(No Model.)

T. LA TOUR.

THREAD GUIDE FOR SEWING MACHINES.

No. 292,496. Patented Jan. 29, 1884.

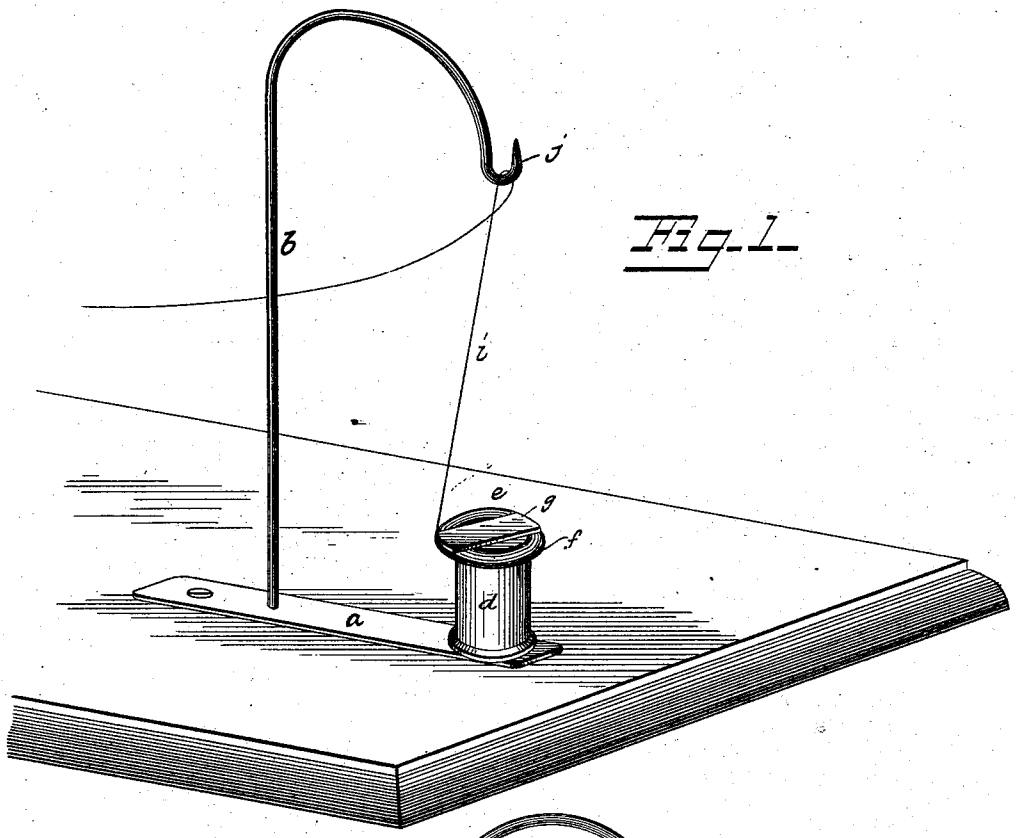

Fig. 1.

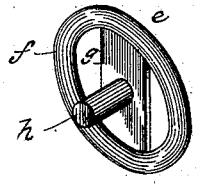

Fig. 3.

Fig. 2.

WITNESSES
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THOMAS LA TOUR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO M. LUTHER FINCKEL, OF SAME PLACE.

THREAD-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 292,496, dated January 29, 1884.

Application filed September 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LA TOUR, a citizen of the United States, residing at Germantown, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Thread-Guides for Sewing-Machines, of which the following is a full, clear, and exact description.

This invention is in the nature of means for taking the thread from spools for use on sewing-machines without its catching or dragging.

My invention consists of a weighty cap having a ring, rim, or edge round in cross-section, adapted to encompass the head of a spool, and centered thereon by a pin, forming a fixed part of such cap and co-operating with a guide-arm, to regulate, guide, and control the supply of thread to a sewing-machine, substantially as hereinafter specified and claimed.

In the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of my device arranged in position upon the machine bench or table. Fig. 2 is a vertical section of the same, and Fig. 3 is a perspective view from the bottom of the weighty cap.

a is the base, adapted to be attached to a work-bench of a battery of sewing-machines, and containing the guide-hook arm or crane *b*, over which the thread is passed to the machine, and also having the pin or stem *c*, to enter the barrel of the spool *d*, to hold such spool in position.

e is the cap, composed of the rim, or edge, or ring *f*, round in cross-section, a transverse plate, *g*, secured to the top surface of such ring, and a stem or pin, *h*, projecting downwardly from such plate. If this cap is made as a casting, its parts *f g h* will be in one piece; but I do not limit my invention to any particular mode of producing the cap so long as its parts *f g h* are made as one whole. The cap is made in sizes to correspond with the various sizes of spools; but it may be used with any-sized spool within its diameter. Its rim *f* contains enough stock to make the cap weighty, and is preferably of a size to fit the head of the spool closely, so as to bind upon it, thereby dispensing with the use of springs to hold the device in place on the spool.

In operation the spool is placed upon the pin *c*, and the cap *e* is applied to its head by inserting the pin *h* in the barrel of the spool until the cap rests upon the spool-head. The pin *h* insures the centering of the cap on the spool when the cap-ring is of greater diameter than the spool. The ring projects below the under surface of the spool-head. The thread (see *i*) is led from the spool up, over, and around the hook *j* of the arm *b*, substantially as shown, and thence to the sewing-machine. Now, as the machine draws the thread, its rapid motion takes the thread very fast from the spool; but by the use of my cap the machine cannot draw the thread any faster than it consumes it, and it is hence drawn uniformly and evenly without drag and without undue tension.

The shape of the faces of the head of the spool is entirely immaterial to the effectiveness of my cap, since its rim projects below the head and insures a free delivery of the thread to the last coil; and in this particular it differs from the loose cap heretofore used in winding-machines and warping-mills, which is set on a pin passing through the spool, the heads of which spool, or at least the head nearest the point of delivery, must be made conical, in order to insure a true and free delivery of the thread at all times until all is delivered, and to avoid its being delivered except in a straight line or an obtuse angle.

What I claim is—

1. The cap *e*, provided with the ring, rim, or edge *f*, round in cross-section, and adapted to encompass the head of a spool and project below its under surface, and made with a centering-pin, *h*, combined with a guide-arm, substantially as shown and described.

2. The cap *e*, composed of the ring, rim, or edge *f*, round in cross-section, and adapted to encompass the head of a spool and project below its under surface, the plate *g*, and the attached, fixed centering-pin *h*, substantially as shown and described.

In testimony whereof I have hereunto set my hand this 15th day of September, A. D. 1883.

THOS. LA TOUR.

Witnesses:

FRED STUDENMUND, Jr.,

JOS. BUTTON.