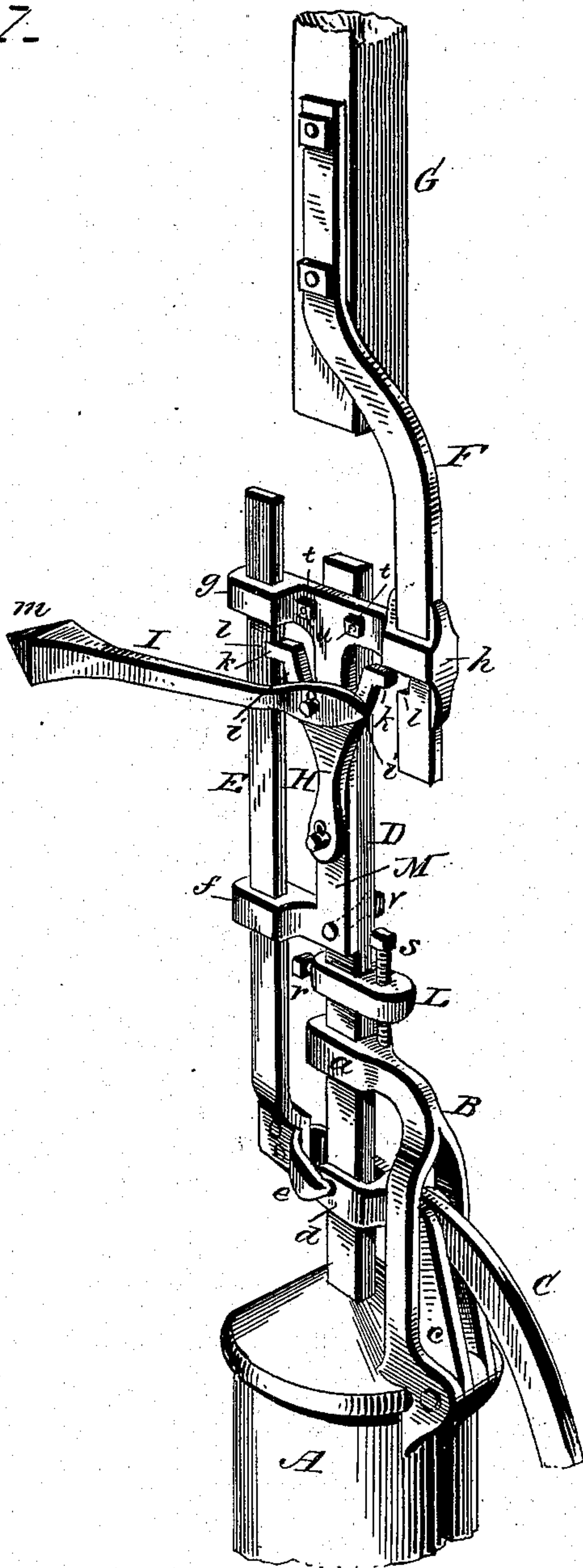


2 Sheets—Sheet 1.

## PUMPING ATTACHMENT FOR WINDMILLS.

Patented Sept. 22, 1896.

Final



Witnesses  
 C. J. Williamson.  
 Wm. G. Brown.

Inventor  
Ferdinand Miller.  
per Chas. C. Fowler  
Attorney.

(No Model.)

2 Sheets—Sheet 2.

F. MILLER.  
PUMPING ATTACHMENT FOR WINDMILLS.

No. 567,990.

Patented Sept. 22, 1896.

Fig. 2.

