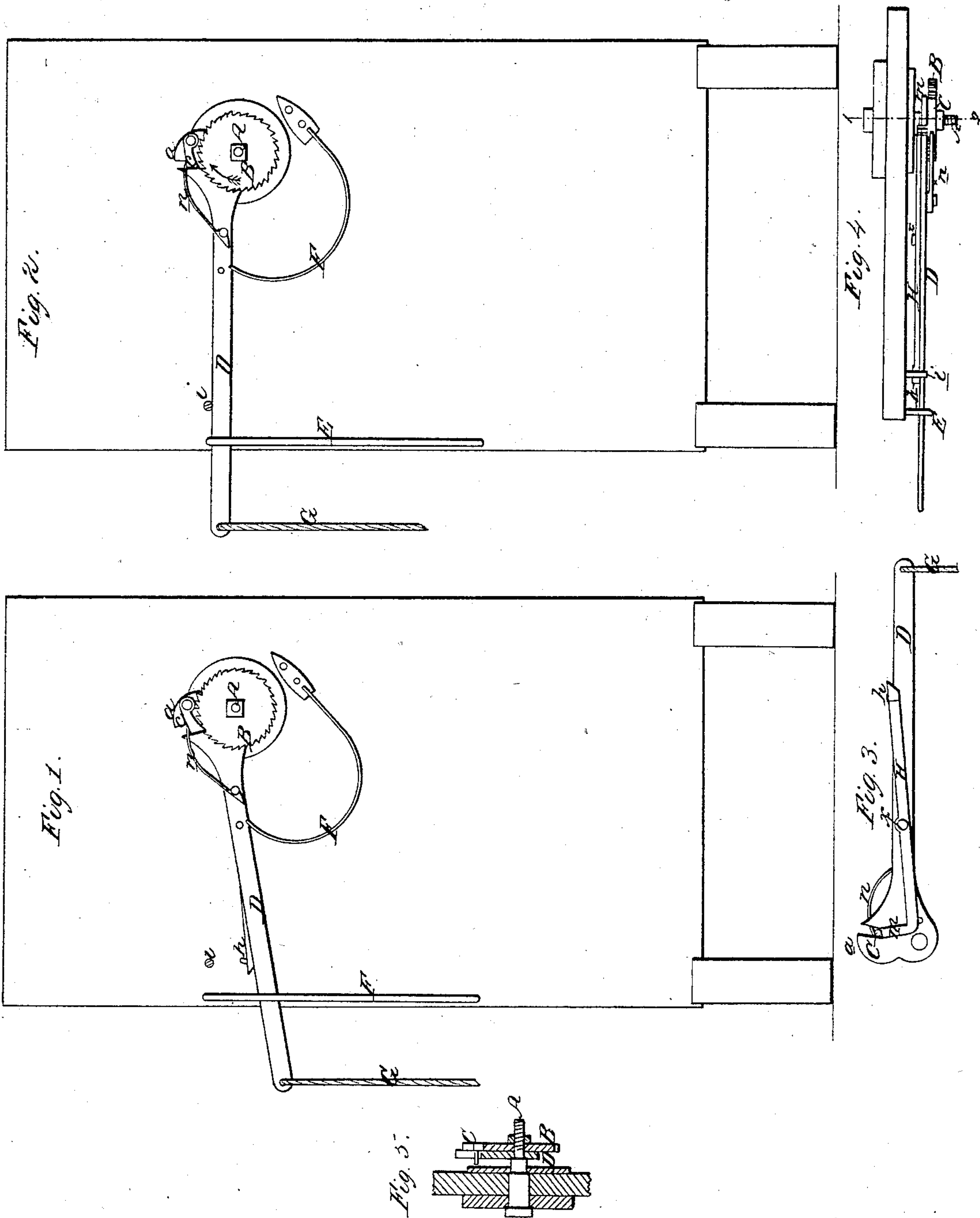


J. B. Powell.

Winding Clocks.

N^o 24,977.

Patented Aug. 2, 1859.



Witnesses;
Henry Howson

Inventor;
John B. Powell

UNITED STATES PATENT OFFICE.

