

R. B. HARRISON & J. WILTING.
 SPRING BED FABRIC.
 APPLICATION FILED JULY 3, 1911.

1,033,396.

Patented July 23, 1912.

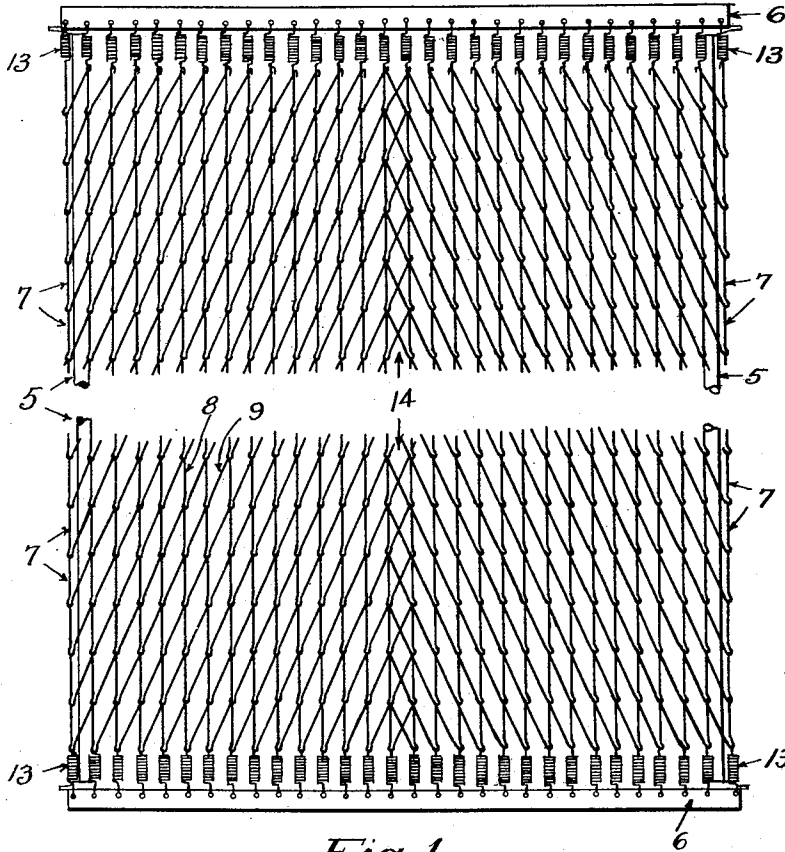


Fig. 1.

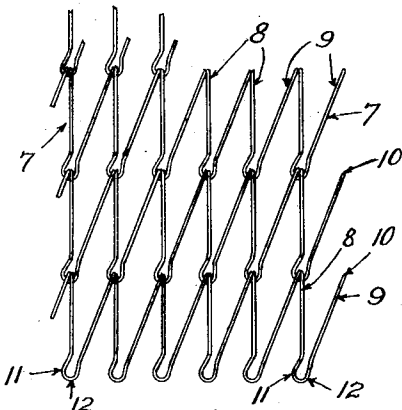


Fig. 2.

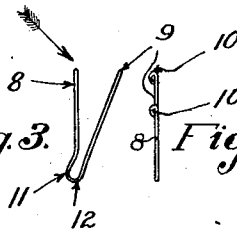


Fig. 3.

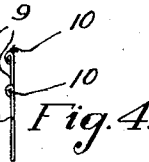


Fig. 4.

WITNESSES

Stephen Wach.
 W. C. Lyon

INVENTORS.

Robert B. Harrison and
 Joseph Wilting.
 By Fredk H. Wilting.
 Att'y.

UNITED STATES PATENT OFFICE.

ROBERT B. HARRISON AND JOSEPH WILTING, OF PITTSBURGH, PENNSYLVANIA,
ASSIGNORS TO A. J. LOGAN COMPANY, OF PITTSBURGH, PENNSYLVANIA, A
CORPORATION OF PENNSYLVANIA.

SPRING BED FABRIC.

1,033,396.

Specification of Letters Patent.

Patented July 23, 1912.

Application filed July 3, 1911. Serial No. 636,682.

To all whom it may concern:

Be it known that we, ROBERT B. HARRISON and JOSEPH WILTING, both residents of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Spring Bed Fabric, of which the following is a specification.

This invention relates to wire bed bottoms, and more particularly to the kind which is composed of a series of links or similar members hooked together, and attached at both ends to the cross bars of the frame by means of spiral springs.

The purpose of the invention is to provide a construction of fabric of the character specified in which the stresses of the concentrated load on the fabric are distributed among a larger number of helical springs at the ends of the fabric than with similar fabrics as heretofore constructed.

The invention comprises the construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawing Figure 1 is a broken-out plan view of a bed bottom containing the improvements, Fig. 2 is a view of a portion of the same on an enlarged scale to more clearly show the construction, Fig. 3 is a detail view of one of the links as it appears in position when looking down upon a bed bottom constructed with my invention, and Fig. 4 is a detail view of the link shown in Fig. 3 looking at the same in the direction of the arrow in that view.

The bed bottom is provided with a suitable frame comprising the longitudinal side bars or rails 5 and the end or cross bars 6, suitably united at the corners in any desired way, not illustrated.

