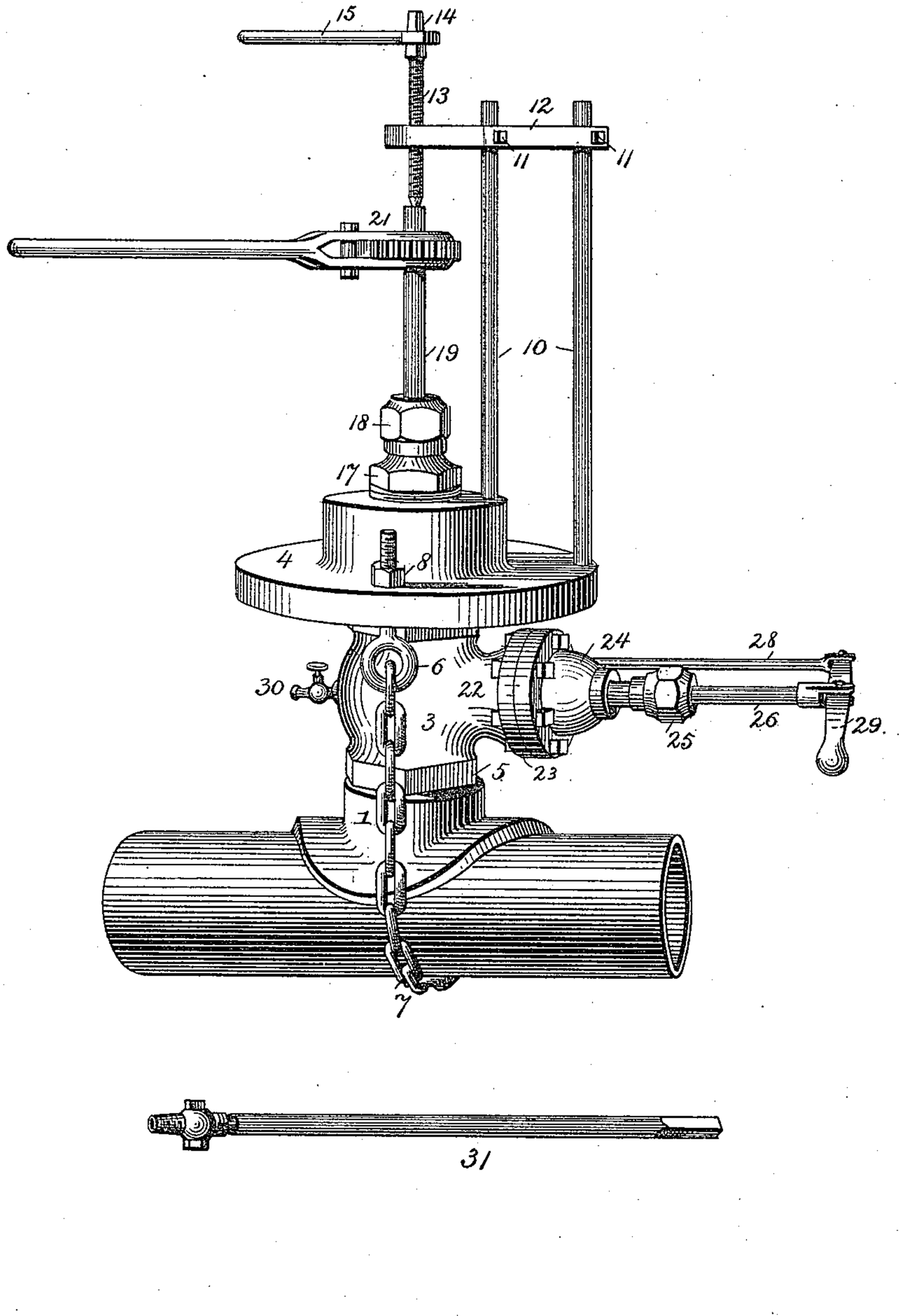
(No Model.) 3 Sheets—Sheet 1.

E. J. WISEHAUPT.

MACHINE FOR TAPPING MAINS.

No. 440,856. Patented Nov. 18, 1890.

Fig. 1.



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(No Model.) 3 Sheets—Sheet 2.

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MACHINE FOR TAPPING MAINS.

