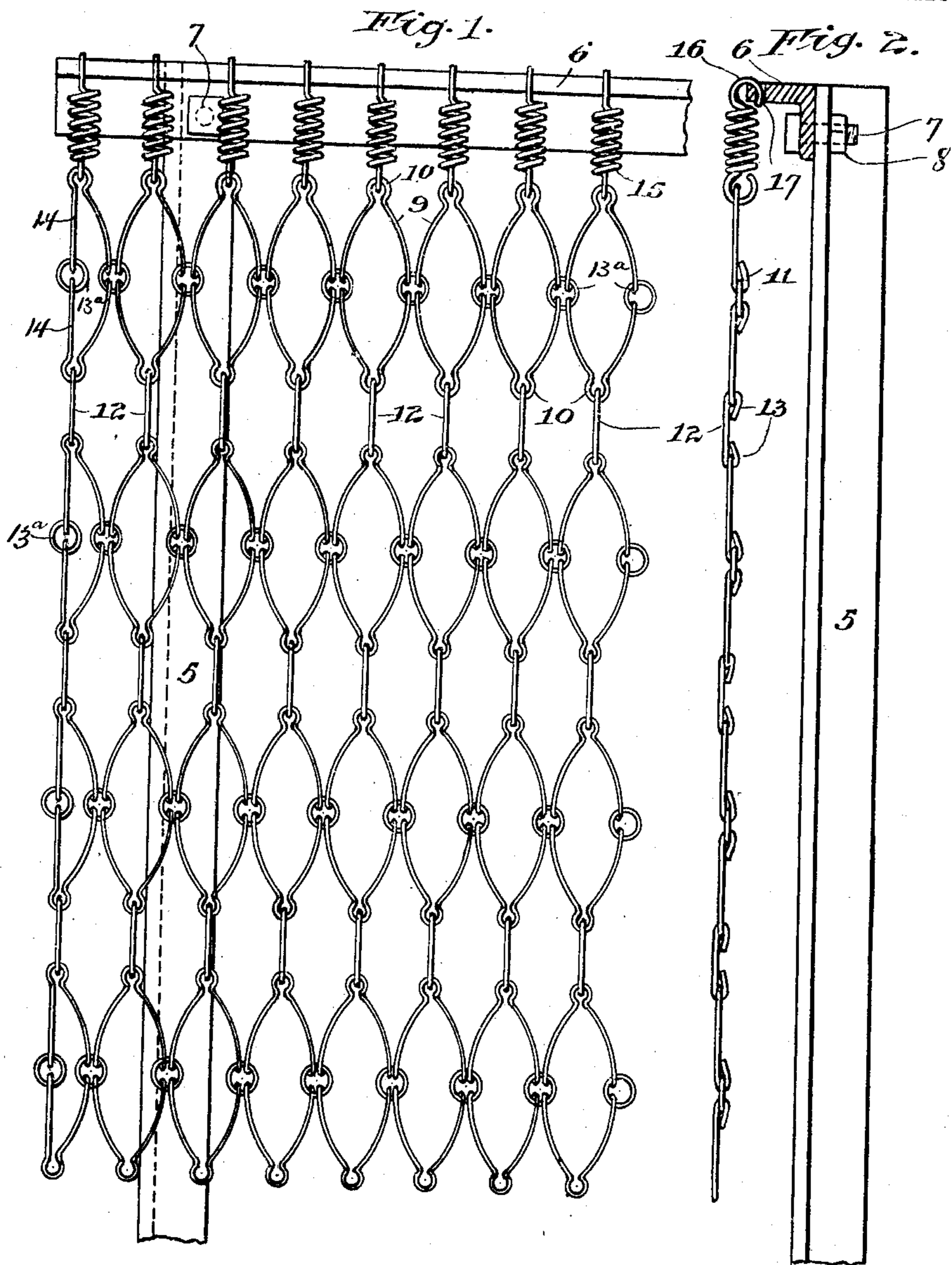


No. 827,035.

PATENTED JULY 24, 1906.

