

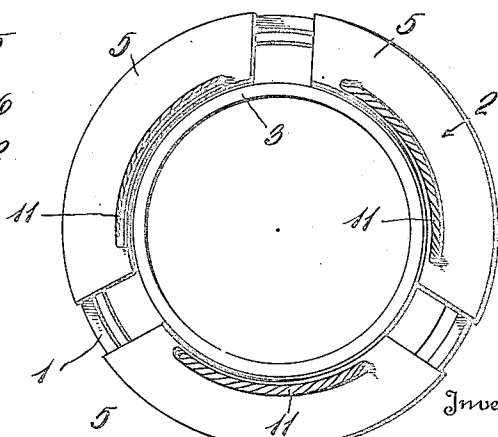
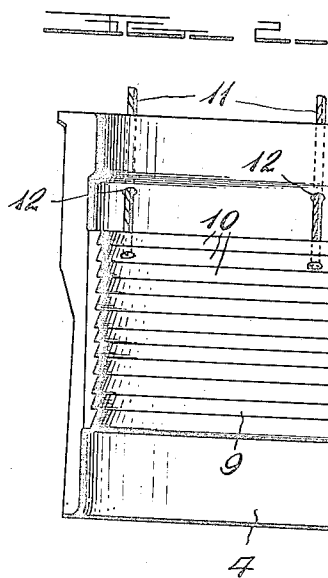
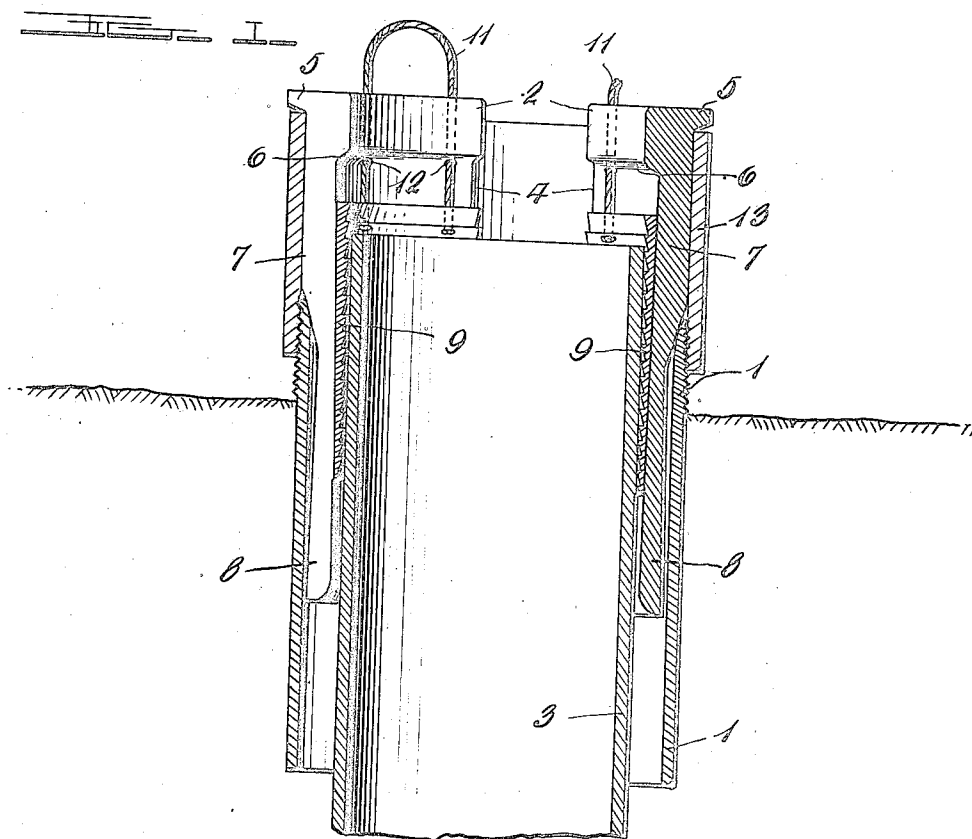
Aug. 21, 1923.

T. E. ROBINSON

1,465,485

CASING CLAMP

Filed Sept. 9, 1922



Inventor
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1,465,485

UNITED STATES PATENT OFFICE.

THOMAS E. ROBINSON, OF TULSA, OKLAHOMA.

CASING CLAMP.

Application filed September 9, 1922. Serial No. 587,117.

To all whom it may concern:

Be it known that I, THOMAS E. ROBINSON, a citizen of the United States, residing at Tulsa, in the county of Tulsa and State of Oklahoma, have invented certain new and useful Improvements in a Casing Clamp, of which the following is a specification.