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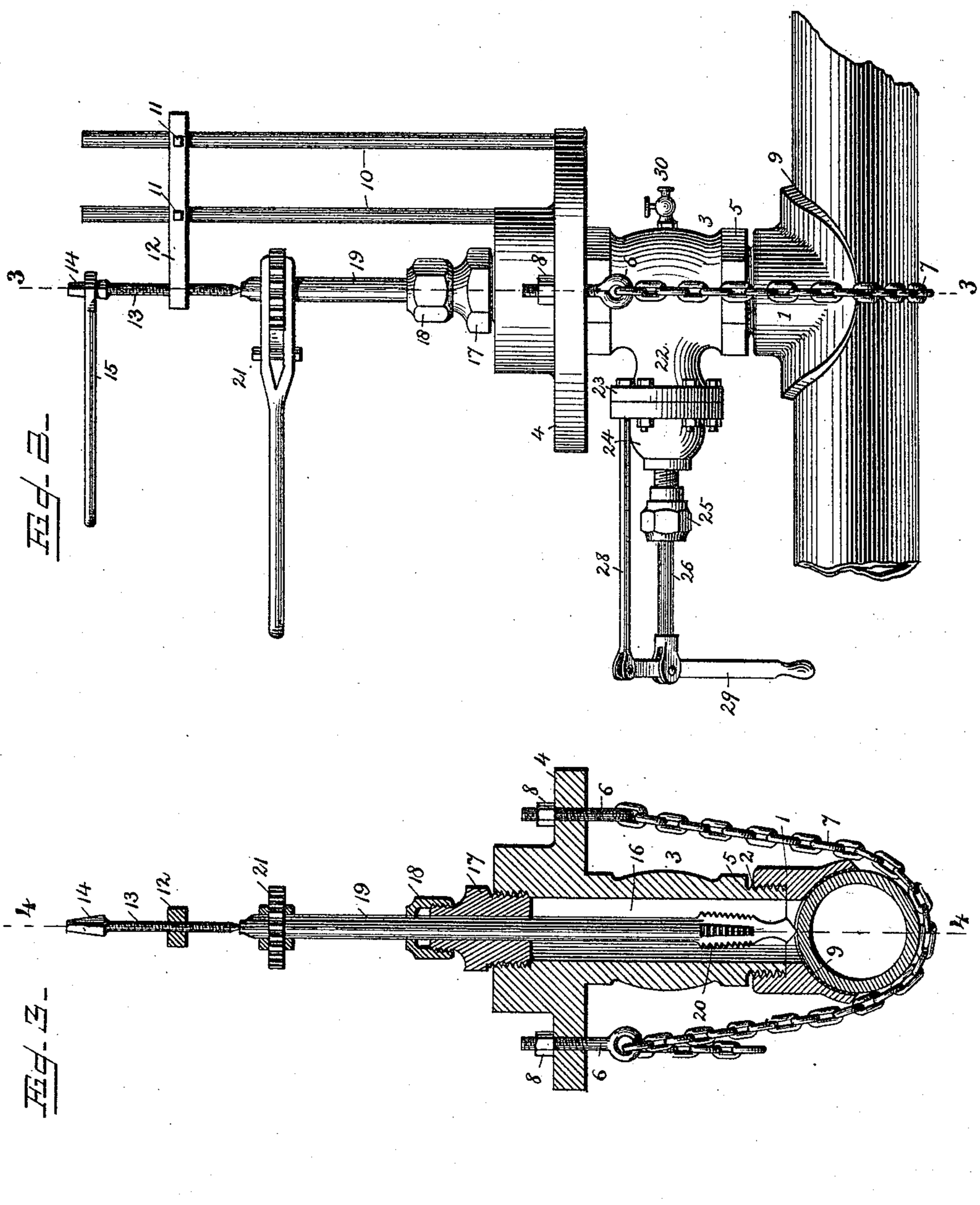

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(No Model.) 3 Sheets—Sheet 3.

E. J. WISEHAUPT.

MACHINE FOR TAPPING MAINS.

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Fig. 4.

