(No Model.)

L. M. HERNZ.

YARN SWIFT.

No. 516,015. Patented Mar. 6, 1894.

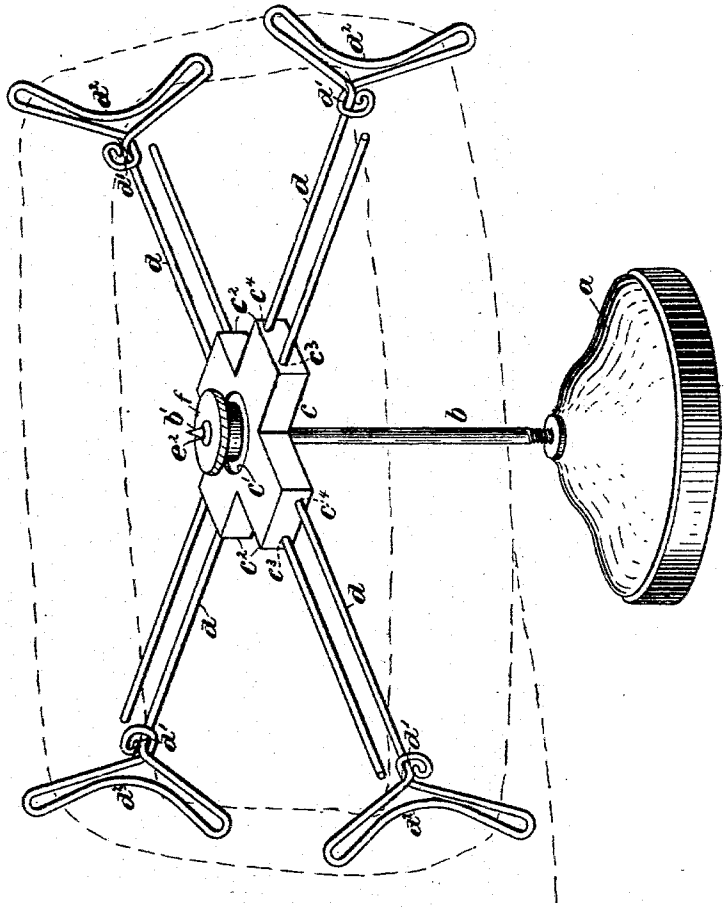


Fig. 1.

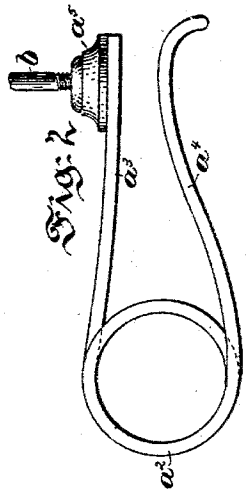


Fig. 2.

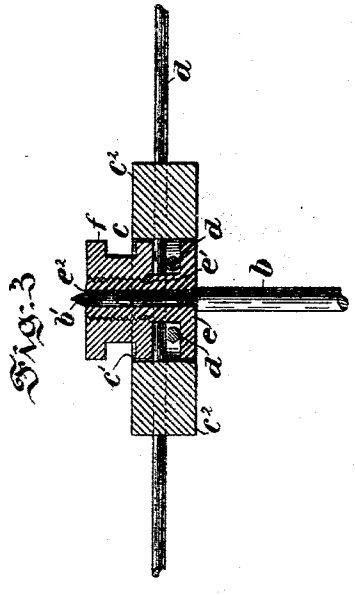
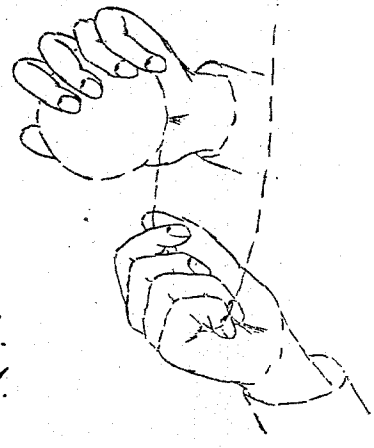


Fig. 3.



Witnesses:
Thomas M. Smith.
Richard C. Maxwell.

Inventor.
Louis M. Hernz,
By J. Walter Douglas.
Attorney.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LOUIS M. HERNZ, OF PHILADELPHIA, PENNSYLVANIA.

YARN-SWIFT.

SPECIFICATION forming part of Letters Patent No. 516,015, dated March 6, 1894.

Application filed December 8, 1893. Serial No. 493,082. (No model.)

To all whom it may concern:

Be it known that I, LOUIS M. HERNZ, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Yarn-Swifts, of which the following is a specification.

