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MATTRESS

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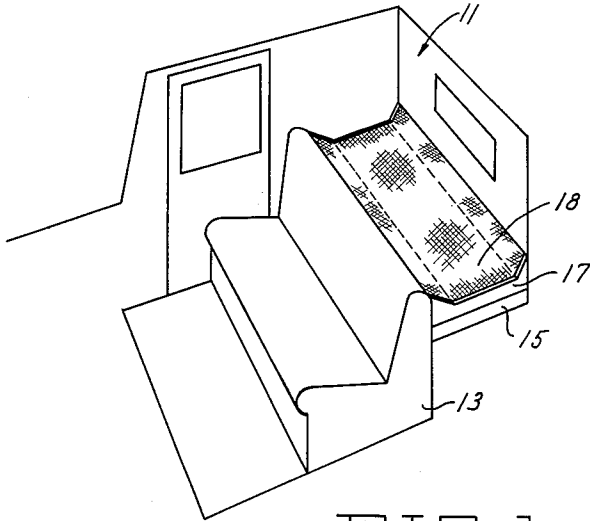


FIG. 1.

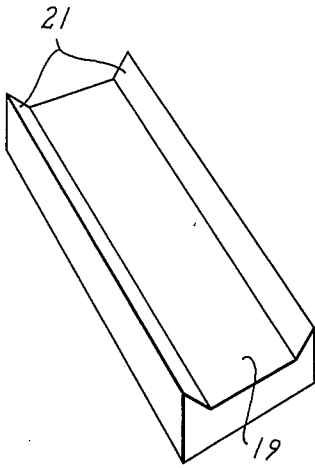


FIG. 2.

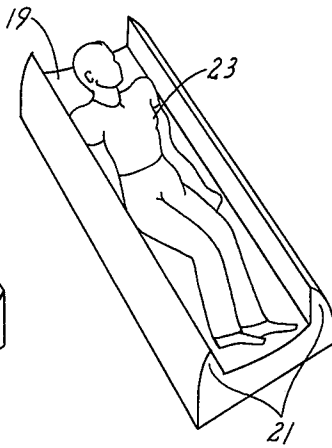


FIG. 3.

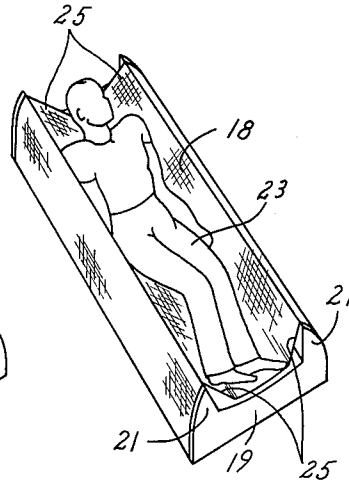


FIG. 4.

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1 Claim. (Cl. 5—345)

This invention relates generally to mattresses and more particularly to mattresses for use in trucks and other moving vehicles where the occupant lies with his head and feet on an athwartship line.

It is well known that in long distance trucking alternate drivers sleep in a suitable compartment, for example the compartment may be behind the driver's seat. Since the sleeper ordinarily lies with his head and feet on an athwartship line, he is particularly subject to forces developed by the fore and aft acceleration and deceleration of the truck. These forces have a tendency to roll the sleeper and in some instances have a tendency to roll the sleeper completely off the ledge.

A mattress is ordinarily placed in this compartment and is secured, as for example, by attaching it to the back of the truck seat. These attaching devices are particularly uncomfortable when the sleeper is rolled onto them as often occurs due to the acceleration and deceleration forces. In addition, the amount of room available for the sleeper is relatively small and consequently the mattress or pad is usually thin resulting in poor cushioning of the occupant.

It is a general object of the present invention to provide an improved mattress.

It is a more particular object of this invention to provide an improved mattress for use in trucks and the like.

It is a further object of this invention to provide a mattress which includes improved comfort in a restricted space.

It is still another object of this invention to provide a mattress having the aforementioned characteristics wherein means are provided for comfortably impeding the fore and aft motion of the occupant caused by acceleration and deceleration of the vehicle itself.

These objects and others are generally accomplished in the present invention by employing a mattress having wedge shaped longitudinal edges. A mattress cover cooperates with the wedge shaped longitudinal portions of the mattress, to increase the cushioning.

The aforementioned objects may be clearly understood from the following description taken in conjunction with the accompanying drawing, in which:

FIGURE 1 is a perspective view of a truck cab showing a mattress in accordance with this invention;

FIGURE 2 is a perspective view of a mattress in accordance with this invention without a cover;

FIGURE 3 is a perspective view of a mattress in accordance with this invention showing the action of the wedge shaped edges; and

FIGURE 4 is a perspective view of a covered mattress showing the cooperation of the wedged edges and the mattress cover.

Referring particularly to FIGURE 1, a truck cab 11 having a driver's seat 13 and a ledge 15 is schematically illustrated. A mattress 17, preferably covered with a cover 18, is disposed on the ledge 15.

The shape of the mattress is more clearly shown in FIGURE 2. It includes an elongated slab or body portion 19. Along the upper longitudinal edges of the slab 19 wedge shaped portions 21 are disposed. The wedge

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shaped portions and the slab 19 may be formed integrally with each other and may be made of any suitable resilient material such as for instance, urethane foam (polyurethane polyether).

Referring to FIGURE 3, a man 23 is shown reposing. When a weight such as a man is located on the surface the side portions deform to permit deflection of the center of the mattress. The tips of the wedges are more flexible than the slab or body alone thus permitting more deflection in the center than in a similar mattress without the longitudinal wedges. This can be explained by considering the top surface of the body or slab as a stretched membrane which is deflected by the weight. Without the wedged edges the forces maintaining the membrane taut are relatively high. With flexible wedges present they tend to bend or flex to give rather low restraining forces thereby providing better cushioning.

Referring to FIGURE 4, a mattress having a cover 18 is shown in use. It should be realized that when a flat resilient form such as a mattress body is covered by material such as cotton mattress ticking, the depression caused by a person resting on the mattress is retarded due to the ticking itself. The ticking is relatively inflexible and tends to maintain a constant overall periphery about the mattress. Thus, in order to fit into the depression, a covering about a flat mattress must curl the sides to equalize a total overall periphery. Since the sides of a flat mattress resist this curling action, the result is a general stiffening effect due to the use of the mattress cover.

However, in the embodiment shown in FIGURE 4 the mattress cover normally lies in relatively close contact with the mattress until a weight, such as a person is placed on the mattress. The weight of the person causes the wedges 21 to be deflected and the mattress cover spans from the weight to the deformed tip of the wedge as at 25.

Thus, it is seen that an improved mattress is provided in which longitudinal shoulders are incorporated along the edge to more closely conform to the body of the occupant thereby providing greater support and comfort. The wedges also tend to protect the occupant from protrusions. The shape of the mattress has special advantages, particularly when considered in conjunction with the mattress cover, wherein deformation of the mattress is not retarded by a curling tendency.

I claim:

A mattress comprising a relatively flat elongated body portion having upper and lower spaced surfaces and longitudinal side edges, an elongated wedge-shaped portion extending along the entire length of each of said side edges, the edge of said wedge extending upwardly with one surface of the wedge merging with the upper surface of the body to define therewith a continuous upper surface, and a cover loosely cooperating with the upper surface of said mattress and extending over the edge of said wedge, said cover forming a membrane which is supported by the continuous upper surface and the edge of the wedge, when said cover is deflected by an object disposed on the same, the edge of said wedge cooperates with the cover to provide a restraining force which is less than the force which would exist in the absence of wedges cooperating with the cover.

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