

R. T. DEAKIN.
Construction of Pumps.

No. 150,836.

Patented May 12, 1874.

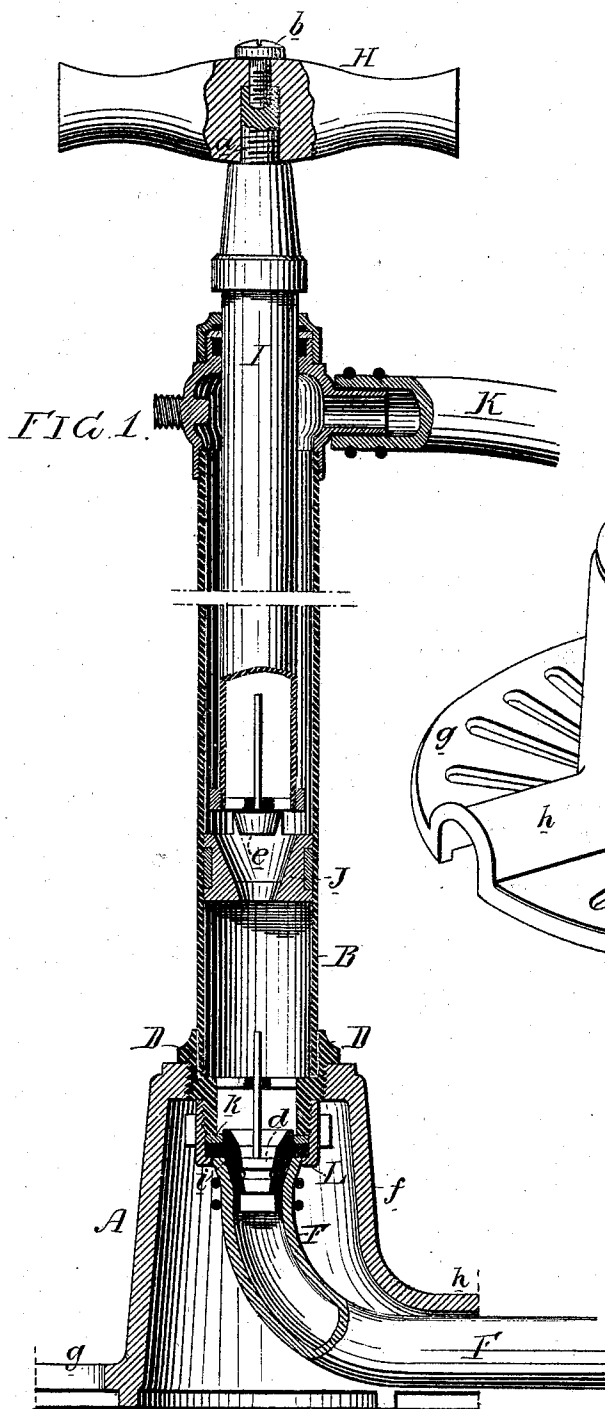
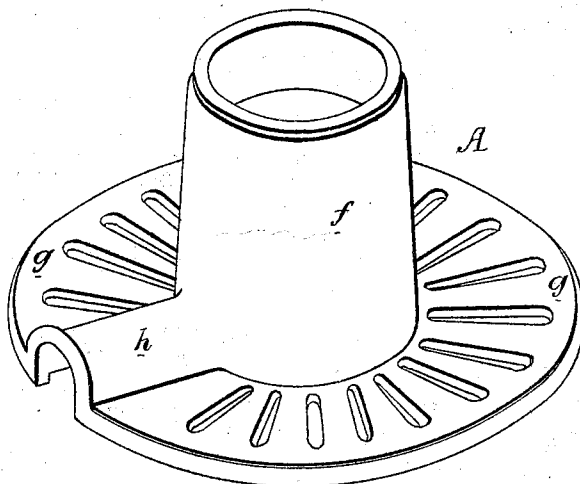


FIG. 2.



