July 15, 1930. D. E. HENNESSY 1,770,614

RESILIENT FLOOR PLATFORM

Filed Jan. 18, 1927

Fig. 1.

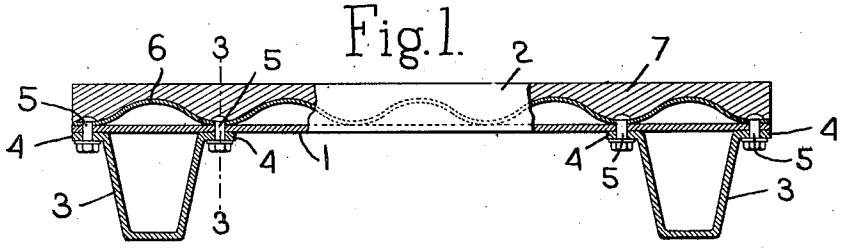


Fig. 2.

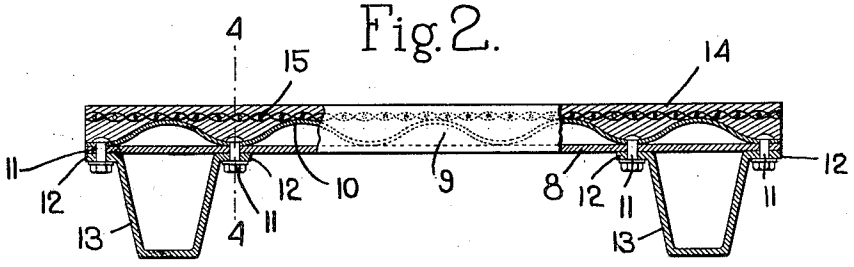


Fig. 3.

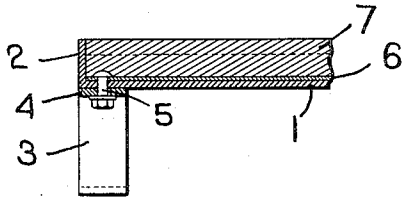
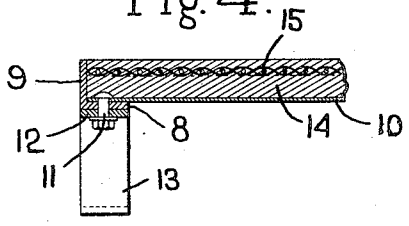


Fig. 4.



Inventor

Daniel E. Hennessy

by Heard Smith & Tennant.

Attys.

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UNITED STATES PATENT OFFICE

DANIEL E. HENNESSY, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO LEWIS-SHEPARD COMPANY, OF WATERTOWN, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

RESILIENT FLOOR PLATFORM

Application filed January 18, 1927. Serial No. 161,857.

This invention relates to improvements in portable industrial platforms of the types which are transported from place to place by elevating trucks, and the object thereof is to provide a platform of this character having a floor composed of yieldable material which will cushion the shocks upon delicate articles deposited upon it and also will provide sufficient resilience to avoid abrasion or injury to articles, during their transportation, which might be caused by the vibration or jar of the truck in passing over a rough or uneven floor.

The invention is particularly designed to support delicate articles such as freshly made blocks of concrete or other articles which are easily subject to breakage or articles having carefully finished surfaces which might be easily damaged by contact with the hard floors of usual types of platforms.

The object of the invention broadly stated is to provide a portable platform having a floor comprising a body of yieldable plastic material provided with a suitable backing of sufficient rigidity properly to support the body of plastic material and the articles deposited upon it and adapted to properly resist the distribution of forces transmitted through the yieldable material.

A further object of the invention is to provide a platform of such construction in which the backing is so formed as to resist the spreading out or displacement of the yieldable material.

A further object of the invention is to provide a platform of this character which can be readily and economically constructed. Other objects and features of the invention will more fully appear from the following description and the accompanying drawings and will be particularly pointed out in the claims:

Preferred embodiments of the invention are illustrated in the accompanying drawings in which:

Fig. 1 is a side elevation partly in vertical section of a platform embodying the invention;

Fig. 2 is a similar view of the modified form of platform;

Fig. 3 is a detail view in vertical section on line 3—3 Fig. 1; and

Fig. 4 is a detail view in vertical section on line 4—4 Fig. 2.

The platform illustrated in Fig. 1 comprises a frame formed of a flat plate 1 of sheet metal of suitable thickness having upwardly turned flanges 2 at its sides of sufficient height to receive a body of yieldable plastic material adapted to form the floor of the platform, and to provide a cushioned base for the articles or materials which are deposited upon it.

The platform desirably is provided at or near its corners with U-shape legs 3 the vertical members of which are provided with horizontal flanges 4 to engage the under face of the frame 1. The flanges 4 are secured to the frame 1 by suitable bolts 5 which pass through the plate 1 and flanges 4. A reinforcing plate 6 of corrugated sheet metal is superimposed upon the plate 1 with its corrugations preferably extending transversely of the frame, that is to say the ends of the corrugations are adjacent to or engage the flanges 2. The lower crests of the corrugations of this plate rest upon frame 1 and the upper crests of the corrugations lie a considerable distance below the plane of the upper edges of the flanges 2.

