Dec. 9, 1952 F. E. HITE 2,620,862

VENTILATED SLIP PAD

Filed Oct. 23, 1947

FIG. 1.

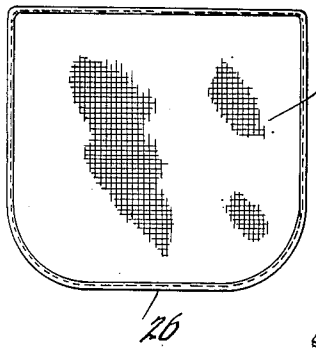


FIG. 3.

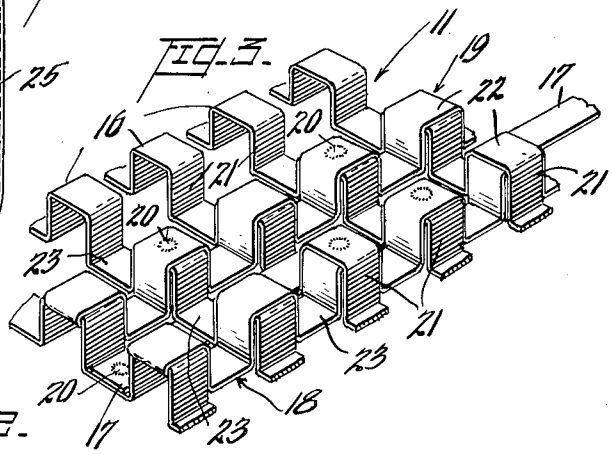


FIG. 2.

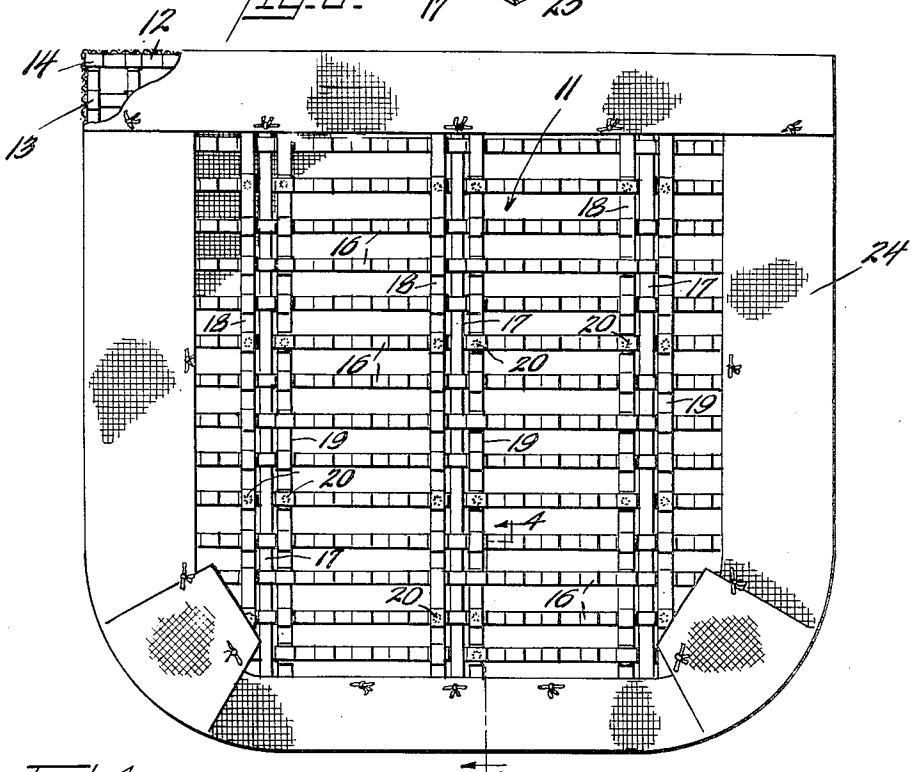
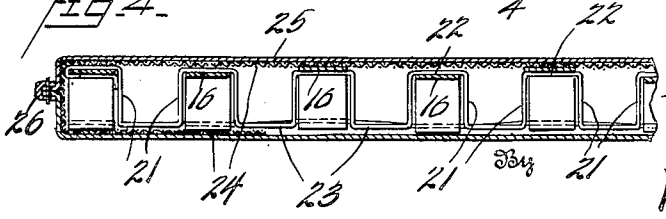


FIG. 4.



Inventor

Frank Edward Hite

By

Hall & Houghton

ATTORNEYS

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VENTILATED SLIP PAD

Frank Edward Hite, Chattanooga, Tenn.

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5 Claims. (Cl. 155—182)

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This invention relates to slip pads or cushions, and is more particularly concerned with such an article which permits free air flow therethrough in various directions.

