

No. 619,158.

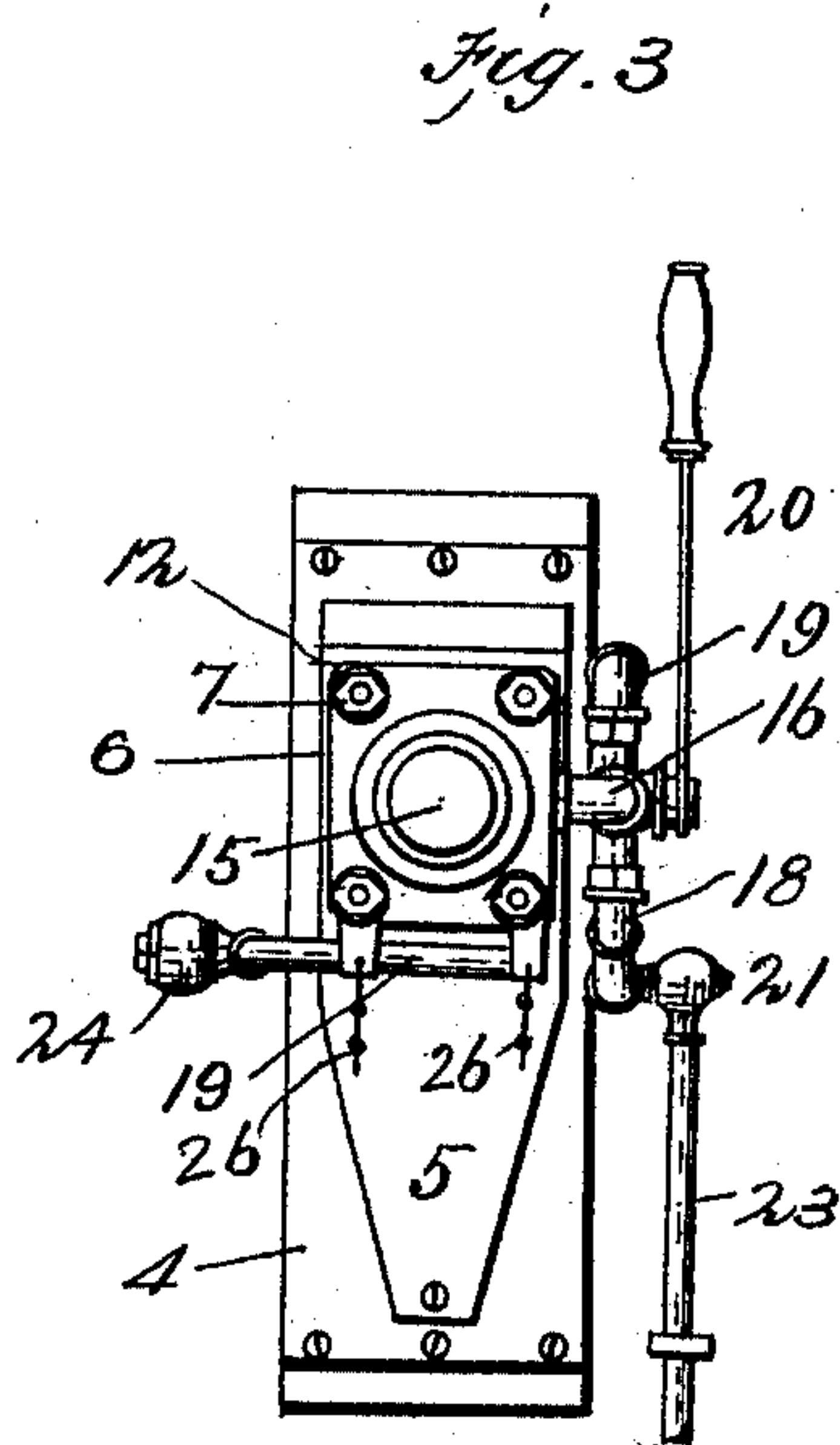
