W. W. WILKINSON.

CASING ELEVATOR.

APPLICATION FILED MAR. 11, 1912.

1,047,472. Patented Dec. 17, 1912.

Fig. 1.

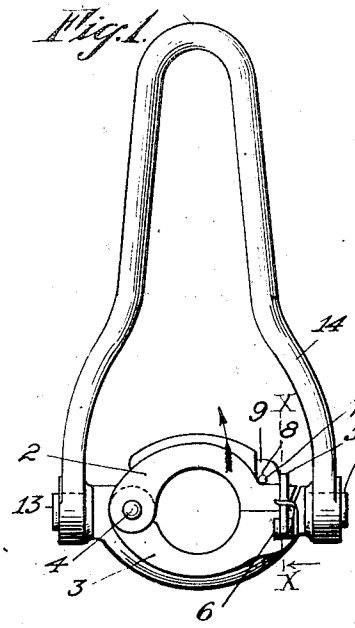


Fig. 2.

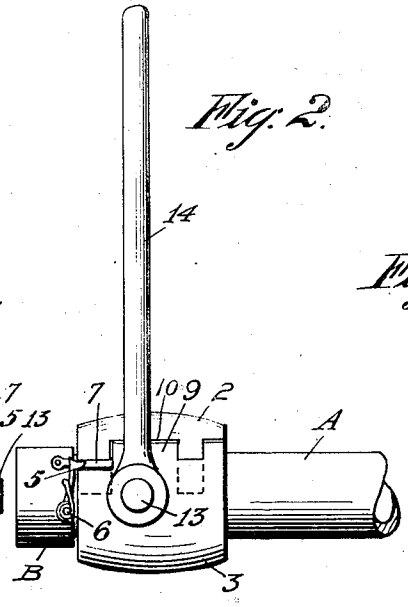


Fig. 4.

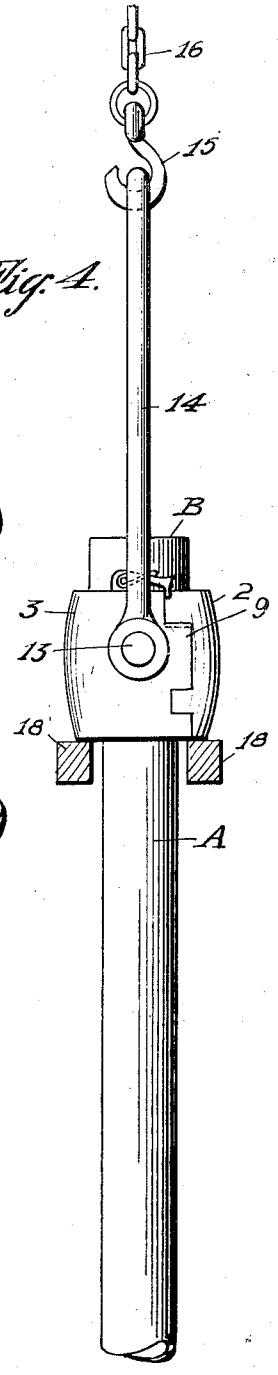


Fig. 3.

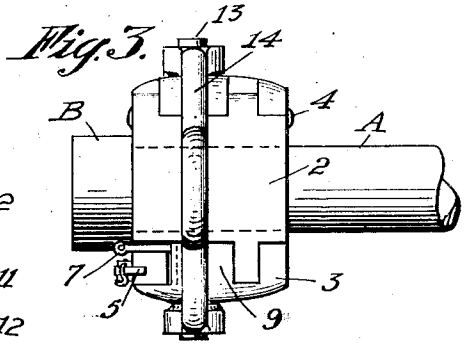


Fig. 5

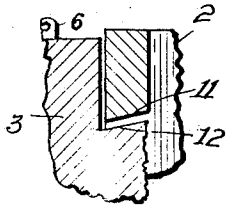
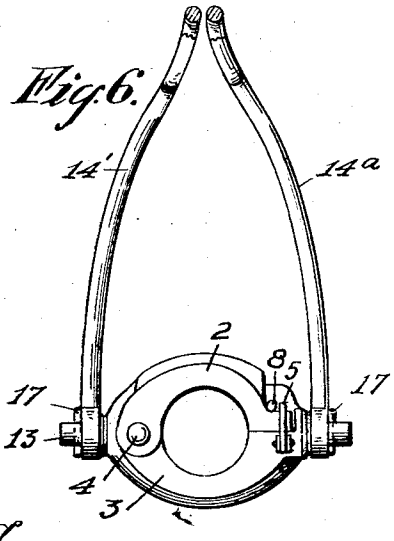


Fig. 6.



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UNITED STATES PATENT OFFICE

WILCIE W. WILKINSON, OF ORCUTT, CALIFORNIA, ASSIGNOR OF ONE-HALF TO FRANK R. SEPULVEDA, OF ORCUTT, CALIFORNIA.

CASING-ELEVATOR.

1,047,472. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed March 11, 1912. Serial No. 683,083.

To all whom it may concern:

Be it known that I, WILCIE W. WILKINSON, a citizen of the United States, residing at Orcutt, in the county of Santa Barbara and State of California, have invented new and useful Improvements in Casing-Elevators, of which the following is a specification.

This invention relates to a casing elevator, such as is used around oil wells for raising and lowering casing sections, and particularly pertains to a clamp which is adapted to be attached to and detached from pipes, well-casings and similar structures, in handling them by means of block and tackle or hoists.