A floor 7 of yieldable plastic material such as rubber, rubber composition, rubber concrete, or other suitable resilient and preferably heat resistant material is superimposed upon the corrugated reinforcing plate and the upper surface thereof desirably is formed flush with the edges of the flanges 2 to present a flat floor surface. The corrugated reinforcing plate 6 is desirably secured to the frame 1 by the bolts 5 which secure the flanges of the legs thereto, and other bolts may also be provided to secure the corrugated sheet to the frame if desired. The corrugated reinforcing plate 6 when thus secured to the frame 1 not only serves to strengthen the frame but the corrugations thereof present mainly inclined surfaces through which the components of force transmitted by the weight of the article through the resilient material act more or less in the longitudinal direction of the plat-

form and thereby distribute the weight over relatively large areas of the corrugated surface thus avoiding to a considerable extent the direct downward pressure of the weight upon the surface directly beneath the same which would occur in the absence of the corrugated reinforcing sheet.

In Figs. 2 and 4 a modified construction is shown in which the frame instead of being in the form of a plate having side flanges is in the form of two side frames formed of angle bars to which the legs of the platform are connected. In this construction also strengthening members imbedded in the plastic material of the floor may be employed further to strengthen the construction.

As illustrated in Figs. 2 and 4 the side frames comprise angle bars having horizontal flanges 8 and vertical flanges 9. A corrugated plate 10 of the character above-described is mounted upon the lower flanges 8 with the ends of the corrugation resting thereupon. The corrugated plate 10 is secured at its ends to the lower flanges 8 of the side frames by bolts 11 which desirably also pass through the horizontal flanges 12 of the U-shaped legs 13. In this construction the upper crests of the corrugated plate lie well below the plane of the upper edges of the vertical flanges 9. A floor 14 of yieldable plastic composition is superimposed upon the corrugated plate 10 in the manner above described in respect to Fig. 1 and acts in a similar manner to provide a cushion for the articles or materials which are placed upon the platform. Desirably but not necessarily other reinforcing means are provided for strengthening the platform and for preventing displacement of the yieldable material forming the floor of the platform. As illustrated herein such reinforcing means comprises a reticulated sheet such as a sheet of wire mesh 15, in which the wires may be of any desired size, which is imbedded within the body of the resilient material forming the floor of the platform and which desirably rests upon the upper crests of the corrugations of the sheet 10. It will be readily understood that other reinforcing means may be provided. Platforms constructed in accordance with the present invention are fireproof. Heat resistant compositions may be used to enable the platforms to carry hot articles and machines as well as fragile articles, compositions and the like.

It will also be understood that the particular embodiments of the invention disclosed herein are of a restrictive character and that various changes in the form of construction and arrangement of parts may be made within the scope of the following claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is:

1. A portable industrial platform comprising side frames formed of angle bars having legs secured to said angle bars, and having a floor comprising a rigid metal sheet carried by the horizontal flanges of said angle irons and a thick body of resilient plastic material resting on said sheet presenting a yieldable article-supporting face substantially flush with the upper edges of the vertical flanges of said angle bars.

2. A portable industrial platform comprising side frames formed of angle bars, and having legs secured to said angle bars, a sheet of corrugated metal mounted upon the horizontal flanges upon said angle bars with the corrugations thereof extending transversely of said side frames, and a thick body of resilient plastic material carried by said corrugated sheet presenting a flat yieldable upper surface, and a lower surface conforming to and resting upon said corrugated sheet.

3. A portable industrial platform comprising a frame having upwardly extending side flanges extending throughout the length of the platform, a sheet of corrugated material carried by said frame having its corrugation extending transversely of the length of the platform with the crests of the corrugations below the level of the edges of the flanges, and a floor comprising a body of resilient plastic material carried by said corrugated sheet and presenting a flat yieldable upper surface flush with the upper edges of said flanges.

4. A portable industrial platform comprising side frames formed of angle bars having legs secured to the lower flanges thereof and plate of corrugated sheet metal having its ends resting upon the horizontal flanges of said side frames and secured thereto, the crests of the corrugation lying in a plane below the plane of the upper edges of the vertical flanges of the side frames, and a floor comprising a body of resilient plastic material carried by said corrugated plate presenting a yieldable upper face substantially flush with the upper edges of said vertical flanges.

5. A portable industrial platform comprising side frames formed of angle bars having legs secured to the lower flanges thereof and a plate of corrugated sheet metal having its ends resting upon the horizontal flanges of said side frames and secured thereto, the crests of the corrugation lying in a plane below the plane of the upper edges of the vertical flanges of the side frames a floor comprising a body of resilient plastic material carried by said corrugated plate presenting a yieldable upper face substantially flush with the upper edges of said vertical flanges and metallic reinforcing means for said plastic material resting upon the crests of the corrugated sheet.

6. A portable industrial platform comprising side frames formed of angle bars

having legs secured to the lower flanges thereof and a plate of corrugated sheet metal having its ends resting upon the horizontal flanges of said side frames and secured thereto, the crests of the corrugation lying in a plane below the plane of the upper edges of the vertical flanges of the side frames, a floor comprising a body of resilient plastic material carried by said corrugated plate presenting a yieldable upper face substantially flush with the upper edges of said vertical flanges, and a reinforcing sheet of reticulated material imbedded in said plastic material and resting upon the crests of the corrugated sheet.

In testimony whereof, I have signed my name to this specification.

DANIEL E. HENNESSY.