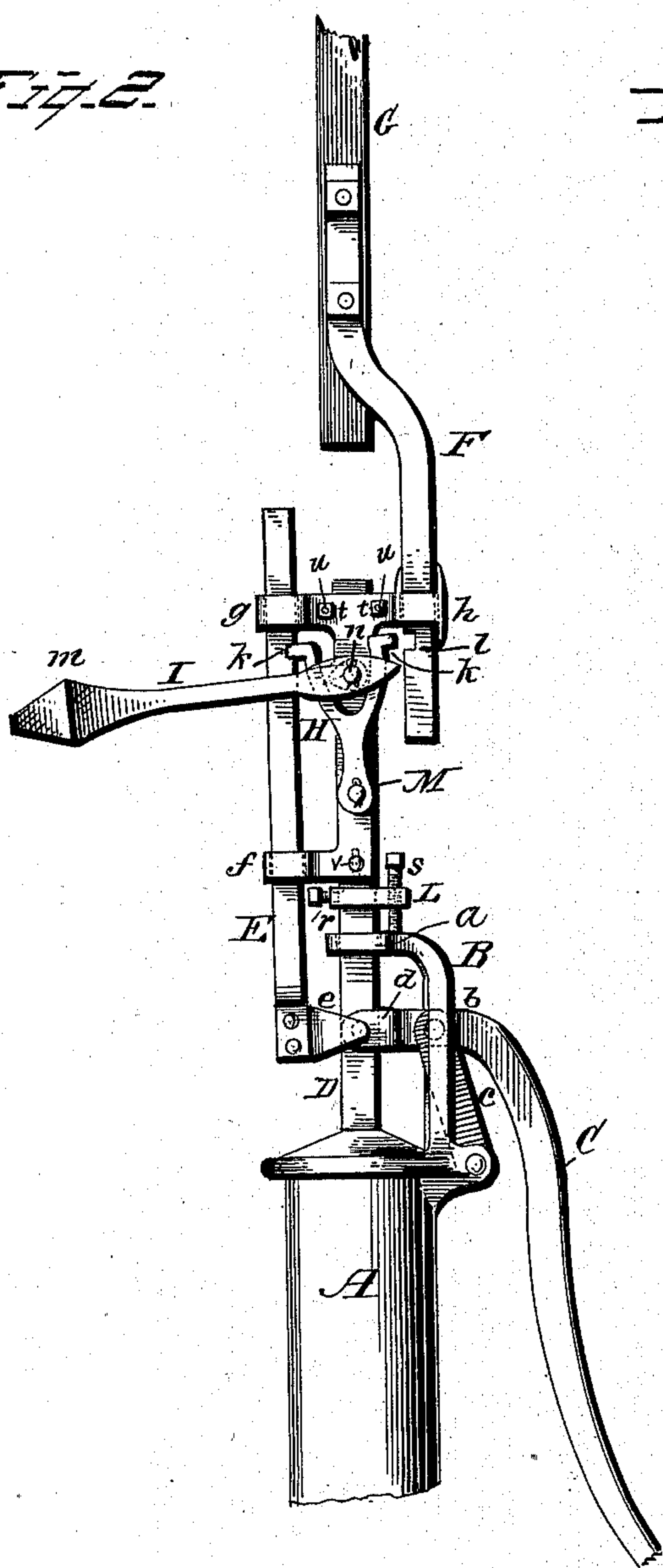
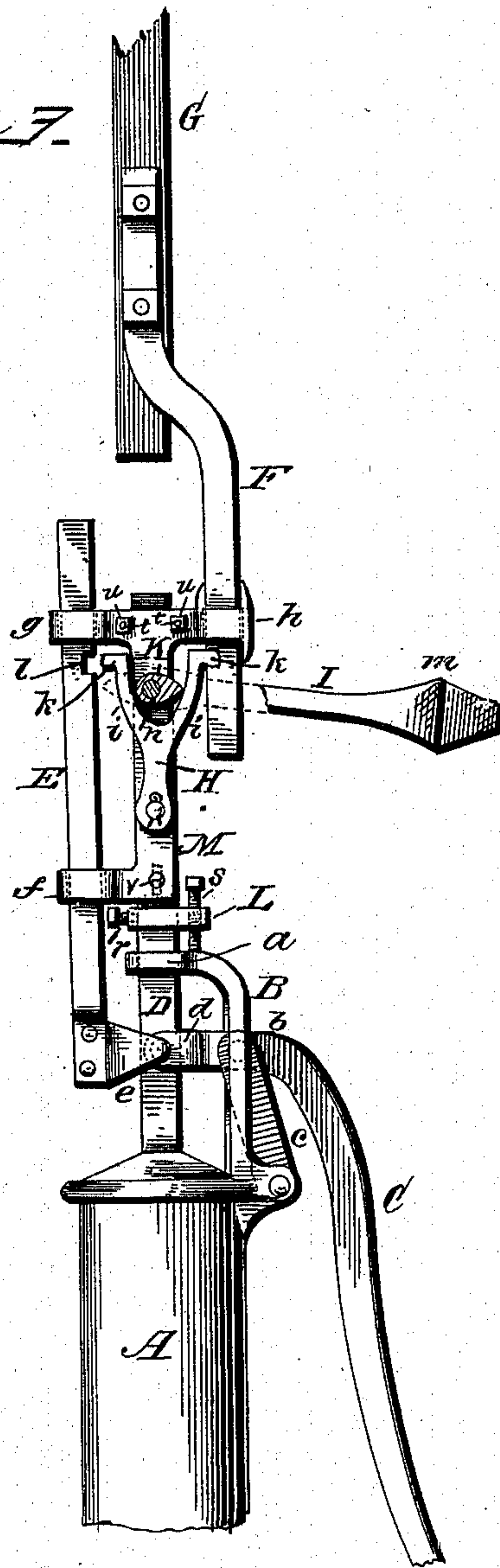


