J. N. Augier,

Tube Clamps.

No. 96,766. Patented Nov. 16. 1869.

Fig. 1.

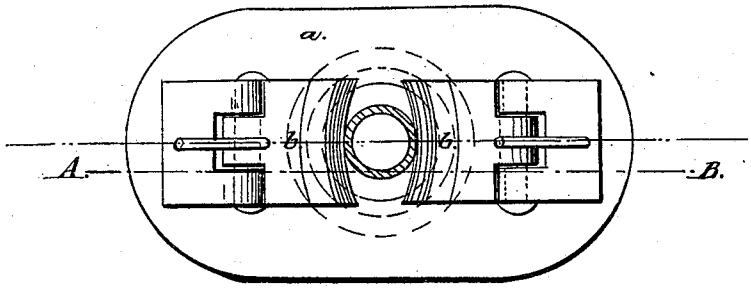
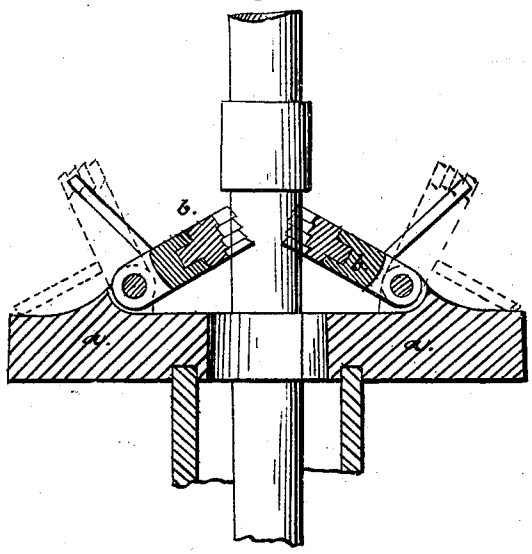


Fig. 2.



WITNESSES:

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JOEL N. ANGIER, OF TITUSVILLE, PENNSYLVANIA.

Letters Patent No. 96,766, *dated November* 16, 1869.

IMPROVEMENT IN TUBING-CLUTCH.

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, JOEL N. ANGIER, of the city of Titusville, county of Crawford, and State of Pennsylvania, have invented a certain new and useful Safety Tubing-Clutch; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top view or plan, and

Figure 2, a vertical section of my improved clutch, taken on line A B.

In lowering and raising tubing in artesian wells, accidents frequently happen from the breaking of the cable, swivel, or other fixtures, by which the tubing is dropped to the bottom of the well, and so bent and bruised as to be unfit for use, or so wedged into the well that it cannot be removed.

The object of the device herein described is to catch and hold said tubing at any desired point, either for convenience or in case of accident, as above.

The blue lines represent two sections of tubing with connecting collar.

a represents the base-plate or frame of the clutch, made of the proper size and form, to fit and rest upon the top of the driving-pipe or casing of the well, and having a central circular opening through which the tubing is lowered.

b b are pawls or "valves," hinged to the base-plate as shown, and preferably made of steel.

When lowering the tubing through this clutch, the valves *b b* should ordinarily be thrown back, as shown in dotted lines in fig. 2, but the tubing may be stopped and held at any desired point by throwing them forward against the latter, their steel edges griping upon and holding it firmly.

In drawing the tube from the well, (when breakages and accidents are most liable to occur,) the valves are closed upon it, allowing it to be drawn up freely, but holding it whenever the cable is slackened.

The steel edge of the valve may be welded upon it, or detachable, as desired, and, with a suitable hinge, valves of various lengths may be used upon the same base-plate, to fit upon the different sizes of tubing.

Having thus described my improved clutch,

What I claim as my invention, and desire to secure by Letters Patent, is—

A tubing-clutch, with perforated base-plate *a*, and hinged valves *b b*, arranged upon the driving-pipe or casing, and operating substantially as and for the purposes set forth.

JOEL N. ANGIER.

Witnesses:

A. B. HOWLAND,

JOSEPH SMITH.