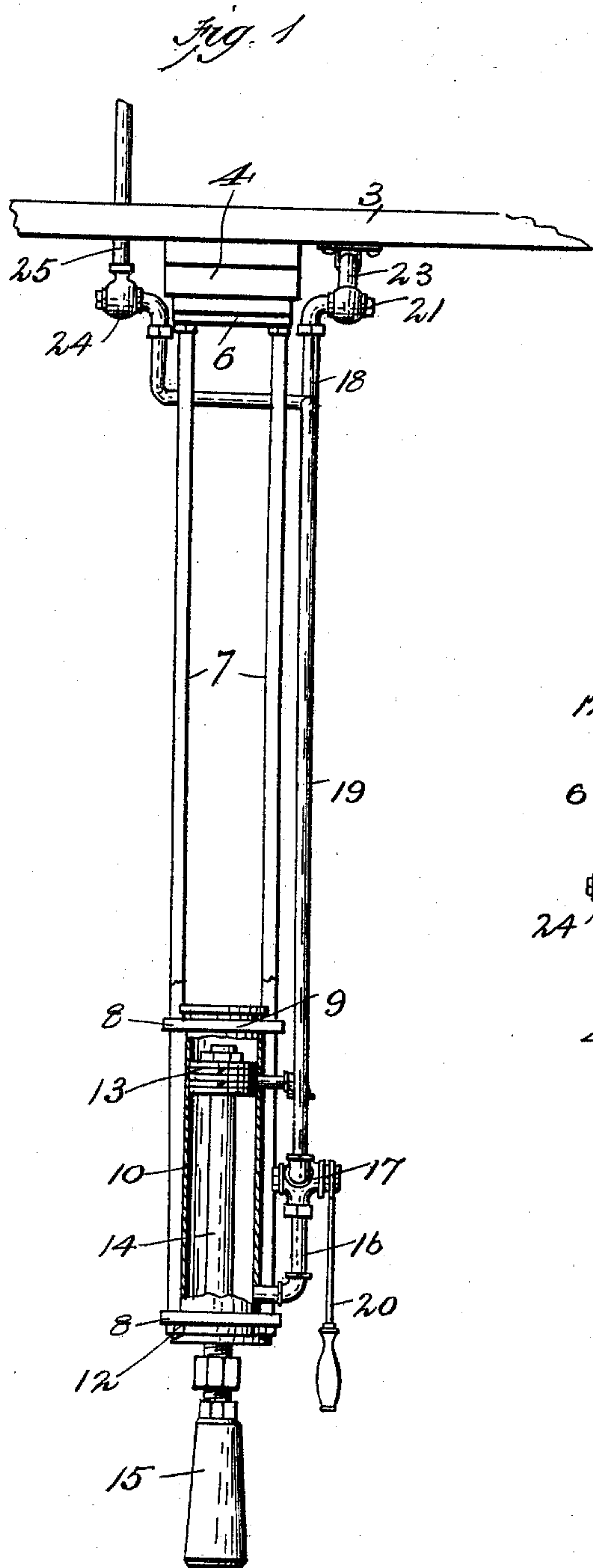
Patented Feb. 7, 1899.

