

(No Model.)

L. O. SMITH.

SPOOL GUARD.

No. 370,716.

Patented Sept. 27, 1887.

Fig. 1.

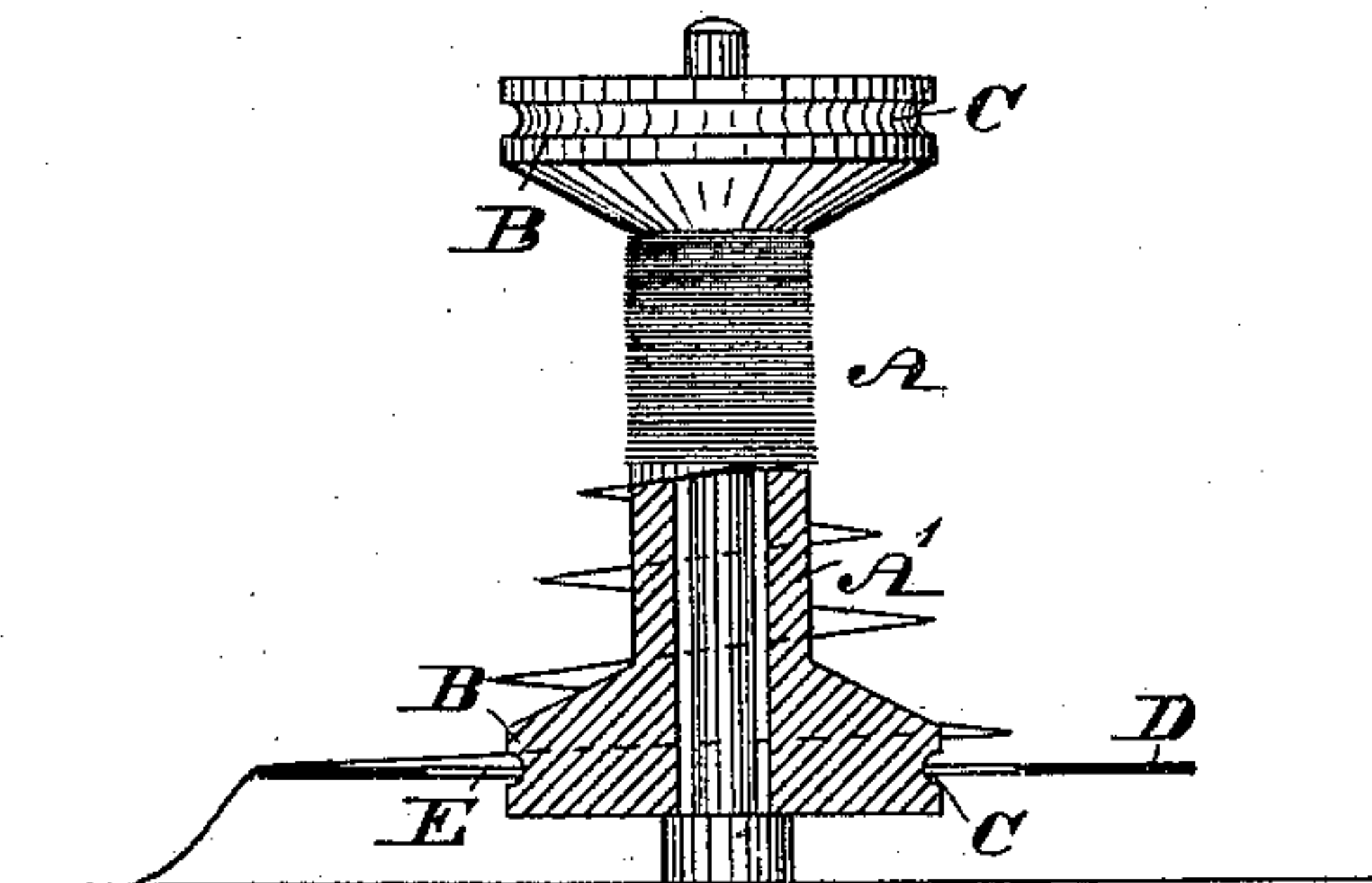


Fig. 2.

