

(No Model.)

W. A. HARDER.

SHIRT.

No. 353,746.

Patented Dec. 7, 1886.

Fig. 1.

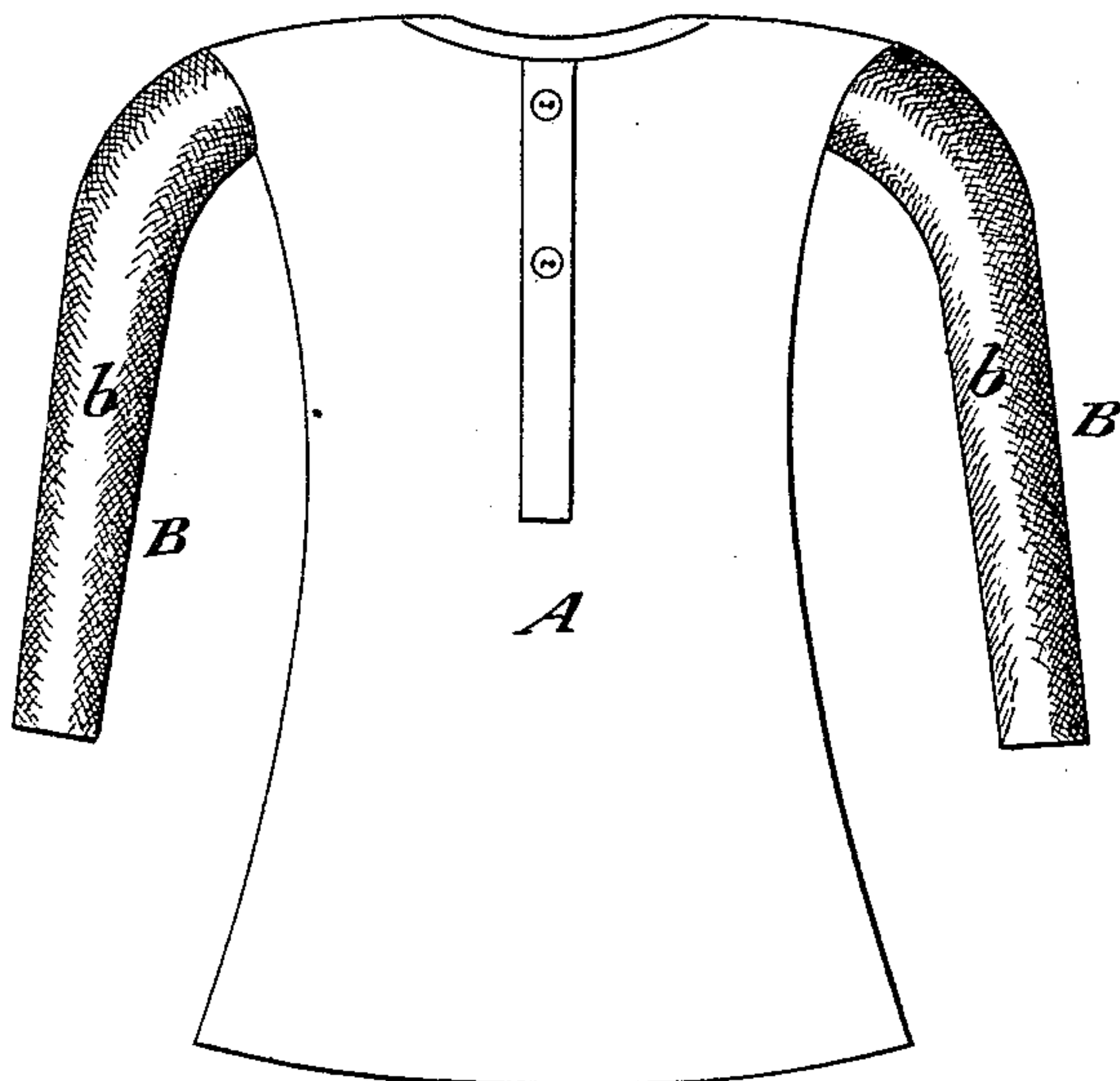


Fig. 2.

