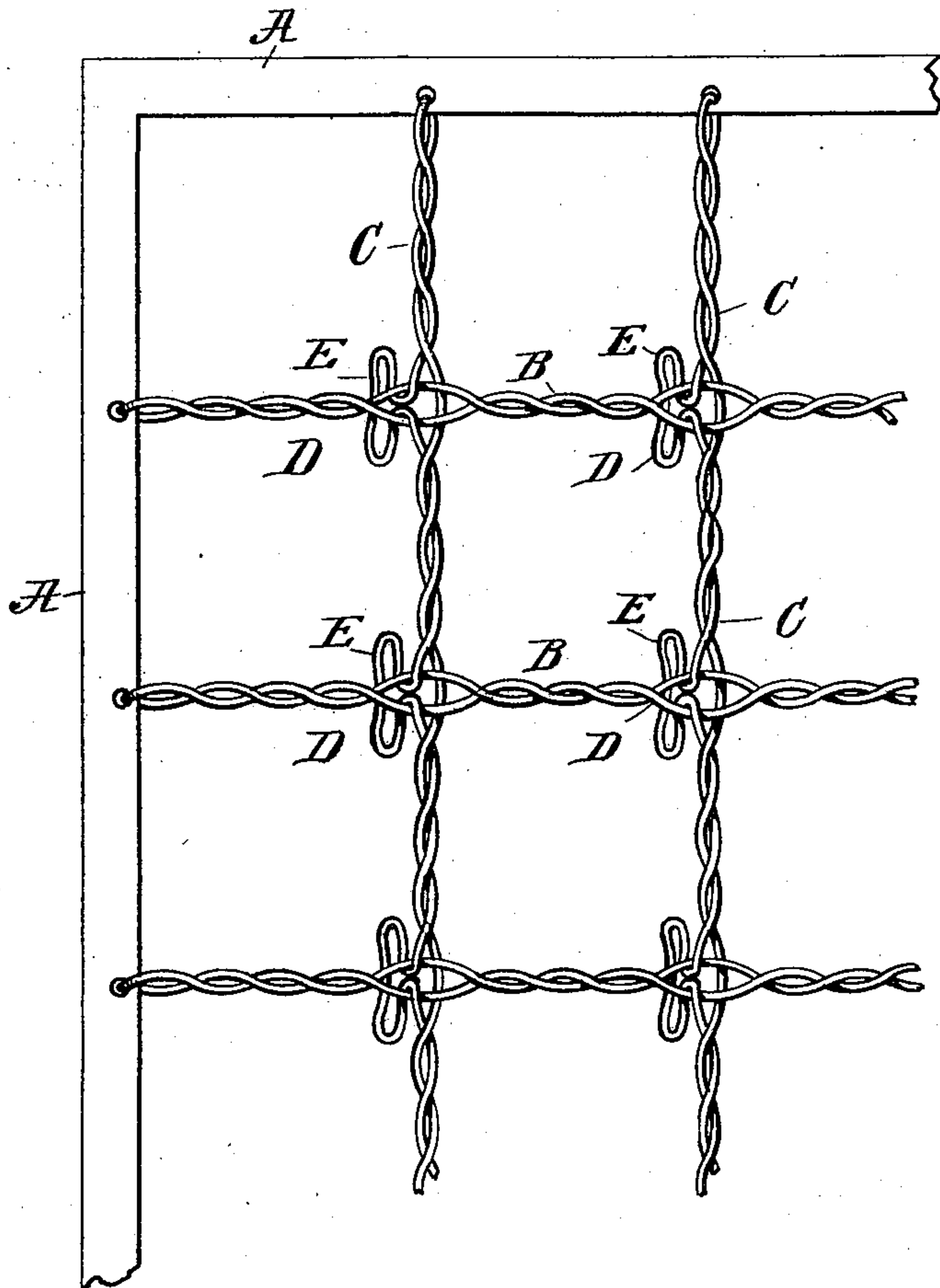


(No Model.)

A. H. GARDNER.
WOVEN WIRE FABRIC.

No. 599,173.

Patented Feb. 15, 1898.



Witnesses
Edward C. Rowland.
Oscar M. Hamburger.

Inventor
Augustus H. Gardner.
By his Attorney
Phillips Abbott.

UNITED STATES PATENT OFFICE.

AUGUSTUS H. GARDNER, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE
TWISTED WIRE BOX STRAP COMPANY, OF NEW YORK, N. Y.

WOVEN-WIRE FABRIC.

SPECIFICATION forming part of Letters Patent No. 599,173, dated February 15, 1898.

Application filed August 20, 1897. Serial No. 648,907. (No specimens.)

To all whom it may concern:

Be it known that I, AUGUSTUS H. GARDNER, a citizen of the United States, and a resident of Fort Hamilton, Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Woven-Wire Fabric and Methods of Making the Same, of which the following is a specification.

My invention relates to an improvement in woven-wire fabric suitable for use as a wire mattress, fencing, and for other uses in the arts.

Generally stated, the fabric made by me embodies longitudinally-running strands or coils composed of two or more wires twisted together, which may be considered as the warp of the fabric, (it may be the woof, however, if preferred,) and other strands running transversely to those above mentioned, composed of two or more wires, which may be twisted together, if desired, and where these transversely-arranged strands or wires intersect they are intermeshed with each other in a manner hereinafter described, so as to prevent slipping or movement of the strands relative to each other in either direction and substantially equal strength in all the strands.

The drawing hereof illustrates a plan view of a section of a mattress embodying one form of my invention.

A represents any suitable frame for the support of the structure. It may be of wood or metal, and in the example shown is rigid and unyielding. It may, however, be composed of wires twisted together, if preferred, to form a sort of selvage, as now frequently done in the construction of mattresses, wire fencing, chicken-netting, and the like, whereby the edges of the fabric are given additional stiffness and strength.

B B are the strands, which may be considered the warp-strands, and C C the woof-strands. They may be attached to the frame at their ends or to the selvage, as the case may be, as shown, or in any other desired manner. During the twisting of the warp-strands open spaces or eyes D are produced in any suit-

able manner, so that the wires of the woof-strand, or at least one of them, may be drawn, pressed, or otherwise caused to pass through the eyes D D and interlocked or intermeshed therein by upsetting one or more of the wires into the form of a flattened loop E, which produces, in effect, a cross-bar of such length as that it cannot pull out from the eye D. I ordinarily prefer to loop and upset one of the wires only, in order to form the cross-bar, leaving the other practically straight or in its normal twisted condition at the place of intersection with the warp-threads, so that such wire or wires will have a tendency to sustain the looped wire or wires and prevent the straightening out of the loop or cross-bar.

The wire may be of any preferred kind and of any degree of elasticity or temper. The degree of twist—i. e., whether high or low—will be governed by circumstances and the purpose to which the fabric is to be put. It is also evident that what I have termed the “warp-strands” may run the long way or the short way of the fabric.

My improved fabric, when used in the manufacture of wire mattresses, may, if desired, be made up into the mattresses in conjunction with vertical springs, whether of the hour-glass or other preferred form.

Having described my invention, I claim —
A woven-wire fabric embodying a strand of two or more wires twisted together having openings or eyes formed therein at intervals, transverse strands formed of two or more wires, one at least of which is drawn through the eyes in the other strand and formed into cross-bars whereby the strands are interlocked, the other wire or wires of the transverse strand remaining in normal condition, for the purposes set forth.

Signed at the city of New York, in the county of New York and State of New York, this 7th day of August, A. D. 1897.

AUGUSTUS H. GARDNER.

Witnesses:

CLARENCE E. SEXTON,
HENRY OPDYKE.