It is the object of this invention to provide a clamp for engaging the ends of cylindrical or tubular well casings, pipes, conduits and the like, which clamp is designed to be attached to the cable or chain of a hoist or elevator for raising and lowering the casing from a horizontal to a vertical position, or vice versa.

Another object is to provide a swivel, two-part casing clamp which is simple in construction, which may be readily attached to, and removed from, a casing section, irrespective of whether the section lies horizontally or stands vertically, and which is so constructed that its bail may be detached, leaving the clamp to act as a collar to suspend the pipe from.

Other objects will appear in the following specification.

The invention consists of the parts and the construction and combination of parts, as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is an end view of the invention. Fig. 2 is a side elevation of same showing the clamp as applied to a casing disposed in a horizontal position. Fig. 3 is a plan view of same. Fig. 4 is a detail in elevation showing the clamp as applied, showing the casing as suspended in a vertical position. Fig. 5 is a detail section on the line X—X of Fig. 1. Fig. 6 is a modified form of the invention.

In the drawings, the invention is shown as including a clamp collar made in two sections or jaw members 2—3, which are hingedly connected together, by means of a bolt 4 which passes through alined perforations in interlocking bosses formed on the members 2—3, as is common in hinge construction. The inner adjacent faces of the jaw members 2—3 are arched and are shaped to conform to the periphery of a pipe or casing, indicated at A, which is designed to be placed between the jaws 2—3 and securely engaged thereby.

Means are provided for locking the jaw member 2 and the jaw member 3 in a closed position around the casing A, which means is here shown as consisting of a spring pressed latch 5, pivoted at 6 on the jaw member 3 and adapted to engage the outer edge of the jaw member 2, as shown in Fig. 2. Auxiliary means are provided for locking the jaw members 2—3 together, and acting in conjunction with the latch 5 which consists of a bolt 7 which is designed to be inserted in a perforation 8 formed in a boss 9 on the upper edge of the jaw 3. The boss 9 extends through a slot 10 formed in the outer edge of the jaw member 2, and projects above the outer edge of the jaw member 2, as shown in Fig. 3.

The jaw member 2 is designed to be loosely mounted at its hinged connection with the jaw 3 to allow of a slight longitudinal movement of the jaw 2 in relation to the jaw 3.

One end of the slot 10 is formed with a beveled edge 11 which is designed to extend into a beveled groove 12 formed on the boss 9, as shown in Fig. 5, as will presently be described. Formed on the sides of the jaw member 3 and projecting laterally therefrom are oppositely disposed trunnions 13, to which a bail 14 is pivotally attached, so as to be turnable to different angles with respect to the pipe clamped. This facilitates the handling of a heavy casing when the latter is lying on the ground or is being moved to horizontal position.

In the operation of the invention, the jaw 3 is placed beneath the casing A, adjacent the flange B on the end thereof, as shown in Fig. 2, and the jaw member 2 is closed over the upper side of the casing and is moved longitudinally on the bolt 4 to throw the beveled edge 11 on the jaw member 2 into engagement with the beveled groove 12 on the jaw 3 and is locked to the jaw 3 by means of the latch 5 and the bolt 7, as before described; the flange B on the casing A acting

to hold the beveled edge 11 in the groove 12. The bail 14 is then connected to a hook 15 or other suitable device on a chain or cable 16, leading from a hoist or elevator of any suitable description, not here shown.

By moving the chain or cable 16 in an upward direction the casing A will be lifted from the horizontal position, shown in Fig. 2, into a vertical position, shown in Fig. 4; the bail 14 turning on the trunnions 13 during the change of position of the casing A and the interlocked jaws 2—3 thereon. The weight of the casing A, when supported on the jaws 2—3, when the latter are in a vertical position, will hold the beveled edge 11 of the slot 10 in engagement with the beveled groove 12 on the boss 9, in which position the jaw 2 will be securely held against opening.

If desired, the bail may be formed in separable parts, as shown at 14′—14ª in Fig. 6, which permits the bail being readily detached from the trunnions 13; removable cotter pins 17 being employed for holding the bail 14′—14ª in position on the trunnions 13. This construction admits of the bail being removed from the clamp when it is desired to leave the clamp attached to the casing, which is done when the casing is to be supported in a vertical position independent of the bail and the hoist, and in which event the clamp forms a wide projecting collar or flange on the casing which can rest on cross timber supports or the like, as indicated at 18 in Fig. 4.

This arrangement economizes time in the handling of the casings, inasmuch as the hoist may be employed in picking up and moving a casing into position while the elevated casing is held in its vertical position and being attached to the casing therebeneath.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A casing elevator comprising a two-part clamp collar, the parts hingedly connected and having means for locking them together about a pipe, one of said parts having a boss and the other having a slot into which the boss extends said boss formed with a beveled groove and said slot having a beveled edge engageable with said groove on the longitudinal movement of the members in relation to each other, and a bail swiveled to the collar so as to be turnable at different angles with respect to the pipe clamped.

2. In a casing elevator, a clamp for engaging a casing, comprising a pair of hinged jaw members, means for locking the jaw members together, including a spring pressed latch mounted on one of the jaw members and engageable with the other jaw member, a boss on one of the jaw members, a slot on the other jaw member into which said boss extends, said boss formed with a beveled groove, and said slot formed with a beveled edge engageable with the beveled groove on the longitudinal movement of the jaw members in relation to each other.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILCIE W. WILKINSON.

Witnesses:
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C. J. WILKINSON.