July 6, 1926. 1,591,771

A. J. BATCHELOR

REEL

Filed Nov. 1, 1923

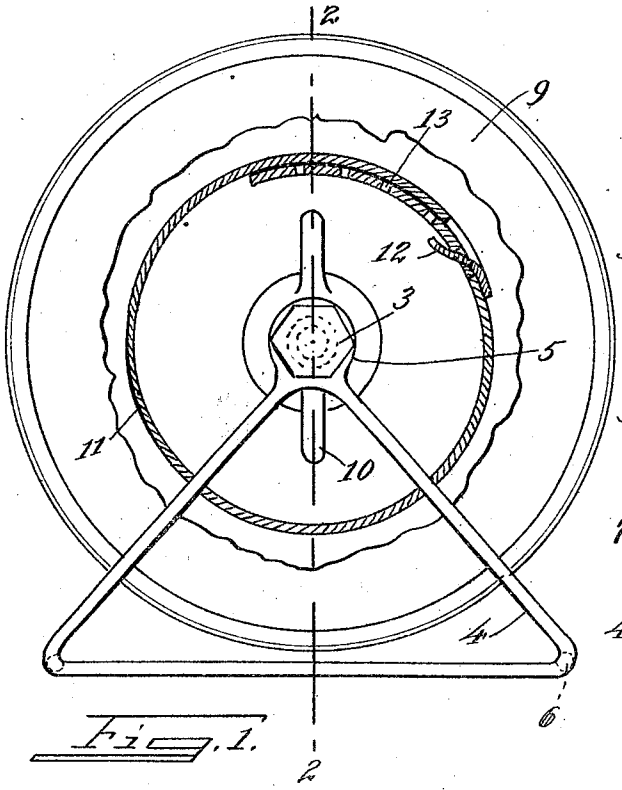


Fig. 1.

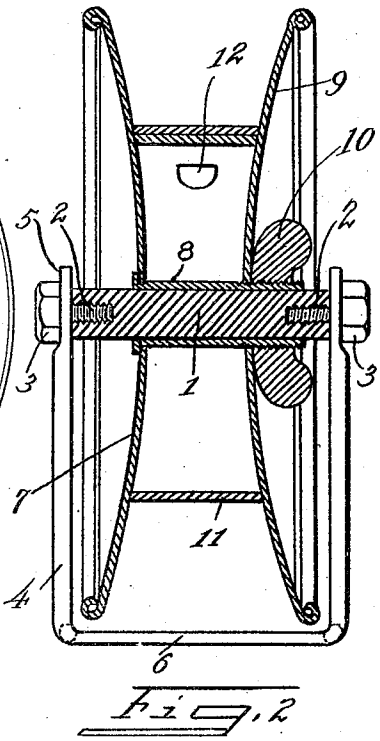


Fig. 2.

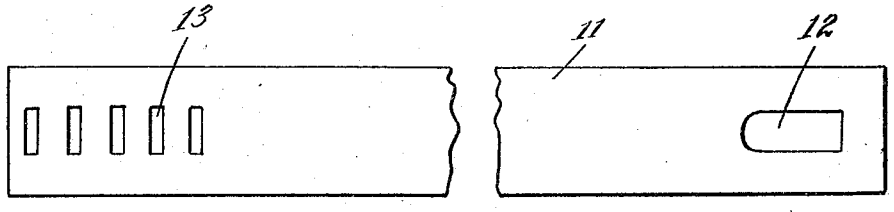


Fig. 3.

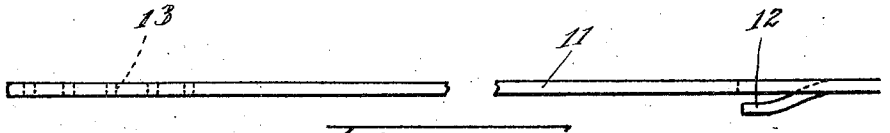


Fig. 4.

INVENTOR:

Andrew J. Batchelor

BY

Allen Allen

ATTORNEYS.

Patented July 6, 1926. 1,591,771

UNITED STATES PATENT OFFICE.

ANDREW J. BATCHELOR, OF CINCINNATI, OHIO.

REEL.

Application filed November 1, 1923. Serial No. 672,205.

My invention relates to reels or spools adapted for use with wire, yarn and loom, and to a simplified method of construction, adjustment and use, whereby wire, loom or any material in coils may be arranged on such reels in an easy and convenient manner.

In the occupation of wiring for electric current, the materials such as wire, yarn, or loom, are furnished to the operator, in coils, which are unwieldy, and likely to become tangled while in use. It is always a great annoyance and causes loss of time to manipulate a loose coil of wire or fibrous material, while at the same time stringing circuit wires, wrapping them with insulation, and the like. The operator usually lays the coil down, and withdraws the material as he needs it, and particularly in an overhead wiring job, the wire comes off from the coil in greater quantities than is needed and forms into spirals and kinks, which make the handling thereof difficult. Such kinking and tangling can be avoided by the use of my novel reel, and to this end, I have provided the same. It is my object to provide a reel of simple construction, preferably having a simple form of handle or hanger, and being demountable and adjustable for various sizes of coils, so that coils of wire, yarn or loom, or the like can be set onto the adjusted core, and the core set into the reel. By preference the handle or hanger can also be used as a stand.

The above objects and other advantages to be noted, I accomplish by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawings:

Figure 1 is a side elevation of the device, showing the core in section.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a plan view of the core.

Figure 4 is a side elevation of the core.

