Jan. 15, 1924. 1,481,001

J. P. FENTON

BRAIDED TUBULAR TEXTILE MAT

Filed Feb. 10, 1921

Fig. 1.

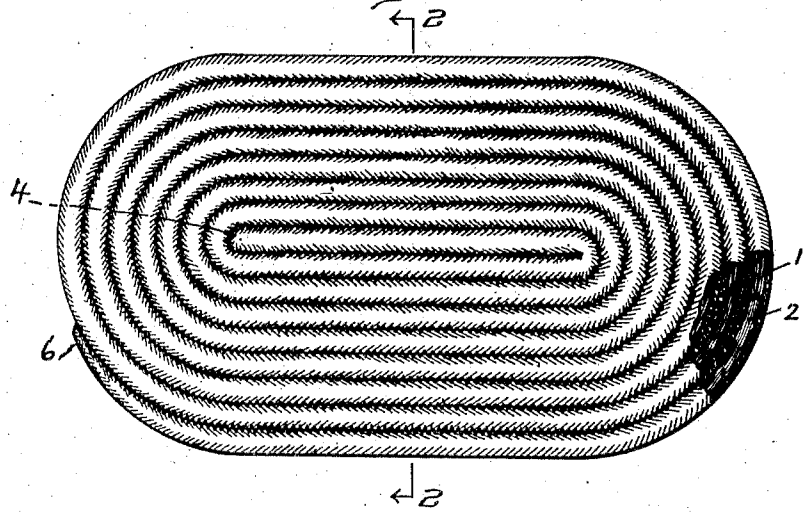


Fig. 2.

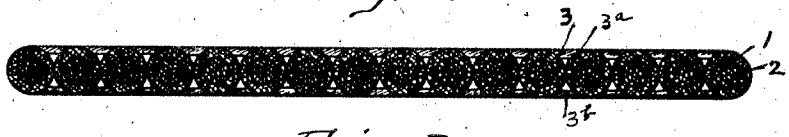


Fig. 3.

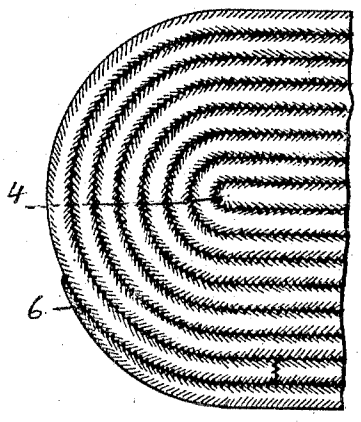




Fig. 4.

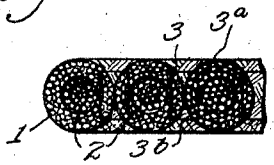


Fig. 5.

WITNESS

F. J. Hartman.

INVENTOR

J. Purington Fenton

H. V. Fenton

ATTORNEY

Patented Jan. 15, 1924. 1,481,001

UNITED STATES PATENT OFFICE.

J. PURINGTON FENTON, OF ATLANTIC CITY, NEW JERSEY.

BRAIDED TUBULAR TEXTILE MAT.

Application filed February 10, 1921. Serial No. 443,760.

To all whom it may concern:

Be it known that I, J. PURINGTON FENTON, a citizen of the United States, residing at Atlantic City, Atlantic County, State of New Jersey, have invented a certain new and useful Braided Tubular Textile Mat as a New Article of Manufacture Composed Wholly of Core-Filled Textile Tubular Braiding, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates generally to braided textile tubular products, usually produced, in the braiding process, with a filling cord or cords within the braided tube fed into the tube as it is formed on the well known tubular braiding machine, and my invention specifically relates to and has for its object the utilization of such core filled braided tubes in the formation therefrom, of mats and rugs as a new article of manufacture.

To this end my invention consists, as a new article of manufacture, of a mat or the like composed wholly of a series of contiguous strands of textile tubular braid, having longitudinal filling threads therein forming a loose or unattached core, the adjacent strands of tubular braid, in the series, being united to each other, in succession, by a series of transversely connecting sewing stitches each of which engages opposite abutting edges of such adjacent strands.

In the drawings illustrating my invention, Fig. 1 is a plan view of a mat or rug, partly broken away at one edge to show the tubular fabric of which it is composed and to add to the illustration by Fig. 2 which is a section on the line 2—2 enlarged, of Fig. 1. in Fig. 3 is shown a fragmentary like plan view of a mat or rug composed of a plurality of braided tubes, and differing from Fig. 1 only in the connection between the ends of the strands. Fig. 4 is an elevation of one of the core-filled tubular strands of which the mat or rug is composed, clearly showing the tubular strands as braided tubes. Fig. 5 is an enlarged sectional view illustrating the method and means of sewing together the abutting walls of adjacent tubular strands, without engagement with the non-integral core or filling therein.

