Jan. 19, 1937. I. KLAFF 2,068,029

MAT

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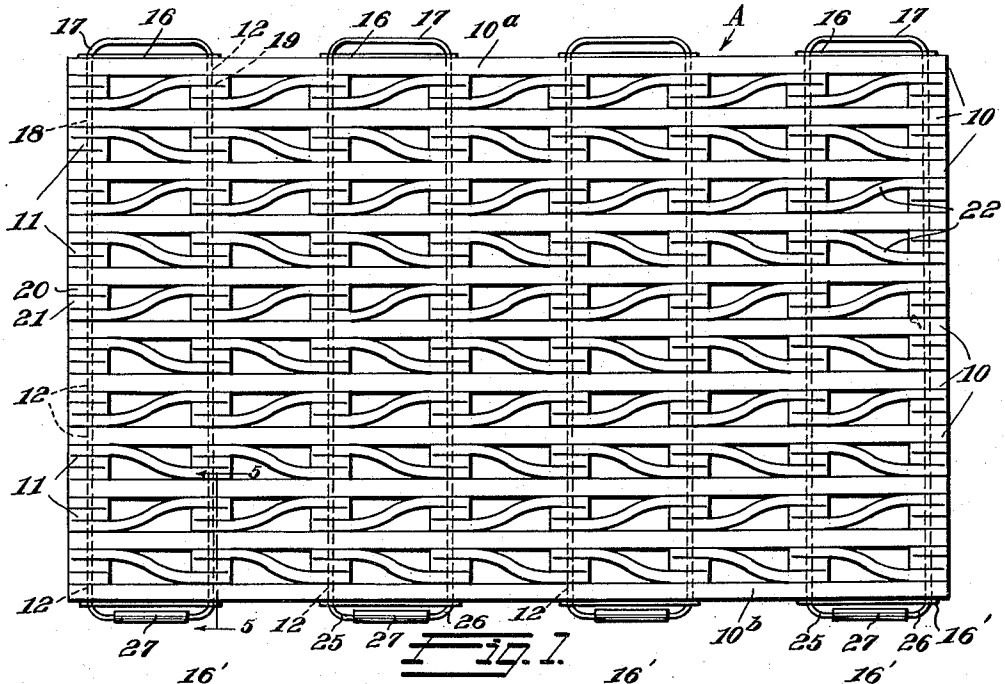


FIG. 1.

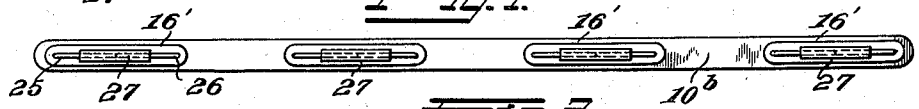


FIG. 2.

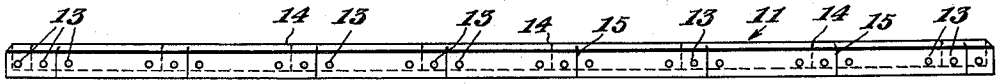


FIG. 3.

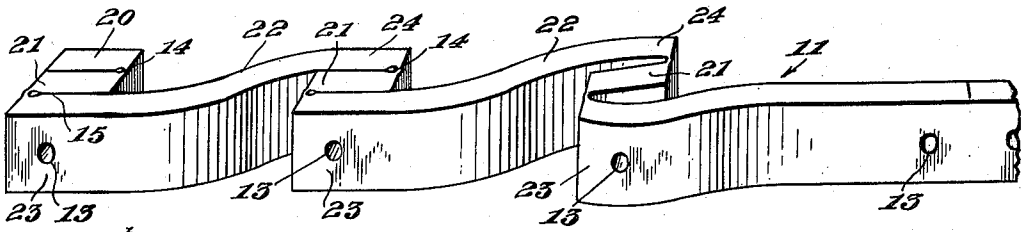


FIG. 4.

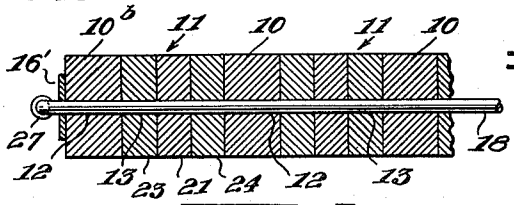


FIG. 5.

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2,068,029

MAT

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Application November 24, 1936, Serial No. 112,592

8 Claims. (Cl. 20—78)

The present invention relates generally to mats and more particularly to that type of flexible mat formed of strips of rubber or rubberized fabric cut from salvaged automobile tire casings, although other suitable wear-resistant material may be advantageously employed.

One of the objects of the invention is the construction of a mat of the character specified employing a plurality of strips of rubber or rubberized fabric which strips fall into two groups of varying original length; the original length of a strip of one group being approximately that of the length of the finished mat and the original length of a strip of the other group being materially greater than the length of the finished mat.

A further aim is the making of a flexible mat of the type indicated in which no separate spacing elements are required between adjacent strips, the spacing being accomplished by transversely slitting and longitudinally folding spaced portions of each of the longer strips.

Still another purpose of the invention is to make a mat of the kind above identified with a minimum of material and with a minimum of effort; which mat will be strong and durable in use and of a novel design and appearance.

Other aims and objects of the invention will be apparent from the detailed description hereinafter appearing when taken in conjunction with the drawing forming a part hereof to which reference is now made and in which

Fig. 1 is a plan view of the mat.

Fig. 2 is a side elevational view of the mat shown in Fig. 1.

Fig. 3 is a perspective view of one of a plurality of similar strips used in the construction of the mat.

