M. J. Althouse,

Pump Lift.

No. 41,186. Patented Jan. 12, 1864.

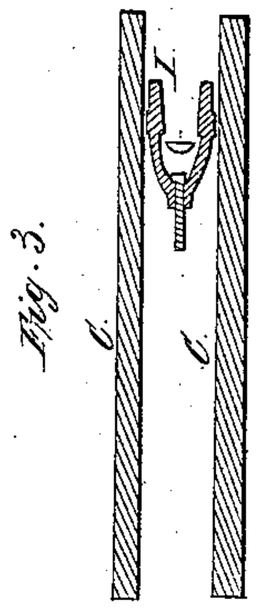

Fig. 3.

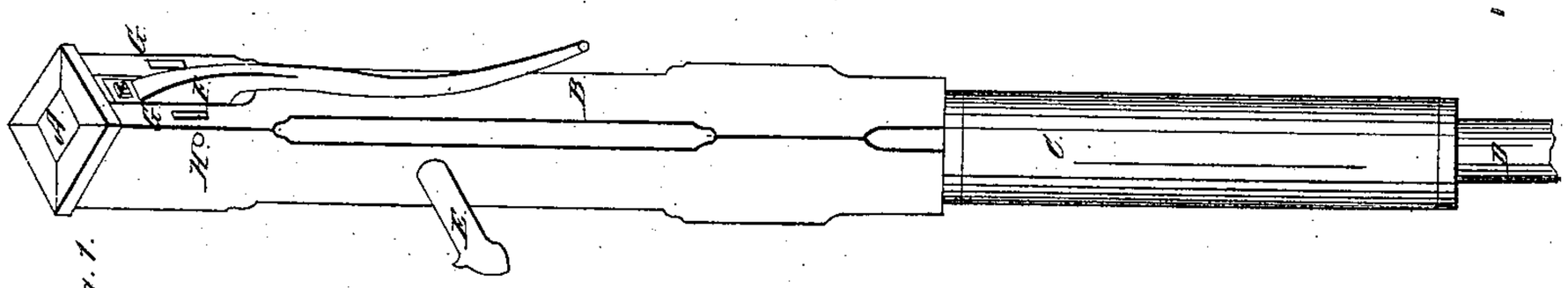

Fig. 1.

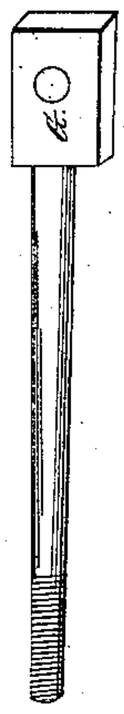

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

M. J. ALTHOUSE, OF WAUPUN, WISCONSIN.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **41,186**, dated January 12, 1864.

To all whom it may concern:

Be it known that I, MILO J. ALTHOUSE, of the city of Waupun, county of Fond du Lac, State of Wisconsin, have invented a new and Improved Mode of Constructing Wooden Pumps; and I do declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a perspective view of the pump; Fig. 2, a perspective view of one of the longitudinal head-bolts that confine the pin or fulcrum to which the handle is attached; Fig. 3, a plan section of the barrel and piston of the pump.

The nature of my invention consists in constructing wooden pumps in such a manner as to greatly increase their durability and efficiency, making them much less liable to get out of order, and easier repaired when necessary.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The manner in which I construct my pump will be seen by reference to the annexed drawings, in which—

Letter A, Fig. 1, represents the cap or top of the pump; letter B, the body of the pump; C, the barrel in which the piston works; D, the pipe that connects with the water; E, the spout; F, the handle; G G, two bolts that confine the pin or fulcrum H, to which the handle is attached by which the pump is operated.

Fig. 2 is a perspective view of the bolts G. The objects of these bolts are to prevent the pump from splitting, to confine the pin or fulcrum H, and retain it in its proper place. It will be seen, Fig. 1, G G, that these bolts pass through the pump in the opposite direction to the pin or fulcrum H, and that the pin or fulcrum H passes through the heads of these bolts on its way through the pump and handle. These bolts, being provided with a screw and nut, when tightened up, secure the pin or fulcrum H firmly in its place, and the tendency of the pump to be split by the pressure on the pin is effectually obviated. Should the pin H, by constant use, ever become loosened, as is very commonly the case without the bolts, it can easily be tightened again by means of the nuts and screws.

Fig. 3 represents a plan section of my improved barrel with the piston properly placed therein; but in the ordinary wooden pump the barrel is formed out of the same material as the stock or body of the pump by boring out one end of the barrel for the piston and by fitting the other end of the barrel into the stock or body of the pump, and frequently by boring out the bottom of the stock or body of the pump itself. It being necessary for the piston to fit the barrel perfectly tight, there will be more or less wear upon the parts in contact. Consequently, this portion of the pump is frequently the first to need repairs or wear out. Should the part worn out be the barrel, it would be necessary to supply a new one, if made in the ordinary way, but if made after my plan, fifteen minutes would make it as good as new; but should it be made in the bottom of the stock or body of the pump, it would be necessary to replace it with a new pump. To obviate this difficulty as much as possible I use hard maple for my barrels, a species of wood that is exceedingly hard, smooth, and durable, and make the barrels two and a half or three feet long with a uniform hole in them, so that I can use the piston in one end until it is worn out, and then turn the other end and use that until that is worn out, thus actually more than doubling the durability of the pump without increasing its parts or expense. The valve and piston being liable to derangements, the ease of access thereto by my plan is another important consideration, requiring simply to disconnect the barrel from the stock, or body of the pump from the barrel. The piston can then be taken without taking the handle or piston-rod from the pump. Another important consideration is the smoothness of the barrels when made of hard maple, and the ease with which they work.

In connecting my pump top or stock with the barrel I turn it off in such a manner that when inserted into the barrel it will make a perfect joint, simply requiring to be put to-

gether when taken apart to be in complete working condition.

After thus fully describing the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

The barrels C, the screw-bolt G, and the pin H, when constructed and applied to a pump-stock, B, substantially as shown and described.

M. J. ALTHOUSE.

Witnesses:

T. T. PROSSER,

P. A. HOYNE.