

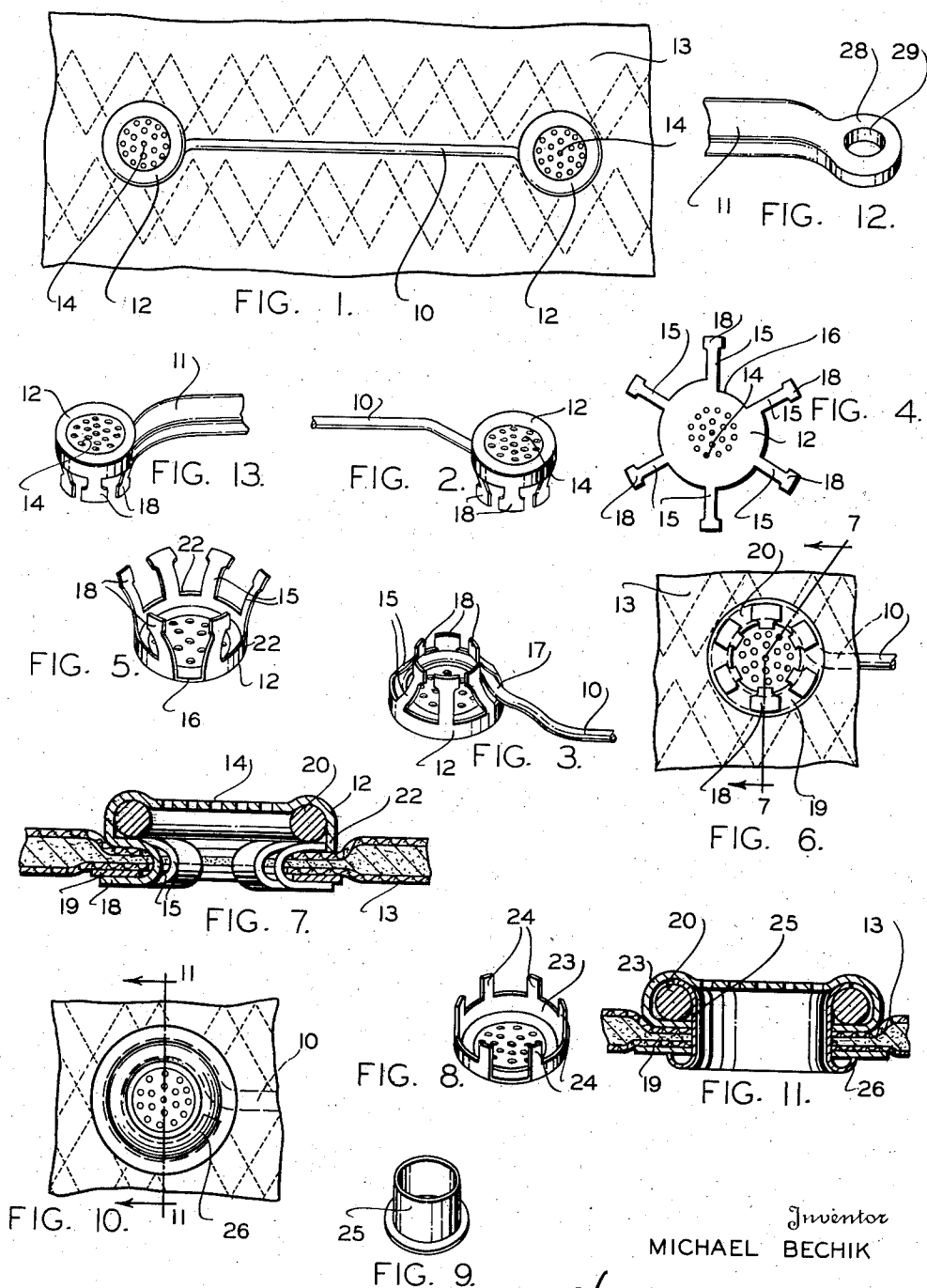
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HANDLE FOR MATTRESSES AND CUSHIONS

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HANDLE FOR MATTRESSES AND CUSHIONS

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2 Claims. (Cl. 5—345)

This invention relates to a handle which is adapted to be secured to the boxing wall of a mattress or cushion where it is desired to provide a simple construction of handle and means for securing the same to the wall of the mattress or article to which the handle is attached.

