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2,659,506

GRAB BLOCK FOR FORK LIFT TRUCKS

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Fig. 1.

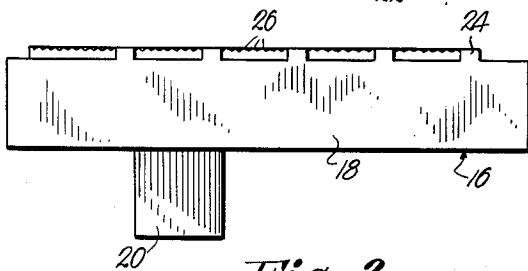
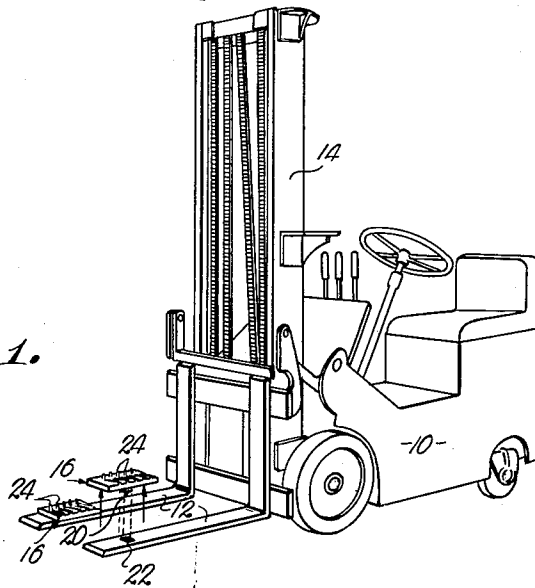


Fig. 2.

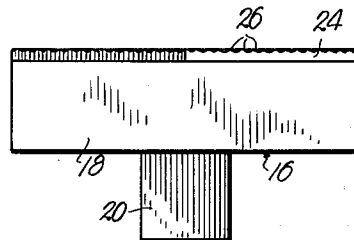


Fig. 3.

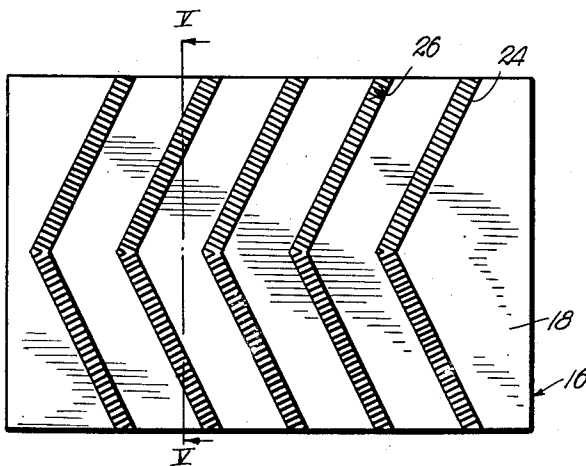


Fig. 4.

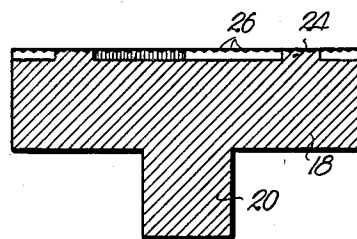


Fig. 5.

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GRAB BLOCK FOR FORK LIFT TRUCKS

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3 Claims. (Cl. 214-750)

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This invention has to do with devices for handling boxes, cartons and other equipment and relates more specifically to industrial lifts commonly employed in warehouses and the like, the primary object being to provide means on the fingers or forks of the lift for facilitating the handling of heavier articles to prevent slippage thereof from the forks.

It is the most important object of the present invention to provide a grab block for the fork of an industrial lift that is adapted for simple removal from the fork when its use is not desired or needed and having means of mounting that is capable of preventing rotation of the block on the fork when placed in use.

Another object of this invention is the provision of a grab block for industrial lifts that comprises a polygonal body adapted to rest flatly on its fork and having a shank depending therefrom that is polygonal in cross-section and received by a complementary perforation of the fork, all for the purpose of pushing or pulling heavy objects within a warehouse or to and from a position loaded for transportation.

Other objects of the present invention include the way in which ribs are provided upon the grab block to prevent slippage; the manner of forming the ribs in the shape of a V to more effectively cause the same to "bite" into boxes and the like; and many other more minor objects, all of which will become clear as the following specification progresses, reference being had to the accompanying drawing, wherein:

Figure 1 is a perspective view of a fork lift truck showing grab blocks made in accordance with my present invention associated therewith.

Fig. 2 is a side elevational view of one of the blocks per se.

Fig. 3 is an end elevational view thereof.

Fig. 4 is a top plan view; and

Fig. 5 is a cross-sectional view taken on line V-V of Fig. 4 looking in the direction of the arrows.

