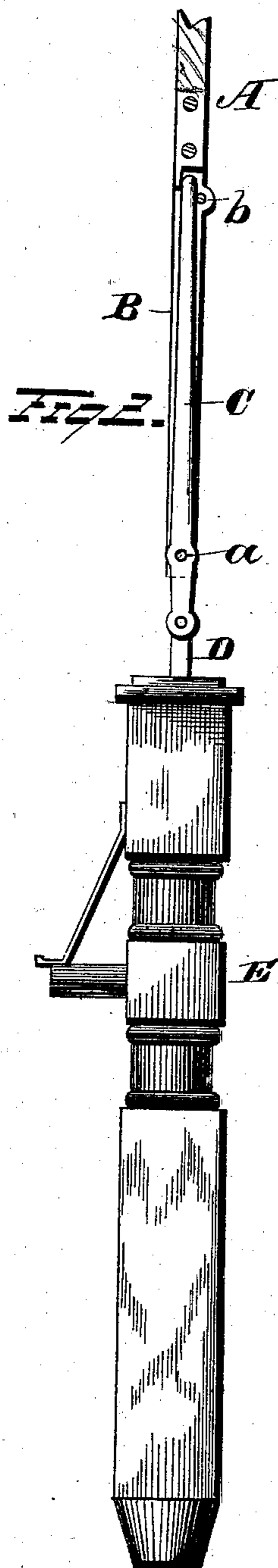
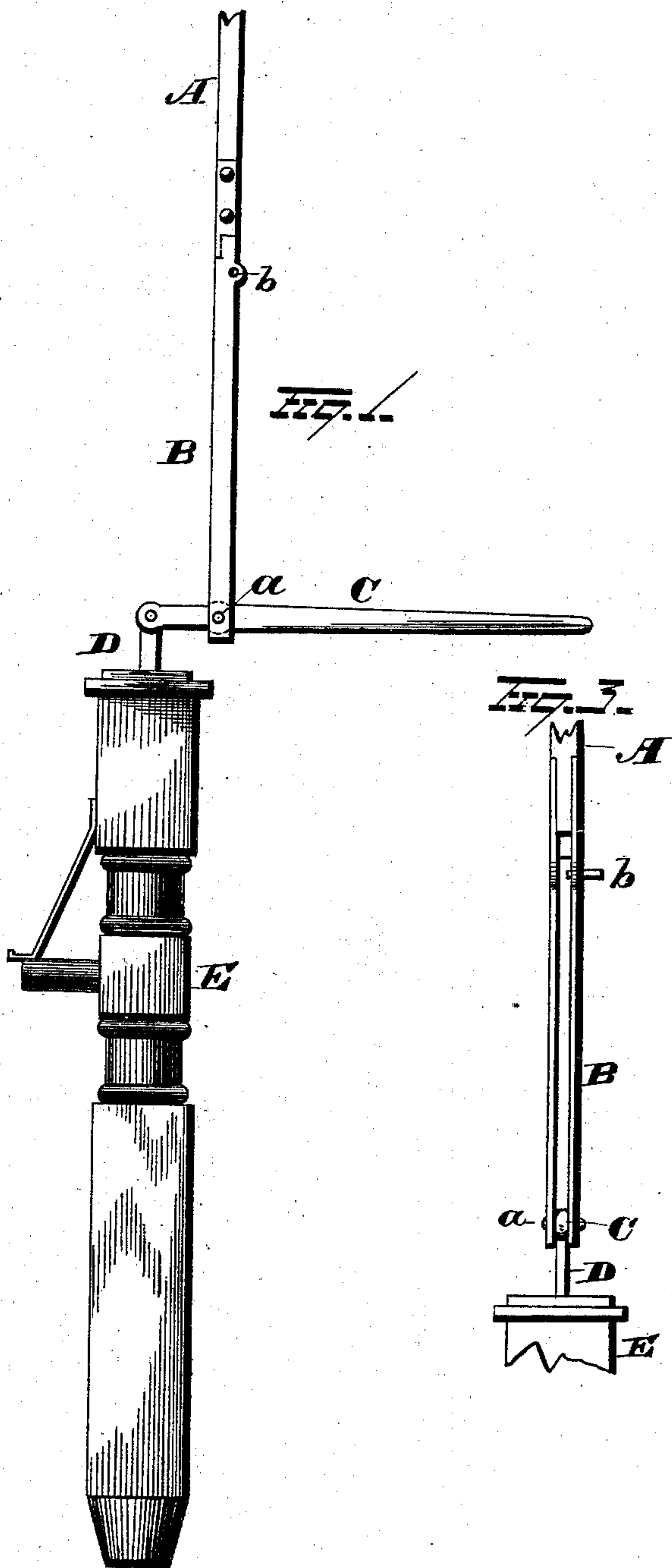


(No Model.)

