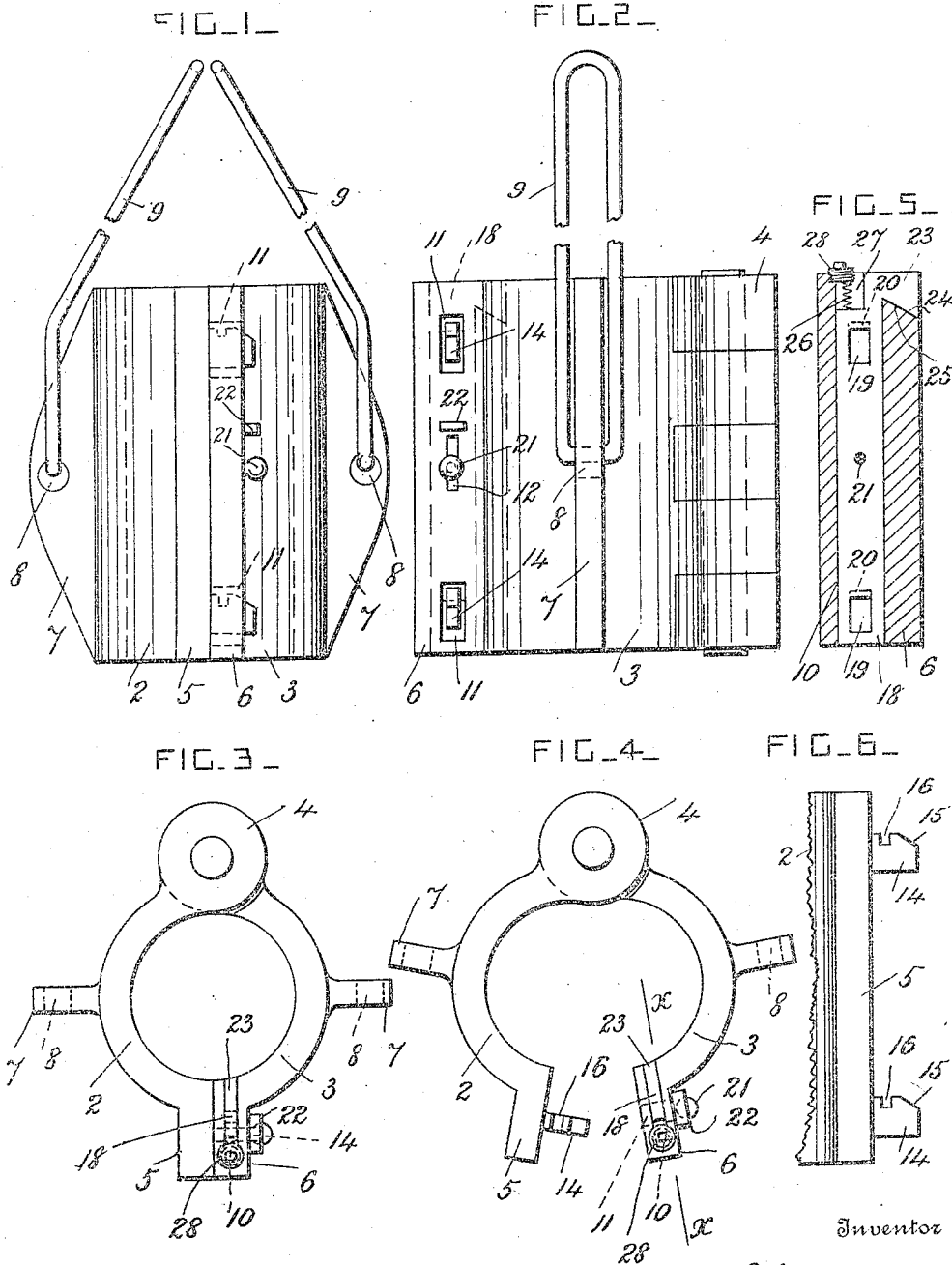


B. C. WILLIAMS.
 CASING ELEVATOR.
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1,045,764.

Patented Nov. 26, 1912.



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CASING-ELEVATOR.

1,045,764.

