

No. 832,506.

PATENTED OCT. 2, 1906

R. W. SCOTT.
RIBBED KNITTED FABRIC.
APPLICATION FILED JAN. 12, 1905.

Fig. 1

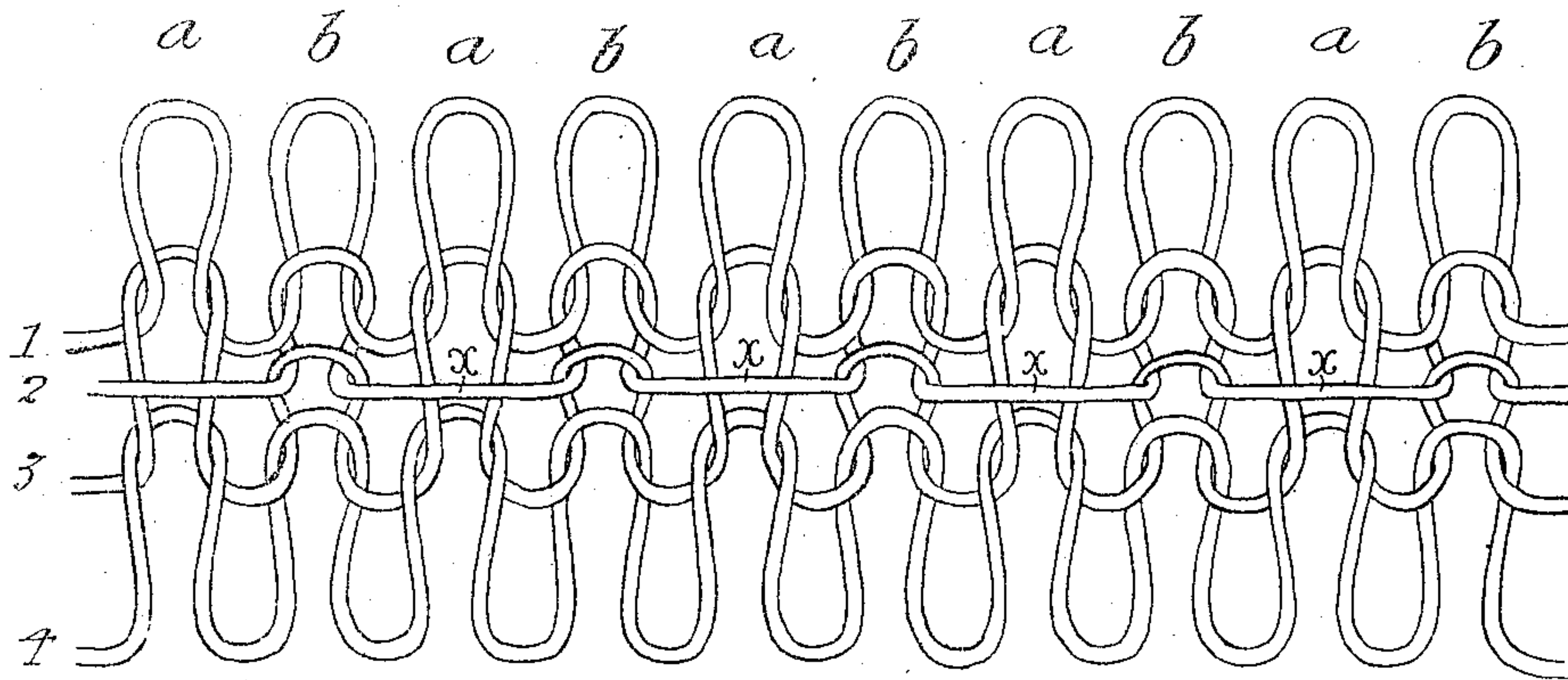


Fig. 2

