

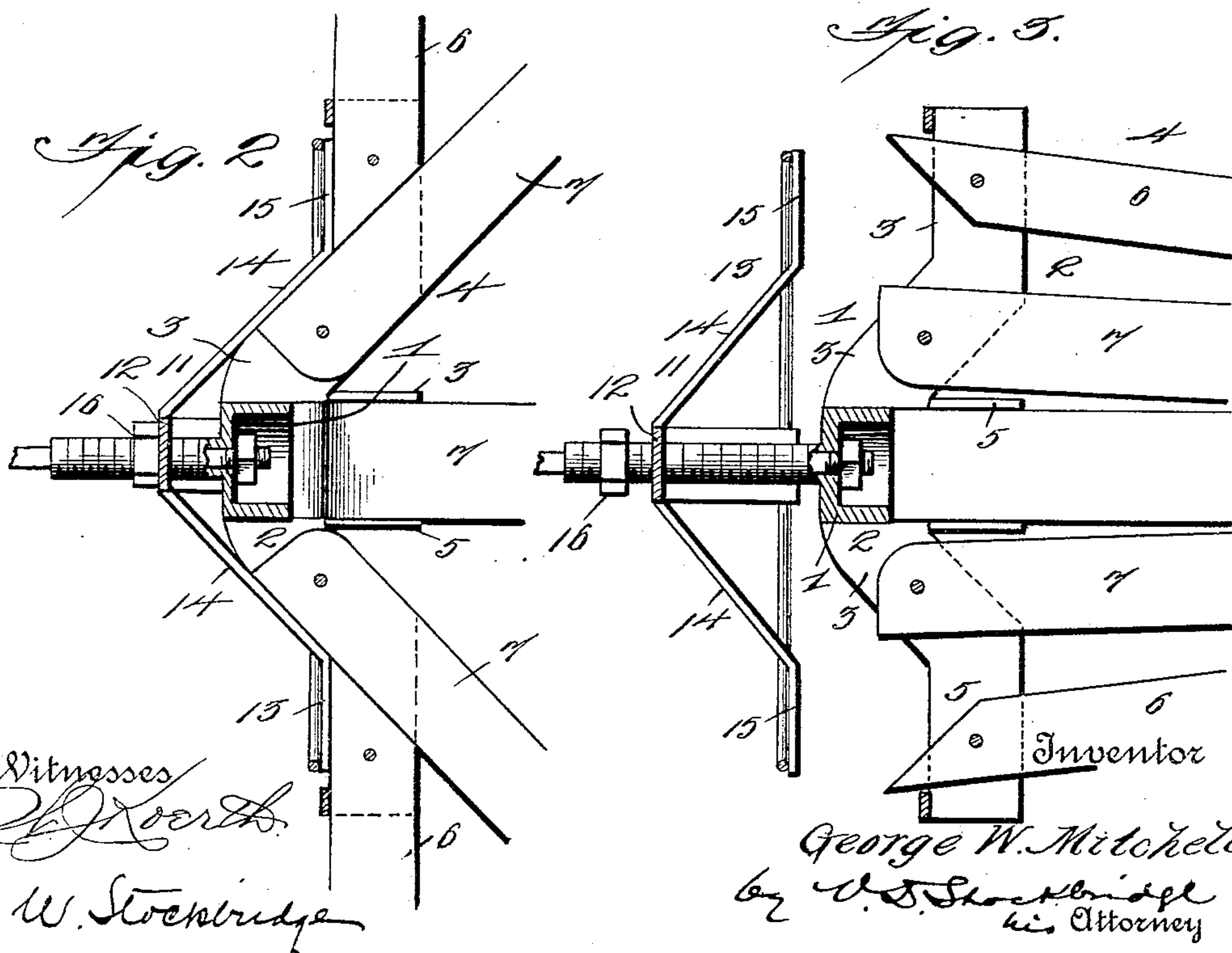
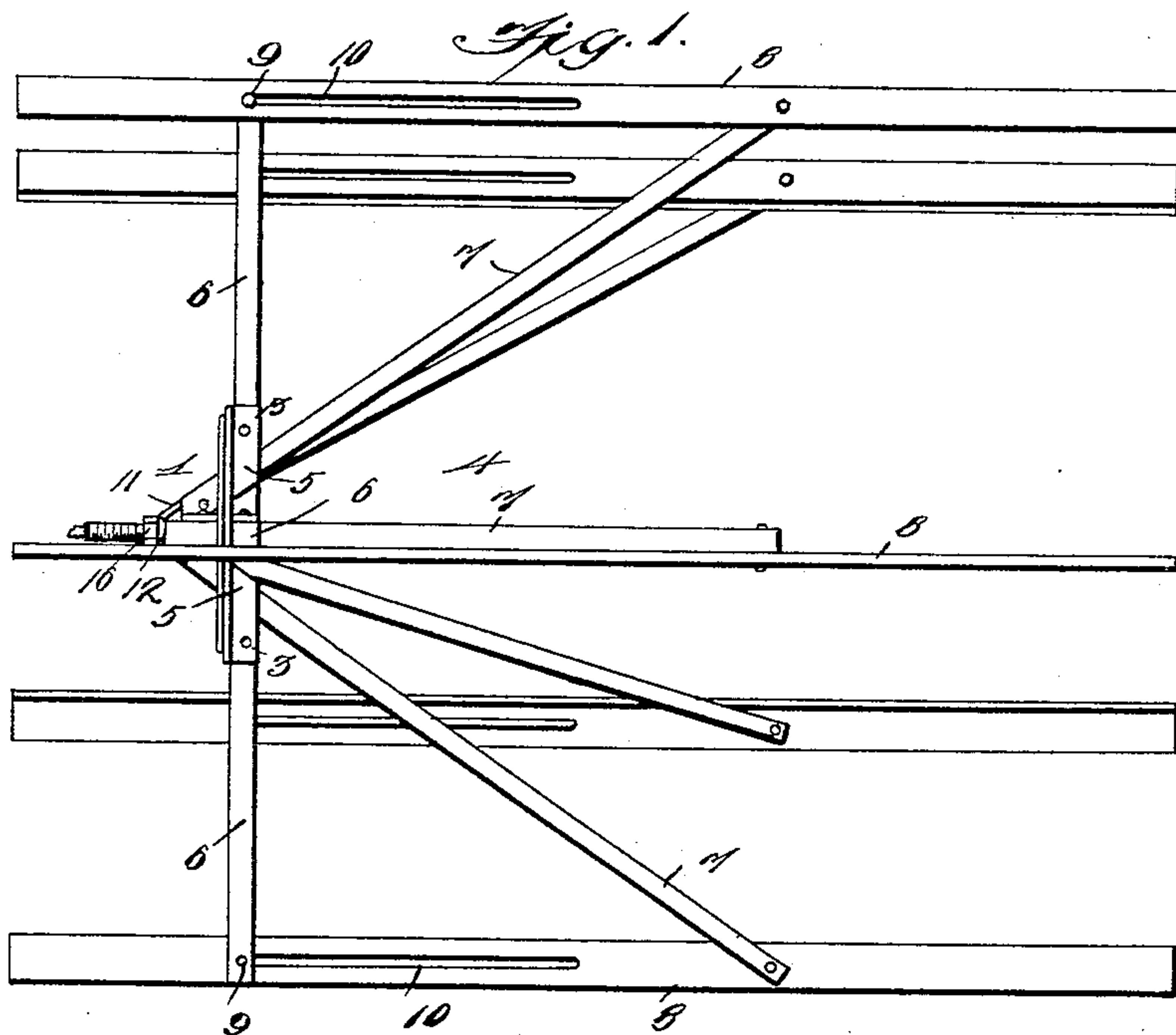
No. 612,260.

