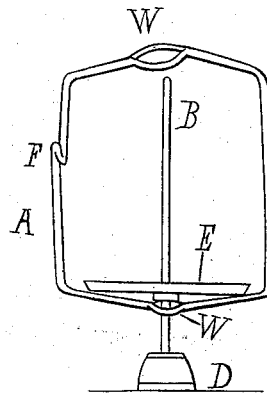
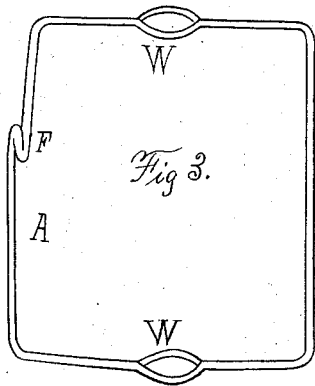
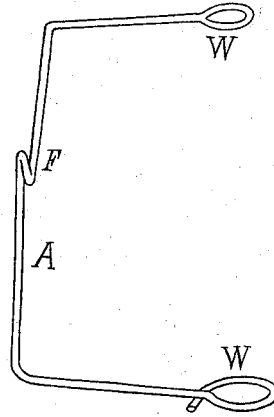
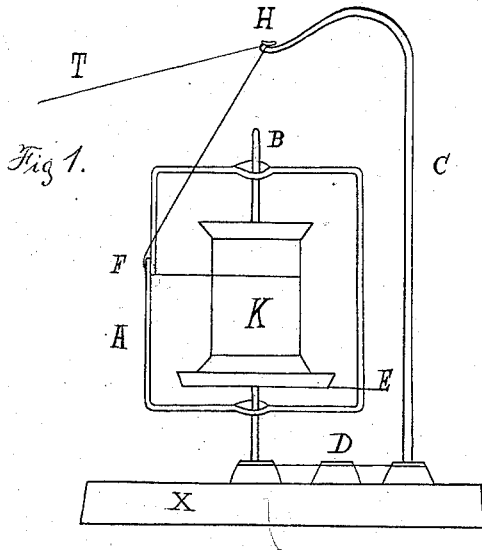


**W. E. TURNER.**  
**Device for Unwinding Thread from Spools or Bobbins.**  
**No. 205,320.      Patented June 25, 1878.**



*Witnesses:*

*A. B. Tompkins.*  
*Emma L. Tompkins.*

*Inventor:*

*Wendell E. Turner.*  
*per Daniel F. Tompkins.*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

WENDELL E. TURNER, OF NEW YORK, N. Y.

## IMPROVEMENT IN DEVICES FOR UNWINDING THREAD FROM SPOOLS OR BOBBINS.

Specification forming part of Letters Patent No. **205,320**, dated June 25, 1878; application filed December 10, 1877.

*To all whom it may concern:*

Be it known that I, WENDELL E. TURNER, of the city, county, and State of New York, have invented a new and useful Automatic Tension or Device for Unwinding Thread from Spools or Bobbins, which invention is fully set forth in the following specification, reference being had to the accompanying drawing.

The object of my invention is to unwind thread from spools or bobbins with a constant and uniform tension, and in such a manner that it shall not in any way become entangled around the spool, spindle, or machine.

To accomplish this I first place on the spindle B a disk, E, on which, when the spindle is in a perpendicular position, the spool or bobbin K is supported. When the spindle B is adjusted in a horizontal position the disk E is not required, as the spool or bobbin K can rest upon the spindle B.

Adjusted to the spindle B is the follower A, made of wire or other suitable material, and so formed as to clasp the spindle at each end of the spool or bobbin K, in such a manner that it will rotate upon the spindle and around the spool or bobbin. The follower A is also adjusted in such a manner as to move freely up and down upon the spindle when the same is in a perpendicular position, in order that when the thread is being unwound, the loop F in the follower A, through which the thread passes from the spool or bobbin K, may accommodate itself sufficiently in line with each separate coil or circle of thread as the same is being unwound, and that the tension of the thread shall always be uniform and automatic. The follower A may be single, as in Figure 2, or it may be double or balanced, as in Figs. 1, 3, and 4.

The follower is made non-rigid, of light and elastic material, so that when it is necessary to remove or place a spool upon the spindle the top or outer part of the follower can be

sprung outward and to one side, as shown in Fig. 4, and that the spool or bobbin can be removed or adjusted as required; but the follower itself cannot be entirely removed from the spindle at the lower end, because of the disk E. When the spool is on, the follower can be sprung back to its original position, ready for use.

H, Fig. 1, is a guide-hole, through which the thread passes from the loop F in the follower A to the machine, and the guide-hole must be placed in line with the center of the end of the spool or bobbin.

The operation of the invention is shown in Fig. 1. The spool or bobbin K is stationary. The follower A is held in position to rotate around the spool by the spindle B. The thread T passes from the spool or bobbin K through the loop F in the follower A, and thence through the guide-hole H to the machine. The follower A, when whirling around, is also free to move to and fro upon the spindle B, according to the position of the layer of thread, and as the thread may draw it, it is checked and regulated by gravity and friction, thus equalizing and rendering the tension automatic.

The construction and position of the follower A may be variously changed and modified, without, however, affecting the principle or character of the invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The follower A, constructed as described, with a guide-eye, F, formed therein, as shown and set forth.
2. The combination, with the spindle B and disk E, of the follower A, having the guide-eye F, as and for the purpose set forth.

WENDELL E. TURNER.

Witnesses:

DANIEL F. TOMPKINS,  
MARK G. BALDWIN.