

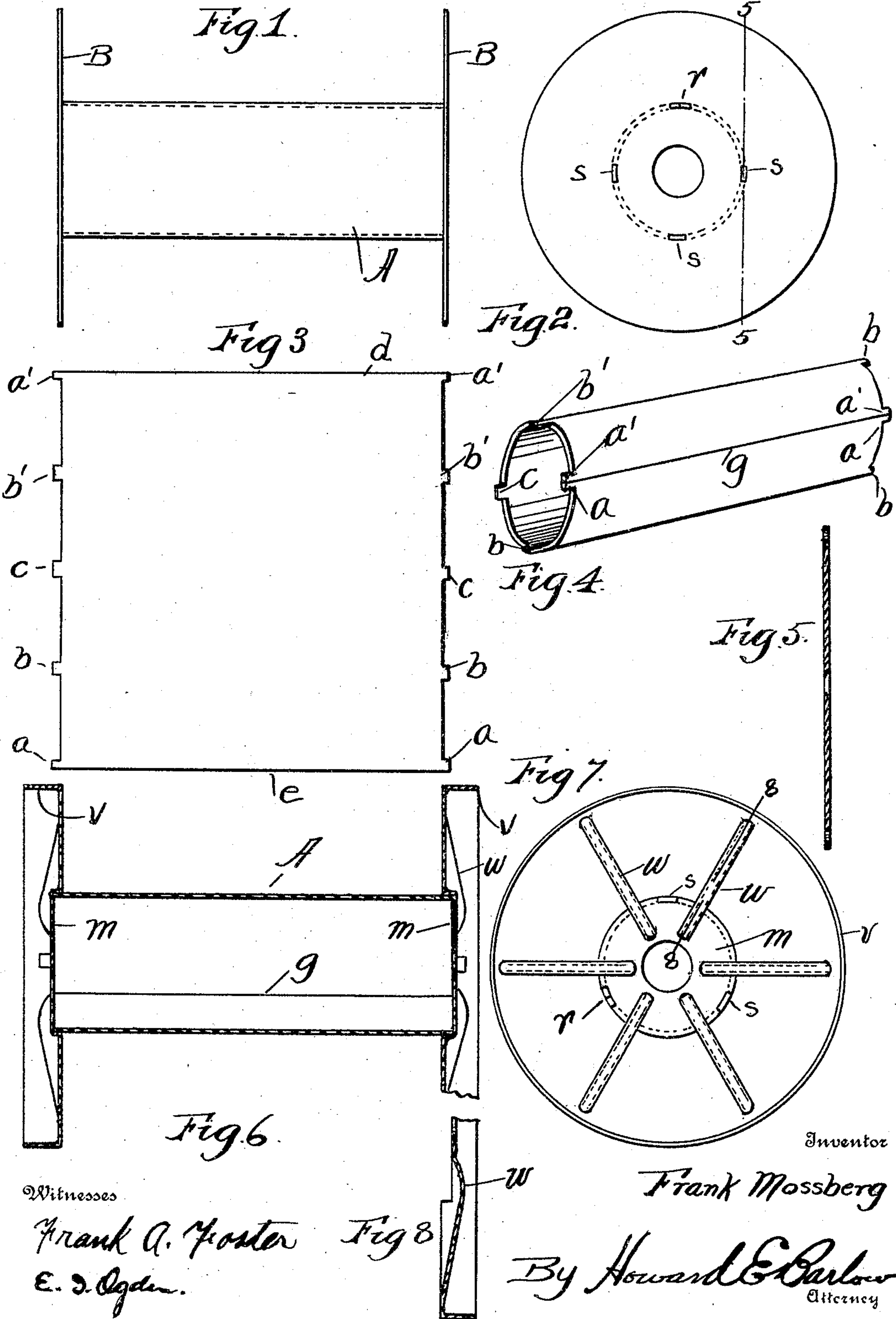
No. 773,218.

PATENTED OCT. 25, 1904.

F. MOSSBERG.
SPOOL OR REEL.

APPLICATION FILED OCT. 30, 1903.

NO MODEL.



Witnesses

Frank A. Foster
E. J. Ogden.

Fig 8

Inventor

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UNITED STATES PATENT OFFICE.

FRANK MOSSBERG, OF ATTLEBORO, MASSACHUSETTS, ASSIGNOR TO THE
FRANK MOSSBERG COMPANY, OF ATTLEBORO, MASSACHUSETTS, A
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SPOOL OR REEL.

SPECIFICATION forming part of Letters Patent No. 773,218, dated October 25, 1904.

Application filed October 30, 1903. Serial No. 179,212. (No model.)

To all whom it may concern:

Be it known that I, FRANK MOSSBERG, a resident of the town of Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Spools or Reels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention pertains to winding spools or reels, and has for its object the particular construction of a spool or reel from sheet stock and the manner of assembling the parts. The spool when constructed in my improved manner is very strong, durable, and inexpensive to make.

The invention is fully explained in this specification and illustrated in the accompanying drawings.

