

(No Model.)

G. A. AMBLER.
Belting.

No. 238,200.

Patented March 1, 1881.

Fig: 1.

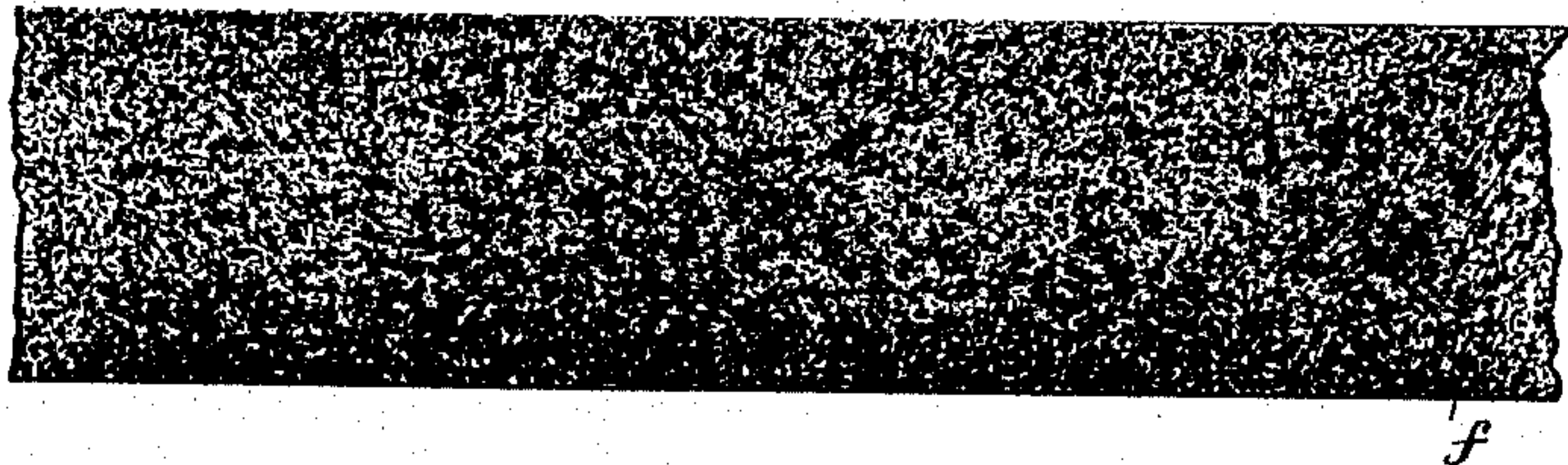


Fig: 2.

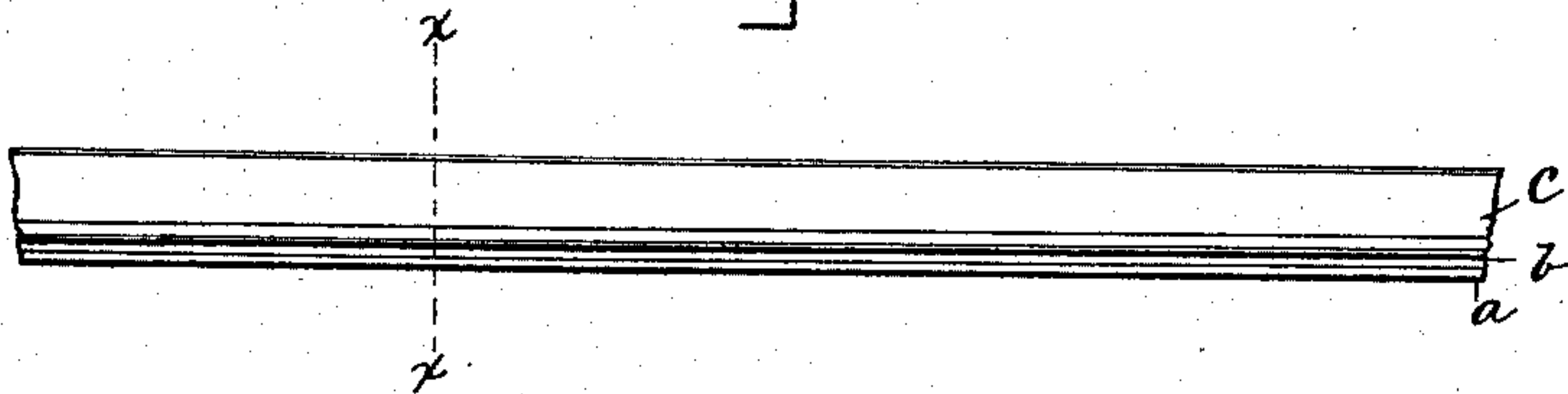


Fig: 3.

