(No Model.)

# A. M. YEAKEL.

## SPOOL STAND.

No. 585,070. Patented June 22, 1897.

Fig. 1.

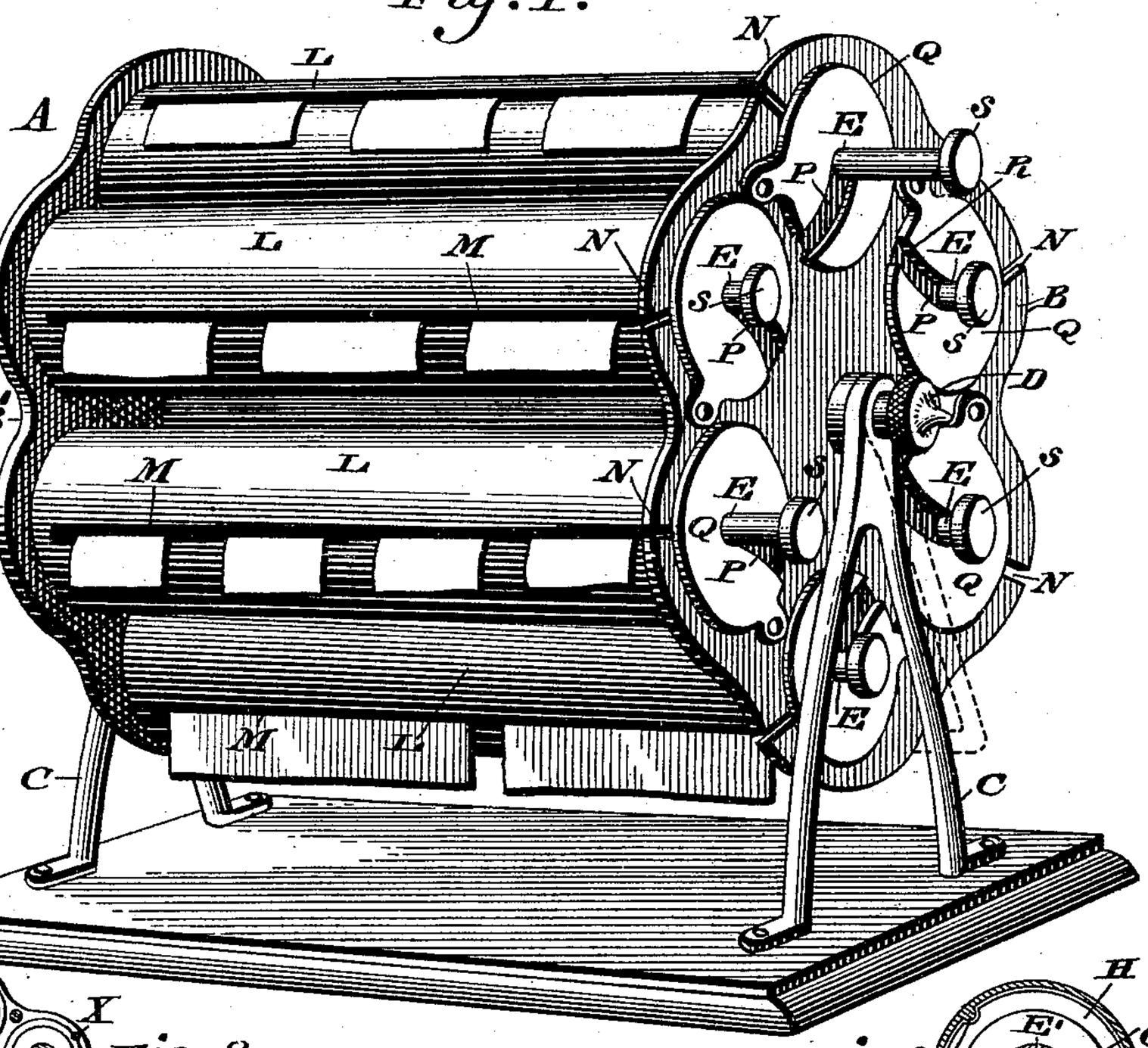


Fig. 6.

