L. S. JAMES.

SWIFT.

APPLICATION FILED JUNE 17, 1919.

1,354,565. Patented Oct. 5, 1920.

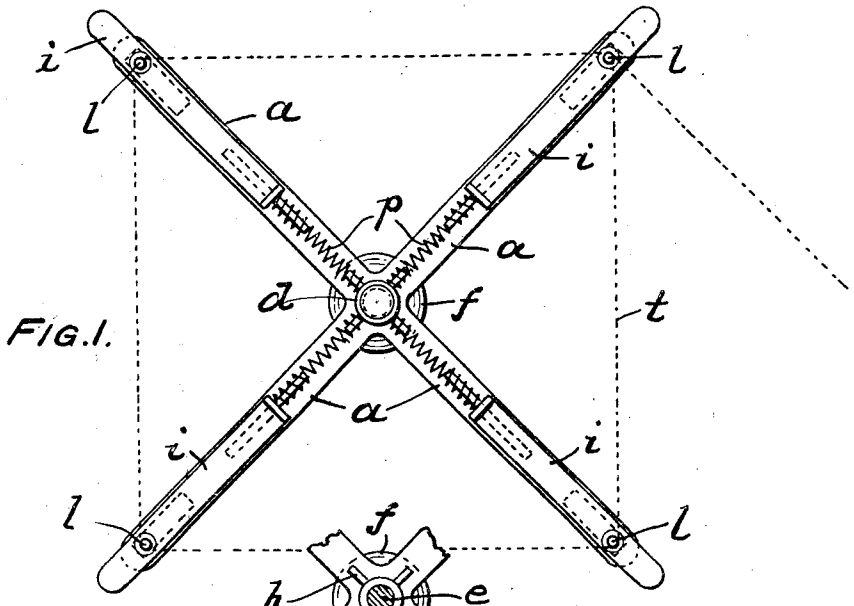


FIG. 1.

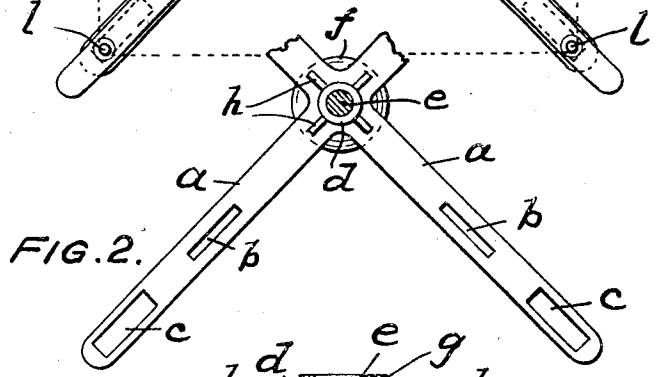


FIG. 2.

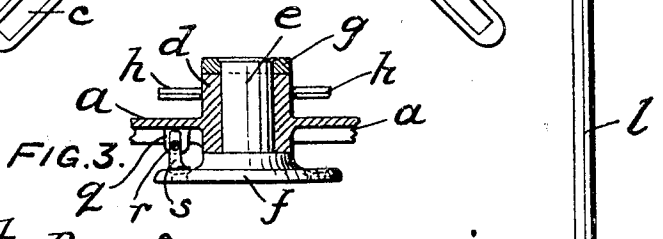


FIG. 3.

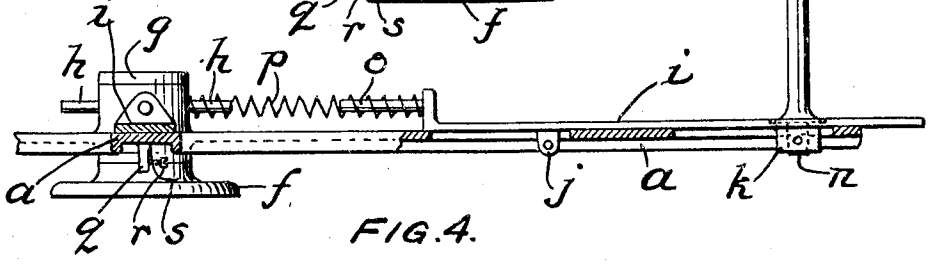


FIG. 4.

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SWIFT.

1,354,565. Specification of Letters Patent. Patented Oct. 5, 1920.

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To all whom it may concern:

Be it known that I, LEROY S. JAMES, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Swifts, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The object of my invention is to provide a new and improved swift for holding skeins in the operation of spooling yarn, fiber, etc.

