

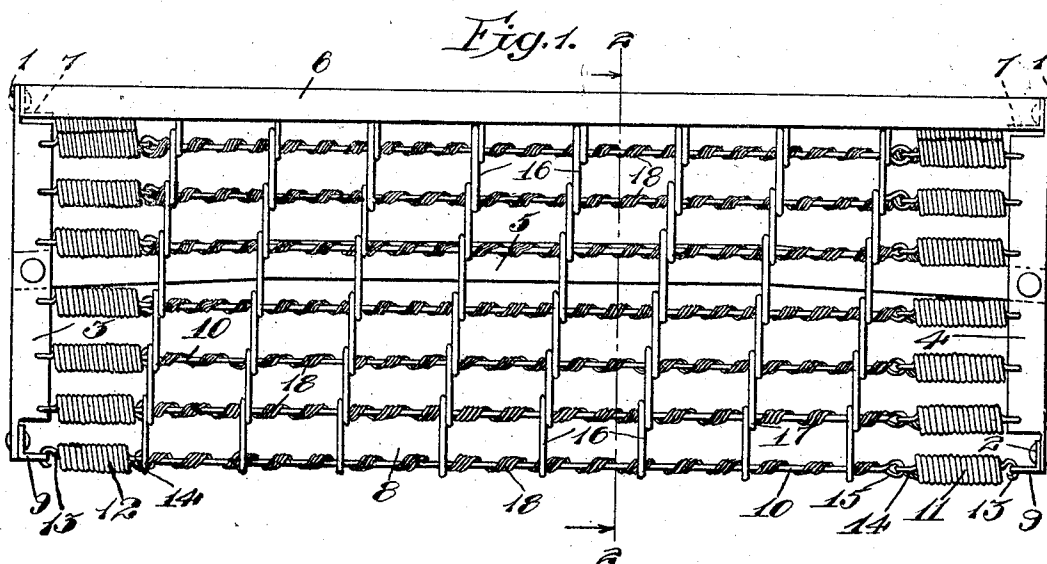
No. 795,846.

PATENTED AUG. 1, 1905.

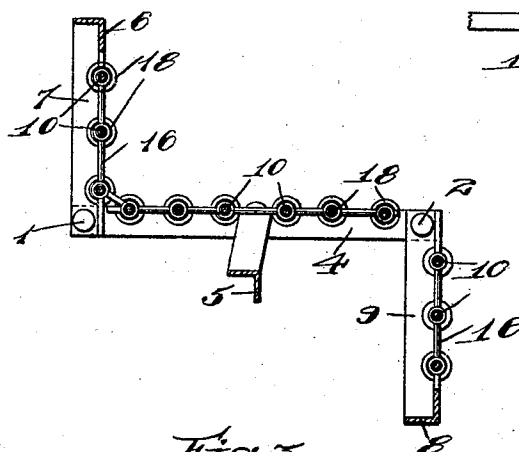
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WIRE FABRIC.

APPLICATION FILED JUNE 13, 1904.



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

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## WIRE FABRIC.

No. 795,846

Specification of Letters Patent.

Patented Aug. 1, 1905.

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*To all whom it may concern:*

Be it known that I, JAMES F. McCLATCHEY, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented certain new and useful Improvements in Wire Fabrics, of which the following is a full, clear, and exact specification.

My invention relates to wire fabrics for furniture, bed-bottoms, &c.; and it has for its primary object to provide an improved form of wire fabric which shall be durable and simple in construction and neat in appearance and will possess the requisite degree of flexibility.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a plan view of a wire fabric constructed according to my invention. Fig. 2 is a transverse section on the line 2 2, Fig. 1. Fig. 3 is an enlarged longitudinal sectional view of one of the springs and connected parts. Fig. 4 is an enlarged detail view of the crossed wires or strands taken at the juncture of the two strands. Fig. 5 is an enlarged detail plan view of a portion of the fabric, and Fig. 6 is a view similar to Fig. 3, showing a modification hereinafter described.

In the drawings I have shown my invention as applied to the framework of an article of folding furniture, such as a couch, to which it is especially adapted by reason of its flexibility; but it will nevertheless be understood that this is only an example of the many different uses to which it might be put.

