

No. 808,612.

PATENTED DEC. 26, 1905.

E. J. NEWTON.
TENSION DEVICE FOR SHEARS.
APPLICATION FILED NOV. 23, 1903.

Fig. 1.

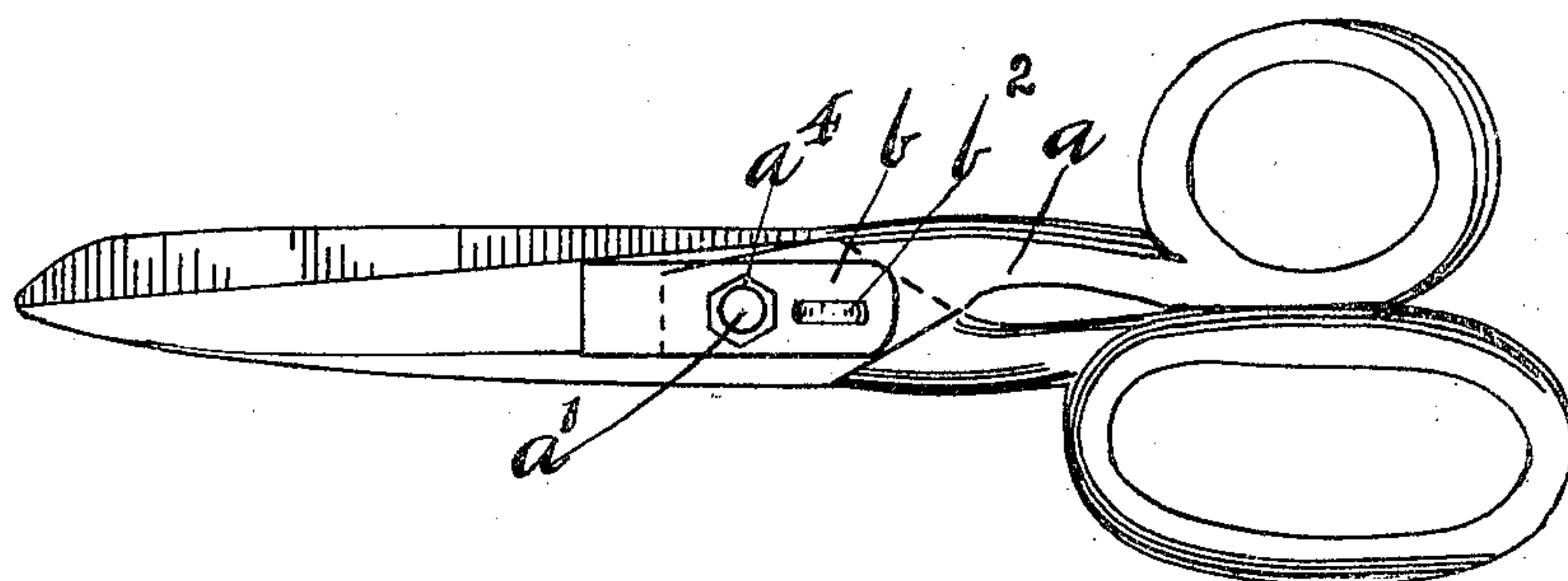
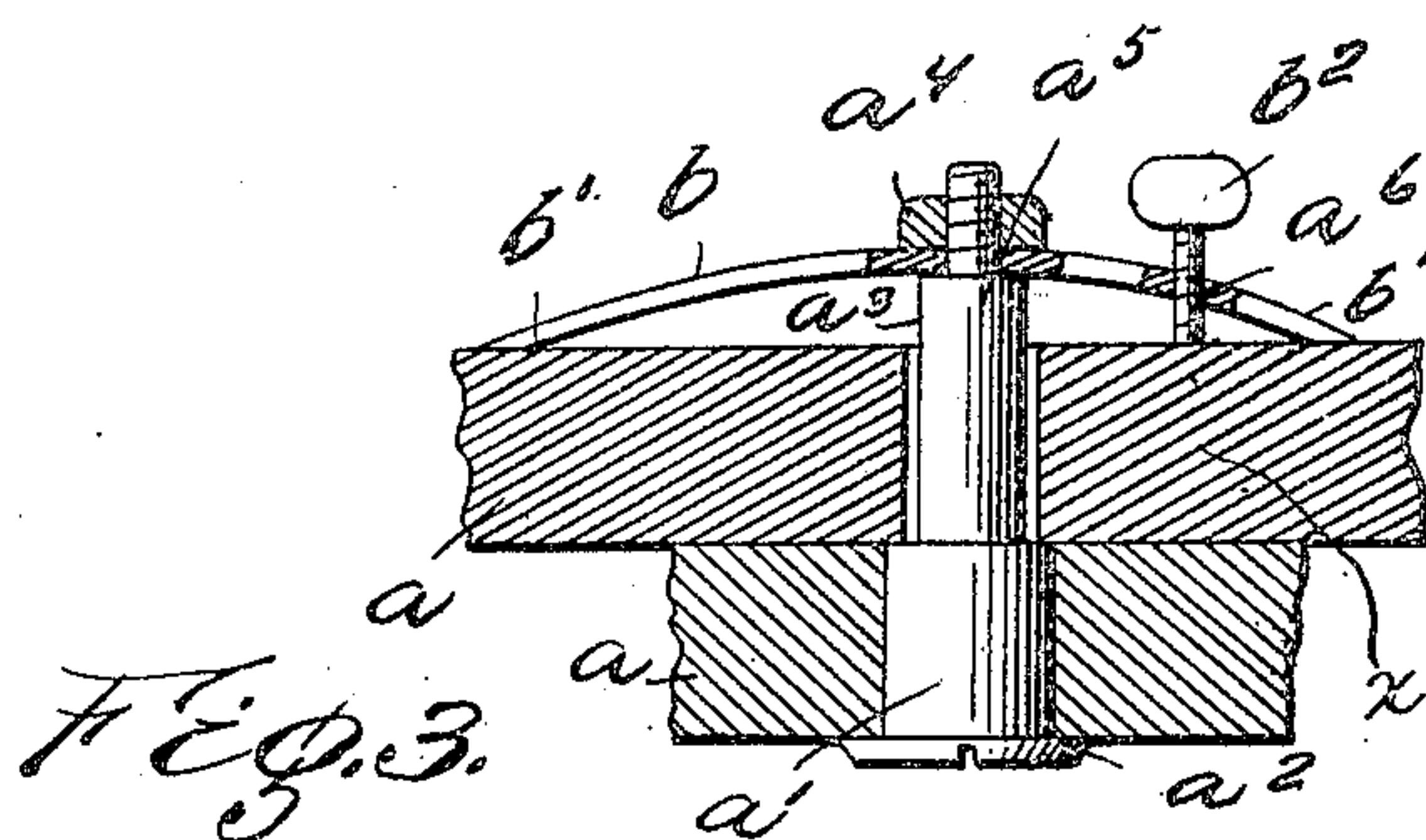
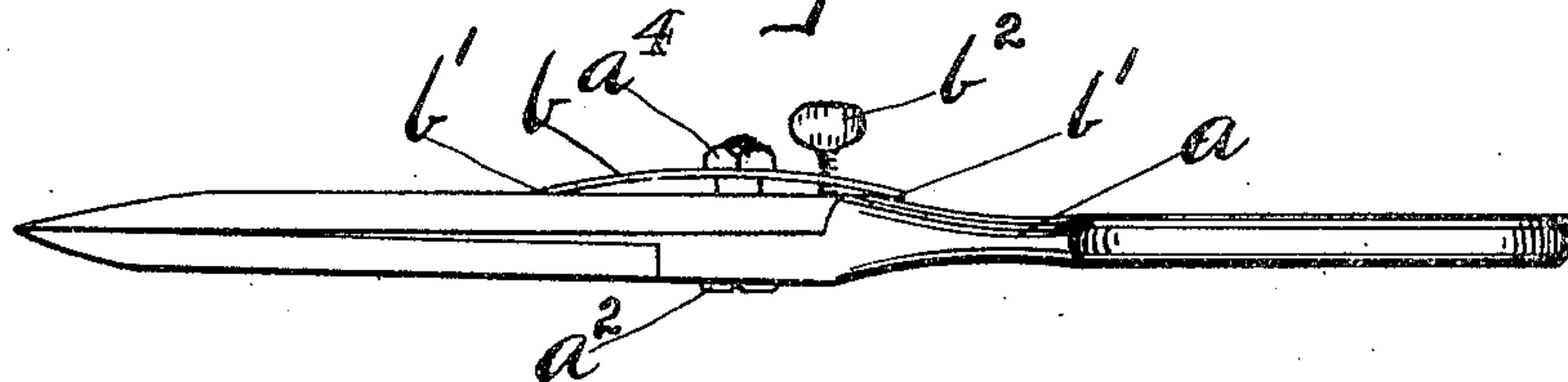


Fig. 2.



