

No. 865,180.

PATENTED SEPT. 3, 1907.

J. W. HORNER.
FLOOR MAT.

APPLICATION FILED APR. 6, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

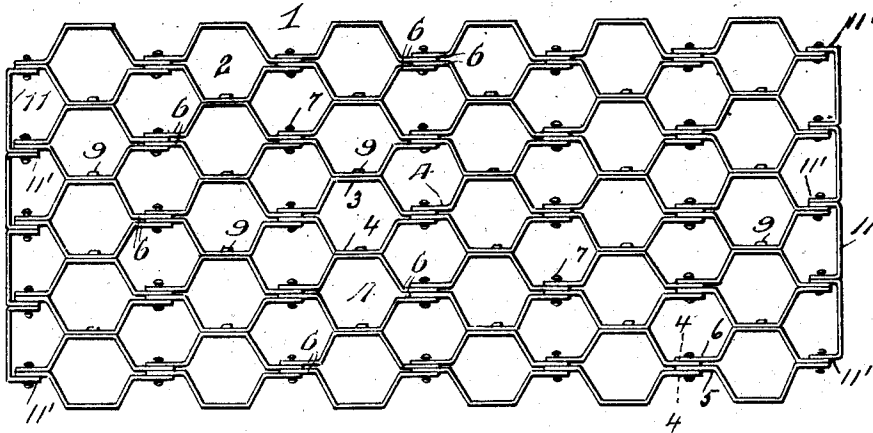


Fig. 2.

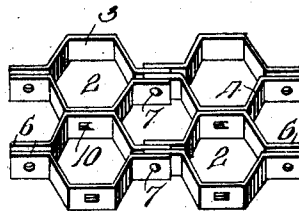


Fig. 3.

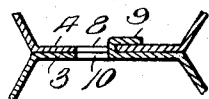


Fig. 4.

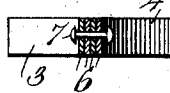


Fig. 5.

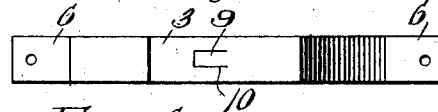
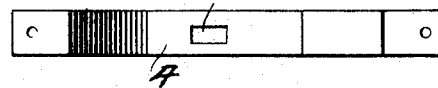


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7

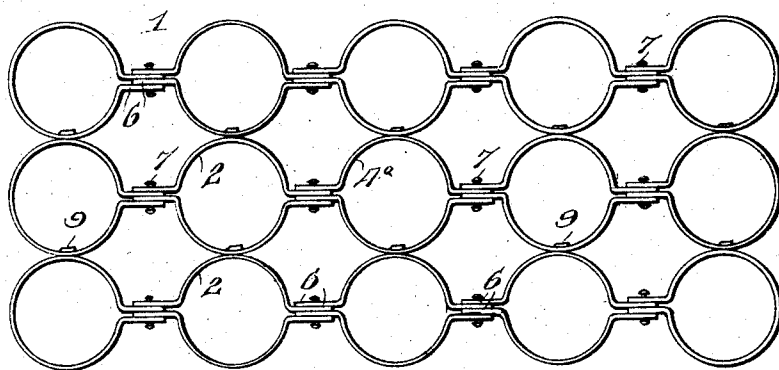


Fig. 8

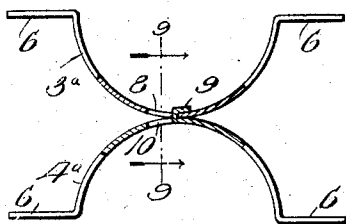


Fig. 10

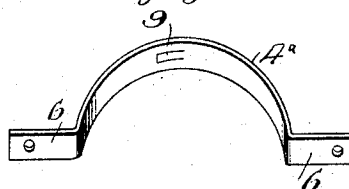


Fig. 11

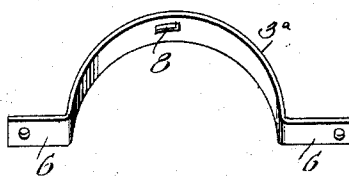
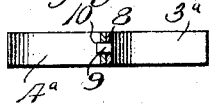


Fig. 9



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FLOOR-MAT.

No. 865,180.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed April 6, 1907. Serial No. 366,772.

To all whom it may concern:

Be it known that I, JOHN W. HORNER, a citizen of the United States, residing at Revere, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Floor-Mats, of which the following is a specification.

This invention relates to improvements in floor mats or door mats of that type formed of flexible metallic sections pivotally connected so as to admit of the mat being conveniently folded or rolled into bundle form, and also to permit the surfaces of the mat to adjust themselves to uneven surfaces of the floor.

The object of the invention is to provide a mat of this character of any preferred size, form and type of sections pivotally connected for folding or rolling, and provided with improved means for rigidly tying or uniting the different longitudinal or transverse rows of sections in such a manner as to secure strength, durability and lightness of construction with economy of production.

