

UNITED STATES PATENT OFFICE.

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TO GEORGE D. CASTO, OF PRESTON, IDAHO.

PIPE-GRAB.

1,034,210.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, CYRUS J. CURTIS and RENO C. CURTIS, citizens of the United States, residing at Preston, in the county of Oneida and State of Idaho, have invented certain new and useful Improvements in Pipe-Grabs, of which the following is a specification.

This invention relates to pipe grabs and has for its object the provision of a comparatively simple and thoroughly efficient device of this character, by means of which pipes, tiles and other tubular bodies may be conveniently lowered into or removed from a well or other excavation.

A further object of the invention is to provide a pipe grab including a body portion having means at one end thereof for attachment to a draft cable and provided at its other end with a pointed terminal to assist in guiding the tool within a pipe or tile, there being a cam pivotally mounted on said body portion and adapted to engage and grip the interior wall of a pipe when raising and lowering the latter.

A further object is to provide means for limiting the pivotal movement of the cam, and means for tripping said cam to permit the release of the pipe.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a pipe grab constructed in accordance with our invention; Fig. 2 is a vertical sectional view, showing the manner of inserting the tool within a pipe or tile; Fig. 3 is a similar view, showing the gripping member moved in contact with the inner face of the pipe or tile to raise or lower the latter; Fig. 4 is a transverse sectional view, showing the gripping member disposed in contact with the inner wall of the pipe.

Corresponding and like parts are referred

to in the following description and indicated in all the views of the drawings by the same reference character.

The improved pipe grab forming the subject matter of the present invention comprises an elongated body portion or bar 5 preferably formed of metal and having one end thereof provided with a pointed terminal 6 and its other end formed with an eye 7 to permit the attachment of a draft cord or cable (not shown.)

The central portion of the bar 5 is provided with an enlargement 9 having a longitudinal slot 10 formed therein and in which is eccentrically mounted for pivotal movement at 11 a gripping member 12. The gripping member 12 is in the form of a flat plate having a curved face 13 and a straight edge 14, the latter being adapted to bear against the interior wall of a pipe and thus permit the latter to be readily lowered into or removed from a well or other excavation. One end of the gripping member 12, at the straight edge 14 thereof, is formed with oppositely disposed lugs 15 for moving said member into engagement with the inner wall of a pipe, said lugs also serving to reinforce the straight edge 14 where it grips the pipe. Formed in the plate or gripping member 12 at a point near the lugs 15, is an opening 16 to permit the attachment of a cord or wire 17 so that by exerting a longitudinal pull on the wire 17, the gripping member may be disengaged from the wall of the pipe to permit the removal of the tool.

In lowering a pipe or tile into a well, the pointed terminal 6 of the tool is inserted within said pipe, the weight of the lugs 15 serving to move the straight edge 14 of the gripping member in contact with the interior wall of the pipe so that the tool will be firmly held within the pipe and thus permit the latter to be lowered into the well. To release the pipe, it is merely necessary to exert a longitudinal pull on the cord or wire 17 which tilts the gripping member 12 laterally until the lugs 15 thereof bear against the adjacent wall of the bar 5 when the tool may readily be withdrawn from the pipe, leaving the latter in the well.

It is obvious, that in order to remove a pipe or tile from a well, or other excavation, it is merely necessary to lower the tool within the pipe section and tilt the gripping

member in the manner before described, when by exerting a longitudinal pull on the cable, the tool together with the pipe, may be conveniently withdrawn from the well. It will here be noted that the pointed terminal 6 of the tool assists in guiding the latter within a pipe, while the lugs 15 form in effect a counterbalance and serve to tilt the gripping member after the latter has been inserted within the pipe. By removing the pivot pin 11 and inserting a gripping member of a larger or smaller size in the slot 10, the tool may be readily used for raising and lowering pipes, tiles or other hollow bodies of different cross sectional diameters.

The tool is extremely simple in construction and may be manufactured and placed on the market at a comparatively small cost.

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

1. A pipe grab including a bar having one end thereof pointed and its other end provided with an eye for attachment to a draft cable, the intermediate portion of the bar being provided with an enlargement having a slot therein, and a gripping member eccentrically mounted for pivotal movement within the slot and comprising a flat substantially semi-circular plate having a straight edge and a curved edge adapted to simultaneously engage and grip the inner wall of a pipe, there being lugs extending laterally from the opposite flat faces of the

plate at the upper end of the straight edge of the gripping member for moving said member into engagement with the pipe, and means connected with the gripping member above its pivotal axis and to one side of the lugs for releasing the gripping member from engagement with said pipe.

2. A pipe grab including a bar having one end thereof provided with means for attachment to a draft cable and its intermediate portion produced with an enlargement having a slot therein, a gripping member eccentrically mounted for pivotal movement within the slot and comprising a flat substantially semi-circular plate having a straight edge and a curved edge, there being lugs extending laterally from the opposite flat sides of the plate at the straight edge and intersecting the curved edge of said plate, for moving said gripping member into engagement with the inner wall of a pipe and a transverse opening piercing the plate above the pivotal axis thereof and at the rear of the lugs to permit the attachment of a releasing device.

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

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Witnesses:

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