

C. S. SHAW & J. M. SPELLMAN.

SHEARS.

APPLICATION FILED APR. 9, 1908.

915,491.

Patented Mar. 16, 1909.

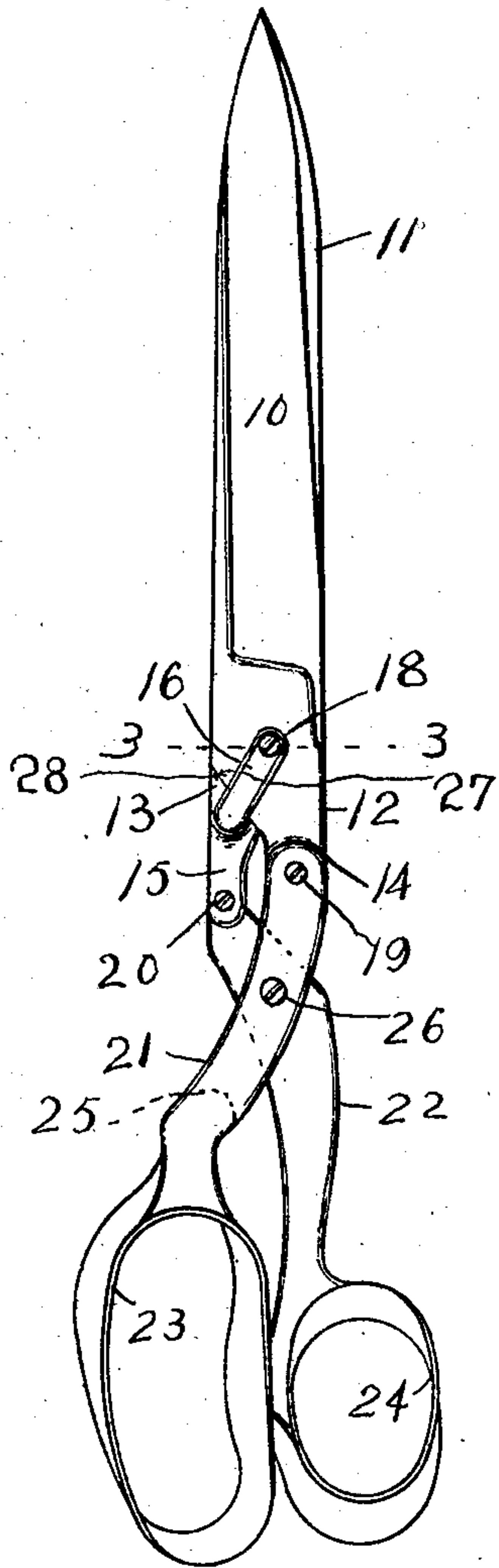


Fig. 1.

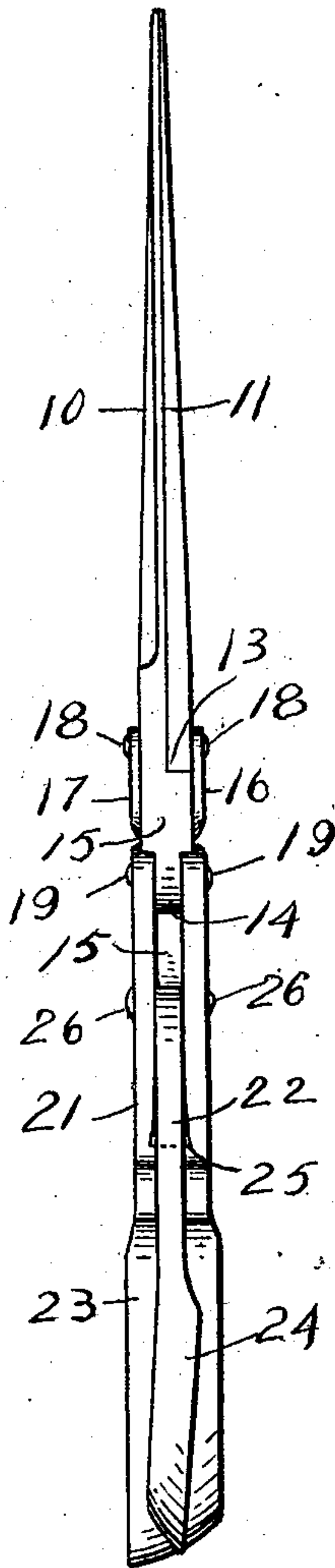


Fig. 2.