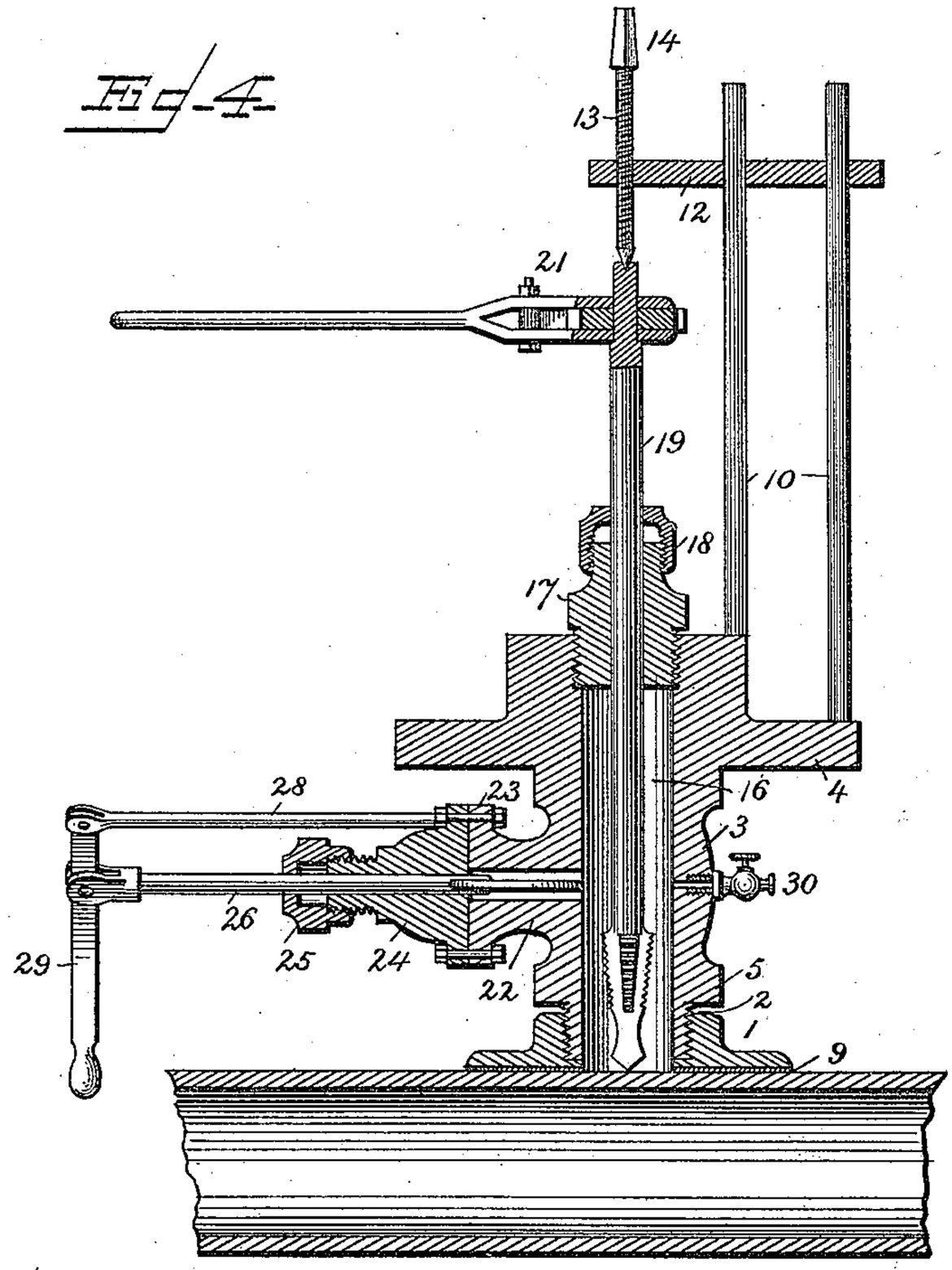
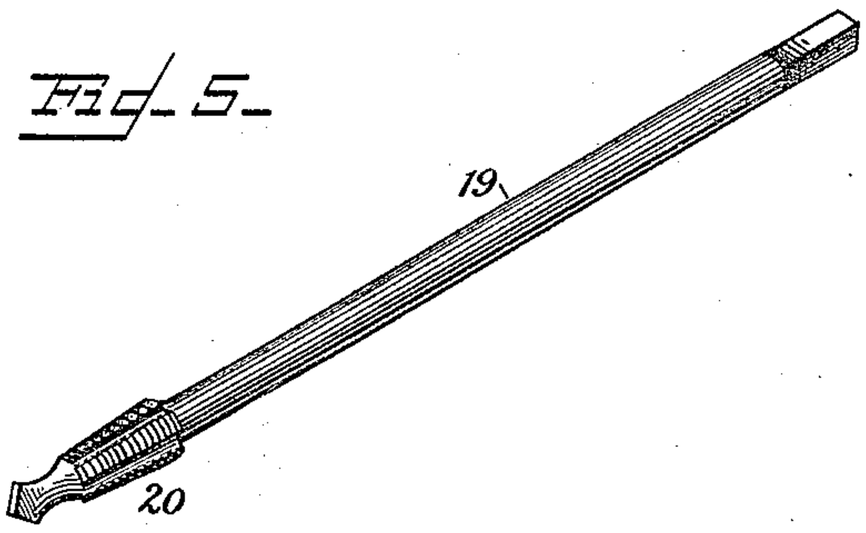


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWIN J. WISEHAUPT, OF BLUFFTON, INDIANA, ASSIGNOR OF ONE-HALF TO JOHN J. SHOEMAKER, OF SAME PLACE.

MACHINE FOR TAPPING MAINS.

SPECIFICATION forming part of Letters Patent No. 440,856, dated November 18, 1890.

