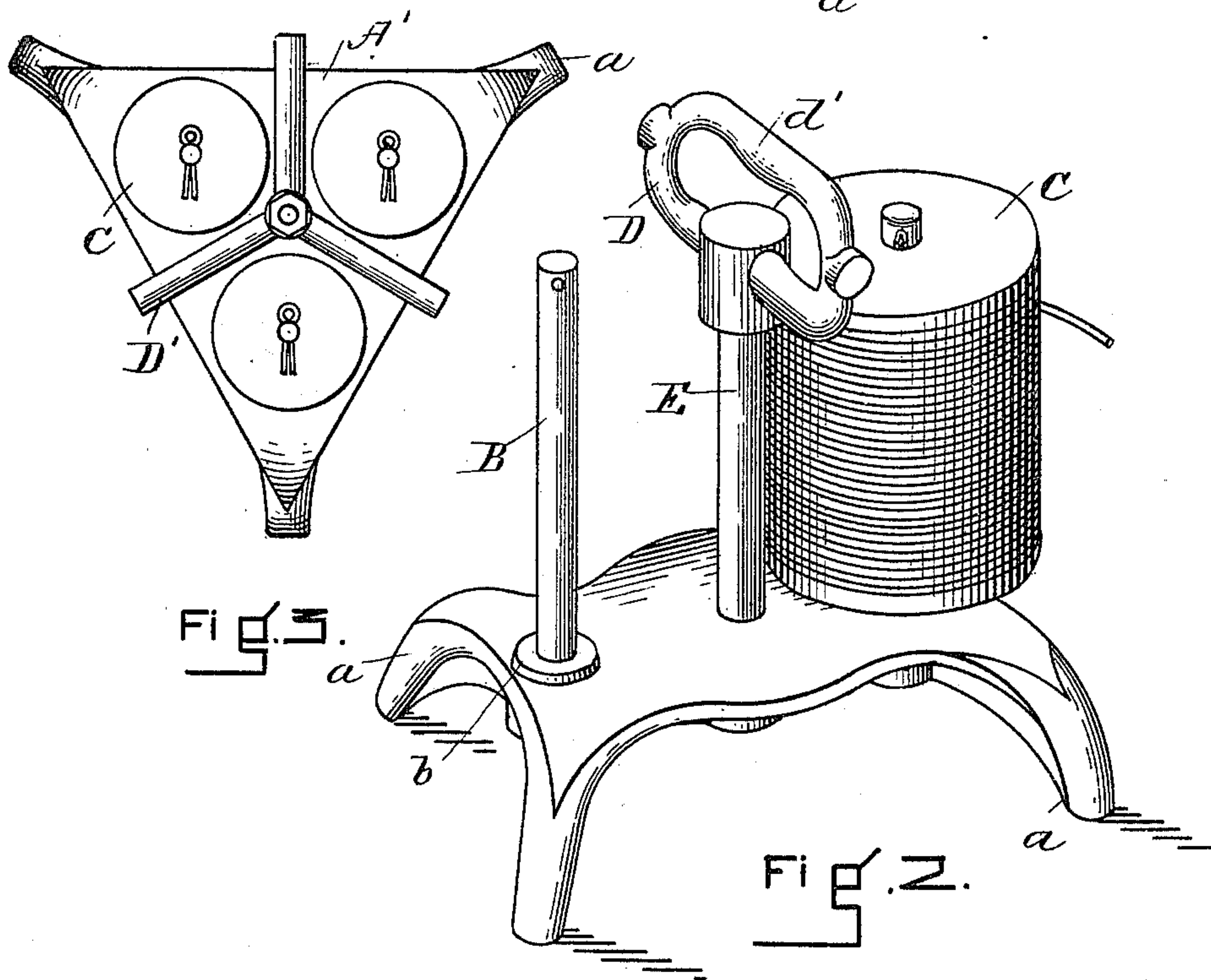
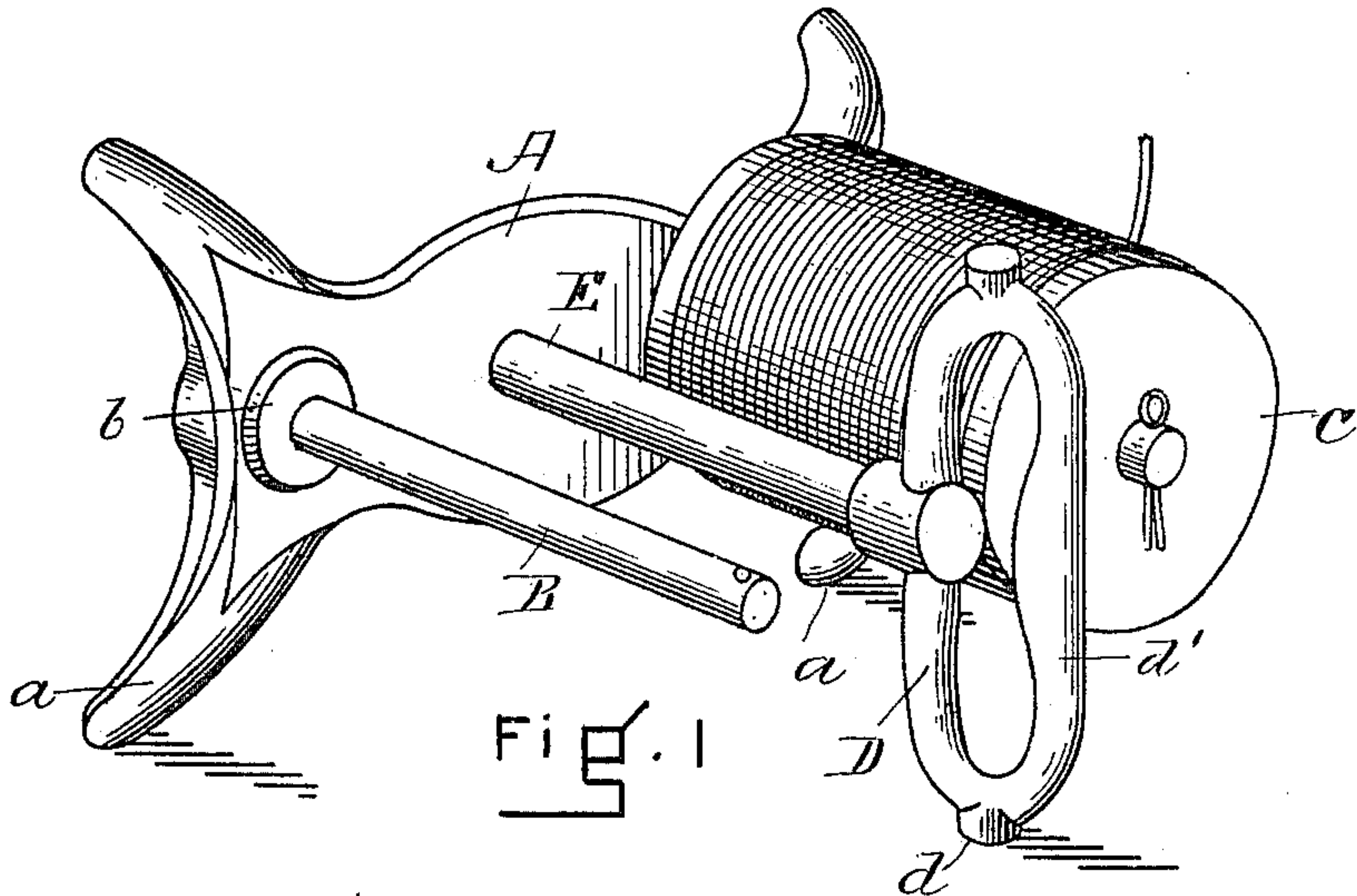


