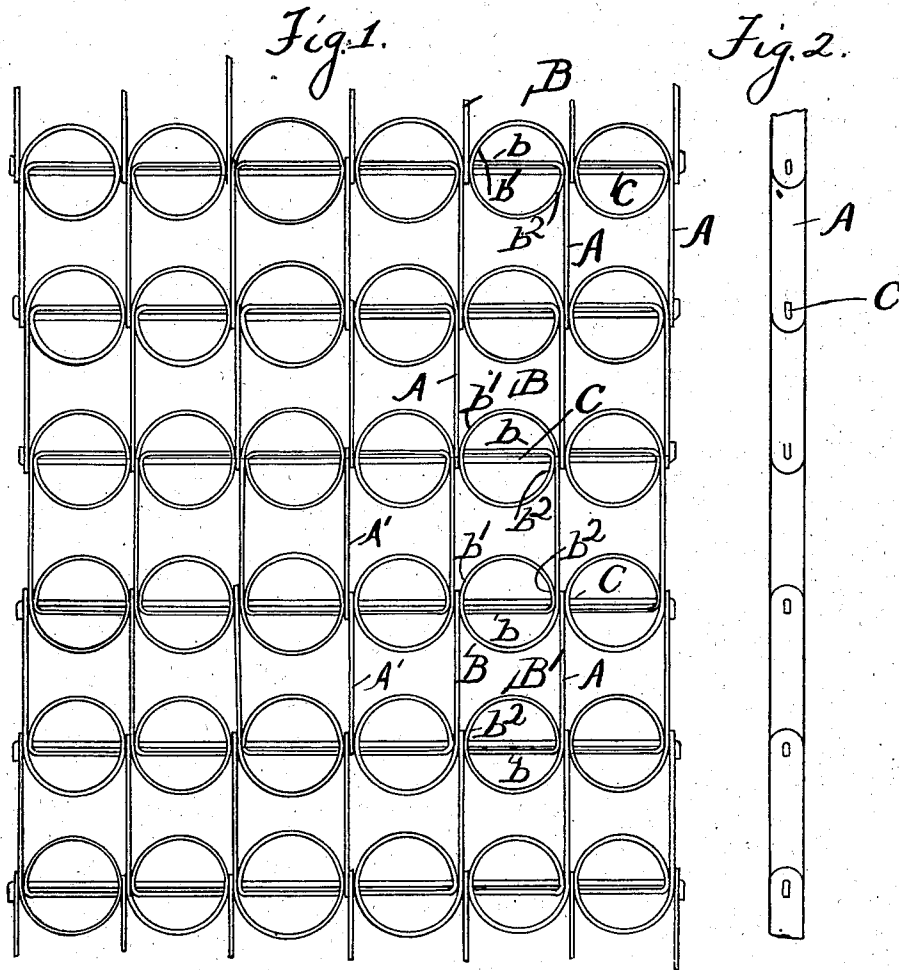


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METAL FABRIC FOR MATS, &c.
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NO MODEL.



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METAL FABRIC FOR MATS; &c.

SPECIFICATION forming part of Letters Patent No. 730,223, dated June 9, 1903.

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To all whom it may concern:

Be it known that I, EMORY A. BEDIENT, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Metal Fabrics for Mats and Similar Articles, of which the following is a specification.

This invention relates to metal fabrics for mats and similar articles, and consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 shows a plan view of the fabric; Fig. 2, a side elevation.

The fabric is formed preferably of sheet metal and consists of a number of connected elemental pieces. These comprise the links A, from which extend the cross-pieces B. Each cross-piece consists of the half-turn b' and the complete turn ending at b^2 , preferably in the form of a circle. Extending through the link and through both sides of the cross-piece is a hinge-rod C. This hinge-rod also passes through the ends of the links of the next series of elemental pieces of the fabric, thus giving continuity to it. Extending along this rod and bridging the space between the links is a brace-piece b . As shown, this brace-piece is a continuation of the complete turn and abuts against the side of the turn opposite the link. It will be noted that in this fabric the links A by reason of the insertion of the links A of the next adjacent series are exactly parallel as distinguished from a structure formed of alternate U's, wherein from the nature of things the links cannot be exactly parallel by reason of the fact that the open ends of the U's must be of sufficient width to permit of the insertion of the closed ends of the U's. This paralleling of the links is of great importance in this class of fabric in that it permits of the fabric being folded by alternate folds as distinguished from rolling, so that it may be packed in much more convenient shape than those fabrics which do not permit of this close folding. In connection with this parallel-link structure and the hinge-rods C the brace-pieces b perform a very important function in that they prevent

the collapse of the fabric along the rods. In many fabrics of a class similar to this where hinge-rods are used the fabric after slight use collapses along the rods, so that the rods protrude. This of course is very undesirable and also shortens the life of the fabric. I prefer, however, to comprise in the cross-piece, the essential element of which is the brace-piece b , the complete turn and to have this complete turn in the form of a circle in that this gives a better distribution of scraping-surface and also an ornamental effect to the fabric. It also is of a form that may be cheaply manufactured.

By having the hinge-rod not only extend through the links A, but also through the cross-piece B at a distance from the link, the fabric is given lateral rigidity. This of course is accomplished by simply the half-turn b' without the addition of the complete turn ending at b^2 .