C. W. FLETCHER.
POWER HAMMER.

(Application filed May 20, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
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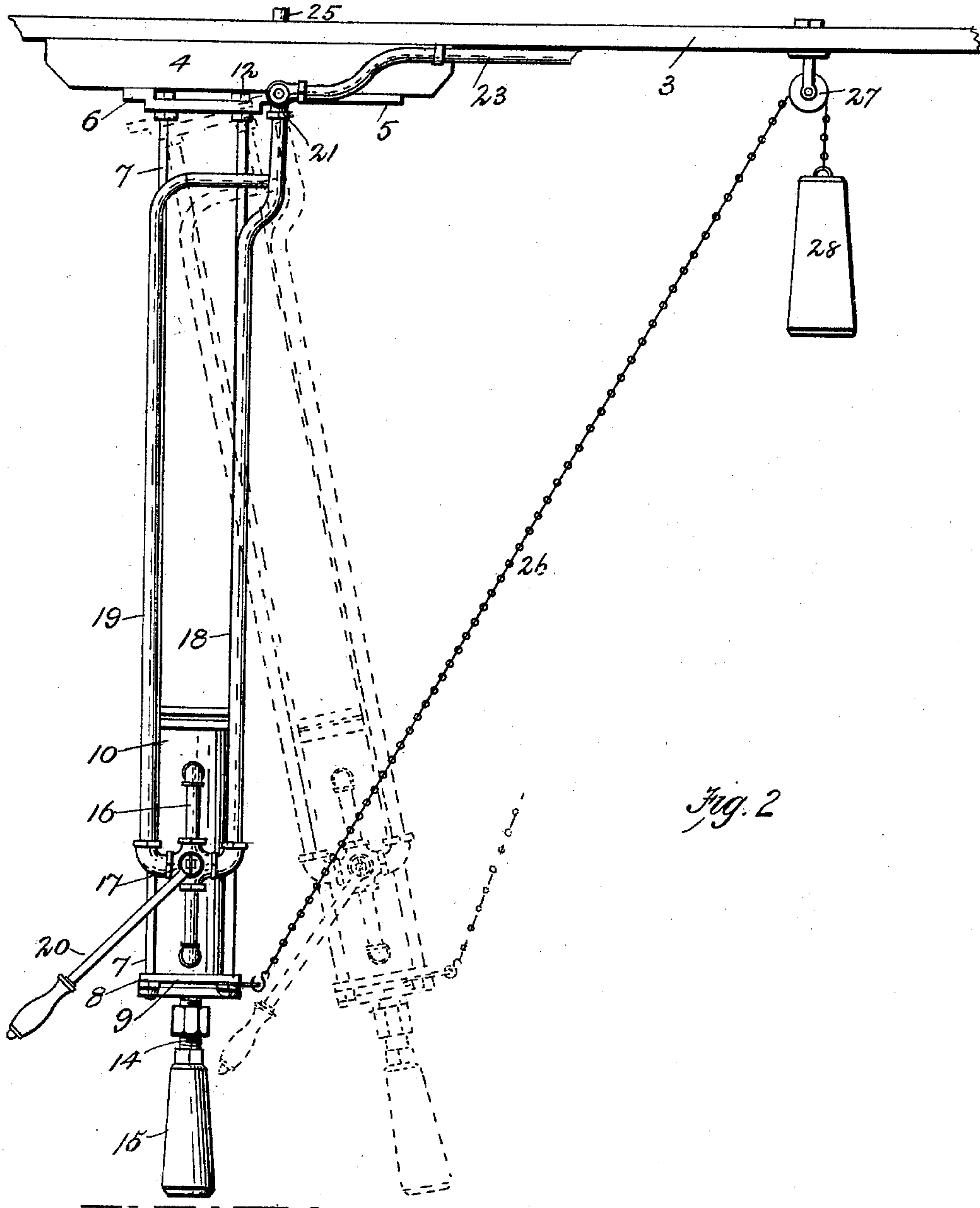
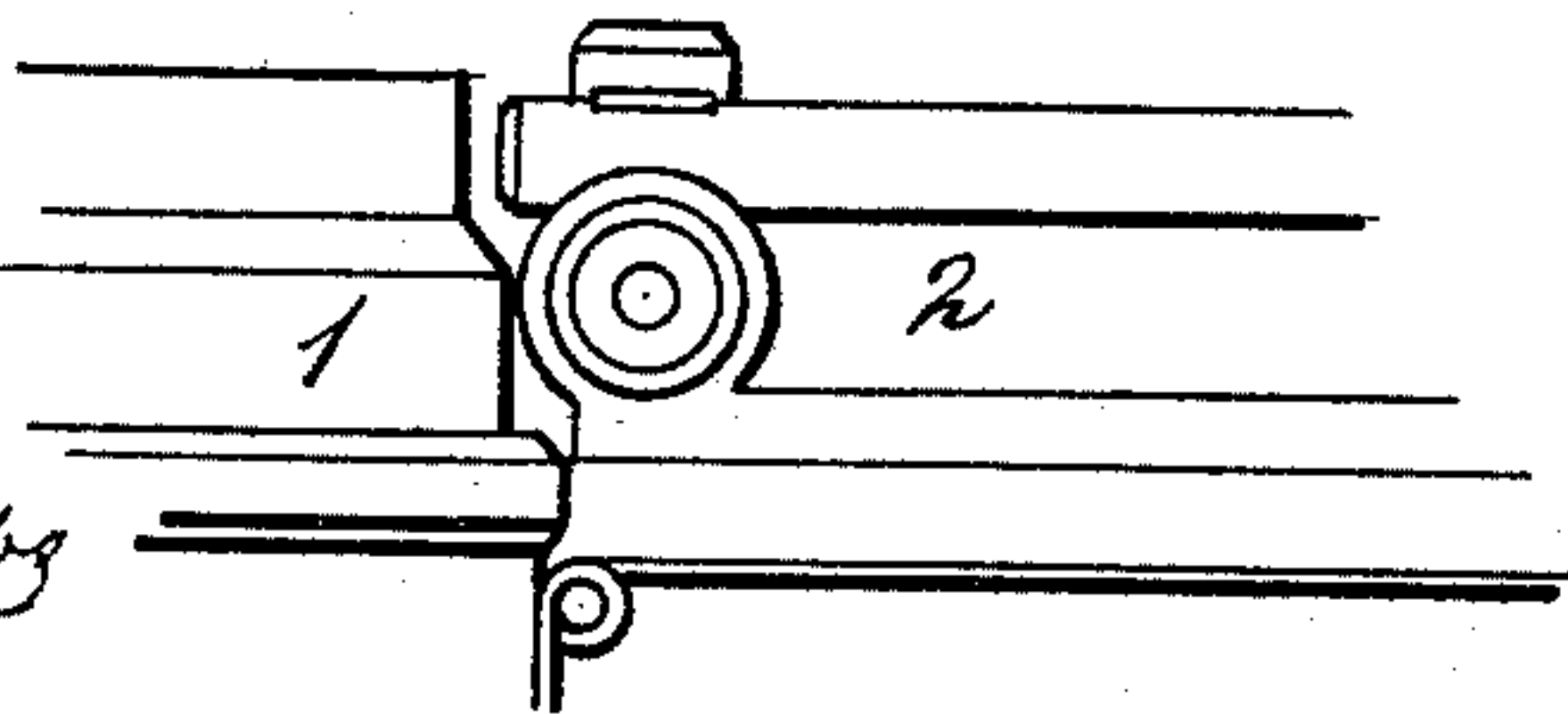


