June 11, 1963 W. R. BLACK ETAL 3,093,096

SIMULATED SLAT BENCH CONSTRUCTION

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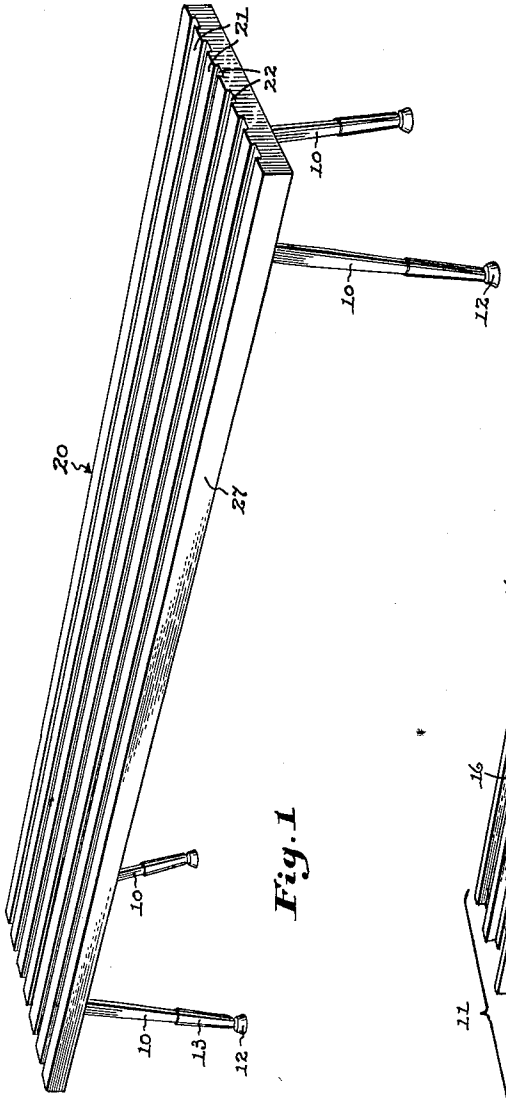