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TENSION DEVICE FOR SHEARS.

No. 808,612.

Specification of Letters Patent.

Patented Dec. 26, 1905.

Application filed November 23, 1903. Serial No. 182,220.

To all whom it may concern:

Be it known that I, EDWIN J. NEWTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Regulating the Tension Between the Blades of Shears, of which the following is a specification.

My invention relates to those devices where-
by the tension is regulated by means of springs, and has for its object to produce a device which can be regulated and adjusted by the user at any time, and has for its further object to attain the result without materially increasing the labor or material used or needed.

My invention consists of the combination of parts hereinafter claimed and described.

My method of obtaining the foregoing objects may be more readily understood by having reference to the accompanying drawings, which are a part of this specification, and which are hereunto annexed, in which—

Figure 1 is a top or plan view of a pair of shears, showing my attachment. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged view, partly in section and partly in elevation, of the device.

Similar letters refer to similar parts throughout the entire description.

In the drawings, *a* is a pair of shears of the ordinary construction, the blades of which are joined together by a pivot-screw *a'*, having a head *a''*, and its opposite end *a'''* having a thread cut thereon, said end *a'''* being smaller in diameter than the opening in the blades through which it passes.

In order to utilize my improvement, the threaded end *a'''* is extended beyond the side of the shear and the end thereof is reduced, forming a shoulder *a⁵*. This reduced end has mounted thereon a flat bow-spring *b*, having an opening in its center to permit the passage through of the reduced end of the pivot-screw *a'*. A nut *a⁴* is mounted on the end of the threaded portion of the reduced end of the pivot-screw holding the spring *b* in place, the ends *b'* of which spring bear against the side of the shear. At a point to one side of the pivot-screw *a'* is located a threaded opening *a⁶* in the flat spring *b*. Mounted in this threaded opening is a thumb-screw *b²* of ordinary construction. Although I have shown and described the spring as being mounted upon the threaded end of the pivot-screw, it may be found desirable in practice to extend the head side of the screw instead of the threaded side

and mount the spring underneath the head, it being readily apparent that this would not deviate from the spirit of my invention.

The operation of the device is as follows: When a greater tension is desired between the blades of the shears, by turning the thumb-screw *b²* the side of the spring where the thumb-screw is mounted will be elevated, and as it is elevated the opposite end of the spring will be depressed and increase the tension of the spring against the side of the shears, and consequently the tension existing between the blades of the shears itself.

Most of the shears now in common use have extended surfaces back of the pivot, such as is shown in the drawings and identified by the reference character *x*. It is the purpose of this invention to utilize this bearing-surface as a bearing for the end of the adjusting-screw, which surface is engaged by the end of the screw to frictionally retain the screw in its adjusted position. The object of having the screw bearing on this surface is to permit the tension device to partially rotate on the pivot in order that the adjusting-screw may be utilized at different positions on the extended surface. For instance, if the blades of the scissors are ground away, it becomes necessary to change the position of the tension device to bring the tension device near the cutting edge. In providing for this adjustment the blades are pressed together, and in addition thereto the bearing of the tension device can be so positioned as to take up any undue sidewise movement of the shear-blades on their pivot, which latter movement is usually termed a "wabbling" movement.

The tension device may be a rigid or spring member; but the feature relied upon to effect an adjustment is the screw, which raises the member into engagement with the head of the pivot. I prefer to have the inner end of the tension device extend part way over the blade of the shears in order to increase the efficiency of the attachment.

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

In combination with a pair of scissors or shears, a pivot, a flat extended bearing-surface on the scissors or shears back of the pivot, a tension device consisting of a strip of metal having an aperture to receive the pivot, a tension-engaging member on the pivot against which said tension member bears, one end of the tension device being in contact with the blade

of the scissors or shears, the said strip having
a threaded aperture near the end opposite that
bearing on the blade, and a screw in the
threaded aperture having its end frictionally
5 held on the extended surface and adapted to
be adjusted to different positions on the said
extended surface.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

EDWIN J. NEWTON.

Witnesses:

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