

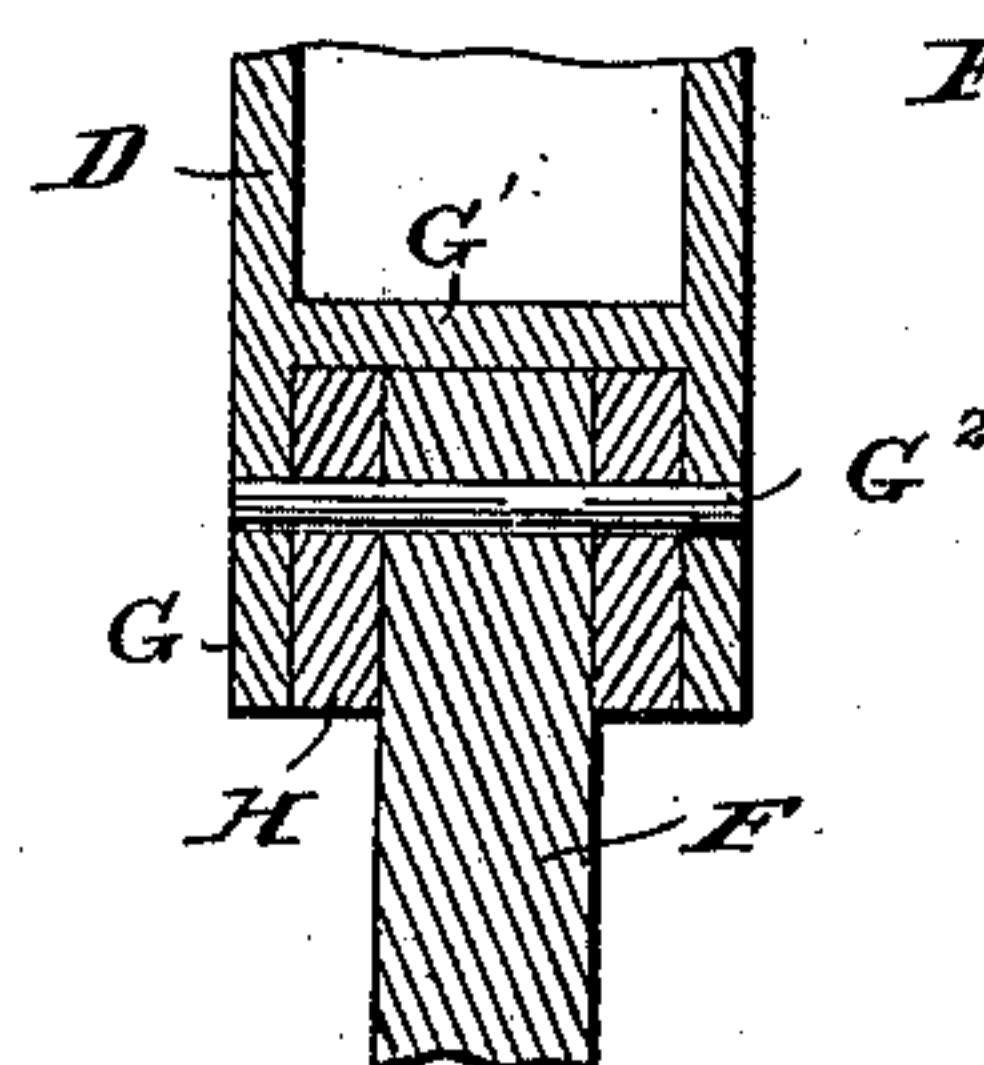
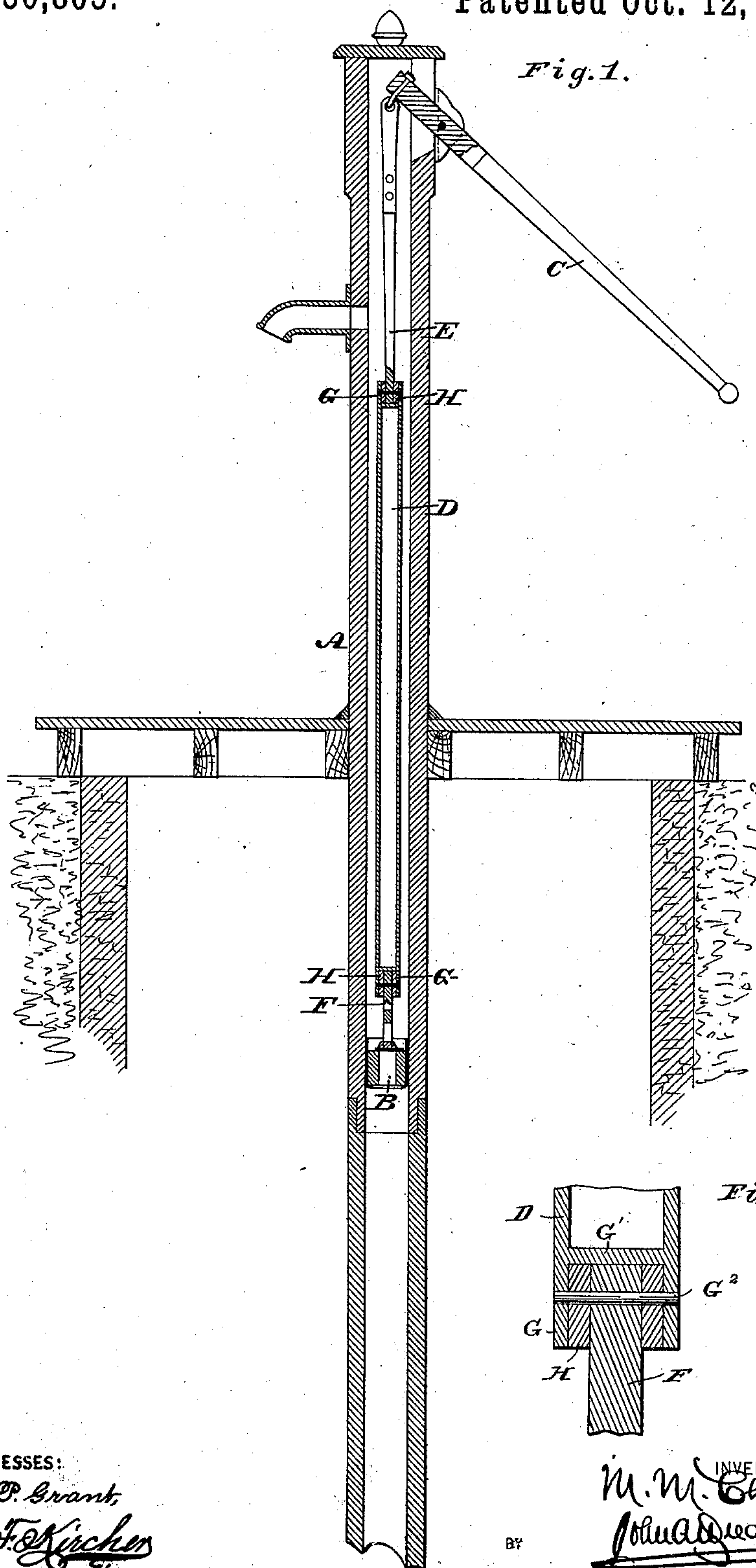
(No Model.)

