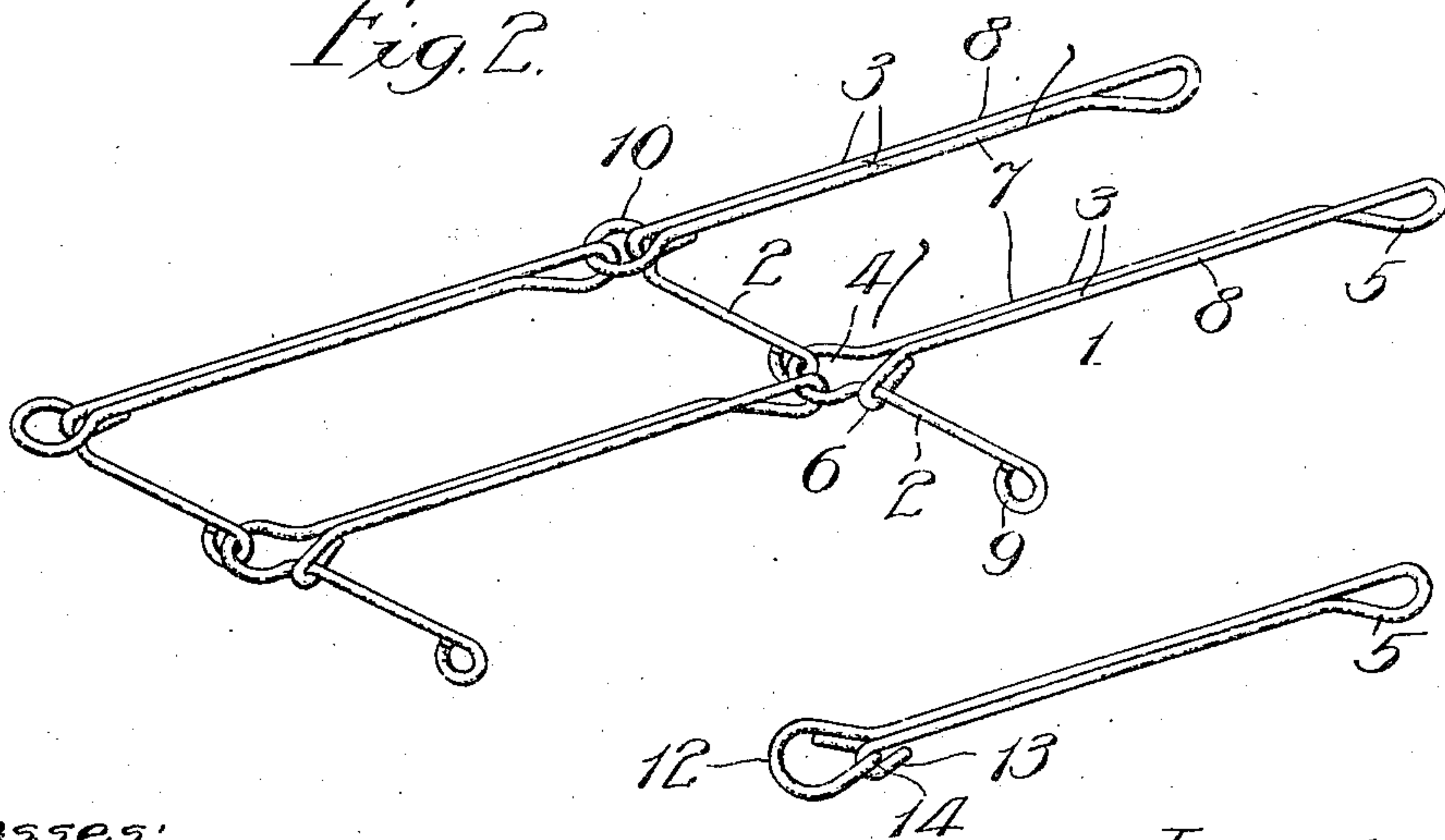
