

(Model.)

J. P. MADDOX.
WOVEN FABRIC FOR MACHINE BELTING.

No. 427,700.

Patented May 13, 1890.

Fig. 1.

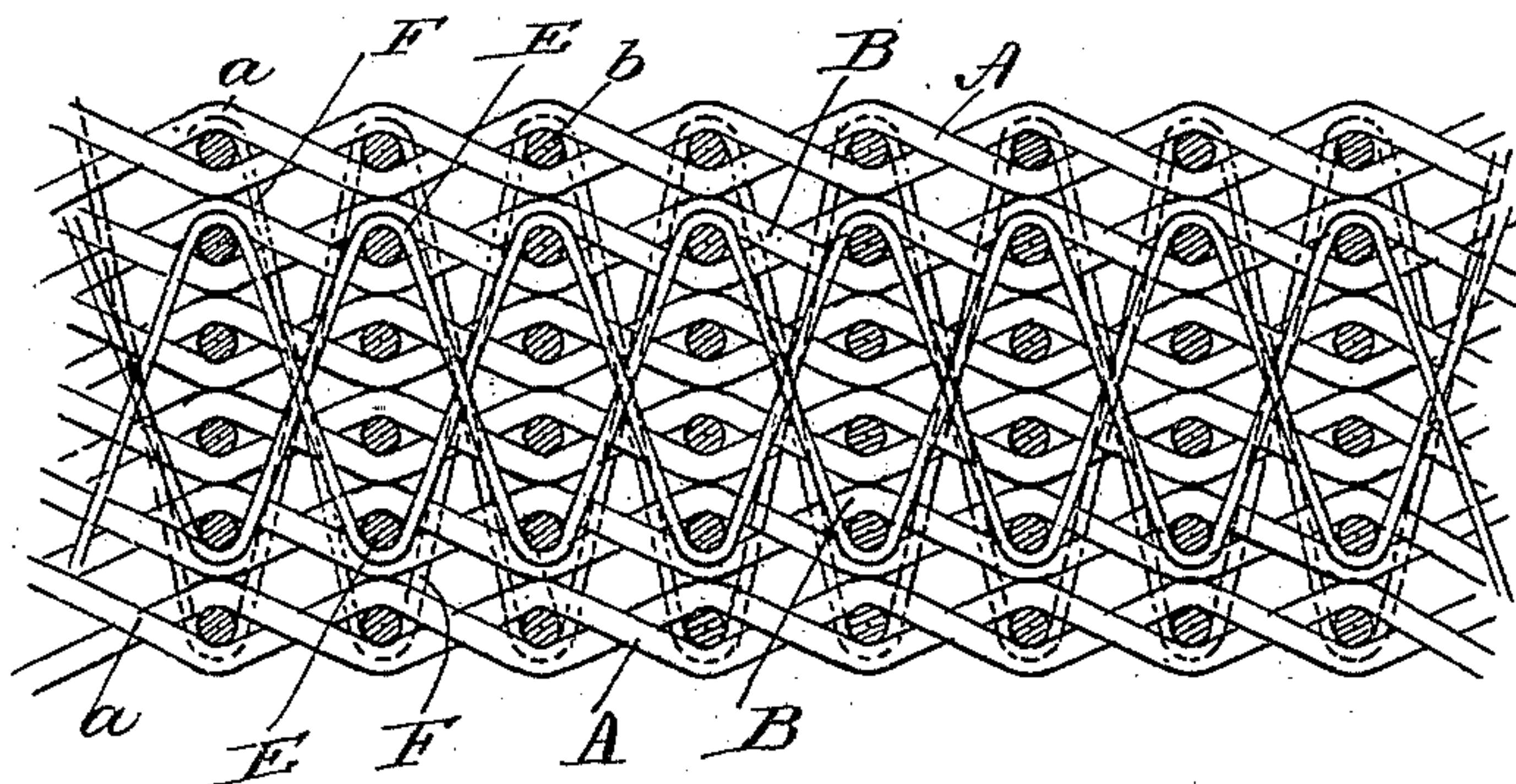
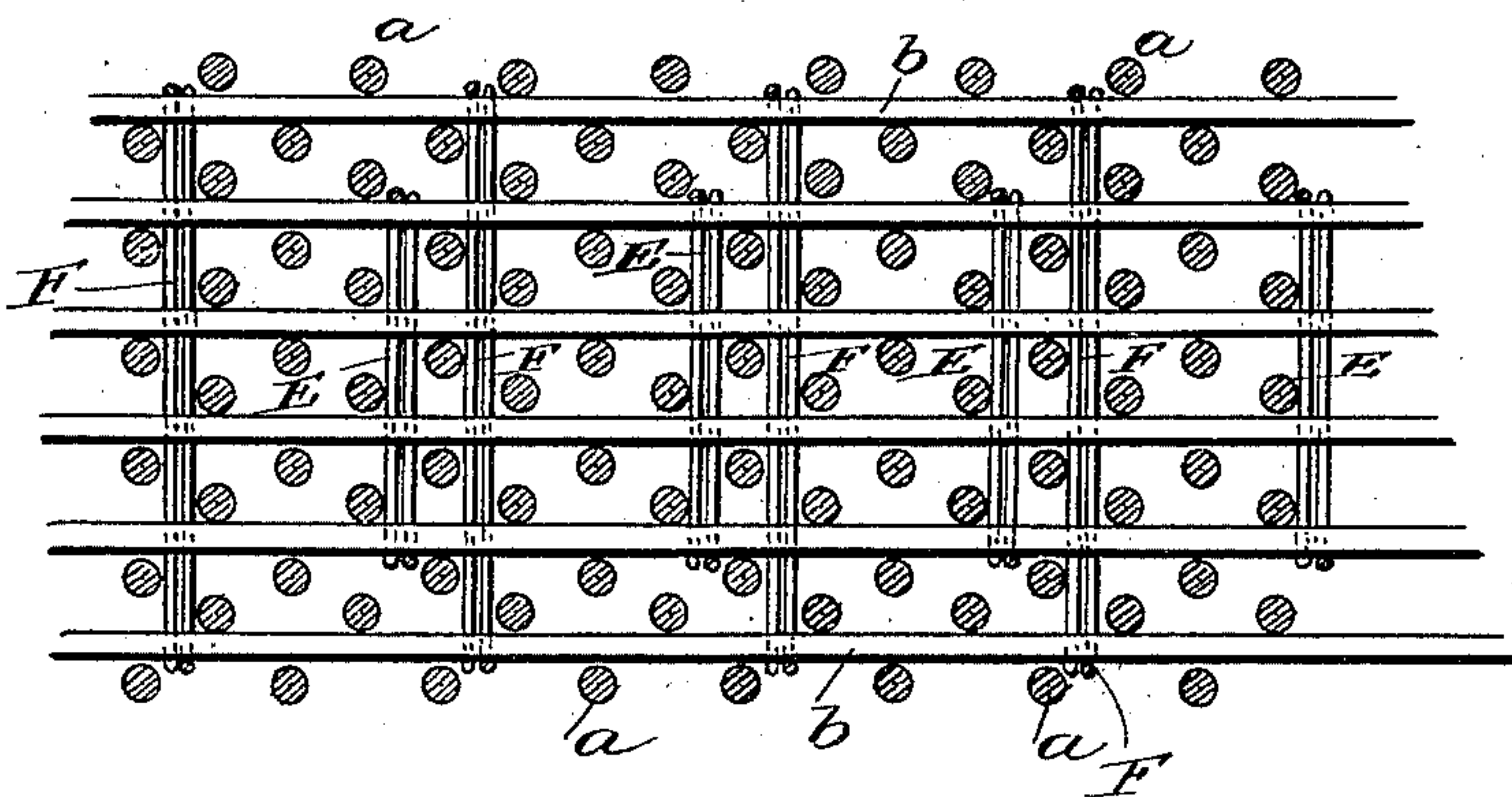