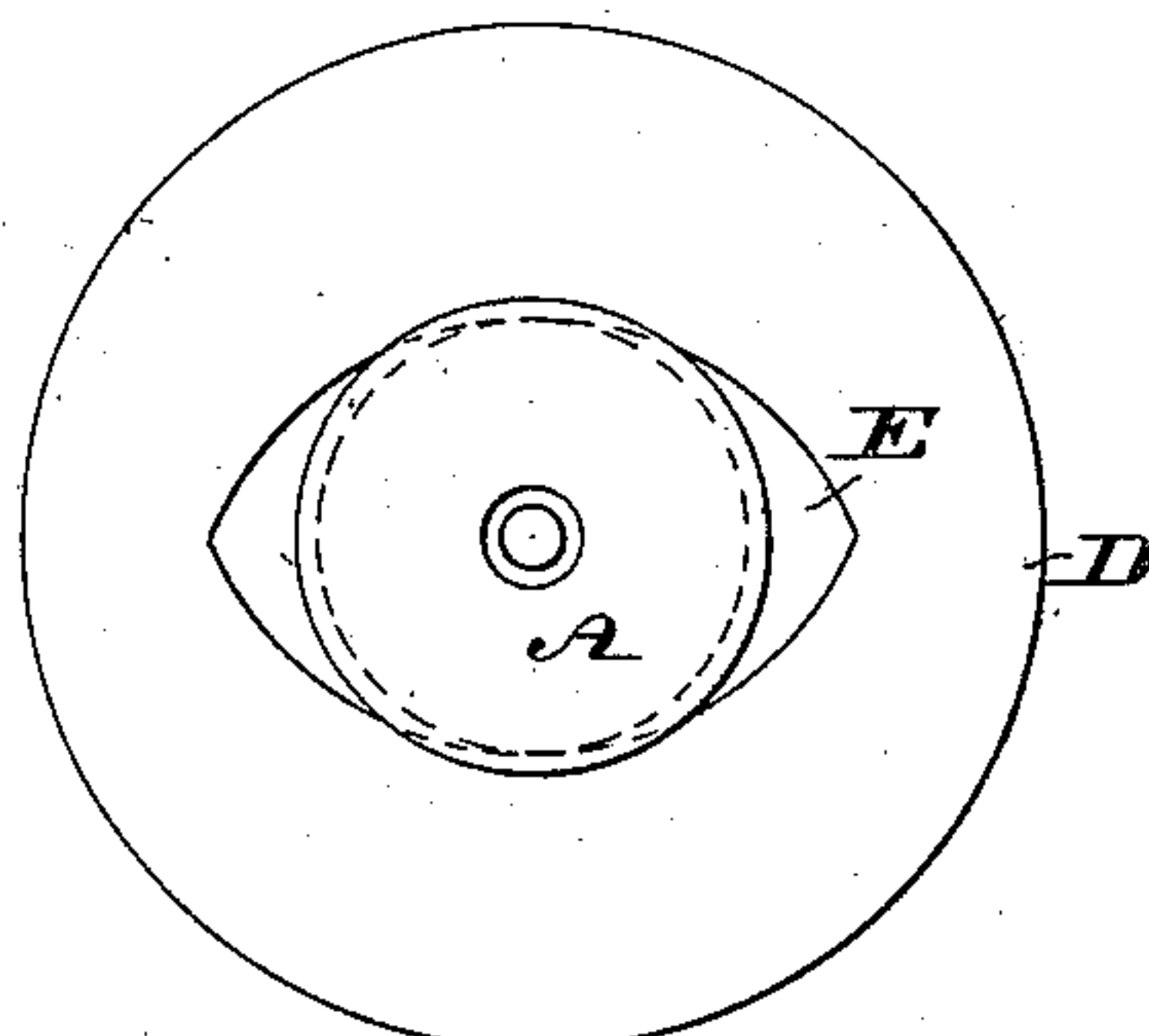


Fig. 3.

