J. F. THOMPSON.

ELEVATOR FOR WELL CASINGS.

APPLICATION FILED APR. 21, 1911.

1,003,546. **Patented Sept. 19, 1911.**

FIG. 1.

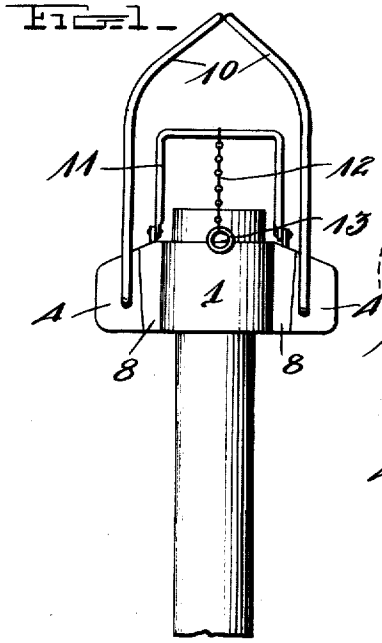


FIG. 2.

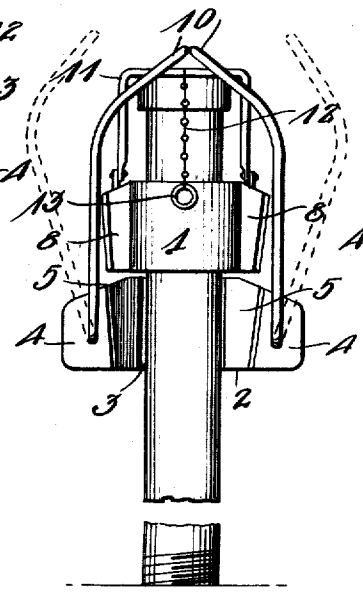


FIG. 4.

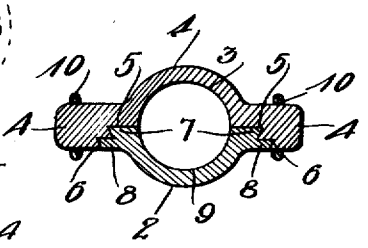


FIG. 3.

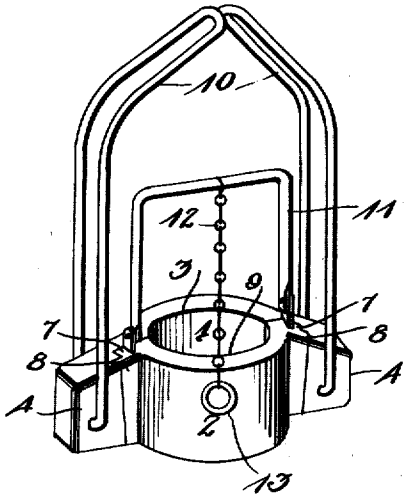
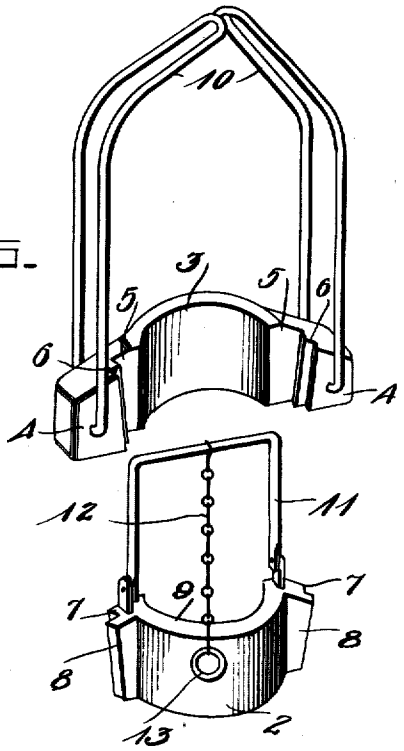


FIG. 5.



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UNITED STATES PATENT OFFICE.

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ELEVATOR FOR WELL-CASINGS.

1,003,546. Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed April 21, 1911. Serial No. 622,622.

To all whom it may concern:

Be it known that I, JOSEPH FLANAGAN THOMPSON, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Elevators for Well-Casings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in elevators for well casings and tubes.

One object of the invention is to provide an elevator of this character having an improved means whereby the same may be readily detached from a section of casing or tubing after the same has been elevated and removed from the well.