Fig. 1

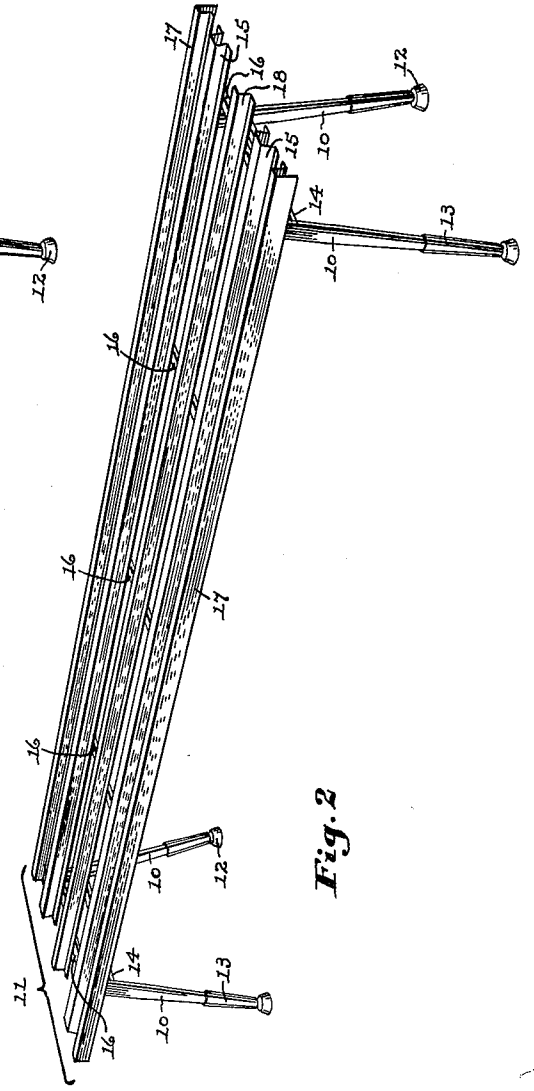


Fig. 2

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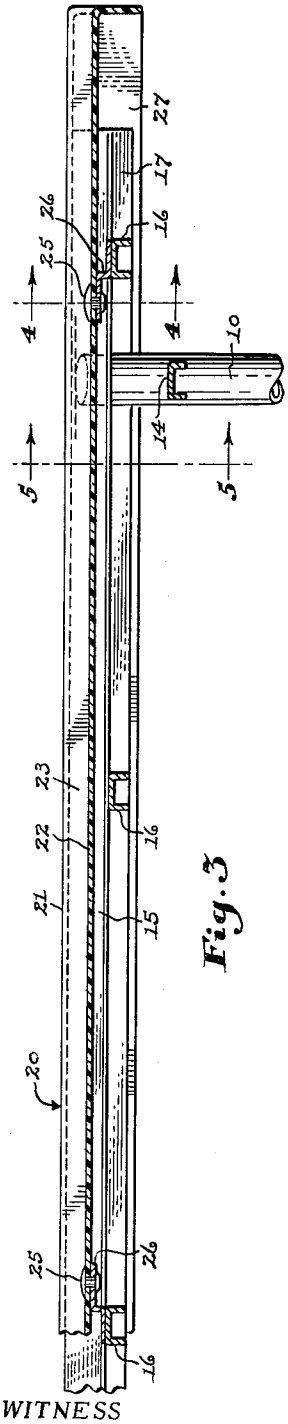


Fig. 3

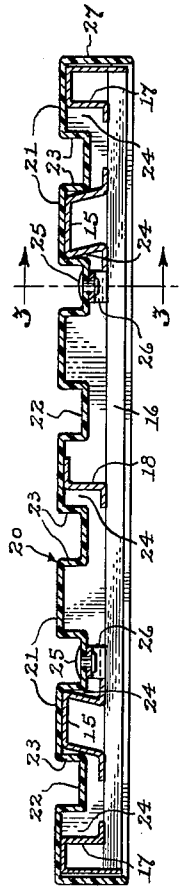


Fig. 4

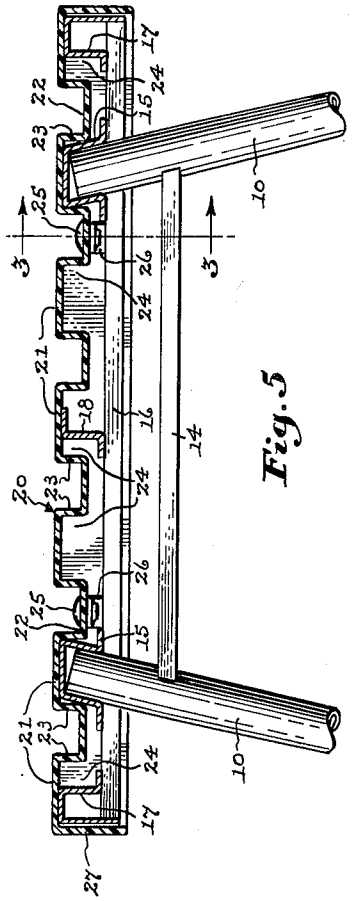


Fig. 5

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SIMULATED SLAT BENCH CONSTRUCTION

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The present invention relates to a simulated slat bench construction.

The objects of the invention are to provide a bench, primarily intended for use in hospital patient rooms but not necessarily limited to such use, which presents the general appearance of a slat bench but which has many advantages over conventional slat benches; to provide such a simulated slat bench having a supporting understructure which is of novel and sturdy metal construction; to provide such a simulated slat bench in which the seat element proper is made of sheet plastic material vacuum formed with ridges in simulation of slats and with channels between the ridges, thus providing a seat which is not only wear-resistant and durable, but one which is also easy to keep clean; and in general to provide a simulated slat bench which is reasonably economical in manufacture, sturdy in construction and attractive in appearance.

An illustrative embodiment of the invention is shown in the accompanying drawing, wherein:

FIGURE 1 is a perspective view of a simulated slat bench constructed according to the invention;

FIGURE 2 is a perspective view of the supporting structure of the bench;

FIGURE 3 is a fragmentary vertical sectional view of parts of the bench, the plane of section being indicated by lines 3—3 of FIGURES 4 and 5;

FIGURE 4 is a vertical sectional view thereof taken on line 4—4 of FIGURE 3; and

FIGURE 5 is a fragmentary vertical sectional view of parts thereof, taken on line 5—5 of FIGURE 3.