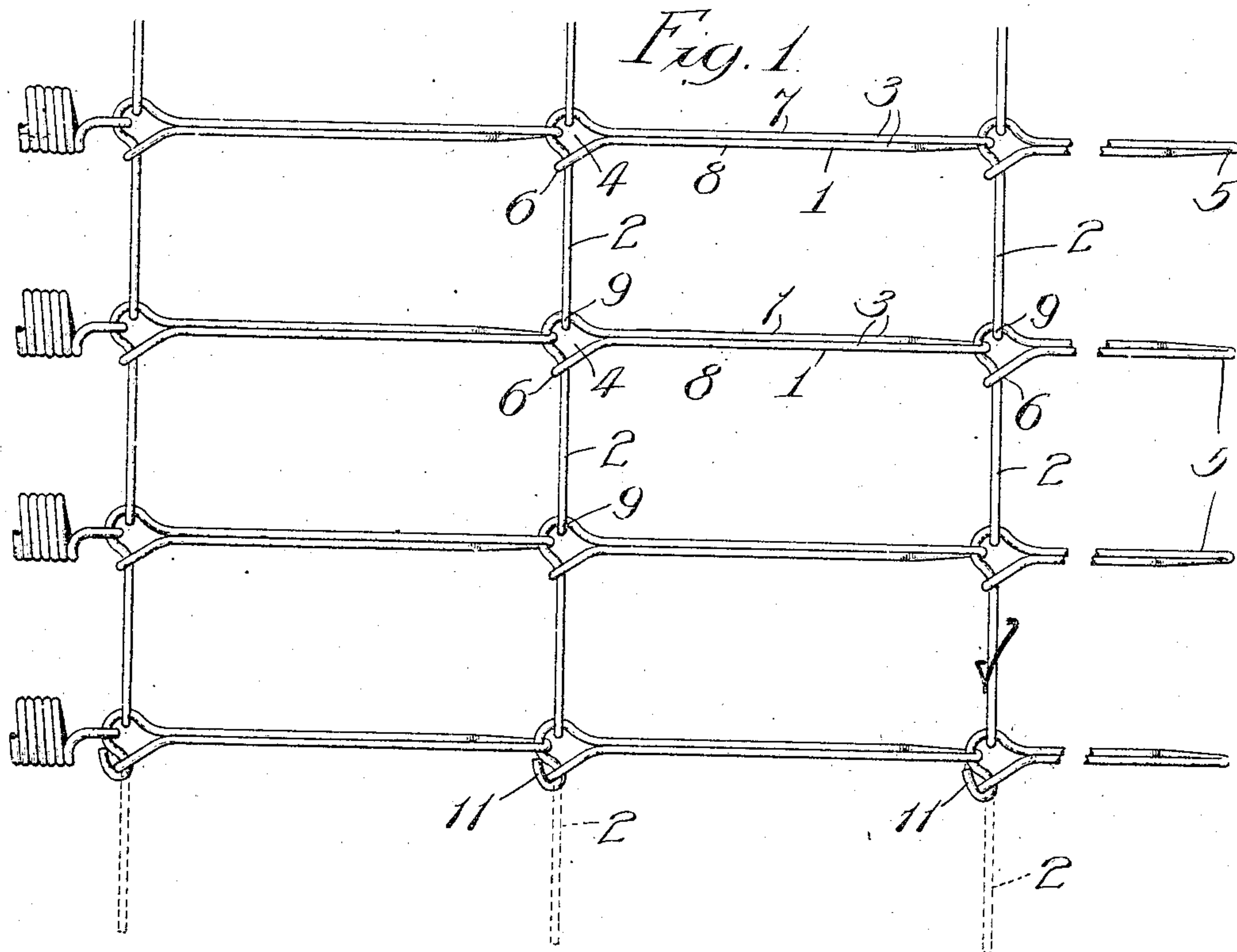


