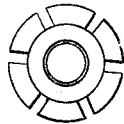


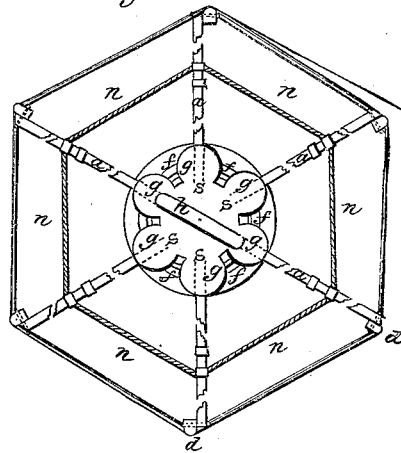
Sheet 1-2 Sheets.

*J. Crutchett.*  
*Reel for Winding Thread.*  
*N<sup>o</sup> 45,953.*  
*Patented Jan. 17, 1865.*

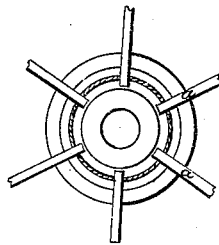
*Fig. 4.*



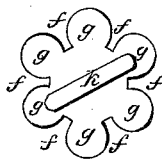
*Fig. 1.*



*Fig. 5.*



*Fig. 6.*



*Witnesses.*

*Fred. J. Huntton*  
*J. H. Mc Murdy.*

*Inventor.*

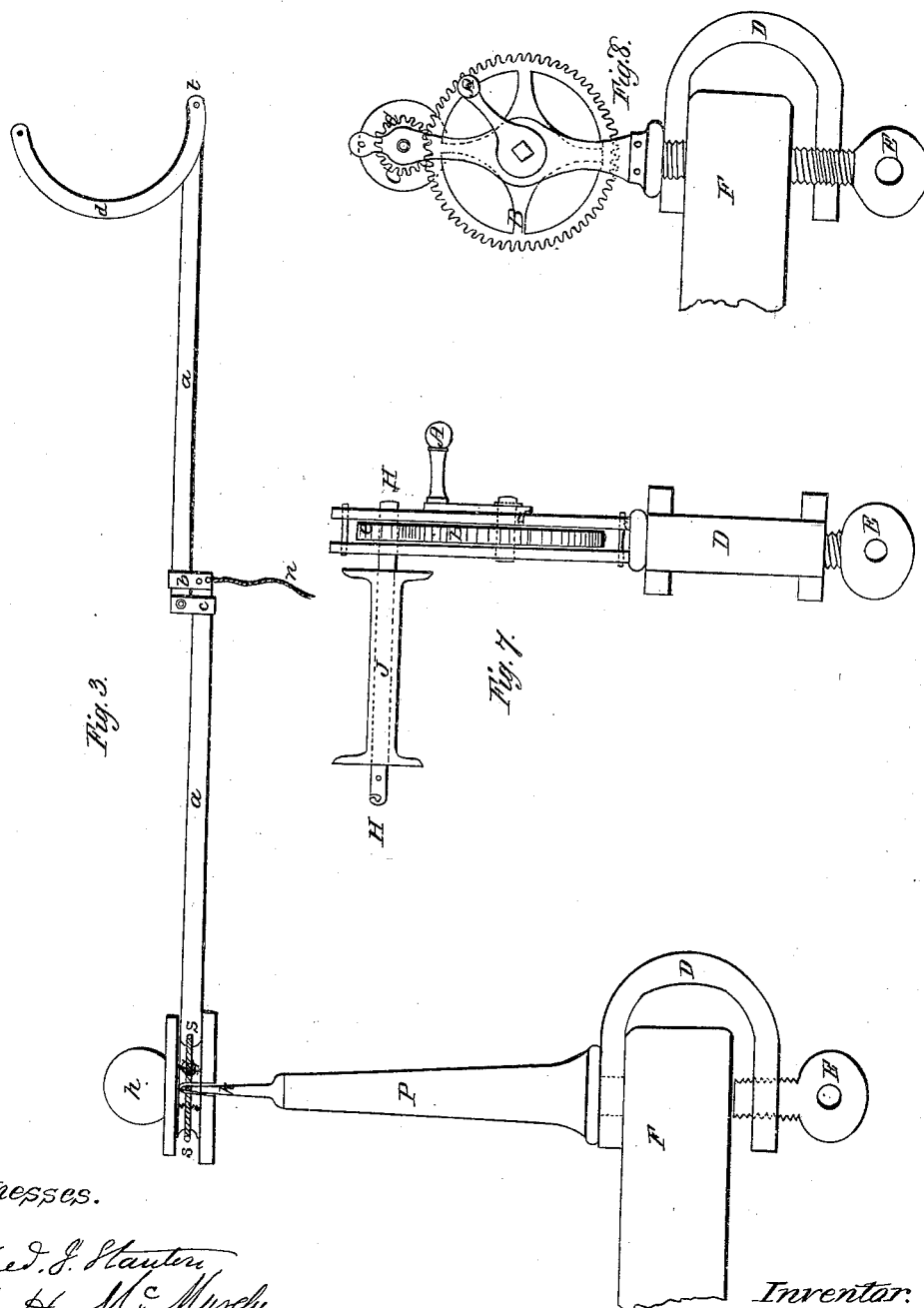
*James Crutchett.*

Sheet 2-2, Sheets.

