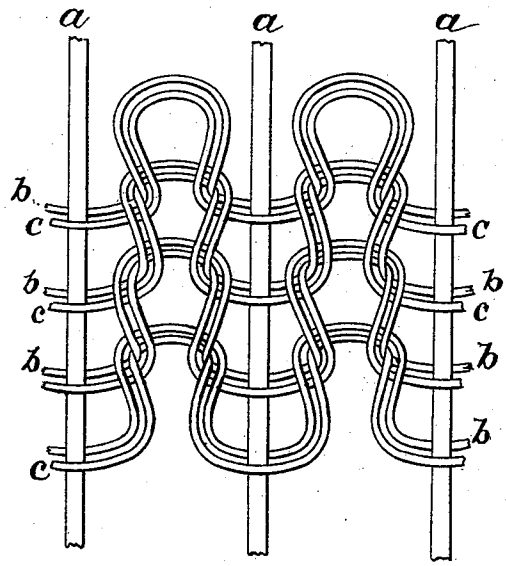
R. F. M. CHASE.
Knit-Fabric.

No. 226,596. Patented April 20, 1880.



Witnesses:
E. C. Dick
D. P. Lowe

Inventor:
Richard F. M. Chase
by A. Pollok
his atty

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UNITED STATES PATENT OFFICE.

RICHARD F. M. CHASE, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF OF HIS RIGHT TO HENRY F. HERKNER, OF SAME PLACE.

KNIT FABRIC.

SPECIFICATION forming part of Letters Patent No. 226,596, dated April 20, 1880.

Application filed March 24, 1879.

To all whom it may concern:

Be it known that I, RICHARD F. M. CHASE, of New York, in the county and State of New York, have invented a new and useful Improvement in Knit Fabrics, which improvement is fully set forth in the following specification.

In ordinary knitting the fabric produced is elastic in all directions. Straight warp and weft threads have been introduced, so as to form a fabric especially suited for fire-hose, resembling ordinary woven material. Also, goods have been made with a separate weft, using a single separate knitting-thread; but such fabric, while very difficult to make, would be also less elastic, weaker, and inferior in appearance to those made in accordance with this invention, which consists in a fabric elastic in one direction and inelastic in the other, and composed of a series of straight threads and two or more knitting-threads interlaced and looped together and crossing said straight threads on opposite sides to inclose and bind the same into the fabric. This fabric, when straight warp-threads are used, is especially adapted for Cardigan jackets and similar articles, in which it is desirable to prevent the lengthening by wear, while retaining otherwise their elasticity.

The drawing shows the manner of interlacing and binding together of the threads in the stitch to form a fabric in accordance with this invention.

a is a series of parallel warp-threads; *b c*, the knitting-threads.

When the threads are drawn close the warp-threads are not ordinarily visible in front or on the looped side of the fabric.

To illustrate the manner of knitting this fabric and the kind of machinery required I will refer to my application filed June 17, 1878. In it the machine set forth consists of a circular loom, with its series of latched needles and an operating cam-ring combined with a warp-frame for guiding warp-threads between the needles, and two thread-carriers, one revolving outside and one inside said warps. There is also described therein a device for laying in a filling-thread or straight weft. This is not, however, employed by me in carrying out my present invention; but the other elements in combination suffice to effect the desired result.

The inner thread-carrier delivers the thread marked *b*, and the outer that marked *c*, and the two are looped together by the same needles simultaneously.

It is evident that the fabric might be varied in pattern by using a smaller number of warp-threads—say between every alternate needle—or by changing on the different feeds the color either of the inner or outer knitting-thread, or of both; also by introducing an additional warp-knitting thread inside or outside the warp on every needle, or on alternate needles, or according to a particular figure.

Fabrics in which warp-knitting and continuous-knitting threads are united and the manner of making the same are, however, made the subject of a separate application filed by me, of even date herewith.

In order to enable one skilled in the art to manufacture a Cardigan jacket or similar article of this fabric, no particular description is required in view of the foregoing.

The garment or article is or may be knit upon machines of the character indicated by substantially similar operations to those for knitting ordinary jackets or similar articles upon the common forms of knitting machinery.

I do not intend to limit myself to any particular mechanism.

Having thus fully described my said invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

A fabric composed of a series of straight threads and two knitting-threads interlaced and looped together and crossing said straight threads on opposite sides, the said fabric being inelastic in the direction of said straight threads, but elastic in the direction at right angles thereto, substantially as described.

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

RICHARD F. M. CHASE.

Witnesses:

KOSSUTH R. CASPER,

B. F. RICE.