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FUZE PACKING BOX

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Fig. 3.

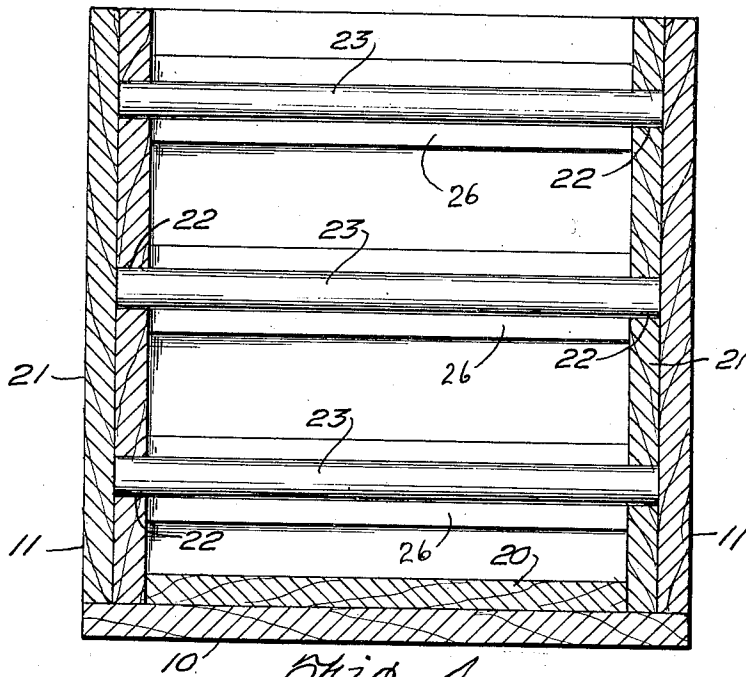
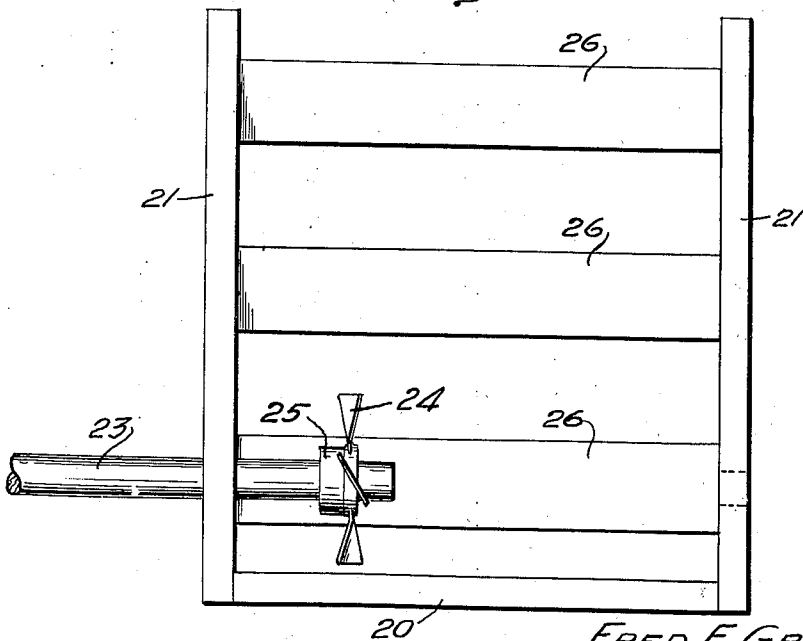


Fig. 4.



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FUSE PACKING BOX

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3 Claims. (Cl. 206—65)

This invention relates to packing boxes and has special reference to a packing box for packing devices consisting of separate components, one of the components of each device having a central perforation. As an example of such devices there may be mentioned bomb fuses wherein when packed each fuse body is packed in a tubular carton in one compartment of the box while the vane member of each fuse is packed in a second compartment of the box.

Heretofore it has been customary to provide in the vane compartment of the boxes series of upstanding metal rods on which the vanes are slipped, each group being secured by a nut screwed on the upper end of the rod. It has been found that this method of packing is uneconomical in its use of steel rods and nuts, and further, that such an arrangement requires more space than is desirable.

One important object of the present invention is to provide means for supporting such articles as vanes in the compartment designed for their reception without the use of any metallic rods or nuts.

A second important object of the invention is to provide a construction of this character wherein the packing of the vanes is very economical in space.

A third object of the invention is to provide a novel arrangement of vane carrier wherein, when the vane carrier is inserted in the box there is no possibility of the vanes being displaced from their proper positions.

