

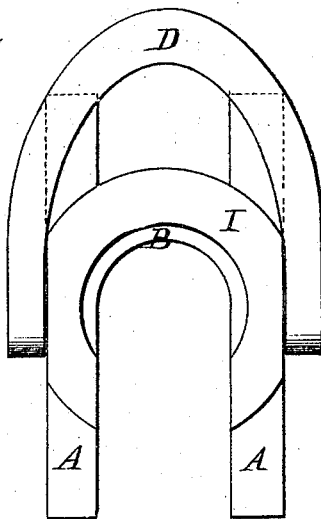
*J. P. Smith,*

*Tube Clamp.*

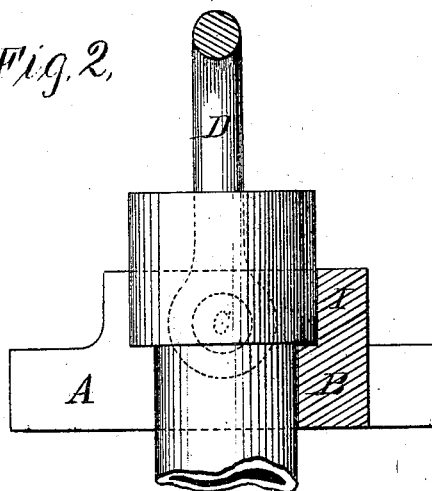
*No. 109463.*

*Patented Nov. 22, 1870.*

*Fig. 1.*



*Fig. 2.*



*Witnesses*  
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# United States Patent Office.

JONAS P. SMITH, OF PIONEER, PENNSYLVANIA.

Letters Patent No. 109,463, dated November 22, 1870.

## IMPROVEMENT IN TUBE-DRAWERS FOR DEEP WELLS.

The Schedule referred to in these Letters Patent and making part of the same

*To all whom it may concern:*

Be it known that I, JONAS P. SMITH, of Pioneer, in the county of Venango and State of Pennsylvania, have invented a new and valuable Improvement in Tubing-Clamps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my invention as viewed from above.

Figure 2 is a longitudinal central vertical section of the same with tube in seat.

In petroleum-wells, and other like deep wells, long pipes are inserted to reach below all sources of fresh water, and nearly or quite to the bottom. Around this pipe, and low enough down, a packing is fastened, to prevent all fresh water falling in from above from getting below that point.

Commonly this packing is a leather bag filled with flax-seed, beans, oats, or other substance that water will expand largely, flax-seed being most used, and in this pipe are inserted the rod and pumping apparatus.

This pipe is called "tubing," and is made up of tubes, each fifteen to twenty feet long, combined together by thimbles; a "thimble" being a tube four to six inches long, and large enough to screw over the ends of the tubes or "joints" of the tubing; a screw being cut on the outside of each end of each joint of tubing, and on the inside of each end of each thimble.

At the manufactory a thimble is screwed onto each joint of tubing so rigidly as to be practically an integral part of the tube, and, therefore, practically the tubing is fastened together by screwing the foot of one joint into the head of another.

"Tubing a well," putting the long pipe into it, is done commonly as follows:

Screw a short iron bar into the end of the thimble of a joint of tubing, and let it into the well by a rope or chain from a windlass to the other end of the iron bar till the thimble is down to the top of the well. Hold the tubing there by a stay under the shoulder of the thimble. Screw out the iron bar, and screw it into another joint of tubing. Screw the foot of the other joint of tubing into the head of the one in the well. Let the tubing again into the well till the thimble or head of the other joint is down to the top of the well, and so on; and drawing tubing is taking the pipe out of a well in a like way.

The object of my invention is to let tubing into a

well or take it out by the shoulder of the thimble, instead of by the screw on the iron bar; and

The nature of the invention is a collar to go round the tubing and fit closely to it under the shoulder, with a bail pivoted to the collar in horizontal line through the middle of the tubing, to swing over the top of the thimble, and to which to hitch the chain or rope from the windlass.

Of the drawing the parts are as follows:

A B A is a collar, with a hole vertically through it, large enough to fit loosely around the tubing, under the thimble, and with a lateral open slot of the same size.

A' and A' are projections from the collar A B A, opposite the ends A and A, which, with the ends, are a good means of holding the collar over a well.

C and C are pivots on opposite sides of the collar A B A, in lateral line through the middle of the tubing.

D is a bail, hinged to the pivots C and C of the collar A B A, and large enough to swing over the top of a thimble of a joint of tubing, when within the collar, and small enough to keep the thimble in place.

I is a recess or circular rabbet in the collar A B A over the hole, from the top down part way through, large enough to receive the thimble of a joint of tubing entering vertically.

In working, swing the bail D down onto the projections A' and A', slip the collar A B A onto a joint of tubing under the thimble till the tubing is within the hole, lift up the collar till the bottom of the rabbet I strikes the shoulder of the thimble; swing the bail D over the thimble, and attach the chain or rope, and lower or raise, as desired. Thus made, it is a simple and cheap instrument, and well adapted to its object.

The essential feature of the invention is a single-bailed collar, adapted to go onto a joint of tubing, and to receive and securely hold the thimble within a socket or recess in the collar, and between the recess and bail.

*Claim.*

I claim—

The combination of a recessed collar, with a bail hinged to such collar of a tube-drawer, substantially as described.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

J. P. SMITH.

Witnesses:

GEORGE H. BEATTIE,  
L. MCENROE.