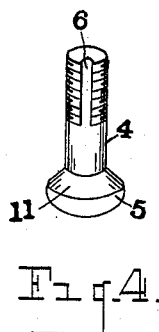
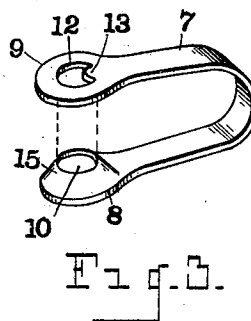
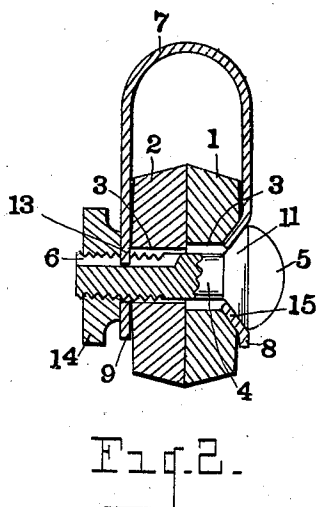
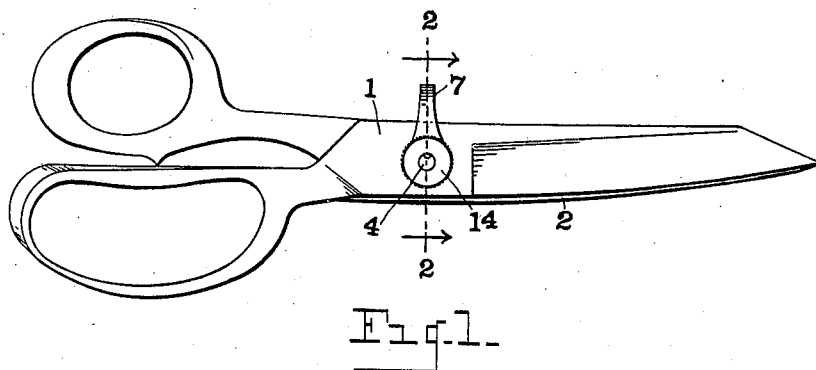


No. 828,302.

PATENTED AUG. 14, 1906.

H. CLAUSS.
TENSION ATTACHMENT FOR SHEARS.
APPLICATION FILED JUNE 19, 1905.



Witnesses:
O. B. Baenziger
J. G. Howlett.

By his Attorneys *Henric Clauss.*
E. M. Wheeler & Co. Inventor.

UNITED STATES PATENT OFFICE.

HENRIE CLAUSS, OF FREMONT, OHIO.

TENSION ATTACHMENT FOR SHEARS.

No. 828,302.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed June 19, 1905. Serial No. 265,875.

To all whom it may concern:

Be it known that I, HENRIE CLAUSS, a citizen of the United States, residing at Fremont, in the county of Sandusky, State of Ohio, have invented certain new and useful Improvements in Tension Attachments for Shears; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a tension attachment for shears; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for regulating or adjusting the tension on the blades of the shears, the arrangement being such as to obviate any change of adjustment after it has been once effected, the adjustment remaining undisturbed whether set tightly or loosely, enabling the shears to be operated as long as desired without any change in the tension upon the blades.

The above object is attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a pair of shears with my improved tension attachment mounted thereon. Fig. 2 is an enlarged transverse section through the attachment and shear-blades as on line 2 2 of Fig. 1. Fig. 3 is a perspective view of the looped metal strap which embraces the blades and receives the screw-bolt upon which they are pivoted. Fig. 4 is a perspective view of said bolt.

Referring to the characters of reference, 1 and 2 designate the blades of the shears, which are apertured, as at 3, to receive the pivot-bolt 4. Said bolt is provided with a rounded head 5 and with a threaded stem in which is formed a longitudinal channel 6. Embracing the blades of the shears is a loop 7, which may be made of spring metal to exert a slight pressure against the outer faces of the blades to normally hold them together. The terminals of said loop are enlarged, as at 8 and 9. Formed through terminal 8 is an aperture 10, around which aperture the metal is depressed to afford a countersink for

the conical inner face 11 of the head 5. In the opposite terminal 9 of said loop is an aperture 12, adapted to receive the opposite end of the bolt 4, and projecting into said aperture is a tongue 13, adapted to engage in the slot 6, whereby the bolt is locked to the metal loop and is held from rotating independently thereof. Screwed upon the projecting end of the bolt 4 is a knurled nut 14, which bears against the end portion 9 of the loop 7 and by means of which any desired tension may be placed upon the blades of the shears. By countersinking the metal of terminal 8 around the aperture 10 an inwardly-protruding cone 15 is formed, which enters the reamed outer opening of the shear-blade 1, as shown in Fig. 2, whereby the screw-bolt is centered in said opening and a cone-bearing is afforded for said blade. The bolt 4 passes freely through the apertures of the blades, so that when the nut 14 is tightened, so as to crowd the blades together, an equal bearing against the outer faces of the blades is effected, and consequently an equal tension is applied thereto. Because of the fact that the tongue 13 engages in the slot in the bolt 4 said bolt and tongue are locked together. The terminal 9 of the loop serves as a washer against which the nut 14 binds, and because of the fact that there is no movement between the washer and bolt the movement of the shear-blades, which are free upon the bolt, cannot disturb the adjusting-nut, so that any desired degree of tension may be maintained. The loop 7, which embraces the shear-blades, allows a limited turning movement of the bolt within the blades; but said loop is arrested by contact with the blades when turned into engagement therewith, thereby enabling the nut to be screwed onto and off of the bolt to vary the tension as desired.

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

1. A tension attachment for shears, comprising a looped member adapted to embrace the blades, a bolt passing freely through the blades and through said member, said bolt being locked to the latter to prevent independent rotation, and an adjusting-nut upon said bolt screwed into contact with one terminal of said member.

2. In a tension attachment for shears, the combination with the blades, of the loop embracing the blades, having apertured termi-

nals, one of which is irregular, a bolt passing through the blades and through the terminals of said loop, said bolt having an irregular formation at one end to fit the irregular
5 aperture in the terminal of the loop to prevent independent rotation of the bolt, and an adjusting-nut upon said bolt screwed into contact with one terminal of said loop.

3. In a tension attachment for shears, the
10 combination with the blades having registering apertures therethrough, a loop embracing the blades having apertured terminals, a bolt passing through the terminals of the loop and through the blades, said bolt having a chan-
15 nel in its threaded end, a tongue projecting into one of the apertures of the loop and lying in said channel, and an adjusting-nut upon said bolt.

4. In a tension attachment for shears, the combination with the blades, of a loop em- 20 bracing the blades, a bolt passing through the blades and through the terminals of said loop, one terminal of the loop having a conical bearing which lies in the reamed opening through one of the blades, the opposite ter- 25 minal of the loop being locked to the bolt to prevent the bolt from turning therein, and an adjusting-nut upon said bolt to regulate the tension upon the blades.

In testimony whereof I sign this specifica- 30 tion in the presence of two witnesses.

HENRIE CLAUSS.

Witnesses:

ARTHUR STULL,
B. H. ADLER.