

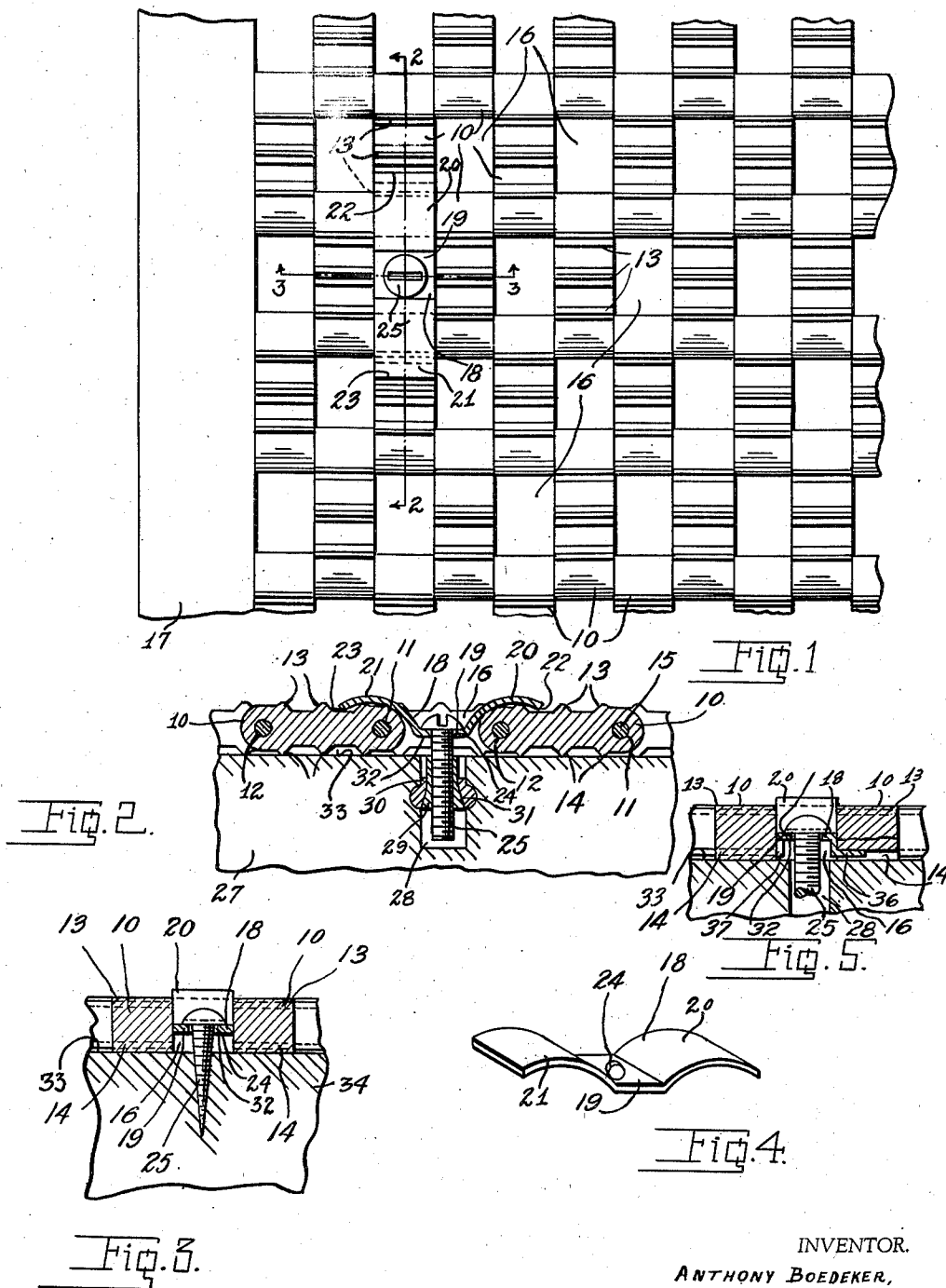
Aug. 9, 1938.

A. BOEDEKER

2,126,307

LINK MAT ANCHOR

Filed Oct. 13, 1936



INVENTOR.

ANTHONY BOEDEKER,

BY

Ramsey & Rave
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,126,307

LINK-MAT ANCHOR

Anthony Boedeker, Cincinnati, Ohio

Application October 13, 1936, Serial No. 105,407

11 Claims. (Cl. 20-78)

This invention relates to means for holding floor covering in position.

An essential object of the invention, is the provision of a simple, inexpensive anchor or anchoring means for floor covering of the kind formed of staggered rows of spaced links, and which cooperates with the sides of the space between the links for holding the covering from movement, and which does not interfere with walking on the covering, and will not, therefore, cause stumbling of the person walking thereon.

It is a further object to provide an anchor of the above character which, when mounted in place, is practically invisible.

Other objects and advantages will appear in the following specification illustrated by the accompanying drawing in which

Fig. 1 is a top, plan view of a fragment of a floor covering, with the anchor applied thereto.