M. M. CHEW.

PUMP.

No. 350,805.

Patented Oct. 12, 1886.



WITNESSES:

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H. F. Fisher

BY

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# UNITED STATES PATENT OFFICE.

MATTHIAS M. CHEW, OF WILLIAMSTOWN, NEW JERSEY.

## PUMP.

SPECIFICATION forming part of Letters Patent No. 350,805, dated October 12, 1886.

Application filed April 11, 1885. Serial No. 161,949. (No model.)

*To all whom it may concern:*

Be it known that I, MATTHIAS M. CHEW, a citizen of the United States, residing at Williamstown, in the county of Gloucester, State of New Jersey, have invented a new and useful Improvement in Pumps, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a vertical section of a pump embodying my invention. Fig. 2 represents an enlarged section of a detached part, the object of the invention being the easy operation of the pump and the secure fastening of the parts thereof by means of nails, rivets, or screws, the means employed for accomplishing the same being hereinafter fully set forth.

Referring to the drawings, A represents the barrel of a pump; B, the valve, C the lever or handle, and D the valve or pump rod thereof.

In the present case a portion of the pump-rod is hollow or tubular and closed at both ends, where it is provided with connections with the valve and handle, respectively; but, if desired, the entire length of the pump-rod may be tubular or hollow.

It will be seen that in raising the water, as the same enters the barrel above the valve the tubular pump-rod serves as a float, and its tendency to rise eases the operation of the lever or handle, whereby less power is required to operate the pump. The hollow pump-rod may be constructed of any suitable material, copper or other sheet metal being preferred.

In order to firmly attach the ends of the float with the end connections, E F, thereof, the float is formed with sockets G, into which

said connections are received, and between which and the walls of the sockets are fitted annular plugs H, of wood, the latter, when the pump is in use, swelling, and being thereby compressed against the sockets and connections, thus tightly and firmly binding the same. Nails or rivets are driven through the sockets, plugs, and connections of the pump rod. The sockets G are formed by securing within the float, near the ends thereof, plates or heads G', thus tightly closing the float near its ends, making the float air-tight, the plates G' constituting the bases of the sockets G, the walls of the ends of the float beyond the plates forming the sides of the sockets through which the bolts, screws, nails, or rivets G<sup>2</sup> are driven, thus firmly securing the parts and providing a strong and durable attachment of the float with the pump-rod at one end and the valve at the other.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A pump having an air-tight floating valve-rod, D, consisting of a tube with plates G' within the same near the ends, forming sockets G, the wooden plugs H, fitted in said sockets, the connections E F, entering said plugs, and the fastenings driven through the sides of the sockets, the plugs, and connections, the several parts being combined and operating substantially as and for the purpose set forth.

MATTHIAS M. CHEW.

Witnesses:

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