WIRE FABRIC.

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UNITED STATES PATENT OFFICE.

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WIRE FABRIC.

946,120.

Specification of Letters Patent.

Patented Jan. 11, 1910.

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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 is well adapted to resist great longitudinal stress, and which may be cheaply manufactured.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 represents a broken plan view of a fabric construction in accordance with my invention; Fig. 2, a perspective view showing four of the links employed in the fabric and illustrating the manner in which said links are connected; and Fig. 3, a perspective view of a modified form of marginal link.

The fabric comprises links 1 which are interlinked or interwoven with each other as shown. Each link 1 is of L-form, comprising a transverse arm or base-portion 2 and a longitudinal arm 3, with an eye 4 at the junction of said arms. In the preferred manner of forming the links, a piece of wire is bent near one end to form the arm 2 and the eye 4. The other end of the wire is then bent upon itself to form a loop or eye 5, the extremity of the wire being equipped with a hook 6 which engages the base-portion of the link. The hook 6 extends obliquely and practically closes the eye 4. The members 7 and 8 of the link 1 lie side by side in the plane of the fabric, and said members are twisted through approximately 90° at the extremity of the arm 3, so that the loop 5 will lie in a substantially vertical plane. The loop 5 is so formed that it lies principally beneath the plane of the fabric, so as not to interfere with the even upper surface of the fabric. The arm 2 is provided at its extremity with a hook 9.

In Fig. 2, I have shown the outer row of links at one lateral edge of the fabric slightly modified in that a complete or circular eye 10 takes the place of the eye 4, and the members 7 and 8 of the arm 3 are shifted in location so that the member 8 lies on that side of the member 7 which is oppo-

site the arm 2, and the hook at the extremity of the member 8 engages the eye 10 directly. The first-described link is preferred, however, inasmuch as it can be manufactured somewhat more simply and requires somewhat less wire.

In the manufacture of the fabric, the loops or eyes 5 of the arms 3 are interwoven or interlinked with the eyes 4. In practice, the fabric is made in a machine which forms the links and interlinks or interweaves them, the fabric emerging from the machine in a completed condition. As shown in the lower portion of Fig. 1, the arms 2 are omitted from one marginal row of links, the extremities of the wire being provided with hooks 11 which are engaged with the hooks 6. If desired, the arms 2 may be retained, as indicated in dotted lines, and may be engaged with one longitudinal frame-member of the mattress-frame.

It will be noted that the construction provides links forming double longitudinal strands, each link having an integrally-formed, laterally-extending arm, or fork, adapted to engage with the eye at the base-portion of another link, thus dispensing with the necessity of independent cross-links. The construction permits the fabric to be folded along longitudinal lines and along transverse lines, thus adapting the fabric for use in sofa-beds, folding-beds, extensible couches, etc. The fabric is also well adapted for shipment in compact form. Inasmuch as the eyes at both ends of the longitudinal arms of the links are practically closed it is evident that the fabric is adapted to withstand great longitudinal stress. The construction enables small-gage wire to be employed, and enables the length of wire to be reduced materially over constructions of the same general character now in use.

Fig. 3 shows a modified form of marginal link. In this form, the link has the extremity of one of its members curved and bent to form a closed eye 12, and the extremity of its other member provided with a hook 13 engaging said eye at the V-shape extension 14 thereof.

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 links ranged in longitudinal rows, the links of each row being directly interlinked with each other, each link comprising a transverse arm and a longitudinal arm formed integrally therewith and having an eye at their junction, each transverse arm having engagement with the eye at the junction of the arms of the adjacent link, the wire of each longitudinal arm being bent upon itself and having its extremity secured to the base-portion of the link, whereby double strands are afforded.

2. A wire-fabric comprising links having relatively long arms ranged in longitudinal rows and having transverse arms formed integrally with the longitudinal arms, each link comprising a wire bent to L-shape with an eye at the junction of the arms and a hook at the extremity of the transverse arm, the wire of the longitudinal arm being bent upon itself to form a loop at the extremity of said arm and said wire having a hook

at its extremity engaging said transverse arm adjacent to the eye at the junction of the arms of the link, said L-shape links being interlinked or interwoven to form a rectangular-mesh fabric.

3. A fabric comprising interlinked L-shape links forming a rectangular-mesh-fabric, each link comprising a transverse arm and a longitudinal arm with an eye at the junction of said arms, the wire of the longitudinal arm being bent upon itself to form two members which lie in the plane of the fabric, the extremity of the wire having a hook-engaging transverse arm adjacent to the eye at the junction of said arms, the loop at the extremity of the longitudinal arm lying in a vertical plane and engaging the eye at the junction of the arms of the adjacent link, which last-named eye lies in the plane of the fabric.

CHARLES H. GAIL.

In presence of—

RALPH A. SCHAEFER,
JOHN WILSON.