(No Model.)

I. HARDING.

THREAD GUARD AND CUTTER.

No. 267,884. Patented Nov. 21, 1882.

Fig. 1.

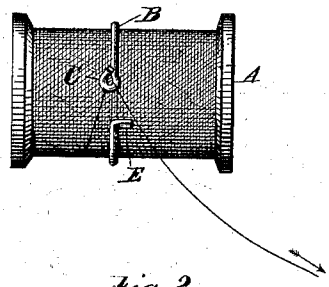


Fig. 2.

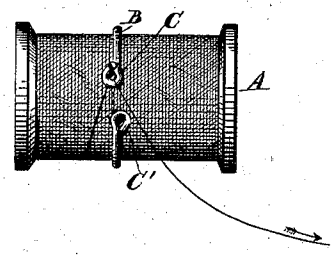
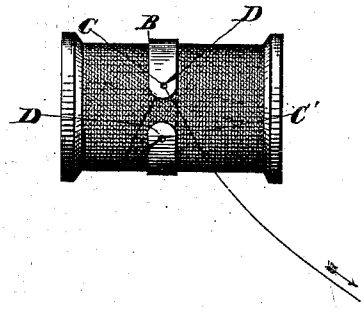


Fig. 3.



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THREAD GUARD AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 267,884, dated November 21, 1882.

Application filed April 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, ISABEL HARDING, of the city, county, and State of New York, have invented a new and useful Improvement in Thread Guards and Cutters, of which the following is a specification.

The object of the invention is to provide a simple and convenient device for holding the free end of the thread on the spool, so as to prevent accidental unwinding, also to provide a means to enable the thread to be easily cut when a desired length is unwound.

The invention consists in a band of elastic material bent in circular form and applied to the thread wound upon the spool. I construct this band in various ways, as hereinafter described, and arrange a thread-cutting edge in connection with it.

In the accompanying drawings, Figure 1 shows the band formed of wire, one end being bent to constitute an eye and the other end being turned up and having its inner edge sharpened to serve as a thread-cutter. Fig. 2 shows the band formed of wire, with an eye at each end, a portion of the wire forming the eyes being sharpened to serve as a thread-cutter. Fig. 3 represents the device in the shape of a flat band with eyes in the ends, said eyes being slitted to enable the thread to be conveniently introduced.

Similar letters of reference indicate like parts.

A is the spool carrying the thread. B is a band or wire of metal, rubber, horn, celluloid, or other suitable elastic substance bent in circular form. The wire or band thus forms a spring, which grasps the spool. At one or both ends of the wire or band I form an eye, C, Fig. 1, or *c c'*, Figs. 2 and 3, by bending the wire or by punching a hole or holes in the flat band. When wire is used the end bent over to form the eye is not brought closely in contact with the other part of the wire, a small space being left between the parts to enable the thread to be slipped easily into the eye. When a flat band is used I make a V-shaped slit, D, communicating with the eye, for the same purpose.

In the particular form of my device shown in Fig. 1, I form the eye on but one end of the wire. The other end, E, is bent upward at right angles, and its inner edge is sharpened to serve as a thread-cutter. When two eyes are used in either wire or flat band I provide sharpened edges in said eyes, made by grinding the band or wire so as to form sharp edges inside the eyes, said edges serving as thread-cutters.

In operation the band is slipped upon the outside of the spool, it being opened for the purpose, so that it will, while encircling the thread, grasp the same by its contraction. The end of the thread is inserted through the eye, or one of the eyes if two are used. The thread is passed through the eye, and in unwinding is pulled back on itself, as shown in the drawings, so that as the thread is removed the guard is caused to rotate around the spool. When a sufficient quantity of thread is unwound it is brought against the cutter D or against the cutting-edges, Figs. 2 and 3, and is thus divided. The band can easily be adjusted by simply pressing its ends closer together, so as to grasp spools of different diameters, and in this way it may be made always to retain its hold upon the thread, as the diameter of the spool decreases as thread is removed. The band may also in the same manner be adjusted to grasp the spool as lightly or as tightly as desired, so that the thread can be unwound with more or less ease.

I do not limit myself to an open eye or eyes in the end or ends of the band, as it is obvious that closed eyes could be employed and the thread inserted through them in the usual way. As the thread is unwound the band follows it, moving up and down on the spool, and keeping about even with the outermost turn on the thread.

I am aware that thread-guards have hitherto been constructed consisting of bands of metal or other material broad enough to inclose the entire spool, including the flanges of the latter, when bent in circular form around it. The thread in this arrangement comes out of a slit or space formed between the meeting or proximate edges of the band. This device I do not claim, as it is entirely different in principle and construction from that which is described in the foregoing specification.

I claim as my invention—

1. In a thread holder or guard, an elastic band or wire adapted partly or wholly to en-

circle the thread on the spool and to press inward upon said thread to hold it, substantially as described.

2. A thread holder or guard consisting of a band or wire of elastic material adapted partly or wholly to encircle the thread wound on the spool, and provided with an eye or eyes on one or both ends, substantially as described.

3. A thread holder or guard consisting of a band or wire of elastic material adapted partly or wholly to encircle the thread wound upon the spool, and having an eye at one end and a cutting-edge on the other end, substantially as described.

4. In a thread holder or guard, a band or wire of elastic material adapted wholly or partly to encircle the thread wound on the spool, having eyes at one or both ends and a cutting edge or edges formed in said eyes, substantially as described.

5. In a thread holder or guard, a band or wire of elastic material adapted wholly or partly to encircle the thread wound upon the spool, and having slitted or open eyes at one or both ends, substantially as described.

6. In a thread holder or guard, a band or wire adapted wholly or partly to encircle the thread wound upon the spool, and which may be adjusted to grasp spools of thread of varying diameter, substantially as described.

7. In combination with a spool and the thread or other material wound thereupon, a band or wire detachable and movable encircling or partly encircling the thread or other material wound on the spool, and serving to hold the same from unwinding, substantially as described.

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Witnesses:
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