

Oct. 16, 1945.

J. B. ULM

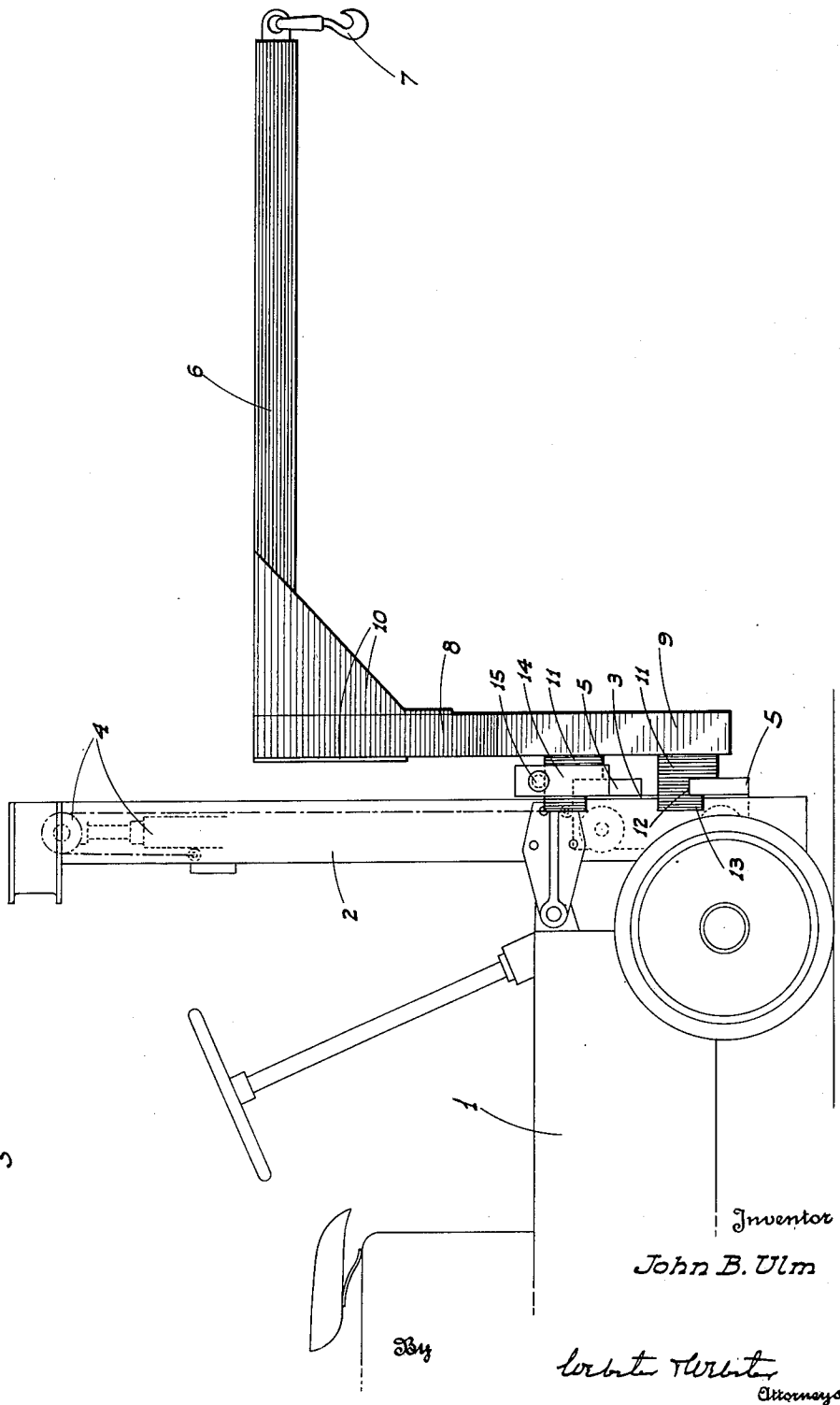
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DETACHABLE BOOM FOR INDUSTRIAL TRUCKS