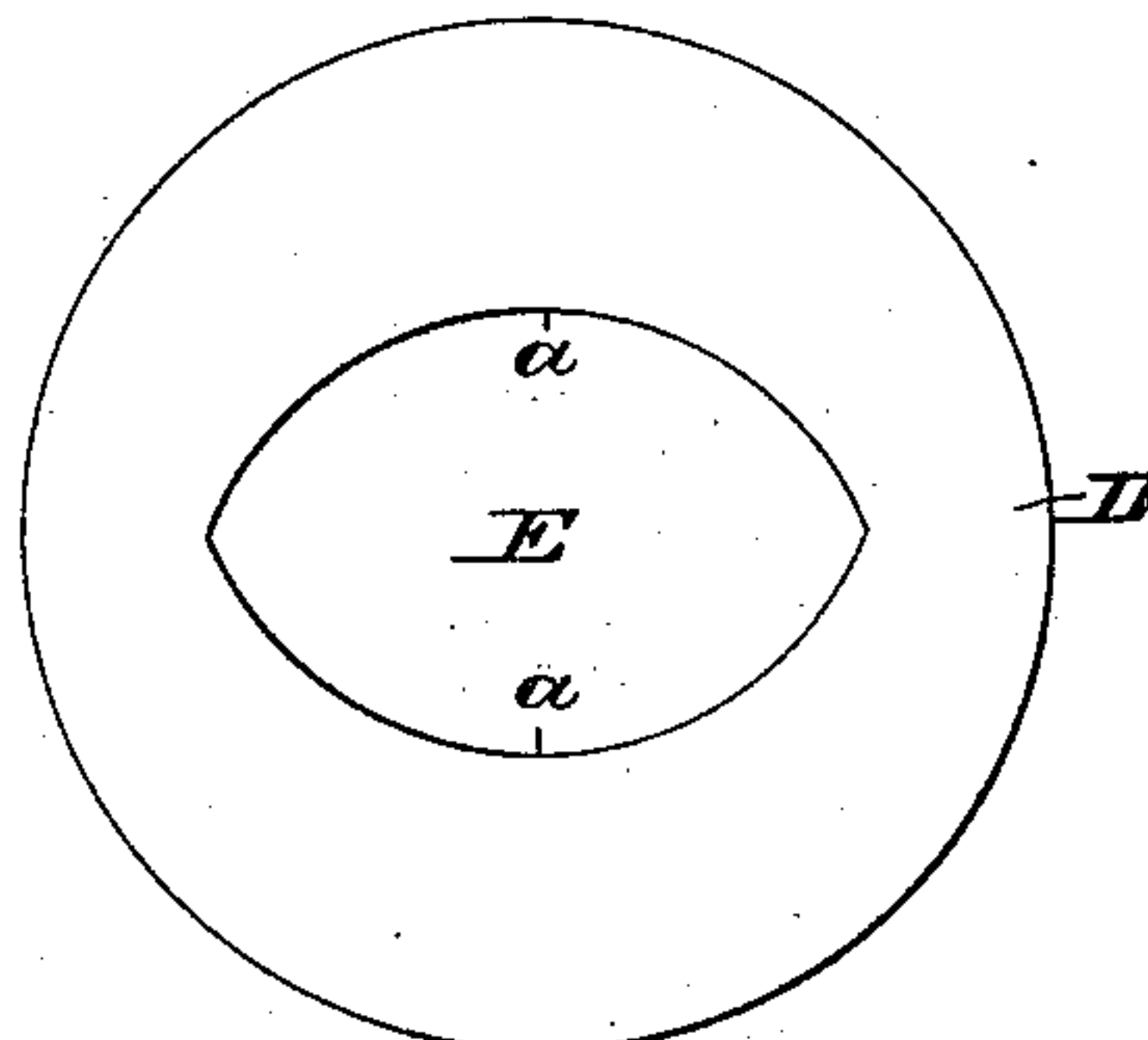
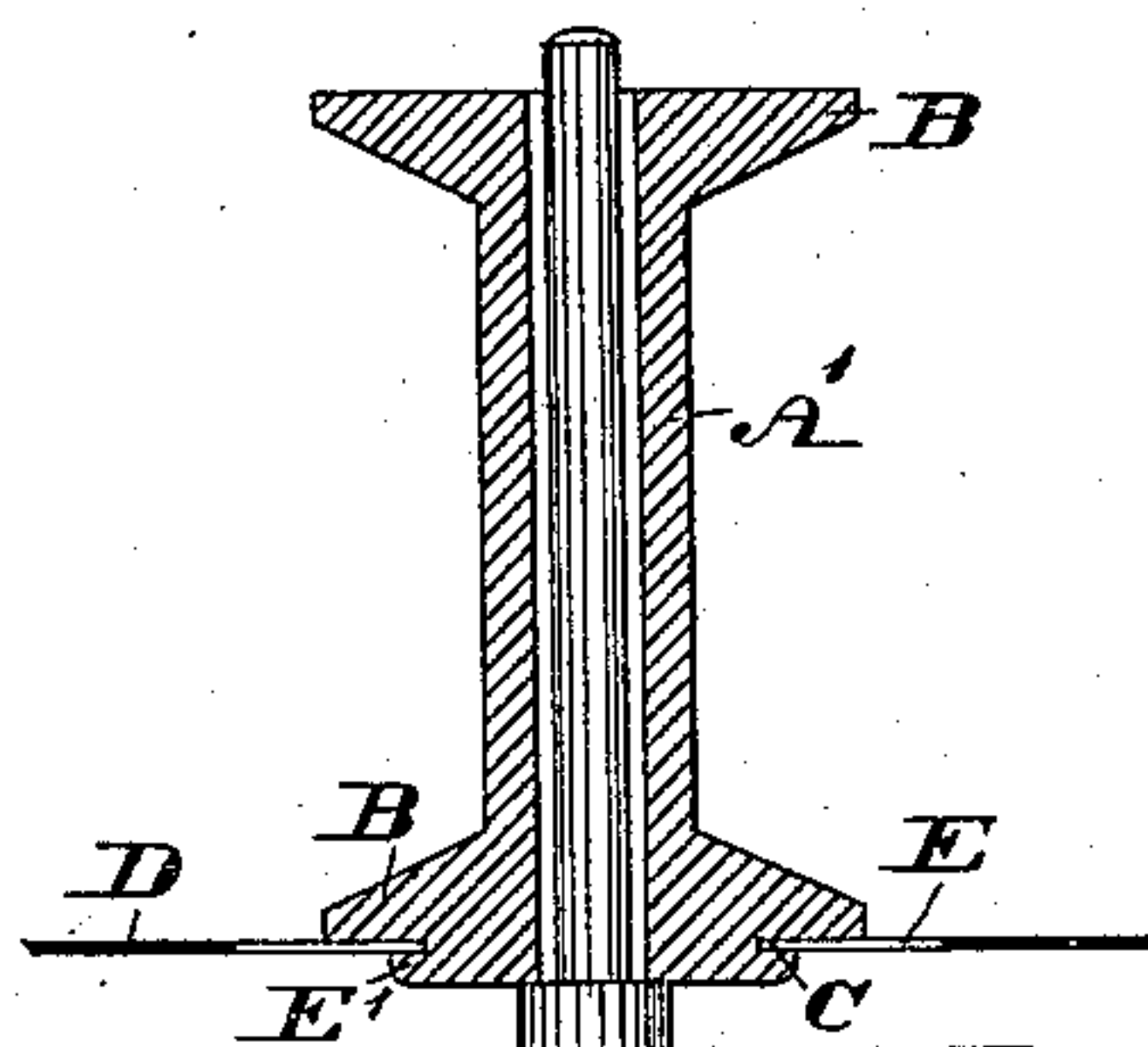


