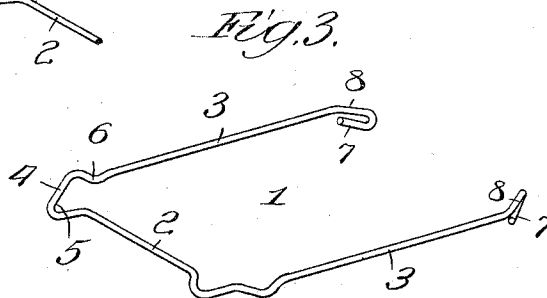
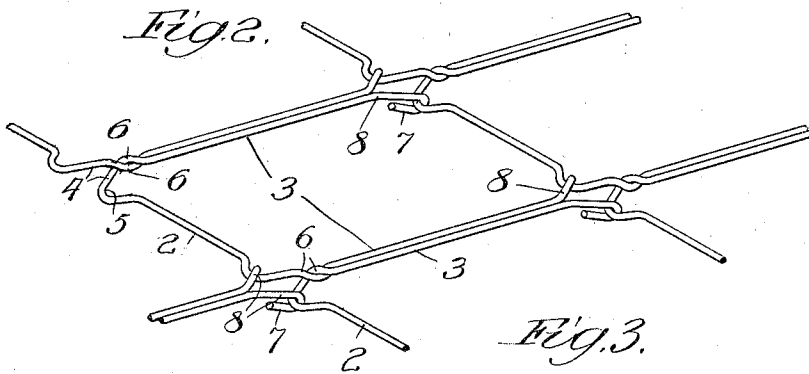
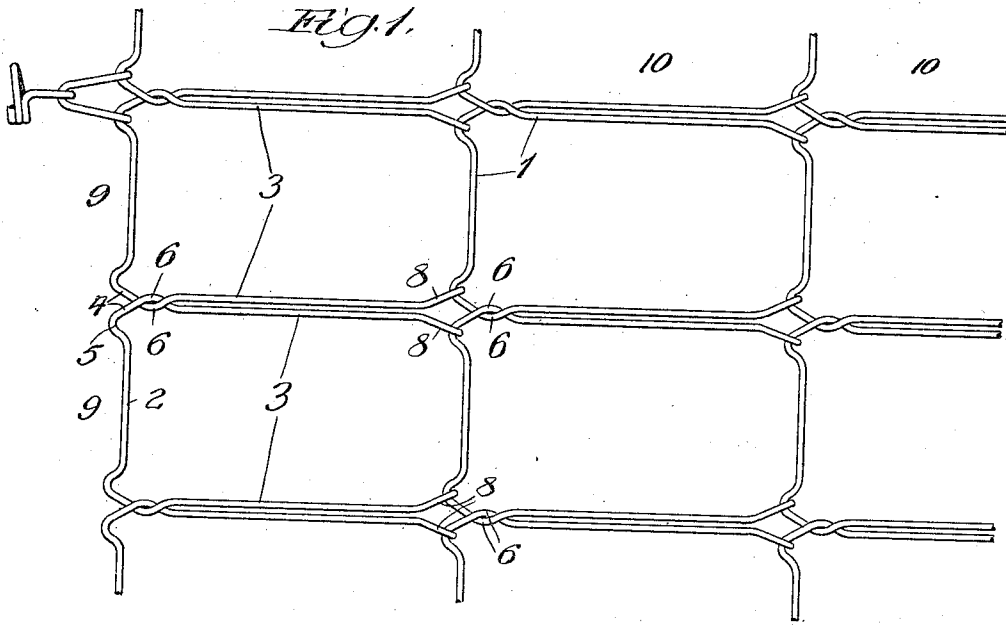


C. H. GAIL.
WIRE FABRIC.
APPLICATION FILED MAY 31, 1910.

1,014,699.

Patented Jan. 16, 1912.



Witnesses:

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UNITED STATES PATENT OFFICE.

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WIRE FABRIC.

1,014,699.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed May 31, 1910. Serial No. 564,292.

To all whom it may concern:

Be it known that I, CHARLES H. GAIL, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented a new and useful Improvement in Wire Fabrics, of which the following is a specification.

My invention relates particularly to wire fabric adapted for use as a flexible bed-bottom, or the like, in connection with beds, sofas, couches, etc.

