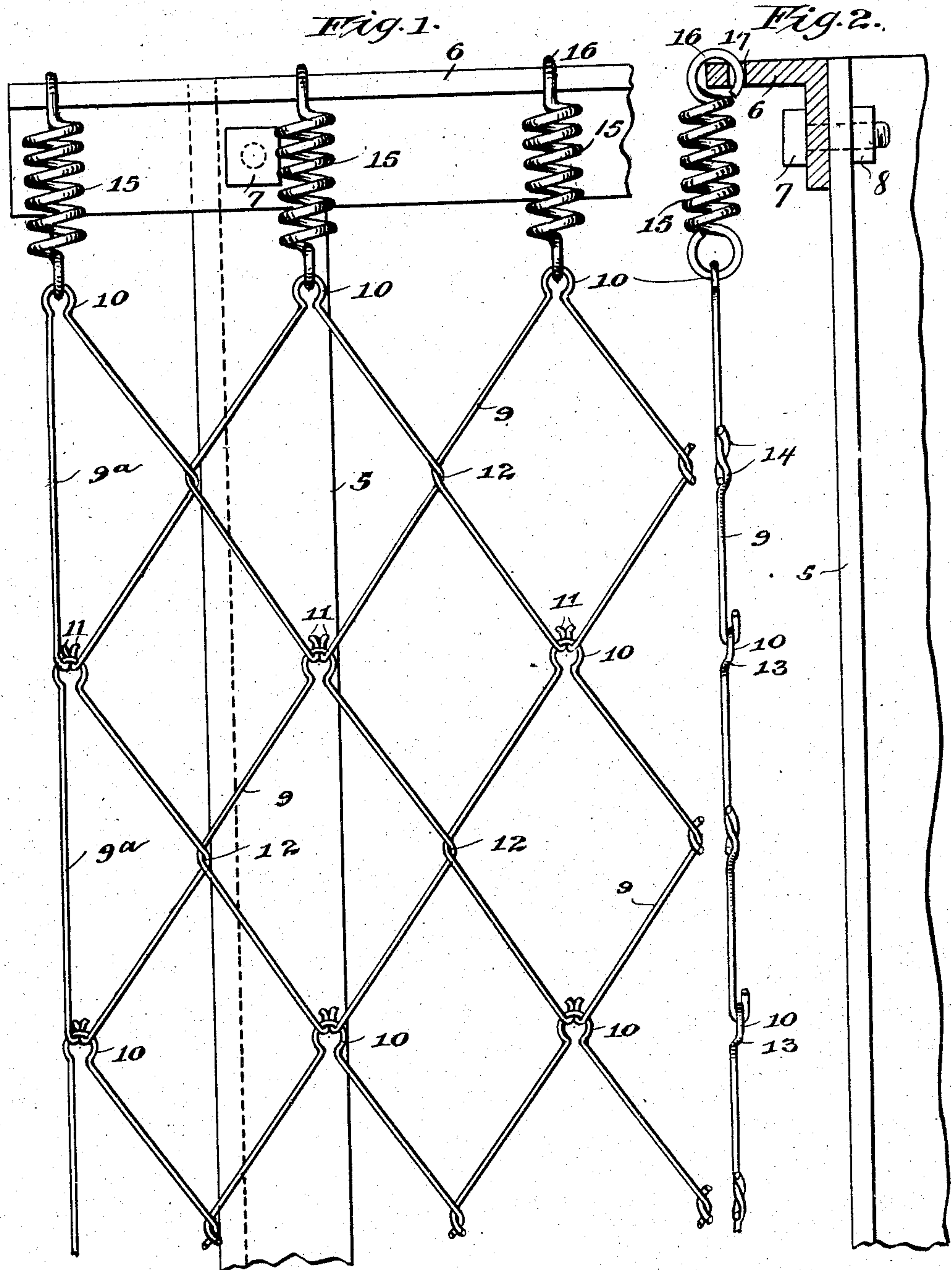


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H. RICHARDSON.
BED BOTTOM FABRIC.
APPLICATION FILED AUG. 23, 1905.



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UNITED STATES PATENT OFFICE.

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BED-BOTTOM FABRIC.

No. 889,335.

Specification of Letters Patent.

Patented June 2, 1908.

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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.

