

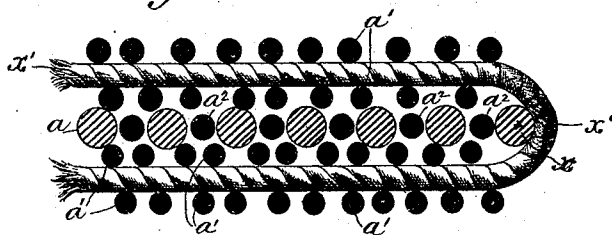
M. H. LEONARD & J. H. BUCKLEY.

ELASTIC FABRIC.

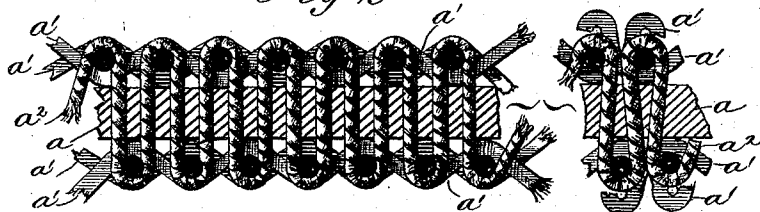
No. 170,572.

Patented Nov. 30, 1875.

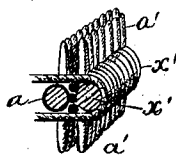
*Fig 1.*



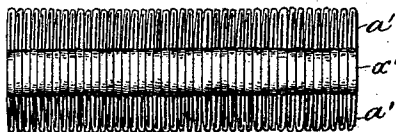
*Fig 2*



*Fig 4.*



*Fig 3*



Witnesses;

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN ELASTIC FABRICS.

Specification forming part of Letters Patent No. **170,572**, dated November 30, 1875; application filed November 1, 1875.

*To all whom it may concern:*

Be it known that we, MOSES H. LEONARD, of East Hampton, in the county of Hampshire and State of Massachusetts, and JOHN H. BUCKLEY, of East Hampton, in the county of Hampshire and State of Massachusetts, have invented a new and useful Improvement in Elastic Fabrics; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention is an elastic fabric, which has its central elastic cords covered by auxiliary warp-stock, and its edge-cords covered by weft-threads only, the advantages of which will be fully described hereafter.

In the drawings, &c., Figure 1 represents a transverse section of our improved fabric; Fig. 2, a longitudinal section of the same; Fig. 3, a side elevation of the fabric, and Fig. 4 a partial perspective view of the same.

To enable others to make this fabric, I will proceed fully to describe the same.

*a a* represent a series of central elastic cords. *a<sup>1</sup> a<sup>1</sup>* represent the upper and lower faces of the fabric, each of which is formed of a double warp, as shown. *a<sup>2</sup>* represents an intermediate binding-thread, by means of which the two faces are united together. *x* represents an edge-cord, which is covered by the weft-thread *x'* only, as shown.

A fabric formed with double-warp faces, or double-warp faces and back, united by an intermediate binding-thread working against the rubber cord, is well known as terry and suspender or garter webbing, the auxiliary warp-stock being introduced to protect the rubber from heat and wear, and also to give a desirable finish to the goods. This, however, as heretofore made, has its edge-cords covered also with the auxiliary warp-stock in a similar manner to the central portion. The fabric thus made possesses certain serious defects, which this invention is designed to remedy.

It is found in practice, when the edge-cords are covered by the auxiliary warp-stock, that it is impossible for them to draw up the stock with which they are covered to as great an extent as the central cords, so that the central portion is less in length than the edge, and, consequently, the goods have a cockled appearance. This results, of course, from the fact that the edge-cords have proportionally more stock to contract than the intermediate ones, and it may be remedied in part by increasing the size or number of the edge-cords; but this necessarily increases also the trouble and expense.

Another defect arises in the ordinary fabric from the drawing in of the edge-cords into the body of the material, which effect results from the fact that the rubber lies in a smooth tube or bag, which has no strong hold upon it. When the edge-cord is held by weft-threads only, however, each single turn of the thread is embedded in the rubber, and helps to hold it securely in place.

From the foregoing it will be understood that, by means of the invention described, a fabric is provided which possesses all the advantages of the old without its defects—that is, it may be so woven as to lie perfectly flat without a cockled edge, and its edge-cords are securely held from drawing into the material.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A fabric having its central elastic cords covered by auxiliary warp-stock, substantially as described, and its edge-cords by weft-threads only, substantially as described.

This specification signed and witnessed this 20th day of October, 1875.

MOSES H. LEONARD.  
JOHN H. BUCKLEY.

Witnesses:

T. W. PARSONS,  
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