Fig. 2 is a sectional view, taken longitudinally of the anchor, as seen from line 2-2 on Fig. 1, and illustrates the anchor as engaging in a cementitious or other hard material.

Fig. 3 is a sectional view, taken transversely of the anchor, as seen from line 3-3 on Fig. 1, and illustrates the anchor as engaging in wood or other comparatively soft material.

Fig. 4 is a perspective view of the anchor plate; and

Fig. 5 is a view similar to Fig. 3, but illustrating a modification in the construction of the anchor plate, and with a certain portion broken away.

Referring to the drawing, particularly Fig. 1, there is illustrated a fragment of a link floor covering, which comprises a plurality of uniformly shaped links 10, shown in cross section in Figs. 2 and 3. The links 10, usually of rubber or like yielding material, are as shown in Fig. 2, provided at opposite ends with transverse apertures 11 and 12, and are further provided on the upper and lower surfaces, with treads 13 and 14. The links 10 are arranged in a transverse series of rows and spaced end from end longitudinally, and staggered, so that each link has aperture 11 of one end registering with aperture 12 of the other end of laterally adjacent links, and rods 15 pass through the registering apertures 11 and 12, making a continuous longitudinally flexible structure. In this way, there is left a comparatively large space 16 between adjacent links. The outer ends of the link connecting rods 15 are generally secured or disposed in some kind of an edging or binding 17 which may also be utilized as a finishing member for finishing off the edges of the covering.

The anchor is designed to take advantage of the space 16 between the links and, as shown in Fig. 4, is formed of a strip of metal bent to form an anchor plate 18 of a width equal to the width of the links, and having intermediate of its ends a depressed, relatively flat, seat portion 19 and arms 20 and 21 extending from the seat portion 19 in opposite direction. These are shown in the drawing as arch shaped, for the purpose of cooperating with the treads 13 on the tops of the adjacent ends of the links between which the anchor is mounted, as shown most clearly in Fig. 2, where it will be noted that the extreme ends 22 and 23 of the arms are very close to the top surface of the covering, very little above the upper surfaces of the treads 13, with which the person, walking on the covering, will contact. Formed centrally of the seat 19 is an aperture 24 down through which the anchoring screw 25 extends.

These anchors, on a flat area, are fairly widely spaced from one another as, for example, at the corners and possibly at the center. In the case of the stair runner, three anchors are usually placed in each step, having an anchor at each corner, where the step and riser meet, and having a third anchor intermediate the sides of the step, at the front edge thereof.

Any suitable or desirable means may be employed for fastening the screw 25 in the floor, or other area, over which the link covering is laid. An example of anchoring in a hard cementitious floor is illustrated in Fig. 2, in which the floor 27 is provided with a suitable socket 28, holding the nut arrangement for the screw 25 which, as shown, comprises a metallic sleeve nut 29, encircled by a lead sleeve 30. The sleeve nut 29 is provided, at its lower end, with an enlarged portion 31, tapering to a reduced portion at the upper end thereof. Initially, the sleeve nut 29 and external lead sleeve 30, form a cylindrical member, which is placed in the socket 28 and slightly tapped to cause a slight bulging of the lead sleeve within the socket. Subsequently, pressure on the lead sleeve 30, effected through the screwing of the screw 25 home, causes the lead sleeve to assume a form, somewhat as shown in Fig. 2, and thereby clamps the anchor plate 18 between the head of the screw 25 on the seat 19, and the enlarged portion of the deformed lead sleeve against the walls of the socket 28.

The under-surface 32 of the anchor seat 19, is spaced above the upper surface 33 of the floor, whereby the said anchor plate may be adjusted for effecting the desired tight anchoring of the

floor covering at the point where it is mounted. By this arrangement, and due to the relative softness and resiliency of the individual links as usually made, the anchoring plate may effect a compression of the said links, and thereby partially embed itself in the links to permit the top surface of the covering and the top of the anchor, to be substantially in the same horizontal plane in all directions.

10 In Fig. 3, the screw 25 is illustrated as a wood screw, and adapted to enter a wood flooring or support 34, which is believed to be readily understandable, without further description.

From the foregoing, it will now be appreciated 15 that the anchor of this invention is relatively simple, yet highly efficient, since the sides of the anchor plate seat 19 and the immediately adjacent portions of the arms 20 and 21, at each side thereof, snugly engage the sides of adjacent links and thereby eliminate any lateral or side movement of these links and, since all of the other links are tightly connected therewith, through the rods 15, the entire covering will be held against lateral movement. At the same time, the arms 20 and 21, which overlie the adjacent ends of the links extending in a longitudinal direction, securely fasten these links against the floor and, in fact, effect a compression of the links between themselves and the floor, and thereby effectively prevent any longitudinal movement of these links. Since all of the other links in the covering are connected to these longitudinal links by the link connecting rods 15, the entire floor covering will be held against longitudinal movement, of even 35 the smallest amount.