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEONARD O. SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
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SPOOL-GUARD.

SPECIFICATION forming part of Letters Patent No. 370,716, dated September 27, 1887.

Application filed April 27, 1887. Serial No. 236,308. (No model.)

To all whom it may concern:

Be it known that I, LEONARD O. SMITH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Spool-Guards, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a guard attachable to a spool for preventing thread from fouling and winding around the post or pin on which the spool is supported.

Figure 1 represents a partial side elevation and partial longitudinal section of a spool and a diametrical section of a spool-guard embodying my invention. Fig. 2 represents an end view of the spool and a face view of the guard. Fig. 3 represents a face view of the guard. Fig. 4 represents a vertical section of a spool having another form of my guard-sustaining device.

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

Referring to the drawings, A represents a spool consisting of the body A' and heads B, formed of wood or other suitable material, the peripheries of said heads being grooved, as at C.

D represents a guard, which consists of a disk formed of card-board, sheet metal, or other suitable material, having a central opening, E, of elliptical form, or one which is wider in one diameter than the other, the narrow diameter of the opening being about equal to the diameter of the groove with which the spool is provided.

It will be seen that the guard may be applied to either head of the spool by inserting one of the walls *a* of the inner periphery of the guard into the groove of the head and then bending the guard slightly, so that the opposite wall of said periphery may enter the adjacent portion of the groove and be sprung into the same, the guard thus being securely retained on the head of the spool.

It is well known that when a spool is used upon a sewing-machine and has been wound full and the last layers are drawn specially tight, it frequently happens that upon unfastening the thread numerous coils of the thread

spring off, drop beneath the spool, and around the spindle or pin, and break either the thread or the needle of the machine.

The guard or shield D presents sufficient surface to hold all of the coils that drop, and renders it impossible for any one of the coils or the thread to get under the spool and around the pin.

Owing to the elliptical form of the opening of the guard the latter may be readily applied to and removed from the spool without liability of tearing the guard, especially at the walls of said opening.

In Fig. 4 of the drawings I show another form of guard attachment or retaining device, consisting of a shoulder or head, E', of diminished diameter, turned down from the spool end and provided with a groove, C, adapted to secure the guard. This form is more desirable than that shown in Fig. 1, for the reason that the spool is less cumbersome.

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

1. A spool-guard consisting of a piece of suitable material having an elliptical opening, substantially as and for the purpose set forth.

2. A spool-guard consisting of a detachable disk of suitable material having an opening therein, in combination with a spool having a grooved periphery, the opening of the guard being of such size and shape as to permit the said guard to be attached to the spool and securely held in the groove thereof, all substantially as described.

3. A spool having a grooved head, B, and a shoulder, E', the latter of less diameter than the said head, in combination with the disk D, having an elliptical opening, and adapted to be secured in the groove of said head, substantially as described.

4. A spool having a grooved shoulder of less diameter than the head, in combination with a disk having an opening and adapted to be sprung into said groove, substantially as and for the purpose set forth.

LEONARD O. SMITH.

Witnesses:

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