Fig. 4 is a perspective view on an enlarged scale of a portion of the strip of Fig. 3 showing the manner of folding same for use in constructing the mat.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1.

The first step in the construction of the mat A herein disclosed is the cutting of preferably salvaged automobile tire casings into a plurality of narrow longitudinal strips which fall into two groups primarily classified as to original length. Each of the similar flexible strips 10 forming group one is of an original length approximately equal to the length of the mat to be fabricated, and each of the similar flexible strips 11 forming group two is of somewhat less thickness than the strips 10 comprising group one and of an original length materially greater than each of these strips, and therefore, of the length of the finished flexible mat. However, the length of each of strips 11 after folding and mounting, that is, in the finished mat, is approximately equal to the length of the mat as will be more fully pointed out hereinafter.

Referring for the moment to Fig. 1 it will be seen that the strips 10 of group one are arranged in spaced parallel rows, two of these strips designated as 10^a and 10^b are marginal strips between which are located the other strips 10 and the strips 11 of group two. Each of the strips 10, 10^a and 10^b is provided with a plurality of longitudinally-spaced and transversely-extending apertures 12.

By referring to Fig. 3, it will be seen that each strip 11 is provided with a plurality of transverse apertures 13, arranged in groups of three, and with a series of transversely extending slits 14 and 15; and it will further be noted that the slits 14 and 15 are located intermediate the end apertures and the central aperture of each group of apertures 13. The slit 14 is made by cutting transversely through the strip 11 from one side face thereof with the slit terminating short of the opposite side face of the strip. The slit 15 is, however, made in a reverse manner from that of slit 14 that is, by slitting transversely through the face designated above as the opposite face up to but short of the face of the strip from which slit 14 originated.

A plurality of apertured bearing plates 16 are arranged in spaced relation along the outside face of the marginal strip 10^a. A piece of wire 17 is bent into rectangular shape to form rod elements 18 and 19, there being one wire 17 for each bearing plate 16. The rod elements 18 and 19 are inserted through the apertured bearing plate 16 and through apertures 12 in marginal strip 10^a. A strip 11 is flexed longitudinally in one direction on the slit 14 as an axis to form abutting spacer members 20, 21 and then flexed in the opposite direction using the slit 15 as an axis to form a connecting portion 22, the ends of which form spacer members 23 and 24, see Fig. 4. This results in bringing the three adjacent apertures 13 into alignment.

Similarly, the rest of the strip 11 is flexed using the other slits 14 and 15 as axes to form additional intermediate spacer members 21 and connecting portions 22. From the above, it will be clearly seen that when the folded strip 11 is positioned in contact with the marginal strip 10^a and the next strip 10 brought into contact with

strip 11, the connecting portions 22 will be curved, due to the flexible nature of the strip, to the shape shown in Fig. 3. The mat A is built up by alternating strips 10 and 11, all of which are held in position by means of the rod elements 18 and 19 which pass through the apertures 12 in strips 10 and the aligned apertures 13 in the folded strips 11. Apertured bearing plates 16' are arranged in spaced relation along the outside face of marginal strip 10^b. The rod elements 18 and 19 are passed thru the apertures in these plates and the ends thereof are inwardly bent as at 25 and 26, said ends being inserted in a sleeve 27.

From the above description it will be appreciated that the mat is built up by first providing a marginal strip 10^a, then a strip 11 folded as described to form the spacer members 20, 21 and the connecting portion 22, the ends of which form additional spacer members 23, 24. The connecting portions 22 assume a curved shape due to the flexible nature of the strips 11 and the fact that the strips 10 are forced against the strips 11 and held in this condition by the rod elements 18 and 19 which pass through apertures 12 in each of the strips 10 and marginal strips 10^a and 10^b and through aligned apertures 13 in each of the slit and folded strips 11.

A mat constructed as described above has been found to be very durable and to have a wide field of usefulness. It may be made up in various sizes depending on whether it is to be used as a door mat, as a runner on stairs and the like. Further, it is not essential to the principle of the invention that there be provided alternate straight and folded strips, as a mat may be constructed using only the slit and folded strips.

Various other changes and modifications may be made to embody the spirit and purpose of the invention and it is contemplated to cover such variations and to be limited in this respect only as may be necessary by the scope of the appended claims.

Having thus set forth the invention what I claim as new and desire to secure by Letters Patent is:

1. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being transversely slit and folded to form spacer members therealong, and means securing all of said strips together.

2. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being straight, other of said strips being transversely slit and folded to form spacer members therealong, and means securing all of said strips together.

3. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being straight, other of said strips being transversely slit and folded to form spacer members therealong, said straight and folded strips being alternated, and means securing all of said strips together.

4. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being transversely slit and folded to form spacer members therealong, said slit and folded strips being of an original length greater than the length of the finished mat, and means securing all of said strips together.

5. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being straight and of a length equal to that of the finished mat, other of said strips being transversely slit and folded to form spacer members therealong, said slit and folded strips being of an original length greater than that of the finished mat, and means securing all of said strips together.

6. A mat comprising a plurality of longitudinally-extending strips, certain of said strips being straight and of a length equal to that of the finished mat, other of said strips being transversely slit and folded to form spacer members therealong, said slit and folded strips being of an original length greater than that of the finished mat, said straight and folded strips being alternated, and means of securing all of said strips together.

7. In a mat having a plurality of strips secured together, means for holding said strips in spaced relation to each other, said means comprising a transversely slit and folded flexible strip forming superposed spacer members.

8. A mat comprising a plurality of separate strips of flexible material, certain of said strips being straight, other of said strips being transversely slit and folded to form spacer members therealong, said folded strips and its spacer members being interposed between said straight strips to uniformly space the latter, and means securing all of said strips together.

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