Among the principal objects of the invention are to lessen the cost of manufacture by eliminating the rings, apertured plates, connecting clips, and similar adjunctive devices at present extensively employed in association with and for connecting the bent wire units; and to improve the appearance and serviceability of the fabric through the avoidance of what is known as diagonal tension, and also by means of a construction which prevents partial displacement of the individual units relatively to each other and the plane of the fabric due to their interlinked connection, and, while preserving the interlinked connection, permits the individual units to occupy their normal positions substantially in and coincident with the plane of the fabric, thus presenting a substantially level and flat and uniform wearing surface in the fabric as a whole. These several objects are attained preferably by a special construction of diamond-shaped bent wire unit, and a special manner of connecting such units in longitudinal and transverse rows, the units being preferably provided with integral hooks and eyes at their opposite ends, respectively, whereby they are readily connected up to form the longitudinal strands; and the sides of the units at the angles formed by their oppositely inclined portions being laterally offset so as to accommodate the interlinking of the sides with adjacent units without producing an upsetting or distortion of the engaged sides relatively to the plane of the fabric.

My invention will be more clearly understood when considered in connection with the accompanying drawing, in which—

Figure 1 is a fragmentary plan view of my improved bed-bottom fabric; and Fig. 2 is an edge view of the same in cross-section through the bed-bottom frame.

Referring to the drawing, 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 of a series of units each formed of a strip of wire bent to present outwardly bowed sides convergent at both ends toward the longitudinal median line or axis of the unit, said units being disposed in straight longitudinal and transverse rows throughout the fabric.

In the preferred form of unit herein shown the wire is bent to form a diamond-shaped body-portion, indicated by 9, with an integral eye 10 formed at one end of the unit and an integral hook 11 formed at the opposite end, said hook being produced by bending inwardly of the unit the two convergent end portions of the sides of the unit at the end of the latter opposite to the eye 10. As above stated, the units are disposed in straight longitudinal strands, or with their longitudinal axes in alinement, being united by simply engaging the hook 11 of one unit with the eye 10 of the next unit; and the several longitudinal rows or strands are connected laterally by directly interlinking the adjacent sides of the units in the same transverse rows, as indicated at 12. The two sides of the unit being disconnected at its hooked end, the units may be readily connected up in the manner described and shown during the operation of assembling the fabric, and without necessitating the employment of any separate auxiliary connecting links or clips such as are commonly and extensively used in bed-bottom fabrics at present in vogue. In order to secure a smooth and substantially level upper or wearing surface, the eyes 10 are preferably slightly offset laterally of the plane of the fabric as shown at 13 (Fig. 2); while the sides of the units at the points where they are laterally interlinked are also laterally offset relatively to the plane of the fabric, as indicated at 14.

At the longitudinal edges of the fabric, half units 9^a are employed in order to produce straight longitudinal edges, said half units being connected to each other and to the laterally adjacent row of whole units in the manner and by the means already described.

To afford increased elasticity, the fabric at either or both ends may be 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.

5 From the foregoing it will be seen that my invention provides a bed-bottom fabric of simple and economical construction, which avoids the use of separate unit-connecting
10 elements, and which may be readily and quickly assembled by simple interhooking and interlinking operations. It will also be seen that, owing to the disposition of the units in straight axially alined order longi-
15 tudinally of the fabric, the tension strains are all in longitudinal and transverse directions, thus avoiding diagonal tension which reduces the elasticity of the fabric and also tends to draw in its longitudinal edges in an unsightly manner.

20 The particular form of unit herein shown is not of the essence of the invention so long as the unit is provided with integral endwise connecting means and is capable of direct interlinked connection with laterally adja-
25 cent units. In connection with this latter feature it will be observed that the form of the sides at the points where the units are laterally interlinked is such as to connect the links rigidly and without permitting any
30 transverse stretch, yield, or pulling out at these points.

I claim:

1. A bed-bottom fabric of the class de-
scribed, including a plurality of longitudinal
35 rows of diamond-shaped bent wire units dis- posed in axial alinement, the sides of said

unit being laterally offset relatively to the plane of the fabric at points coincident with the angles formed by the oppositely inclined portions of the sides, and laterally adjacent
40 units in the fabric being directly interlinked at such laterally offset points, substantially as described.

2. A bed-bottom fabric of the class de-
scribed, including a plurality of longitudinal
45 rows of diamond-shaped bent wire units ter- minating in integral hooks and eyes at their opposite ends, respectively, whereby they are connected in axial alinement, the sides of said units being laterally offset relatively to
50 the plane of the fabric at points coincident with the angles formed by the oppositely in- clined portions of the sides, and laterally ad- jacent units in the fabric being directly in-
55 terlinked at such laterally offset points, sub- stantially as described.

3. A wire mattress composed of a plurality of diamond-shaped links having oppositely-
arranged crimps formed in the upper and
under sides of the obtuse angular portions
60 thereof and each link provided at its closed end with a crimp and terminating at its open end in hooks, the oppositely-arranged crimps of each link crossing and interlocking with
65 counterpart crimps in like links arranged on each side thereof, and the hooks of each link engaging the crimps in the closed end of the link contiguous thereto.

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