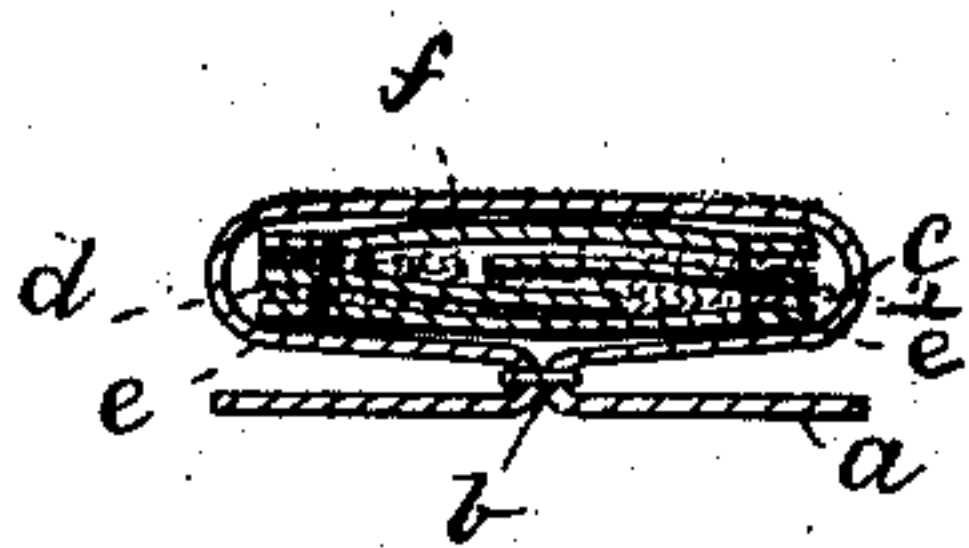
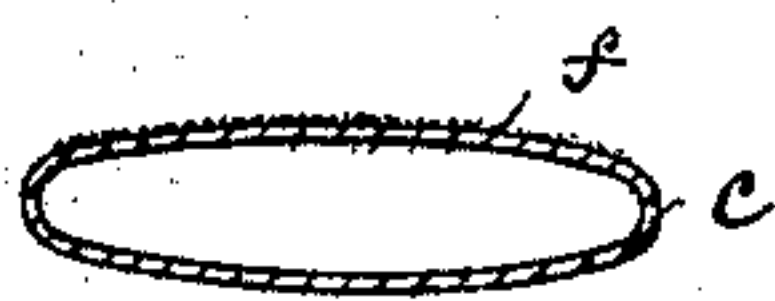


Fig: 4.



WITNESSES—

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UNITED STATES PATENT OFFICE.

GEORGE A. AMBLER, OF NATICK, MASSACHUSETTS, ASSIGNOR TO JAMES A. AMBLER, OF SAME PLACE.

BELTING.

SPECIFICATION forming part of Letters Patent No. 238,200, dated March 1, 1881.

Application filed December 29, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. AMBLER, of Natick, county of Middlesex, State of Massachusetts, have invented an Improvement in Belts, of which the following description, in connection with the accompanying drawings, is a specification.

This invention has for its object the production of a flexible abrasive belt adapted for use in a machine for abrading and finishing the bottoms of the soles of boots and shoes, such as represented in United States Letters Patent No. 236,475, heretofore granted to J. A. and A. C. Ambler, and dated January 11, 1881.

My invention consists, substantially, in a belt composed of a tube of fibrous woven material one side or part of which is coated externally with emery or glass or other vitreous or equivalent abrasive material. This tube has within it a flexible core or filling composed of one or more layers of fibrous material, the said core enabling the abrasive surface of the said belt to adapt itself in a yielding manner to the surface of the sole being operated upon.

Figure 1 represents, in face view, a portion of one of my improved abrasive belts. Fig. 2 is a side view thereof; Fig. 3, a section on the line *x x*, Fig. 2; and Fig. 4, a modification.

In the manufacture of my improved abrasive belt I take a strip of fibrous woven material, *a*, preferably that class of fabric denominated "duck," of a length equal to the length of the belt to be made, and fold the same longitudinally and stitch it together, as at *b*, thus forming the strip into a tube, *c*, within which I place a core, *d*, composed of one or more layers of fibrous material, preferably united together by stitches, as at 2, the said core being sufficiently thick and soft and so filling the tube as to enable the latter to bear in a yielding manner upon the material against which the tubular part of the traveling belt is pressed. The outer face of the tubular part of this belt is coated, as at *f*, with emery, glass, or equivalent abrasive compound, preferably in the

manner described in United States Patent No. 230,202, dated July 20, 1880, to which reference may be had.

In practice I have found that an ordinary belt composed of a single thickness of webbing such as commonly employed, when coated with emery or glass, furnishes a surface not sufficiently soft, elastic, and yielding to abrade the leather of the sole in the best way. So, to furnish an abrasive belt which shall yield and adapt itself readily to the work to be done in a manner resembling the action of the hand of a workman holding a piece of emery-cloth, I have devised a tubular belt having a soft flexible core.

Instead of forming the tube by stitching together longitudinally a strip of woven material, it is obvious that the tube might be woven like hose and one side or half of it be coated with emery.

In Fig. 4 I have shown the belt woven as a tube, the filling being, however, omitted.

While I prefer the method described in United States Patent No. 230,202 for fixing the grinding or polishing surface of emery or corundum to the tube, I desire to be understood that my invention is not limited to such a belt, for I may cause the said emery or corundum to be fixed to the belt in other well-known ways.

I claim—

As an improved article of manufacture, an abrasive or polishing belt, it being composed of an outer envelope or tube coated with emery, glass, or equivalent abrasive compound, and having a yielding filling or core, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE A. AMBLER.

Witnesses:

G. W. GREGORY,
ARTHUR REYNOLDS.