

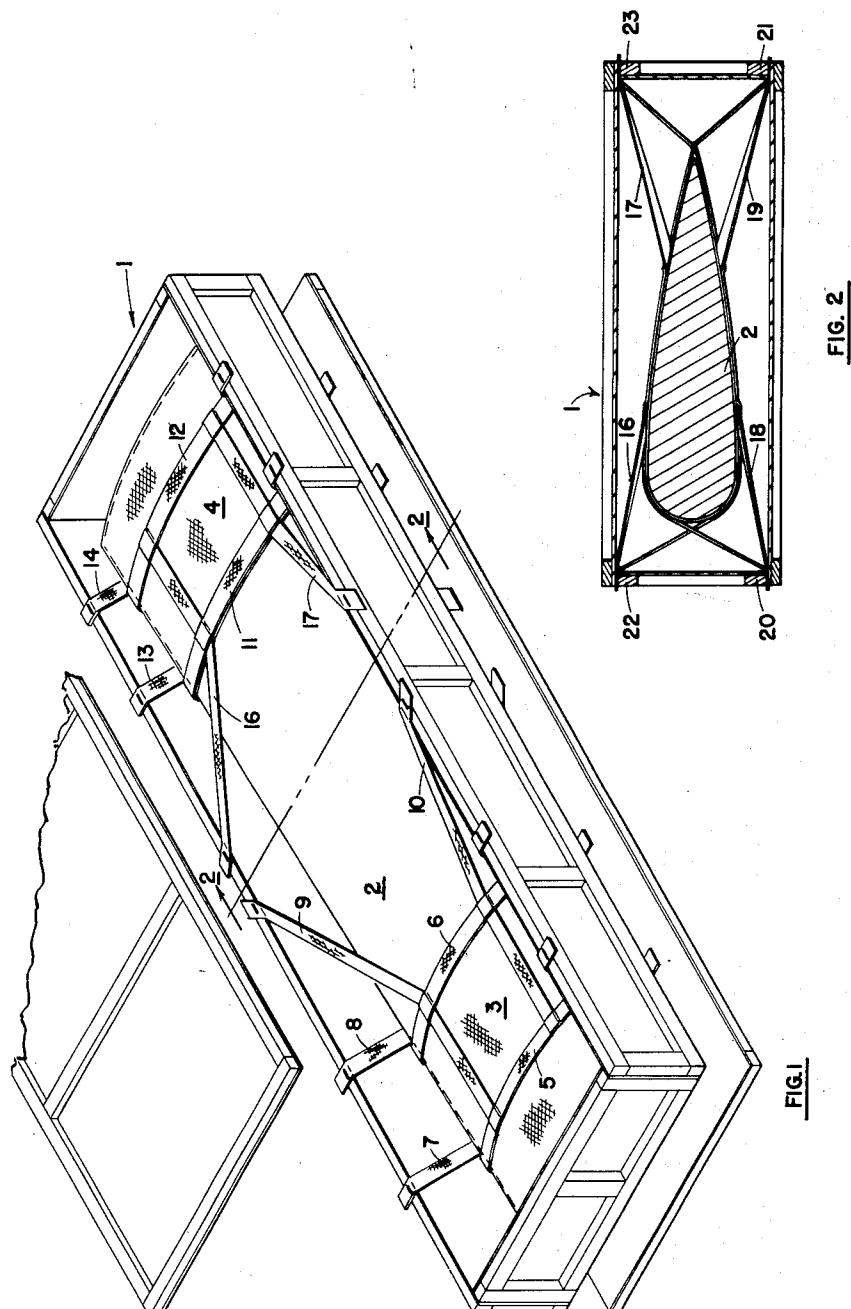
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PACKAGING ARRANGEMENT

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## PACKAGING ARRANGEMENT

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1 Claim. (Cl. 206—46)

**1** This invention pertains to a packaging arrangement.

The invention is particularly concerned with the packaging of relatively bulky parts, and particularly parts that are difficult to protect in shipment.

In the past, airframe parts with which the present invention is particularly usable, were packaged by mounting them on cradles contoured to correspond with the surface of the parts. The cradles were fastened to a container and cushioning material was suitably placed to minimize shock and vibration. This method has proven to be expensive and time-consuming. Further, it is somewhat cumbersome and undesirably heavy.

