

J. C. WHITMER.
DOUBLE PLUNGER PUMP.
APPLICATION FILED MAY 16, 1906.

984,872.

Patented Feb. 21, 1911.

Fig. 1.

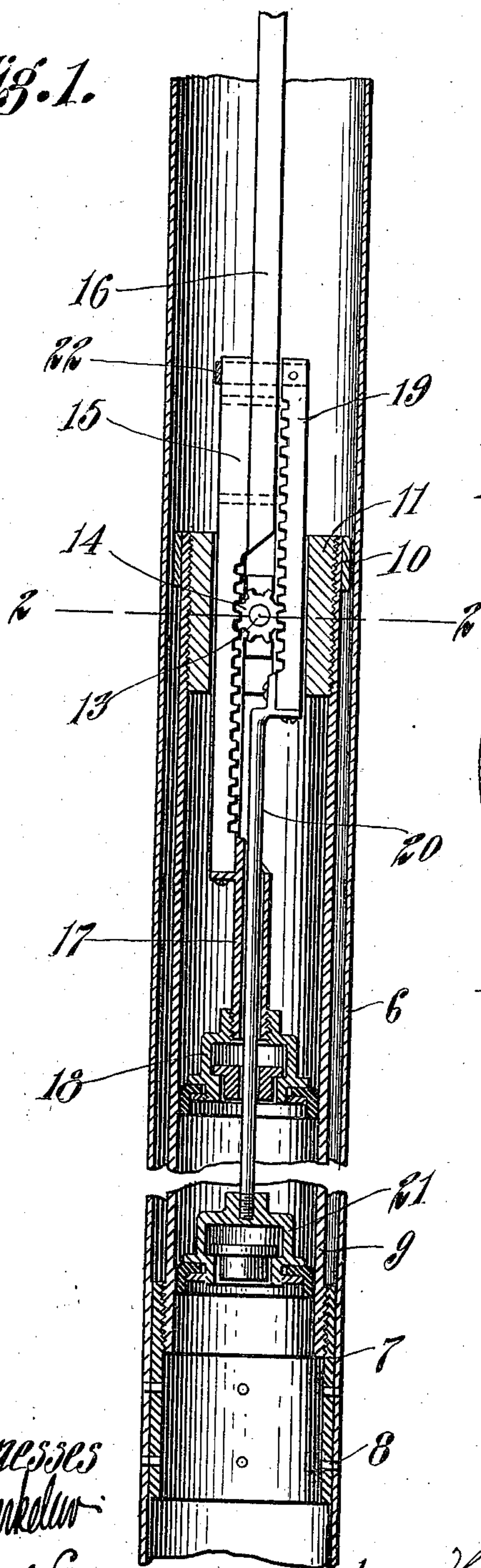
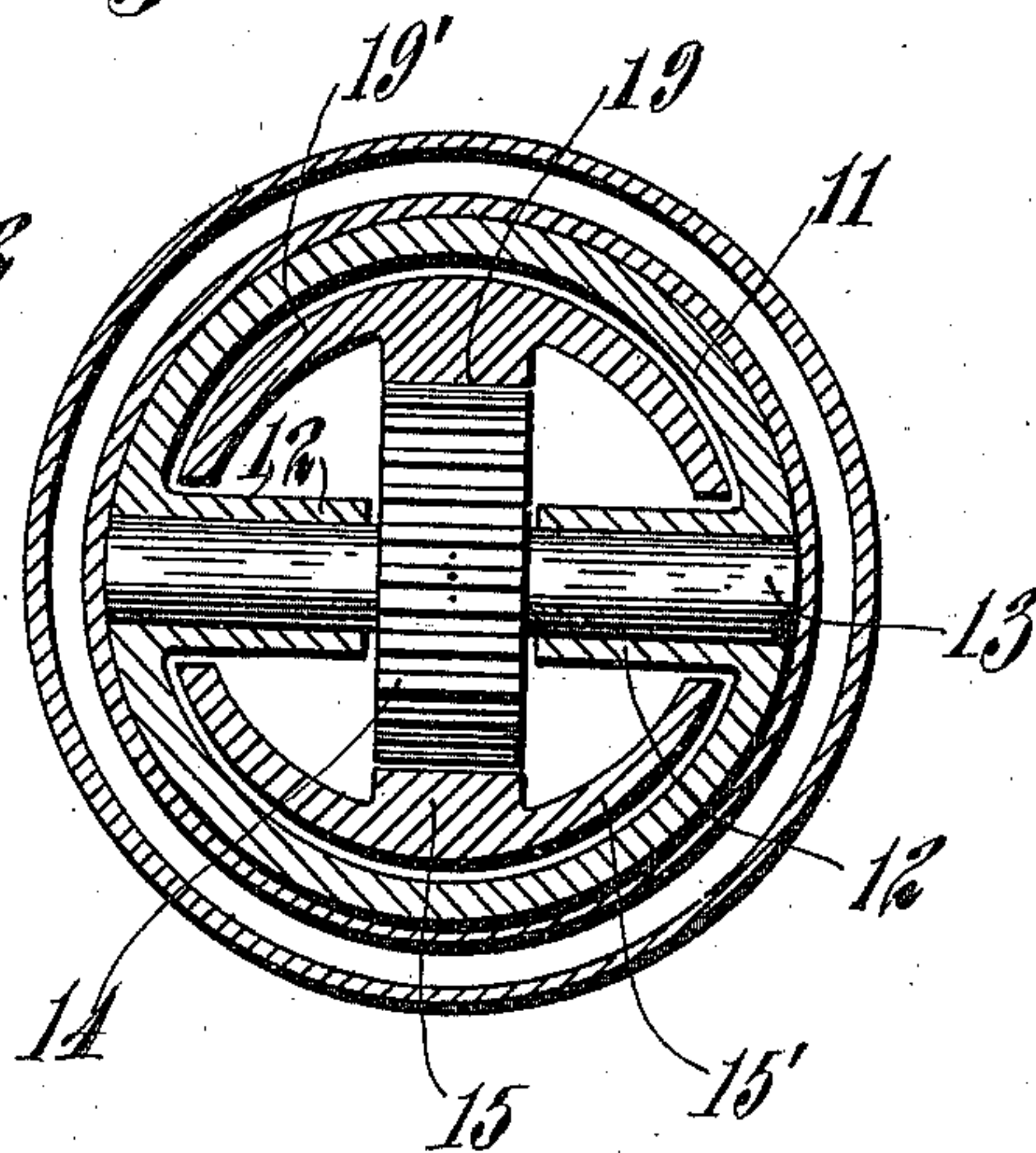


