No. 791,590. PATENTED JUNE 6, 1905.

J. H. & W. W. STULL.

TENSION DEVICE FOR SHEARS.

APPLICATION FILED FEB. 6, 1905.

Fig. 1.

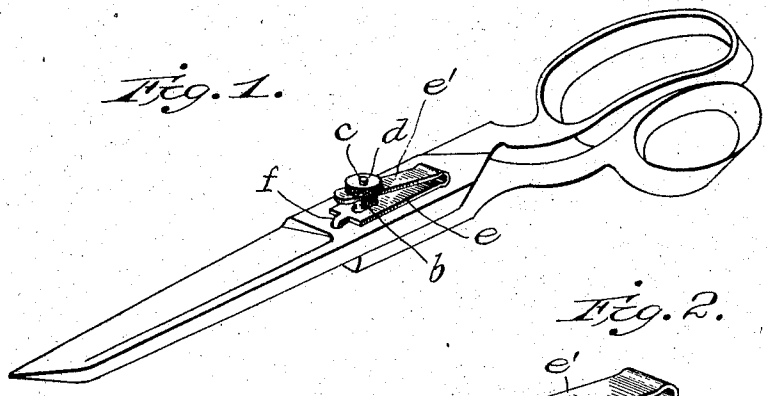


Fig. 2.

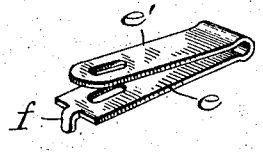


Fig. 4.

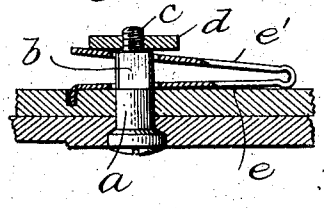
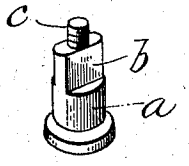


Fig. 3.



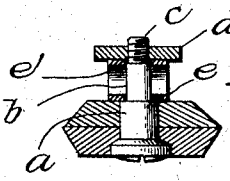
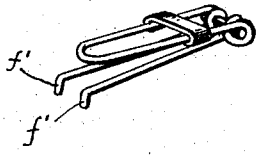


Fig. 5.

Fig. 6.



Witnesses

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PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 791,590. Patented June 6, 1905.

UNITED STATES PATENT OFFICE.

JACOB H. STULL AND WILLIAM W. STULL, OF FREMONT, OHIO.

TENSION DEVICE FOR SHEARS.

SPECIFICATION forming part of Letters Patent No. 791,590, dated June 6, 1905.

Application filed February 6, 1905. Serial No. 244,352.

To all whom it may concern:

Be it known that we, JACOB H. STULL and WILLIAM W. STULL, citizens of the United States of America, and residents of Fremont, county of Sandusky, State of Ohio, have invented certain new and useful Improvements in Tension Devices for Shears, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a pair of scissors provided with our improvement; Fig. 2, a detail perspective view of the tension-spring; Fig. 3, a detail perspective view of the pivot-bolt removed; Fig. 4, a vertical longitudinal section, and Fig. 5 a transverse section taken through the pivot-bolt. Fig. 6 is a perspective view of a modified form of the tension-spring.

The object of this invention is to provide a simple, durable, and inexpensive tension device which may be adjusted from time to time to obtain the desired tension on the cutting edges of the blades, as more fully hereinafter set forth.

To the accomplishment of this object and such others as may hereinafter appear the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claim, reference being had to the accompanying drawings, forming a part of this specification.

Referring to the drawings by reference characters, *a* designates a headed pivot which passes through the two blades and has its projecting portion flattened or made angular, as at *b*, and its extreme end reduced in diameter and threaded, as at *c*.

A tension-nut *d* is tapped on the threaded extension *c*, and between this thumb-nut and the adjacent blade is arranged the tension-spring, which is of peculiar construction. This spring is constructed of a single blade of steel bent upon itself about midway its length to form two flat members *e e'*, the underneath one lying flat against the blade and the upper free member inclining upwardly and forwardly and bearing against the under side of the thumb-nut. The forward end of the lower member *e* is reduced in width and bent downward, so as to form a finger *f*, which engages in a hole in the blade at a point forward of the pivot-bolt. The two members of this spring are provided with angular slots which engage the angular projecting part of the pivot-bolt.

It will be observed that this tension device will draw the blades together with an even but resilient pressure, and this pressure may be regulated from time to time by the thumb-nut to suit the notions of the particular user of the scissors, and the angular openings in the spring members and the engagement of the lower member positively with the adjacent blade absolutely prevent any turning action being imparted to the thumb-nut by the action of the blades, so that the nut will not be liable to work loose. This construction is advantageous also for the reason that it permits a wide range of adjustment, as even though the upper member of the spring be adjusted far enough outward to pass off the angular part of the pivot the lower member will still engage the angular part of the pivot and prevent turning of the spring and accidental turning of the nut. The device is applicable to scissors and shears of the ordinary construction by simply boring a hole in the blade at a point beyond the pivot, as is obvious.

It will be obvious that we may strike up the projecting end of the pivot-bolt slightly to prevent the thumb-nut working off and becoming lost. It will be obvious also that the tension-spring may be made of a single piece of spring-wire, as shown in Fig. 6, without departing from the invention. When thus made of wire, the lower member will be provided with two depending fingers *f'* instead of one, as shown in the other views. In this form the openings in the two members are angular, as in the flat metal form, in order to embrace the angular part of the bolt and prevent it turning.

It will be apparent to those skilled in the art that various mechanical embodiments of the invention are possible, and we therefore do not wish to be limited to the exact arrangement and construction shown.

What we claim, and desire to secure by Letters Patent, is—

A scissors or shears comprising two blades, a pivot extending therethrough and having its extreme end reduced and threaded and the part adjacent to its threaded end made angular in cross-section, this angular part projecting beyond the blade, a thumb-nut on said threaded end, a tension-spring consisting of two members connected together at one end, the lower member lying against the face of the blade and having its forward end engaging a hole in the blade and the upper member bearing against the nut, both members being provided with openings through which the angular part of the pivot works, substantially as set forth.

In testimony whereof we hereunto affix our signatures, in the presence of two witnesses, this 1st day of February, 1905.

JACOB H. STULL.
WILLIAM W. STULL.

Witnesses:
JAMES H. FOWLER,
W. S. REARICK.