Application filed June 28, 1890. Serial No. 357,112. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. WISEHAUPT, a citizen of the United States, residing at Bluffton, in the county of Wells and State of Indiana, have invented a new and useful Machine for Tapping Mains, of which the following is a specification.

This invention relates to machines or devices for tapping mains; and it has for its object to provide a device of this class which shall be simple in construction and easily operated, and by means of which a main containing fluid under high pressure may be tapped and the service-cock placed in position without danger of waste by leakage during the progress of the operation.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a perspective view showing my improved device for tapping mains mounted upon a portion of a main in position for operation, and showing also detached the rod carrying the service-cock ready to be inserted. Fig. 2 is a side view of the same. Fig. 3 is a vertical sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a vertical sectional view taken on the line 4 4 in Fig. 3. Fig. 5 is a detail view showing the drill detached.

Like numerals of reference indicate like parts in all the figures.

1 designates a saddle, which may be of any desired size to fit a main of any diameter upon which it may be desired to operate. The said saddle is provided in its upper side with an interiorly-screw-threaded opening 2 to receive the lower end of the casing 3, which is provided near its upper end with a flange 4. The casing 3 is also provided near its lower end with a wrench-seat 5 to enable it to be readily connected with or detached from the saddle. By this construction the casing, with its attachments, may be very easily and quickly provided with a saddle of the proper diameter to fit the main which is to be tapped.

The flange 4 is provided on diametrically-opposite sides with eyebolts 6, connected by a chain 7, which is to pass below and around the main, when by tightening the nuts 8 upon the eyebolts the tapping device may be mounted securely in position for operation. Packing 9 may and is preferably interposed between the saddle and the main in order to insure a tight joint.

Rising from the flange 4 are the upwardly-extending standards 10, to which by means of set-screws 11 is adjustably secured a bracket 12, the outer end of which is provided with the screw-threaded perforation to receive the feed-screw 13, the upper end of which is square, as shown at 14, to receive the wrench 15.

The casing 3 has a vertical cylindrical bore or chamber 16, the upper end of which is closed by a screw-threaded plug 17, having at its upper end a packing-gland 18. The plug 17 and gland 18 are bored for the passage of the drill 19, which is of ordinary construction, and which is provided with the screw-thread-cutting chasers 20. The upper end of the drill is adapted for the attachment of the ratchet-wrench 21, by means of which it is to be operated. The extreme upper end of the drill-stock is in alignment with the feed-screw 13, which exercises pressure in a downward direction thereon.

The casing 3 of the device is provided with a laterally-extending branch 22, the outer end of which has an annular flange 23, to which is bolted the box 24, having a packing-gland 25. A stem 26, passing through the box 24 and gland 25, carries at its inner end a gate 27, for which a suitable seat is provided in the bore of the casing, which, however, is normally unobstructed by said gate. To a rod 28, extending from the flange of the box 24, is pivoted a lever 29, which is also pivotally connected with the stem 26 of the valve or gate, which may thus be conveniently manipulated. The side of the casing is provided with a waste-cock 30, through which the fluid contained in the bore of said casing may be drawn off when desired.

The operation of the invention and its advantages will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed, by those skilled in the art to which it appertains. Af-

ter adjusting the device upon the main in position for operation, the drill is manipulated by means of the ratchet-wrench, the feed-screw being meanwhile manipulated by means of the wrench 15 to force the said drill in a downward direction. When the hole has been drilled through the main, the operation is continued to cut the screw-threads, after which the operation of the drill is reversed to withdraw it from the main. The drill is now lifted up above the gate 27, which is then closed, thus enabling the plug 17 at the top of the casing to be removed. The ratchet-wrench is now detached and the drill is withdrawn from the plug, and for it is substituted a cylindrical stock 31, to the lower end of which the service-cock has been attached. The plug 17 is now replaced in the casing, the gate opened, and the stock 31 lowered until the service-cock engages the screw-threaded opening which has been formed in the main, when by manipulating the stock 31 by means of an ordinary wrench, the service-cock may be easily screwed down to its seat.

This device, as will be seen from the foregoing description, is exceedingly simple in construction and may be manufactured at a small expense.

By means of this device I am enabled to tap mains containing water under heavy pressure without danger of leakage or waste.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the casing having a laterally-extending branch, the box bolted to the latter and having a packing-gland, the stem extending through the same and carrying the gate or valve at its inner end, the rod extending from the box and having the operating-lever connected pivotally with the valve-stem, the waste-cock mounted in the side of the casing, the saddle at the lower end of the latter, a chain secured to eyebolts mounted in a flange at the upper end of the casing, the packing-box mounted detachably in the upper end of the casing, the drill, and feed-screw, substantially as herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDWIN J. WISEHAUPT.

Witnesses:
JACOB J. TODD,
JOHN Z. BRICKLEY.