

T. Ling,
Pump Brake,

N^o 64,337.

Patented Apr. 30, 1867.

Fig. 1.

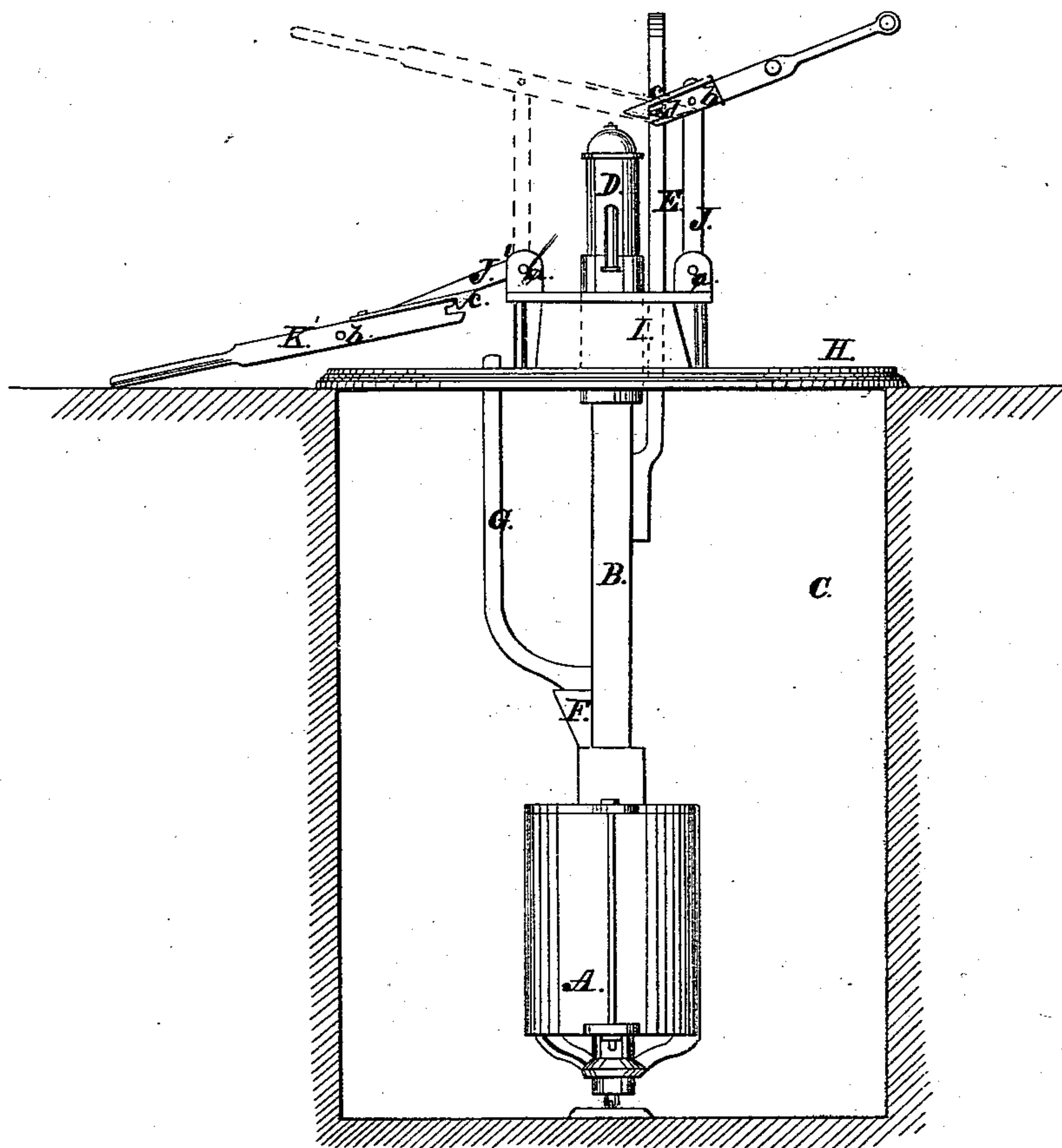
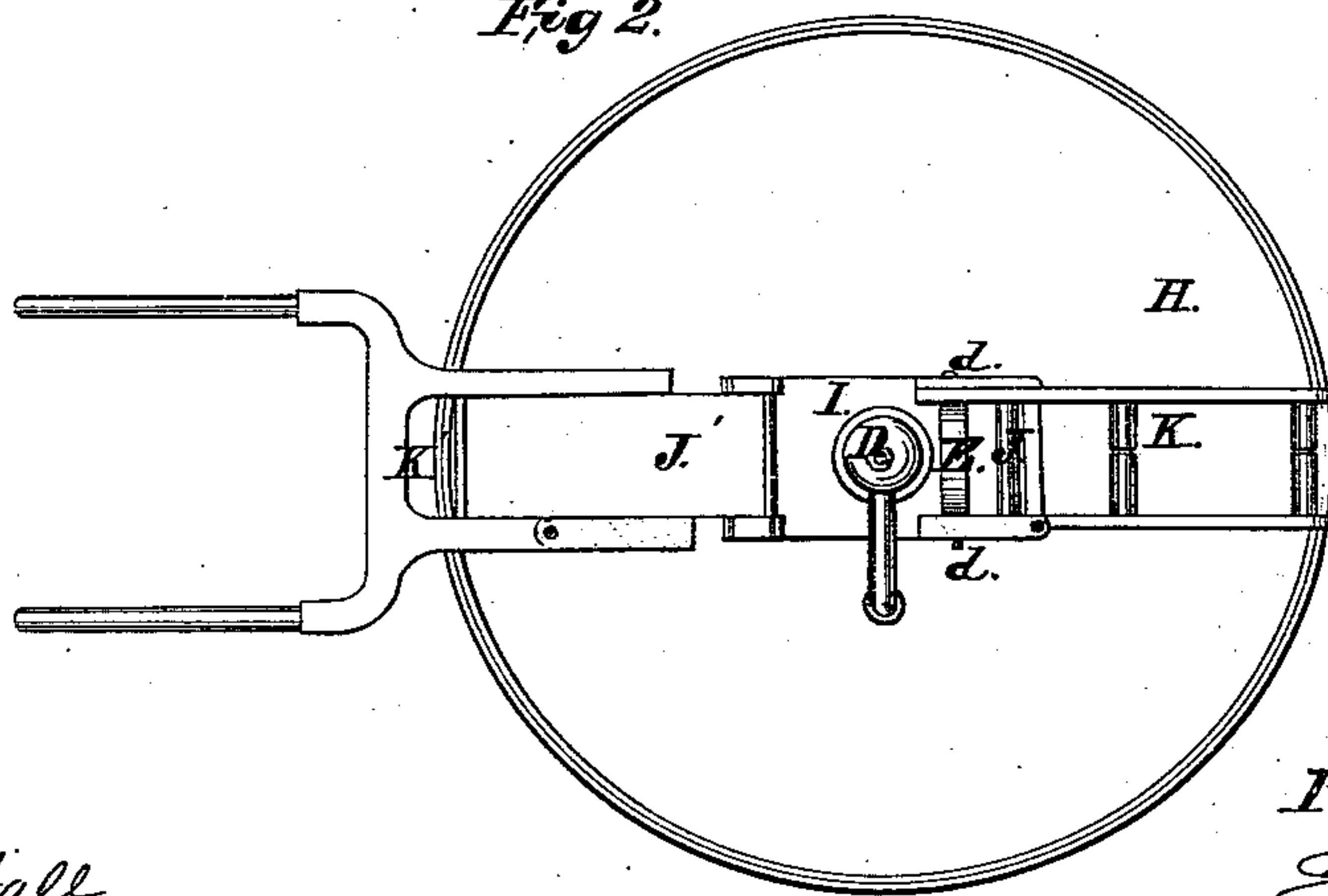


