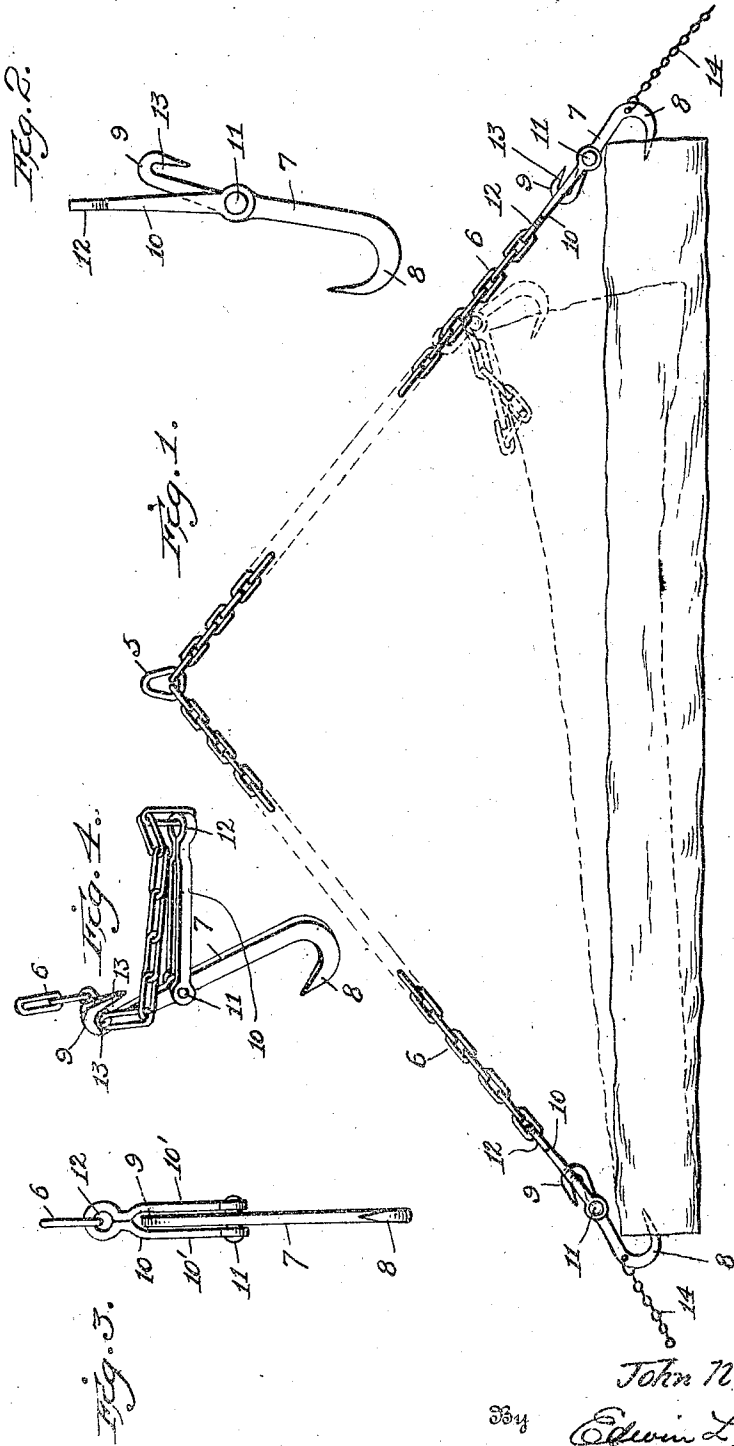


J. N. LINDQUIST.
LIFT GRAB.
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JOHN N. LINDQUIST, OF MARQUETTE, MICHIGAN.

LIFT-GRAB.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN N. LINDQUIST, a citizen of the United States, residing at Marquette, in the county of Marquette and State of Michigan, have invented certain new and useful Improvements in Lift-Grabs, of which the following is a specification.

This invention relates to improvements in lift-grabs and has for its particular object to provide a device of this character in which two grab means are employed connected by a chain whose length at each side of a central lifting-link can be adjusted to different sizes of logs in order to properly balance logs having one end larger than the other.

A further object of the invention is to provide a grab-hook in a device of this character, wherein the adjusting-hook is formed to engage on the outside of the chain-links, and when not used to shorten the chain, is sheathed in the clevis.

These and other objects hereinafter set forth are attained by the means illustrated in the accompanying drawing, in which:—

Figure 1 is a view in elevation showing in full lines the improved device in lifting engagement with a log of substantially equal diameter, and in dotted lines showing an abnormal log in lifting position.

Fig. 2 is a side elevation of the hook-device.

Fig. 3 is an edge view of the hook-device.

