

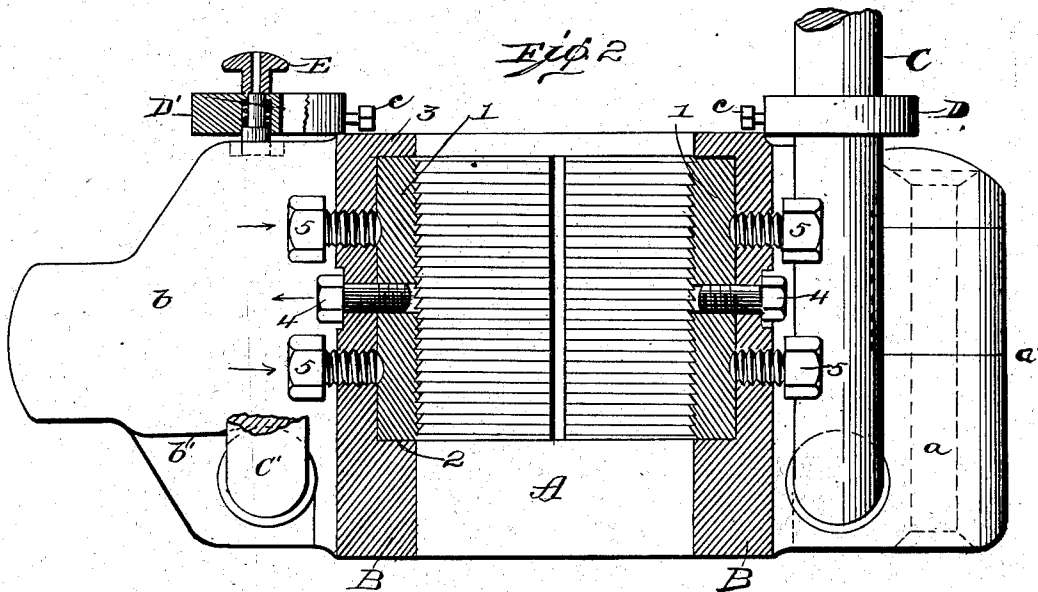
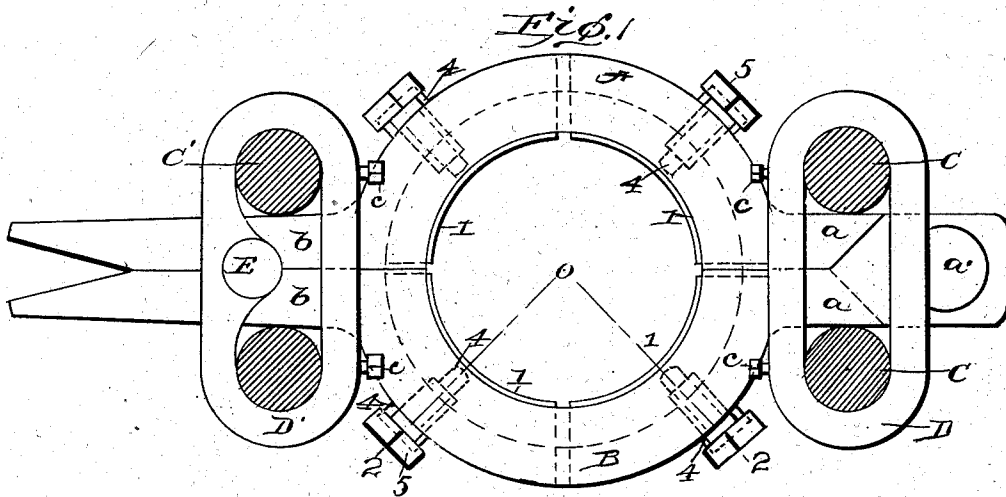
No. 729,902.

PATENTED JUNE 2, 1903.

J. SCOTT.
ELEVATOR FOR CASING AND TUBING.

APPLICATION FILED FEB. 3, 1902.

NO MODEL.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN SCOTT, OF OIL CITY, PENNSYLVANIA, ASSIGNOR TO OIL WELL SUPPLY COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

ELEVATOR FOR CASING AND TUBING.

SPECIFICATION forming part of Letters Patent No. 729,902, dated June 2, 1903.

Application filed February 3, 1902. Serial No. 92,368. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCOTT, a citizen of the United States, residing at Oil City, in the county of Venango, State of Pennsylvania, have invented certain new and useful Improvements in Elevators for Casing and Tubing; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan or top view of an elevator for casing and tubing embodying my invention, the bail-links or reins being in transverse section; and Fig. 2 is a vertical sectional view in the lines 2-0-2, Fig. 1.

Like symbols refer to like parts wherever they occur.