The invention consists of the features of construction hereinafter fully described and claimed, and is illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of a portion of the body of a mat embodying my invention. Fig. 2 is a perspective view of a portion of the mat body, illustrating the mode of joining and pivotally connecting the sections. Fig. 3 is a sectional plan view through the abutting portions of two adjoining sections, showing the interlocking connection. Fig. 4 is a cross section through one of the pivot joints, as on line 4—4 of Fig. 1. Figs. 5 and 6 are inner elevational views of the members or segments of one of the sections. Fig. 7 is a plan view similar to Fig. 1 showing a modified form of construction. Fig. 8 is a view similar to Fig. 3 illustrating the interlocking connection between sections of the form shown in Fig. 7. Fig. 9 is a cross section on line 9—9 of Fig. 8. Figs. 10 and 11 are perspective views of the segments of one of the mat sections.

Referring to the drawings, 1 designates a mat of that type composed of longitudinal and transverse rows of rings 2, in which the rings of each row extending in one direction are rigidly connected with each other and pivotally connected to the rings or sections of adjacent rows. As shown, the mat is composed, in the form shown in Figs. 1 to 6, inclusive, of rings or loops 2 of hexagonal or any other desired angular form, each ring comprising segments or sections 3 and 4 formed of strips of sheet metal bent into proper shape. The end portions 5 and 6 of these strips are bent outwardly at right angles and lie in abutting contact and lapping relation with adjacent rings and are connected by pins or rivets 7.

The rings of each longitudinal or transverse row, as may be preferred in actual practice, have their sides lying at right angles to the end portions arranged to

abut, and means are provided for securely tying or uniting and maintaining them in rigid relation. To this end, the abutting side of one section is formed with a slot or opening 8 for the passage of a tongue 9 formed upon the abutting or adjacent side of the contiguous section. As an illustration, one abutting side of each ring 2 is provided with a slot 8 to receive the tongue 9 upon the ring or section lying at one side thereof, and its opposite side is formed with a corresponding tongue to engage a slot in the abutting wall of the ring or section lying on the opposite side thereof. The side of the ring provided with the tongue 9 is formed with a slot 10, caused by the production of the tongue 9, which is formed by slitting the metal and displacing the same, thus providing a strip connected at one end therewith and adapted to be bent outwardly to form the locking tongue, as a result of which displacement of the metal the slot 10 is formed. The tongue of one section is adapted to be passed through the slot in the other section and bent to lie against the latter, all the rings or sections of each row being firmly bound or tied together in this simple and inexpensive manner.

The lapping or abutting ends 5 and 6 of each row of joined or connected rings are arranged to overlap the ends of the sections of the adjoining rings and are pivotally connected therewith by the pins or rivets 7, thus adapting the rows of connected rings to be folded or rolled upon one another for the purpose of packing the mat in close compass, as will be readily understood. When the rings or sections of the mat are of hexagonal or other angular form, the arrangement is preferably such that the spaces between the pivotally connected portions will correspond in shape to the rings themselves, thus giving the mat the appearance of being of a generally uniform pattern throughout. The lapping ends of the border rows of rings project at opposite ends of the mat, and finishing strips 11 having on opposite ends arms 11' bent at right angles therewith which serve to pivotally connect with the lapped ends of said border rings and are themselves lapped with each other, thus imparting a desired end finish.

In the construction disclosed in Figs. 7 to 11, inclusive, the mat is composed of circular sections, each consisting of two segments of semi-circular portions 3^a and 4^a, of the same general construction as in Figs. 1 to 6, inclusive, the corresponding parts in the two constructions being designated by similar reference characters, the abutting surfaces of the segments of the rings of each row being rigidly united by the tongue and slot connections, as clearly shown in Fig. 8.

By the mode of uniting the rings of the rows herein shown and described, a very simple and inexpensive type of structure is provided, as the tongues and slots may be formed within the segments or ring sections

during the operation of forming the same, which is ordinarily performed by striking up the same from sheet metal through the action of suitable dies.

Having thus described the invention, what is claimed
5 as new, is:—

10 A mat comprising longitudinal and transverse rows of rings, each ring consisting of a pair of independent segmental sections, said sections having their ends out-
15 turned to provide connecting arms, the arms of each ring section being arranged in lapping relation to the arms of adjacent ring sections, independent pivot pins or rivets separately pivotally connecting each ring with adjacent rings of a row extending in one direction and fastenings between the abutting ends of the rings extending in the
15 reverse direction, each fastening being composed of a slot

formed in the abutting side of the section of one ring, a tongue upon the abutting side of the section of the next adjacent ring, said tongue being inserted through said slot and clenched to fixedly couple the links together, the projecting ends of the opposite outer end rows being
20 lapped together, and sectional border strips each having right angular arms on opposite ends lapped and pivoted consecutively to said lapped ends of said outer end rows and also lapped with each other, substantially as specified.
In testimony whereof, I affix my signature in presence
25 of two witnesses.

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Witnesses:

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