April 21, 1931. I. W. NEELEY 1,801,448

WELL CASING LIFTER

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Fig. 1.

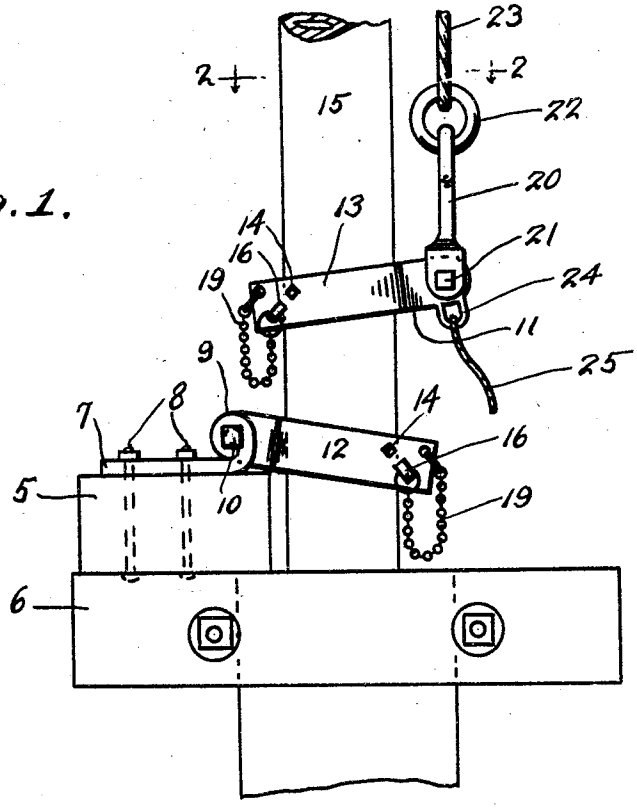
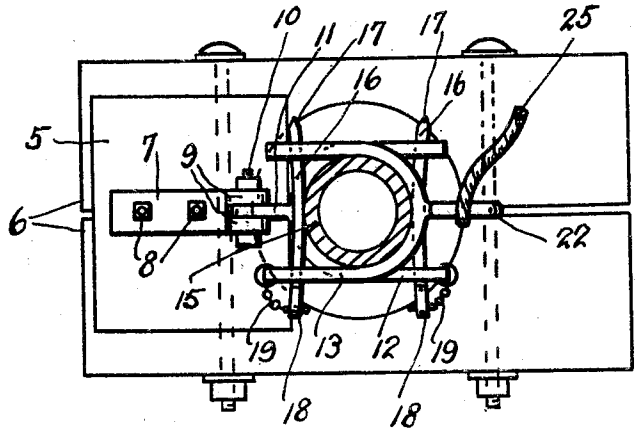


Fig. 2.



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Fig. 3.

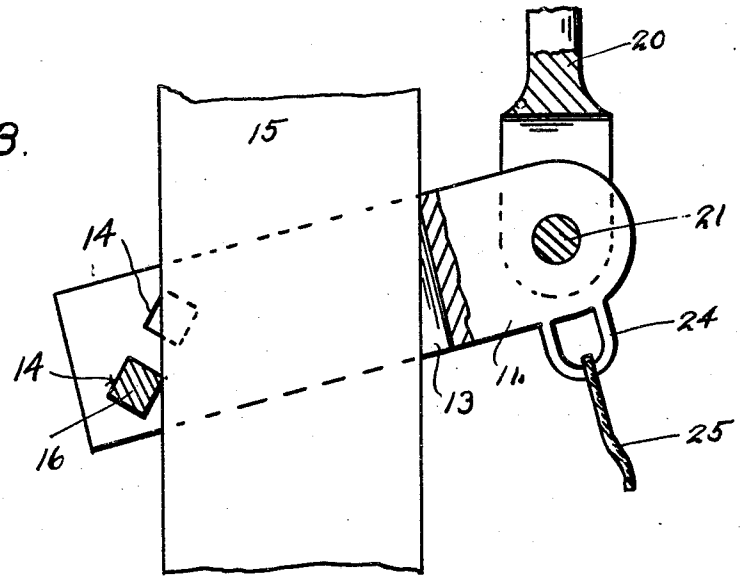


Fig. 4.

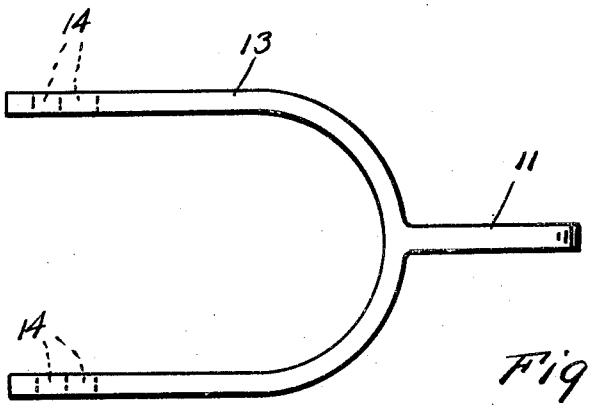


Fig. 6.

