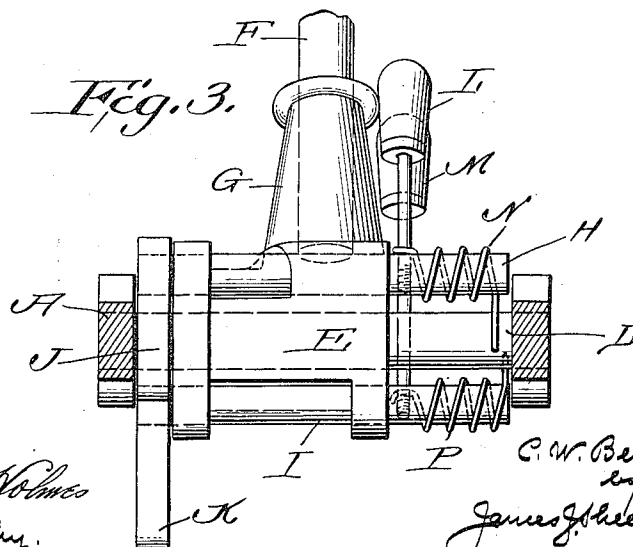
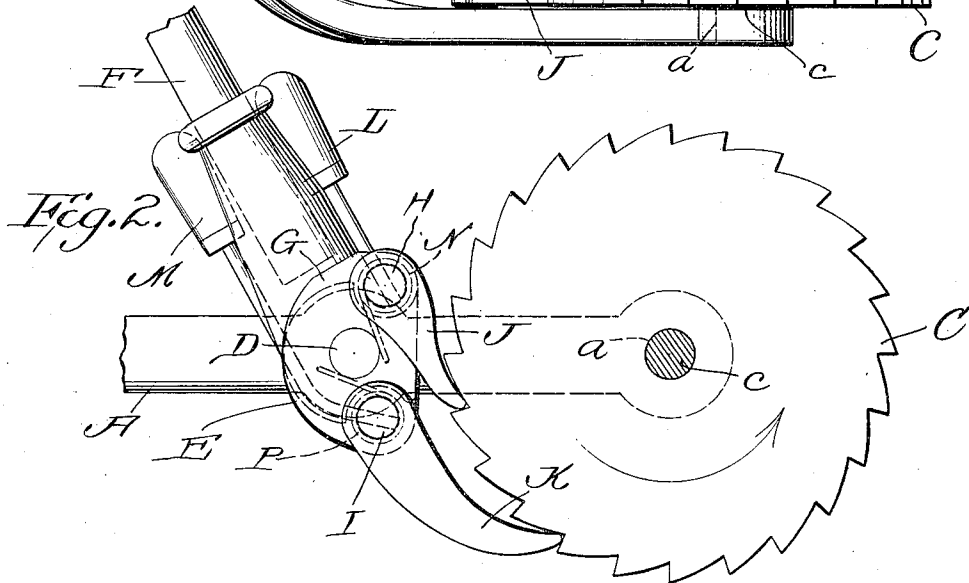
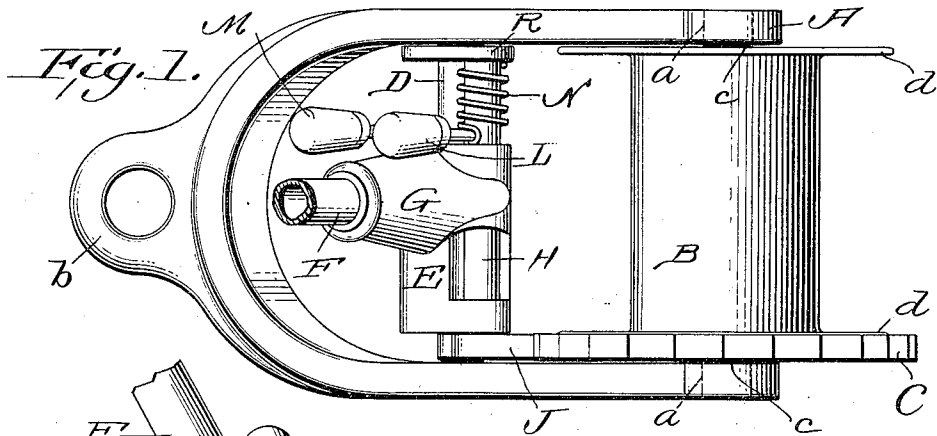


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Patented June 10, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

CLIFFORD W. BENNETT, OF COLORADO SPRINGS, COLORADO.

PAWL AND RATCHET.

1,064,597.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed October 5, 1911, Serial No. 652,937. Renewed February 13, 1913. Serial No. 748,220.

To all whom it may concern:

Be it known that I, CLIFFORD W. BENNETT, citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented new and useful Improvements in Pawls and Ratchets, of which the following is a specification.

