APPARATUS FOR HOISTING TUBING.

To all whom it may concern:

Be it known that I, GEORGE W. OAKES, citizen of the United States, residing at Alva, in the county of Woods and State of Oklahoma, have invented certain new and useful Improvements in Apparatus for Hoisting Tubing, of which the following is a specification.

This invention is an apparatus or machine for raising and lowering well tubing, as in oil, Artesian and other deep wells wherein long sections of tubes have to be raised and lowered.

The invention relates especially to the means for gripping the pipe and for raising or lowering the grips, and comprises a standard provided with a chain wheel and chain, and grips connected to opposite ends of the chain, and with a crank and gearing to turn the wheel in either direction. The base of the device is also provided with a hand grip for holding the tubing at any desired time, as when it becomes necessary to readjust the grip, or while the sections are being coupled or uncoupled.

The invention is illustrated in the accompanying drawings in which—Figures 1 and 2 are side elevations of the machine. Fig. 3 is a section on the line 3—3. Referring specifically to the drawings, 6 indicates a base board or sill with a recess 7 in the side to admit the pipe to convenient position for operation. Upon this base is an upright or standard 8 braced by a rod 9. At the head of the standard is mounted a chain pulley or sheave 10, on a shaft 11, which also has a gear wheel 12. Both wheels may be fastened to the shaft, or they may be arranged to turn on the shaft as an axle, in which case the wheels are to be fastened together. The shaft is supported by a bracket or brace 13. A shaft 14 is mounted in a bearing in the upright and is provided with a crank handle 15 and with a pinion 16 which meshes with the gear 12.

Extending over the chain pulley 10 is a chain 17, and at each end of this chain is a grip. Said grip consists of a band 18 arranged to extend around the pipe 19, and a dog 20 pivoted at 21 between the ends of links 22 to the end of the chain. The head of the dog is arranged to grip a pipe in the band when upward pull is exerted on the outer end of the dog.

The hand grip is mounted on the base, and comprises a bar 23 pivoted at one end at 24 to the base and connected at the other end by a hook 25 and rod 26 to a hand lever 27. The bar 23 has a jaw 28 arranged to grip the pipe, and when the lever 27 is thrown back said jaw will engage the pipe and hold the same until the lever is released.

In the use of the device the grips at the end of the chain are applied to the pipe, one above the other. When the crank handle is turned one way one grip will take hold of the pipe and be lifted, hoisting the pipe with it; the other grip will let go and slide down the pipe. When the end of the chain reaches the wheel the direction of rotation of the crank is reversed, and the grips will also reverse their action, one letting go and the other taking hold, the latter being lowered as far as possible; and the action is then reversed again. At each action or operation the pipe will be lifted to a certain extent. The engagement and release of the respective dogs is automatically performed, and there is little or no time lost in changing grips, because one grip or the other will be lifting at all times.

I claim:

A pipe lift comprising a support, a chain wheel and its shaft mounted at the upper end thereof, a chain passing over the wheel and depending from opposite sides thereof and having a pipe grip at opposite ends, and means to turn the wheel.

In testimony whereof, I affix my signature in presence of two witnesses.

GEORGE W. OAKES.

Witnesses:

F. C. HOWARD,
ARLIE B. CONLISK.