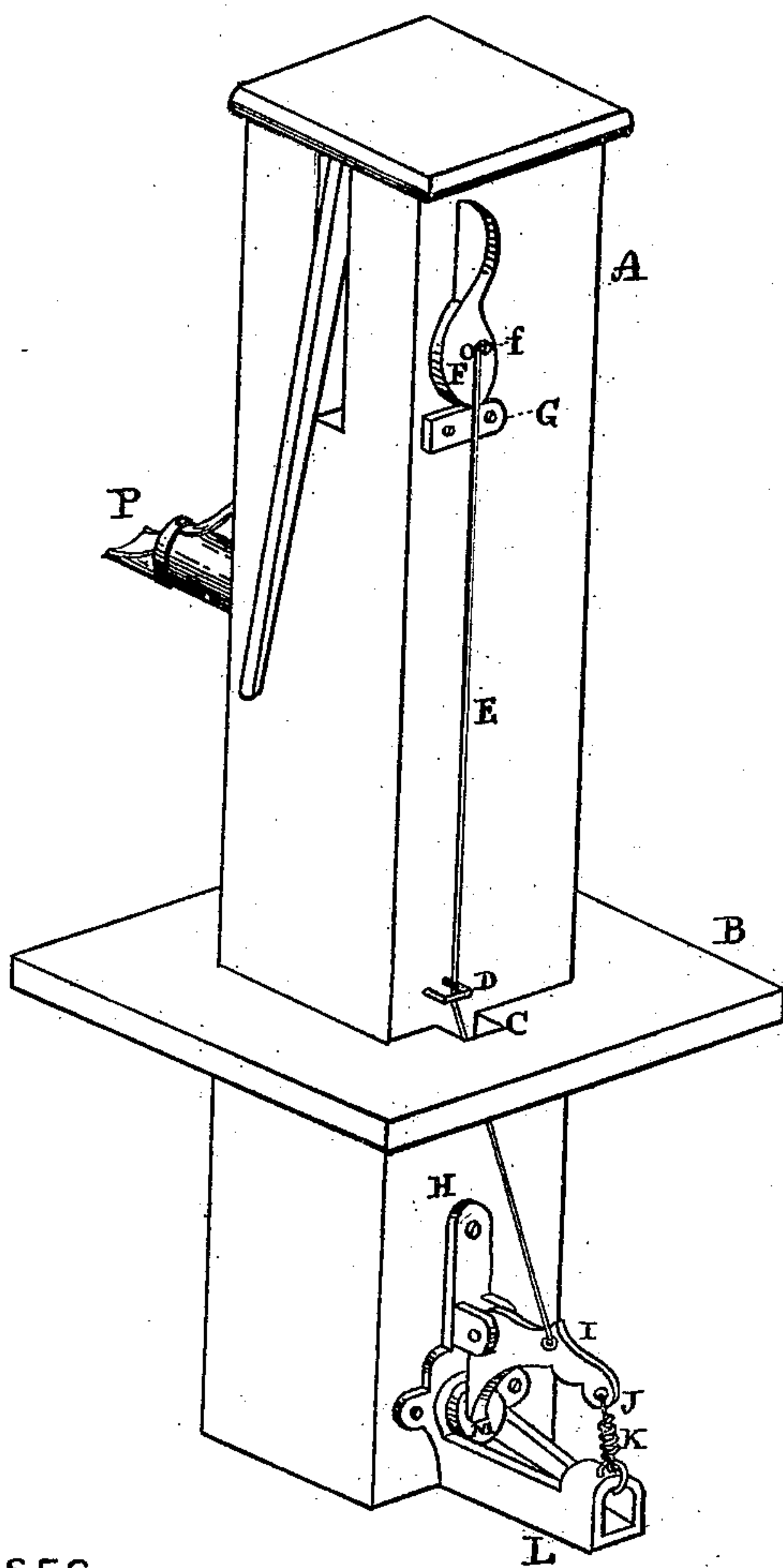


C. FOX.  
LIFT-PUMP.

No. 178,624.

Patented June 13, 1876.



WITNESSES.

*Henry Fox*  
*Timlow Long*

INVENTOR.

*Christian Fox*

# UNITED STATES PATENT OFFICE.

CHRISTIAN FOX, OF GAP, ASSIGNOR OF ONE-HALF HIS RIGHT TO ISAAC ANDERSON, OF PARADISE TOWNSHIP, PENNSYLVANIA.

## IMPROVEMENT IN LIFT-PUMPS.

Specification forming part of Letters Patent No. **178,624**, dated June 13, 1876; application filed April 11, 1876.

*To all whom it may concern:*

Be it known that I, CHRISTIAN FOX, of Gap, Salisbury township, Lancaster county, in the State of Pennsylvania, have invented certain Improvements in Preventing the Freezing of Lifting-Pumps, of which the following is a specification:

The object of this invention is to apply a simple and efficient arrangement to prevent the splitting or damage of frost in wooden lifting-pumps during winter, as well as to draw off the warm water standing in the stock during summer.

The accompanying drawing, with the letters of reference marked thereon, and a brief explanation, will enable those skilled in the art to make and apply this device, in which—

A is to represent one of the common or cucumber pumps now in common use through the country; B, the pump-bed; P, the spout. The device consists in the combined spout and levered valve, attached below the frost-line to one side of the pump, bored to open through the attached spout L, covered by a valve, M, connected with an arm, J, and held by a pivot-bolt in a pair of brackets attached to the base-plate H, with which the spout is also cast in one piece. The valve is provided with stuffing, as also the plate, to prevent leaking. Said valve is held firmly closed by a coiled spring, K, connecting the end of the lever J with the spout L. In order to open the valve at pleasure, a wire, E, is attached to said valve lever J at I, and carried up through an opening, C, in the pump-bed, held by a keeper, D, and the upper end attached to a headed pin, *f*, on an eccentric lever, F, acting upon a fulcrum-plate, G, affixed to the pump-stock at a convenient height vertically over the lower device.

The operation is easily understood. By turning the eccentric lever F the wire-connection with the lever J opens the valve M, with which the lever is connected, and the water above the spout L is discharged, and prevent-

ed from running down on the stock, so liable to cause rot or damage. By simply drawing the lever F down the water from the stock is soon emptied to below the freezing-line, and thereby no damage or vexatious delay by thawing out is occasioned; besides, many stocks have been split by the frost and utterly ruined. Hence this simple device, so cheap and easily attached, is of the greatest utility in winter, and equally desirable in the hot season during summer. Instead of pumping off the warm water in the upper part of the stock, it is readily drawn off.

The eccentric lever, as well as the valve-lever and supports, is easily cast and galvanized, and put on sale as a new article to the trade, which will evidently find favor by all who use wooden lifting-pumps, so common in the country.

I am aware that several arrangements have been made with the same object in view, as in Patents No. 174,688 and No. 174,725, both dated March 14, 1876, which are operated by a rod or connected with the pump-handle. The valve is also connected to a straight lever, operating against the outer end of the spout, variously inserted into the pump-stock; but my valve acts direct upon the seat in the bracket-plate, and has a right-angled lever-connection over a spout, (or, rather, trough,) closed above only in front. Therefore

What I claim as my invention is—

The combination of the cam-lever F, fulcrum-plate G, and wire E, attached to a horizontal lever-arm, J, having a vertical valve, M, attached, to set against the opening in a supporting-bracket, H, which also supports an open spout, L, closed above only in front, the whole arranged and operated substantially as herein shown and set forth.

CHRISTIAN FOX:

Witnesses:

A. FLEMING SLAYMAKER,  
MILTON ELMER.