Patented Oct. 11, 1898.

G. W. MITCHELL.  
COLLAPSIBLE REEL FOR HARVESTERS.

(Application filed Mar. 9, 1898.)

(No Model.)





# UNITED STATES PATENT OFFICE.

GEORGE W. MITCHELL, OF BOND COUNTY, ILLINOIS.

## COLLAPSIBLE REEL FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 612,260, dated October 11, 1898.

Application filed March 9, 1898. Serial No. 673,201. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. MITCHELL, a citizen of the United States, residing in Bond county, (P. O. Hurricane, in the county of Montgomery,) in the State of Illinois, have invented certain new and useful Improvements in Collapsible Reels for Harvesters; 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 appertains to make and use the same.

This invention has reference to a novel construction in a reel for harvesters, the object being to provide a collapsible reel that can be readily opened and secured in its operative position and as readily folded when not in use.

The invention consists in the features of construction hereinafter fully described and specifically claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a rear elevation of a reel constructed in accordance with this invention and showing the parts in operative position. Fig. 2 is an enlarged vertical section of a portion of the inner end of the reel. Fig. 3 is a similar section showing the reel arms and braces folded.

It is understood, of course, that this reel is to take the place of the ordinary reel of the harvesters. Therefore it will not be necessary to illustrate more than the reel itself, it being understood that the hub 1 is to be attached to the rotatable shaft of the harvester for the purpose of rotating the reel. This hub is provided with a spider 2, having a plurality of sockets 3 to receive the frame of the reel-arms. The said sockets extend radially and comprise the side plates 5, between which the said braces are secured.