My invention relates generally to that class of devices employed for lowering, raising, and drawing well tubing or casing, commonly termed "elevators," and comprising reins or bail-links, clamp-jaws suspended therefrom, and means for locking the clamp-jaws and causing the same to grip the included casing or tubing, and has for its object the production of a simple and efficient elevator adapted to casing or tubing of different diameters, whether the same be provided with flanges or coupling-sleeves or devoid thereof, as in the case of "flush-joint" tubing.

To this end my invention, generally stated, embraces the combination, in a casing or tubing elevator, of pivoted clamp-jaws having seats or ledges on their interior, included grip-blocks movable on said seats to and from the axis of the clamp, and means for moving said grip-blocks to and from the axis of the clamp on lines normal thereto, whereby casing or tubing of different diameters may be effectively gripped for lowering, raising, and drawing the same.

It also consists in further novelties of construction and relative combination of parts, all as will be hereinafter fully set forth and claimed.

I will now proceed to describe my invention, so that others skilled in the art to which it appertains may apply the same.

In the drawings, A and B indicate clamp-

jaws or the including element of a casing or tubing elevator, said jaws provided with pivot-lugs *a a* and locking-lugs or locking-arms *b b* oppositely disposed thereon and to which the reins or bail-links *C C'* are pivotally connected, the lugs *a a* being pivotally connected, as at *a'*, and one of the locking-arms *b* being recessed or notched out, as at *b'*, to permit the bail-link *C'*, which also constitutes the locking element, to swing clear of said locking-lug or locking-arm when the clamp-jaws are to be opened to receive the tubing or casing.

D and D' indicate tie-links which encircle the bail-links *C C'* and may be fixed thereto by set-screws *c* or in other suitable manner. The tie-link D', which encircles the bail-link *C'*, has mounted thereon a limit-latch E, which controls the swing of said bail-link when the clamp-jaws are locked and also prevents the escape of the locking-arms or locking-lugs *b b*.

The clamp-jaws A B or including element are recessed or countersunk on the interior to form a chamber for the reception of the grip-blocks 1 1, said chamber having at its bottom the ledge or seat 2, upon which the grip-blocks 1 1 rest and slide, and the confining flange 3 above, the walls of the jaws or including element being also perforated for the passage of set-screws 5 and retaining-pins 4, whereby the grip-blocks are adjusted to and from the axis of the including element of the elevator. The grip-blocks 1 1, a plurality of which are employed, are in the form of arc-shaped blocks or sectors of a hollow cylinder, serrated upon their inner or grip faces and of such height as will fit snugly between the seat 2 and flange 3 of the clamp or including element. In order to prevent the displacement of said grip-blocks when the jaws A B are open, as well as to afford means of retracting the grip-blocks and also to aid in causing the grip-blocks to preserve a normal line in their movement to and from the axis of the elevator, retaining-pins 4 are passed through plain openings in the wall of the clamp-jaws A and B and tapped and threaded or otherwise secured to the grip-blocks 1 1.

5 5 indicate set-screws which pass through threaded openings in the walls of the clamp-jaws or including element, preferably at equal distances above and below and in line
 5 with the retaining-pins 4, and whose inner ends bear against the outer faces or backs of the grip-blocks 1 1, so that when said retaining-pins are retracted and the set-screws 5
 10 are screwed in or advanced equally the grip-blocks 1 1 will be caused to move toward the axis of the elevator on lines normal to said axis.

The construction being substantially such as hereinbefore pointed out, the elevator may
 15 be adjusted for any diameter tubing or casing within its extreme limits by withdrawing the retaining-pin and advancing the set-screws, thus adjusting the grip-blocks toward the center or axis of the elevator until the
 20 space between the grip-blocks corresponds to the exterior diameter of the casing or tube to be handled, after which the elevator is applied to the casing or tubing in the usual manner, the jaws locked, and, if required, the
 25 grip increased by a final tightening up of the set-screws 5 5. To release the tubing or casing, the set-screws 5 5 may be slightly withdrawn and the jaws of the elevator then unlocked and separated in the usual manner.

30 Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a casing or tubing elevator, the combination with a clamp comprised of a plurality of pivoted jaws and means for locking the same, of a plurality of included arc-shaped grip-blocks for each jaw, a retaining-pin for each grip-block, and a plurality of set-screws for each grip-block, said set-screws disposed on opposite sides of the retaining-pin of said grip-block, substantially as and for the purposes specified. 35 40

2. In a casing or tubing elevator, the combination with a clamp comprised of a plurality of pivoted jaws and means for locking the same, said jaws recessed on their interior for the reception of grip-blocks, of a plurality of grip-blocks for each jaw, a retaining-pin for each grip-block, and a plurality of set-screws for each grip-block, said set-screws disposed in line with and on opposite sides of the retaining-pin of said grip-block, substantially as and for the purposes specified. 45 50

In testimony whereof I affix my signature, in presence of two witnesses, this 1st day of February, 1902. 55

JOHN SCOTT.

Witnesses:

J. H. CHICKERING,
 C. J. RHINE.