The fabric itself comprises a series of links 7 of modified V-shape, having the limbs of different lengths, the shorter limb 8 lying parallel to the longitudinal axis of the fabric or the side edges thereof, while the longer limb 9 extends in a diagonal direction. The ends of the two limbs lie in the same transverse line in the fabric, and are provided with hooks or other suitable means 10 for connecting into the apexes of corresponding links in the adjoining transverse row of links. The apex of each link is bent on a curve with the portion 11 projecting outside or beyond the straight line

of the short limb 8, so as to form a wide or somewhat bulbous eye 12 to receive the hooks of two links in the adjacent transverse row, one being the end of a short limb of one link while the other is the end of the long limb of another link. The offset angle also has the advantage of bringing the short limbs of adjacent transverse rows of links substantially in a straight longitudinal line, and the long limbs of adjacent transverse rows of links in substantially a straight diagonal line. Consequently a concentrated load at any point on the fabric is distributed both in straight lines and also in diagonal lines to the ends of fabric, thereby distributing the strain between a number of end supporting helical springs 13 which have one end attached to the cross rail 6 and the other end attached to the hooked end of a short limb of one end link and the hooked end of the long limb of another end link, as shown. With the old form of fabric of this same general type the stresses were transmitted merely in a straight line, so that with a concentrated load a very heavy stress was put on a few of the end helicals 13. With my improvement the strains are distributed both in a straight line and also diagonally, and also distributed over a larger number of end supporting helicals. It will be further observed that all of the links on the same side of the center line of the fabric are of identically the same shape, making it unnecessary to have specially shaped links at the edges as has heretofore been the case, or to provide a few one-limb links as has frequently been resorted to. In order that the hooks 10 throughout the fabric may be on the same side thereof and not tear or injure the mattress or bedding placed upon the fabric, the links on opposite sides of the center line of the fabric may be made rights and lefts or, in other words, inversions of each other, although obviously if desired they may all be made identical with the hooks opening on both sides of the fabric. The modified V-form of the links provides straight side edges for the fabric, and both edges are exactly alike, due to the fact that at the center of the fabric there is an overlapping row of adjacent links placed reversely to each other, as shown at 14, thereby making the outer limbs of all of the links parallel

to the longitudinal axis of the fabric and giving and affording the straight side edges above referred to. This also gives a line of greater strength at the central portion of the fabric.

The links are of very simple form, cheap to manufacture, are readily assembled and connected to form the fabric, and when joined together form a perfectly smooth upper surface for the mattress to rest upon, as well as forming straight outer edges.

What we claim is:

1. A fabric for wire bed bottoms composed of a series of substantially V-shaped links, each having one limb longer than the other, said limbs being provided at their ends with means for attachment to the apex of a link arranged in a different transverse row in the fabric, the apex of each link being adapted to have connected thereto the ends of a longer limb of one adjacent link and the short limb of another adjacent link, whereby the long limbs form parallel lines substantially diagonally of the fabric, the center lines of the fabric being formed of overlapping rows of links having their long limbs reversely inclined, whereby added strength is obtained along the center line of the fabric.

2. A fabric for wire bed bottoms composed of a series of links, each having a pair of limbs, one limb being longer than the other, said limbs being inclined to each other and, together, being substantially of V-shape, and each being provided at its free end with means for attachment to another link, the apex of each link having connected thereto the ends of the long limb of one adjacent link and the short limb of another adjacent link, the short limbs forming continuous parallel lines substantially longitudinally of the fabric and the long limbs forming continuous parallel lines substantially diagonally of the fabric, and the short limbs of an edge row of links forming a straight selvage of the fabric.

3. A fabric for wire bed bottoms composed wholly of substantially V-shaped links having connected long and short limbs disposed at an acute angle with reference to each other, said links being connected in rows longitudinally and transversely of the

fabric, all the links in each transverse row having the free ends of their short and long limbs in the same transverse line and connected to the apexes of the links of the next transverse row, said links being arranged to transmit strains both longitudinally and diagonally of said fabric.

4. A fabric for wire bed bottoms composed of a plurality of substantially V-shaped links, each having a long and a short limb, the links being interconnected with the short limbs arranged limb to limb longitudinally throughout the length of the fabric and the long limbs arranged limb to limb diagonally thereof, the links on opposite sides of the longitudinal center line of the fabric being arranged with their long limbs extending diagonally in opposite directions, whereby strains received by the fabric are transmitted both longitudinally and diagonally thereof.

5. A fabric for wire bed bottoms composed of a series of links having limbs disposed at an angle to each other, said links being interconnected with one set of limbs extending continuously longitudinally of the fabric and another set of limbs diagonally thereof, the center line of the fabric being formed of overlapping rows of links having longitudinal limbs and reversely inclined diagonal limbs, whereby added strength is obtained along the center line of the fabric.

6. A fabric for wire bed bottoms formed wholly of a series of substantially V-shaped links having connected limbs disposed at an angle to each other, said links being connected in rows longitudinally and transversely of the fabric and arranged limb to limb continuously both longitudinally and diagonally of the fabric, the series of diagonal limbs on opposite sides of the center line of the fabric extending in opposite directions.

In testimony whereof, we have hereunto set our hands.

ROBERT B. HARRISON.
JOSEPH WILTING.

Witnesses:

F. W. WINTER,
MARY E. CAHOON.