K. STEIN.

OPTICIAN'S TONGS.

APPLICATION FILED JUNE 1, 1921.

1,435,344. Patented Nov. 14, 1922.

Fig. 1.

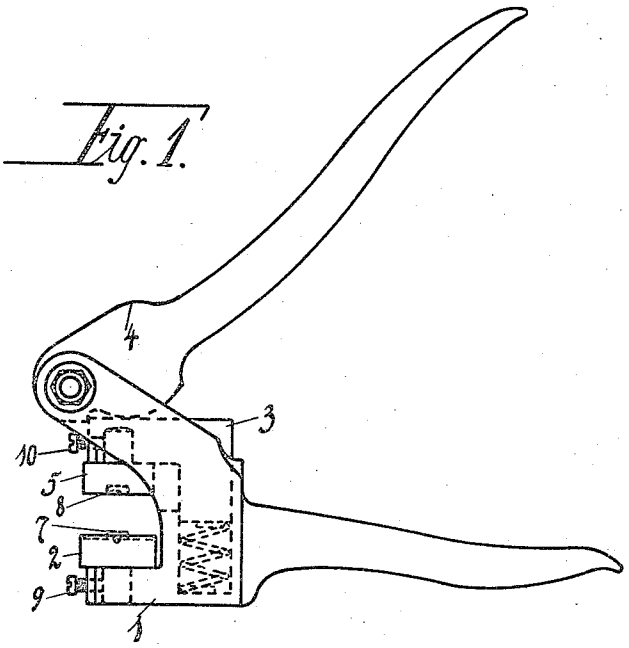


Fig. 2.

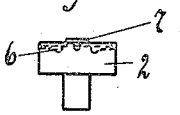


Fig. 4.

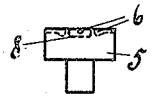


Fig. 3.

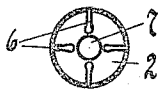


Fig. 5.

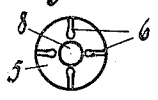
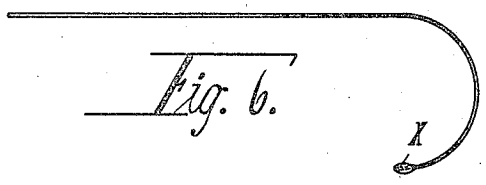


Fig. 6.



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UNITED STATES PATENT OFFICE.

KARL STEIN, OF DORTMUND, GERMANY.

OPTICIAN'S TONGS.

Application filed June 1, 1921. Serial No. 474,305.

To all whom it may concern:

Be it known that I, KARL STEIN, a citizen of the German Republic, and residing at Dortmund, Germany, have invented certain new and useful Improvements in Opticians' Tongs, of which the following is a specification.

This invention relates to an improved pair of tongs for fastening the olives on the olive-shaped ends of spectacle bows or springs. In the manufacture of the latter, the same are frequently made too long and must be shortened in opticians' shops to suit requirements. The bows or springs thus shortened must then again be provided with an olive-end.

Hitherto, the attachment of such fresh olives to the bows or springs is effected by means of a so-called olive-punch, which is clamped in a vise and of which the matrix was pressed together, for pressing the olive on the bow or spring, by means of hammer strokes. By the vibrations produced thereby, the glasses of the spectacle got frequently broken, particularly when the latter are rimless; or, in order to avoid this, the bows or springs must first be detached from the spectacle. Furthermore, the working with said punch requires two persons.

To overcome these drawbacks, the present invention provides an improved pair of optician's tongs, which is represented on the accompanying drawing, in which: Fig. 1 is a side view of the pair of tongs; while Figs. 2 and 4, and Figs. 3 and 5, show the lower and upper part of the matrix in a side view and plan view respectively; Fig. 6 shows a spectacle bow or spring.

In the mouth of the lower stationary member 1, the lower part 2 of the matrix is inserted turnably and removably, a small set-screw 9 serving to secure the part 2 in position. A jaw 3, which is spring-pressed and slidably arranged in the mouth of the tongs, can be depressed against its spring action by means of the upper movable member 4 linked to said lower member 1 and having a camlike action on said jaw. In the underside of said jaw and facing the lower part 2 of the matrix, the upper part 5 of the matrix is also turnably and removably inserted and adapted to be secured in position by means of a small set-screw 10.

The lower part 2 of the matrix has a shallow depression, in which the upper part 5 fits exactly. Both said parts 2 and 5 are provided with small indentations 6, preferably of different sizes, which correspond to the olive-shape of the bow or spring ends desired.

The lower matrix 2 carries a central round projection 7, which serves as an abutment, while the upper matrix 5 is correspondingly recessed at 8.

The operation is as follows:—

The olive-end of the spectacle bow or spring is, with a short tubelike soft metal piece shifted thereon, inserted in one of the radial indentations 6 until it abuts against the projection 7, whereupon the matrix 2, 5 is closed by a depression of the movable tong member 4. Thereby, the olive x (Fig. 6) is suitably shaped and firmly pressed upon said bow or spring end, this being effected smoothly and without any noxious vibrations.

What I claim, is:—

A pair of optician's tongs, comprising, in combination, a lower stationary tong member, a lower matrix inserted in the mouth of said tong member and having a shallow depression therein, a round central projection on said matrix, a spring-pressed jaw slidably arranged in said tong member, an upper matrix inserted in the underside of said jaw so as to face said lower matrix and eventually to fit exactly in the shallow depression in the latter and having a recess for the reception of said central projection, and an upper movable tong member linked to said lower tong member and having a camlike action on said jaw, said matrices having corresponding radial indentations of olive-shape at their inner ends, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

KARL STEIN.

Witnesses:

OTTO REDDIG,

ELFRIEVE SCHROEVER.