My primary object is to provide a fabric of the character indicated which can be readily manufactured by the use of comparatively simple and inexpensive automatic machinery, and which will present an upper surface adapted to receive a mattress without injury thereto, and which will employ a minimum amount of wire in its construction, thereby cheapening the cost of the fabric very materially—a consideration of the utmost importance in view of the large quantities of fabric of this character now employed in this country.

The invention is illustrated in the accompanying drawing in which—

Figure 1 represents a broken plan view of a fabric constructed in accordance with my invention; Fig. 2, a perspective view showing a fragment of the fabric; and Fig. 3, a perspective view showing one link of the fabric.

The fabric is composed of links 1 of general U-form, said links being so connected as to dispense with the necessity of separate cross-links and still enable the fabric to fold along longitudinal lines, which is a requisite in sofa-bed and folding couch constructions. Each link 1 comprises a cross-member or web 2 and longitudinal arms 3. At the junction of each longitudinal member with the cross-member 2, the wire of which the link is composed is formed to afford a somewhat angular corner projection 4 which provides an offset or open eye 5 at the junction of the web, and a compound curve 6 at the junction of the projection 4 with the arm 3. The curve at the point 6 is a sort of a half-twist adapted to interlock with a corresponding half-twist of an adjacent link. At the extremities of the arms 3 are provided downwardly turned hooks 7, and the hooked extremities of the arms are bent inwardly,

that is, toward each other, so that the hooked extremities extend obliquely, such obliquity being contributed by the wire being bent as indicated at the point 8.

In assembling, the links are ranged in longitudinal rows 9 and transverse rows 10. The links are all turned in a common direction, and the base portions of the arms of one link are interlocked, or intertwined, with the base portions of the flanking links through the medium of the compound curvatures 6, which thus afford pivotal connections between the links which lie side by side, while the adjacent arms of adjacent links extend parallel with each other and the hook portions of said arms are turned away from each other and interlock with the open eyes 5 of the next transverse series of links. It will be noted that the longitudinal rows of U-shaped links are thus directly united pivotally at their adjacent arms, enabling the fabric to be flexed along longitudinal lines. The construction thus dispenses wholly with the use of separately formed transverse links, thus saving the hooked portions of the transverse links, which amounts in the aggregate to an immense saving in fabric so extensively used as is fabric of this character. It may be added that the fabric is of such character as to render it feasible to produce the links and assemble them, or weave the fabric in a single machine. That is to say, it is feasible, with this construction, to form the fabric complete in one machine, into which wire is fed from a coil, thus providing for the manufacture in the most economical manner.

The foregoing detailed description has been given for clearness of understanding only. Hence, no undue limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

What I regard as new and desire to secure by Letters Patent is—

1. A wire fabric comprising substantially U-shaped links ranged in longitudinal rows and transverse rows, each link having the base portions of its arms provided with compound curves and having its web provided near the extremities thereof with offsets and each link having its arms provided with hooked extremities, said links being joined

in transverse rows by the interlocking of said arms at said compound curves, and the hooks of the links of one transverse row engaging the offsets of the webs of the links of the next transverse row.

2. A wire fabric comprising links ranged in longitudinal rows and in transverse rows, each link comprising a U-shaped member having lateral offsets at the junction of the web and arms and having end offsets at the web, said arms having hooked extremities turned toward each other, said links being joined in transverse rows by the interlocking of said lateral offsets and joined in longitudinal rows by the engagement of said hooks with the end offsets of said webs.

3. A wire fabric comprising a plurality of transverse rows of similar U-shaped links with the arms of said links pivotally interlocked at their base portions, said links having hook-engaging eyes at their webs and having their arms provided with hooked extremities, the hooked extremities of the arms of one transverse row of links engaging eyes

at the webs of the links of the next transverse row.

4. A wire fabric comprising substantially U-shaped links ranged in longitudinal and transverse rows, the arms of the links of each longitudinal row being intertwined with the arms of the links of adjacent longitudinal rows, the arms of the links of a given transverse row being in pivotal engagement with the base-portions of the links of the next transverse row.

5. A wire fabric comprising substantially U-shaped links ranged in longitudinal and transverse rows, the arms of adjacent links being of such form and disposition as to pivotally interlock and be substantially parallel with, and relatively close to each other, the arms of the links of one transverse row being in hooked engagement with the links of the next transverse row.

CHARLES H. GAIL.

In presence of—

W. S. MORELOCK,
A. J. THOMSON.