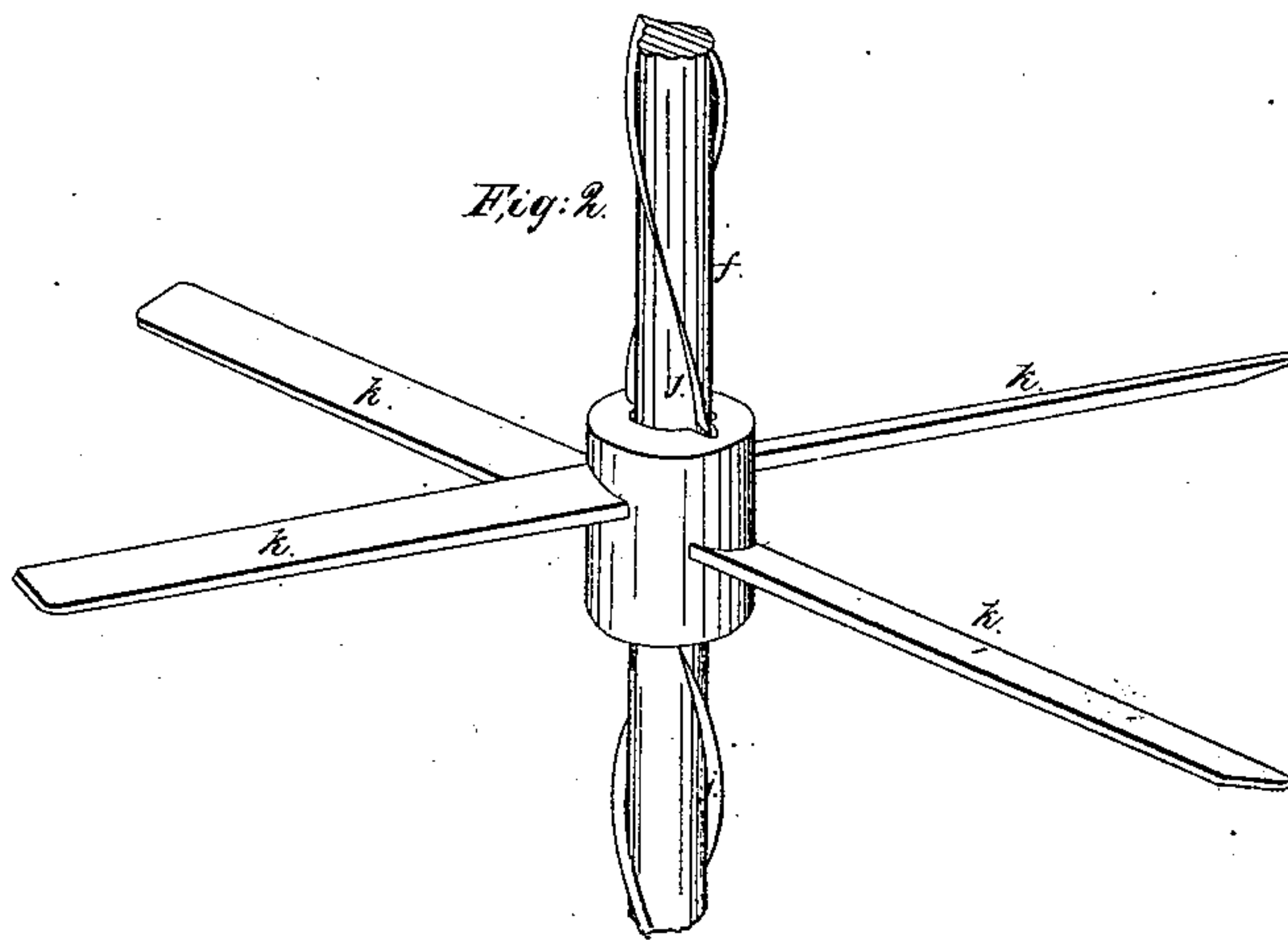
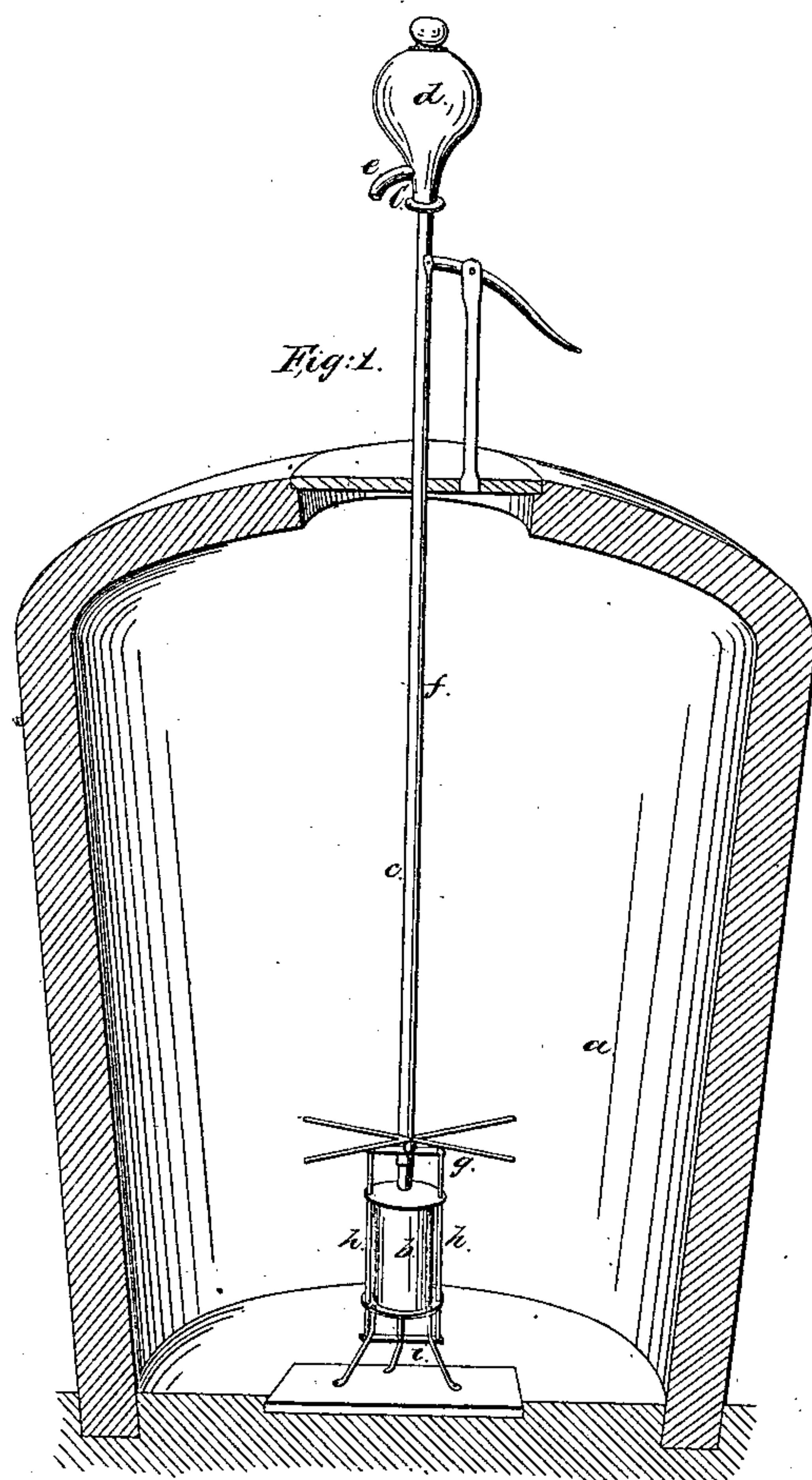


