

June 26, 1928.

1,674,833

C. M. MacCHESNEY

DOOR MAT

Filed Oct. 4, 1926

Fig. 1

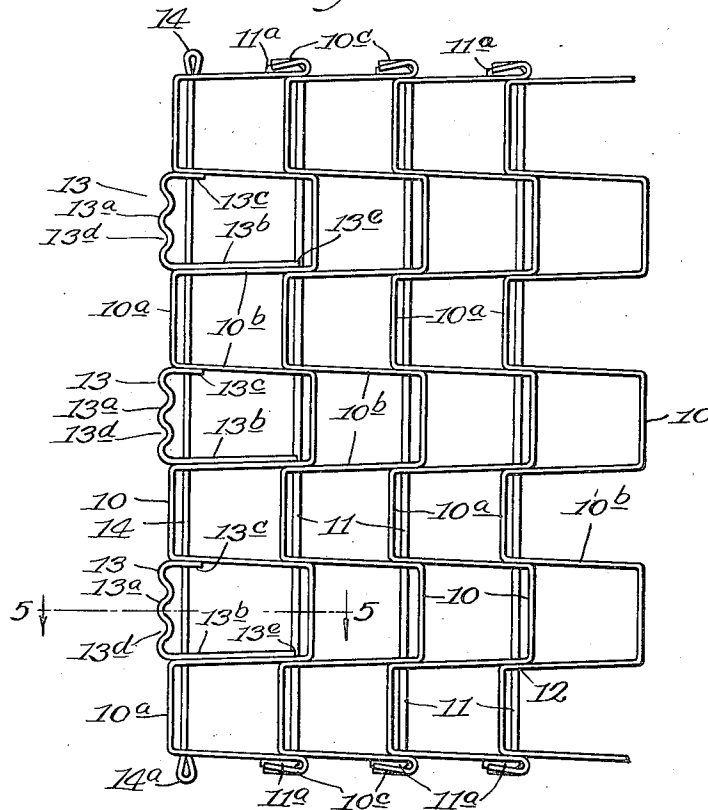


Fig. 2

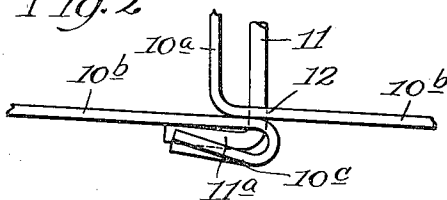


Fig. 5

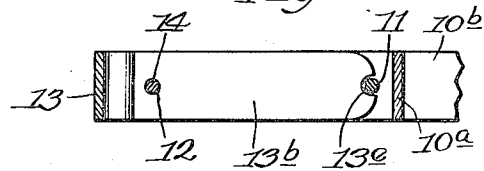


Fig. 3

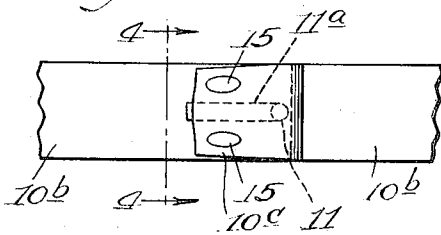
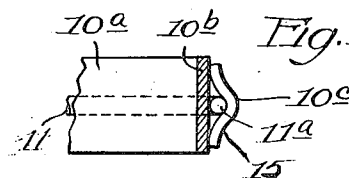


Fig. 4



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UNITED STATES PATENT OFFICE.

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DOORMAT.

Application filed October 4, 1926. Serial No. 139,323.

This invention relates to improvements in door mats and its purpose is to provide an improved construction of door mat made up of a plurality of complementary parts which are united in a simple and efficient manner. The principal object of the invention is to provide improved means for connecting the complementary parts of the door mat and for holding the connecting means in place. Still another object is to provide a door mat made up of a plurality of complementary sheet-metal members connected by pivotal members which are so connected with the sheet-metal members at their ends as to prevent their removal or displacement. Another object is to provide an improved construction for the end of the door mat. Other objects relate to various features of construction and arrangement such as will appear more fully hereinafter.

The nature of the invention will be understood from the following specification taken with the accompanying drawings in which one embodiment is illustrated. In the drawings, Figure 1 shows a partial top plan view of the improved door mat made up of a plurality of intermeshing sheet-metal members which are connected to each other by pivotal rods; Fig. 2 shows an enlarged partial top plan view of two connected sheet-metal members and the connecting rod, illustrating the method of holding the connecting rod in place; Fig. 3 shows an end elevation of the structure illustrated in Fig. 2; Fig. 4 shows a sectional view taken on the line 4—4 of Fig. 3; and Fig. 5 is a sectional view on the line 5—5 of Fig. 1, showing the improved end construction.

