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P. KEMPE

2,257,386

DERRICK

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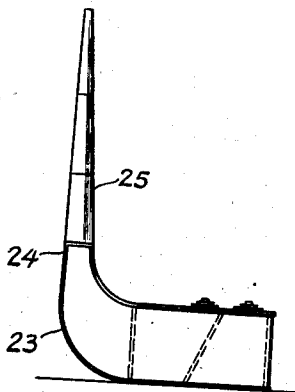


Fig. 3

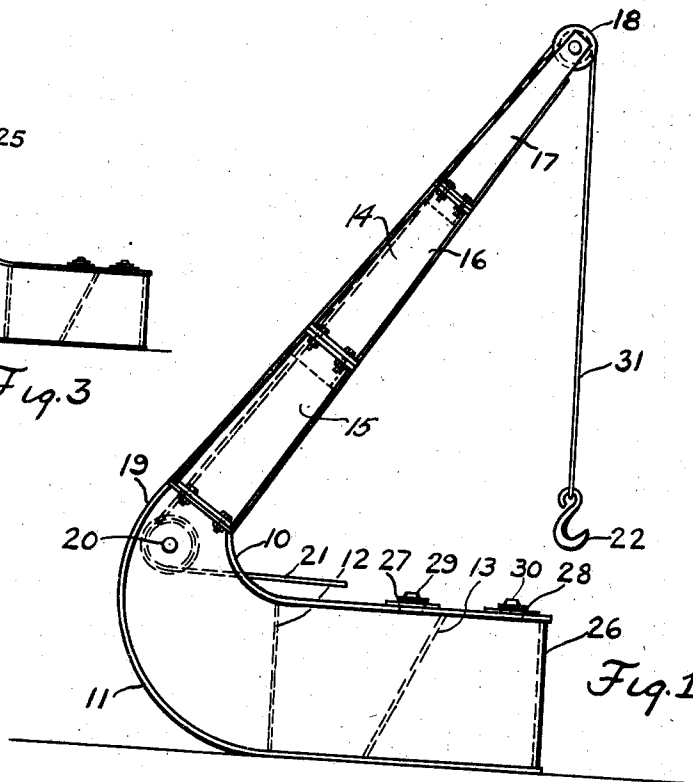


Fig. 1

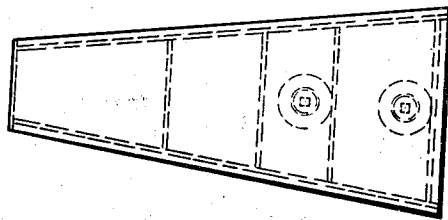


Fig. 2

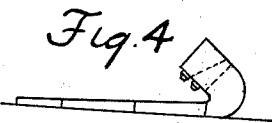


Fig. 4

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2 Claims. (Cl. 189—16)

This invention relates to improvements in derricks, and more particularly to an improved derrick of a type used in building operations.

Devices of the type now in use are costly and difficult to transport. An object of the present invention is to provide a device of the type which will be light and easy to transport, but which when set up, will be stable enough to handle relatively heavy loads.

Another object of the invention is to provide a sectional derrick which may be quickly and easily assembled or knocked down.

Another object of the invention is to provide a device of the type which has a base of relatively light material, which may be loaded to increase the stability thereof, and which has a sectional boom which may be set up conveniently before the base is loaded.

Other and further objects of the invention will appear as the description proceeds, reference being had to the accompanying drawing, in which:

Fig. 1 is a side view in elevation of a derrick embodying my invention.

Fig. 2 is an inverted plan view of the base.

Fig. 3 is a side view of another form of my invention.

Fig. 4 is a side view in elevation of the device before the base has been loaded.

Referring more particularly to the drawing, numeral 10 refers to the device generally, having a base portion 11, containing partitions indicated by dotted lines, 12 and 13. A boom 14 comprises sections 15, 16 and 17, which are easily detachable from the base 11, and from each other. The end section 17 contains a sheave, 18, and the base 11 has adjacent its upper end 19 the sheave 20. A line 21 is passed around sheaves 20 and 18, and terminates in an ordinary handling hook 22.

In the form shown in Fig. 3 the base member 23 has a neck 24 which is so arranged that the boom 25 attached thereto, is exactly vertical. This form is especially desirable for use as an elevator in structural work. In the form shown in Fig. 1, the boom 14 is shown at an angle of 45°.

The base 11 is divided into compartments by means of the partitions 12 and 13, and the end wall 26. Entry into the compartments is made by means of the apertures 27 and 28 having the closure plugs 29 and 30. The partition 13 enables placement of ballast at a relatively greater distance from the curved portion 11, with a resultant increase in leverage during erection of the as-

sembled derrick. The partition 12 retains additional ballast within the base 23.

In use, the base member 11 is transported empty to the scene of operations. When unfilled it is relatively light and easily movable. The outside arc or bottom of the base 11 is flat so that the portion 15 of the boom may be connected therewith, and the said base may then be tipped upwardly, as shown in Fig. 4, in which position the boom will lie horizontally on the ground or floor, and additional sections may be attached to lengthen the boom. After the requisite number of sections have been attached, the base portion 11 is gradually filled with oil or sand or other ballast material, whereupon the base will gradually tilt backwardly toward a horizontal position as it is filled, and in consequence, will raise the boom to an upright position. It will be understood that the free end of boom 14 may be manually lifted off the ground as the oil or sand is introduced into the compartments, thus easily effecting the raising of the derrick by shifting the center of gravity. The oil or sand may readily be removed by pump or suction means respectively. The derrick rope 31 is, of necessity in place before the boom is raised.

In small derricks, the base may be similarly shaped, and of solid construction.

It will be understood that the device is capable of many modifications in structure and design without departing from the spirit of the invention, within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, is:

1. A derrick comprising a hollow base, a curved end on said base, partition walls within the base, a sectional boom attached to the curved end of said base whereby when the boom is manually lifted to tilt the base, said base may gradually be filled with weight material to raise the boom with the curved end as a fulcrum.

2. A device of the character described, including a hollow base having compartments therein formed by substantially upright partition walls, the said base having a curved end portion terminating on a plane with the bottom of said base, a sectional boom detachably secured to the curved end of said base at an angle thereto with reference to the top of said base, the compartments in said base being adapted for receiving weight ballast for stabilizing the device after the boom is in erected position.

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