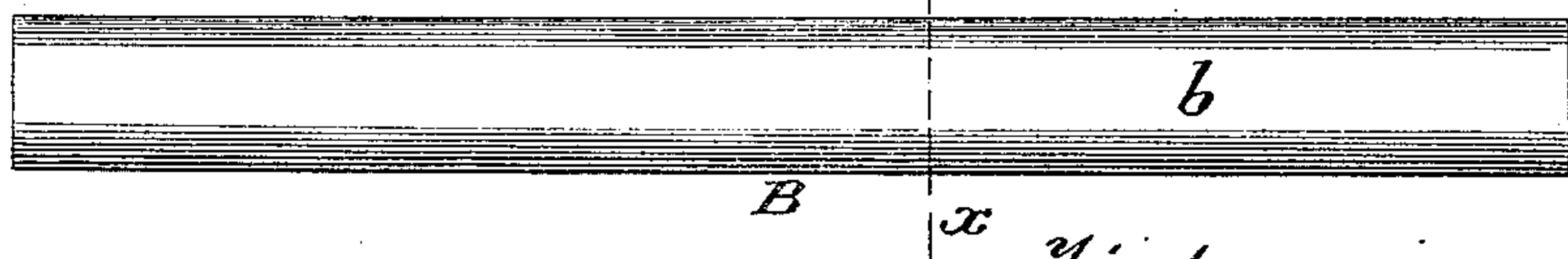


Fig. 3.

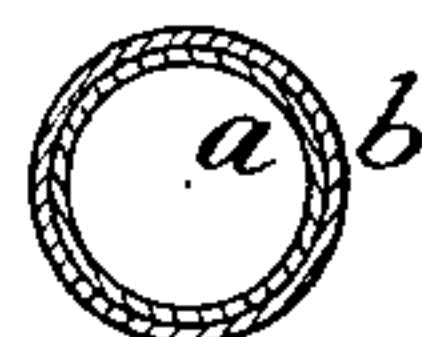


Fig. 4.

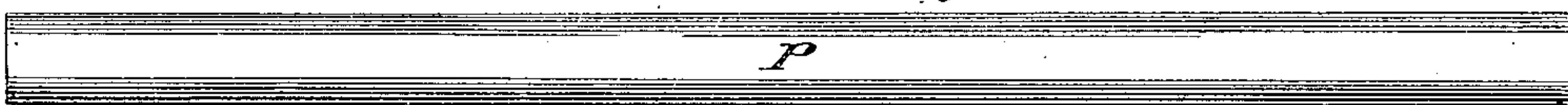


Fig. 5.

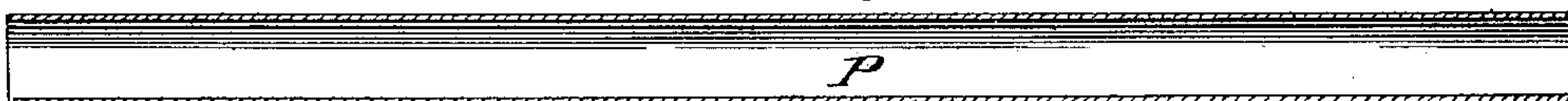


Fig. 6.

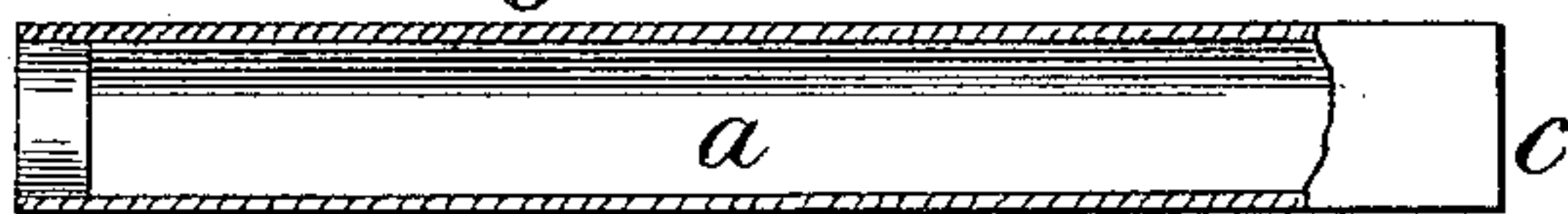


Fig. 7.



Fig. 8.