The improved door mat is made up of a plurality of complementary sheet-metal members 10 which have a partial intermeshing relation with each other. Each member 10 comprises a plurality of transverse sections 10^a, the alternate ones of which are offset from each other and connected by the diagonal members 10^b, thus forming a plurality of U-shaped sections which are so arranged that the alternate ones are reversed with respect to the intermediate ones, the members 10^b forming the common walls of adjacent U-shaped sections. The side walls 10^b of the U-shaped sections are slightly inclined with respect to lines extending perpendicularly to the members 10^a so that the U-shaped

sections have a slight divergence whereby the end of one U-shaped section is adapted to intermesh with the mouth of an opposite U-shaped section. The members 10 are stamped from sheet-metal and bent into the form illustrated in Fig. 1, being arranged to contact with their edges on the supporting floor or the like.

The intermeshing members 10 are connected by transverse rods 11 which are preferably circular in cross-section and which pass through aligning holes 12 in the adjacent portions of the arms 10^b. In this way, a number of intermeshing members 10 which have a general parallel arrangement are pivotally connected by a plurality of rods 11, thus providing a somewhat flexible door mat which is adapted to yield to the contour of the supporting surface and which may be readily rolled or folded up when desired.

The present invention is directed particularly to an improved means of, and method for, holding the rods 11 in place with respect to the connected members 10. For this purpose, the ends of the rods 11 are bent transversely on the outer edges of the door mat as shown at 11^a and the ends of the outermost arms 10^b of the sections 10 are reversely bent as shown at 10^c, so that the reversely bent portions overlap and contact with the outer sides of the transversely bent portions 11^a of the connecting rods. The reversely bent portions 10^c of the side arms 10^b are punched on opposite sides of the end portion 11^a of the rod as shown at 15, thus bending the lateral portions of the part 10^c inwardly on opposite sides of the extremity 11^a of the rod and thereby maintaining the part 11^a parallel to the side arm 10^b of the door mat section. With this provision, the transversely bent portions 11^a of the rods 11 may be made relatively long so that there is no danger of them being pulled through the opening 12 after continued use of the door mat and, even with such relatively long extensions 11^a on the ends of the rods, those extensions are maintained in place by the interlocking reversely bent portion 10^c of the side arms 10^b, thus preventing the ends of the parts 11^a of the rods from being turned upwardly and interfering with the shoes of the persons using the door mat or with other objects with which the mat is adapted to contact.

An important feature of the invention is

the position of an improved construction for the end of the door mat whereby a substantially continuous transverse member is provided. For this purpose, the spaces between the arms 10^b of the sections 10^a at the ends of the mat are occupied by metal fillers 13 having transverse end members 13^a and side arms 13^b and 13^c of unequal length. The transverse member 13^a is preferably crimped or corrugated as shown at 13^a and adjacent to this transverse member the side arms 13^b and 13^c are provided with apertures which are engaged by transverse rods 14, similar to the rods 11, which extend throughout the width of the door mat engaging holes in the arms 10^b of the end of the outermost member 10. The ends of the rod 14 are looped as shown at 14^a to maintain the rod in place. To prevent the turning of the fillers 13, their longer arms 13^b are extended inwardly and provided at their extremities with notches 13^c which engage the adjacent rod 11, as shown particularly in Fig. 5. At the other end of the door mat, the same fillers 13 are employed except that in this instance they are maintained by one of the rods 11 instead of employing the auxiliary rod 14.

By means of this invention, the difficulty encountered in door mats of this type heretofore used has been effectively overcome. The parts of the door mat are maintained permanently in the proper assembled relation without danger of the connecting rods getting out of place and without danger of the ends of the rods interfering with the users of the door mat or with other objects with which the door mat contacts. The mat made up of interconnected parts according to the present invention may be used with advan-

tage as a door mat but it is also adapted for other uses. For example, it may be used as a drag to smooth the greens of golf courses and the like or endless strips thereof may be employed as conveyor belts.

Although one form of the invention has been shown and described by way of illustration, it will be understood that it may be constructed in various other forms within the scope of the appended claims.

I claim:

1. A mat comprising a plurality of mat sections having intermeshing members, a rod pivotally connecting said intermeshing members and having a transversely bent end portion, one of said intermeshing members being reversely bent on the outer side of said end portion of said rod, said reversely bent portion being punched inwardly on opposite sides of said end portion of said rod.

2. A mat comprising a plurality of sheet metal members bent into the form of a plurality of connected U-shaped sections, means for pivotally connecting the side arms of the U-shaped sections of adjacent members of the door mat, a filler occupying the space against the adjacent U-shaped sections of a member at the end of said mat, said filler having arms of unequal length projecting from a corrugated body portion, a transverse rod passing through the arms of said filler and through the arms of adjacent U-shaped sections, the end of the long arm of said filler being notched to engage the adjacent means for pivotally connecting said members.

In testimony whereof, I have subscribed my name.

CHESTER M. MacCHESNEY.