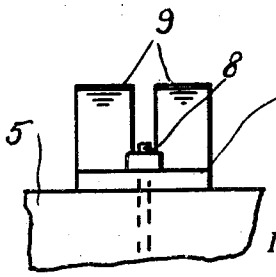
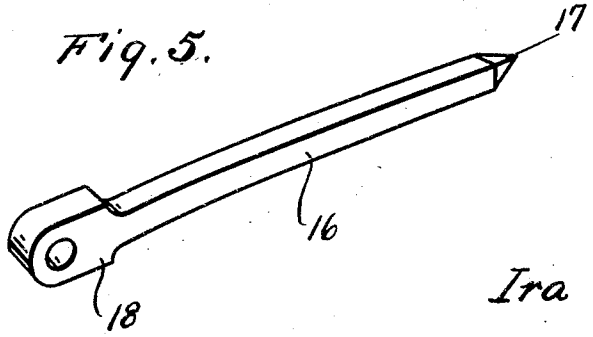


Fig. 5.



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UNITED STATES PATENT OFFICE

IRA W. NEELEY, OF MEMPHIS, TEXAS

WELL-CASING LIFTER

Application filed October 1, 1930. Serial No. 485,707.

This invention appertains to new and useful improvements in lifters for elevating and lowering well casings and other piping.

The principal object of this invention is to provide means whereby a well casing may be elevated in a quick and inexpensive manner.

Other important objects and advantages of the invention will be found in the following specification.

In the drawings:—

Figure 1 represents a side elevational view of the lifting means.

Fig. 2 represents a sectional view taken substantially on the line 2—2 of Fig. 1.

Fig. 3 represents a fragmentary vertical sectional view through the upper unit of the lifter.

Fig. 4 represents a top plan view of one of the yokes.

Fig. 5 represents a perspective view of one of the polygonal-shaped pins.

Fig. 6 represents a fragmentary elevational view of the end plate on the lower lifter unit.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 represents a block resting upon the usual casing head construction generally referred to by numeral 6. Secured to the top side of this block 5 is the end plate 7 secured to the block 5 by bolts 8. This end plate 7 is provided with a pair of spaced loops 9 through which the pintle 10 is to be engaged, the same being disposed through the opening in the ear 11 of the lower lifter yoke 12, numeral 13 representing the upper lifter yoke.

Each of the yokes 12 and 13 has each leg portion thereof provided adjacent its free end with a pair of square openings 14—14. (Clearly shown in Fig. 3.) Upon the side of casing 15, a pin 16 is engaged through corresponding openings on each of these yokes 12 and 13, each of these pins 16 being of polygonal shape in cross section, pointed at one end as at 17 and provided with an apertured head 18 at its opposite end. The openings 14 are set to cause one edge portion of the pin 16 on each of the yokes to bite into the casing 15 when the corresponding yoke is pulled to assume the position shown in Fig. 3.

Each yoke is provided with a chain 19 secured at one end thereto and at its opposite end to the apertured head 18 so that the pintles can not be lost.

An eye member 20 is pivotally connected to the ears 11 of the yoke 13 and at 21 and has a ring 22 engaged therethrough, through which a lift line 23 is secured. A loop 24 is located on the ear 11 and a pull strand 25 is secured at one end, so that in the event the yoke 13 sticks to the casing, the same can be disengaged by pulling on the strand 25.

It can now be seen that by pulling up on the lift line 23, the casing will be raised to the desired extent and upon release of the line 23 within the yoke 13 to disengage from the casing, the lower yoke 12 will sustain the weight of the casing by assuming the position shown in Fig. 1, permitting the pin 16 to bite into the casing and thus preventing the casing from regaining its original position.

This operation my be repeated over and over until the casing has been entirely removed from the well.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials can be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described my invention, what I claim as new is:—

1. A lifting device of the class described comprising a yoke-shaped member for embracing the article to be lifted, the ends of the legs of the member having square holes therein, and a square pin passing through the holes, the holes being arranged at an angle with respect to the sides and end of the legs whereby a corner of the pin will bite into the object being lifted while the bight of the yoke member will engage an opposite side of the member.

2. A lifting device of the class described

comprising a yoke-shaped member for embracing the article to be lifted, the ends of the legs of the member having square holes therein, and a square pin passing through the holes, the holes being arranged at an angle with respect to the sides and end of the legs whereby a corner of the pin will bite into the object being lifted while the bight of the yoke member will engage an opposite side of the member, said yoke shaped member having an outwardly extending part connected with the bight, means for connecting a pull line to said part and a depending lug on said part receiving a releasing line.

In testimony whereof I affix my signature.

IRA W. NEELEY.