(No Model.)

C. M. DANIELSON.

PIPE LIFTER.

No. 496,641. Patented May 2, 1893.

Fig. 1.

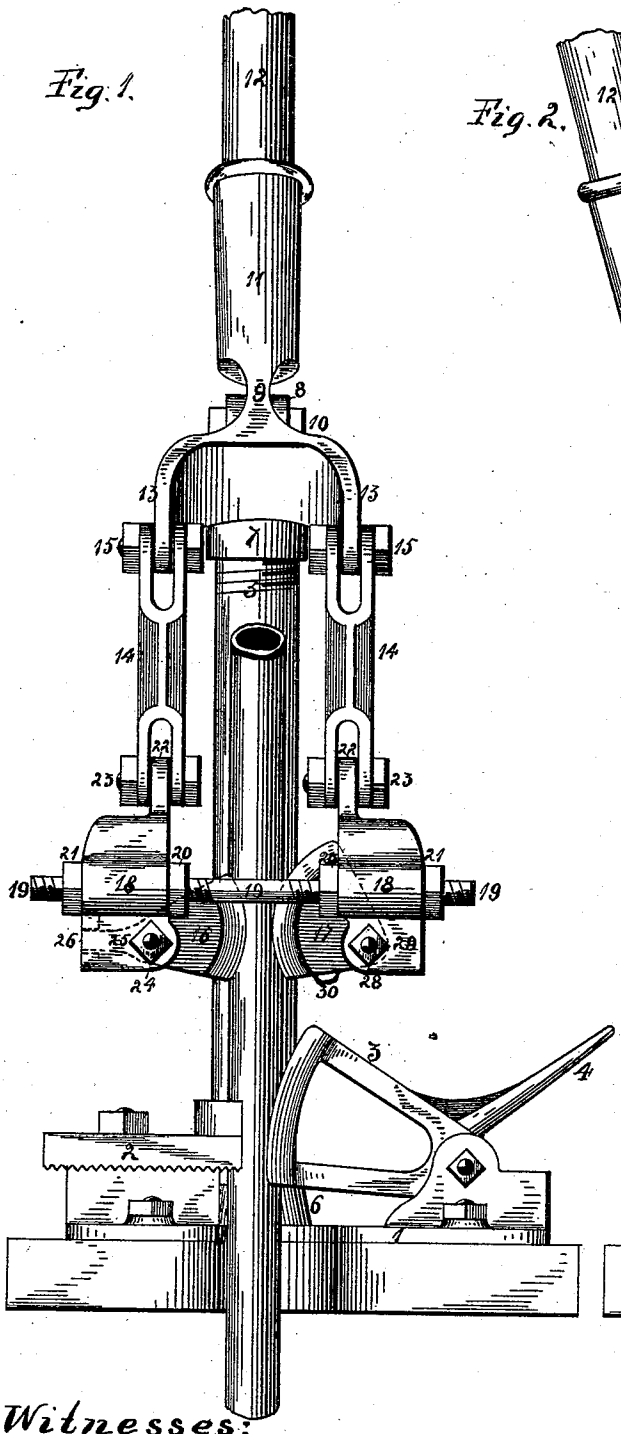
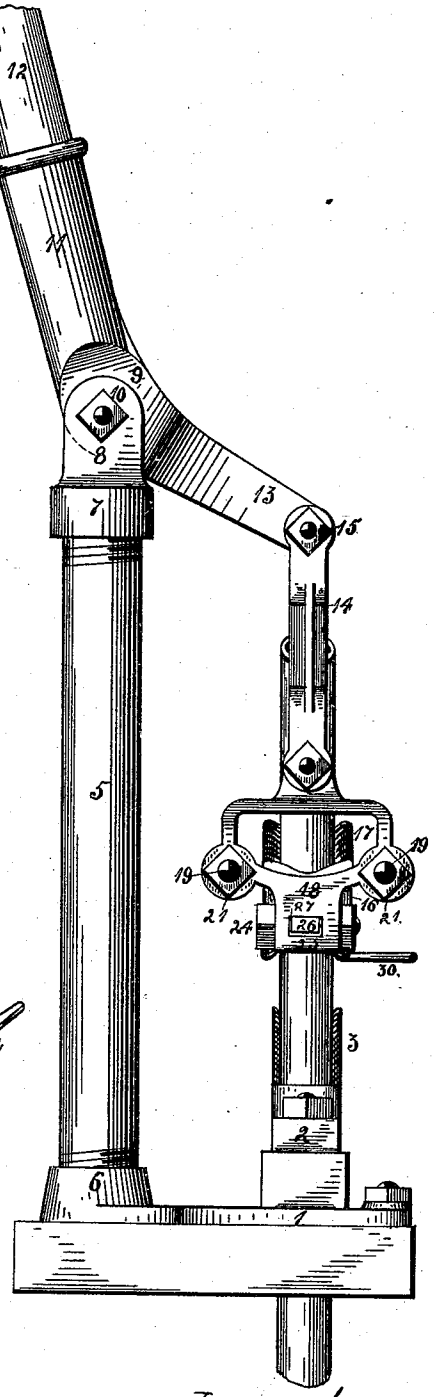


Fig. 2.