H. RICHARDSON.  
BED BOTTOM FABRIC.  
APPLICATION FILED JULY 28, 1905.

2 SHEETS—SHEET 1.



Witnesses,  
S. E. Mann  
D. N. Ford

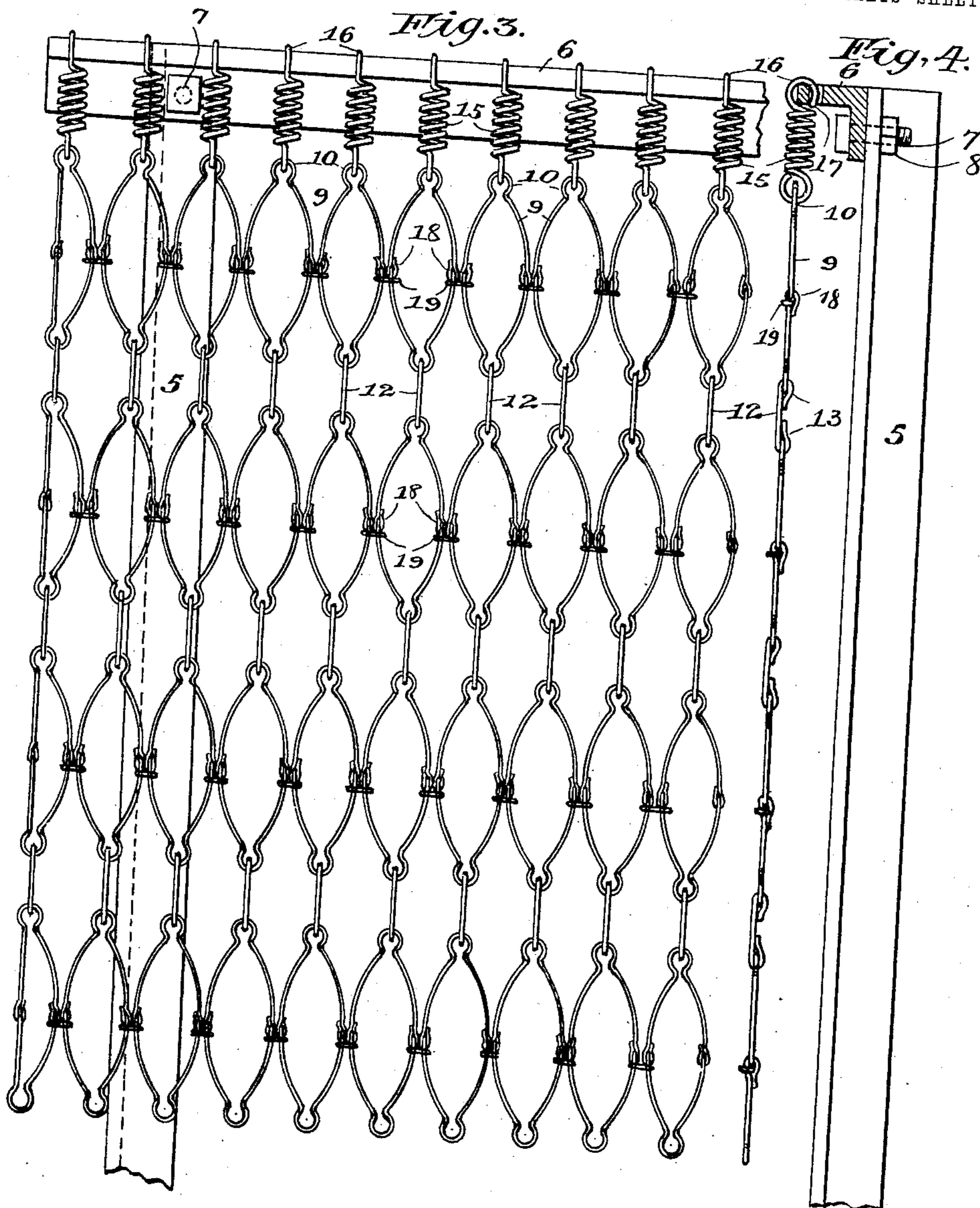
Inventor,  
Henry Richardson  
By *Offield, Fowler & Lathrop*  
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# UNITED STATES PATENT OFFICE.

HENRY RICHARDSON, OF CHICAGO, ILLINOIS.

## BED-BOTTOM FABRIC.

No. 827,035.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed July 28, 1905. Serial No. 271,654.

*To all whom it may concern:*

Be it known that I, HENRY RICHARDSON, a subject of the King of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bed-Bottom Fabrics, of which the following is a specification.

My invention relates to bed-bottom fabrics, and pertains more especially to that class or type of fabrics which are made up of interconnected bent wire units. Numerous bed-bottom fabrics of this general type have been devised and used, in most of which, so far as I am aware, the units are so disposed and connected as to produce what is known as "diagonal" tension, which is objectionable chiefly by reason of reducing the elasticity of the fabric and also by reason of drawing in the longitudinal edges of the fabric and requiring a positive connection of the latter to the sides of the bed-frame to counteract such tendency.

A leading object of my invention is to produce a bed-bottom fabric wherein the bent wire units shall be so disposed when connected as to substantially eliminate this diagonal tension, and this object I accomplish through the employment of wire units so bent as to present open and closed ends at the opposite ends of the unit, respectively, these units being arranged in a series of longitudinal rows or strands wherein adjacent units are inversely disposed, so that their closed ends are adjacent to each other and their open ends are adjacent to each other, the closed ends being further connected by an intermediate longitudinally-rigid link, while their open ends may be connected either by direct interhooking or by the interposition of connecting-links of ring or other form. The unit in its preferred form has symmetrical longitudinal sides united integrally at one end to form a narrow closed end for the unit, while their opposite ends diverge, producing a wide open end of the unit.

In the accompanying drawings I have illustrated two practical forms of fabric in which my invention may be embodied.

Referring to the drawings, Figure 1 is a plan view of a portion of a bed-frame, showing my improved fabric applied thereto. Fig. 2 is an edge view of the same. Fig. 3 is a view similar to Fig. 1, but showing a slight modification in the manner and means of connecting the open ends of the units; and Fig. 4 is an edge view of Fig. 3.