Fig. 3.



Witnesses  
G. Williamson.  
Wm. G. Brown.

Inventor  
Ferdinand Miller.  
per  
Chas. H. Fowler  
Attorney.



# UNITED STATES PATENT OFFICE.

FERDINAND MILLER, OF EMMA, INDIANA.

## PUMPING ATTACHMENT FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 567,990, dated September 22, 1896.

Application filed March 21, 1896. Serial No. 584,226. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND MILLER, a citizen of the United States, residing at Emma, in the county of La Grange and State of Indiana, have invented certain new and useful Improvements in Pumping Attachments for Windmills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has relation to that class of pumping attachments for windmills provided with a shifting device or other means whereby the pump may be worked by hand when, through lack of wind, the mill is stationary.

The invention consists in a pumping attachment constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view of my improved attachment, showing the parts in position for operating the pump by hand. Fig. 2 represents a side elevation thereof, showing the parts in the same relative position as indicated in Fig. 1; Fig. 3, a side elevation showing the attachment in position for working the pump by the vertical shaft or pitman of a windmill.

In the accompanying drawings, A represents the ordinary pump-stock or that portion of the pump which is above the ground and is provided at its upper end with a bifurcated standard B, having a guide *a*, through which the piston-rod of the pump works.

Between the bifurcations of the standard extends the curved end *b* of a pump-handle C, links *c* being pivoted to the curved end of the handle and also pivoted to the base of the standard, as shown. The extremity of the curved end *b* of the pump-handle terminates in flanges *d*, which embrace the piston-rod D of the pump, but are not connected thereto. A pitman-rod E is formed at its lower end with flanges *e*, which flanges are pivotally connected to the flanges *d*. The pitman-rod extends up through a guide *f*, which projects from the piston-rod D, and also through a guide *g* at the upper end of said rod to guide

the pitman-rod in its vertically-reciprocating movement when the pump-handle is operated.

At the upper end of the piston-rod D and opposite to the guide *g* is a similar guide *h*, through which extends the pitman-rod F, which is secured to the lower end of the pumping rod or shaft G of the windmill. These several guides may be of any suitable construction and formed with or connected to the piston-rod, as found most preferable. A bifurcated shifting device H is pivotally connected to the piston-rod D, as shown, the arms *i* of the bifurcation having outwardly-extending lugs *k*, which are adapted to engage, respectively, with notches *l* on the pitman-rods E F. This shifting device is operated by a weighted lever I, the weight thereon being shown at *m*, said lever at its inner end having a cam K upon its inner side formed with or rigidly connected to the lever, which lever is pivotally connected to the piston-rod D by means of a pin *n*. This pin projects from the side of the piston-rod and is rigidly connected thereto, so that it will serve as a pivotal bearing for the cam K, said cam, as previously stated, being cast with or otherwise rigidly secured to the end of the weighted lever.

In the position shown in Fig. 1 of the drawings the shifting device H engages with the pitman-rod E, which forms a connection between the piston-rod D and the pump-handle, whereby said pump may be operated by hand when desired or when the windmill-power fails to act.

The shifting device in Fig. 3 of the drawings is shown as being connected to the pitman-rod of the windmill pumping-rod, whereby the pump is capable of being operated by wind-power instead of by hand, the hand-operating mechanism being shown out of gear.

