

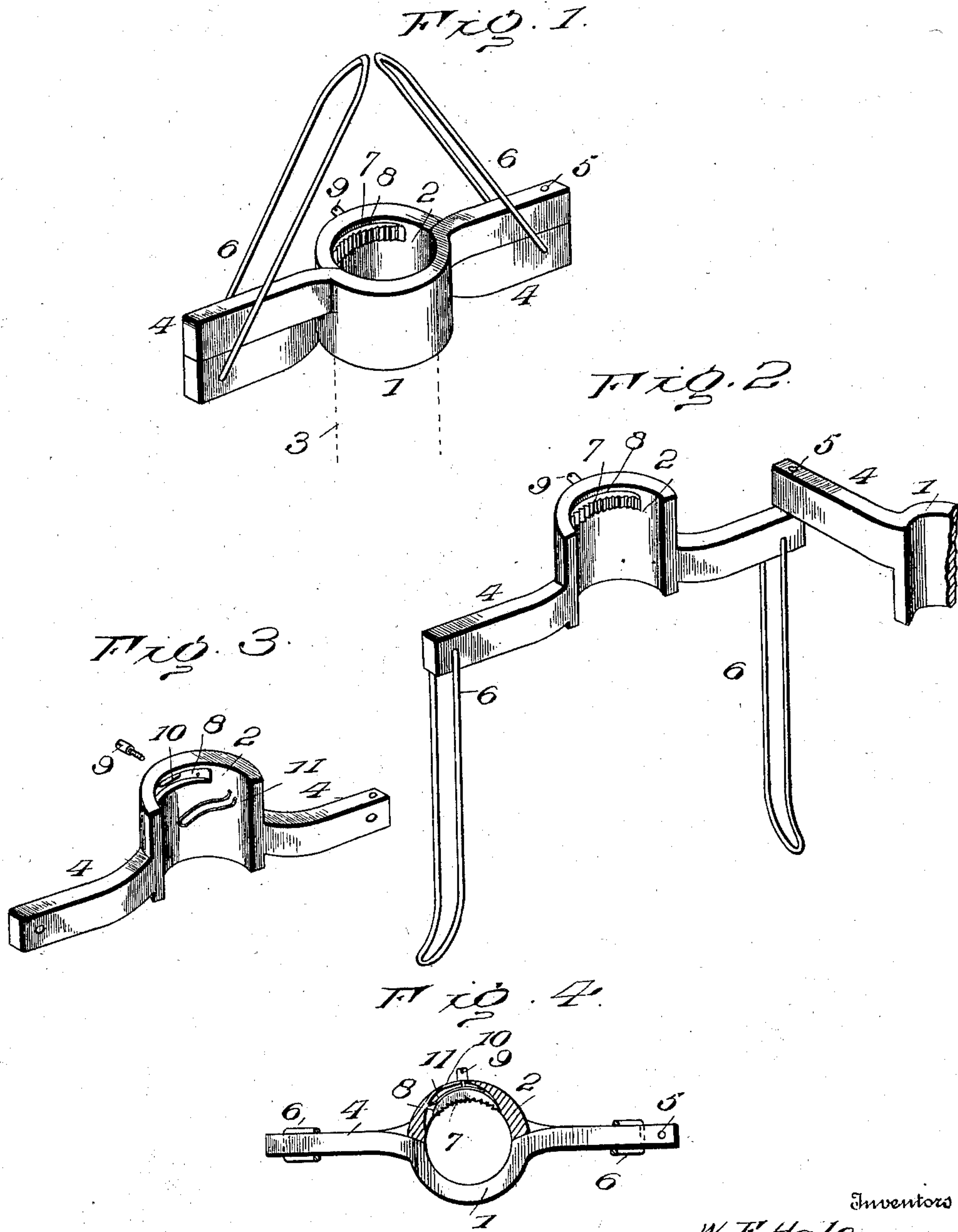
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W. F. HALE & B. L. WIGTON.
ELEVATING DEVICE FOR WELL CASINGS.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

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ELEVATING DEVICE FOR WELL-CASINGS.