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To all whom it may concern:

Be it known that I, BERT C. WILLIAMS, a citizen of the United States, residing at Maricopa, in the county of Kern and State of California, have invented certain new and useful Improvements in Casing-Elevators; and I do hereby 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 casing elevators used in connection with oil wells; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a front view of a casing elevator constructed according to this invention. Fig. 2 is a side view of the same. Fig. 3 is a plan view of the jaws when closed. Fig. 4 is a plan view of the jaws when open. Fig. 5 is a vertical section, taken on the line $x-x'$ in Fig. 4 showing the latch. Fig. 6 is a detail view of the catches.

The elevator is provided with two semi-circular jaws 2 and 3, adapted to encircle a casing pipe. These jaws are pivotally connected at one end by a hinge 4, and at the other end they are provided with radial flanges 5 and 6 respectively. At the middle parts of the jaws radially projecting lugs 7 are provided having holes 8, and 9 are bails or links which engage with the holes 8, and which afford a means for connecting the raising and lowering mechanism with the elevator jaws.

The right hand flange 6 is provided with a vertical slot 10, and crossholes 11 arranged at different levels. A small vertical slot is also formed in one side of the flange between the crossholes. The other flange 5 is provided with two laterally projecting catches 14, having beveled end portions 15, and notches 16 on their upper sides at about the middle of their length. These catches pass into the crossholes 11 when the jaws are closed, and the notches 16 come in line with the vertical slot 10. A drop latch 18 is provided, and is slidable vertically in the slot 10. This latch has holes 19 having beveled upper sides 20. The beveled end portions 15 of the catches strike the beveled sides 20, and raise the latch, which subsequently drops into engagement with the notches 16.

A handle 21 projects from the middle part of the latch and works in the vertical slot 12. A lug 22 is provided on the flange, over the handle 21, for the thumb to engage with when the handle is engaged by the fingers. A supporting lug 23 is provided on the upper end of the latch, and has a beveled lower side 24. This lug 23 engages with a notch 25 in the top of the jaw and supports the latch. The beveled surfaces are provided to prevent oil and dirt from lodging under the lug and thereby preventing the latch from descending to its full extent. A small spring 26 is arranged in a recess 27 in the top of the latch, on the other side from the lug 23. This spring is provided with a retaining screw 28, and it operates to make the latch close quickly.

A casing elevator constructed in this manner is very satisfactory in use; it is not liable to get out of order; and it is very inexpensive to construct.

What I claim is:

1. In a casing elevator, the combination, with a pair of hinged jaws provided with opposed flanges at their free ends, one of the flanges being provided with a vertical slot and crossholes, and the other flange being provided with laterally projecting catches which enter the said crossholes, of a drop latch slidable in the vertical slot and provided with holes for engaging with the catches, and lifting devices connected to the said jaws.

2. In a casing elevator, the combination, with a pair of hinged jaws provided with opposed flanges at their free ends, one of the flanges being provided with a vertical slot and crossholes, and the other flange being provided with laterally projecting catches which enter the said crossholes, of a drop latch slidable in the vertical slot and provided with holes for engaging with the catches, one jaw being also provided with a beveled notch at its top and the said latch being also provided with a beveled lug which engages with the beveled notch and supports the latch in the slot, and lifting devices connected to the said jaws.

3. In a casing elevator, the combination, with a pair of hinged jaws provided with opposed flanges at their free ends, one of the said flanges being provided with a vertical slot and crossholes, and the other flange being provided with laterally projecting

catches which enter the said crossholes, of a drop latch slidable in the vertical slot and provided with holes for engaging with the catches, the said latch being also provided
5 with a recess and the slotted flange being provided with a retaining screw, a spring arranged in the recess between the latch and the screw and operating to depress the latch, and lifting devices connected to the said
10 jaws.

4. In a casing elevator, the combination, with a pair of hinged jaws provided with opposed flanges at their free ends, one of the flanges being provided with a vertical

guide slot and a crosshole, and the other 15 flange being provided with a laterally projecting catch which enters the crosshole, of a drop latch slidable in the guide slot and engaging automatically with the catch when the jaws are closed, and lifting devices con- 20 nected to the said jaws.

In testimony whereof I have affixed my signature in the presence of two witnesses.

BERT C. WILLIAMS.

Witnesses:

P. E. GIBBONEY,
C. V. ROGERS.