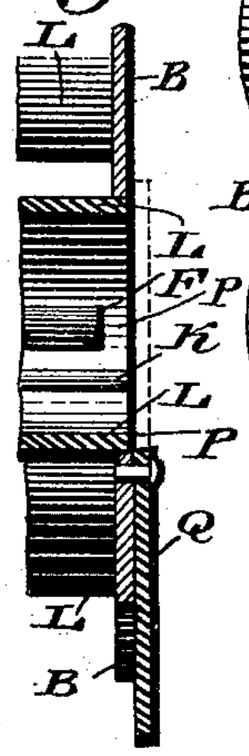


Fig. 8.

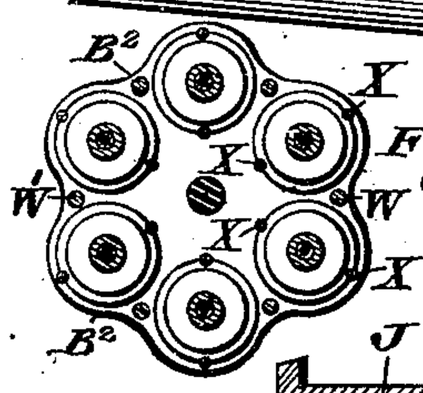


Fig. 2.

Fig. 3.

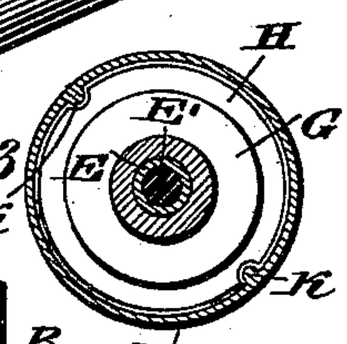


Fig. 5.

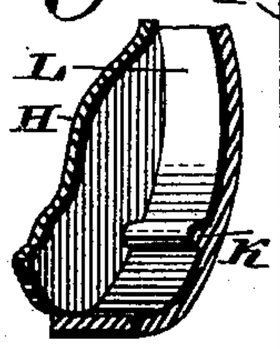


Fig. 4.

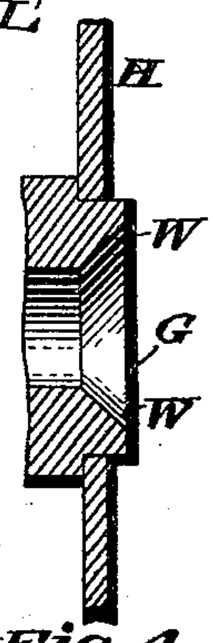


Fig. 7.


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# UNITED STATES PATENT OFFICE.

ABRAHAM M. YEAKEL, OF PERKASIE, PENNSYLVANIA.

## SPOOL-STAND.

SPECIFICATION forming part of Letters Patent No. 585,070, dated June 22, 1897.

Application filed July 23, 1896. Serial No. 600,219. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM M. YEAKEL, a citizen of the United States, residing at Perkasie, in the county of Bucks, State of Pennsylvania, have invented a new and useful Improvement in Spool-Stands, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a spool-stand adapted to permit the ready application and removal of the spools and prevent improper displacement of the same.

It also consists of the provision for the rotation of either spool without disturbing the others.

It also consists in so constructing the spools that they may be most conveniently applied to the spindle or shaft.

It also consists of details of construction, as will be hereinafter set forth.

Figure 1 represents a perspective view of a spool-stand embodying my invention. Fig. 2 represents a longitudinal diametric section of a portion thereof on an enlarged scale. Fig. 3 represents a transverse section of a portion on a reduced scale. Fig. 4 represents a section of a portion of one of the spools on an enlarged scale. Fig. 5 represents a perspective view of a portion of the casing of the stand. Fig. 6 represents a section of a portion of the casing and adjacent head, together with a door or plate for closing said casing. Fig. 7 represents a side elevation of one of the shafts or spindles of the stand on an enlarged scale. Fig. 8 represents a transverse section of a modification.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a frame whose heads B B′ are mounted on the uprights C by means of the axis D, whereby said frame may be rotated.