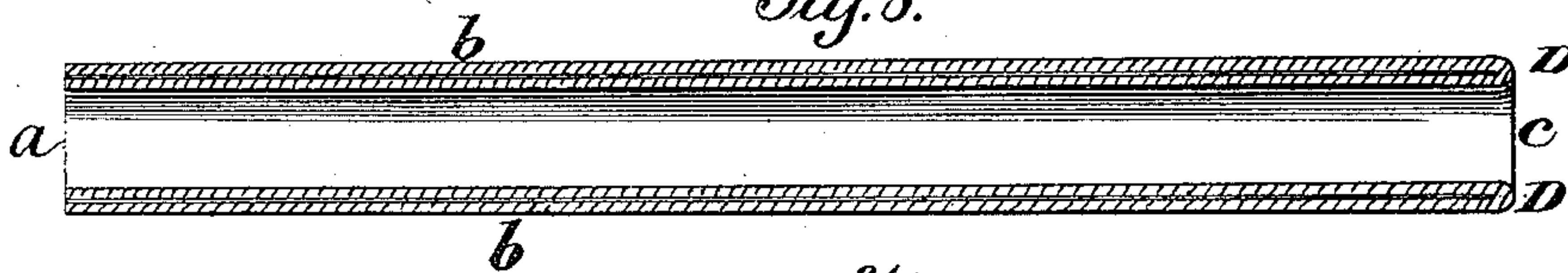
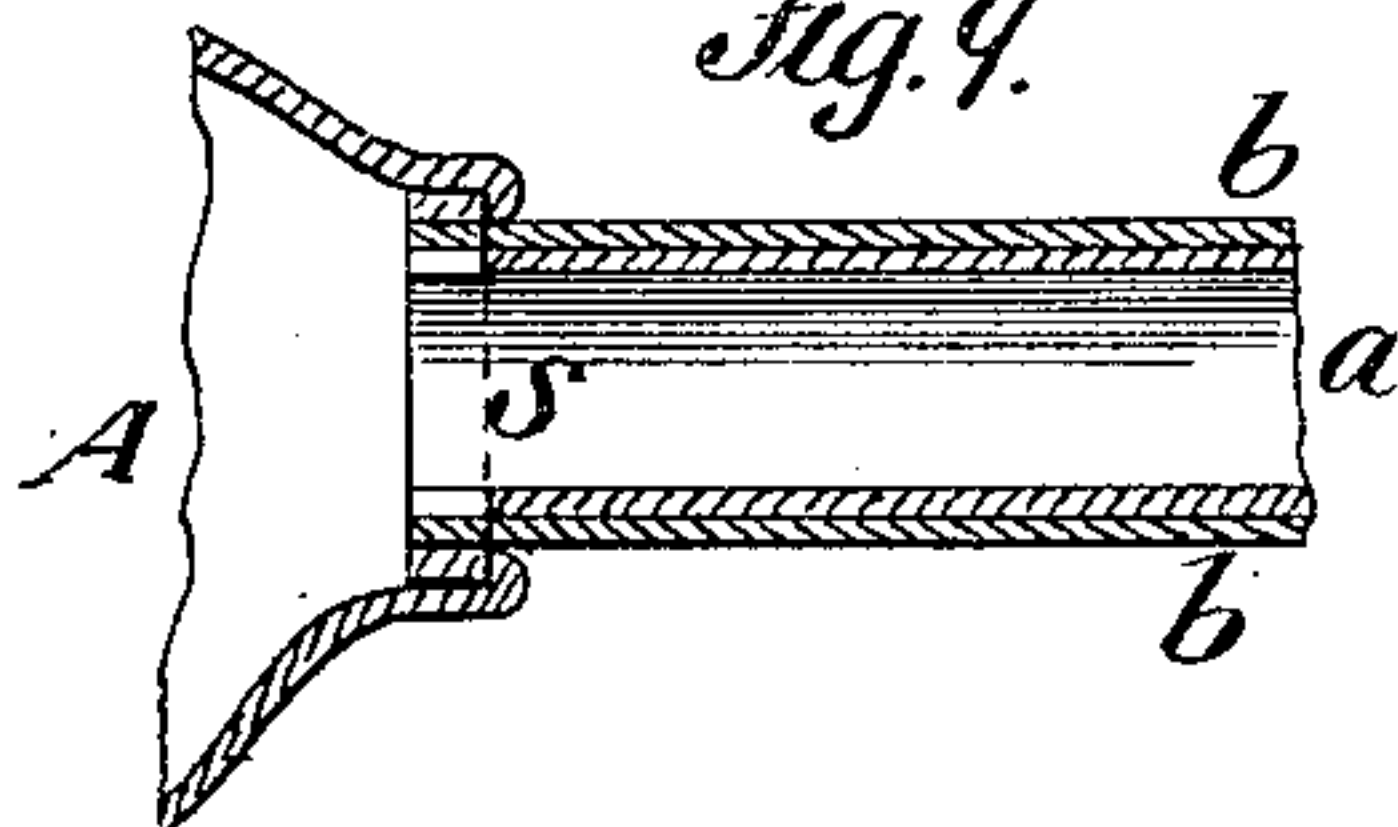


Fig. 9.



