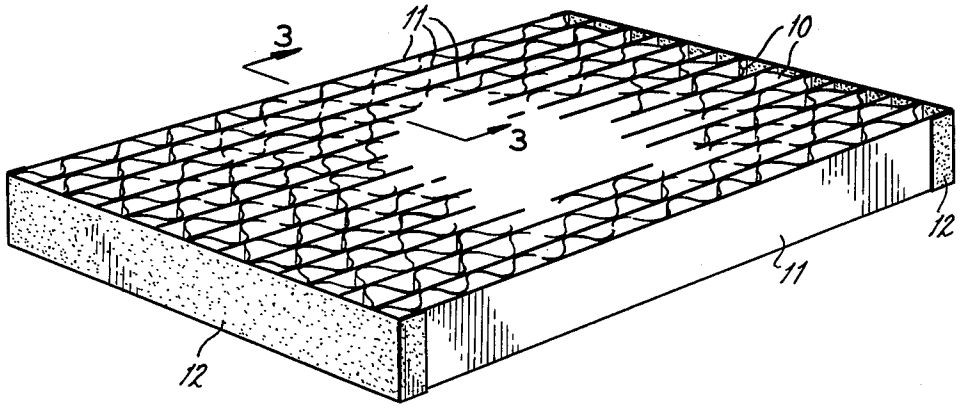
July 5, 1966 F. A. ASCOLI ET AL 3,258,854

FIBREBOARD TRAYS

Filed June 25, 1962

FIG. 1.



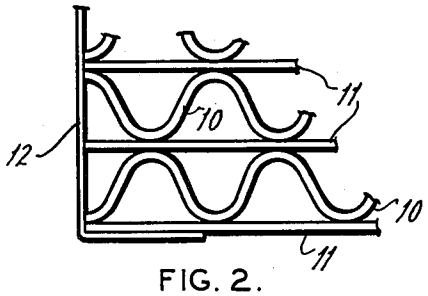




FIG. 2.

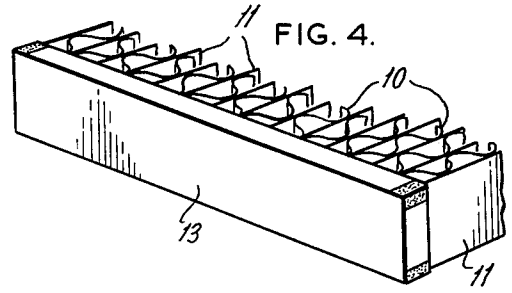



FIG. 4.

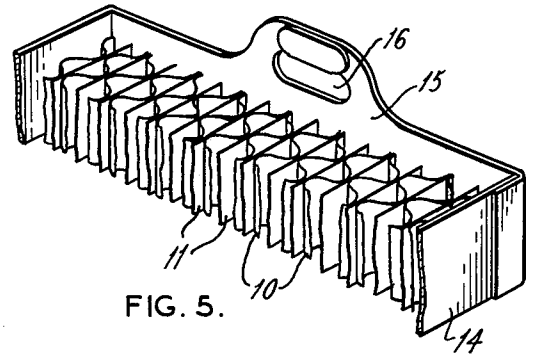



FIG. 5.

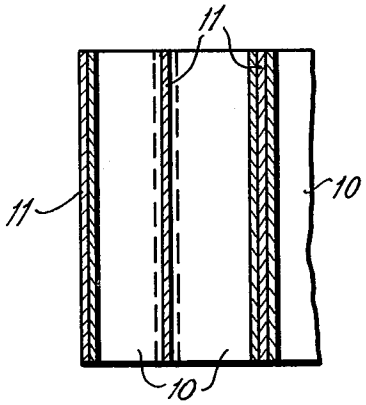



FIG. 3.


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# FIBREBOARD TRAYS

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1 Claim. (Cl. 34—237)

The present invention appertains to fibreboard trays in general and more particularly to a lightweight disposable tray for supporting a number of small articles while permitting a maximum flow of air around the supported articles.

In the past, particularly in the field of spray painting, it has been the practice to use relatively heavy metal wire trays or grates to support a number of small articles to be painted. These articles would be laid out on the trays or grates and then sprayed. The trays would then be attached to a conveyor means and transported through an oven for rapid drying. As the trays emerged from the oven the trays would be removed from the conveyor and the painted articles removed from the trays.