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UNITED STATES PATENT OFFICE.

CARL M. DANIELSON, OF ROCKFORD, ILLINOIS.

PIPE-LIFTER.

SPECIFICATION forming part of Letters Patent No. 496,641, dated May 2, 1893.

Application filed January 13, 1891. Serial No. 377,684. (No model.)

To all whom it may concern:

Be it known that I, CARL M. DANIELSON, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Pipe-Lifters, of which the following is a specification.

The object of this invention is to construct a pipe lifter, having a swinging frame carrying gripping jaws which will engage a pipe and as the frame is raised the pipe will be carried with it.

In the accompanying drawings,—Figure 1, is a front elevation of my improved pipe lifter in connection with a pipe holder. Fig. 2 is a side elevation of the same.

The pipe holder represented in the drawings is the same in construction as that shown in Letters Patent No. 416,903, granted to me October 8, 1888, and which consists of a base 1 supporting an adjustable jaw 2 and a pivoted jaw 3, said jaws so located with relation to each other to receive a pipe between their serrated faces, so that as the pipe is raised it will be held supported and the jaws automatically release their hold upon the pipe while the pipe is being raised, and will grip and hold the pipe from descending until the pivoted jaw is held out of operative action by the attendant placing his foot upon the treadle portion 4 of the pivoted jaw.

My improved pipe lifter is supported upon a standard 5, in this instance of tubing having a screw-threaded connection with a socket 6, rising from the base 1 of the pipe holder. The upper end of the standard is screw-threaded and receives a cap 7, from the upper face of which rise lugs 8 which are perforated. A handle has a flattened portion 9 which enters between the lugs 8 and a screw bolt 10 passed through the handle and lugs form a connection between the parts. The upper end 11 of the handle is in socket form and receives the handle extension 12. The lower free end of the handle is in yoke form consisting of arms 13, which have their extreme ends perforated, arms 14 having both ends in yoke form, have a swinging connection with the ends of the yoke and of the handle, by bolts 15 passing through the parts. Pivoted jaws 16 and 17 are supported in a frame work, consisting of ends 18 held movable on screw-threaded rods 19, screw nuts 20 are turned on these rods before the ends are placed in position, and screw nuts 21 are turned on the rods after the ends are in position so that the ends are held between the screw-nuts. A perforated ear 22 rises from the upper face of each of the end pieces and a screw bolt 23 passed through the ear and lower ends of the arms forms a connection between the frame work and operating handle. The jaw 16 is held in position on the under side of one of the ends by a bolt 24 passing through lugs 25 and the jaw, an extension 26 of this jaw enters an opening 27 in the end piece and fits loosely therein so as to allow of a limited oscillation of the jaw. The jaw 17 is pivotally supported in the other end piece by a bolt 28 passing through it and through lugs 29 depending from the under face of the end piece. An arm 30 projects laterally from the under face of the jaw 17 and comes in contact with the under face of the frame work which prevents the overturning of the jaw on its pivot and furnishes a means for releasing the engagement of the jaw with the pipe. A pipe lifter constructed as described is placed over a well in such position that the pipe of the well will be held suspended by the jaws of the pipe holder. The handle of the lifter is then raised to the position shown in the drawings which will lower its jaws to their lowest positions and the pipe will be received between the jaws of the lifter. The operator will then depress the handle which will cause the jaws of the lifter to engage the pipe, and as the handle is depressed the pipe will be elevated until the end of the stroke is reached, during this movement the jaws of the holder release their hold upon the pipe, just as the lifter jaws begin to descend to receive a new hold upon the pipe, the jaws of the holder will clamp the pipe and prevent its descent and will hold it until the lifter engages the pipe and begins to raise it. This operation will be repeated at each stroke of the handle of the lifter and a well pipe can be lifted from the well by simply moving the same as in pumping water. It is evident that the pipe can be lowered in the well by the same lifter and holder when the operation will be reversed. By means of the screw-nuts 20 and 21 the jaws 16 and 17 can be adjusted toward or from each other to hold pipes of

different diameters. The jointed connection of the jaws with the handle will allow sufficient play for the adjustment. It is also evident that my improved lifter can be used in connection with any pipe holding device.

I claim as my invention—

1. A pipe lifter comprising a lever, a vertically movable frame connected therewith, said frame bearing two pipe gripping cams pivotally mounted thereon, threaded rods passing through opposite sides of said frame, and nuts on said rods whereby said cams are adjustable to or from each other.

2. A pipe lifter comprising a lever, a vertically movable frame connected therewith, said frame bearing two pipe gripping cams pivotally mounted thereon and independently adjustable to or from each other by means of rods threaded at each end passing through said frame and provided with nuts within and without each side of the frame.

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