Fig. 2.



WITNESSES
Frank L. Curand
Geverance

INVENTOR
Joshua P. Maddox
by S. W. Bates
his Attorney

UNITED STATES PATENT OFFICE.

JOSHUA P. MADDOX, OF PORTLAND, MAINE.

WOVEN FABRIC FOR MACHINE-BELTING.

SPECIFICATION forming part of Letters Patent No. 427,700, dated May 13, 1890.

Application filed December 16, 1889. Serial No. 333,879. (Model.)

To all whom it may concern:

Be it known that I, JOSHUA P. MADDOX, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Woven Fabrics for Machine-Belting; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a fabric for belting having metal wires extending longitudinally through it for the purpose of increasing the strength of the said fabric.

Fabric for belting has been made with a number of plies of fiber having a straight or nearly straight central wire and binder-wires extending through from one face to the other. Wire warps have also been used for the alternate plies of a multiple-ply fabric. By actual trial and experiment in the manufacture of such belting it has been found very difficult to make a perfect belt when wire is laid in the fabric straight, or nearly so. In weaving fabric of this description it is found to be a very difficult matter to secure uniform tension on the longitudinal wires at all times, and when laid or woven into the belt so that they lie straight, or nearly so, they are nearly or quite devoid of elasticity and a uniform strain exerted on the belting is liable to break those wires that are put in with the highest tension. This difficulty is particularly encountered when the belts run over small pulleys, where they are subject to frequent changes of tension.

The object of my invention is to produce a fabric wherein the wire used shall be used as a binder-warp to bind solidly together the central plies and at the same time to produce in the said wire a corrugation which gives it a limited amount of elasticity in the direction of its length.

My invention consists of a fabric having

several central plies bound together with a wire warp which passes through them from one side to the other, and facing-plies secured to said central plies by fiber binders.

In the accompanying drawings I represent a fabric which embodies my invention.

In the drawings, Figure 1 represents a longitudinal section through my fabric. Fig. 2 is a cross-section of the same.

I have here shown a fabric composed of six plies, two outer or facing plies A A and four inner central plies B B. The four central plies I have shown as bound together by wire warps E, which pass back and forth through them, binding them solidly together, *a* represents the ordinary warp, and *b* the weft. The facing-plies are bound to the body of the fabric, as here shown, by fiber binding-warps which extend from one face to the other of the fabric. As thus woven my fabric contains a series of metal wire binders, which bind firmly together the central plies and strengthen the fabric longitudinally, and which have a limited amount of elasticity in the direction of the length, so that any small inequalities of tension will not cause a break of the wire.

It is evident that I may vary the number of plies in my fabric, uniting two or more interior plies by my wire binder and tying to them the facing-plies by means of fiber binders.

The facing-plies are laid in such a manner as to produce a surface of fiber on each face of the fabric.

I claim—

The herein-described woven fabric for machine-belting and other like purposes, which consists of two or more interior plies bound together by a metallic binder-warp and facing-plies bound to said interior plies, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

JOSHUA P. MADDOX.

Witnesses:

S. W. BATES,
EDWARD FOLEY.