H. G. JOHNSTON.

UNSCREWING MECHANISM FOR WELL TUBES.

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HORACE G. JOHNSTON, OF CORSICANA, TEXAS.

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To all whom it may concern:

Be it known that I, HORACE G. JOHNSTON, a citizen of the United States, residing at Corsicana, in the county of Navarro and State of Texas, have invented certain new and useful Improvements in Unscrewing Mechanism for Well-Tubes; 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 improvements in well sinking machines and particularly to means for screwing together or unscrewing sections of a well tube or casing for applying or removing the same.

The object of the invention is to provide a simple, strong and easily manipulated device for screwing casing or well tube sections on or off.

A further object of the invention is to combine with a well sinking apparatus means for causing the well sinking apparatus to screw the casing sections together, or unscrew the same, according to the direction of the movement of the well sinking machine.

A still further object of the invention is the combination of a well sinking apparatus having a rotary base or table and rods connected therewith arranged to be rotated or carried around when the table or base is rotated, associated with a rod or projection adapted to remain stationary, said movable rod and said stationary rod being arranged to engage clamping members, secured to adjoining sections of the well tube or casing, so that upon the rotation of the said table or base the sections of the well tubing will be screwed into position or unscrewed, according to the direction of the movements of the table or base.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings the figure represents a perspective view of a well drilling apparatus, and means for screwing a well tube section on or off.

Referring to the drawings by numerals; 1 indicates a stationary support upon which the moving parts are mounted. Upon the support or base, 1 is mounted the rotating well casing sinking device 2 connected with a wheel, 3, by an interposed shaft and gearing, the wheel 3 being connected to any suitable power not shown.

In operation wheel 3 is rotated and power is conveyed therefrom to rotary member 2, which in turn is rotated in a substantially horizontal plane. When a tube is being sunk, the same is designed to pass downwardly through rotating member 2 between wheels 4.

In forcing a well tube into position or removing the same therefrom, the respective sections thereof are screwed together or unscrewed as the case may be. The present invention is designed to present combined means for sinking well tubing and means for screwing and unscrewing the respective sections together or apart, as desired. In the drawing, portions of the adjoining sections, 18 and 16 of the well tube or casing, are shown. To this end the rotary member 2, is provided with lugs, 5—5 which may be cast integral with rotary member 2, or rigidly secured thereto. Positioned in lugs 5—5 are pins 6—6 or rods 6—6. By this arrangement whenever rotary member 2 is rotated the pins 6—6 will be carried around therewith, so that clamp 7 connected with section 8 of the well tubing or casing will be struck by one of the rods or pins 6 and carried around and the section 8 screwed on or off, according to the direction of the movement of the base or table 2 of the machine.

Rotary member 2 and associated parts are mounted on a base plate 9, which in turn is mounted upon support 1. Rigidly secured to base 9, or formed integrally therewith are lugs 10 and 11. A pin or rod 12 is adapted to be positioned in one of the lugs 10 or 11, as may be most desirable. As will be evident pin 12, when positioned in one of the lugs 10 or 11, will be stationary and when the end or handle 13 of clamp 14 is resting in the bent over or hook shaped portion, 15 of rod 12, the clamp 14 will be held stationary even though the section 18 is rotating and giving section 16 a tendency to rotate. By this construction and arrangement a rotating and a stationary clamping member is provided for clamping the respective sections of pipes, the rotating clamping member being operated by the tube sinking mechanism without any change thereof. By this construction and arrangement it would

be evident that if the collar of the pipe projecting over the gripping wheels 4 is engaged with tongs or a clamp resting against the pins or rods 6 and section 16 is similarly engaged with tongs or gripping means, 14 resting against pin or rod 12 and the machine is rotated the pipe may be unscrewed or screwed on with very little effort on the part of the workman.

What I claim is:

1. The combination with a base, of a table mounted to rotate upon the base, pipe grippers carried by the rotatable table, sockets formed adjacent the periphery of the table, columns adapted to be erected upon the table by being inserted in the sockets, and a removable upright adapted to be erected upon the frame and extend above the rotatable table.

2. The combination with a base, of a table mounted to rotate upon the base, pipe grippers carried by the table, a removable column carried by the periphery of the table extending above the grippers and a removable upright carried by the framework without the periphery of the table and extending above the removable column.

In testimony whereof I affix my signature in presence of two witnesses.

HORACE G. JOHNSTON.

Witnesses:
W. J. CHENEY,
R. N. ELLIOTT.