C. N. CASS.

Rope-Holding Reels.

No. 209,020. Patented Oct. 15, 1878.

Fig. 1.

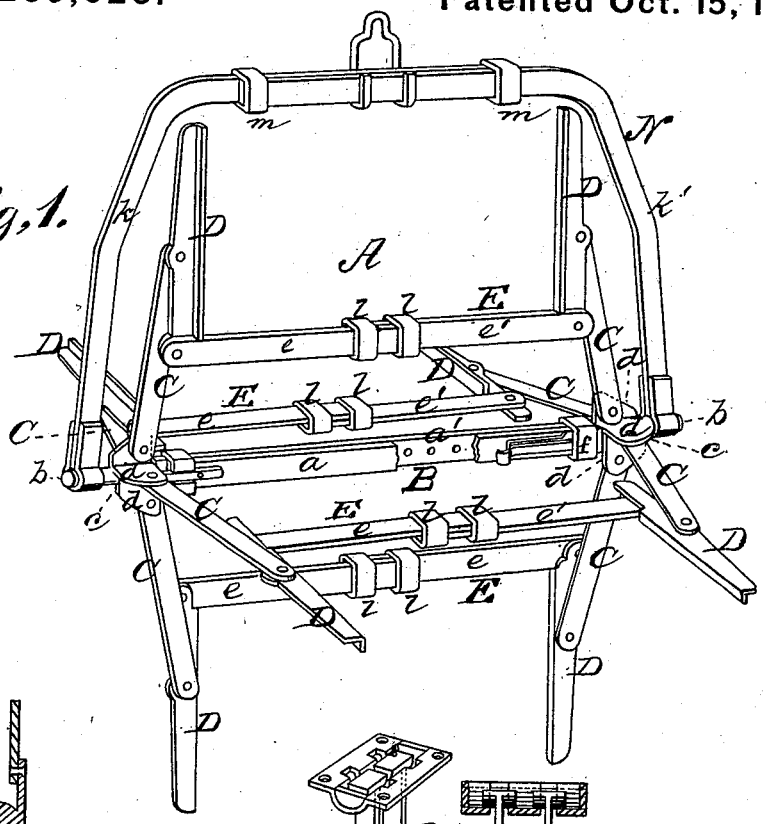


Fig. 2.

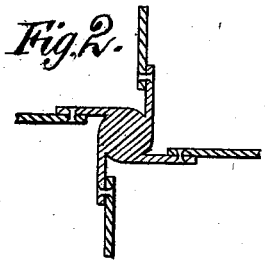


Fig. 3.

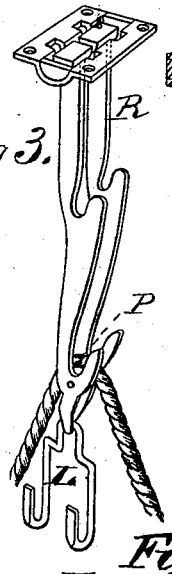


Fig. 4.

Fig. 5.

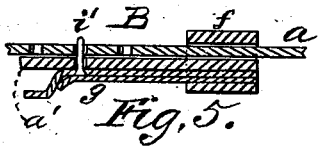


Fig. 6.

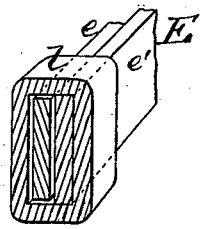
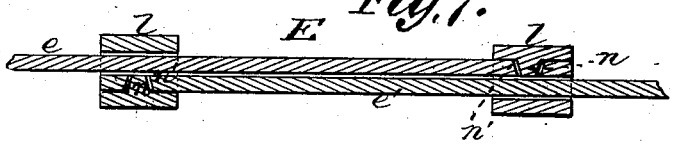


Fig. 7.



WITNESSES

Willette Anderson

F. J. Masi.

INVENTOR

Cyrus N. Cass.

by E. W. Anderson

his ATTORNEY

UNITED STATES PATENT OFFICE.

CYRUS N. CASS, OF DECATUR, ILLINOIS.

IMPROVEMENT IN ROPE-HOLDING REELS.