Fig. 2

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UNITED STATES PATENT OFFICE.

CLYDE W. FLETCHER, OF VILLAGE MILLS, TEXAS.

POWER-HAMMER.

SPECIFICATION forming part of Letters Patent No. 619,158, dated February 7, 1899.

Application filed May 20, 1898. Serial No. 681,233. (No model.)

To all whom it may concern:

Be it known that I, CLYDE W. FLETCHER, a citizen of the United States, residing at Village Mills, in the county of Hardin and State of Texas, have invented new and useful Improvements in Power-Hammers, of which the following is a specification.

My invention relates to power hammering-machines adapted to be operated by steam or compressed air, and is principally designed for use in hammering circular saws, although it may be employed for light forging generally.

The object of the invention is to provide an improved construction of such machines in which the hammer and cylinder are connected with depending hinged rods and the steam and exhaust pipes provided with swivel-joints, whereby the hammer may be swung to one side and held in such position by a counterbalance-weight, so as to allow the saw on the anvil to be turned or to admit of hand-forging on the anvil.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a front elevation, partly in section, of a hammering-machine constructed in accordance with my invention. Fig. 2 is a side elevation. Fig. 3 is a horizontal section on the line $x x$, Fig. 2, looking from the under side.

In the said drawings the reference-numeral 1 designates an anvil or block on which the saw or other object to be hammered is placed, and 2 a carriage which supports said object so as to allow the saw or object to be moved over the anvil, as desired. The anvil and carriage may be of any ordinary or suitable construction and form no part of the present invention; so, therefore, a detailed description is not necessary.

The numeral 3 designates a beam or girder to which is secured a bearing or support 4. To this bearing is secured the stationary leaf or member 5 of a hinge, the other or movable leaf or member 6 of which is pivotally connected thereto. Secured to said movable leaf or member are four depending rods 7, which pass through the flanges 8 of the heads 9 of a steam, compressed-air, or other cylinder 10.

The upper and lower ends of said rods are provided with nuts 12. Located in said cylinders is a piston 13, provided with a piston-rod 14, to the lower end of which is secured the hammer 15. Connected with said cylinder is a pipe 16, provided with a central throttle-valve 17 and with supply and exhaust pipes 18 and 19 at opposite sides thereof. This throttle-valve is provided with an operating-lever 20, by turning which steam or compressed air may be alternately supplied to the cylinder above and below the piston. I make no claim to this arrangement, as said cylinder, piston, pipe, and throttle-valve may be of any ordinary or suitable construction.

The supply-pipe 18 is extended upward and is provided with a swivel-joint 21, with which is connected a pipe 23, leading to any source of power. The exhaust-pipe 19 is also extended upwardly and connected with a swivel-joint 24, with which is connected a pipe 25. These pipes 18 and 19 are so connected with the swivel-joints as to turn thereon when the rods 7 are swung to one side.

Connected with the lower head of the cylinder is a chain 26, which passes over a pulley 27, and to the free end of the chain is connected a counterbalance-weight 28.

The operation is as follows: When the hammer is to be used for hammering a saw or other object, it will be above and in line with the anvil on which said object is placed. When it is desired to turn the saw or the anvil is to be used for hand-forging, the rods are swung aside, the movable leaf or member of the hinge turning on its pivot and the supply and exhaust pipes turning on the swivel-joints, so that the cylinder and hammer will be thrown out of the way of the anvil, as shown by the dotted lines, Fig. 2. The counterbalance-weight will now hold the parts in such position.

Having thus fully described my invention, what I claim is—

1. In a power hammering-machine, the combination with the beam or support, the stationary hinged member secured thereto and the movable hinge member, the vertical depending rods secured thereto, of the vertical cylinder secured to the lower ends of said rods provided with steam-inlets and exhaust-

pipes and a throttle-valve, the chain secured to said cylinder, the pulley and the counterbalance-weight, substantially as described.

2. In a power hammering-machine, the combination with the bearing or other support, the stationary and movable hinge members, and the depending rods secured to the movable member, of the cylinder, the piston, piston-rod and hammer, the pipe connected with said cylinder, the throttle-valve, the supply and exhaust pipes and the swivel-joints at the upper ends thereof, substantially as described.

3. In a power hammering-machine, the combination with the bearing or support, the stationary and movable hinge members, the de-

pending rods secured to the movable member and the cylinder with which said rods are connected, of the pipe connected with said cylinder, the throttle-valve, the supply and exhaust pipes having swivel-joints at the upper end, the chain connected with the cylinder, the pulley and the counterbalance-weight, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLYDE W. FLETCHER.

Witnesses:

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L. J. CHAPMAN.