My invention relates to oil well drilling appliances, and particularly to clamping means for holding and setting a well casing. The invention set forth herein is an improvement over the clamp described in my United States Patent No. 1,402,092 of January 3, 1922.

The primary object of the invention is the provision of a casing clamp composed of independent relatively movable members so constructed and arranged as to be used at a well surface for holding and setting the well casing.

A further object is the provision of a clamp of this character of novel and efficient construction.

With these and such other objects in view as will be apparent from the description, my invention resides in the novel construction, combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, of which—

Figure 1 is a vertical section on the upper end of a well and casing with the clamp in position;

Figure 2, an elevation of a clamp; and

Figure 3, a top plan view of a well casing with the clamp in operative position.

This clamp is designed for use between an inner and outer casing, and in the preferred form as illustrated the outer casing comprises a supporting pipe section of large diameter, driven at the top of the well around the bore after same has been drilled in the usual manner, a collar 13 externally threaded thereon, a plurality of clamping members 2, and the well casing 3, with the clamping members supported on the outer pipe section, and working between same and the casing 3.

The clamping members 2 are segmental and any number may be employed as desired, but I prefer to use three, as shown. As they are identical in construction, a detailed description of one will suffice for all. Each individual clamp member comprises an arcuate segmental plate 4 provided with

a lateral exterior flange 5 to engage over the upper end of the support 1, whereby the plate is suspended therein. Below the flange the body of the plate is slightly reduced in thickness to form a shoulder 6 and from this shoulder to the opposite end the inner face of the plate is inclined outwardly, forming a wedge face. Directly under the flange the body of the plate is, for substantially half its length, made thicker as at 7 to engage the collar 13 and the top of casing 1.

Co-acting with plate 4 is an oppositely wedge-shaped segmental plate 9 slidable over the inner face of the plate 4. The engaging faces of plates 4 and 9 are smooth, while the inner face of plate 9 is provided with serrations 10 for gripping engagement with the well casing 3. The two plates comprising the clamp are independent of one another, but are loosely attached by means of a wire loop 11, passed through apertures 12 in the flange 5 and secured in any suitable manner, preferably by solder or weld, in one end of the plate 9. The loop 11 thus forms a handle by which the plate 9 may be lifted relative to plate 4, and also a means by which the two plates are attached permanently to prevent plate 9 slipping down the well bore when applied.

In operation, the support 1, collar 13, and casing 3 having been positioned, the clamps 2 are inserted between the collar and well casing in radial spaced relation, whereupon the serrated faces of the plates 9 will engage the well casing rigidly clamping same in supported position owing to the wedge formation of the clamp plates. When the casing is raised the plates 9 will ride up on the plates 4 to allow free upward movement of the casing, but any downward movement thereof will be arrested by action of the clamp. With this construction it is obvious that the casing can be set and held at any desired elevation, eliminating cutting the upper section of casing, and the arrangement of support 1 eliminates the usual flange employed with a threaded upper casing section.

With this construction the clamp works only in the collar of the outside casing, giving the casing, as well as the clamp, greatly increased holding strength. While I have described and illustrated certain details which enter into the construction and operation of the invention, I desire it to be understood that I do not limit myself to these, but

that any such may be used as will fall within the scope of the invention as claimed.

I claim:—

1. A casing clamp for oil wells, comprising a segmental plate serrated for engagement with a well casing, a wedge member adapted for insertion within a support, said member being provided with apertures, and a handle for said segmental plate comprising a loop
10 passed through said apertures and secured in said plate.

2. A casing clamp for oil wells, comprising a support, a segmental member adapted to be suspended within said support, a casing engaging member, said members being formed for wedging relation, a handle on said casing engaging member, and means on the segmental member for engaging said handle for
20 attachment of said members in slidable relation.

3. In a casing clamp for oil wells, a cylindrical support, an arcuate longitudinally wedge shaped plate, a flange on said plate to engage over one end of the support for sus-
25 pension of the plate therein, the upper end

of said plate having longitudinal bores there-through, a member adapted to engage a well casing slidably disposed on said plate, a wire looped above said plate with its ends disposed through the bores in said plate and secured to said casing engaging member for slidable attaching connection between said plate and member.

4. In a casing clamp, a cylindrical supporting member, a collar thereon, a clamp mem- 35 ber provided with a lateral flange to engage over the upper edge of said collar, the body of said clamp member being of relatively thick cross section for substantially half its length, and reduced in the remaining portion 40 whereby the lower end of said thickened portion will engage against the joint of said collar and supporting member for further support of said clamp, a casing engaging clamp member slidable on said first named clamp 45 member, and connection between said clamp members.

In testimony whereof I affix my signature.

THOMAS E. ROBINSON.