Witnesses, Harry Smith,
Thomas M. Hoain

Robert T. Deakin
by his Atty.
Housen and Son.

UNITED STATES PATENT OFFICE.

ROBERT T. DEAKIN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN THE CONSTRUCTION OF PUMPS.

Specification forming part of Letters Patent No. **150,836**, dated May 12, 1874; application filed April 13, 1874.

To all whom it may concern:

Be it known that I, ROBERT T. DEAKIN, formerly of Sheffield, England, but now residing at Philadelphia, Pennsylvania, have invented certain Improvements in the Construction of Pumps, of which the following is a specification:

The object of my invention is to improve the construction and facilitate the manipulation of small force and lift pumps, such as are commonly used in gardens, &c.; and I attain this object, first, by providing the pump with an extended base or foot plate, A, upon which the operator can stand and thus rigidly hold the pump while he manipulates the piston-rod; second, by providing the pump-barrel B with a double-threaded ferrule, D, at its lower end, by which it can be secured both to the foot-plate and to the inlet-pipe, F, all as shown in the vertical section, Figure 1, and detached perspective view, Fig. 2, of the accompanying drawing.

I wish it to be understood in the outset that my invention is restricted to the above-mentioned features of construction, and that I lay no claim to the interior of the pump or method of operation, which may be briefly described as follows:

The pump has two valves, *d* and *e*, one at the base of the barrel and the other in the piston J, and both opening upward. When the piston is raised the valve *e* will be closed and the valve *d* opened, so that the water above the piston will be raised and forced out through the hose or pipe K, which is furnished with a suitable nozzle, and at the same time water will enter the barrel beneath the piston. When the latter is lowered its valve *e* will be opened and the valve *d* closed, and the water beneath the piston will be forced up through the latter, and through the upper portion of the barrel, to the outlet K. Thus a continuous stream of water can be forced from the nozzle at the end of the pipe R. The construction of the extended base or foot plate A of the pump is shown in the perspective view, Fig. 2. It has a central tubular portion, *f*, a horizontal flange or base, *g*, which forms the foot-plate proper, and an arched projection, *h*, which receives the flexible inlet-pipe

F, and protects and prevents the compression of the said pipe by the foot of the operator. The pump-barrel, or more properly the ferrule D, secured to the lower end of the barrel, is screwed directly into the threaded opening at the top of the tubular portion *f* of the foot-plate, the latter thus elevating the said pump-barrel sufficiently to permit the inlet-pipe to be connected directly to the end of the barrel instead of to one side of the same, as usual. The tubular portion of the foot-plate also conceals the coupling between the barrel and the inlet-pipe, and thus imparts a pleasing and symmetrical finish to the base of the pump. The advantage of placing the feet upon the flange *g* of the foot-plate, and of thus holding down the pump during the manipulation of the piston-rod, will be too obvious to need explanation. The ferrule D, by which the connection is made both with the foot-plate and inlet-pipe, is another important feature of my invention. This ferrule is soldered or otherwise permanently secured to the lower end of the pump-barrel, and has two screw-threads cut upon its exterior, one beneath the other, and of different diameters. The upper threaded portion is screwed into the foot-plate, and the lower threaded portion into a flanged coupling-nut, L, connected to the metallic end *i* of the flexible inlet-pipe F, and provided with an internal packing, *k*. The ferrule D has also an internal guide for the stem of the valve *d*, which has its seat in the above-mentioned portion *i* of the inlet-pipe.

I claim as my invention—

1. The foot-plate A, constructed as described, for attachment to a pump-barrel, B.
2. The combination, substantially as described, of the pump-barrel B, the double-threaded ferrule D, secured to the lower end of the said barrel, the foot-plate A, and the inlet-pipe F.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBT. T. DEAKIN.

Witnesses:

WM. A. STEEL,
HUBERT HOWSON.