Fig 2.



Attest:

J. P. Hall
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United States Patent Office

THOMAS LING, OF NEW YORK, N. Y.

Letters Patent No. 64,337, dated April 30, 1867.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS LING, in the city, county, and State of New York, have invented a new and improved Pump; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my invention.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved pump, of that class in which the pump cylinder or body is moved up and down in order to force the water up through it; and the invention consists in a novel arrangement of levers, a bar, and a foot-rod, as hereinafter fully shown and described, whereby the leverage power applied to the pump may be varied, so as to obtain a comparatively long stroke in order to raise, when required, a large quantity of water in a given time, and when a small quantity of water is required to be raised in a given time, as for family use, &c., the leverage power may be increased, so that no extra power or exertion on the part of the operator need in any case be expended in operating the pump, and the latter be rendered available for use on either a large or small scale.

A represents a pump cylinder, which is attached to the lower end of a tube, B, which extends upward to the top of the well C, and has its upper part D turned or formed similar to ordinary pump bodies. If desired, the upper exposed part D may be made separate from B, and attached to it in any proper way. E is a bar, which is attached to the side of the tube B, and extends upward a trifle above the pump body D, as shown clearly in fig. 1, and the tube B has a socket, F, attached to it just above the cylinder A, to receive the lower end of a bar, G, the latter extending loosely through the platform H of the well. The piston of the cylinder A is fixed or stationary, the cylinder working up and down over it, the water passing through the piston-rod, which is tubular. This arrangement, however, is old, and forms no part of this invention. The pump body D works through a box, I, on the platform H, the bar E also working through said box, and to the top of this box, at each end, there are attached, by pivots *a*, supports J J, to the upper parts of which lever frames or brakes K K' are respectively attached by fulcrum-pins or rods *b*. The lever frame or brake K has its inner ends connected to the bar E in any suitable way which will admit of said brake being readily connected to and disconnected from said bar. A spring-catch, *c*, may be employed at one side to fit over a pin, *d*, at one side of E, the opposite side being simply slotted to fit over a similar pin. The other lever frame or brake K' may be attached to bar E in a similar manner, but the brake K' has its fulcrum-pin or rod *b* at a considerably greater distance from E than the fulcrum-pin or rod *b* of the lever frame or brake K, in consequence of the bar E being at the side of the pump body D farthest from the support J of the brake K, being quite close to the bar E, (see fig. 1.) Hence it will be seen that the brake K' will give a much longer stroke to the tube B than the brake K, and a proportionably greater amount of water can be raised in a given time than can be raised by the brake K, but it will also be seen that a proportionably greater amount of power will be required to operate the brake K', and in order to aid in the working of said brake K', the bar G is employed, on the top of which the foot of the operator is placed. This greatly aids in the application of power to the pump, and renders the operation of the brake K' much easier than it otherwise would be.

I claim as new, and desire to secure by Letters Patent—

The bar G, brakes K K', (one or more,) and bar E, arranged and applied to a rising and falling pump body, substantially as and for the purpose herein set forth.

THOMAS LING.

Witnesses:

J. P. HALL,

M. M. LIVINGSTON.