Filed June 6, 1944

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Fig. 1



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Fig. 2

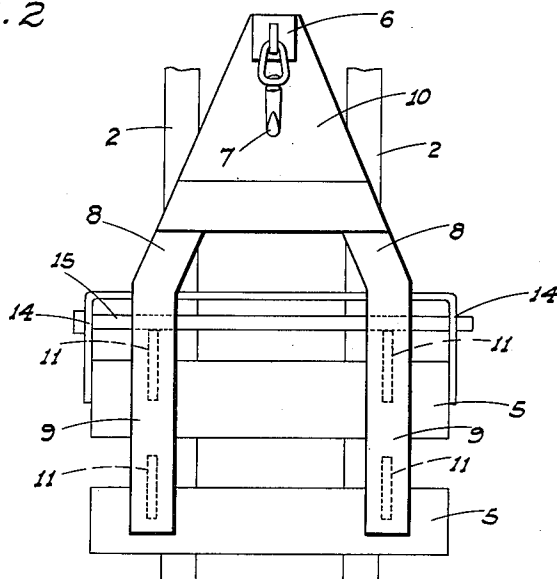
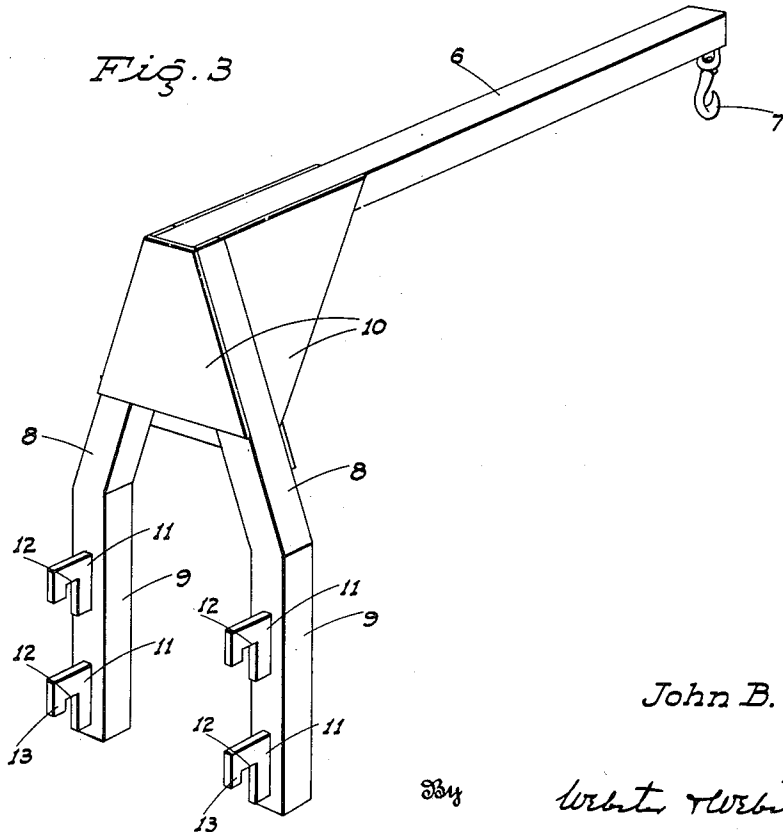


Fig. 3



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DETACHABLE BOOM FOR INDUSTRIAL TRUCKS

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3 Claims. (Cl. 214-65)

This invention relates to industrial trucks of the elevator type, which are extensively used around plant yards, warehouses, and the like, for picking up and shifting heavy boxes, crated goods and the like from one point to another on the premises.

Such trucks are now equipped with a low platform or similar member which must be engaged under the goods before the same are lifted. This frequently slows down operations for obvious reasons.

