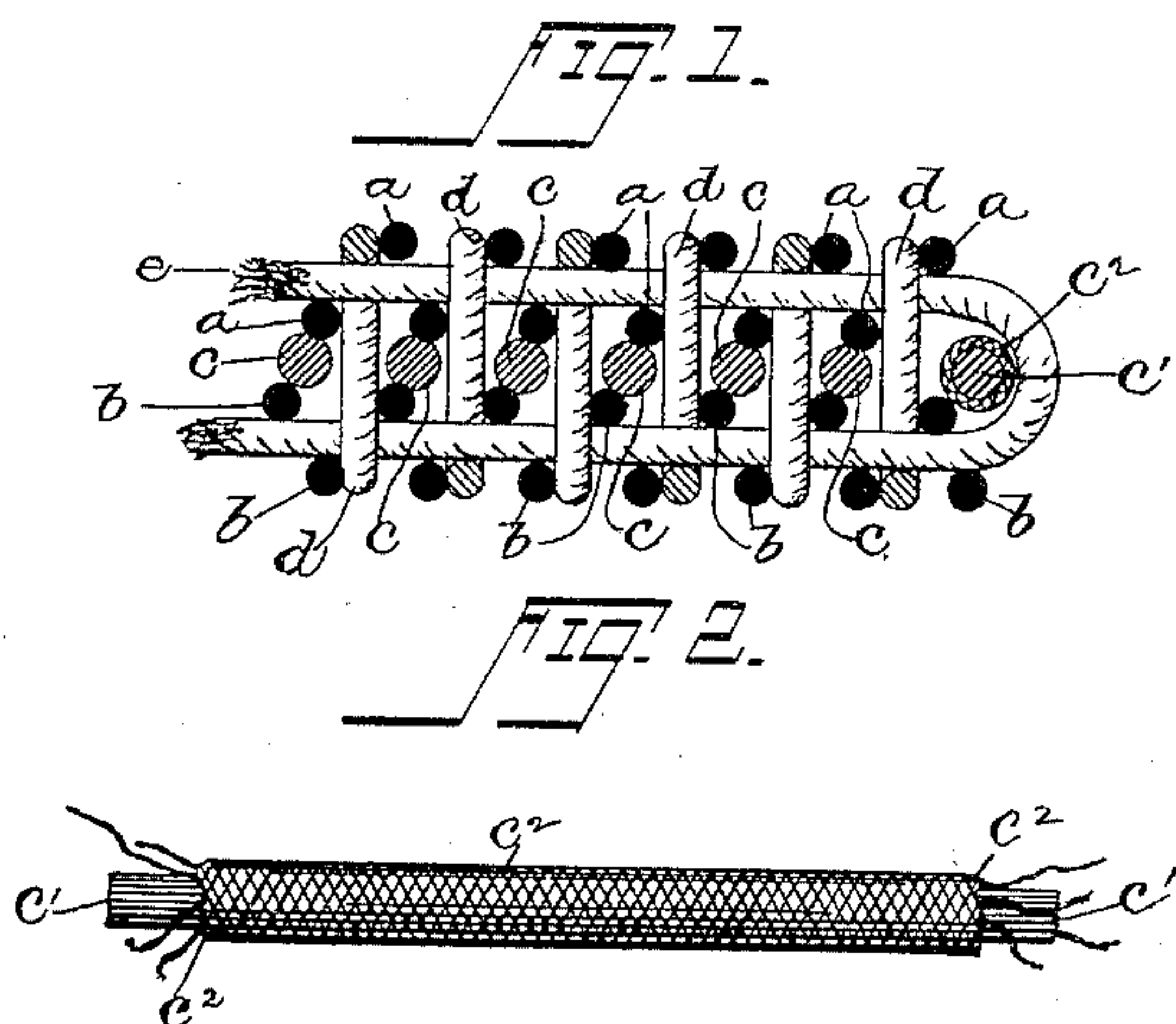


(No Model.)

J. W. GREEN, JR., & E. H. SAWYER.  
ELASTIC WOVEN FABRIC.

No. 436,872.

Patented Sept. 23, 1890.



Witnesses:

*A. W. Cushman.*  
*A. W. Harrison*

Inventors:

*J. W. Green, Jr. & E. H. Sawyer,*  
By their Attorney *Henry Calvert.*

# UNITED STATES PATENT OFFICE.

JOSEPH W. GREEN, JR., AND EDMUND H. SAWYER, OF EASTHAMPTON,  
MASSACHUSETTS.

## ELASTIC WOVEN FABRIC.

SPECIFICATION forming part of Letters Patent No. 436,872, dated September 23, 1890.

Application filed November 6, 1889. Serial No. 329,404. (No specimens.)

*To all whom it may concern:*

Be it known that we, JOSEPH W. GREEN, Jr., and EDMUND H. SAWYER, citizens of the United States, residing at Easthampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Elastic Woven Fabrics, of which the following is a specification, reference being had therein to the accompanying drawings.

In certain classes of elastic fabrics it has been found desirable to have at the edges thereof rubber warps, which are covered by the weft-threads only, these rubber warps at the edges of the fabrics preventing cockling or puckering of the fabrics by drawing up the edges of the fabrics the same as the central portions thereof; but the use of these weft-covered rubber warps at the edges of the fabrics has been attended with some objections, as they are not sufficiently protected to stand much wear.

The object of our invention is to obviate this objection; and we accomplish this object by incasing the edge rubber warps in a covering of braided fibrous threads, and then weaving these covered rubber warps into the edges of the fabrics in the same manner that the non-covered edge elastic warps were woven in—that is, by engaging them by the wefts only.

In the accompanying drawings, Figure 1 is a diagrammatic view representing, in enlarged cross-section, a portion of an elastic fabric

embodying our invention; and Fig. 2 is an enlarged detail view representing a portion of a braid-covered elastic warp.

The fabric represented by Fig. 1 consists of face-warps *a*, back warps *b*, rubber warps *c*, binder-warps *d*, and a weft *e*, as is common in two-ply terry fabrics. The edge or outer rubber warp *c'*, which, as shown in the Leonard and Buckley patent, No. 170,572, dated November 30, 1875, is covered by the weft only, is, according to our invention, first incased in a braided covering *c<sup>2</sup>* of fibrous thread, and is then woven into the fabric by the passage of the weft-threads around it, as in the patent just above referred to. The braided covering *c<sup>2</sup>*, in connection with the weft-threads, fully protects the edge rubber warps, so that they will remain intact during the life of the fabric, the edges of which, owing to our improvement, will stand as much wear as the bodies thereof.

Having thus described our invention, we claim—

An elastic fabric provided at its edges with elastic warps covered with braided fibrous threads, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH W. GREEN, JR.  
EDMUND H. SAWYER.

Witnesses:

CHAS. H. JOHNSON,  
JAMES E. COYLE.