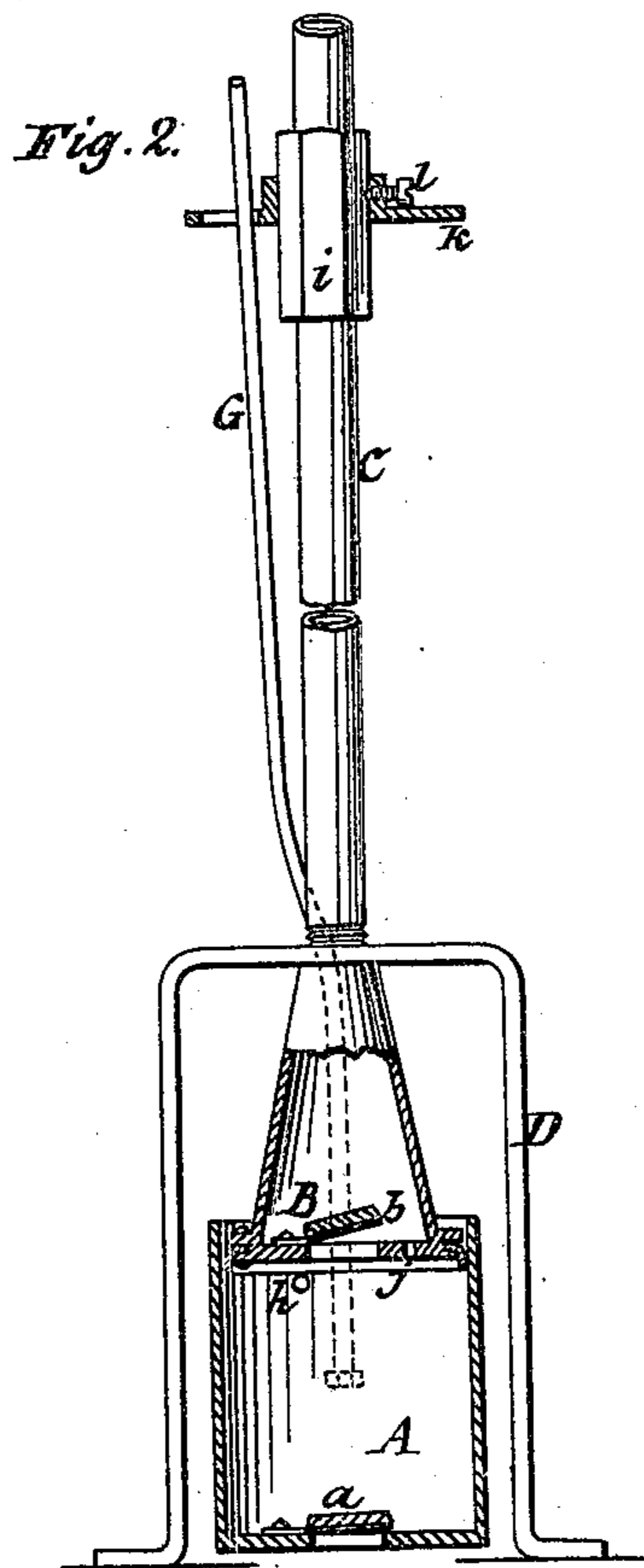
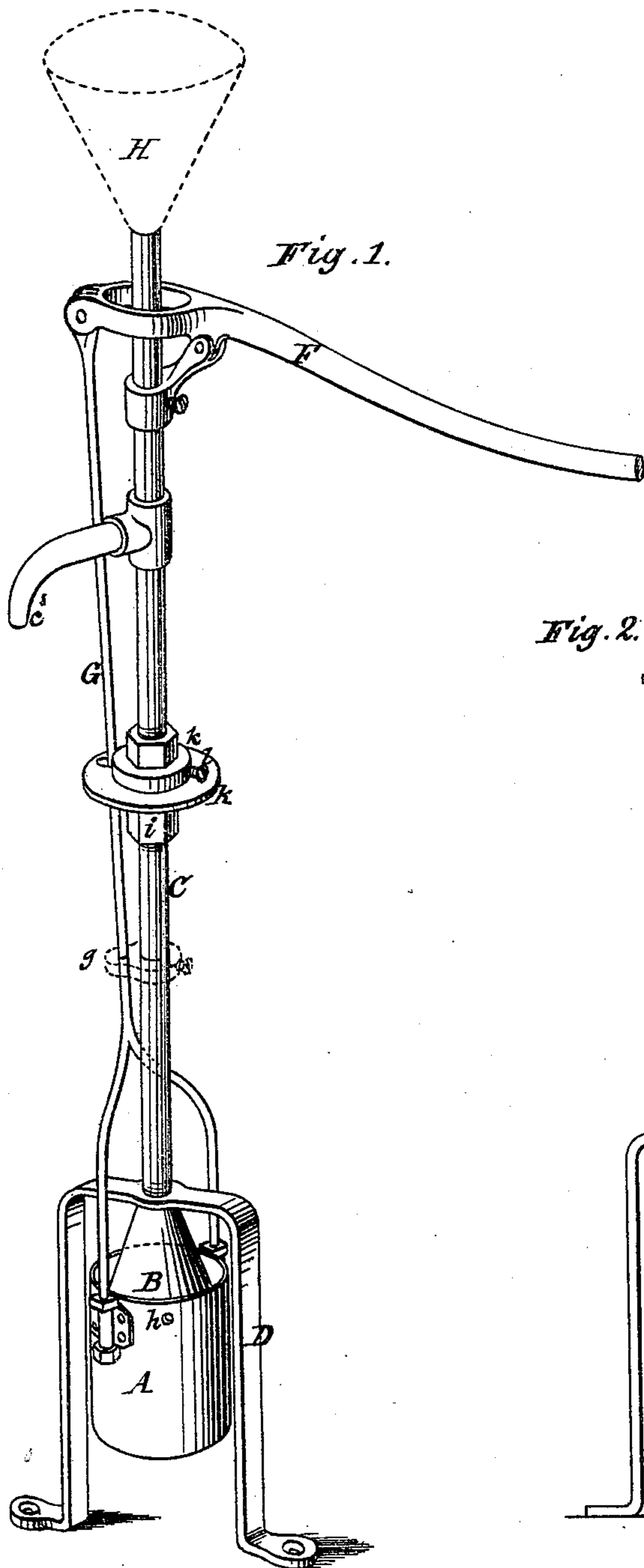