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UNITED STATES PATENT OFFICE.

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SHIRT.

SPECIFICATION forming part of Letters Patent No. 353,746, dated December 7, 1886.

Application filed November 19, 1885. Renewed October 25, 1886. Serial No. 217,167. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. HARDER, a resident of Lansingburg, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Shirts; and I do hereby declare that the following is a full, clear, and exact description of the invention, that 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.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in shirt-sleeves, and more particularly to sleeves made of knitted or other elastic fabric.

The object of my invention is to produce a yielding two-ply shirt-sleeve from a single piece of knitted or other elastic fabric.

My invention consists in forming a shirt-sleeve from a single piece of tubular elastic fabric by inclosing one moiety of the piece within the other, whereby the middle portion of the piece forms one end of the sleeve, and the other two ends of the piece, being brought into conjunction, or nearly so, and stitched to the shirt, form the other end of the sleeve.

Figure 1 of the drawings is a front elevation of an undershirt having my improved sleeves attached. Fig. 2 is a side view of one of the sleeves detached. Fig. 3 is a cross-section taken at broken line *xy* in Fig. 2. Fig. 4 is a side view of a tubular piece of fabric from which my improved sleeve may be formed, as explained. Fig. 5 is a longitudinal central section of same. Fig. 6 is a side view of the strip shown in Figs. 4 and 5, having one end inclosed by the other and a portion of the inclosing-end broken away to show the other. Fig. 7 is an end view of the right-hand end of Fig. 6. Fig. 8 is a central longitudinal section of sleeve shown in Fig. 2. Fig. 9 is a sectional view of portions of sleeve and shirt-body surrounding the arm-hole, showing the sleeve attached to the shirt.

A is the body of the shirt, and B the sleeves.

The sleeves are preferably made from fabric knitted with ribs to give it more elasticity, and in tubular form of the desired diameter

to form sleeves, and in long strips, which may be cut, as required, into strips of the proper length to form the sleeves desired. Figs. 4 and 5 show such pieces, P. One end of the piece is then drawn over the other, as shown in Fig. 6, until the two ends are about coincident, when they are stitched to the edges of the arm-hole of the shirt-body, as shown in Fig. 9.

In the several figures, *b* represents the outer end or moiety of the strips, which is drawn over so as to inclose the other moiety, *a*. The middle portion of the strips forms the fold D, which unites the plies of fabric *a* and *b* and forms the outlet C of the sleeve.

When the ends of the elastic strip are stitched to the shirt-body, they may be expanded to correspond in size with the arm-hole, as shown in Fig. 1, the shade-lines representing the ribs knitted in the fabric to give it greater elasticity.

The extended end of the sleeve, presenting a folded edge, requires no binding or hem to give it a finished appearance; and the whole operation of making my improved sleeve is comprised in knitting a strip or piece of tubular fabric, inclosing one end of the piece within the other, so that the ends can be conjointly stitched to the shirt-body, as shown and described.

The elasticity of the fabric renders the sleeve close-fitting throughout its length, by reason of which it does not interfere with the genteel appearance and fit of the outer garments worn over the shirt.

The sleeve being two-ply throughout its length, it may be very considerably expanded at the larger portions of the arm without leaving uncovered openings through the fabric, which are caused by expanding a single-thick fabric, thus affording a warm and comfortable close-fitting sleeve; and there are no loose edges or seams to fray out and present an untidy appearance, or uncomfortably affect the wearer by reason of the compression usually attending a close-fitting garment.

My improved sleeve may be applied to other garments as well as shirts.

What I claim as new, and desire to secure by Letters Patent, is—

A shirt provided with two-ply sleeves, each

sleeve consisting of an open-ended tube of elastic fabric folded at its middle portion, one half of said tube being within and inclosed by the other half, and theseparate coincident ends
5 of the two plies of the sleeves being attached to the shirt at the arm-scyce, whereby the folded middle portion of the tube forms the wrist portion of the sleeve, as shown and described.

In testimony whereof I have hereunto set to my hand this 18th day of November, 1885.

WILLIAM A. HARDER.

Witnesses:

GEO. A. MOSHER,

W. H. HOLLISTER, Jr.