

(No Model.)

W. G. KOELSCH & P. SHAFER.
SHEARS.

No. 434,345.

Patented Aug. 12, 1890.

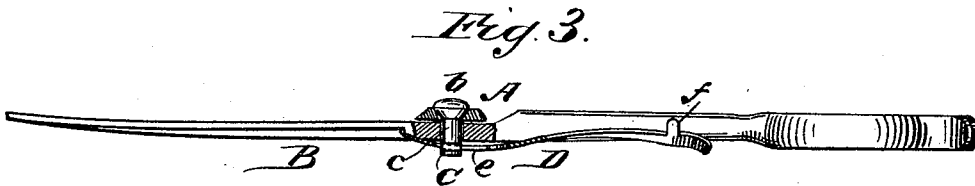
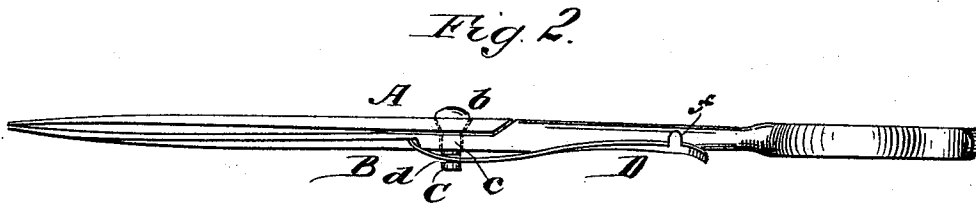
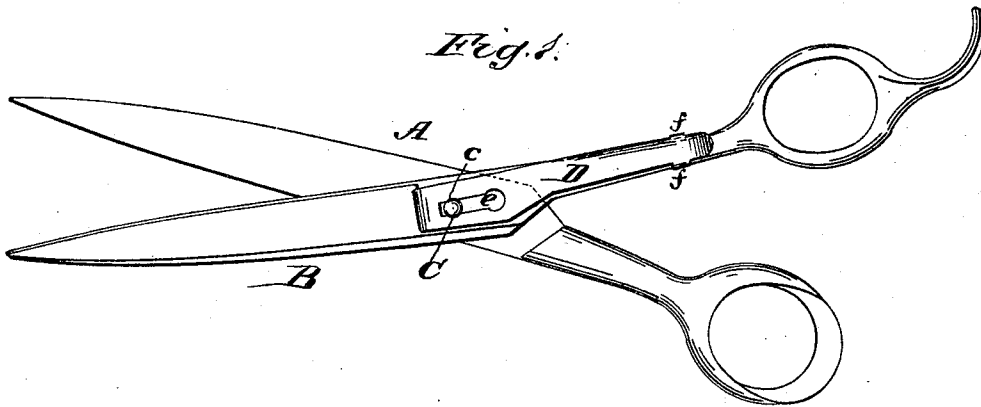
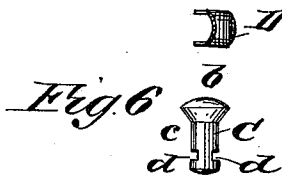


Fig. 5.

WITNESSES:
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UNITED STATES PATENT OFFICE.

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ON-THE-HUDSON, NEW YORK.

SHEARS.

SPECIFICATION forming part of Letters Patent No. 434,345, dated August 12, 1890.

Application filed March 24, 1890. Serial No. 345,035. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM GEORGE KOELSCH, of the city and county of Albany, and State of New York, and PHILIP SHAFER, of Bath-on-the-Hudson, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Scissors and other like Cutting-Instruments, of which the following is a full, clear, and exact description.

This invention relates to shears or scissors; and it consists in a novel construction of the same at the joint, and in the means used to secure tension of the two blades in juxtaposition with and as they pass each other, substantially as hereinafter described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a side view of a pair of scissors embodying our invention; Fig. 2, a longitudinal edge view of the same; and Fig. 3, a similar view in part, with one of the blades in section at the joint and turned to a position at right angles with the other blade, which is also shown in section at said part, as likewise a locking spring-tension device or catch which engages with the joint-pin. Fig. 4 is a perspective view of said spring device or catch; Fig. 5, a transverse section of the same on the line *x x* in Fig. 4; and Fig. 6, a longitudinal view of the joint-pin of the implement.

A indicates the one and B the other blade of the scissors or shears, each provided with suitable looped handles.

C is the joint-pin, which takes the place of the usual rivet upon or with which the blades work as they are opened or closed. This pin is formed of a head *b*, preferably of counter-sunk construction, and a shank *c*, milled on its opposite sides near its outer end, as shown at *d d*, or otherwise suitably constructed to engage with a spring-tension device or catch D, that serves to hold the pin in place and keep the blades at a fixed tension from each other. The joint-pin C is here shown as en-

tered from the blade side A of the scissors, and the tension catch or holder D as applied to the other blade B; but this may be reversed, as it is immaterial which blade the catch D is applied to, the invention being suitable for both old and new scissors.

The tension catch or holder D as here constructed consists of a flat steel spring, having a key-hole slot *e* in it near its forward end, and made with turned-down spring projections or clips *f f* near its opposite end to grasp or engage with the handle of the blade to which it is applied. The enlarged portion of the key-hole slot *e* serves to provide for entry of the shank portion *c* of the joint-pin C through the spring-tension catch D, and the narrower portion of said slot as the catch D is shoved up to its place engages with the recesses or milled-out sides *d d* of the joint-pin C to hold said pin to its place and the two blades in proper relation with each other subject to a fixed tension as produced by the spring-catch.

By the engagement of the spring-tension catch with the joint-pin, as here shown, said pin is restrained from turning and the friction and wear thrown upon the head of the pin, to which tension is applied by the spring-catch and is constantly maintained as wear on the head of said pin takes place.

The spring-tension catch or holder D is readily applied and removed again when it is necessary to take the blades apart for the purpose of cleaning them at the joint—as, for instance, in the case of hair-dressers' scissors—which are apt to clog with hair and dirt at the joint, and when the blades are put and secured together again there will be the same tension upon them as before and at all times, so that they will pass one another easily, and there is no necessity to have the curve or "set" in both blades so accurate. The cutting-edges, too, of the blades are better preserved by the uniform tension upon the blades, so that they will last longer and work more satisfactorily.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the cutting-blades A B, of the joint-pin C, having a head *b* at its one end and a shank having reduced flattened sides *d* near its outer end, and the locking-spring tension catch or holder D, constructed with a key-hole slot *e* near its forward end and with spring-clips *f f* near its

opposite end, substantially as and for the purpose or purposes herein specified.

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Witnesses:

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