Referring now in detail to these drawings, the supporting structure for the new bench generally comprises spaced pairs of upstanding supporting legs 10 and a horizontally disposed, elongated supporting frame generally designated 11 (see FIGURE 2) supported by the legs 10 in elevated position. As shown, the legs 10 are of downwardly tapered tubular metal construction provided with glides 12 at their lower ends and with gaiters 13 which are desirably of polished metal to present a neat and clean appearance. The pairs of legs 10 at opposite ends of the bench are upwardly convergent, and each pair is connected by a horizontally disposed channel bar 14 secured as by welding to the legs near their upper ends.

A pair of inverted channel bars 15, preferably of hat-section as seen in FIGURES 4 and 5, extends longitudinally between the pairs of legs at their upper ends, and each of these channel bars 15 receives and has secured therein as by welding the upper end of a corresponding leg of each pair of legs 10. The side walls of the channel bars 15 are preferably sloped downwardly-outwardly as seen in FIGURE 5, in conformity with the opposite sides of the upper ends of the legs 10.

A plurality of transverse bars 16, here shown as five equidistantly spaced, downwardly-opening channel bars, are secured as by welding to the undersides of the channel bars 15, and these transverse bars 16 project outwardly beyond the channel bars 15 at both sides of the bench. A pair of longitudinally extending outer bars 17, also of downwardly opening channel form, is secured as by welding to the upper sides of the transverse bars 16 at the latters' outer ends. A longitudinal center bar 18, here

shown as of Z-shaped cross-section, is likewise secured as by welding to the upper sides of the transverse bars 16, intermediate the channel bars 15. The five longitudinal bars 15, 17 and 18, which are all parallel and have their upper surfaces in the same plane, constitute the supporting frame 11 for the seat element which is generally designated 20.

The seat element 20 comprises a single, unitary, elongated piece of plastic material, preferably a vacuum-formed plastic sheet of uniform thickness throughout. The seat element is formed to provide longitudinally extending, alternating ridges 21 and channels 22. The tops of the ridges and the bottoms of the channels are flat and are connected by substantially vertical side walls 23, so that the seat element simulates a slat bench. The ridges 21 and channels 22 on the upper surface of the seat element 20 also define longitudinal recesses 24 in the under surface of the seat element, into some of which recesses 24 extend the longitudinal bars 15, 17 and 18 of the supporting frame 11, for supporting the seat element on the frame. The seat element 20 is positively secured to the supporting frame 11 by means of rivets 25 which pass through the bottoms of some of the channels 22 and through the upper arms of Z-clips 26 which are secured as by welding to the transverse bars 16 and which constitute part of the frame 11.

The seat element 20 also has a depending peripheral apron 27 which conceals the supporting frame 11. At the ends of the bench the apron 27 depends from the tops of the ridges 21 and from the bottoms of the channels 22, thus leaving the channels 22 open at the ends of the seat element to facilitate cleaning the bench.

It will thus be seen that the invention provides a sturdy and attractive simulated slat bench of novel and ingenious construction, and while but one specific embodiment thereof has been herein shown and described, it will be understood that numerous details thereof may be altered or omitted without departing from the spirit of the invention as defined by the following claims.

We claim:

1. A simulated slat bench comprising: A supporting structure including an elevated, generally horizontally disposed, elongated supporting frame; and a generally horizontally disposed, elongated seat element mounted on said supporting frame at conventional seat height and formed with longitudinally extending, alternating ridges and channels therein, said ridges simulating the slats of a conventional slat bench.

2. A simulated slat bench according to claim 1 in which the seat element consists of a single unitary piece of plastic material.

3. A simulated slat bench according to claim 1 in which the seat element is vacuum-formed from a single unitary sheet of plastic material.

4. A simulated slat bench according to claim 1 in which the seat element has a depending peripheral apron concealing the elevated, horizontally disposed supporting frame.

5. A simulated slat bench according to claim 4 in which the seat element consists of a single unitary piece of plastic material.