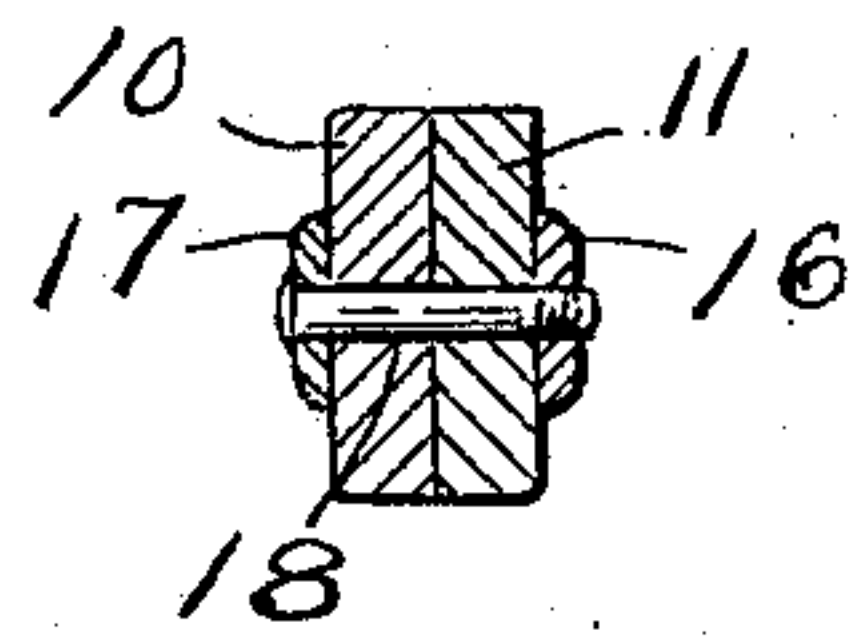


Fig. 3.

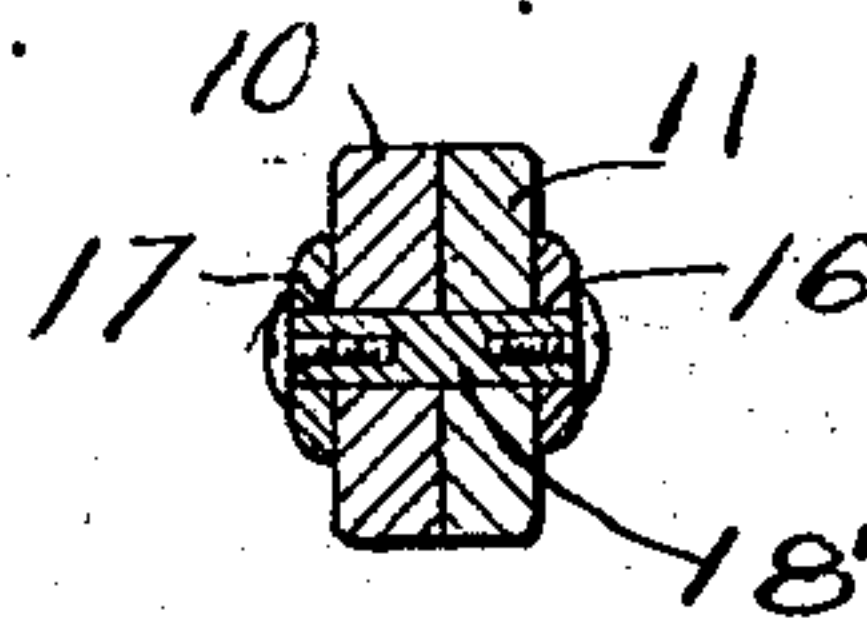


Fig. 4.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES S. SHAW AND JAMES M. SPELLMAN, OF SALMON, IDAHO.

## SHEARS.

No. 915,491.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed April 9, 1908. Serial No. 426,090.