Specification forming part of Letters Patent No. **209,020**, dated October 15, 1878; application filed June 29, 1878.

To all whom it may concern:

Be it known that I, CYRUS N. CASS, of Decatur, in the county of Macon and State of Illinois, have invented a new and valuable Improvement in Rope-Holding Reels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my improved rope-holding reel, and Figs. 2, 3, 4, 5, 6, and 7 are details.

This invention has relation to improvements in rope-reels.

The object of the invention is to devise a reel that may be collapsed, inserted through the hole at the center of the coil, and then be readjusted.

The nature of the invention consists in a rope-reel, the central and supporting bars of which are extensible, the rope supports pivoted to and radiating from the center bar, and the end arms holding the rope upon the reel pivoted to the radial supports and to the supporting-bars aforesaid, as will be hereinafter more fully described.

In the annexed drawings, the letter A designates my improved skeleton reel, composed of an axial bar, B, made of two sections, *a a'*, that are extensible relatively to each other, and terminate at their outer ends in a journal, *b*. Upon the sections *a a'*, adjacent to the journals *b*, is rigidly secured a spider, *c*, to the radial branches *d* of which are pivoted the end bars C, to the free extremities of which are pivoted, at or near the middle of their lengths, the end rope-supports D. These latter are connected together at their inner extremities, or those adjacent to the center bar of the reel, by means of the bearing-rods E. These are composed of two sections, *e e'*, extensible relatively to each other, and pivoted to the said end supports, as shown in Fig. 1. The extension of the center bar of the reel is had by means of coupling-loops *f*, secured to the inner ends of the bar-sections *a a'*, each loop embracing the bar opposite to that to which it is attached, and this extensibility is regulated by means of a spring-catch, *g*, secured to one of the said loops, and having a pin, *i'*, extending through a perforation in one of said bar-sections, and adapted to engage similar spaced perforations in the other section. The slide-loops *l* of the bearing-rods are sufficiently large to receive both sections. They are each provided with an inside spur, *n*, that enters a corresponding perforation, *n'*, in the end of each of said sections. This reel is suspended, when in use, from a bail, N, that is made in two sections, *k k'*, extensible relatively to each other by means of the slide-loops *m*, and its operation is as follows: The middle bar B being adjusted to about the axial length of the coil, the reel is caused to collapse, which is accomplished because of the vibration of the end arms C and the end rope-supports D and by reason of the contractibility and extensibility of the bearing-rods E. The collapsed reel is then passed through the central opening of the coil, and its end arms and supports C D raised into the position shown in Fig. 1, with its end arms D bearing against the ends of the coil and its bearing-arms pressing out against the inside thereof. The bail is then applied to the journals of the reel, and the whole raised bodily. This is done by a rope passing around a pulley, P, having its bearings in a hanger, R, depending from the wall, and carrying a double hook, L, at its end, and secured at one of its extremities to the said bail. The reel and the coil are then hoisted high enough to engage the bail over the double hook L, the parts of the latter being sufficiently spaced to prevent the reel from tilting or vibrating vertically. Rope may be now paid off as required by simply drawing on the same and causing the reel to rotate in its bail. The contractibility and extensibility of the center and bearing bars and the vibratory adjustment of the end arms and supports C D permit the reel to be used in connection with a coil of any size, from the smallest to the largest.

What I claim as new, and desire to secure by Letters Patent, is—

1. The collapsible rope-reel consisting of the extensible center-bar B, the end arms piv-

oted thereto, the end rope-supports pivoted to said arms at or at about their middle portions, and the extensible bearing-rods E, pivoted to the inner ends of said supports, all combined substantially as specified.

2. The combination, with a longitudinally-extensible rope-reel, having journal-arms at the ends of its axis of rotation, of an extensible bail affording bearings for the said journals, substantially as specified.

3. In a reel having vibrating end arms and rope-supports, extensible bearing-rods E, connecting said supports, and an extensible center bar, B, of a catch on said bar regulating its extensibility, substantially as specified.

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

CYRUS N. CASS.

Witnesses:
J. J. McKEE,
F. B. TAIT.