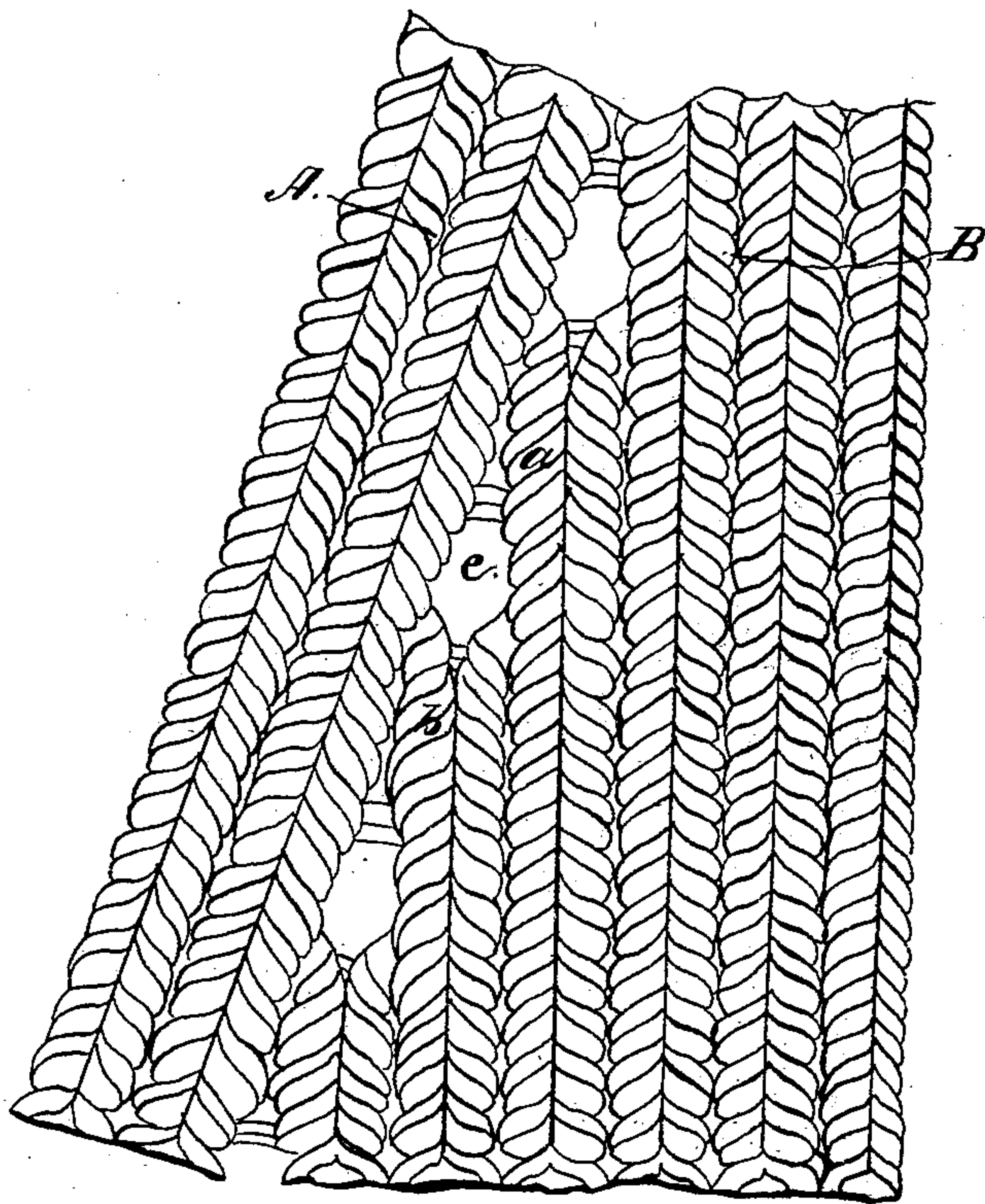


J. H. & E. E. Kilbourn.

Knit Fabric.