Fig. 4 is a detail perspective view showing the manner of engaging the adjusting-hook with the chain when used for shortening the length of the chain.

Similar reference numerals in all of the figures of the drawing, designate like parts.

These lifting-grabs are usually provided with a lifting-link 5 from which extend two separate lengths of chain 6, and at the free ends of these chains are attached grab-hooks which are formed in a manner to have their points inserted into the ends of the logs, as clearly shown in Fig. 1 of the drawing.

In the present construction the grabbing-devices at the free ends of the chains 6, are each preferably formed with a shank 7, having a large log-hook 8 at one end, and a small adjusting-hook 9 at its opposite end, said hooks being preferably pointed in opposite directions with respect to the shank, and a clevis 10 pivoted to the shank 6 at 11

between the two hooks and preferably nearer the small hook 9, so that normally the weight of the large hook 8 will tend to keep the smaller hook sheathed between the side arms 10' of the clevis. The clevis is formed with an eye 12 in which the free end of the chain 6 is secured.

Adjusting-hook 9 is formed with a narrow throat 13 to receive a chain-link flatwise and too narrow to allow the adjacent links to slip through.

Normally the chains are usually made long enough to span a 16-foot log. If it is desired to lift a smaller log of substantially equal diameter its full length, the chains at both sides are shortened accordingly by connecting the adjusting-hook over the chains nearer to the lifting-link 5. Heretofore, considerable difficulty has been met with in handling logs having extra large butts and small top ends. In this case with equal lengths of chains 6, the heavy end of the log will over-balance and lift the lighter end a considerable distance out of a horizontal plane, with a consequence it makes it troublesome to lift the log over the car-stakes or deposit it in its proper place. Under these circumstances, and with this invention, the length of the chain at the butt end of the log can be shortened to counter-balance the load and thus bring the log to a horizontal position, so that both ends are in the same plane and in a position to clear the obstructions on the loading place, such as car-stakes, etc.

With the adjusting-hooks 9 normally sheathed in the clevis prevents entanglement of the chains when swinging idly, and when the narrow throat is engaged over a link of the chain, the weight being lifted is then transmitted through the hook-portion and not through the clevis.

Light weight chains or ropes 14 are secured to the shank adjacent the log-hook end and are used to release the log-hooks after the load has been deposited in its proper position on the car or pile. These release chains are usually long enough to enable the operators to release the log-hooks from the ground.

It will be understood that this device can be used on cranes or derricks of any kind employed in lifting machinery, castings, or other articles which might be heavier at one end than at the opposite end,

Having thus fully described the invention, what is claimed is:—

1. In a lifting-grab, a lifting-link, two lengths of chain connected to and extending therefrom, and a grabbing means secured to the free end of each chain, each of said grabbing means embodying a shank having an adjusting-hook and a log-hook at opposite ends, and a clevis pivoted to the shank and connected to the free end of one of the chains.

2. In a lifting-grab, a lifting-link, two lengths of chain connected to and extending therefrom, and a grabbing means secured to the free end of each chain, each of said grabbing means embodying a shank having an adjusting-hook provided with a narrow throat and a log-hook at opposite ends, and a clevis pivoted to the shank and connected to the free end of one of the chains.

3. In a lifting-grab, a lifting-link, two lengths of chain connected to and extending therefrom, and a grabbing means secured to the free end of each chain, each of said grabbing means embodying a shank having a small adjusting-hook and a large log-hook at opposite ends, and a clevis pivoted to the shank and connected to the free end of one of the chains.

4. In a lifting-grab, a lifting-link, two lengths of chain connected to and extending therefrom, and a grabbing means se-

cured to the free end of each chain, each of said grabbing means embodying a shank having an adjusting-hook and a log-hook at opposite ends, and a clevis pivoted to the shank and connected to the free end of one of the chains, said clevis being formed with side-arms forming a sheath for the adjusting-hook when the adjusting-hook is not being used.

5. In a lifting-grab, a lifting-link, two lengths of chain connected to and extending therefrom, and a grabbing means secured to the free end of each chain, each of said grabbing means embodying a shank having an adjusting-hook and a log-hook at opposite ends, and a clevis pivoted to the shank adjacent the adjusting-hook and connected to the free end of one of the chains, said clevis being formed with side-arms forming a sheath for the adjusting-hook when the adjusting-hook is not being used.

6. In a lifting-grab, a lifting-link, two lengths of chain connected to and extended therefrom, and a grabbing means secured to the free end of each chain, each of said grabbing means embodying a shank having an adjusting hook at one end and means for engaging an article at its opposite end, and a clevis pivoted to the shank and connected to the free end of one of the chains.

In testimony whereof I affix my signature.

JOHN N. LINDQUIST.