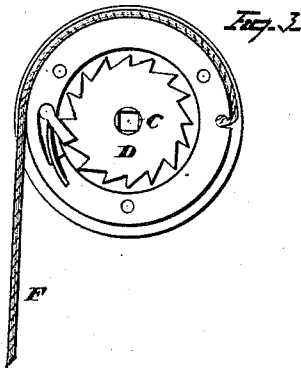
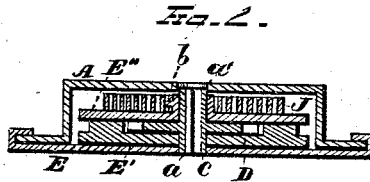
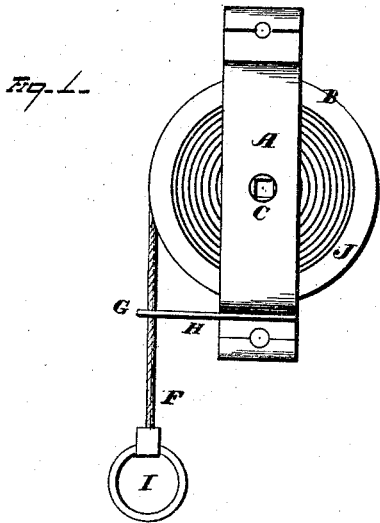


J. N. RICE.

DEVICE FOR WINDING CLOCKS.

No. 184,264.

Patented Nov. 14, 1876.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES N. RICE, OF PITTSSTON, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO E. J. SAYLOR, OF SAME PLACE.

IMPROVEMENT IN DEVICES FOR WINDING CLOCKS.

Specification forming part of Letters Patent No. 184,264, dated November 14, 1876; application filed May 16, 1876.

To all whom it may concern:

Be it known that I, JAMES N. RICE, of Pittston, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Clock-Winding Attachment; 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved clock-winding attachment.

Figure 1 is a plan view of my invention. Fig. 2 is a vertical section of the same; and Fig. 3 shows the interior of the winding-drum.

This invention is an improvement on my patent dated January 18, 1876. In said patented device the sides of the winding-drum consist of two annular plates, within which the ratchet is arranged, and the several parts are arranged relatively to each other in such a manner that the winding-drum has its bearing on the periphery of the ratchet-wheel.

My invention consists in the combination, with the ratchet arbor or barrel, of the winding-drum, the same constructed to have its bearing directly on the ratchet-arbor, whereby any tendency to wear the ratchet-teeth and to side movement is effectually obviated.

A is the front plate or cap, formed with a raised portion of sufficient length to admit the winding-drum B, which is loosely secured to the ratchet-arbor C. Ratchet-wheel D is preferably formed solid with extended arbors *a a'*, which have their bearings in the front and rear plates A E; or the rear plate may be dispensed with, if desired. Within the interior of the winding-drum a spring pawl or click is pivoted, and engages with the teeth of the ratchet-wheel. The plates E' E'', forming the sides of the winding-drum B, are placed at a sufficient distance apart to receive a wire cord, chain, or tape, F, one end of

which is secured to the winding-drum, while the other end passes through a slot, G, in bracket H, and to the end of the same a ring, I, is secured in a detachable manner. A recoil-spring, J, is arranged between the cap A and front plate of the winding-drum, one end of the spring being secured to a pin on the cap, and the other end to the ratchet-arbor.

The operation of the device is as follows: The ratchet-arbor is placed on the winding-arbor of an ordinary clock, and the cap A secured to the clock frame or plate. By pulling downward on the wire cord, the winding-drum is locked to the ratchet by the spring pawl or click, and turns the same, and with it the winding-arbor of the clock. When the cord is released, the recoil-spring rewinds the cord about the winding-drum.

A clock-winding attachment of the construction above set forth can be readily attached to any ordinary clock, and is of durable and economical construction.

The outer portion of the winding-drum is formed with a hub having a projection, *b*, to which the inner end of the recoil-spring is secured.

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

1. In a clock-winding attachment, the combination, with the ratchet-arbor, of a winding-drum, having its bearing directly on said ratchet-arbor, substantially as and for the purpose specified.

2. The combination of the recoil-spring, with the outer plate of the drum, said plate having a projection, *b*, formed on its hub for the attachment of the inner end of the recoil-spring, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

JAMES N. RICE.

Witnesses:

JOSEPH HEILEMAN,
L. B. ENSIGN.