Accordingly, it is an object of this invention to provide a packaging arrangement in which the part is suspended in the container.

It is another object of this invention to provide an arrangement for quickly and easily packaging parts which are susceptible to damage in shipment.

It is still another object of this invention to provide packaging means for suspending a part in a container in such a manner that it is supported in all positions of the container.

It is a further object of this invention to provide an arrangement whereby shocks received by the container will not damage parts carried thereby.

It is yet another object of this invention to so support an item in a container that it has no point of contact with the container.

Further objects of invention will become apparent from the following description taken in connection with the accompanying drawings, in which

Fig. 1 is an exploded isometric view of an embodiment of the invention; and

Fig. 2 is a cross section along the line 2—2 of Fig. 1.

Referring to the drawing, there is shown a container 1 made up in any suitable manner to correspond generally to the part carried thereby. This part, in the preferred embodiment of the invention is an airplane elevator or assembly 2.

In carrying out the invention, the ends of the elevator assembly are encompassed by a pair of hood or bag-like members 3 and 4. These are preferably contoured to the shape of the elevator or member so as to closely encompass the same. The bag-like members are made of any desired material such as canvas or the like. Obviously,

**2** material of suitable characteristics may be selected for particular items to be packaged.

Suitably attached to each of the bag-like members are a plurality of straps for supporting the part in the container. Straps 5 and 6 are attached to the upper portion of bag 3, and straps 7 and 8 are attached to the lower part thereof. Straps 9 and 10 are attached to straps 5 and 6, as well as to the bag. A pair of straps similar to 9 and 10 (not shown) are attached to lower straps 7 and 8. Similarly, bag 4 is provided with a pair of upper straps 11 and 12, lower straps 13 and 14, transversely extending upper straps 16 and 17, and lower straps 18 and 19.

These straps are made of any suitable material, but preferably are made of heavy canvas in which the longitudinal edges of the straps are cut on a bias with respect to the warp and woof of the threads of the cloth. This arrangement provides additional resilience in protecting the packaged item against damage.

Upper straps 11 and 12 are suitably attached to the lower part of the container at points 20 and 21 as shown in Fig. 2, whereas lower straps 13 and 14 are attached to the upper part of the container at 22 and 23. Transversely extending straps 9 and 10 of bag 3, their corresponding lower straps (not shown), and straps 16, 17, 18, and 19, of bag 4, are attached centrally intermediate the ends of the container and prevent part 2 from moving longitudinally of the container. The remaining straps support part 2 and while permitting some slight movement of the part with respect to the container to absorb shocks in the event the container is dropped, nevertheless, effectively prevent the part from contacting the container.

This arrangement saves much time, labor and materials as compared with any other packaging arrangement presently used or known to applicant, effectively prevents damage of the parts when roughly handled, and enables the bags and container, if so desired, to be re-used.

Although a preferred embodiment of the invention has been shown and described, it is to be understood that the supporting bags may take many forms, and the straps may be applied thereto at desired angles to support the weight of the parts carried thereby and to avoid shocks from being transmitted from the container to the part.

Although the invention has been described and illustrated in detail, it is to be clearly understood that the same is by way of illustration and example only and is not to be taken by way of limitation, the spirit and scope of this invention

being limited only by the terms of the appended claim.

We claim:

A packaging arrangement comprising a supporting casing and at least two hood members, said hood members encompassing opposite ends of a part to be supported in said casing, each hood member being provided with strap means for attachment to said casing, said strap means including straps integral with and extending laterally across the upper portion of said hood member and attached to the lower portion of said casing, and straps integral with and extending laterally across the lower portion of said hood member and attached to the upper portion of said casing thereby providing vertical and lateral support for said part for all positions of said casing, and including longitudinal straps integral with the upper portion and longitudinal straps integral with the bottom portion of said hood member, said longitudinal straps being disposed at substantially right angles to said lat-

erally extending straps, extending inwardly from said hood member and attached to said casing at the central portion thereof thereby providing longitudinal support for said part for all positions of said casing.

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