JOHN B. POWELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND
GEO. B. FRICK, OF SAME PLACE.

MACHINE FOR WINDING UP CLOCKS, &c.

Specification of Letters Patent No. 24,977, dated August 2, 1859.

To all whom it may concern:

Be it known that I, JOHN B. POWELL, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and Improved Device for Winding of Clocks, &c.; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in a spring lever with a spring catch or pawl and a ratchet wheel, in combination with a supplementary lever and a stop pin, or their equivalents, the said parts which are fully described hereafter, to be applied to the winding up of clocks which are situated at an altitude inconvenient of access for winding up in the usual manner.

My improvement is also applicable to other machinery in which either a coiled spring or a descending weight is used as a prime mover.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawing which forms a part of this specification Figures 1 and 2, are views of my improved device for winding up clocks &c., with the operating parts in different positions. Fig. 3, a detached view of the operating lever. Fig. 4, a sectional plan, and Fig. 5, a vertical section of the device on the line 12, Fig. 4.

A, is that spindle of a clock to which the main spring is attached and by turning which the clock may be wound up. To this spindle is secured a ratchet wheel B, to the teeth of which is adapted the point of the pawl or catch C which is hung loosely to a pin on a projection *a* of the lever D, the latter fitting loosely onto the spindle A. The lever D passes through a guide E which may be secured in any convenient manner to the frame of the clock, the guide serving the double purpose of maintaining the lever in its proper lateral position and of limiting the extent of its vibrating movements. A spring F, secured to the frame of the clock, bears with its point against the under side of the lever D, and serves to raise the latter to the horizontal position shown in Fig. 2 after the lever has been depressed by pulling

the chain or cord G on the extreme end of the lever.

To a pin *x* on the inside of the lever D is hung a supplementary lever H, the outer end *h* of which comes in contact with a pin or step on the frame of the clock, when the lever is raised by the spring F to its most elevated position. The opposite end of the supplementary lever H, is bent, the bent end *m* bearing against the under side of a pin which projects from the pawl or catch C which is depressed by a spring *n* attached to the lever D. When this lever is raised, as seen in Fig. 2, the straight arm of the supplementary lever H has been depressed on account of its point *h* coming in contact with the pin *i*, the bent arm has consequently been raised and has elevated the catch C so that its point is free from contact with the teeth of the ratchet wheel which is then at liberty to move by the combined action of the main spring and the escapement, the above described parts remaining in this position until the spring has to be wound up. When this is required the lever D is depressed by pulling at the chain or cord G. The moment the end *h* of the supplementary lever H, is lowered free from contact with the stationary pin *i*, the spring *n* will depress the pawl C until its point fits into one or other of the notches of the ratchet wheel B, so that on the further descent of the lever the wheel and its spindle must be turned partially round and the main spring consequently be partially wound up. After the lever D has been depressed to its lowest limit the chain or cord G is released, when the spring F will restore the lever to the position shown in Fig. 2, this pulling and releasing of the lever being continued until the spring has been fully wound up when the lever is allowed to remain in its elevated position, its pawl C being raised from contact with the teeth of the ratchet wheel in the manner and by the appliances above described, so that the spring and spindle A to which it is attached, as well as the ratchet wheel, are at liberty to turn freely in the direction of the arrow.

It will now be seen without further explanation that the above described device affords a convenient and efficient means of winding up such clocks as are elevated beyond the reach of easy accessibility for wind-

ing up in the ordinary manner, and that the device is applicable to other instruments in which a coiled spring or descending weight is used as a prime mover.

5 Without confining myself to any specific arrangement of parts; I claim as my invention and desire to secure by Letters Patent—

10 The spring lever D, its spring, pawl, or catch C, and ratchet wheel B, with the supplementary lever H, and permanent pin e, or their equivalents, when applied substantially

in the manner set forth, to the winding up of clocks or other machines in which a spring or weight is used as a prime mover.

In testimony whereof, I have signed my 15 name to this specification in the presence of two subscribing witnesses.

JOHN B. POWELL.

Witnesses:

F. L. LEVERING,

CHARLES D. FREEMAN.