An industrial fork lift truck with which the grab blocks of the present invention are adapted to be used is illustrated in Figure 1 of the drawing and broadly designated by the numeral 10. Those skilled in this art well understand that lifts 10 are mobile and provided with a suitable prime mover for effecting forward movement, together with means for raising and lowering laterally extending fingers or forks 12 on framework 14.

It is quite common practice to utilize pallets in connection with merchandise to be handled by lifts 10 that are in turn provided with sufficient

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space therebeneath to receive the fingers 12. Many times however, such pallets are not available for certain types of articles and it will be appreciated that the grab blocks hereof are adaptable to facilitate handling of the merchandise being stored or made ready for shipment whether or not such pallets are used.

It is contemplated that a grab block be provided for each finger 12 respectively and since the same are identical, only one need be described. Grab blocks 16 comprise a relatively flat, polygonal, preferably imperforate body 16, made from any suitable material capable of withstanding the abuse to which the same will be placed. Many types of metal are suitable for this purpose and in making the blocks 16, a suitable mold may be provided or the block machined to the shape illustrated as desired.

Body 18 is provided with an elongated shank 20 that depends from the normally lowermost face thereof and is preferably integral with body 18. Shank 20 is polygonal in cross-section and adapted to be received by a correspondingly shaped perforation 22 in the fork 12 that is to support the same. The length and width, as well as the thickness of the body 18, may be varied to suit the desires of the user, but in most cases it will be desirable that blocks 16 be narrower and shorter than the forks 12.

It is noted in Fig. 1 of the drawing that the lower faces of the bodies 18 rest flatly upon the uppermost face of the corresponding forks 12 and by virtue of the polygonal cross-sections of the shanks 20 and the perforations 22, bodies 18 cannot rotate on the forks 12 when placed in use. The lengths of the shanks 20 will depend upon the thicknesses of the forks 12 and to this end it is to be preferred that the shanks 20 do not extend below the lowermost face of forks 12.

Body 18 is provided with a plurality of V-shaped ribs 24 on the uppermost face thereof opposite to the shank 20. As illustrated in Figs. 1 and 4 of the drawing, the ribs 24 are arranged much in the manner of the bars of a chevron and are preferably polygonal in cross-section and provided with an uppermost surface that is scored as at 26.

When the blocks 16 are inserted in place upon the forks 12, their use will vary according to the type of merchandise to be handled and the nature of such handling. The merchandise may be pushed by the truck 10, in which case the normally forwardmost edge of the bodies 18 will bear directly against the box, the merchandise itself or a pallet that underlies the same. If a

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cross-member is available on the box or if a pallet is used having cross-bars, then the blocks 16 may also be used to pull the merchandise. In this case, the normally rearmost edge of the body 18 will bear against such cross-bar and the merchandise can be dragged without danger of dislodgment. Occasionally merchandise must be handled that has no effective means thereon that can be engaged for pushing or pulling, in which case the ribs 24 present an anti-slip means for receiving the merchandise and in case of boxes made from wood or like material, a biting action takes place by virtue of scoring 26 to enhance the frictional interengagement between the merchandise being handled and the grab block 16. It is seen further that the blocks 16 may be easily and quickly removed from the forks 12 when their use is not desired, in which case the blocks 16 can be carried by the truck 10 on the operator's platform thereof or in a suitable tool box.

The blocks are inexpensive to manufacture and can be used for a considerable period of time without need for replacement since the chances for damage thereto are slight. Details of construction may of course, vary within the spirit of the present invention, and it is therefore, desired to be limited only by the scope of the appended claims.

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

1. In combination with a perforated fork for an industrial lift truck of a grab block comprising a polygonal body having one face thereof engaging the normally uppermost face of said fork; a shank on said one face of the body extending into

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said perforation; and a number of spaced, substantially V-shaped ribs on the opposite face of the body.

2. In the invention as set forth in claim 1, wherein each of said ribs includes a pair of elongated legs diverging from an apex, and each of said legs is provided with transverse serrations in its normally uppermost surface and disposed perpendicularly to its longitudinal axis.

3. In the invention as set forth in claim 2, wherein said apexes are disposed in alignment along a median axis of said opposite face of the body, corresponding legs of said ribs are parallel, and the legs of each of said ribs extend outwardly to opposite edges of said opposite face of the body, whereby to dispose the legs in traversing relationship to said opposite face of the body with the longitudinal axes of the legs and the serrations in angular relationship with said median axis.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
979,089	Perry	Dec. 20, 1910
1,150,397	Shoemaker	Aug. 17, 1915
1,476,628	McDaniel et al.	Dec. 4, 1923
1,559,827	Wittman	Nov. 3, 1925
1,953,303	Kohlmann	Apr. 3, 1934
2,143,285	Schofield	Jan. 10, 1939
2,190,211	Lavellee	Feb. 13, 1940
2,256,453	Bomar	Sept. 16, 1941
2,362,991	Dahl	Nov. 21, 1944
2,490,772	Benner	Dec. 13, 1949