G. AMBORN.

CHAIN PIPE VISE OR THE LIKE.

APPLICATION FILED DEC. 27, 1911.

**1,054,664.**

Patented Mar. 4, 1913.

*Fig. 1.*

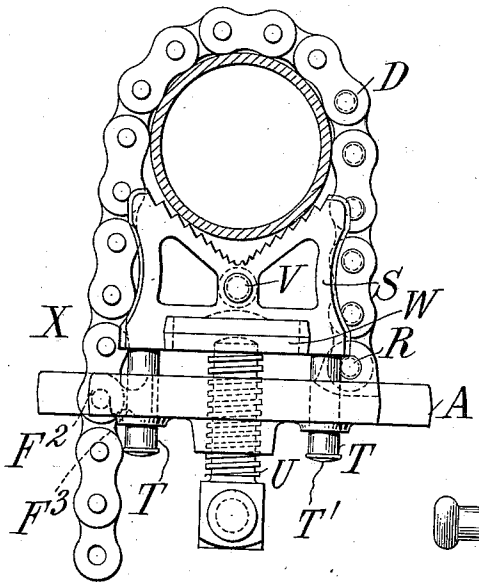
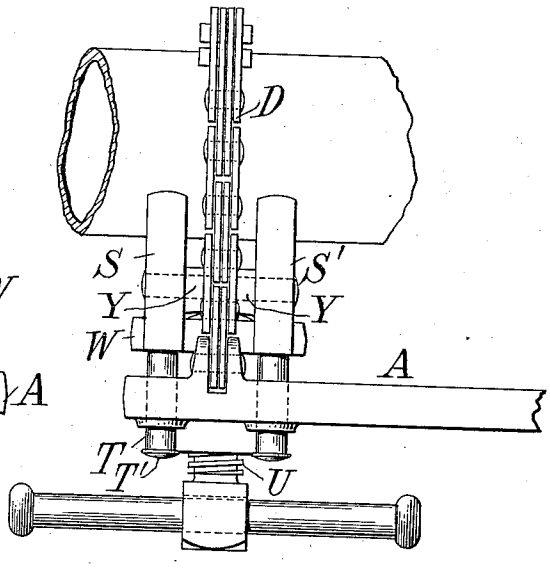



*Fig. 2.*

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# UNITED STATES PATENT OFFICE.

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## CHAIN PIPE-VISE OR THE LIKE.

1,054,664. Specification of Letters Patent. Patented Mar. 4, 1913.

Application filed December 27, 1911. Serial No. 668,063.

*To all whom it may concern:*

Be it known that I, GEORGE AMBORN, a citizen of the United States, residing in Chapinville, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Chain Pipe-Vises or the Like, of which the following is a specification.

This invention relates to chain pipe vises or the like, and aims to provide certain improvements therein.

Chain pipe vises as commonly constructed usually comprise a pair of jaws having working faces upon which the pipe rests, and a chain adapted to pass around the pipe and having one end connected with a screw or other take-up mechanism, the other end of the chain being adapted to be locked in varying positions to the bed plate of the vise. In such construction the chain is tightened by a movement of the end which is connected to the take-up device, the chain slipping around the pipe until the desired tension is reached.

According to the present invention I provide a construction in which the tape-up device operates to produce a relative movement between the jaw and both ends of the chain, so that the pipe is pressed against the jaws uniformly without any substantial twisting movement. In this construction the chain may be tightened more quickly than heretofore because of the fact that it is in effect shortened at both ends. According to the present invention, however, instead of providing a stationary jaw with means for taking up the chain at both ends thereof, I provide a movable jaw by means of which the pipe is pressed upwardly into contact with the chain, the latter being preferably capable of only rough or approximate adjustments such as are secured by the use of a lock adjustably engaging one end of the chain.

The invention also includes certain other features of improvement which will be hereinafter referred to.

Referring to the drawings which illustrate the preferred form of the present invention,—Figure 1 is an end elevation of the preferred construction. Fig. 2 is a front elevation of Fig. 1.

Referring to the drawings, let A indicate a suitable bed plate, S S′ the jaws, and D a suitable chain. The front end of the chain D is preferably fixedly secured to the bed plate of the vise, while its rear end is capable of adjustably engaging one or the other of a pair of locks $F^2$ $F^3$ formed on the rear side of the bed plate. Any suitable construction may be substituted for this arrangement.

Instead of adjusting the chain directly, as has heretofore been common, so that the pipe is forced downwardly upon the jaws, I provide a movable jaw or jaws which are adapted to be moved upwardly against the pipe raising the latter until it comes firmly into contact with the chain. Preferably the entire jaw or jaws are given this upward movement so that in effect the same result is secured as though the chain were shortened at both ends. If desired, however, the jaw may be tilted instead of being moved bodily upward, without departing from the broad principle of my invention. This tilting construction is separately described and specifically claimed in my application No. 668,059, filed on even date herewith. In the construction shown two jaws are employed which are bolted together by a pin V, and a screw U is provided which operates to move both jaws upwardly together, thereby clamping the pipe. In order that the jaws may be substantially fixed with relation to each other, the jaws are preferably provided with inwardly extending flanges or lugs Y which meet on their inner sides and through which the bolt or rivet V is passed. Beneath the lugs Y are preferably arranged a plate or plates W which extend across the two jaws near their bottoms, such plates being preferably beveled and being adapted to fit within beveled recesses X formed on the under sides of the jaws. I also preferably provide a guide or guides for the jaws which in the construction shown consist of pins T, one mounted upon or formed integral with each end of each jaw. The bed plate A is provided with suitable holes through which the pins extend, the latter being if desired formed with heads T′ adapted to limit the extreme upward movement of the jaws.

While I have shown and described a certain embodiment of the invention, it will be understood that various changes may be made therein without departing from the invention. For instance the jaw or jaws need not be given a rectilinear movement, nor is it necessary that the screw shown be em-

ployed. Any desirable construction of take-up mechanism may be substituted therefor.

What I claim is:—

1. A chain pipe vise including in combination a bed plate A upon which are adjustably carried a pair of jaws S, means for guiding said jaws relatively to said bed plate, a chain fixedly connected at one of its ends to said bed plate and adapted to be adjustably locked at its other end to said plate, said jaws being provided with inwardly extending meeting lugs Y and being fastened together by means of a bolt V, and a take-up device for moving said jaws to clamp the pipe against the chain.

2. A chain pipe vise including in combination a bed plate A upon which are adjustably carried a pair of jaws S, means for guiding said jaws relatively to said bed plate, a chain fixedly connected at one of its ends to said bed plate and adapted to be adjustably locked at its other end to said plate, a plate W extending across the two jaws near their bottoms and engaging said jaws, and a screw threaded through the bed plate and bearing at its inner end against said plate W for moving said jaws to clamp the pipe against the chain.

3. A chain pipe vise including in combination a bed plate A upon which are adjustably carried a pair of jaws S, said bed plate having guide holes therein and each of said jaws having a pair of guide pins T projecting from its base and fitting in said guide holes, a chain fixedly connected at one of its ends to said bed plate and adapted to be adjustably locked at its other end to said plate, said jaws being fastened together, a plate W engaging the lower portions of said jaws and a screw threaded through said bed plate and bearing at its inner end against said plate W for moving said jaws to clamp the pipe against the chain.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE AMBORN.

Witnesses:

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VICTOR F. ROBINS.