*J. Crutchett.*  
*Reel for Winding Thread.*

*N<sup>o</sup> 45,953.*

*Patented Jan. 17, 1865.*



*Witnesses.*

*Fred. J. Stanton*  
*J. H. McMurphy.*

*Inventor.*

*James Crutchett.*

# UNITED STATES PATENT OFFICE.

JAMES CRUTCHETT, OF STROUD, ENGLAND.

IMPROVEMENT IN APPARATUS FOR WINDING THREAD FROM THE SKEIN.

Specification forming part of Letters Patent No. 45,953, dated January 17, 1865.

*To all whom it may concern:*

Be it known that I, JAMES CRUTCHETT, of Stroud, in the county of Gloucester, England, at present domiciled at Washington, District of Columbia, United States of America, have invented a new and improved apparatus for winding threads of fibrous material from the skein or hank or other condition onto reels or otherwise; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention has for its object the arrangement of portable apparatus, chiefly for domestic uses, to be affixed to a table, stand, or other convenient object, for the purpose of avoiding the difficulty heretofore experienced in winding silk, flax, cotton, woolen, or other threads from skeins or skein-holders onto reels or into bolls.

The apparatus consists of the revolving skein-holder, adjustable to the size of the skein or hank by means of sliding or folding arms, as represented in Figures 1, 2, and 3, and the winding apparatus, seen in Figs. 7 and 8.

Fig. 1 is a surface view of the skein-holder (represented in Fig. 3) when expanded. Fig. 3 is a horizontal view of the same.

The arms *a a a* are made in two parts, which are contracted or lengthened by means of the slides *b* and *c*. The curved finger *d* is designed to hold the skein, and is hinged at the joint *t*, for tightening the skein or for holding when not in use.

I do not confine myself to the six arms, as represented in Fig. 1, as the number may be either more or less. These arms are connected by the cord *n n n n n*, which is secured by a knot or otherwise to each arm to prevent any lateral movement, and, the same being flexible, admits of the folding of the apparatus by means of the joint represented at *G*, which is similar to the joint of an umbrella.

Fig. 4 is a surface view of the umbrella-joint represented at *G* in Fig. 3, without the arms being attached. Fig. 5 is a view of the same with the arms attached.

Fig. 6 represents a top view of a thumb-screw working on top of the umbrella-joint,

and holding the arms in place, when the same are expanded for use, by means of the projections *g g g g*, which are then turned over the joints. *h* represents the thumb piece of this screw, and is shown in elevation in Fig. 3.

When the arms are to be folded, the screw is again turned, so that the slots *f f f f f* will admit of their movement for that purpose.

In Fig. 3, *P* represents a pillar, which may be of any form, to sustain the revolving holder on its point or pivot *k*. It is secured to the table *F* by means of the clamp *D* and the screw *E*.

The winding apparatus intended to work the revolving skein-holder is represented in different views at Figs. 7 and 8. *A* is the crank or handle, moving the wheels or pulleys *B* and *C*, connected with the spindle *H* and the spool *J*. This apparatus is likewise fastened to the table or other object, *F*, by means of the clamp *D* and the screw *E*. The device *B* and *C*, for multiplying the velocity of the reel, may be either worm or groove pulleys, and driving-band or other frictional driving-surfaces may be substituted therefor. The whole apparatus, both for holding the skein and for winding, may be made of wood, metal, gutta-percha, or other suitable material.

What I claim as my invention, and desire to have secured by Letters Patent, is—

1. The combination of the sliding arms *a a a*, Figs. 1 and 3, with the curved finger *d*, for adjusting the apparatus to the size of the skein, and the folding joint *G*, for folding the same into a convenient portable form, as above described.

2. The application of the thumb-screw, Fig. 6, with the slots *f f f f f* and the projections *g g g g g*, for the purpose and in the combination above described.

3. The foregoing arrangement of the reel, as illustrated in Figs. 1, 3, 4, 5, 6, in combination with the winding apparatus represented in Figs. 7 and 8, all for the purposes above described.

JAMES CRUTCHETT.

Witnesses:

FRED. P. STANTON,  
J. H. McMURDY.