No. 688,140. Patented Dec. 3, 1901.

H. A. WEIL.

MAT.

(Application filed Sept. 7, 1901.)

(No Model.)

Fig. 1.

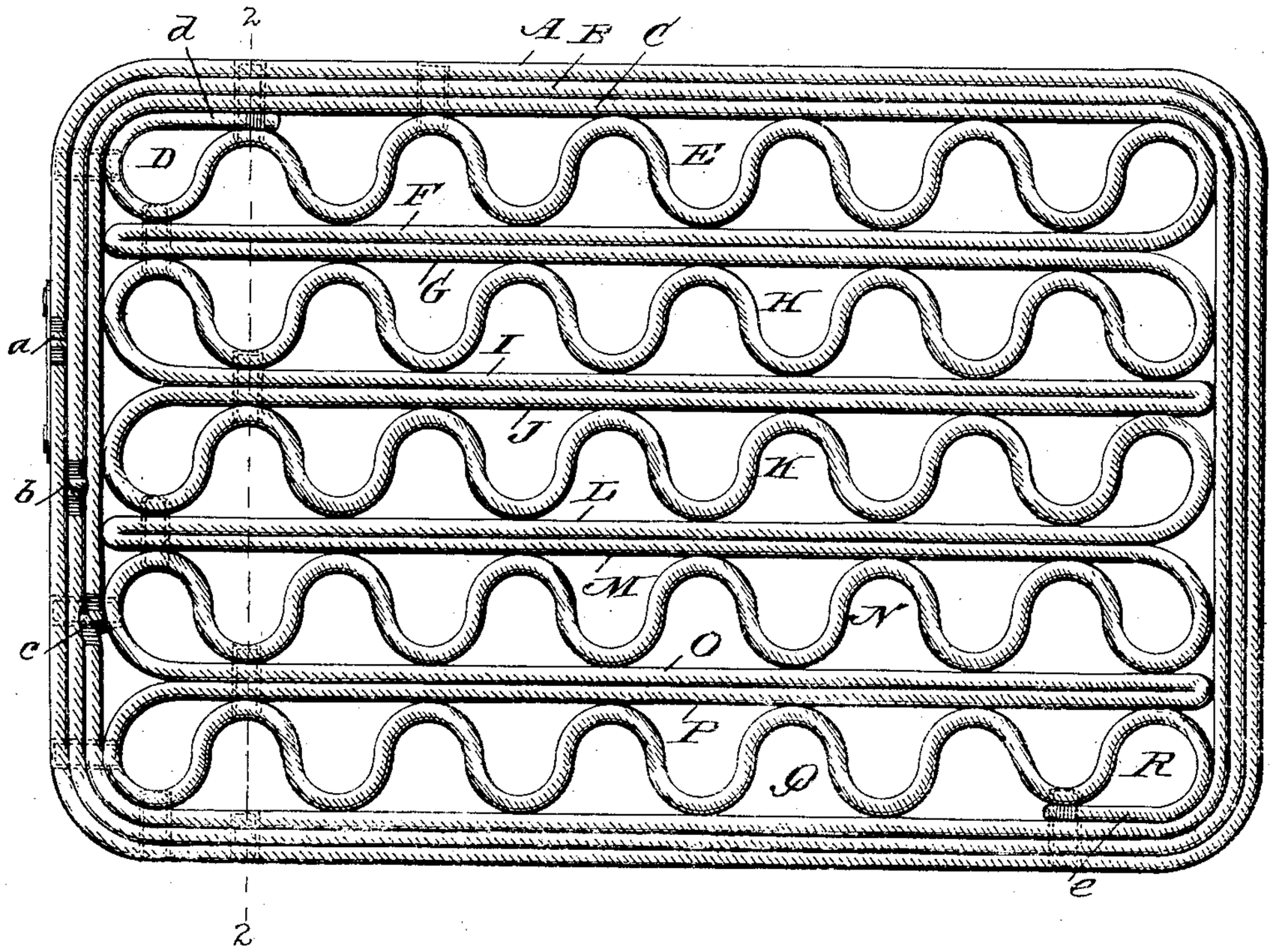


Fig. 2.