The type of swift heretofore used in spooling yarn is open to many objections, chief among which are the loss of time suffered in putting the skein on the swift and the fact that the swift lacked adjustability and therefore was properly fitted for only one size of skein, whereas the skeins vary considerably in size.

In accordance with my invention, a swift may be provided upon which the skeins may be mounted in a minimum of time and which will automatically adjust itself to variation in size of the skeins and hold the skein at a proper tension until it is completely unwound.

Referring to the accompanying drawings, in which I have illustrated a preferred embodiment of my invention and in which like letters refer to like parts in the various figures,—

Figure 1 is a plan view of a swift embodying my invention.

Fig. 2 is a partial plan view of the main frame of a swift embodying my invention.

Fig. 3 is a view, partly in section, of the mounting.

Fig. 4 is an elevation, partly in section, of the mounting and one member of a swift.

The members *a* provided with slots *b* and *c* radiate from the hub *d*, which is suitably bored for the reception of a spindle *e* carried by a base *f* adapted to be fastened to any suitable support, not shown. A cap *g* is provided to maintain the hub on the spindle. The hub is provided with radially extending projections *h*.

Slidable members *i* are provided with depending lugs *j* and *k* adapted to enter the slots *b* and *c* and permit the members *i* to slide, radially, in and out on members *a*. Members *i* and lugs *k* are bored for the reception of dowels *l* which are preferably made of wood, flared at their lower ends and provided with extensions *n*. Pins are passed through lugs *j* and *k* to retain members *i* on members *a* and lock the dowels *l* in place.

The inner ends of members *i* are flanged upwardly and carry horizontally extending projections *o*. Springs *p* are positioned between the hub and members *i*, the projections *h* and *o* serving as spring guides.

Beneath one of the members *a* is a depending lug *q* to which is fastened, by means of a screw *r*, a downwardly and outwardly projecting section of leaf spring *s* which bears upon base *f*.

In operation, the members *i* are drawn inwardly against the pressure of springs *p*, thus bringing the dowels relatively closer together. A skein of yarn or other material *t* is placed over the dowels and the members *i* released. The springs force the members *i* and the dowels outwardly and the skein is held on the dowels. The loose end of the yarn may be then led to a spool which is rotated and the yarn unwound from the swift. During the unwinding the spring *s* bears on the base *f* and the friction between the two prevents spinning of the swift, should the winding strain be released, and brings it to a stop. Another skein may then be readily put on and the spooling continued.

It will be noted that the skein may be readily put on the swift without collapsing it and without the necessity of unlocking and locking of any of the parts. At the same time the swift will automatically accommodate itself to skeins of a wide variety of sizes.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. A swift for supporting a skein during the operation of spooling comprising a base, a rigid frame, provided with a plurality of slots, journaled to the base, a plurality of slides each provided with a lug and skein-engaging means mounted on said rigid frame, said lugs and skein-engaging means engaging in said slots, and flexible means extending between one end of each of said slides and said rigid frame.

2. A swift for supporting a skein during the operation of spooling comprising a base, a rigid frame comprising a plurality of radial arms, each of which is provided with a pair of horizontally extending slots, jour-

naled to the base, a slide mounted on each of said radial arms and provided on its under side with a pair of depending lugs adapted to engage in said slots, and flexible means extending between said slides and said rigid frame.

3. A swift for supporting a skein during the operation of spooling comprising a base, a rigid frame journaled to the base, a plurality of slides, having flanges at one end, mounted on the frame, and flexible means extending between said flanges and said rigid frame.

4. A swift for supporting a skein during the operation of spooling comprising a base, a hub journaled to the base, a plurality of radial arms extending from said hub, a plurality of projections extending from said hub above said arms, slides, each having a projection, mounted on said arms, and springs extending between said slides and said hub and embracing said projections.

5. A swift for supporting a skein during the operation of spooling comprising a base, a rigid frame, comprising a plurality of radial arms each of which is provided with a slot, journaled on said base, a slide mounted on each of said arms and provided on its under side with a depending lug adapted to engage in said slot, and flexible means extending between each of said slides and said base.

6. A swift for supporting a skein during the operation of spooling comprising a base, a rigid frame, comprising a plurality of radial arms each of which is provided with a slot, journaled on said base, a slide, provided with upwardly extending skein engaging means, mounted on said arms and provided with a downwardly extending lug adapted to engage in said slot, and flexible means extending between said slides and said base.

In testimony of which invention I have hereunto set my hand, at Philadelphia, Pa., on this 14th day of June, 1919.

LEROY S. JAMES.