W. D. Mayfield

Pump Lift,

N^o 7,857.

Patented Dec. 24, 1850.



UNITED STATES PATENT OFFICE.

WM. D. MAYFIELD, OF ELKTON, KENTUCKY.

ATTACHMENT TO PUMPS FOR AGITATING THE SURFACE OF WATER IN WELLS.

Specification of Letters Patent No. 7,857, dated December 24, 1850.

To all whom it may concern:

Be it known that I, WILLIAM D. MAYFIELD, of Elkton, Todd county, Kentucky, have invented a new and useful Improvement Applicable to Pumps for the Prevention of Stagnation in Cisterns, Wells, &c.; and I do hereby declare the following to be a full, clear, and exact description and representation of the same, reference being had to the annexed drawing, making part of this specification.

Figure 1, represents a section of a cistern with a pump arranged to work at the bottom of the cistern and below the water, the apparatus for the prevention of stagnation being applied to the piston rod. Fig. 2, is an enlarged view exhibiting the details of the improvement.

It is well known to persons conversant with the subject, that water in a well or cistern will stagnate when drawn by a pump, and that the same water in the same well will remain sweet if the water is drawn up by a bucket.

The object of my invention is to keep the water in a cistern or well when the water is drawn by a pump equally as fresh and sweet as when it is drawn by a bucket; and the nature of my invention consists in the application to the piston rod of a pump of what I term an agitator, which, floating on the water, will, as the piston rod is operated, disturb the top of the water and thus prevent its stagnation.

(a) is the cistern or well. (b) is a pump, the body or cylinder of which is fixed near to the bottom of the body of water; the spout (c) is carried up to the top of the cistern into an air chamber (d) from which an issue is allowed by the pipe (e); (f) is the piston rod which is allowed to operate on the pump by the medium of the cross head (g) which is connected by guide rods (h) playing through holes in the heads of the pump cylinder and which rods are attached to the lower cross head (i) to which the piston is directly attached. Many other pumps however may be adapted to my improvements.

As seen in the enlarged view, for the pur-

pose of effecting my object, I encircle at a very quick pitch the rod (f) with a spiral spine (j). I then make four blades (k) like the vanes of a windmill or the arms of a submerged propeller, and incline the blades in the same direction as the twist of the spine (j) on the rod (f), but a less rapid pitch. I bore the hub of these blades to suit the rod (f) and with a groove to play on the spine (j), and pass the rod through the hub. By this means, the several parts being duly arranged, any quick motion of the rod (f) will cause the blade to rise and descend into it by the friction of the spine (j) in the grooves in the hub of the blades, holding their relative positions. The blades being made of a light material float on the surface of the water and follow its varying level, as this is a gradual operation and they naturally settle down so steep an incline as the spine (j). The floats being inclined in the same direction as the spine is for the purpose of preventing the percussion upon the water from driving them up the incline its tendency being as now arranged the reverse, that is in the opposite direction.

Having thus fully, clearly and exactly described the nature, construction and operation of my improvements applicable to pumps for the prevention of stagnation in cisterns, wells, &c., what I claim therein as new and desire to secure by Letters Patent is—

The application of a series of floating blades to the rod that operates the plungers of pumps for cisterns or wells for the purpose of agitating the surface of the water, and this I claim whether the blades and rod are reciprocally prepared in the manner described, or in any other equivalent way to effect the same purpose.

In testimony whereof, I have hereunto set my hand before two subscribing witnesses.

W. D. MAYFIELD.

Witnesses:

EDWARD H. KNIGHT,
S. E. G. COLE.