March 17, 1925. 1,529,930

T. SHARP

AUTOMATIC PIPE CLAMP

Filed March 31, 1922

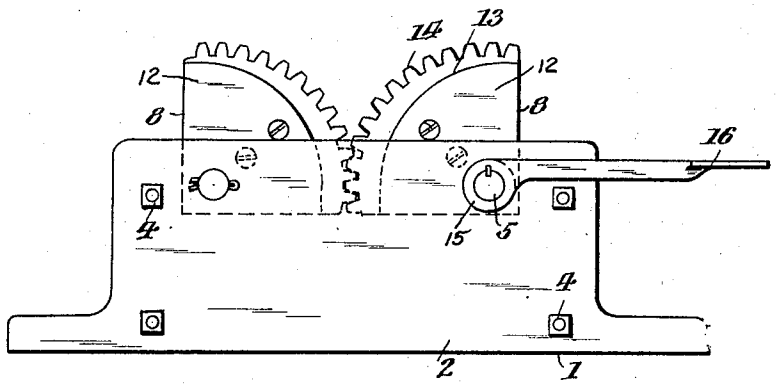


Fig. 1.

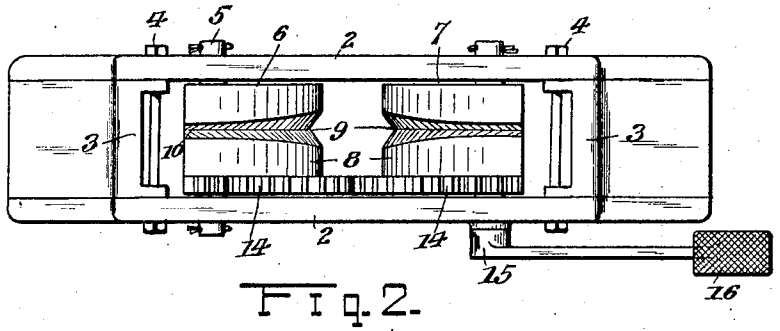


Fig. 2.

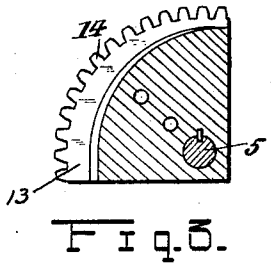


Fig. 6.

Fig. 4.

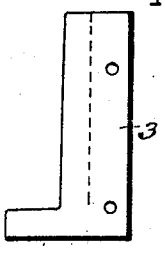
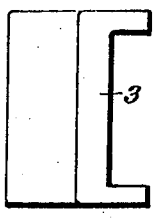


Fig. 5.



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UNITED STATES PATENT OFFICE.

TEMPLE SHARP, OF MOUNTAINAIR, NEW MEXICO.

AUTOMATIC PIPE CLAMP.

Application filed March 31, 1922. Serial No. 548,511.

To all whom it may concern:

Be it known that TEMPLE SHARP, a citizen of the United States, residing at Mountainair, in the county of Torrance and State of New Mexico, has invented certain new and useful Improvements in Automatic Pipe Clamps, of which the following is a specification.

This invention has reference generally to improvements in a clamp and more particularly relates to an automatic pipe clamp.

The primary object of my invention is to provide a pipe clamp comprising a frame that is adapted to be placed over an opening into a well and having a pair of clamping jaws journaled in the casing and so arranged and positioned that the jaws will grip and firmly hold a pipe of any size.

My improved pipe clamp is not only capable of definite adjustability to different size pipes, but the limit of closing of the gripping jaws is automatically determined and secured by the pipe itself without any biting or other injurious contact with the material of the pipe.

A still further object of my invention is to provide a device of this character, that is simple in operation and construction, durable, efficient for the purpose intended, and one that can be manufactured and placed on the market at a relatively low cost.

Other improvements and novel details in the construction and arrangement of the various parts of the device will be brought out more in detail in the description to follow, which, for clear understanding of the invention, should be considered in connection with the accompanying drawing, forming a part thereof and wherein is disclosed for the purpose of illustration, a convenient and satisfactory embodiment of the invention. It is to be noted in this connection, that minor changes in the construction and arrangement of parts may be made without departing from the spirit of the invention, or the principle of the operation of the various parts.

The preferred embodiment of the invention is clearly illustrated in the accompanying drawings, in which;

Figure 1 is a side elevation of my improved clamp.

Figure 2 is a top plan of same.

Figure 3 is a vertical transverse section through one of the clamping jaws removed from the casing.

Figure 4 is a side elevation of one of the end walls of the casing, and

Figure 5 is a top plan view of same.

Referring to the drawings in detail, like numerals will be used to designate like parts in the different views.

The numeral 1 denotes a casing adapted to be positioned over a well or any other place where it is desired to lower and hold a pipe. The casing 1 comprises side walls 2, and an end wall 3, which are held in an assembled position by fastening bolts 4.

Positioned within the position 1 and journaled for rotation on the respective shafts 5 are pipe clamping jaws 6 and 7, and same are constructed of any suitable material. Each of the jaws 6 and 7 are constructed with an arcuated face 8, that is provided with a tapering corrugated groove 9.

A metal plate 12 is attached to each of the jaws and is positioned between the jaws and one of the side walls 2. The metal plates 12 each have an arcuated edge 13 that is provided with teeth 14 that are adapted to mesh with each other.

Mounted on one end of one of the shafts 5, as indicated by the numeral 15 is a foot pedal 16.

In the operation of my invention, as in the act of lowering a pipe into a well, pressure is placed on the foot pedal 16, which causes the jaws 6 and 7 to rotate by means of the cogs formed on the metal plate, which causes the jaws to open to their full width which permits a pipe (not shown) to be inserted into the well between the jaws 6 and 7. After the pipe has been inserted a sufficient distance into the well, pressure is removed from the foot pedal which allows the jaws 6 and 7 to move automatically by gravity into engagement with the pipe and the downward pull of the pipe as caused by the weight of same bringing the jaws 6 and 7 into firm engagement with the pipe and hold same at any desired height.

The many uses and advantages of my improved pipe clamp will, I think, be understood without further explanation.

What I claim as new and desire to protect by Letters Patent is:—

A device of the class described comprising a frame consisting of a pair of spaced paral-

lel side walls cut away at their ends, a pair of angular end walls removably secured in position between said side walls to form an enclosure, a pair of segmental complementary clamping jaws pivotally supported between the side walls adjacent their ends, said jaws having central V-shaped grooves therein, said grooves tapering narrower toward their ends and being corrugated throughout their length, threaded openings formed at predetermined portions in the outer face of each of said jaw segments, a pair of segmental plates adapted for application respectively to the sides of said jaws, said plates being provided with openings adapted for registration with the aforesaid openings, screws entering the registering openings securely retaining said plates to the jaws, teeth formed on the peripheral edges of said segmental plates adapted to mesh with one another, and a foot lever keyed to the axis of one of said segmental jaws beyond the one side wall of said frame, whereby to actuate said jaws, as and for the purposes described.

In testimony whereof I affix my signature.

TEMPLE SHARP.