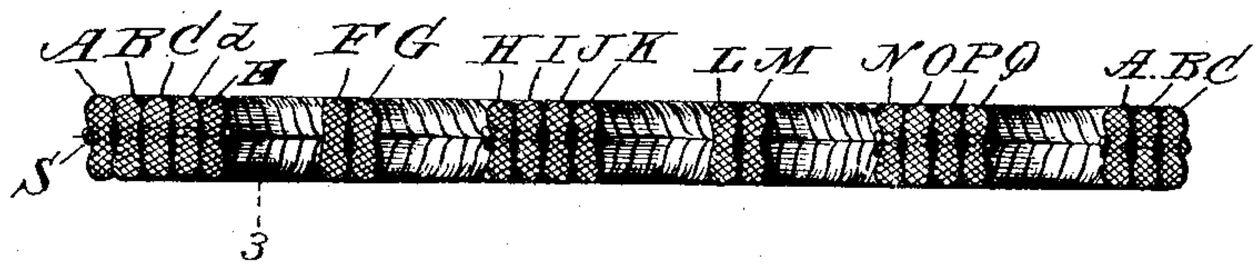
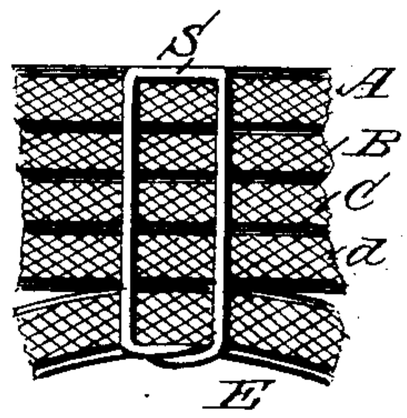


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MAT.

SPECIFICATION forming part of Letters Patent No. 688,140, dated December 3, 1901.

Application filed September 7, 1901. Serial No. 74,615. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. WEIL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Mats; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has reference to that class of open-work mats composed of coir, cocoa fiber, or other suitable material formed in strands, with one or more parallel strands to provide a protecting-border to the body of the mat around its four sides and forming the body with convoluted or serpentine strands inclosed by the border.

It is the purpose of the invention to provide a mat of the above class that will possess increased strength and durability by providing means by which the convolutions of the strands will be materially strengthened and braced, thereby increasing the durability of the mat, detracting from its flexibility.

The invention consists in a mat composed of flexible fibrous material constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a plan view of a mat constructed in accordance with my invention; Fig. 2, a transverse section taken on line 2 2 of Fig. 1; Fig. 3, a detail sectional view showing the means of connecting the convolution of the strand with the border of the mat.

In the accompanying drawings, A B C represent three independent strands of fibrous material, such as coir, which are secured together and form a border for the four sides of the mat. The meeting ends of each strand have their joints broken, as shown at *a b c*, to increase the strength of the border, the three strands providing a wide border for the mat with increased strength and preventing the liability of the mat twisting or becoming out of shape.

A single continuous strand forms the body of the mat, which is inclosed within the border and secured thereto, said strand commencing at *d* and extending around to form a loop D, then is bent to form a line of convolutions E, which extend to the opposite side of the border. The strand is now extended back to the opposite side of the border in a straight line to form a brace F and returned to form a second brace G parallel therewith. The end of the strand at the extremity of the brace G is again extended in a line of convolutions, as shown at H, and double braces I J, and continue with a line of convolutions K with double braces L M, and convolutions N with braces O P, and convolutions Q which terminate at the extremity *e* in a loop R, similar to the loop D at the commencement of the convolutions. Any number of lines of convolutions with double braces between may be used, depending entirely upon the size and character of the mat or the purpose for which it is intended. The convolutions and double braces are secured together by metal staples S, or any other preferred means of fastening may be employed as found most desirable, the ends of the lines of convolutions being in like manner secured to the border of the mat, thereby forming a secure and rigid connection between the convolutions and the double braces and the convolutions and the border of the mat and also connecting the two parallel strands forming the double braces, the one fastening securing the two strands of the double braces and the two lines of convolutions together, thereby materially strengthening and bracing the mat and increasing its durability. The several lines of convolutions and the double braces between the same being formed from a single strand of material greatly simplifies the construction of the mat and avoids any danger of the parts being separated and becoming detached when the convolutions and braces are constructed from separate strands. The strands between the convolutions being double instead of single form a double strengthening-brace to reinforce the several convolutions in the strands, which is considered of material advantage in this class of mats in increasing its wearing qualities.

It should be noticed that the two strands I J are folded upon each other and bear against each other, which materially increases the rigidity and strength of the braces, the

strands thereby reinforcing each other, as well as the convolutions.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An open-work mat composed of strands of fibrous material and comprising one or more strands to form the border of the mat, and lines of convolutions and double braces between the same, said convolutions and braces being formed of one and the same strand of material, the strands forming the braces being folded upon each other whereby the braces are reinforced and strengthened, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY A. WEIL.

Witnesses:
HUGO SMITH,
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