Fig. 2.



Witnesses
Frank B. Baker
Edmund A. Stange

Inventor
John C. Whitmer
by Hazard & Harpham
Att'ys

UNITED STATES PATENT OFFICE.

JOHN C. WHITMER, OF LORDSBURG, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
BENJAMIN E. ZUG, OF HANFORD, CALIFORNIA.

DOUBLE-PLUNGER PUMP.

984,872.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed May 16, 1906. Serial No. 317,218.

To all whom it may concern:

Be it known that I, JOHN C. WHITMER, a citizen of the United States, residing at Lordsburg, in the county of Los Angeles and State of California, have invented new and useful Improvements in Double-Plunger Pumps, of which the following is a specification.

The object of my invention is to operate a double plunger pump with a single pump beam. I accomplish this object by the mechanism described herein and illustrated in the accompanying drawings in which:—

Figure 1— is a central longitudinal section of a portion of a casing containing my improved mechanism. Fig. 2— is a cross section on the line 2—2 of Fig. 1.

In the drawings 6 is the delivery pipe which carries the water to the top of the ground. This pipe is preferably the ordinary well casing, but any independent delivery pipe may be used. When the ordinary well casing is used, at a point therein where it is desired to locate the lower end of the pump barrel an internally screw threaded collar 7 is secured to the casing. I have shown it as secured by rivets 8 but it may be otherwise secured. The lower end of the pump barrel 9 is externally threaded and screws into collar 7. It may be otherwise removably connected. A steadying collar 10 which snugly fits the inside of the casing is secured upon the upper end of the pump barrel. The upper end of the pump barrel is interiorly threaded for the reception of the externally threaded bearing sleeve 11 which is provided with lug 12 which receives and supports shaft 13 upon which is mounted pinion 14. Pinion 14 meshes with rack 15, the upper end of which is secured to the pumping beam 16 and the lower end thereof to the hollow pump rod 17 which carries the pumping plunger 18. Pinion 14 also meshes with rack 19. To the lower end of rack 19 is secured pump rod 20 which reciprocates through rod 17 and carries on its lower end the pumping plunger 21. A strap 22 is secured to the upper end of rack 19 and surrounds rack 15 so as to aid in preventing the racks from disengagement with the pinion. The racks are provided with wings 15' and 19' which bear against lug 12. After the pump barrel is lowered into the casing and secured in place by being screwed into collar 7 pump rod 16 is con-

nected to the ordinary operating mechanism, not shown.

It will be observed that as rod 16 is reciprocated that by reason of the racks and pinion rod 17 and plunger 21 will be reciprocated in the reverse direction whereby a steady flow of water is maintained in the same manner as if the hollow rod extended to the walking beam of the pump and was connected therewith.

At any time that it is desired to repair or inspect the plungers the pump barrel can be unscrewed from collar 7 and raised to the surface of the ground where the necessary repairs can be made, after which the pump barrel can again be lowered and secured in position as before.

By using a wooden beam for pump rod 16 I can counter-balance the weight of the other parts by the buoyancy of the wooden pump rod so that all the power that will be necessary to be used is that which is required for raising the column of water and no energy will be expended in lifting the moving parts of the pumping mechanism contained in the well.

Having described my invention what I claim is:—

A delivery pipe extending from the surface of the ground and terminating in the well below the water line; an internally screw threaded collar secured to said delivery pipe, and making contact therewith within the suction lift of a pump plunger; a pump barrel having the lower end thereof externally threaded and adapted to be screwed into said collar; plungers in said pump barrel; rods secured to said plungers, one of said rods passing through the upper plunger and the rod secured thereto; racks having oppositely disposed teeth secured to said plunger rods; a pinion revolvably mounted in the upper end of the pump barrel intermediate said racks and meshing therewith; and an operative connection from one of said racks to means to operate the same.

In witness that I claim the foregoing I have hereunto subscribed my name this 5th day of May, 1906.

JOHN C. WHITMER.

Witnesses:

L. O. WHITMER,
J. F. EBERSOLE.