In the modification of the invention shown in Fig. 5, means are provided whereby the anchor plate 18 is at all times held in position on the mat, that is, when the mat is thrown around, as 40 when cleaning beneath. This means comprises a pair of arms or ears 36 and 37, one depending from the side of the anchor plate, and bent or disposed to lie in a plane parallel with, but below, the plane of the anchor seat portion 19. These arms or ears may be conveniently arranged, relative to the seat 19, to take a position between the link treads 14 on the underside of the links and will not, therefore, interfere with the operation or adjustment of the said anchor plate as above described.

50 Modifications other than those instanced herein may occur, and I do not wish to be understood as being limited to the precise disclosure herein, but having fully set forth preferred examples of my invention, what I claim as new and desire to secure by Letters Patent is:

What is claimed is:—

1. In combination with a floor covering made up of a transverse series of longitudinal rows of links with the links of each alternate row staggered 60 relative to the links of each other alternate row, whereby open spaces are left with side walls formed by the sides of two links and the ends of two links of any group of four links, an anchoring device of structure separate and distinct from that of said floor covering comprising a member within at least one of said spaces with its top confined below a plane close to the top surfaces of the links, so as not to offer material obstruction above the covering, said member sufficiently retentively engaging at least two opposite walls of the space to hold the covering close to the floor under stresses due to passage of objects along and against the top surfaces of the links, and suitable fastening means in retentive relation to said mem- 75 ber and confined materially below the plane of

said top surfaces of the links and extending down for retentive relation to the floor on which the covering is laid.

2. A combination as set forth in claim 1, in which the links are of yielding material, and in which the member occupying the space as therein set forth is more extended at a certain height from the floor plane than it is at a less height therefrom, toward two opposite walls of the space, not necessarily the two opposite walls therein mentioned, and by being so extended, indents the walls toward which it is so extended, for holding the covering close to the floor under the conditions therein set forth.

3. A combination as set forth in claim 1, in 15 which the therein mentioned member comprises a middle portion and arms extending from the middle portion in generally horizontal directions but also upwardly, whereby said middle portion lies materially below the plane of the tops of the links while the arms engage with upper portions of adjacent links, and in which the therein mentioned fastening means has its retentive relation to said member by engagement with said middle portion thereof.

4. A combination as set forth in claim 1, in which the therein mentioned member comprises a middle portion and arms extending in diametrically opposite directions from said middle portion in generally horizontal directions but also 30 upwardly, whereby said middle portion is depressed in the space, the fastening means engaging with said portion below the plane of the tops of the links while the arms engage with upper portions of opposite links of the group surrounding the space occupied by said middle portion.

5. A combination as set forth in claim 1, in which the tops of the end portions of the links of the covering are rounded, and in which the therein mentioned member comprises a depressed middle portion engaged by the fastening means, and arms curving upward and outward in opposite directions and engaging and closely conforming to the rounded tops of the end portions 45 of the links.

6. A combination as set forth in claim 1, in which the therein mentioned member has upward and outward extensions that retentively engage the walls of the space as therein set 50 forth, and has a middle depressed portion of such lateral dimension that it fits snugly between and against the other two opposite walls of the space, so as to positively limit movement of the floor covering along the floor when held to the floor by the therein mentioned fastening means.

7. A combination as set forth in claim 1, in which certain of the links adjacent the space occupied by the therein mentioned member have raised top treads with depressions between the treads, and in which said member comprises arms extending outwardly from the space in opposite directions and upwardly over the end portions of said certain links with terminal parts depressed and lying in the link depressions below the plane of the tops of the treads.

8. A combination as set forth in claim 1, in which certain of the links adjacent the space occupied by the therein mentioned member have floor contacting bottom parts with spaces between the parts, and in which said member comprises arms engaging over upper parts of said certain links, and also has an additional pair of arms entering the respective spaces and engaging the lower sides of the links therein, so 75

that these arms together with the arms engaging over the upper parts of said links secure the anchoring device to the floor covering.

9. In combination with a floor covering having an open space down through it through which the floor can be reached from the top of the covering, and which open space has a generally quadrangular shape in horizontal plane and has its walls of yielding material, an anchoring device of structure separate and distinct from that of said floor covering comprising a member which indents at least two opposite ones of said walls obstructively to rising of the covering from the floor, which member has its top confined below a plane close to the top surface of the covering, so as not to offer material obstruction above the covering, and fastening means engaging said member retentively to resist its rising from the floor and adapted to also retentively engage with the floor to resist said rising.

10. A combination as set forth in claim 9, in which the therein mentioned member in addition

to its indentation of the walls as therein set forth, has engagement with all four walls of the space it occupies, to resist movement of the covering along the floor in all directions when held to the floor by the fastening means.

11. As a new and improved article of manufacture, a device for anchoring a covering to a floor, comprising a member with a depressed middle portion provided with means for retentive relation of a fastening means to the member, said member having arms extending diversely from the middle portion in a general horizontal direction but also upwardly, and fastening means retentively related to said middle portion with its top substantially below the plane of the tops of said arms when the fastening means is in said retentive relation, said fastening means extending down from said middle portion for retentive engagement with a floor on which the floor covering is laid.

ANTHONY BOEDEKER.