Referring now to said drawings, the braided tube is indicated at 1, and its core or filling thread or threads at 2. These are shown in Fig. 4, and as part of the completed mat or rug in the broken away part in Fig. 1. As is well known, filled tubular braiding, as shown in Fig. 4, is made on a circular braiding machine, whereon the threads forming the tube are fed to devices moving in circular horizontal planes in opposite direction to interlace them, while the core or filling is inserted by threads fed vertically to and within the tube as it is formed by the machine; the filling however being merely a thread or threads which is not attached to the braided tube.

To construct a mat or rug from such a filled braided tube, it is started at the centre, say at 4, and the tubular strands laid side by side, to form a round, oval, square or any other shape, the extreme end of the tubular strand, as indicated at 6 being gradually reduced in diameter by removal of part of the filling near such end. This will form a mat, such as exemplified in an oval form shown in Fig. 1, in which the abutting edges of the convoluted strand or strands are then to be united by a character of stitching which, as shown in Figs. 2 and 5, will unite the abutting walls of contiguous strands without passing through the core or fillings, a means of uniting them which may be readily and effectually done by use of a sewing machine, well known, which has a movable needle forming a stitch passing downward through one strand, indicated at 3, Figs. 2 and 5 and through the adjacent strand as indicated at 3^a, with a connection between them as indicated at 3^b in said figures, this method of connecting the abutting edges of adjacent strands being of great value not only as imparting a finished appearance to the resultant product, but maintaining it flat without curling or buckling and also preserving the resiliency of the core-filled tubes constituting the completed mat, for the reason that such transverse stitches do not bind the core or filling but merely connect adjacent walls of the braided tube; but obviously hand sewing for so uniting the adjacent strands may be employed.

If the mat is small in area one long tubular strand may be sufficient to form it, but it, and especially large rugs may be made of a large number of such tubular strands. It is extremely desirable to form therefrom a single continuous strand by connecting the ends of a plurality of strands by means which will effect the splicing readily and without stitching or using any added element or applied stitching, in other words

make a practically integral join; and to that end I recommend a method and means for so doing, which are fully shown and described in U. S. Letters Patent therefor granted to L. Binns, No. 330,087, dated November 10, 1885. The use of that method of splicing the connecting ends of a plurality of strands of tubular braiding, or rather the result of its use, is shown, for example in Fig. 1, wherein, when the mat is formed of a plurality of tubular strands so connected the joints are wholly imperceptible, are strong, make no difference in thickness of the finished mat, and are practically integral with the body portions of the connected tubular strands.

As my invented new article of manufacture may be exemplified without using that method of splicing the ends of connected strands, I have shown in Fig. 3 a similar mat, save only that the meeting ends of tubular strands are sewed together, as indicated at 7 in said Fig. 3, but the former described method and means of splicing or connecting them is obviously preferable and adds to the longevity and utility of the completed mat or rug.

The utility of such a product, composed of such filled textile tubular braid, and its field of usefulness for the purposes hereinafter mentioned, will be obvious when called to attention, for example, for table mats to support hot dishes, as a substitute for the solid mats made from fibre or other material usually used for such purpose; also for floor rugs or mats. The special utility of my new product for such purposes resides in the fact that the mat or rug, which is formed from such filled tubular braided strand by simply laying the tubular strands side by side, beginning at the centre, and uniting adjacent strands to each other as above described, is elastic and resilient in vertical cross section, hence will effectually resist a matting effect common with carpet or rugs which are woven, and always retain the elastic tread surface; the filling strand or strands may be composed of asbestos fibre or other heat insulating material, if table mats are to be made; the mat or rug may be made of any shape, square, oval or round, while ornamental colors may be introduced in any arrangement of them by use of different colored braided tubes of which the mat or rug is to be composed; while for table mats the smaller diameter of tubing can be used, and braided from silk, yarn or other fine variety of textile threads, and with a core or filling of asbestos threads.

Having thus described my invention, I claim:

1. As a new article of manufacture, a table mat composed wholly of a strand of tubular textile braid having therein a non-integral core or filling consisting of longitudinally-disposed asbestos thread; and a series of transversely disposed connecting stitches, each of which engages the two opposite and vertically abutting edges of adjacent tubular members of the strand, in succession, in the series, and without substantial engagement with the core or filling therein.

2. As a new article of manufacture, a mat composed wholly of a series of contiguous strands of textile tubular braid having therein a non-integral core or filling of longitudinally disposed threads, said strands in the series being connected to each other, in succession, by transversely disposed connecting stitches, each of which engages the two opposite and vertically abutting edges of the tubular members of adjacent strands, without substantial engagement with the core or filling therein.

In testimony whereof, I have hereunto affixed my signature this seventh day of February A. D. 1921.

J. PURINGTON FENTON.

Witnesses:
W. A. HAMILTON,
I. M. TUNIS.