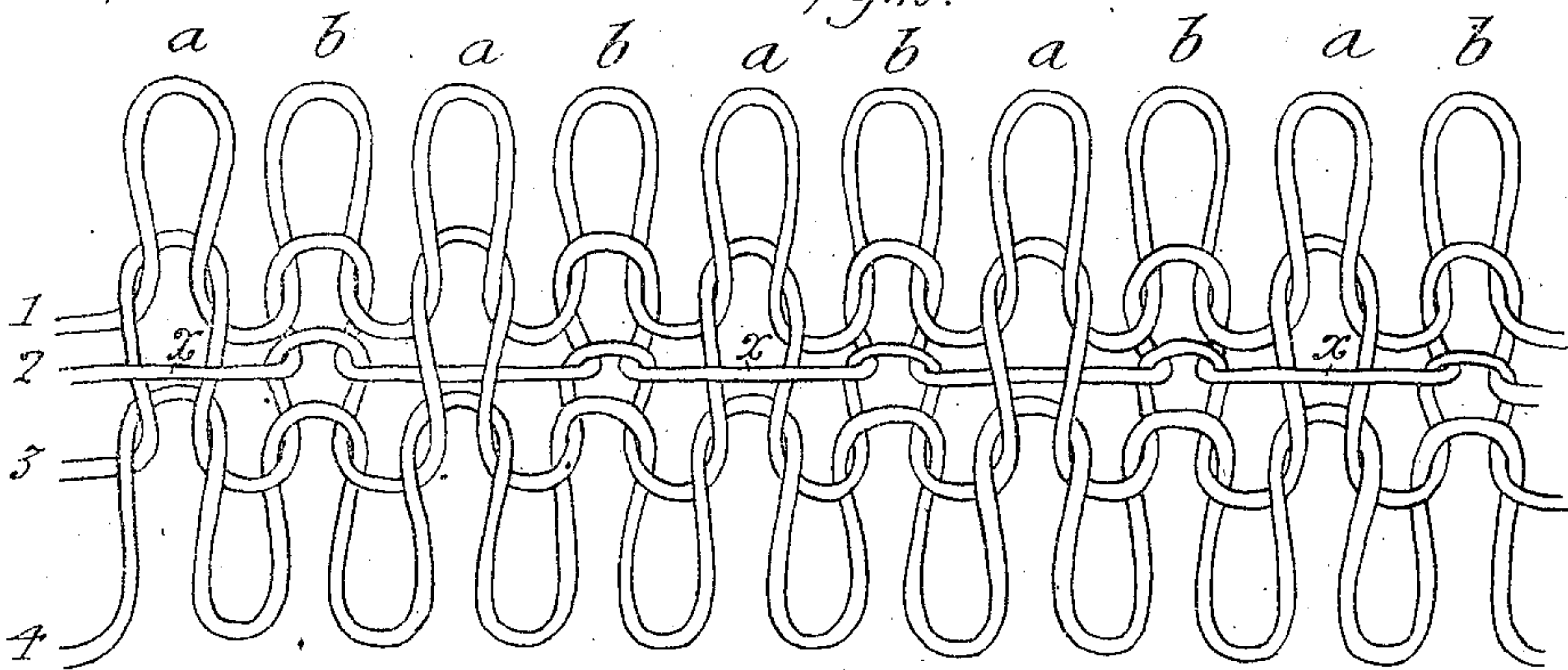
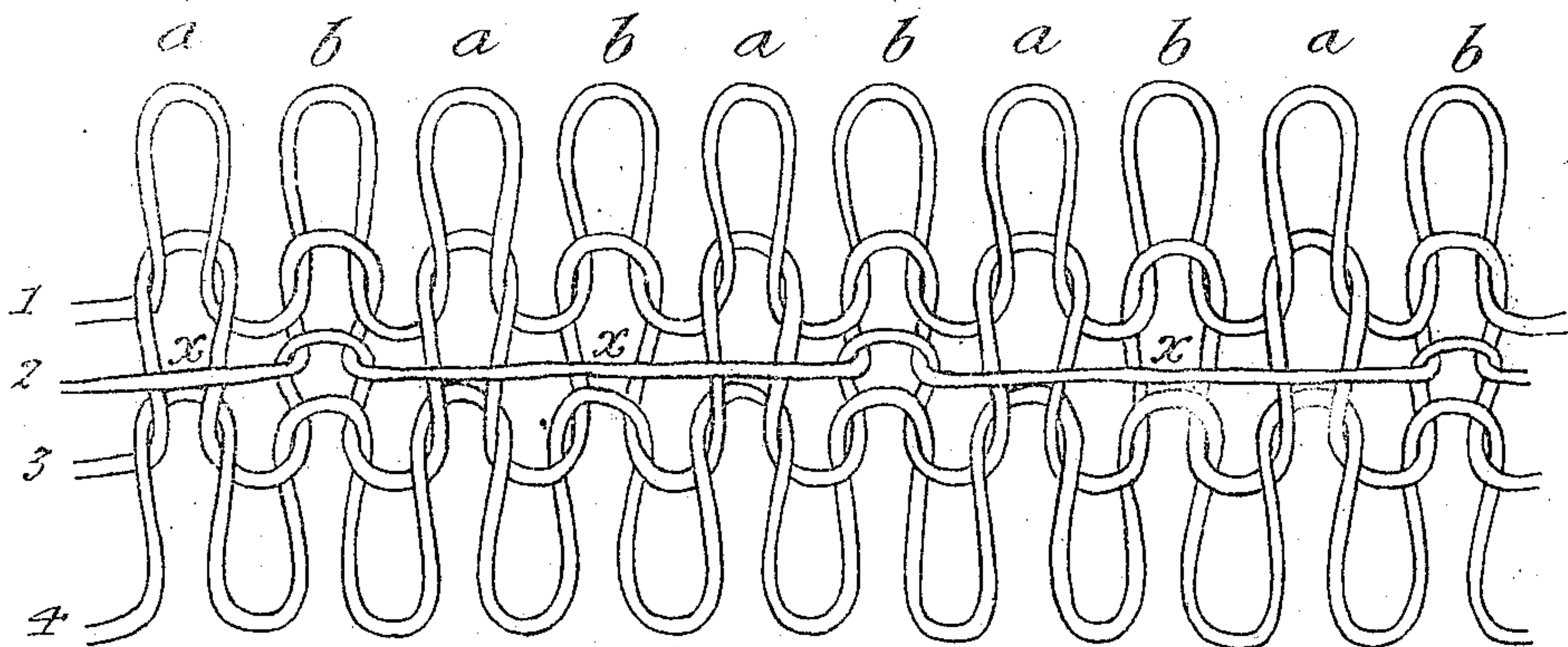


