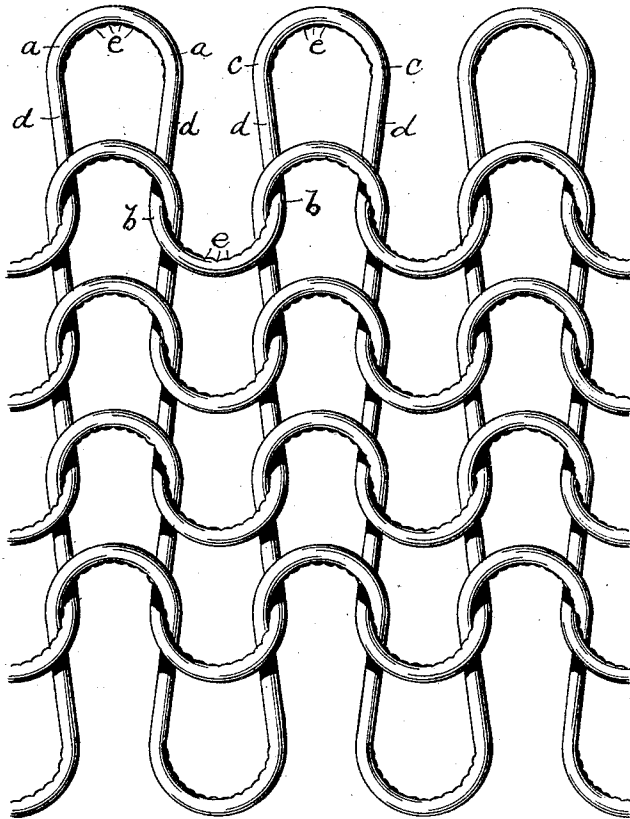


(No Model.)

E. L. TAFT.
KNIT RATTAN FABRIC.

No. 472,320.

Patented Apr. 5, 1892.



Witnesses

Chas. F. Schmeltz
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UNITED STATES PATENT OFFICE.

EDWARD L. TAFT, OF GARDNER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO HENRY M. RICH, OF SAME PLACE.

KNIT RATTAN FABRIC.

SPECIFICATION forming part of Letters Patent No. 472,320, dated April 5, 1892.

Application filed November 21, 1889. Serial No. 331,087. (No specimens.)

To all whom it may concern:

Be it known that I, EDWARD L. TAFT, a citizen of the United States, and a resident of Gardner, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Knit Rattan Fabrics, of which the following is a specification, accompanied by a drawing which forms a part of the same, and which represents a portion of a rattan knit fabric illustrating my invention.

My invention consists in an improvement in the knit rattan fabric used to form the seats, backs, or other portions of rattan furniture; and it has for its object to prevent the splitting or checking of the strand of rattan in the curved or bent portions of the loops, and also to secure a uniform curvature of the bent portion of the loop.

In forming the knit fabric to which my invention relates the strand of rattan or reed is formed into a series of loops and each series of loops is interlocked with the next adjacent series of loops, as represented, forming a knit fabric similar to one made of yarn, but the rattan strand possesses certain characteristics which render the manipulation of the strand in forming a knit fabric extremely difficult. First, the strand is comparatively rigid and also semi-elastic, and when bent into the form of a loop has a tendency to straighten and assume its normal shape; second, the strain upon the fibers of the strand in the process of bending frequently causes the strand to split at the bent section which forms the loop, and it is for the purpose of remedying these difficulties that I have made a modification in the construction of the fabric which forms the subject of my present invention.

In the process of knitting the fabric the strand is bent first in one direction to form a loop, as at *a a*, and then in the opposite direction, as at *b b*, to begin the formation of the next succeeding loop at *c c*. Thus the strand assumes a serpentine form alternately bent in one direction and in the opposite direction, the side of the strand which forms the concave side of one of the loops forming the convex side of the next bend in the strand, each side of the loop being straight and nearly parallel with the opposite side of the loop, as at *d d*.

Were the fibers of the rattan strand capable of compression upon the concave side of

each bent section or of expansion or stretching upon the convex side of the bent section the strand would yield itself to the successive bending required to form a knit fabric; but the non-compressibility and non-expansibility of the fibers render the strand extremely refractory in forming a knit fabric.

In my improved form of knit fabric I indent the strand of rattan of which the fabric is formed on opposite sides and at equal distances, so that the indentations will come upon the concave sides of the loops and occur at each of the bent sections, these indentations being represented at *e e*. The indentations can be made in any known and convenient manner prior to or during the formation of the fabric by the process of knitting, and I prefer to form them by the use of a tool having a series of points or edges by which the outer fibers upon the sides of the strand shall be crimped and thereby shortened without severing the fibers by cutting, as the cut ends of the fibers would soon become roughened by use.

In order to secure a uniform curvature of the bent section of the loop, I prefer to increase the depth of indentations from each end toward the center of the indented section, the indentations being shallow at the beginning of the indented section and gradually increasing in depth toward the center and then decreasing in depth toward the opposite end of the indented section; but this is not essential.

I am aware that it is not new to form a knit rattan fabric; neither do I claim such a fabric broadly; but

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

As an article of manufacture, a knit rattan fabric composed of strands formed into a series of interlocking loops, said strands being indented in alternate sections and upon opposite sides, said indented sections corresponding with the bent portions of said loops, substantially as described.

Dated at Gardner, in the county of Worcester and State of Massachusetts, this 12th day of November, 1889.

EDWARD L. TAFT.

Witnesses:

HARLIN P. UPHAM,
RALPH W. BLACK.