A feature resides in providing the handle portion made of wire or other suitable material which provides a grip for the hand. The wire or bar of metal or nonmetallic material forming the hand grip portion of the handle has its ends formed with an eye loop, and the wire portion or bar has its loop ends offset so that when the loop ends are lying against the wall of the mattress or cushion the central hand engaging portion of the bar or wire of the handle projects from the side wall to permit the hand to easily engage the same. The loop ends are covered by a one-piece ventilating hood-like grommet member which is formed with a series of radially extending arms adapted to provide the shank and riveting means of the grommet when the handle is attached to the mattress wall.

The hand engaging portion of my handle may be made of a flat metal wire or bar, or may be of flat or round plastic material of various colors. In each case the ends of the bar are formed so that the cup-like head of the grommet fits over the ends of the handle bar to enclose the ends and the grommet is formed with finger-like shank portions which extend through the wall of the mattress and are riveted over on the inside to securely attach the handle bar portion to the mattress wall.

When the handle portion is made of plastic material, the end portions which are shaped to fit within the head of the cup-like grommet may be solid or may be formed with a hole so that when the cup grommet is of a ventilating type, a hole is provided in the end of the plastic handle bar to permit ventilation through the same into the mattress.

The features of my invention will be apparent and will be more fully and clearly pointed out throughout the specification and claims.

In the drawing forming a part of my specification:

Figure 1 is a side view of a portion of a mattress wall, showing the wire handle type of hand grip.

Figure 2 is a perspective detail of one end of the handle shown in Figure 1, before it has been attached to the mattress wall.

Figure 3 is a perspective view like Figure 2, of one end of the handle looking toward the inside of the handle and grommet.

Figure 4 illustrates the died-out formation of the cup grommet used in securing the handle bar.

Figure 5 is a perspective inner view of the grommet, partially formed and just before the wire loop end of the handle bar is inserted in the same, the next step of operation in making the handle after it has been formed like in Figure 5, being shown in Figure 3.

Figure 6 illustrates the inside of the mattress wall, showing the manner in which the ears of the grommet are upset against the inner reinforcing washer to anchor the handle.

Figure 7 is a section on the line 7—7 of Figure 6.

Figure 8 is a perspective detail of another form of cup grommet.

Figure 9 illustrates a perspective of the grommet sleeve used with the cup shown in Figure 8.

Figure 10 is an inner detail of one end of the handle where the same is attached by the cup grommet and sleeve shown in Figures 8 and 9 to the mattress wall.

Figure 11 is a section on the line 11—11 of Figure 10.

Figure 12 illustrates a detail perspective of one end of a plastic handle bar.

Figure 13 illustrates a perspective detail of one end of the plastic handle bar, showing the cup grommet assembled on the end of the same.

My invention includes a rigid handle bar which may be made of wire either round or flat or may be made of a plastic bar.

The handle includes an assembled unit comprising the bar 10 or 11 with the cup grommet 12 secured to the end as illustrated in Figures 2 and 3. It is desirable that the handle include this unitary construction of the bar 10 and the grommet 12, making an assembly of three parts, which when put together may be painted, enameled, or otherwise finished while together as a unit. This unit handle construction permits shipping of the handles to the mattress manufacturers in assembled form so that the handles can be packed with a suitable finish as stated above on the same, and thus prevent scratching or injuring of the enameled portions of the handle and the grommets in securing the same to the mattress wall 13. The mattress wall 13 consists of the boxing extending around the side of the mattress which is secured to the top and bottom of the mattress walls. The boxing or wall 13 may also be the wall of a cushion, pillow or other article where it is desired to attach a handle to a flexible wall such as 13.

The cup grommet 12 is died-out from flat sheet material, as illustrated in Figure 4, and is formed

with a central perforated portion 14, while radially extending arms 15 are formed integrally with and project from the periphery of the body of the cup grommet. A recess 16 is formed at one point between the arms 15, which is adapted to receive the shank portion 17 of the handle 10. The outer free ends of the arms 15 are formed with transversely enlarged end portions 18. These ends 18 act to engage against the washer 19 placed against the inner surface of the wall 13 to reinforce the wall around the hole in the wall through which the grommet 12 extends. Thus when the grommet 12 is secured to the mattress wall 13, the ends 18 are upset against the washer 19 which may be of any suitable size to reinforce the mattress wall around the opening through which the grommet 12 extends.