E and F designate two-part shafts, which are fitted to each other telescopically, the part E, which is tubular, passing through the head B, and the part F, which may be a rod or tube, being connected with the head B′ and entering said tubular part E. On said shafts E F are mounted the spools G and the disks H, which are intermediate of said spools, and also the disks J, which are intermediate of the end spool and the adjacent heads B B′, said disks H J being interlocked by the ribs or beads K on the inner face of the casings L, which inclose the spools and are secured to the heads B B′, the walls of said casings having longitudinally-extending slits M therein, the same being adjacent to the slots N in the peripheral portion of the head B, whereby tapes or other articles may be wound on the spools G through the slits M. In the head B are openings P, through which the spools G′ may be placed in position and removed therefrom; but when placed in position they are prevented from leaving the same by means of the plates Q, which are movably mounted on the head B and adapted to close said openings P, it being noticed that said plates are formed with segmental slots R, so as to freely embrace the shafts E. The right-end disk J has the shaft E mounted therein, said disk being within the casing and the shaft within the opening P. A cover-plate Q prevents the adjacent disk J and thereby the shaft with the spools thereon from coming out of the casing. When the plates Q are properly moved, they uncover the openings P and allow the shafts E with the spools to be removed from the casings through said openings P in the head B by sliding out the same. The tube E of the shafts E F has a suitable knob or button S for convenience in operating said shaft, and the end of the same opposite to said button is split or divided, as at T, whereby it is expansible, and the exterior of the same is roughened or serrated, as at U, whereby when the shafts are withdrawn said serrated end may be engaged with the barrel or hub of either spool of a set without disturbing the others.

V designates springs, which are interposed between the head B′ and the adjacent disks or diaphragms J, the tendency of which is to force said diaphragms against the adjacent spools and all of the other diaphragms and spools against each other, but as the diaphrams are prevented from rotation motion may be readily imparted to any of the spools either by withdrawing the material that is wound on the spools or the withdrawal of the shaft E and the engagement of its serrated end with the desired spool.

It will be seen that the materials on the spools may be readily drawn off as desired,

and when it is required to remove a spool the proper plate Q is thrown back, as illustrated in Fig. 6, whereby the opening P is uncovered, when by grasping the shaft E and withdrawing the same the spools of a set pass through the opening P and so are disengaged from the remainder of the stand. When the spools are replenished, they are restored through the opening P and the plate Q is returned and fitted over the shaft E, whereby the opening is covered and the spools are prevented from displacement. In Fig. 8 I show a section of the stand where the casings L are dispensed with, the heads of the stand being held together by rods W′, and the diaphragms are mounted on guide-rods X, which are attached to the heads $B^2$, one of said heads having openings similar to the openings P, for the removal of the spools or diaphragms as desired.

The ends of the bores of the spools are flaring or countersunk, as at W, so that they may be readily fitted on the spindles or shafts which support them, or the latter may be readily introduced into said bores, the countersinks acting as guides, so as to direct the ends of the spindles or shafts into the bores proper.

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

1. In a spool-stand, a rotatable frame having heads, one of which has an opening therein for the passage of a spool and a slot leading from said opening to the outer edge of said head, a pivoted plate covering said opening and provided with a segmental slot and an axis supported in one of said heads.

2. A spool-stand consisting of a frame having the heads B, B′, one of the heads being provided with the opening P therein, the plate Q adapted to cover said opening and having the segmental slot R therein, and the telescopic shaft E, F, supported in said head B′ and on a disk on said shaft.

3. In a spool-stand, a spool-supporting shaft having an expansible end and a spring on said shaft adapted to bear against the spool thereon.

4. A spool-stand consisting of a frame with heads, one of which has an opening therein, a shaft with a disk secured thereon and adapted to be inserted in said opening, and a plate secured to said head, having the opening therein and adapted to cover the latter.

5. A spool-stand consisting of a frame having heads, one of said heads being provided with an opening therein with a covering-plate formed with a segmental slot therein, a shaft supported in one of said heads and in a disk on the other head, disks between spools on said shaft, a casing secured to said head and having a longitudinal rib locking said disks in place.

6. A spool-stand, consisting of a frame having heads, one of said heads having an opening therein with a slot leading therefrom to the edge of said head, a plate pivoted to said head, covering said opening and provided with a segmental slot, a shaft supported in one of said heads, and a casing surrounding said shaft, and provided with a longitudinal slot communicating with said slot in the head.

7. A spool-stand consisting of uprights, two heads secured to an axis journaled in said uprights, so as to rotate therewith, one of said heads having an opening therein, a telescopic shaft having one end connected with the other head, the disks H, H, loosely mounted on said shaft, the casing L having the longitudinal slot M therein, said casing being secured to said heads and interlocked with said disks, a disk on said shaft and in said opening in the head and covering-plate for said opening, said plate having a segmental slot.

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