In carrying out my invention I employ any suitable frame constructed of one or more lengths of angle-iron or other suitable material for supporting the fabric and which if employed in an article of folding furniture, such as the example shown in the drawings, would be made in folding sections of any desired form pivoted together by rivets or pivots 1 2. In this particular exemplification of the invention the angle-iron frame is so constructed as to constitute a folding couch, two side bars 3 4, having a brace 5, constituting the seat, a frame comprising a longitudinal bar 6 and end bars 7 constituting the back, and a similar frame comprising longitudinal

bar 8 and end bars 9 constituting the front portion. The diametrically opposite bars of the frame on two sides thereof serve for the support of the strands or wires which extend in one direction and which constitute the support for the strands or wires which extend across them. The first of these said strands or wires are shown at 10, and they are preferably straight continuous wires each attached at both ends to helical or other suitable springs 11 12, which in turn are connected in any suitable way to the frame members 3 4 7 9, a simple method consisting in passing the hooks 13 at one end of the springs through the angle-irons and the hooks 14 at the other ends through eyes or loops 15 in the ends of the straight wires 10. By this means it will be seen that the wires 10, though without material longitudinal elasticity in themselves, are given the requisite degree of flexibility. These wires or strands 10 are connected or tied together at suitable intervals and at any desired points throughout their lengths by cross wires or strands consisting, preferably, of a series of short links 16, each having eyes or loops 17 at both ends embracing the two contiguous strands or wires 10 and serving to hold the latter from spreading. For the sake of flexibility these cross-strands are made of the described plurality of links or sections; but in cases where flexibility in that direction or transversely of the wires 10 is not material this feature of the cross-strands may be ignored and the strands constructed and connected to the strands or wires 10 in any other suitable way. In any event, however, the cross-strands are spaced and held the requisite predetermined distance apart by spirals 18, which may be slipped over the straight wires 10, preferably before both of the eyes or loops 15 are formed, and the links 16 then have their ends looped or bent around the wires or strands 10 at points between the convolutions of the spirals 18, which convolutions serve to hold the links 16 asunder, while the loops or eyes 15 hold the spirals against longitudinal movement on the wires 10. It is of course obvious also that if desired the links 16 may be placed on the wires 10 in proper position and the coils 18 then screwed onto their respective wires past the loops or eyes of the links. The coils 18, however, are preferably continuous, so as to avoid the presence of a multiplicity of loose ends, and in order that the two loose ends may be conveniently concealed and held

against unraveling they are extended into the springs 11 12, as shown at 19 in Fig. 3. In this example of the invention the cross wires or strands 16 are shown in continuous rows; but it is obvious that any other desired placement of the links 16 may be resorted to.

If it should be desired to make the wires or strands 10 of smaller gage than usual, their ends where the eyes 15 are formed may also be continued into the springs 12, as shown at 10<sup>a</sup>, Fig. 6, so as to prevent the eyes 15 from pulling out.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a wire fabric comprising a frame, helical springs secured at one end to said frame, straight wires having loops at their ends secured to said springs, wire spirals sleeved loosely on said wires and held at their ends against longitudinal movement by said end loops, and cross-strands attached to said straight wires at points between the convolutions of said spirals and thereby held against movement longitudinally of the straight wires.

2. As an article of manufacture a wire fabric comprising a frame, helical springs secured at one end to said frame, straight wires having loops at their ends secured to the other ends of said springs, wire spirals sleeved loosely on said straight wires and held at their ends against longitudinal movement by said end loops, said spirals being continued past said end loops which engage between the convolutions of the spirals, and projected into

said springs, and cross-wires connecting said straight wires together at points between the convolutions of said spirals.

3. As an article of manufacture a wire fabric comprising a frame, helical springs secured at one end to said frame, straight wires having loops at their ends secured to said springs, and straight extensions on their extremities beyond said loops, continuing into said springs for preventing the loops from straightening out, cross-wires secured to said straight wires and spacing spirals sleeved loosely on said straight wires for holding said cross-wires apart.

4. As an article of manufacture a wire fabric comprising a frame, helical springs secured at one end to said frame, straight wires having loops at their ends secured to the other ends of said springs and provided with straight extensions at their extremities continuing past said loops and into said springs, cross-wires secured to said straight wires, and spacing-spirals sleeved loosely on said straight wires for holding the cross-wires apart, said spacing-spirals having their convolutions engaging on opposite sides of said end loops for holding the spacing-spirals against longitudinal movement, and the extremities of said spacing-spirals embracing the straight extensions on said straight wires extending into said springs.

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Witnesses:

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