No. 757,021. PATENTED APR. 12, 1904.

J. N. BYINGTON.

SCISSORS OR SHEARS.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

Fig. 1.

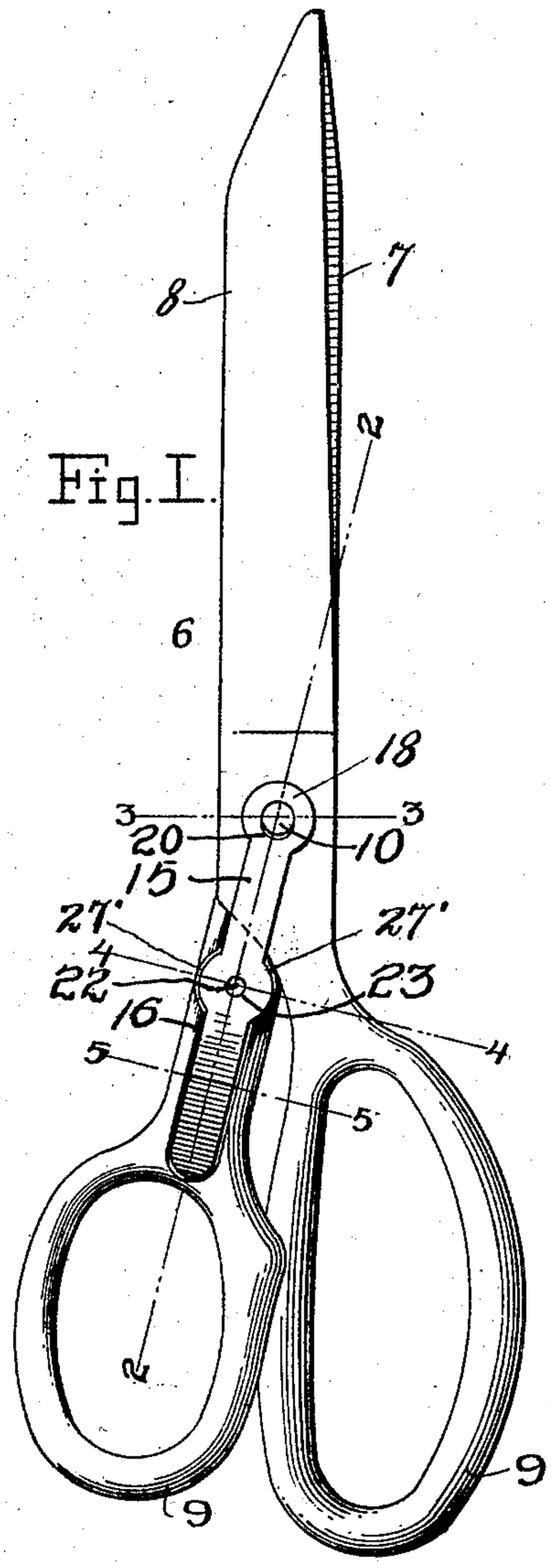


Fig. 2.

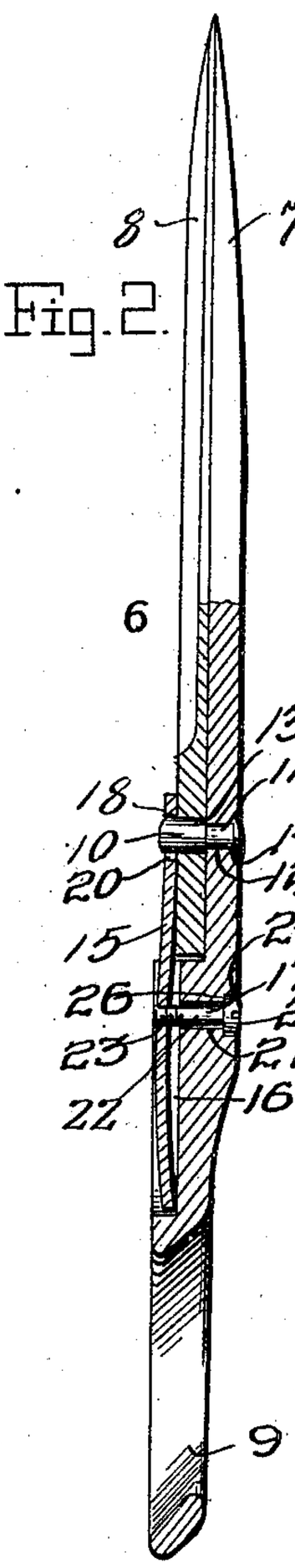


Fig. 3.

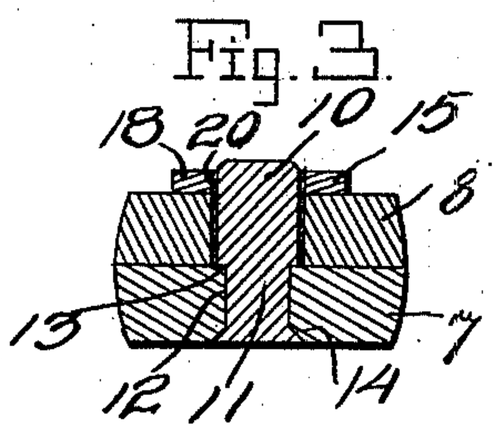


Fig. 4.

