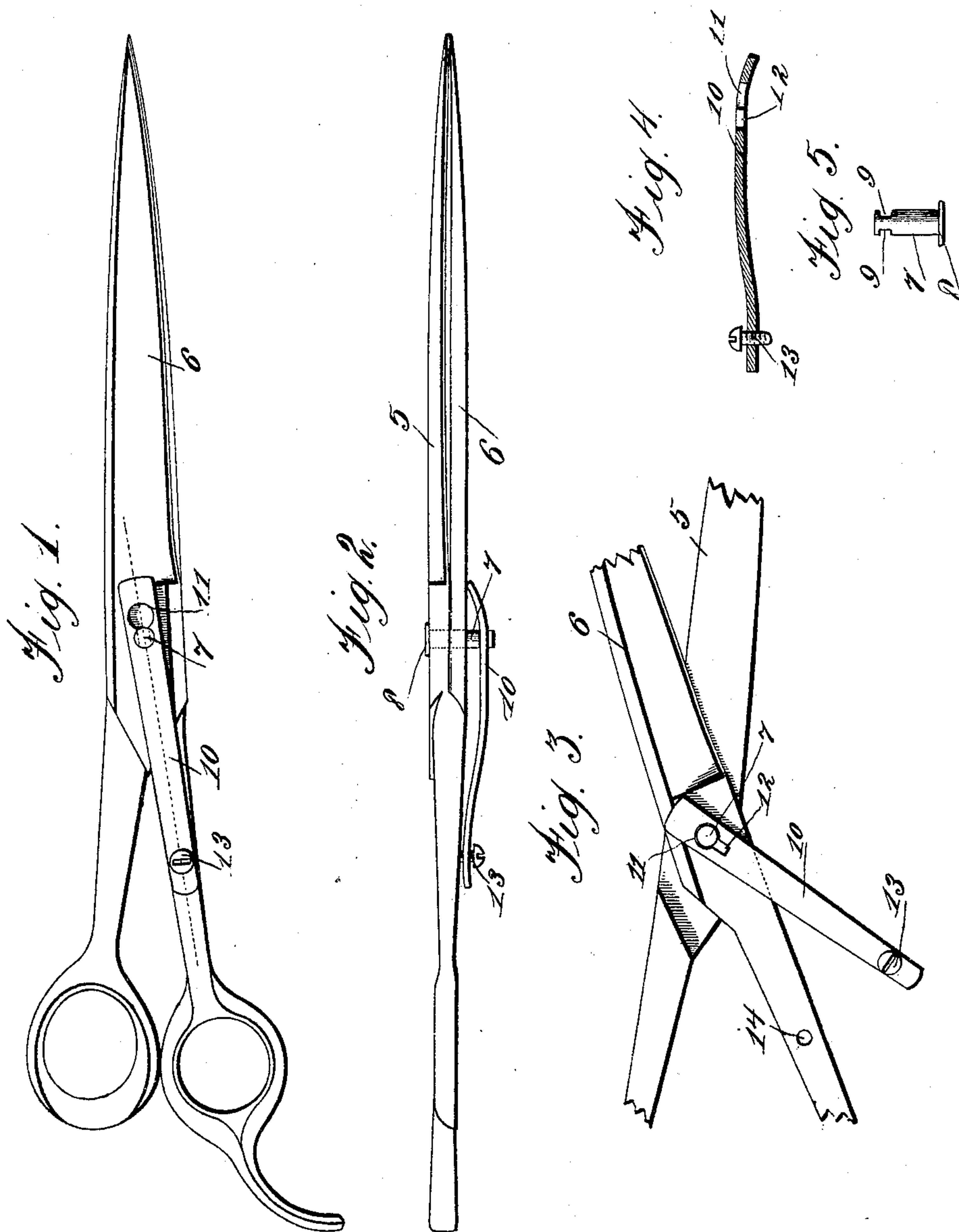


No. 683,105.

Patented Sept. 24, 1901.

P. DESNOYERS.
SHEARS OR SCISSORS.
(Application filed Feb. 13, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

PATRICE DESNOYERS, OF MAGOG, CANADA.

SHEARS OR SCISSORS.

SPECIFICATION forming part of Letters Patent No. 683,105, dated September 24, 1901.

Application filed February 13, 1901. Serial No. 47,111. (No model.)

To all whom it may concern:

Be it known that I, PATRICE DESNOYERS, a subject of the King of Great Britain, residing at Magog, county of Stanstead, Province of Quebec, Canada, have invented certain new and useful Improvements in Shears or Scissors; and I do hereby declare that the following is 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 improvements in shears or scissors especially adapted for use by barbers, although the improvements which I have made can be embodied in the construction of shears and scissors generally, which are available for use in many different arts.

The object of the invention is to provide improved fulcrum means for the shear members which will dispense with the use of a screw or rivet, the latter being objectionable, owing to the tendency of lost motion and the consequent idle play or wobble of the shear members with relation one to the other. My improved fulcrum connection enables the expeditious separation of the shear members for the purpose of cleansing, repairing, or sharpening the same or for the performance of any other useful work thereon. Such connection contemplated by this invention maintains the shear members in the necessary close lateral contact required to secure perfect operation of the shears in the act of cutting hair, &c. Finally, contact of the shear members is susceptible of regulation by effecting a variation in the tension of the pressure-spring.