The reel is formed in the illustrated embodiment, which it will be understood is merely one of the possible devices, which contain the features of my invention, with a spindle 1, which has two thumb screws 2, 2, for its ends. The heads 3, of the thumb screws are sufficiently spaced from the ends of the spindle when the screws are turned clear down, to provide a journal for the stand. This stand is shown in the illustrated device as having triangular shaped side pieces 4, having mounting portions 5, which fit over the screws 2, and said two triangular sections connected together by portions 6. The stand is thus a rigid unit, which is demountable from the reel, on which the reel can stand.

The side plates of the reel are formed of dished stampings of suitable diameter, which are set over the spindle with their convex faces toward each other, thereby providing a proper confinement of a coil set over the core, and between the two faces, when the two said faces are forced toward each other.

The one plate 7 has secured fixedly thereto, a sleeve 8, which fits over the spindle.

The other plate 9 is set onto the sleeve and held in place by a wing nut 10. The sleeve, as will be noted, is threaded to receive this nut.

The core of the reel is formed of a strip of flexible material 11, preferably of metal, which has a tongue 12, struck down and turned more or less parallel with the strip at one end, and a series of slots 13 at the other end, in which the tongue is selectively placed, dependent upon the internal diameter of the coil that is to be mounted on the reel. By inserting the tongue within the selected slot, thereby bending the strip into a cylinder, and locating the cylinder between the two disks, the reel is complete, with the convexity of the disks tending to hold the core in a position co-axial with the spindle and sleeve.

As so constructed, a coil of wire, for example, is to be mounted on the reel. The plate 9, and its wing nut, and the stand or handle are removed, and the core strip is set into the coil of wire, with the tongue thereof in the slot 13 which will result in the best fit of the coil to the core. The core and coil are then placed over the spindle and sleeve, and centered on the plate 7. The plate 9 is then set in place, and the wing nut is turned down until the plate 9 and plate 7 frictionally grasp the core and the coil of wire between them. The handle or stand is then set in place on the ends of the spindle, and the reel is ready for use.

It may be set on the floor, or hung from a nail, and the reel will be free to turn without hindrance of the handle member. The wire will be free to unwind as used, and there will be no danger of the coil getting "out of hand".

The whole structure is very quickly de-

mountable, as is evident from the above description, is adapted to be built up around a coil of given material, so as to retain it snugly and evenly.

The dished nature of the side plates gives them great strength and as shown they may be beaded around the edges to add to this feature of strength.

Having thus described my invention, what I claim as new and desire to secure by Letters Patents, is:—

1. A reel for the purpose described, comprising a pair of plates convex on their inner faces and concave on their outer faces, a spindle over which said plates are set, means on the spindle adapted to retain said plates in a plurality of positions, and a core element for said reel independent of the plates and having a cylindrical body adapted to be held in clamped relation between said plates in a plurality of circumferential positions coaxial with the axis of the spindle.

2. A reel for the purpose described, comprising a spindle, a side plate having a sleeve on said spindle, another side plate, and a spacing member between the plates and means for demountably securing said other side plate in a plurality of adjusted positions along the sleeve, said means comprising a nut, a threaded portion of the sleeve to be engaged by said nut and said spacing member.

3. A reel for the purpose described, comprising a spindle, a side plate having a sleeve on said spindle, another side plate a spacing member between the plates, and means for demountably securing said other side plate in a plurality of adjusted positions along the sleeve, and a core for said reel formed of a cylindrical member held clamped between said side plates and said member adjustable along radial lines extending from the axes of the plates.

4. A reel for the purpose described, comprising a spindle, a pair of disks on said spindle forming side plates for the reel, said disks having convex faces toward each other, and means for adjusting the position of the disks with relation to each other, and for retaining said disks demountably on the spindle and an independent demountable core adapted to be set in a plurality of positions between the disks and clamped by adjustment of the relative positions of the disks.

5. A reel for the purpose described, comprising a pair of side retaining elements, a spindle element, means for demountably journaling one of the side retaining elements at least, on the spindle, and for adjusting the relative position of said side retaining elements, and a core for said reel, said core being adjustable for different diameters and different interspaced positions of the side retaining elements.

6. A reel for the purpose described, comprising a pair of side retaining elements, a spindle element, means for demountably journaling one of the side retaining elements, at least, on the spindle, and for adjusting the relative position of said side retaining elements, and a core for said reel, said core being adjustable for desired diameters, and comprising a flexible band with overlapping ends adapted to interlock to form cylinders of different peripheral sizes.

7. A reel for the purpose described, comprising a pair of side retaining elements, a spindle element, means for demountably journaling one of the side retaining elements, at least on the spindle, and for adjusting the relative position of said side retaining elements and a core for said reel, said core being adjustable for desired diameters, and comprising a flexible band, with overlapping ends adapted to interlock to form cylinders of different peripheral sizes, said retaining elements being convex on their meeting faces, and adapted to retain said core in a plurality of different positions.

8. A reel for the purpose described, comprising a spindle, a peripherally adjustable core, a pair of convex side retaining elements convex on their inner sides and concave on their outer sides, adapted to take mutually adjustable positions on the spindle, and said core and at least one of the side retaining elements being removable from the spindle, whereby the core may be set into a coil of material, and then set in place together with one of the side retaining elements, over said spindle and clamped between the said elements by adjusting their mutual position.

9. In a reel for use with coils of wire by electricians and the like, the combination with a spindle, of a pair of dished large area disks, arranged on the spindle with the convex portions facing each other, a core element between the disks and axial therewith, said core element being adjustable to permit a different spacing of the disks, with a complete core between them, and said spindle having an abutment to engage one of the disks, and a threaded nut to engage the other of said disks, said nut thus serving to clamp the disks together over a coil of wire to be mounted therebetween.

ANDREW J. BATCHELOR.