It is an object of my invention to increase industrial truck efficiency by providing the same with a boom to overhang the goods, and which is mounted on the elevator carriage of the truck for movement therewith, so that no block and tackle for the boom hook is necessary.

A further object is to provide a boom having means for detachable but rigid connection with the carriage, so that the boom may be used or not, as may be desired.

A further object of the invention is to produce a simple and inexpensive device, and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a fragmentary side outline of an industrial truck equipped with my boom attachment.

Figure 2 is a rear end view of the attachment as mounted on the elevator carriage of the truck.

Figure 3 is a perspective view of the boom attachment detached, looking toward the rear.

Referring now more particularly to the characters of reference on the drawings, the industrial truck for which my boom attachment is particularly designed in the form here shown, comprises a wheel supported body 1, having at the rear end an upstanding elevator frame which includes transversely spaced side members 2. Supported between said members for up and down movement in a conventional manner is a carriage 3, whose movement is controlled by suitable power means indicated at 4.

Rigid with the carriage just back of the frame members is a pair of vertically spaced transverse bars 5, extending laterally out some distance beyond said members. The above features are standard on an industrial truck of a certain make,

and I do not change the same in any way, removing only the usual load supporting platform.

My improved attachment comprises a rigid horizontal boom 6 of suitable length having a swivel hook 7 supported from its rear end.

From the opposite or forward end of the boom a pair of vertical arms 8 depend in initially diverging relation laterally; said arms terminating in parallel straight portions 9 spaced apart a greater distance than the elevator frame members 2. The arms are rigidly connected to and braced with the boom by a suitable gusset plate arrangement 10.

Secured against the forward face of arm portions 9 are relatively small vertically spaced plates 11, spaced apart the same distance as the bars 5, and having downwardly opening notches 12 cut therein and forming hook elements to fit and engage over the upper edge portions of the bars 5, as shown in Fig. 1. The depth of the lips 13 at the front of the notches or hooks of the lower plates is less than the distance from the top edge of said plates to the lower edge of the upper bar 5, so that said hooks may be withdrawn from the corresponding bar upon upward movement of the boom attachment. The hook plates just clear members 2 on the outside, as shown in Fig. 2, so that the attachment cannot shift laterally.

In order to prevent undesired upward movement and detachment of the hook plates, ears 14 are secured on and project upwardly from the upper bar 5 at its ends, said ears slidably and removably supporting a transverse rod 15 which extends over the upper hook plates and thus retains them in place.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. In an industrial truck which comprises a wheel supported body, an elevator frame upstanding from the body, and a carriage movable up and down the frame; said carriage including a pair of vertically spaced transverse bars clear of the frame, a boom, an arm rigid with and depending from the boom, and vertically spaced

hook elements rigid with said arm and adapted to engage over the bars and disengageable therefrom upon upward movement of the arm, ears upstanding from one bar at the ends thereof, and a transverse rod removably projecting through the ears over the corresponding hook.

2. In combination, a wheel supported truck, an elevator frame at one end of the truck comprising two spaced upright side members, a carriage mounted for up and down movement on said uprights, power means on said truck connected in operative relationship with said carriage to impart such up and down movement thereto, a pair of transverse bars fixed to the carriage immediately adjacent the upright side members and movable along the latter with the up and down movement of the carriage, a horizontally projecting boom normally lying in a

plane some distance above the bars, a pair of vertically disposed and spaced apart arms depending from one end of the boom, a pair of vertically spaced apart downwardly opening hook plates projecting rearwardly from each boom arm, such hook plates being detachably mounted over the bars on the carriage and the projecting ends of the hook plates then lying closely adjacent the vertical side members of the truck to prevent lateral displacement of the boom.

3. A device as in claim 2 and in combination therewith a means to prevent vertical displacement of the boom, such means comprising upstanding orificed ears on the ends of one bar, and a rod projecting through said orifices in such ears and engaged with the top edges of adjacent hook plates.

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