With these ends in view the invention consists in the novel construction and arrangement of parts, which will be hereinafter fully described and claimed.

In the drawings hereto annexed, forming a part of this specification, Figure 1 is a plan view of a pair of shears embodying my invention. Fig. 2 is an edge elevation thereof. Fig. 3 is a plan view of the shears, partly broken away and representing the pressure-spring shifted to an inoperative position. Fig. 4 is a detail view through the pressure-spring. Fig. 5 is a view in side elevation of the fulcrum-pin.

The same numerals of reference denote like parts in each figure of the drawings.

The shears proper consist of the members 5 6, each having a blade and a handle; but as these parts are ordinary in the art or of any preferred construction I have not considered it necessary to more fully describe the same. As is usual, the members are disposed in crossing lapping relation; but instead of a screw or a rivet to pivotally connect said members together I employ a fulcrum-pin 7, the same having a cylindrical body, which is formed at one end with a flange constituting a head 8, the opposite end of said cylindrical body being provided with notches or grooves 9 in opposite faces thereof. (See Fig. 5.) The fulcrum-pin is fitted snugly in coincident openings provided in the lapping portions of the shear members, the head of said pin bearing against one of the members, while the notched end of the pin extends a suitable distance beyond the other member. (See Fig. 2.)

10 designates the pressure-spring, consisting of a plate of metal bent substantially to the form represented by Figs. 2 and 4, so as to produce a spring of the character known to the art as a "leaf-spring." In this spring, near one end thereof, is formed an opening 11, having an offset or recess 12 of smaller size than said opening, said opening and its offset forming what may be termed a "key-hole-slot" in the spring, substantially as represented by Figs. 3 and 4. In adjusting the spring to release or confine the fulcrum-pin the opening 11 of the keyhole-slot in the spring is adapted to receive the fulcrum-pin, because the latter is of a diameter to easily pass through said hole 11; but when the spring is to be engaged with the fulcrum-pin in a manner to securely retain the latter in the shears this spring is adjusted in an end-wise direction for the notches 9 of the pin to engage with the edges of the offset portion 12 of the spring, as shown by Fig. 1. Said leaf-spring is provided near its opposite end with a tapped opening, into which is screwed the headed regulating-screw 13, the latter remaining attached to the spring and being shiftable therewith. This screw is adapted to have its pointed or rounded end fit into a

socket 14, which is provided in the handle portion of one of the shear members, whereby the screw assists in holding the leaf-spring in position, and it may be adjusted to increase the tension of the spring.

By reference to Fig. 2 it will be observed that the spring has its front end arranged to bear upon the shear member 6, its opposite end is under the control of the adjusting-screw 13, and that it engages at a point intermediate of its length with the fulcrum-pin, whereby the spring is made to exert its tension upon the fulcrum-pin in a manner to pull the latter and make it cooperate with the spring to draw the blades of the shears in lateral contact. To remove the fulcrum-pin and disconnect the shear members, it is necessary to lift the heel of the spring sufficiently to disengage said screw from the socket 14, after which the spring may be shifted around to the position shown by Fig. 3 and to be moved forwardly or in an endwise direction, thereby disengaging the grooved portion of the pin from the offset 12 of the spring. The pin now occupies the opening 11 of the spring, as shown by Fig. 3, and said pin may easily be slipped through the spring and the shear members, thereby releasing all the parts. To connect the parts for operative service, the fulcrum-pin is thrust through the members 5 6 and the opening 11 of the spring, after which the spring is again thrust or drawn in a forward direction, so as to make the grooved part of the pin engage with the offset of the spring. The spring is then shifted edgewise in order to overlap the handle of the member 5, and the set-screw is engaged with the socket. This set-screw may be adjusted to increase the tension of the spring on the fulcrum-pin as desired.

It is to be understood that the adjustment of the shears may be easily and quickly per-

formed without the aid of any tool. The energy of the spring holds the fulcrum-pin and the members together, so as to compensate for wear incident to usage of the shears, the spring taking up all lost motion.

Changes within the scope of the appended claim may be made in the form and proportion of some of the parts while their essential features are retained and the spirit of the invention is embodied. Hence I do not desire to be limited to the precise form of all the parts as shown, reserving the right to vary therefrom.

Having thus described my invention, what I claim as new is—

As a new article of manufacture, shears or scissors comprising suitable members each having a handle, one of said handles being provided with a socket 14, a fulcrum-pin passing loosely through said members and provided at one end with a head 8 that is adapted to engage with one of the members and formed near its other end with notches 9, a leaf-spring having a bowed curvature and provided near one end with a keyhole-slot adapted to receive the notched end of the fulcrum-pin, and a set-screw mounted near the other end portion of said bowed spring and adapted to enter the socket 14, one end of the bowed spring bearing upon one of the shear members and the other end of the spring being adjustably supported by the set-screw, whereby the intermediate portion of the spring is normally bowed outward to maintain the spring in its adjusted position and to draw the fulcrum-pin head against one of the shear members.

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

PATRICE DESNOYERS.

Witnesses:

H. JASMIN,
H. DUPRIES.