My invention has relation to a device adapted to receive and support hanks of yarn, silk or the like and in such manner as to permit of the same being reeled off into balls &c., and it relates more particularly to the construction and arrangement of a portable device for such purposes.

The principal objects of my invention are first, to provide a simple, durable and efficient portable reel; second, to provide a portable reel having the several parts so arranged as to be readily taken apart when required and so as to occupy a compact form for shipment or otherwise; and third, to provide a reel with adjustable arms connected with, extending through and held to position in a holder by means of a clamping device engaged by the stem of a stand or spring clamp for holding the several parts in operative position so as to permit of the unreeling of the yarn or the like from the device.

My invention consists of a portable and detachable reel constructed and arranged substantially as hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof; and in which—

Figure 1, is a perspective view of a portable reeling device embodying features of my invention and illustrating the manner of unwinding from the same fibrous material into a ball or the like. Fig. 2, is an elevational view of a modified form of stand for the reel; and Fig. 3, is a longitudinal central section through the holder for the adjustable arms of the reel, showing the manner of clamping said arms to required position in connection therewith.

Referring to the drawings, with special reference to Fig. 1, *a*, is the conical-shaped stand or base having at the apex thereof a threaded opening for the insertion and securing of a vertical stem or rod *b*, thereto.

c, is a holder provided with a central opening *c'*, and four lugs or projections c^2. Extending through the body of each of the lugs or projections of the holder *c*, are openings c^3 and c^4, for the insertion of wires *d*, provided with integral Y-shaped extremities *d'*, extended and bowed at d^2, for receiving the hanks of fibrous or other materials, as clearly illustrated in Fig. 1.

e, is a circular stud fitting the opening in the holder *c*, and having a shank *e'*, partially threaded and with an opening e^2, extending through the body thereof for the reception of the recessed portion *b'*, of the stem or rod *b*, in the manner shown in Fig. 3.

f, is a double flanged circular tightening nut fitting the threaded portion of the shank of the stud *e*, and having one of the flanged portions preferably milled in order to permit of the ready tightening and loosening of the nut from the shank of the stud and also to secure and release the series of wires extending through the body of the holder transversely to each other to position to adapt the device to different lengths or widths of fibrous material placed on the device to be unreeled therefrom.

With reference to Fig. 2, the stand or support *a*, for the reel, in this instance consists of a spring clamp having a wire formed into a coil a^2, and with arms a^3 and a^4, projecting longitudinally and tending toward each other in such manner as to spread apart when applied to a table or other article and so as to hold the reel by the tension of the spring a^2, under compression during its connection with the article of furniture or the like. The upper ends of one of the arms is provided with a holder a^5, for the reception of the lower threaded end of the stem or rod of the reel, and the outer end of the lower arm is made so as to curve slightly downward in order to enable the clamp to be readily applied to the end of a table or the like.

The reeling device is applied to an article of furniture and the hank of fibrous or other material is then mounted on the bowed extremities of the series of arms or wires which

are then adjusted to position in such manner as that the material mounted on the arms or wires will be held more or less taut, the tightening screw is then screwed down so that said wires or arms are securely held between the upper surface of the circular stud and the bottom surface of the bottom flange of the tightening nut, when by grasping an end of the fibrous or other material, the same may be readily and expeditiously unwound or unreeled therefrom and formed into a ball or the like by a slight pressure exerted in the operation and in the manner, for example, as illustrated in Fig. 1. When the hank of fibrous or other material has been removed from off the reel, the device can be readily disorganized or taken apart by removing the stem or rod from the body of the stud, the stand unscrewed from the stem or rod and by loosening the tightening screw the respective wires or arms may be withdrawn from their holder and the whole may then be placed away in a compact form for subsequent use or shipment.

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

The combination, in a portable reel, of a conical-shaped stand or support having at the apex thereof a threaded opening for the reception of a detachable stem or rod with a recessed upper extremity, a holder provided with a central opening with four lugs or projections at right angles to the axis of said holder and having openings extending therethrough, wires or rods inserted through said openings and having bowed ends, a circular stud fitting the opening in said holder and having a shank partially threaded with an opening extending through the body thereof for the reception of the recessed portion of said stem or rod, a double flanged circular tightening nut fitting the threaded portion of the shank of said stud and having one of the flanged portions milled to permit of the tightening and loosening of said nut to and from the shank of said stud so as to secure and release the series of wires extending through the body of the holder transversely to each other to adapt the device to different lengths and widths of fibrous material to be unreeled therefrom, all arranged as shown and described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

LOUIS M. HERNZ.

Witnesses:

RICHARD C. MAXWELL,

THOMAS M. SMITH.