One of the uses of such a pad or cushion is to permit the circulation of air between a person's body and a seat or back support upon which the body is resting. The pad or cushion acts as a spacing means through which air may circulate, and it is useful in many places such as in automobiles and other vehicles, ordinary chairs, lounges, or any other place adapted to support a human body.

In devices of this kind it is very difficult to obtain a type of construction which meets the necessary requirements. The device must be capable of supporting the weight of a body without being crushed, and at the same time it must be resiliently yieldable to substantially the same extent as the seat or back support upon which it is placed so as to conform to the body contours. These objects are fully attained by this invention and the construction employed is simple and easy to carry out.

In general this invention comprises a filler formed of an open matrix having top and bottom projections. These projections are preferably flat so as to form a positive area of support. The filler is covered with an open mesh material and a final cloth or other suitable material to permit free access of air.

This invention is described more fully hereinafter and an embodiment thereof is illustrated in the accompanying drawing from which further objects and advantages will be apparent.

In the drawing:

Fig. 1 is a top plan view.

Fig. 2 is an enlarged bottom plan view with the outer covering removed.

Fig. 3 is an isometric view of a fragmentary portion of the filler assembly.

Fig. 4 is a section along the lines 4—4 of Fig. 2 with the outer cloth cover added.

Referring with more particularity to the embodiment illustrated in the drawing, the filler 11 is formed almost entirely of corrugated bands of stiff resilient material, such as iron, steel, aluminum alloy, phosphor-bronze, etc., the corrugations being such as to form a series of alternating U's and inverted U's, the tops and bottoms being preferably flat to provide a plurality of supporting areas. One such strip 12 extends across the front of the device and another strip 13 extends around the sides and back. These two strips are secured together at their connecting ends 14 to form a border frame and at intervals between

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the front and back there is similarly secured a plurality of similar corrugated strips 16. In the longitudinal direction at several points (three shown) there is disposed a group of bracing bands comprising an uncorrugated band 17 and two corrugated bands 18 and 19 on either side of the band 17. These bands are woven through the transverse strips 16 or disposed in some other suitable fashion and act to hold the transverse strips in spaced relation with respect to each other. At suitable random points, such as at 20, the interwoven strips may be secured together by spot welding or any other suitable means. At their ends the strips 18 and 19 may be bent around the transverse strip to hold them together.

The corrugations of the bands in this type of construction provide a plurality of vertical supporting legs 21 throughout the entire area of the device, and also a plurality of top bearing surfaces 22 and bottom bearing surfaces 23, at the same time permitting the assembly to be resiliently flexed.

The assembly may be covered in any suitable material. It is preferred, however, first to cover it with a wire or plastic cloth or netting 24, having sufficient stiffness to provide a smooth surface on top and rounded edges about the filler assembly thereby protecting the final cloth covering 25 which is preferably of a coarse mesh cloth to permit air to enter the device from all points. The covering 25 may be provided with the usual edge binding 26 which may be sewed, stitched, or otherwise placed thereon.

Having thus described my invention, I claim:

1. A ventilated portable seat pad which, with reference to the plane of the pad considered as horizontal, comprises a foundation of vertically corrugated ribbon-like bands framing the sides and ends of the pad and having two series of spaced parallel vertically corrugated bands arranged transversely of each other and extending between and connected to said side framing members and said end framing members, respectively, a cover of stiff open mesh material over said foundation, and an outer cover of fabric over said open-mesh material, and in which said two series of corrugated bands have substantially flat top and bottom portions and are assembled with at least some of said flat portions in superimposed relation, and are secured together at at least some of said superimposed portions.

2. A ventilated portable seat pad according to claim 1, said secured-together superimposed flat portions being spot-welded together.

3. A ventilated portable seat pad according to

claim 1, in which at least some of the superimposed flat portions of said vertically corrugated bands of said two series are interwoven with each other.

4. A ventilated portable seat pad which, with reference to the plane of the pad considered as horizontal, comprises a foundation of vertically corrugated ribbon-like bands framing the sides and ends of the pad and having two series of spaced parallel vertically corrugated bands arranged transversely of each other and extending between and connected to said side framing members and said end framing members, respectively, a cover of stiff open mesh material over said foundation, and an outer cover of fabric over said open-mesh material, and in which said foundation further comprises flat bands interconnecting certain of said vertically corrugated bands and aiding in maintaining the shape of said foundation.

5. A ventilated portable seat pad according to claim 1, in which said foundation of vertically corrugated ribbon-like bands forming the sides and ends of the pad comprises one vertically corrugated band forming one of the end framing members, and another vertically corrugated band that is horizontally U-shaped and forms the two side framing members and the other end framing member.

FRANK EDWARD HITE.

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