(No Model.)

M. S. HARLOW.
BOBBIN STAND AND CARRIER.

No. 470,328.

Patented Mar. 8, 1892.



WITNESSES

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UNITED STATES PATENT OFFICE.

MELLEN S. HARLOW, OF MALDEN, MASSACHUSETTS.

BOBBIN STAND AND CARRIER.

SPECIFICATION forming part of Letters Patent No. 470,328, dated March 8, 1892.

Application filed November 27, 1891. Serial No. 413,172. (No model.)

To all whom it may concern:

Be it known that I, MELLEN S. HARLOW, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented an Improved Bobbin Stand and Carrier, of which the following is a specification.

My invention relates particularly to devices for supporting and transporting bobbins, spools, or reels, especially those upon which insulated wire is wound and which are used in blasting and other operations where it is desired to run such a wire to a distance for electrically discharging a blast, operating electric bells or lights, or performing other duty.

The object of my invention is to improve such structures whereby an increase of efficiency and convenience shall be obtained.

In the accompanying drawings, I have shown at Figures 1 and 2 a two-reel device embodying my present improvement, the same being shown in two working positions, as hereinafter more fully explained. At Fig. 3 I have shown a three-reel device in which my present improvement is also embodied.

My improved device includes a base A, carrying rods or posts B of a size and length adapting them to serve as bearings upon which the spools or bobbins C may revolve. These posts B are preferably stepped or shouldered, as shown at *b*, where they enter the base A to allow for greater ease of rotation of the spools when the device is in the position shown at Fig. 2. The base A is so constructed, preferably by means of legs *a*, that when the device is in the position shown in Fig. 1, its base will afford extended points of support—as, for instance, those marked *a a* in that figure. I further provide a cross-arm D, supported upon the base A in any convenient manner—as, for example, by means of a standard E. This cross-arm is of a length such that when the device is in the position shown at Fig. 1 one of its extremities, as *d*, will form one element of a support of which the base forms another. Consequently it will be seen that whether the device be in the position shown at Fig. 1 or in that shown at Fig. 2, the reels will always be free to turn. This capacity of the apparatus is of material value, because it may at times be required to

be used with the spools in one position, and at times in another when winding or unwinding. Again, should it be tipped over, owing to some strain brought upon the wires being unreel from the device when in the position shown in Fig. 2, its new base or support of which the cross-arm D forms an element, (see Fig. 1,) comes into play and the reel continues to unwind as readily as before, which would obviously not occur if the reel were not held clear of the ground or floor in its new position. The cross-arm D may be further so shaped as to form a convenient handle for transporting the device, as shown in the drawings at *d'*, forming a lifting and carrying device of well-known form.

In the form of apparatus shown at Fig. 3, with three spools, the base A' is tripodal and the cross-arm D' extends radially in three directions, so that each of its three extremities may form one element of a support of which two feet of the tripod base will form the other.

The form of the device shown at Figs. 1 and 2 is intended and adapted for use with two spools, one of which is for greater clearness omitted from the drawings.

I claim—

1. A reel-carrier comprising a suitable base, substantially as described, provided with reel supports, and a cross-arm connected with the said base and forming in connection therewith an additional support for the device whereby the reels may be operatively supported in different positions of the device, for the purpose set forth.

2. A reel-carrier comprising a suitable base, substantially as described, provided with reel supports, a cross-arm connected with the said base and forming in connection therewith an additional support for the device, as described, and a handle formed upon said cross-arm whereby the device may be lifted and carried, as set forth.

In testimony whereof I have hereunto subscribed my name this 25th day of November, A. D. 1891.

MELLEN S. HARLOW.

Witnesses:

ELLEN B. TOMLINSON,
JOHN H. TAYLOR.