A fourth important object of the invention is to provide a vane supporting structure such that when removed from the packing box the vane supports may be readily slipped out of the carrier and the vanes released.

A fifth important object of the invention is to provide a device of this kind whereon the vanes may be readily assembled.

With the above and other objects in view, the invention consists, in general, of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:

Figure 1 is a plan view of the packing box constructed in accordance with this invention, a portion of the top of the box being broken away to show the interior.

Figure 2 is a side elevation of the invention partly in section.

Figure 3 is a detailed section to enlarged scale on the line 3—3 of Figure 1, the vanes being omitted.

Figure 4 is an elevation of the vane carrier showing the method of assembling the vanes on certain supporting rods.

Figure 5 is a fragmentary detailed section of a modification of the vane carrier.

Figure 6 is a reduced detail section similar to Figure 3 but showing a further modification of the invention.

In the construction of the packing boxes here shown there is provided a bottom 10 from which rises vertical sides 11, the box being closed at the end by end members 12. Each of these end members is provided with a pair of vertical cleats 13 and rope handles 14 having their ends secured in these cleats. Suitable latches 15 may detachably secure the top. Between the sides 11 extends a partition 17 dividing the interior of the box into a space 18 for holding cartons such as may contain fuses, and into a space 19 for receiving a vane holder.

The vane holder consists of a bottom member 20 having at each end an upright 21, the spacing of these uprights being such that they fit snugly between the sides 11 of the box. These uprights are provided with pairs of aligned openings 22 receiving rods 23 whereon may be slid vanes 24 and spacers or washers 25 for holding the vanes properly spaced on these rods. The sides are connected by tie bars 26 and the upper tie bar is provided with a fabric or tape strip 27 at each end for the purpose of lifting the vane carrier out of the box when desired.

In the form shown in Figure 5 the tie bar is modified as at 28 so as to present a rounded surface 29 for engagement by the blades of the vane 30, which is thus prevented from rotation on the rod 23.

In the form of the invention shown in Figure 6 the vane carrier consists only of the bottom member 20 and sides 21. In this form pull or lifting strips 31 are led through holes 32 at the upper ends of the sides and the vanes are packed in small cartons or boxes 33 as shown. Thus by lifting the carrier all vanes may be removed from the outer box at the same time.

As shown in Figure 4, when it is desired to load the vane carrier with vanes one of the rods 23 is pushed inwardly through the hole 22 and the vanes are slipped thereon one after the other with proper spaces between them until the rod

has reached a point close to the other side 21 so that no more vanes can be slipped on the rod. Suitable washers are then positioned and the rod shoved through these washers and into the hole 22 of the opposite side, the ends of the rod being at that time flush with the outside faces of the uprights 21. The remaining rods are then treated in the same manner until all the vanes are assembled on the several rods, whereupon the entire vane support is lifted and dropped into the box. Obviously, as shown in Figure 3, the rods 23 cannot then be displaced and the vanes are securely packed.

What is claimed as new is:

1. A package including a vane carrier consisting of a bottom member and uprights at the ends of the bottom member provided with rod receiving openings in lateral alinement, rods engaging in said openings and having their ends substantially flush with the outer faces of the uprights, and tie bars connecting said sides, there being one tie bar immediately adjacent, opposite to and parallel with each of said rods, said last named tie bars having their faces confronting the rods rounded for engagement between adjacent blades of a vane and bomb fuse vanes threaded on said bars.

2. A vane carrier consisting of a bottom member and uprights at the ends of the bottom mem-

ber provided with rod receiving openings in lateral alinement, rods loosely engaging in said openings and having their ends substantially flush with the outer faces of the uprights, spaced tie bars connecting said sides, there being one tie bar immediately adjacent, opposite to and parallel with each of said rods, and lifting straps secured to the carrier at the side portions thereof.

3. In a packing receptacle, an outer container including spaced upright side and end walls, and a bottom, a frame member having upright spaced walls adapted to be received in said container with its walls abutting adjacent walls of said container, the spaced walls of said frame being formed with a plurality of openings arranged in lateral alinement, rods for receiving a plurality of vanes formed with radiating blades removably arranged in said openings and extending from side wall to side wall, said rods terminating flush with the outer faces of said side walls and abutting the inner wall faces of said container, and spaced tie bars connecting the spaced walls of the frame, there being one tie bar immediately adjacent, opposite to and parallel with each of said rods; said last named spaced tie bars being positioned to extend between the vane blades to retain the same against rotation.

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