Another object is to provide a device of this character which will be simple, strong and durable in construction, efficient and reliable in operation and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a side view of a section of well tubing showing the invention applied thereto; Fig. 2 is a similar view showing the manner in which the elevator is disengaged from the section of well tubing after the same has been elevated and removed from the well; Fig. 3 is a perspective view of the elevator removed from the tubing; Fig. 4 is a horizontal sectional view of the elevator; Fig. 5 is a detail perspective view of the same showing the parts separated.

My improved casing elevator comprises a casing engaging clamp consisting of detachably connected members 1 and 2. The member 1 of the clamp comprises a central body portion having formed in its inner side a semi-circular recess 3 and on its opposite side edges laterally projecting wings 4 which are notched on their inner edges to form tapered dove-tail shaped guide recesses 5 and 6 with which are adapted to be slidably engaged tapered dove-tail shaped projections 7 and 8 formed on the side edges of the member 2 of the clamp, said member having in its inner side a semi-circular recess 9 which coacts with the recess 3 in the member 1 and forms a circular passage with which the casing or tubing of the well is engaged. By constructing the recesses 5 and 6 and the projections 7 and 8 in tapered dovetail form it will be seen that when the section 2 is engaged with the section 1 that said sections will be locked together against lateral separation and can only be detached by a vertical movement of the sections in opposite directions or in other words, in order to separate the sections of the clamp, it is necessary to raise or to hold the section 2 against movement and then lower the section 1 whereby the sections will slip apart and are thus readily separated from the casing or tubing.

In the outer ends of the wings 4 are connected the lower ends of upwardly extending inwardly curved lifting bails 10 the upper ends of which are adapted to be brought together and attached to a hoisting cable by means of which the casing or tubing is drawn upwardly from the well until the lower end of the upper section is exposed whereupon said upper section is unscrewed or disengaged from the next section and thus removed from the well. In order to readily disconnect the sections of the clamp after the section or casing has thus been lifted and removed from the well I provide the section 2 with a short bail 11 which, before the casing is drawn up is adapted to be engaged with or hooked over the upper end of the casing whereupon after the section of the casing has been lifted and swung laterally the hoisting cable is slackened to a sufficient extent to permit the lower end of the casing to rest on the ground and the clamp to slide down a short distance on the upper portion of the casing. The casing in thus sliding down brings the bail 11 on the section 2 into engagement with the upper end of the casing which will limit or stop the downward movement of the section 2 and permit the section 1 to slide down out of engagement with the section 2 thereby separating said sections whereupon the member 1 of the clamp may be swung out of engagement with the casing. In order to pull the bail 11 and casing member 2 from the upper end of the casing, said bail is preferably provided with a short chain 12 and ring 13. The chain 12 may be of sufficient length to permit the ring to be reached or a wire cord or cable may be attached to said ring and

the latter thus pulled to disengage the bail from the upper end of the casing.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention what I claim is:

1. An elevator for well casings comprising a tube engaging clamp formed in longitudinally separable sections, means forming a part of the latter to detachably hold said sections in operative position to engage the casing, lifting bails loosely connected to said clamp, and means attached to one member of said clamp whereby said member is held while the other member is lowered out of engagement therewith thereby separating said members.

2. An elevator for well casings comprising a casing engaging clamp constructed in separable sections, one of said sections having formed therein tapered dovetail shaped recesses, similarly shaped projections formed on the other section and adapted to engage said recesses whereby said sections are detachably connected together, hoisting bails loosely connected to one of said sections, and means connected to the other section whereby said sections are adapted to be separated longitudinally to disengage the same from the casing after the same has been lifted and removed from the well.

3. An elevator for well casings comprising a casing engaging clamp constructed in separable sections, one of said sections having formed therein tapered dovetail shaped recesses, similarly shaped projections formed on the other section and adapted to engage said recesses whereby said sections are detachably connected together, hoisting bails loosely connected to one of said sections, a bail secured to the upper end of the other member, said bail being adapted to be engaged with the upper end of the well casing whereby when the latter is lifted and removed from the well and the hoisting cable slackened to lower the clamp, said bail will hold one member of the latter, while the other member slips downwardly out of engagement therewith thereby separating said members, and a flexible connection secured to said bail whereby the same may be pulled out of engagement with the upper end of the well casing.

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

JOSEPH FLANAGAN THOMPSON.

Witnesses:
ETTA JUNE,
ANNA MCINTIRE.