N^o 24,308.

Patented Jun. 7, 1859.



Witnesses:

*F. C. Porter
D. P. Mills.
James D. Colt
Wm. C. Case*

Inventor:

*Joseph H. Kilbourn
Edward E. Kilbourn*

UNITED STATES PATENT OFFICE.

JOSEPH K. KILBOURN, OF PITTSFIELD, MASSACHUSETTS, AND EDWARD E. KILBOURN,
OF NORFOLK, CONNECTICUT.

MANUFACTURING KNITTED FABRICS.

Specification of Letters Patent No. 24,308, dated June 7, 1859.

To all whom it may concern:

Be it known that we, JOSEPH K. KILBOURN, of Pittsfield, in the county of Berkshire and State of Massachusetts, and EDWARD E. KILBOURN, of Norfolk, in the county of Litchfield and State of Connecticut, have invented a new and useful Description of Knitted Fabric; and we do hereby declare that the following is a full, clear, and exact description of our said invention, reference being had to the annexed drawing, which represents a specimen of our improved knitted fabric.

Our improvement relates to that class of knitted fabrics which are formed in sheets of varying width, such for example as those of which the legs of drawers and the arms of shirts are formed by sewing together the two selvages. Such fabrics have hitherto been formed of two series of columns of stitches, the columns in one series being oblique to those of the other, and the rows of the two series being closely interlooped at the points where they meet or diverge. In forming these fabrics difficulty is experienced in obtaining a tight selvage as the interlooping, at the places where the fabric varies in width, of two loops of yarn of one row into one loop of a succeeding row gathers up double the quantity of yarn in the same space in the fabric and thus leaves a surplusage of yarn in a wavy or corrugated condition, which works to the selvage when a strain is brought upon the latter. In order to obviate any difficulty which may arise from this source, in articles manufactured from knitted fabrics we have devised a knitted fabric in which an opening is formed in the fabric at the places where the oblique columns of stitches diverge, which opening is formed at the expense of yarn in the stitches on each side thereof, of which the selvage stitch is one, so that, in place of loose yarn, the yarn is drawn tighter throughout the row of stitches in which the opening is formed, and is consequently tighter at the selvage. A fabric of this description also presents a series of openings which are available for the free transmission of air; articles made therefrom are therefore preferred by some wearers, and the

fabric is on this account a desirable article in the market.

The specimen of our new fabric represented in the annexed drawing is composed of two series of columns of stitches, A and B, the former constitute the selvage and extend parallel with the selvage edge; the latter (B) constitute the body of the fabric, and extend obliquely to the first series, where any one of the oblique columns (*a* for example) diverges from the selvage, an opening *e* is formed, in the present example by moving the needles which form the one series of columns of stitches (A) laterally in mass from those which form the other series of columns of stitches (B), thus forming the opening in the fabric, whereby the yarn is strained along the row of stitches up to the selvage. Then an additional needle is inserted in the gap formed by the lateral movement above mentioned, so as to commence a new column of stitches (*b*), which, if the fabric is to be again varied in width, may be caused to diverge from the selvage stitches, an opening being left at the place of divergence as before.

We have thus described the change in the mode of operation of ordinary knitting machinery which we believe to be best adapted to produce our new fabric, but we do not limit ourselves to this peculiar modified mode of operation as it is probable that the same effect may be produced by other means.

What we claim as our invention and desire to secure by Letters Patent is—

The new knitted fabric herein described, composed of columns of stitches oblique to each other having openings at the places where the oblique columns of stitches diverge, the same being a new article of manufacture.

In testimony whereof we have hereunto subscribed our names.

JOSEPH K. KILBOURN.
EDWARD E. KILBOURN.

Witnesses as to Joseph K. Kilbourn:

JAMES D. COLT,
WM. L. CASE.

Witnesses as to Edward E. Kilbourn:

D. P. MILLS,
F. E. PORTER.