In order that the fabric may be extended indefinitely and have uniform ends, I utilize a central series of elemental pieces, comprising the link A and a cross-piece B' at one end and a cross-piece B at the opposite end. The cross-piece B is provided with the turn and brace-piece as in the other cross-pieces. It will readily be seen that the links having a single cross-piece may be built from this central series and have the cross-pieces at both extremities of the fabric.

In order to give the sides a similar finish, I extend the cross-pieces preferably along the central series of elemental pieces toward each other and place between these opposing cross-pieces the links A'. These links have no cross-pieces and simply complete the fabric. I prefer that these links should be arranged in parallel relation, as shown—that is, to alternate from side to side through the fabric—in order that they may not interfere with the free folding of the fabric, as heretofore described. The rods C may be bent at the ends or finished in any manner to prevent their removal from the fabric.

What I claim as new is—

1. In a jointed fabric, the combination of links; cross-pieces rigidly connected with the links, said cross-pieces comprising brace-pieces; and hinge-rods extending through the links and along the brace-pieces and forming

joints on which the fabric may be folded, said links being parallel, and the brace-pieces bridging the space between the links and arranged to brace the fabric against collapse along the rod.

2. In a jointed fabric, the combination of links; cross-pieces rigidly connected with the links, said cross-pieces comprising brace-pieces; and hinge-rods extending through the links along the brace-pieces and through the fabric may be folded, said links being parallel, and the brace-pieces bridging the space between the links and arranged to brace the fabric against collapse along the rod.

3. In a jointed fabric, the combination of links; cross-pieces rigidly connected with the links; and hinge-rods extending through the links and through the cross-pieces at a distance from the links, and forming joints on which the fabric may be folded, said links being parallel for the purpose described.

4. In a jointed fabric, the combination of links; cross-pieces extending from the sides of the links and making half-turns; a hinge-rod extending through the links, and the cross-pieces at a distance from the links, said links being parallel.

5. In a jointed fabric, the combination of links; cross-pieces extending from said links and making a complete turn at the sides of the links; and hinge-rods extending through the links on both sides of the turn.

6. In a jointed fabric, the combination of links; cross-pieces extending from the sides of said links and forming half-turns, said cross-pieces comprising a brace-piece; and a hinge-rod extending through the links along the brace-piece and through the cross-piece.

7. In a jointed fabric, the combination of links; cross-pieces extending from said links and forming a complete turn said cross-pieces comprising a brace-piece; a hinge-rod extending through the links, through both sides of the cross-piece and along the brace-piece.

8. In a jointed fabric, the combination of links; cross-pieces extending from the sides of the links, said cross-pieces comprising a half-circle; and hinge-rods extending through the links, and the cross-piece at a distance from the links.

9. In a jointed fabric, the combination of links; cross-pieces extending from the sides of said links and making a half-turn in the form of a half-circle; and hinge-rods extending through the links on both sides of the cross-pieces.

10. In a jointed fabric, the combination of links; cross-pieces extending from said links and making a complete turn at the sides of the links in the form of a circle; hand hinge-rods extending through the links and both sides of the turn, said links being parallel for the purpose described.

11. In a jointed fabric, the combination of links; cross-pieces extending from said links and forming a complete turn said cross-pieces

comprising a brace-piece; a hinge-rod extending through the links through both sides of the cross-piece and along the brace-piece; said links being parallel for the purpose described.

12. In a jointed fabric, the combination of the links; the cross-pieces B extending from the sides thereof, said cross-pieces comprising a complete turn in the form of a circle and the brace-piece b; the hinge-rods C extending through the links A and cross-pieces B, said links being parallel.

13. In a jointed fabric, the combination of a series of elemental pieces comprising the links A; cross-pieces at each end of said link; and a second series of elemental pieces extending from said series, said second series having cross-pieces at the opposite end only, and hinge-rods extending through said links to connect said pieces.

14. In a jointed fabric, the combination of an intermediate series of elemental pieces comprising the links with cross-pieces at each end, and a second series of elemental pieces extending from each end of said intermediate series, said second series of pieces comprising links; and a single cross-piece arranged at the opposite ends from the intermediate series; and hinge-rods connecting said pieces.

15. In a jointed fabric, the combination of links having cross-pieces, one series of said links having cross-pieces in one direction and an adjacent series in an opposite direction; links for completing the fabric; and a hinge-rod for connecting the links and forming a joint on which the fabric may be folded, said rods extending through the links and the cross-pieces on said links.

16. In a jointed fabric, the combination of a series of intermediate links comprising the cross-pieces B and B', each cross-piece being in the form of a complete circle, and comprising the brace-pieces b; links extending from the extremities of said intermediate series, said links being provided with a single cross-piece in the form of a complete circle having a brace-piece across said circle; two adjacent series of said links having their cross-pieces arranged in opposing directions; links A' for completing the fabric between said opposing cross-pieces, said links being arranged alternately against one and then the other of said opposing cross-pieces to maintain the said links in parallel relation; the hinge-rod C extending through the links A, both sides of the cross-pieces and the ends of links of the next series, the ends of said links of each series being placed between the links and cross-pieces of the next adjacent series.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EMORY A. BEDIENT.

Witnesses:

H. C. LORD.

MARGARET SULLIVAN.