My present invention pertains to hauling and hoisting devices of the lever-operated type; and it consists in such a device constructed in the peculiar and advantageous manner hereinafter described and definitely claimed.

In the accompanying drawings which are hereby made a part hereof: Figure 1 is a plan of my novel device with part of the operating lever broken away. Fig. 2 is a side elevation of the device with the frame partly broken away, and with the frame side opposite the ratchet disk partly in elevation and partly in dotted lines. Fig. 3 is a detail view showing more clearly the principles of the mechanism.

Similar letters of reference designate corresponding parts in all of the views of the drawings.

The frame A of my novel device is so shaped as to hold all of the other parts of the device in their relative positions, and is provided with means for fastening said device to any desired object by which it is to be held when the device is to be operated. This object is supposed to be stationary except in such cases as are hereinafter specified. In the drawings the apertured lug *b* serves as this means of holding or fastening the device, but any other equivalent means will be within the spirit of this invention. The frame A is preferably U-shaped or a modified form thereof providing bearing apertures *a* and apertures for holding the shaft D.

Arranged between the sides of the frame A is a drum B supported by and free to turn on shaft *c*, the shaft *c* being supported in the apertures *a* of the frame sides. The drum is further provided adjacent to one end with a ratchet disk C that is fixed thereto, and hence adapted to turn therewith. I would also have it here understood that the drum B may be provided with well

known means common in the art to permit of a cable being readily fastened to the drum.

Extending between the sides of the frame at a point near the drum B is a transverse shaft D, and mounted on the said shaft D so as to swing about the same is a rocker E which carries the operating lever F, preferably in a socket G fixed to and extending from the rocker as shown. Journaled in the rocker E in opposite sides thereof are transverse shafts H and I, and fixed on the shaft H is a pawl J, while fixed on the shaft I is a comparatively large pawl K. These pawls are so shaped as to engage the teeth of the ratchet wheel C. The shaft H is provided with a lever handle L, whereby the pawl J may, when desired, be disengaged from and held out of engagement with the face of the ratchet wheel C. The shaft I is similarly provided with a lever handle M.

The shaft H is also provided with a coiled spring N or other suitable means, for the purpose of yieldingly holding the pawl J in contact with the face of the ratchet wheel C. The shaft I is similarly provided with the spring P, or other suitable means, for the same purpose.

In operation it will be manifest that when the rocker E is swung on the shaft D through the medium of the lever F or any other suitable means, the shafts H and I will be moved concentrically around the said shaft D. It will also be manifest that on the movement of the rocker E in one direction, the pawl K will move or turn the ratchet disk C and the drum B, while the pawl J is moving idly in the opposite direction to reach a fresh position with respect to a tooth of the disk C, and on movement of the rocker E in the opposite direction, the pawl J will turn the disk C and the drum B, and incidental to the said movement of the rocker the pawl K will move idly in the opposite direction, with respect to the pawl J, and into position to engage a tooth of the disk C on the succeeding movement of the rocker in the first mentioned direction. From this it follows that oscillation of the rocker E will be attended by continuous rotation of the disk C and the drum B in the direction indicated by the arrow in Fig. 2.

Through the medium of the lever handles L and M, or other suitable means, the pawls J and K, respectively, may be conveniently disengaged from and held out of engagement with the toothed perimeter of the disk C. Thus the disk C and the drum B may be allowed to rotate in a direction opposite to the arrow in Fig. 2 while under perfect control.

10 It will be observed by reference to drawings that the lever handles L and M are arranged in the same longitudinal-vertical plane and alongside and adjacent the operating lever F. By virtue of this the operator may, while holding the operating lever in one hand, conveniently manipulate both of the levers M and L with his other hand, so as to disengage the pawls K and J from the ratchet disk C at the same time.

20 In operation this device may be fastened, as herein provided, to a stationary object. I wish it also understood that it may be fastened to the object which it is desired to move, the cable being fastened to a stationary object; also that both the machine and the cable may be fastened to movable objects, for the purpose of drawing said objects together.

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Having described my invention, what I claim and desire to secure by Letters-Patent, is:

The combination of a frame, a single ratchet disk mounted in the frame, a rocker also mounted in the frame, shafts journaled in the rocker at opposite sides of the center of movement thereof, pawls fixed to and extending downward from said shafts and positioned to engage teeth of the single ratchet disk at different points, springs for holding the pawls in a yielding manner against the ratchet teeth, an operating lever on the rocker, and lever handles fixed to the said shafts and extending in the same direction as said operating lever; both of said lever handles being arranged in the same longitudinal vertical plane and also arranged adjacent the operating lever, for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLIFFORD W. BENNETT.

Witnesses:

MARSHALL S. BENNETT,
NELSON R. LOVE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."