Fig. 3



Witnesses:
Wesley H. Reel.
Jesse H. Jones.

Inventor:
Robert W. Scott.
by his Attorneys,
Green & Howard

UNITED STATES PATENT OFFICE.

ROBERT W. SCOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO LOUIS N. D. WILLIAMS, OF OGONTZ, PENNSYLVANIA.

RIBBED KNITTED FABRIC.

No. 832,506.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed January 12, 1905. Serial No. 240,753.

To all whom it may concern:

Be it known that I, ROBERT W. SCOTT, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Ribbed Knitted Fabrics, of which the following is a specification.

My invention relates to that class of ribbed knitted fabrics having surface loops which are susceptible of being formed into a fleece by brushing or gigging.

The object of my present invention is to so knit such a fabric that the fleecing-loops will be of a uniform character and firmly united to the knitted web and may be disposed closely together, so that if they are brushed they will form a mat or fleece fully and closely covering the surface of the knitted web.

In the accompanying drawings, Figure 1 represents an exaggerated view of a piece of knitted fabric constructed in accordance with my invention, and Figs. 2 and 3 are similar views illustrating other embodiments of my invention.

In all of the views of the drawings, *a* represents the wales of one face of the fabric, and *b* those of the other face of the same. For instance, the wales *a* may be those formed by the dial-needles of the rib-knitting machine, and the wales *b* may be those formed by the cylinder-needles of the machine, or the reverse may be true. For convenience, however, we may regard the wales *a* as the dial-needle wales and the wales *b* as the cylinder-needle wales.

In Fig. 1 I have shown four courses of stitches 1, 2, 3, and 4, the courses 1, 3, and 4 being knitting courses and the course 2 being a combined knitting and fleecing course—that is to say, the yarn forms stitches in the wales *b* and floats across the faces of the wales *a*, so as to form upon one face of the web projecting surface loops *x*, which can be brushed or gigged to form a fleece. By reason of this method of knitting the loops which are to be fleeced are firmly bound to the knitted web, the yarn of which they are composed being, in fact, part of said web. Hence the loops cannot be pulled out or lengthened at the expense of adjoining loops, if used in the unbrushed state, or by the action of the brushes, if they are brushed, and the loops, or the fleece which results from the brushing of the

same, present a uniform surface throughout the entire web. If a fleecing course alternates with each knitting course in the web, the fleecing-loops *x* will be disposed so closely together over the surface of the web that the fleece will fully and closely cover said surface without such excessive brushing of the yarn as to materially interfere with the integrity of the same. Where such a close disposition of the fleecing-loops is not desired, however, the fleecing course need not alternate with each knitting course, or the yarn which forms the fleecing course of the web may pass alternately over and under the wales *a*, as shown in Fig. 2, and where a longer float of the fleecing-yarn is desired the same may form stitches only in alternate wales *b*, as shown in Fig. 3. In all of the fabrics shown, however, the yarn of the fleecing course 2 constitutes an integral portion of the knitted web—that is to say, it is intermeshed with stitches of the courses 1 and 3 in some or all of the wales *b* and cannot be removed without destroying the integrity of these wales.

I have shown my invention as embodied in a fabric in which single wales of one face alternate regularly with single wales of the other face, this fabric being what is known as a "one-and-one" rib; but it will be evident that my invention is also applicable to two-and-one ribs, two-and-two ribs, or other types of ribbed fabric.

The various fabrics which I have shown and described can be readily produced upon a machine such as that forming the subject of a separate application for patent which I have filed, Serial No. 249,270, said machine being capable of use either with a single or a multiple yarn guide, a feature which distinguishes it from the machine of my previous patent, No. 577,789, dated February 23, 1897, which was supplied with a weft-yarn guide or guides in addition to the knitting-yarn guide or guides.

In producing course 2 of the fabric shown in Fig. 1 all of the dial-needles will be projected, so that the yarn may be fed behind the same, and all of the cylinder-needles will be projected, so as to receive the yarn and draw stitches of the same, while in producing course 2 of the fabric shown in Fig. 2, alternate dial-needles only will be projected, and

in producing course 2 of the fabric shown in Fig. 3 all of the dial-needles will be projected, but alternate cylinder-needles only will be caused to engage and draw stitches of the
5 yarn.

In a single-feed machine proper change of the needle-cams will be effected between the knitting of alternate courses; but in a multiple-feed machine this will not be necessary.

10 Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A ribbed knitted fabric having courses which form parts of wales of one face of the
15 fabric, and float in front of wales of the other face of the fabric.

2. A ribbed knitted fabric having courses which form parts of wales of one face of the

fabric, and float in front of each of the wales of the other face of the fabric. 20

3. A ribbed knitted fabric having courses which form parts of each of the wales of one face of the fabric, and float in front of wales of the other face of the fabric.

4. A ribbed knitted fabric having courses 25 which form parts of each of the wales of one face of the fabric, and float in front of each of the wales of the other face of the fabric.

In testimony whereof I have signed my name to this specification in the presence of 30 two subscribing witnesses.

ROBERT W. SCOTT.

Witnesses:

WILLIAM F. BEATON,
WALTER CHISM.