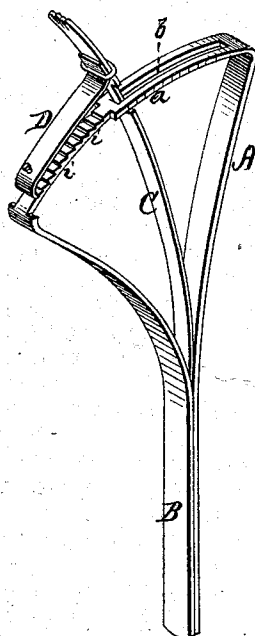


D. B. TIFFANY.

Tension-Indicators for Sewing-Machines.

No. 136,626.

Patented March 11, 1873.



Witnesses  
John A. Ellis  
Wm. H. Ellis

Inventor  
David B. Tiffany  
Per  
J. H. Alexander & Co  
Attys

# UNITED STATES PATENT OFFICE.

DAVID B. TIFFANY, OF XENIA, OHIO.

## IMPROVEMENT IN TENSION-INDICATORS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 136,626, dated March 11, 1873.

### *To all whom it may concern:*

Be it known that I, DAVID B. TIFFANY, of Xenia, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Tension-Indicators for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

My invention consists in a device for equalizing the tension in sewing-machines, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing which represents a perspective view of my invention.

A represents the frame of my device, consisting of a metal bar bent as shown to form the curved portion *a*, and the ends of the bar united to form the handle B. One side of the frame A, from the end of the curved part *a* to the handle B, is nearly straight, while the other side is more bent or curved. Between the ends of the bar forming the frame A, where the same are united to form the handle B, is secured a spring, C, which extends up along the nearly straight part of the frame and passes through a slot, *b*, in the curved part *a* of the frame. The upper end of the spring C is provided with one or more notches or slots, as shown. To the spring C is attached a

spring pawl, D, to engage with teeth *i i* formed on the upper surface of the curved part *a* of the frame.

The operation of this device is as follows: The end of the shuttle-thread is put in the slot or slots of the spring C, so as not to slip; then pull back until the spring will not give any more, but on the contrary move the shuttle-bobbin. The pawl D, sliding over and catching in the teeth *i i*, holds the spring C at this point, which indicates the resistance. Then take out the thread and go through the same operation with the upper tension, adjusting said upper tension until the spring will indicate the same resistance. These operations equalize both tensions, both showing the same amount of resistance, which is very desirable in doing good and neat sewing.

On one edge or both edges of the curved part *a* are indicating-marks to set or adjust the tension for fine or coarse sewing.

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

The combination of the frame A, constructed as described, with slot *b* and teeth *i i*, the spring C and pawl D, all substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

DAVID B. TIFFANY.

Witnesses:

F. C. FREBEIN,  
J. R. RIDENOUR.