SPECIFICATION forming part of Letters Patent No. 748,183, dated December 29, 1903.

Application filed September 8, 1903. Serial No. 172,421. (No model.)

To all whom it may concern:

Be it known that we, WILBUR F. HALE, residing at Macksburg, in the county of Washington, and BURTON L. WIGTON, residing at Caldwell, in the county of Noble, State of Ohio, citizens of the United States, have invented certain new and useful Improvements in Elevating Devices for Well-Casings, of which the following is a specification.

This invention is an attachment for use in connection with means for elevating casings of deep wells or for lowering said casings.

The invention is designed to obviate the necessity for use of the common form of chain-tongs presently in use, special means being provided for preventing turning of the casing in the operation of elevating the same.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing the invention applied thereto. Fig. 2 is a perspective view of the invention, showing the clamp members apart. Fig. 3 is a perspective view of the clamp member carrying the supporting-arms, the clutch device removed, so as to clearly show the peculiar form of the recess in which same is disposed. Fig. 4 is a top plan view of the clamp device embodied in the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The elevating device comprises complementary clamp members 1 and 2, which are of approximately semicircular form, being adapted to clamp the casing 3 upon opposite sides thereof. Lateral arms 4 are projected from the clamp members 1 and 2, a pivot 5 passing through the outer end portions of adjacent arms of said clamp members to pivotally secure the same for coöpera-

tion. The arms of one of the clamp members are projected from the upper portion thereof, whereas the arms of the opposite member extend from the lower portion thereof, this structure permitting the subjacent arms to be disposed beneath the arms upon the other member. The clamp member provided with the lowermost arms 4 carries the pivoted supporting members 6, which are preferably of link form, so that when they are disposed in an uppermost position and connected to the suspending means of the clamp device they will embrace the arms projected from the pivoted clamp members upon opposite sides thereof, and thereby lock this member in co-operating relation as regards the other member. The member carrying the pivoted supporting elements 6 and which will be termed the "relative fixed member" is also provided with a clutch device in the form of an arcuate-toothed element 7, which is slidably mounted in a recess 8 upon the inner face of the relatively fixed clamp member. The clutch device is held in position by means of a headed fastening 9, removably affixed thereto and passing through a slot 10 upon the clamp member. A spring 11 is interposed between the walls of the clamp member and the rear side of the clutch element 7. The teeth of the element 7 oppositely incline upon opposite sides of a medial point thereon, the recess 8 being deeper at the central point than at the other portions thereof, and the element 7 is of a corresponding form, so that movement thereof toward one end of the slot 10 forces the element by a wedge action outward, thereby causing positive engagement of the said element with the casing to prevent turning of the latter.

To apply the clamp device preparatory to elevating a casing, the supporting member coöperating with the moving arm of the pivoted clamp member is thrown down out of engagement therewith and the pivoted member by a pivotal movement permits separation of the clamp elements. The casing is then disposed intermediate the clamp members, which are then forced together, and upon upward movement of the aforementioned supporting device said clamp members are locked in their closed position upon

the casing, the clutch device positively engaging the casing under the tension of the spring. Should the casing commence to revolve, the element 7 will by a slight sliding movement be caused to forcibly engage the same, and thus prevent the turning action thereof. As before mentioned, sliding movement of the element 7 in either direction facilitates the engaging action of the same, because of the peculiar form of the recess 8.

Having thus described the invention, what is claimed as new is—

In a device of the class described, the combination with elevating members, one of said members being provided with a recess, an

arcuate-toothed element disposed in the said recess for slidable movement, and spring means for causing positive engagement of the toothed element aforesaid.

In testimony whereof we affix our signatures in presence of two witnesses.

WILBUR F. HALE. [L. S.]

BURTON L. WIGTON. [L. S.]

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