E. S. SMITH.
PUMP FOR WINDMILLS.

No. 270,256.

Patented Jan. 9, 1883.



WITNESSES

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UNITED STATES PATENT OFFICE.

ELIJAH S. SMITH, OF GOOD HOPE, ILLINOIS.

PUMP FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 270,256, dated January 9, 1883.

Application filed August 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, E. S. SMITH, of Good Hope, in the county of McDonough and State of Illinois, have invented certain new and useful Improvements in Pumps for Windmills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to an improvement in attaching pumps to windmills, the object of the same being to provide cheap, simple, efficient, and durable means whereby the pump can be operated directly by the wind-wheel or by hand-power without the necessity of disconnecting or disarranging any of the parts; and with these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of my improvement, showing the pump-handle in position to be operated by hand-power; and Fig. 2 is a similar view, showing the parts in position for being operated directly by the wind-wheel. Fig. 3 is a detached view of the extension-irons, showing the pump-lever pivoted between them.

A represents the windmill-rod, the upper end of which is secured in any desired manner to the wheel-shaft, and receives its reciprocating motion therefrom. B is the connecting iron or irons; C, the pump-handle; D, the plunger, and E the pump.

The connecting iron or irons are rigidly secured at their upper ends to the lower end of rod A, and are provided at their lower ends with means for pivotally securing the pump-handle thereto. This connecting iron or irons is not an absolute necessity, as the rod A could be extended sufficiently to form the fulcrum of the handle C. In the construction shown in the drawings two connecting-irons, B, are secured on opposite sides of the rod A, parallel with each other, and with a sufficient space between them for the reception of the handle C when the latter is turned upward, as represented in Fig. 2. A pivot-bolt, *a*, is passed transversely through these irons B, near their

lower ends, and forms the fulcrum for the handle C. This handle C is pivotally secured at one end to the plunger D, and operates in the ordinary manner. A pin, *b*, or equivalent means, is secured to the connecting-irons B or rod A in such a position as to engage with and hold the handle C in a vertical position when the pump is operated by the mill. When a ring or collar is used, as represented in Fig. 3, the ring is elevated on the irons B until the handle C is placed in its vertical position, and then is allowed to drop a short distance and hold the handle between the irons. Gravity or spring-actuated catches can be employed with good results to accomplish the same end.

When it is desired to pump by means of the mill, the handle C is secured in the position shown in Fig. 2, and the mill is turned to the wind. When it is desired to operate the pump by hand, the handle C is released from the pin *b* and allowed to assume the position shown in Fig. 1, the lower ends of the irons forming the fulcrum thereof.

As before stated, it is not necessary that any connecting-irons be used, as the handle C can equally well be pivoted to the lower end of the rod A. In this instance the handle C, when placed in vertical position, would rest alongside of the rod A, and be secured thereto by the catch or ring before referred to.

It is evident that numerous slight changes in the construction and relative arrangement of the different parts might be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not limit myself to the exact construction shown and described, but consider myself at liberty to make such changes and alterations as come within the spirit and scope of my invention.

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

1. The combination, with the windmill-rod and pump-plunger, of the pump-handle pivoted to the plunger and to the windmill-rod, and adapted to be turned so as to be in line with both, substantially as set forth.

2. The combination, with a windmill-rod and pump-plunger, of a pump-handle pivotal-

ly connected with both the plunger and windmill-rod, and a device for securing the pump-handle in alignment with both the plunger and the windmill-rod, substantially as set forth.

5 3. The combination, with the pump-handle and plunger, of the windmill-rod, situated over the pump and forming a fulcrum for the handle, substantially as set forth.

10 4. The combination, with the windmill-rod provided with two downward extensions or connecting-irons, of the pump-handle and plunger, the said handle being pivotally secured to the lower ends of the said connecting-irons,

and adapted to rest between them in the same vertical plane with the windmill-rod, and a 15 catch for holding the said pump-handle between the said connecting-irons, all of the above parts combined and adapted to operate as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 20

ELIJAH SWAIN SMITH.

Witnesses:

W. B. MILHORN,
W. BEITHY.