In the process of making my handle, the handle bar 10 is formed with loops 20 like an eye, on either end of the bar. The cup grommet 12 is stamped out in flat formation, as illustrated in Figure 4, with the perforated portion 14 and the next step of the operation is to form the cup grommet into the form illustrated in Figure 5. In the next step, the loops or eyes 20 are laid inside the cup grommet 12 and the arms 15 are bent inwardly around the loop 20, bringing the ends 18 into cylindrical contracted formation as illustrated in Figure 3. This secures the cup grommet 12 to the loop 20 of the handle 10.

When a cup 12 is secured to each end of the rigid bar 10, the handle is assembled and ready to be enameled or painted or finished with any suitable finish and with any desired color. As soon as the assembled unit of the handle has been enameled and dried, it is ready for use.

I have found it desirable to make the handles in this unitary form with the cup grommets 12 permanently attached to the ends of the bar 10. Thus in shipping the handles in this unit form to mattress manufacturers, the danger of skinning or knocking off the enamel or finish is minimized and the labor of installing the handle on the mattress wall is also reduced.

I have illustrated in Figure 7 an enlarged cross section showing the manner in which the arms 15 are bent and the heads 18 are upset against the washer 19. This section shows the mattress wall 13 squeezed together by the attachment of the grommet 12 and shows the straight or cylindrical wall portion 22 which extends between the arms 15 coming directly against the outer surface of the mattress wall to embed the portions 22 in close contact with the mattress wall.

My handle assembly may be made by using a short cup 23 instead of the cup 12 where the arms 24 are formed short and straight in forming the cup head 23 of the grommet used as illustrated in Figures 8, 9, 10 and 11. The cup 23 is adapted to hold the grommet sleeve 25 attached to the loop 20 of the handle bar by first securing the cup 23 to the loop 20 in a manner to hold the grommet sleeve 25 to the loop 20. Then the handle is formed in a unit ready to be attached to the mattress wall 13. In Figure 11 I have illustrated the attachment of the handle by the cup 23 and the sleeve 25 to the mattress wall, showing the manner in which the inner end of the sleeve is upset at 26 to bear against the washer 19. In this last construction, instead of making the cup grommet 12 in one piece, I form the cup 23 with the short arms 24 in one piece

similar to the cup 12, and then I employ a grommet sleeve 25 such as is used for eyelets, and I assemble these together on the wire loop 20 so that I have the same unitary handle construction before it is attached to the mattress wall. While I prefer the structure heretofore described of the single piece cup 12, it is obvious that the handle may be made in a unit by this last described method.

My handle construction is also preferably formed with a plastic handle bar 11 illustrated in Figures 12 and 13. In this form, the handle bar 11 may be made round or flat of any well known plastic material. In using plastic materials, either solid opaque colors may be obtained or translucent colors, or even transparent handles may be used, thereby making a beautiful handle projecting along the wall 13 of the mattress.

The plastic handle bars 11 may be formed with a head portion 28 which may be round or flat and which may also be provided with an axial hole 29 in the head portion 28 where a ventilating grommet 12 is adapted to attach the bar 11 to the mattress wall. The plastic handle bar 11 will be firmly held to the wall 13 by the heads 12 in the same manner as set forth in regard to the bar 10, and the size and shape of the cup 12 may be made to accommodate the size and shape of the head 28. While the head 28 is shown round and the cup 12 is shown round, it is obvious that the head 28 and cup 12 may be made with square head portions. In any case, the handle assembly is of a unitary nature, consisting of the handle bar portion 10 or 11 and the end securing grommets 12 or 23, and these grommets may be of the ventilating type or may be formed with closed head or cup portion.

I have illustrated the different forms and described the method of assembly of my handles and while the drawing illustrates a particular form, it is obvious that the invention should be considered within the scope of the following claims and that variations therein contained should be an essential part of my invention.

I claim:

1. A mattress handle in combination with a flexible mattress and the like, comprising a rigid bar having loops formed in the ends thereof, round cup-like ventilator grommets assembled as a unit on said loops, said round cup-like ventilator grommets adapted to completely cover said loops, said grommets provided with spring fingers projecting from the inner periphery of the edge of said grommets, the free ends of said clamping fingers being formed with transversely enlarged end portions, and said end portions adapted to extend through the wall of the mattress and engage through a reinforcing washer and be riveted over against the same to firmly secure said handle to the mattress wall.

2. A handle for mattresses and the like, comprising a bar-like hand engageable portion, round loop ends formed on said bar, circular cup-like grommets entirely covering said loop ends, spring fingers having enlarged end portions extending from the periphery of said cups, whereby said end portions may be extended through the wall of the mattress and a reinforcing washer and be riveted over against the washer to firmly secure said handle to the mattress wall.

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