Referring to the drawings, 5 may designate the side rail, and 6 the end rail of an ordinary bed-frame, said rails being preferably in the form of angle-bars rigidly united at the corners by bolts 7 and nuts 8.

The fabric of the bed-bottom is composed, preferably, of a series of bent wire units, that are disposed in straight longitudinal and transverse rows or strands. While the particular form of the bent wire unit herein shown is not of the essence of the present invention, yet within the invention the unit is characterized by a wire so bent as to present a substantially symmetrical pair of sides, that converge and meet at one end in a closed end of the unit, while at the opposite end of the unit said sides are divergent, thus producing a wide open end of the unit.

In the drawings I have designated the main portions of the sides of the units by 9, the closed end, which is preferably bent to present an eye, being designated by 10. The free ends of the sides 9 at the open end of the unit are preferably doubled back to produce hooks, (designated by 11, Fig. 2.)

As regards the arrangement of the units it will be observed that in each longitudinal strand adjacent units are inversely disposed—that is to say, the narrow closed ends are adjacent to each other and the wide open ends are adjacent to each other. The units of the several longitudinal strands are connected at their closed ends through the interposition of longitudinally-rigid links, which preferably take the form, herein shown, of straight wires 12, having hooked ends 13, that engage the eyes 10 of the units. The adjacent open ends of the units are preferably connected through the interposition of links 13<sup>a</sup> of ring shape, which are engaged by the hooks 11 on the open ends of the units, said rings serving to transversely unite the several longitudinal strands at suitable intervals.

On each longitudinal side of the fabric in order to produce a straight edge I employ a longitudinal strand made up of half units, (designated as an entirety by 14,) said half units being connected endwise by the straight wire links 12 and links 13, the same as the entire units.

To afford increased elasticity, the fabric at either or both ends is preferably connected with the end rail 6 through the interposition of helical springs 15, having at their outer ends hooks 16, that engage apertures 17,

formed in and through said rail, all as usual in this type of bed-bottom fabric.

The form of fabric illustrated in Fig. 3 differs from that of Fig. 1 only in omitting the  
5 connecting-links 13 between the open ends of the units and in place thereof directly interhooking said open ends, as indicated at 18, and connecting the longitudinal strands at intervals by means of transverse clips 19,  
10 which may be located at any convenient or preferred point or points, but which preferably are located adjacent to the interhooked ends of the units, as shown.

From the foregoing it will be seen that my  
15 invention provides a bed-bottom fabric capable of being easily and quickly assembled, presenting a neat and attractive appearance, and so organized as to resist superimposed strains along longitudinal and transverse  
20 lines, avoiding diagonal or oblique tension, with the stiffness and deformation resultant therefrom.

I claim--

1. A bed-bottom fabric of the class described, comprising a plurality of longitudinal rows or strands each including a series of  
25 endwise-connected bent wire units, each of said units having a narrow closed and a wide-open end, adjacent units in each row being  
30 inversely disposed and having their closed ends connected by an intermediate longitudinally-rigid link, substantially as described.

2. A bed-bottom fabric of the class described, comprising a plurality of longitudinal  
35 rows or strands each including a series of endwise-connected bent wire units, each of said units having a narrow closed and a wide open end, adjacent units in each row being  
40 inversely disposed and having their closed ends connected by an intermediate straight link interhooked therewith, substantially as described.

3. A bed-bottom fabric of the class described, comprising a plurality of longitudinal  
45 rows or strands each including a series of endwise-connected bent wire units, each of said units having a narrow closed end formed with an eye and a wide open end, adjacent units in each row being inversely disposed

and having their eyes connected by an intermediate longitudinally-rigid link, substantially as described. 50

4. A bed-bottom fabric of the class described, comprising a plurality of longitudinal rows or strands each including a series of  
55 endwise-connected bent wire units, each of said units having a narrow closed end formed with an eye and a wide open end, adjacent units in each row being inversely disposed and having their eyes connected by an intermediate  
60 straight wire link interhooked therewith, substantially as described.

5. A bed-bottom fabric of the class described, comprising a plurality of longitudinal rows or strands of bent wire units, each  
65 of said units having a narrow closed and a wide open end, adjacent units in each row being inversely disposed, longitudinally-rigid links connecting the closed ends of adjacent units, and rigid links connecting the open  
70 ends of adjacent units, substantially as described.

6. A bed-bottom fabric of the class described, comprising a plurality of longitudinal rows or strands of bent wire units, each  
75 of said units having a narrow closed end and a wide open end terminating in hooks, adjacent units in each row being inversely disposed, straight wire links having hooked ends engaging and connecting the closed ends of  
80 adjacent units, and rings engaged by and connecting the open hooked ends of adjacent units, said rings also transversely uniting the longitudinal rows or strands, substantially as  
85 described.

7. A bed-bottom fabric of the class described, comprising a plurality of longitudinal rows or strands of bent wire units each  
90 having an open and a closed end, adjacent units in each row being inversely disposed with their open ends connected together and their closed ends united through an intermediate longitudinally-rigid link, substantially as described.

HENRY RICHARDSON.

Witnesses:

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