The lever I when thrown to either side will retain the shifting device H in engagement with the pitman-rod by virtue of the weight *m* on the lever I, thereby holding the device securely in position until again thrown to the opposite side.

The shifting device, although shown in the form of a bifurcated casting, may be variously modified or changed in construction, so long as it is adapted to shift from one side to



the other and engage, respectively, with the means for operating the pump by windmill-power or by hand. The means employed for operating the shifting device may also be variously modified, or other means may be substituted that will shift the device from one side to the other, as circumstances require, and it is not necessary that the pumping-rod G of the windmill should have connected thereto the pitman-rod F, as the pumping-rod itself may extend down through the guide and act as the pitman to the windmill.

To the piston-rod D there is connected an adjustable bracket L, which bracket is held in place by a set-screw *r* or by any other preferred means that will admit of the bracket being adjusted upon the piston-rod and securely held in its adjusted position.

The bracket L has a set-screw *s*, its lower end bearing on the upper end of the bifurcated standard, thereby regulating the throw of the pump-piston, so that the shifting device will engage the pitman-rods when thrown to either side.

I have shown in the drawings a bracket M, suitably connected to the piston-rod D, as one means of providing the rod with the several guides for the pitman-rods, although, as previously stated, these guides may be formed on the piston-rod or connected thereto in any suitable manner. As the most simple means of connecting the bracket M to the piston-rod D there is provided a suitable staple or clip to embrace the piston-rod, nuts *t* engaging the screw-threaded ends *u* of said staple. The bracket M is connected at its lower end to the piston-rod D by means of a tapering screw-bolt *v*, as shown in Fig. 1 of the drawings, or by any other preferred means found best adapted to the purpose.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A pumping attachment for windmills, consisting of the pump-handle and pumping-rod, a laterally-swinging shifting device, an independent pitman-rod pivotally connecting with the pump-handle, means for operating the shifting device to force it laterally in either direction to engage with the independent pitman-rod or with the pumping-rod of the windmill, substantially as and for the purpose set forth.

2. A pumping attachment for windmills, consisting of a shifting device connecting with the piston-rod, of a piston-rod, pumping-rod and pump-handle, and means for forcing the shifting device laterally in either direction to engage with the mechanism con-

necting with the pump-handle or with the pumping-rod of the windmill, said means comprising a weighted lever and a cam connecting therewith, substantially as and for the purpose described.

3. A pumping attachment for windmills, consisting of a pump-handle, a notched independent pitman-rod pivotally connecting with the pump-handle, a notched pitman-rod, the pumping-rod connecting therewith, a laterally-swinging shifting device adapted to engage alternately the notched pitman-rods, an adjustable bracket upon the piston-rod, a set-screw connected to the bracket and adapted to rest at its lower end upon the bifurcated standard of the pump-stock, substantially as and for the purpose specified.

4. A pumping attachment for windmills, consisting of a piston-rod and a pump-handle, a notched independent pitman-rod pivotally connecting with the pump-handle, a notched pitman-rod, a pumping-rod connecting therewith, a bifurcated shifting device pivotally connecting with the piston-rod of the pump, the arms of said device having outwardly-extending lugs, and means for operating the shifting device, substantially as and for the purpose described.

5. A pumping attachment for windmills, consisting of a piston-rod and a pump-handle, an independent pitman-rod pivotally connecting with the pump-handle, a notched pitman-rod of the windmill, guides therefor projecting laterally from the piston-rod of the pump, a bifurcated shifting device carried by the piston-rod of the pump, outwardly-extending lugs upon the arms of the device, and a weighted lever, with suitable means for operating the device, substantially as and for the purpose set forth.

6. A pumping attachment for windmills, consisting of the piston-rod and pumping-rod, notched pitman-rods connecting respectively with the piston-rod and the pumping-rod of the windmill, a bracket connected to the piston-rod of the pump, with laterally-extending guides for the pitman-rods, an adjustable bracket, set-screws connected to the bracket, a laterally-swinging shifting device, and a weighted lever connecting therewith for operating the same, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FERDINAND MILLER.

Witnesses:

E. B. DUNTEN,  
WILL H. SHINN.