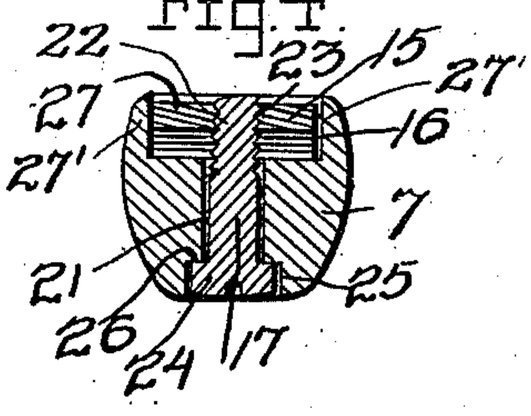
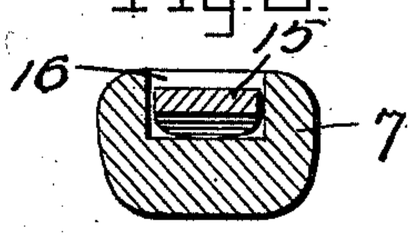


Fig. 5.



Witnesses

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No. 757,021. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH N. BYINGTON, OF WALNUT GROVE, MINNESOTA.

SCISSORS OR SHEARS.

SPECIFICATION forming part of Letters Patent No. 757,021, dated April 12, 1904.

Application filed September 8, 1903. Serial No. 172,306. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH N. BYINGTON, a citizen of the United States, residing at Walnut Grove, in the county of Redwood and State of Minnesota, have invented certain new and useful Improvements in Scissors or 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.

My invention relates to scissors or shears, and more particularly to new and useful improvements in the means for fastening the blades together.

The object of my invention is to provide a simple, inexpensive, strong, and durable fastening means of this character, whereby a uniform tension of the blades is secured and a rigid journal for the same is provided.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of a pair of scissors or shears, showing the application of my invention thereto. Fig. 2 is a longitudinal sectional view through the same, taken on the line 2 2 of Fig. 1. Figs. 3, 4, and 5 are detail cross-sectional views taken, respectively, on the lines 3 3, 4 4, and 5 5 of Fig. 1.

Referring to the drawings by numeral, 6 denotes a pair of scissors or shears consisting of the usual pivoted cutting-blades 7 and 8, having handles 9 at one end. The blade 7 carries a rigid or fixed pivot stud or journal 10, upon which the blade 8 is mounted. Said journal 10 may be secured to the blade 7 in any desired manner, but preferably by passing a reduced portion 11 of the journal through an opening 12 in said blade, so that the shoulder 13, formed by said reduced portion 11, engages the inner face of the blade, and then riveting or expanding the outer end of the reduced portion 11 in a countersink 14 of the opening 12.

The blade 8 is held upon the journal 10 by a bow-spring 15, carried by the blade 7, and forming in conjunction therewith a fork, between the prongs of which said blade 8 swings, as clearly shown in Fig. 2. Said spring 15, which forms one of the prongs of the fork, is secured to the blade 7 by placing the same in a recess 16, formed in the handle of the blade 7, and then fastening it by means of a screw 17, which also serves as an adjusting means to regulate the tension of said spring. The outer end of the spring 15, which bears upon the outer face of the blade 8 to hold the same firmly against the blade 7, is formed with a circular enlarged portion 18, in which an opening 20 is formed, through which the end of the journal 10 projects. The fastening and adjusting screw 17 is passed through an opening 21 in the blade 7, and its screw-threads 22 are engaged with a screw-threaded opening 23 in the spring. The head 24 of said screw sets in a countersink 25 and engages the shoulder 26, formed thereby. It will be seen that when said screw 17 is turned in the proper direction the spring 15 will be straightened and drawn into the recess 16 and the tension or pressure exerted by the spring upon the blade 8 will be increased. The portion of the spring 15 through which the screw 17 passes is enlarged, as shown at 27, in order to strengthen said portion of the spring, and the recess 16 at this point is also enlarged to accommodate the enlarged portion 27 of the spring and to form wall-shoulders 27′, which are engaged by said portion 27 to prevent longitudinal play of the spring and strain on the pivot-stud 10 and portion 22 of the screw 17.

Owing to the manner in which the spring 17 is seated in the recess 16, the same will be prevented from having lateral movement, turning, or twisting, and all endwise movement will be prevented by the enlargement 27 of said spring engaging the walls and shoulders formed by the enlarged portion of the recess 16. By operating the tension-screw 17 the spring 15 may be quickly adjusted to vary the tension of the blade 8 upon the blade 7, as will be readily understood. By mounting the blade 8 upon the rigid or fixed journal 10 and holding the same firmly against the blade 7 there will be no loose play

to quickly wear away the parts, and a strong, durable, and very secure fastening or joint is thus provided for the blades.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

Scissors or shears, comprising blades, one provided with a laterally-projecting pivot-stud and having a longitudinal recess provided with an enlargement intermediate its ends, and the other being pivotally mounted upon said stud, a bowed plate-spring fitting in said recess and having one end formed with an opening receiving said stud, said end of the spring forming with the stud-carrying blade a fork in which the pivoted blade is movably mounted upon said stud, said spring being held from lateral movement by the walls of said recess and being provided with a central enlargement having a threaded opening and engaging shoulders of the said enlargement of the recess to hold it from longitudinal movement, and a screw mounted in the stud-carrying blade and having a threaded end engaging said threaded hole in the central enlargement of the bowed spring, whereby the latter may be adjusted to various tensions.

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

JOSEPH N. BYINGTON.

Witnesses:
DAN A. MALLOY,
WM. G. OWENS.