While these metal trays serve their purpose, they have certain inherent disadvantages in that (1) their initial cost is high (2) they are relatively heavy and awkward to handle, (3) they retain the heat of the drying oven requiring special equipment for handling, (4) after periods of use it becomes necessary to clean the trays of the accumulation of paint by burning or expensive chemical means, necessitating replacement after about one year's continuous use, and (5) a freshly cleaned metal tray presents a very smooth surface which may allow the supported articles to slide together, causing an unsatisfactory finished product.

It is therefore a primary object of the subject invention to provide an inexpensive, lightweight, fibreboard tray comprising a series of lined vertical oversized corrugated flutes that can be economically disposed of when it has served its useful purpose.

Another object of the invention is to provide a paint tray that will not retain the heat of the drying oven, and can be easily moved by hand.

A further object of the invention is to provide a paint tray, whose initial low cost makes it economically feasible to replace the tray rather than having to periodically clean used trays by expensive and time consuming methods.

A still further object of the invention is to provide a paint tray that will allow the maximum flow of air to circulate around the painted articles thereon, with the least amount of shifting of those articles.

These and other objects and advantages of the present invention will become apparent after reading the following detailed specification in conjunction with the accompanying drawing of a preferred embodiment of the invention wherein:

FIG. 1 is a perspective view of a preferred embodiment of the invention;

FIG. 2 is a fragmentary plan view;

FIG. 3 is an enlarged cross-sectional view of the tray shown in FIG. 1 along line 3—3;

FIG. 4 is a sectional perspective view of a modified end-wall cover;

FIG. 5 is a section perspective view of a modified embodiment of the invention.

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Referring to FIG. 1, a series of fibreboard corrugated strips **10**, with intervening liners **11**, are secured in face to face relation, with the corrugations being vertical. In the preferred embodiment, the size of the corrugations is larger than the standard "A" flute, however, the standard "A," "B" or "C" flutes could be used if very small articles were to be painted. For economy reasons, a single liner for each strip is desirable, rather than double liners. Since these trays are subjected to the heat of drying ovens, the fibreboard from which they are constructed is treated by any of several well known means, to make it fire proof.

After a number of these strips of single face corrugated board have been joined together, a length of tape **12**, as shown in FIGS. 1 and 2 may be placed around the ends of the tray or a fibreboard cap **13**, as shown in FIG. 4, may be used as an end wall, as a substitute for the tape **12**, to provide a smooth end wall surface.

FIG. 2 is an enlarged segment of the tray shown in FIG. 1 showing the relation of the corrugated flutes **10** and the single face liners **11**. In FIG. 3 it can be seen that the flutes **10**, liners **11**, extend to the full depth of the tray.

In FIG. 5, a modified embodiment of the invention is shown, with a tray having raised side walls **14** and raised end walls **15** with opening **16** therein for use as handholes or to receive hooks for attachment to an overhead conveyor.

Articles that are to be painted, are placed at spaced intervals on the upper surface of the tray, as shown in FIG. 1. The tray containing the articles is placed on a conveyor and transported to a spraying area where the articles are painted while remaining in place on the tray. The tray is then transported through a drying oven by the same conveyor means. Upon emerging from the oven the tray may be removed from the conveyor or the articles removed from the tray and the painting cycle repeated with new articles to be painted.

The fact that the tray is repeatedly coated with paint is an advantage, since these layers of paint add to the strength of the tray structure. The only factor to be considered in the tray's useful life is the number of paintings required to fill the open areas of the flutes. When this occurs, the tray is discarded and replaced with a new one. Since the heat of the oven drys the paint on the tray as well as the paint on the supported article, the same tray may be used for a different color on each cycle.

While certain representative embodiments and details have been shown for the purpose of illustrating the invention, it will be apparent to those skilled in this art that various changes and modifications may be made therein without departing from the spirit or scope of the invention.

Having thus described our invention, we claim:

A disposable fibreboard tray for supporting freshly painted articles for drying, comprising fibreboard sheet material forming vertical side and end walls enclosing a perforated block-like support member, said member having planar parallel top and bottom surfaces, and comprising alternate strips of corrugated fibreboard and single face liners secured together with the flutes in said corrugated strips extending vertically and providing air passages and drain openings through said member, the upper edges of said side and end walls extending

slightly above the plane of the upper surface of said member, and said end walls having hand receiving openings in the upwardly extending portions whereby said tray and an article supported therein may be manually lifted.


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