*To all whom it may concern:*

Be it known that we, CHARLES S. SHAW and JAMES M. SPELLMAN, citizens of the United States, residing at Salmon, in the county of Lemhi, State of Idaho, have invented certain new and useful Improvements in Shears; and we do hereby 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.

This invention relates to scissors or shears, and has for one of its objects to improve the construction and increase the power or force of the cutting blades, while decreasing the power required to operate them.

Another object of the invention is to provide an implement of this character wherein the tension may be readily increased or decreased as required and to take up the wear incidental to the coaction of the blades, and to maintain them in proper operative relation.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side view. Fig. 2 is an edge view of the improved implement, and Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a detail sectional view of a screw pivot.

The improved implement comprises two shear members 10—11 having lateral shoulders 12—13 at their inner or "butt" ends and with arms 14—15 extending from the shoulders. The inner faces 27 of the shoulders are inclined to the longitudinal plane of the shear members and the portions 28 of the shear members opposite to the shoulders are correspondingly inclined but reversely thereto, so that when the shear members are superimposed, the inclined faces of the shear members will bear against the inclined faces of the shoulders, as shown.

Projecting from the shoulders 12—13 are lugs 16—17, integral with the shoulders and bearing over the adjacent portions of the superimposed shear members, with a pivot pin 18 extending through both shear members and likewise through the lugs. The lugs are bendable relative to the shoulders from which they extend, so that when means are employed to shorten or lengthen the pivot pin, either by upsetting when the pivot element is in the form of a rivet, or adjusting

the screws when the latter are employed, as may be preferred, the lugs will yield to the pressure and thus enable the requisite tension to be applied, to maintain the shear members in proper operative relations. The adjustment of the pivot pin also provides an effectual means for taking up wear when it occurs, as will be obvious. In Fig. 3 is shown means for arranging the pivot element 18, capable of accomplishing the desired result. In the smaller sizes of scissors, the pivot will generally be in the form of a screw as shown in Fig. 3, while for the larger sizes of shears the double screw arrangement as shown in Fig. 4 will preferably be employed.

The construction shown in Fig. 4 comprises a pin 18' similar to the pin 18 and extending through the members 10—11 in the same manner, the pin 18 extending through the washers 17—16 and provided with threaded apertures in the ends to receive clamp screws 29—30 whereby the washers are secured to the pin and the members 10—11 clamped between the washers.

Pivoted at 19—20 respectively to the arms 14—15 are finger levers 21—22 having the finger loops 23—24 of the usual form at their free ends, the lever 21 having a longitudinal slot 25 through which the lever 22 extends, and the two levers pivotally united by a pivot pin 26.

By this arrangement it will be obvious that a material increase in the force of the shearing members is obtained without increasing the power required to operate the finger levers, or the same shearing force may be obtained as in shears of ordinary construction by applying less power to the finger levers, and it will also be obvious that by applying an increased power to the finger levers, a very material increased force will be applied to the shearing members.

An implement thus constructed may be employed for ordinary purposes, therefore, with greater ease to the operator and with consequent less fatigue.

The improvement is equally applicable to all sizes and forms of scissors and shears, and will greatly improve implements of this character.

What is claimed is—

1. In an implement of the class described, two superimposed shear members having lateral shoulders at their inner ends and with arms projecting from said shoulders, levers



pivoted intermediately and having finger grips at one end and pivotally united at their other ends to said arms, bendable lugs extending from said shoulders and bearing over the shear-members, and a pivot pin extending through said shear members and likewise through said lugs, whereby the shearing contact of said shearing members may be increased or decreased by bending said lugs to increase or decrease the pressure.

2. In an implement of the class described, two superimposed shear members having lateral shoulders at their inner ends, bendable

lugs extending from said shoulders and bearing over said shear members, a pivot pin extending through said shear members and likewise through said lugs, and finger levers operatively connected to said shear members.

In testimony whereof, we affix our signatures, in presence of two witnesses.

CHARLES S. SHAW.  
JAMES M. SPELLMAN.

Witnesses:

P. J. DEMPSEY,  
A. J. QUARLES.