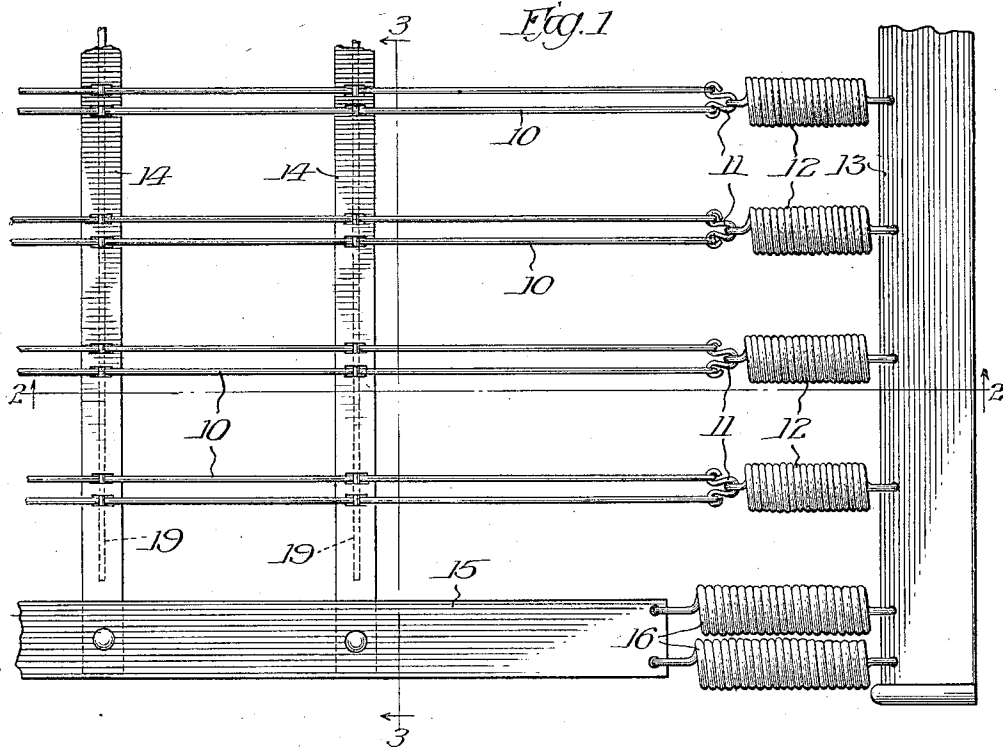


T. KLIPFEL & J. P. HANSEN.
 SPRING AND COUCH FABRIC.
 APPLICATION FILED JUNE 27, 1912.

1,045,856.

Patented Dec. 3, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS KLIPFEL, OF CHICAGO, AND JULIUS F. HANSEN, OF EVANSTON, ILLINOIS,
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SPRING AND COUCH FABRIC.

1,045,856.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed June 27, 1912. Serial No. 706,306.

To all whom it may concern:

Be it known that we, THOMAS KLIPFEL and JULIUS F. HANSEN, residing at Chicago and Evanston, respectively, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Spring and Couch Fabrics, of which the following is a specification.

Our invention relates to the construction of metallic fabrics, and has particular reference to a novel fabric for use in the construction of spring mattresses for beds and couches.

In the construction of wire fabrics, it is desirable that a certain amount of elasticity should be inherent in the structure, separate and apart from the usual coil springs located between the ends of the strands and the supporting frames. It is furthermore desirable that such a structure should be so designed that it shall be rigid or unyielding beyond the point of normal resiliency. Such fabrics are usually constructed with a plurality of longitudinal or strand wires commonly arranged in pairs, and a plurality of transverse or stay members secured in some manner to the longitudinal members. We have, however, designed, and show in the accompanying drawings, a desirable form of fabric in that the transverse or stay members are in the form of metallic ribbons or flat bands of steel. These provide a smooth and even surface and combine great strength with desirable flexibility.

We are aware that ribbons have been employed as the transverse stays in a wire fabric, but it is to the fastening-means between the strand-wires and the transverse stays that our invention particularly relates. In our construction the fastening device is so arranged that a certain amount of resiliency is afforded the strand wires because of a bend or kink therein, while in service the fastening-means is securely held because of the tensile strain on the strand-wires, which strain tends to straighten out the kinks, thereby binding the fastening-wire.

Our invention will be more readily understood by reference to the accompanying drawings, wherein—

Figure 1 is a fragmentary plan view of a wire fabric constructed in accordance with our invention; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a section on the line

3—3 of Fig. 1; and Fig. 4 is an enlarged perspective detail of the fastening-means for the stay-ribbons relative to the longitudinal strand-wires.

Referring more particularly to the drawings, it will be seen that the fabric is composed of longitudinal strand-wires 10, preferably arranged in pairs, as shown in Fig. 1. At the terminals of each pair an eye 11 is secured and to this eye is hooked a helical spring 12. The opposite hooked end of the helical spring is secured in an angular end-member 13 forming a portion of the frame of the mattress.

Arranged transversely of the strand-wires are stay-ribbons 14, the ends of which are riveted to plates 15, extending parallel with the strand-wires and connected to the angle-piece 13 at either end by a pair of helical springs 16. The ribbons 14 are provided at intervals in their length with apertures 17, one aperture being provided for each longitudinal wire. Within these perforations 17 are seated kinks 18 formed in the strand-wires 10. In order to securely hold the strand-wires with relation to the stay-ribbons we place a transverse wire 19 parallel with the ribbon 14, the wire being passed through the kinks 18 in the strands and beneath the ribbon 14. Thus, it will be seen, that the greater the strain on the strand-wires, the more securely the stay-ribbons are held with relation thereto. Furthermore, the assemblage of the different parts is rendered easy and may be easily repaired by the purchaser in case of necessity without the employment of machinery or tools. Preferably, the helical springs 12 and 16 are given a slight initial tension in order that the strand-wires may be held taut and the transverse locking-wires 19 be secured against accidental displacement.

We are aware that modifications may be made in the structure herein shown, and such modifications as are within the scope of our claims we consider within the spirit of our invention.

We claim:

1. In a bed bottom or couch fabric, the combination of a plurality of wire strands arranged in substantially parallel relation and in pairs and constituting a substantially flat mattress-supporting surface, said strands having transversely-aligned downwardly-extended kinks or bends, substan-

tially flat apertured metal stay-ribbons disposed beneath said strands, said kinks projecting downwardly through the apertures of said ribbons, and key wires below said
5 ribbons extending through said kinks to lock said strands and ribbons in assembled relation, substantially as described.

2. In a bed bottom or couch fabric, the combination of a plurality of wire strands
10 having transversely-alined kinks or bends, substantially-flat apertured stay-ribbons disposed on the kinked sides of said strands,

said kinks or bends projecting through the apertures of said ribbons, and key wires extending through said kinks to lock said
15 strands and ribbons in assembled relation, said key wires being on the opposite sides of said ribbons from said strands, substantially as described.

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