Figure 1 is a side elevation of the spool or reel. Fig. 2 is an end elevation of the same, showing the head with the ends of the projections on the drum portion projecting there-through and riveted. Fig. 3 represents the shape of blank which forms the middle or drum portion of the spool as cut from the sheet stock. Fig. 4 represents this blank rolled up into the form a tube with the riveting ends or retaining-fingers projecting from two edges thereof. Fig. 5 is a sectional edge view of the spool-head on line 5 5 of Fig. 2, showing the slight flare or countersink of the hole to receive the riveted ends of the projections. Fig. 6 illustrates a modified form of a spool in which the heads may be constructed of thinner material and still retain their rigidity on account of the form into which the metal is drawn or swaged. Fig. 7 is an end view of one of these flanged end plates or heads shown in Fig. 6. Fig. 8 is a partial section of the end plate, taken through one of the hollow ribs on line 8 8 of Fig. 7.

Referring to the drawings, A is the tubular drum or center portion of the spool, on which the wire or other material may be wound. This center portion is preferably constructed

from sheet metal, although any other suitable material may be used. The blank is first struck out in the form illustrated in Fig. 3. Although any number of lugs may be used, I preferably construct this blank with five lugs or retaining projections *a*, *a'*, *b*, *b'*, and *c* in each of its two opposite edges, leaving the blank plain on the other two edges, *d* and *e*. One edge of each projection *a* and *a'* is preferably made flush with and parallel to the plain edge of the blank, so that when said blank is rolled up into the tubular form shown in Fig. 4 and the two plain edges meet the projections *a* and *a'* will be brought together, forming substantially one lug. All of the projections are then placed in corresponding holes *r* and *s* in the heads, said lugs *a* and *a'* together entering the same hole, and all are then riveted or headed over, holding said heads securely in position. As both of the lugs *a* and *a'* enter the same hole *r* in the head, they serve to lock and effectually prevent the rolled-up metal tube from springing apart again or opening up the seam *g*. These two lugs also serve, with the other lugs, to assist in holding said heads B B in place on the ends of the tube A when their ends are riveted over.

When small spools are used, I preferably construct the heads or ends of perfectly plain disks, perforated with the necessary number of small holes to receive the lugs for binding the whole together; but when large spools are used it is found necessary that the weight should be kept down. At the same time the heads should be very stiff to keep from bending. In order to accomplish this, I use a comparatively thin stock, countersinking the center portion at *m* to receive and to assist in retaining the ends of the drum A. The periphery of the disk is turned over, forming a flange *v* around the outside edge. Ribs *w* are also raised out of the face by swaging, thus producing a very rigid head from thin stock of comparative light weight.

My method of constructing these spools or reels as described above is very practical, greatly reducing the expense of construction

from the ordinary methods and producing a spool that is very strong and durable.

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

1. A spool or reel having a tubular body portion, lugs or projections at the meeting edges of said body portion, heads having holes in them to receive said lugs, two of said lugs arranged to enter a single opening, and means for securing the heads in position.
2. A spool or reel having a tubular middle portion, lugs or projections on the ends of said tubular portion, heads having holes in them to receive said lugs, two of said lugs on the edges being brought together forming a projection which enters a single opening, said lugs being riveted over on their ends to secure said heads in place.
3. A spool or reel having a middle portion and two heads, said middle portion being constructed of sheet metal and rolled up into a tubular form, lugs at the ends of said tubular portion projecting into the heads for holding said tubular center portion from unrolling, two of the lugs on the edges being brought together forming a projection which enters into a single opening.
4. A spool or reel comprising a middle body and two end members, said middle body being stamped out of sheet metal with a plurality of lugs extending from two of its edges, said middle body being rolled up into a tubular form and locked in said position by inserting the lugs into corresponding holes in said head, two of said lugs on the edges being brought together forming a projection which enters into a single opening.
5. A spool or reel comprising a middle body and two end members, said middle body being stamped out of sheet metal with a plurality of lugs extending from two of its edges, said middle body being rolled up into a tubular form and locked in said position by inserting said lugs into corresponding holes in said head, two of the lugs on the corners being brought together forming a projection

which enters into a single opening, all of said lugs being riveted over on their ends to secure the heads in place on the middle body. 50

6. In a spool or reel having a tubular middle portion, a plurality of lugs or projections on each end of said tubular portion, heads formed of disks having holes through them, said holes being made chamfered or counter-sunk from their outer faces to receive and retain said lugs, said lugs being spread or riveted over on their ends to fill said chamfered holes to secure said heads in place on said tubular middle portion, two of the lugs on the corners being brought together forming a projection which enters into a single opening. 55 60

7. A spool or reel having a middle member and two heads, stiffening-ribs formed on the face of said heads by swaging or raising the stock, the middle portion being bent up into a hollow form with its two edges abutting, the ends of said tubular portion formed with lugs projecting into recesses in the heads made to receive and hold them, two of the lugs on the edges being brought together forming a projection which enters into a single opening, means for securing the heads in position. 65 70

8. A spool or reel having a middle member and two heads, said heads being constructed of sheet metal, stiffening-ribs formed on the face of said heads by swaging or raising the stock therefrom, the middle portion being constructed of sheet metal and rolled up into a tubular form with its two edges abutting, the ends of said tubular portion formed with lugs projecting into recesses in the heads made to receive them and hold said tubular center portion from unrolling, two of the lugs on the edges being brought together forming a projection which enters into a single opening, means for securing the heads in position. 75 80 85

In testimony whereof I have hereunto set my hand this 24th day of October, A. D. 1903. 90

FRANK MOSSBERG.

In presence of—

HOWARD E. BARLOW,
E. I. OGDEN.