E. F. ADSITT.  
PUMP.

No. 179,498.

Patented July 4, 1876.



Witnesses  
W. B. Masson  
W. R. Edelen.

Inventor  
Eugene F. Adsitt,  
by E. E. Masson  
att'y

# UNITED STATES PATENT OFFICE.

EUGENE F. ADSITT, OF WATERLOO, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM H. BURTON, OF SAME PLACE.

## IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **179,498**, dated July 4, 1876; application filed May 3, 1876.

*To all whom it may concern:*

Be it known that I, EUGENE F. ADSITT, of Waterloo, in the county of Seneca and State of New York, have invented certain new and useful Improvement in Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the pump. Fig. 2 represents the pump's bucket, the piston, and the lower portion of water-elevating pipe in vertical section.

My improvement relates to that class of pumps in which the bucket or cylinder slides over a stationary piston attached to the lower end of a fixed pipe, said bucket being operated by means of a rod or rods connected to an ordinary pump-lever.

My invention relates to a certain opening located in the stationary piston, in connection with an opening in the bucket, by means of which the water in the elevating-pipe can escape, and is not liable to freeze when the pump is not in use. It relates, also, to an adjustable supporting-collar attached to the elevating-pipe at or near the top of the well, said collar having a polygonal central opening to fit around a similar prismatic section of the elevating-pipe.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The bucket or cylinder is represented at A, and the stationary piston at B. This piston is attached to the lower extremity of the fixed elevating-pipe C, that can be supported by a frame, D, attached to its lower end, or by a collar, *k*, properly secured above the well. The bucket A is worked up and down over the piston B by means of a lever, F, and a forked connecting-rod, G. To the bottom of this bucket is attached an induction-valve, *a*, to allow the water to enter it when the bucket is lowered, while, when it is raised, the valve *a* is closed, and the water is forced through the valve *b* of the piston into the elevating-

pipe C, and escapes at the nozzle or discharge-spout *c*.

The pipe extends some distance above the spout, and its upper end may be provided with an air-chamber, H, to produce a steady stream from the nozzle. If the well on which it is used is deep, the guides *g*, attached to the pipe, may be used to retain the connecting-rod in a direct line, and reduce the friction on the piston.

To keep the water from freezing in the elevating-pipe, and yet retain the full power of the pump as a force-pump, I have provided an escape-opening, *j*, in the stationary piston, through which the water in the elevating-pipe will escape into the bucket, and by its weight it will lower the bucket until the opening *h* in the side and near the top of the bucket is uncovered by the piston. It will then escape through that opening back into the well.

Escape-openings for the water remaining in pumps after using are commonly made in the elevating-pipe or side of the pump, and cause very little loss in the quantity of water raised; but in force-pumps a small opening will cause considerable loss of power in the stream issuing from the nozzle. In this pump the escape-opening *j* in the piston is effectually closed by the water packed into the bucket while being raised to force it through the elevating-pipe. This pipe is provided with a prismatic sleeve, *i*, securely connected to it at the place where it is to be supported by a platform. Around this sleeve a collar, *k*, having a corresponding polygonal opening, is attached by set-screws *l*, so that the height of the pump can be easily regulated.

Supporting-collars have been attached by set-screws to round pipes; but the motion given to the pump in working it soon cuts a groove in the pipe, and weakens it considerably.

The frame D acts as a support for the pump when it is used as a portable force-pump for washing windows, carriages, &c., or as a fire-extinguisher, and can rest on the bottom of an ordinary water-bucket.

Having thus described my invention, I do not claim, broadly, the use of a waste-water opening in connection with pumps. Nor do I

claim, broadly, a supporting-collar for the water-elevating pipe; but

What I claim as my invention is—

1. In combination with the bucket A of a lift and force pump, having an opening, *h*, located as specified, the stationary piston provided with a waste-water opening, *j*, as and for the purpose described.

2. In combination with the elevating-pipe C

of a pump, and the prismatic sleeve *i* formed on or securely connected to it, the adjustable supporting-collar *k*, having a corresponding polygonal central opening, substantially as and for the purpose described.

EUGENE F. ADSITT.

Witnesses:

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