The reel proper comprises the upright braces 6, the inclined braces 7, and the outer reel-arms 8. The upright brace 6 is pivoted at its inner end between the outer ends of the side plates 5, while its outer end is pivoted to the reel-arm 8. The pivotal connection between the upright brace and the reel-arm 8 permits a sliding movement also, and is secured by a stationary pivot 9 from the upright brace and the longitudinal slot 10 in said reel-arm 8. The inclined brace 7 is piv-

oted at its inner end within the inner end portion of the socket, while its outer end is pivoted to the other end portion of the reel-arm. It is seen that when the parts are opened up in operative position the upright brace stands practically at right angles to the axis of the hub, while the inclined brace is practically at an angle of forty-five degrees thereto, while the reel-arm is practically parallel therewith and the pivot 9 is at the outer end of this slot 10. When the parts are collapsed, as shown in Fig. 3, the braces and the reel-arm are practically parallel with the axis of the hub, while the pivot-pin is at the outer end of the slot 10.

To hold the arms in their operative position, a fastener 11 is employed that comprises a ring 12, that slides upon the hub 1 and from which radiates fingers 13, that are braced together at their outer ends. These fingers 13 are angular—that is to say, they have an inclined portion 14 and an upright portion 15. The said fastener is movable bodily upon the hub and is situated on the outside of the arms 4 and provided with means for holding it under pressure against the outer faces of the inner end portions of these arms. The inclined and upright portions of the fingers are adapted to come in contact with the corresponding portions of the inclined and upright braces and in this manner to hold the arms of the reel in their operative position. As a convenient construction for holding the fastener in place the hub 1 is screw-threaded exteriorly and provided with a nut 16, that engages the outer face of the ring 12 and forces the fasteners inwardly to throw these fingers in contact with the inner end portion of the braces. It is understood that the braces are a little narrower than the distance between the side plates of the socket, so that when held in engagement with the arms they lie between these side plates.

It is seen from the foregoing description that by moving the fastener from the hub the arms of the reel can be opened up and held rigidly in this position or can be collapsed, as shown in Fig. 3, when transferring or separating the same.

Instead of having the fastener movable on the shaft toward and from the braces it is obvious that the same may be firmly secured to



the shaft, and the hub, carrying the braces, may be made movable toward and from the fastener.

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

1. A reel of the kind specified comprising a hub, a plurality of upright and inclined braces pivoted to the hub, reel-arms pivoted to the outer ends of these braces, and a fastener adapted to engage the inner end portions of the braces to hold the arms in an open or operative position.

2. A reel of the kind specified, comprising a hub having a plurality of parts consisting of upright and inclined braces pivoted at their inner end portions to said hub, reel-arms pivoted to the outer end portions of said braces, and a fastener having angular fingers to engage the inner end portions of said upright and inclined braces, the fastener and hub being movable with relation to each other.

3. A reel of the kind specified comprising a hub provided with a plurality of sockets, upright and inclined braces pivotally secured at the inner ends within said sockets, reel-arms pivotally secured to the outer ends of said braces, and a fastener provided with a plurality of angular fingers to engage the inner end portions of said braces.

4. A reel of the kind specified comprising a hub, a plurality of upright and inclined braces pivotally secured at their inner ends to said hub, reel-arms pivotally secured to the outer ends of said braces, the pivotal connection between said cross-pieces and one of

the braces permitting a relative longitudinal movement between said parts, and a fastener for engaging the inner end portions of said braces.

5. A reel of the kind specified comprising a hub, a plurality of upright and inclined braces pivotally secured at their inner ends thereto, reel-arms pivoted to the outer ends of said inclined braces, longitudinal slots in said reel-arms to receive the stationary pivot upon said upright braces, and a fastener to engage the inner ends of said braces.

6. A reel of the kind specified comprising an exteriorly-screw-threaded shaft or hub having radial sockets, inclined braces having their inner ends pivoted within the inner end portions of said sockets, upright braces having their inner ends pivoted within the outer end portions of said sockets, reel-arms pivoted to the outer end portions of the inclined braces and having slots to receive pivots at the outer ends of the upright braces, a fastener comprising a ring mounted upon the screw-threaded portion of a shaft, radial fingers upon said ring having inclined and upright portions to engage the inner end portions of the upright and inclined braces, and a nut upon said screw-threaded portion of the hub to engage said fastener.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. MITCHELL.

Witnesses:

SUSAN S. NEATHERY,  
MAUDE NEATHERY.