Meyer & Evans.

Rubber Shoe.

No. 111,962. Patented Feb. 21. 1871.

Fig: 1.

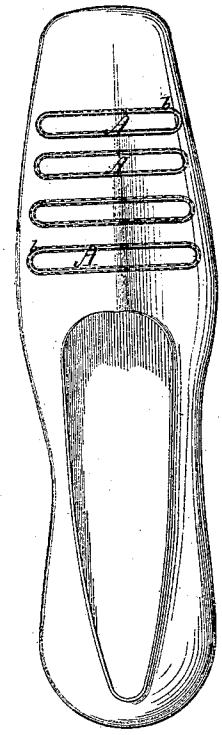


Fig: 3.

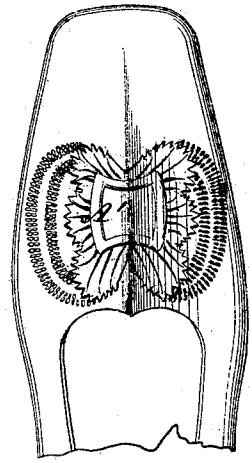
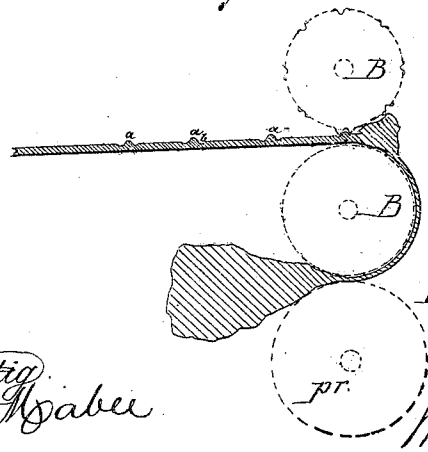


Fig: 2.



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UNITED STATES PATENT OFFICE.

CHRISTOPHER MEYER, OF NEW YORK, N. Y., AND JOHN EVANS, OF NEW BRUNSWICK, NEW JERSEY.

IMPROVEMENT IN INDIA-RUBBER SHOES.

Specification forming part of Letters Patent No. **111,962,** dated February 21, 1871.

To all whom it may concern:

Be it known that we, CHRISTOPHER MEYER, of the city, county, and State of New York, and JOHN EVANS, of New Brunswick, Middlesex county, New Jersey, have invented a new and useful Improvement in India-Rubber Shoes; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to the strengthening-ribs employed upon the uppers of india-rubber shoes; and consists in an improvement which will be hereinafter described, and subsequently specified in claim.

Figures 1 and 2 represent plan views of two modifications of these ribs, and Fig. 3 a sectional view of forming-rolls with the plastic substance passing therethrough.

A A in Fig. 1 represent plain ribs inclosing a space in configuration similar to the openings in the uppers of ordinary rubbers. *b* is an imitation thread passing around each rib. A′ A′ in Fig. 3 represent the ribs arranged in the form of a single ornamental buckle. B in Fig. 2 represents rolls, of which the lower is plain and the upper longitudinally ribbed. *a a* represent the ribs formed from the plastic rubber as it is carried through the rolls; and it will be observed that they are not corrugations, like the strengthening-ribs used upon metal, but a thickening up of the substance in certain lines or directions.

The process through which the material passes to bring it into the form required is as follows: The mass of plastic rubber is forced into the opening between the molding or shaping rolls, and drawn out into a sheet with the ribs completely shaped. It is then vulcanized and made up into the shoe or sandal.

We are aware that two sheets have been employed with openings in the outer while the inner sheet is preserved entire, and that in this case a strengthening-cord has been rolled into the plastic rubber and secured by vulcanization.

We are also aware that strengthening-ribs have been formed of elastic half-round strips cemented to the surface of the upper.

Hence we desire distinctly to disclaim either of the above modes of transversely ribbing the uppers of rubber shoes and sandals; but

What we do esteem to be our invention, and desire to secure by Letters Patent, is—

One or more transverse ribs in rubber shoes or sandals, formed by thickening the substance itself in the lines or directions thereof while in the sheets by means of rolling-dies, as and for the purpose described.

JOHN EVANS.
C. MEYER.

Witnesses:
GEO. W. MABEE,
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