6. A simulated slat bench according to claim 1 in which the tops of the ridges and the bottoms of the channels are flat and are connected by substantially vertical walls.

7. A simulated slat bench according to claim 6 in which the seat element is secured to the supporting frame by fastening means passing through the bottoms of the channels and through parts of the supporting frame.

8. A simulated slat bench comprising: a supporting structure including an elevated, generally horizontally

disposed, elongated supporting frame; and a generally horizontally disposed, elongated seat element mounted on said supporting frame at conventional seat height and formed with longitudinally extending, alternating ridges and channels therein and with a depending peripheral apron concealing the elevated, horizontally disposed supporting frame, the tops of said ridges and the bottoms of said channels being flat and being connected by substantially vertical walls so that the ridges simulate the slats of a conventional slat bench, said seat element consisting of a single unitary piece of plastic material.

9. A bench comprising: spaced pairs of upstanding tubular metal supporting legs; a horizontal bar connecting each pair of legs; a pair of inverted channel bars extending longitudinally between the pairs of legs at their upper ends, each channel bar receiving and having secured therein the upper end of a corresponding leg of each pair, and said inverted channel bars constituting a generally horizontally disposed, elongated supporting frame; and a generally horizontally disposed, elongated seat element mounted on said supporting frame.

10. A bench according to claim 9 in which the legs of each pair are upwardly convergent and in which the side walls of the inverted channel bars slope downwardly-outwardly in conformity with the opposite sides of the upper ends of said tubular metal supporting legs.

11. A bench according to claim 9 in which a plurality of transverse bars is secured to the undersides of the channel bars, said transverse bars projecting outwardly beyond said channel bars at both sides of the bench; a pair of longitudinal outer bars secured to the upper sides of the transverse bars at the latters' outer ends, said outer bars being disposed in parallelism with the channel bars and additionally constituting the generally horizontally disposed, elongated supporting frame.

12. A bench according to claim 11 in which a longitudinal center bar is secured to the upper sides of the transverse bars intermediate and in parallelism with said channel bars, said center bar additionally constituting the generally horizontally disposed, elongated supporting frame.

13. A simulated slat bench comprising: a supporting structure including an elevated generally horizontally disposed, elongated supporting frame comprising a plurality of spaced, longitudinal parallel bars; and a generally horizontally disposed, elongated seat element mounted on said supporting frame at conventional seat height, said seat element consisting of a single, unitary piece of material of substantially uniform thickness throughout, said material being so formed as to provide longitudinal, alternating ridges and channels on the upper surface thereof which define longitudinal recesses in the under surface of the seat element into which extend said longitudinal bars for the support of said seat element, and said ridges simulating the slats of a conventional slat bench.

14. A simulated slat bench according to claim 13 in which the seat element consists of a single unitary piece of plastic material.

15. A simulated slat bench according to claim 14 in which the seat element also includes a depending peripheral apron which conceals the elevated, horizontally disposed supporting frame.

16. A simulated slat bench according to claim 14 in which the longitudinal recesses in the under surface of the seat element are bounded by flat upper surfaces and substantially vertical side walls and in which the longitudinal bars of the supporting frame are of inverted channel form fitting into said recesses.

17. A seat element for a simulated slat bench of conventional seat height comprising a single unitary elongated piece of plastic material formed to provide longitudinally extending, alternating ridges and channels, the tops of the ridges and the bottoms of the channels being flat and being connected by substantially vertical side walls so that the ridges simulate the slats of a conventional slat bench.

18. A seat element according to claim 17 formed with a depending peripheral apron.

19. A seat element for a simulated slat bench or the like comprising a single unitary elongated piece of plastic material formed to provide longitudinally extending, alternating ridges and channels, the tops of the ridges and the bottoms of the channels being flat and being connected by substantially vertical side walls so that the ridges simulate the slats of a conventional slat bench, said seat element being formed with a depending peripheral apron which at the ends of the seat element deepends from the tops of the ridges and from the bottoms of the channels thus leaving the channels open at the ends of the seat element

20. A seat element according to claim 19 comprising a vacuum-formed sheet of plastic material.

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