

(No Model.)

P. G. CASPIAN.
SHEARS.

No. 502,809.

Patented Aug. 8, 1893.

Fig. 1.

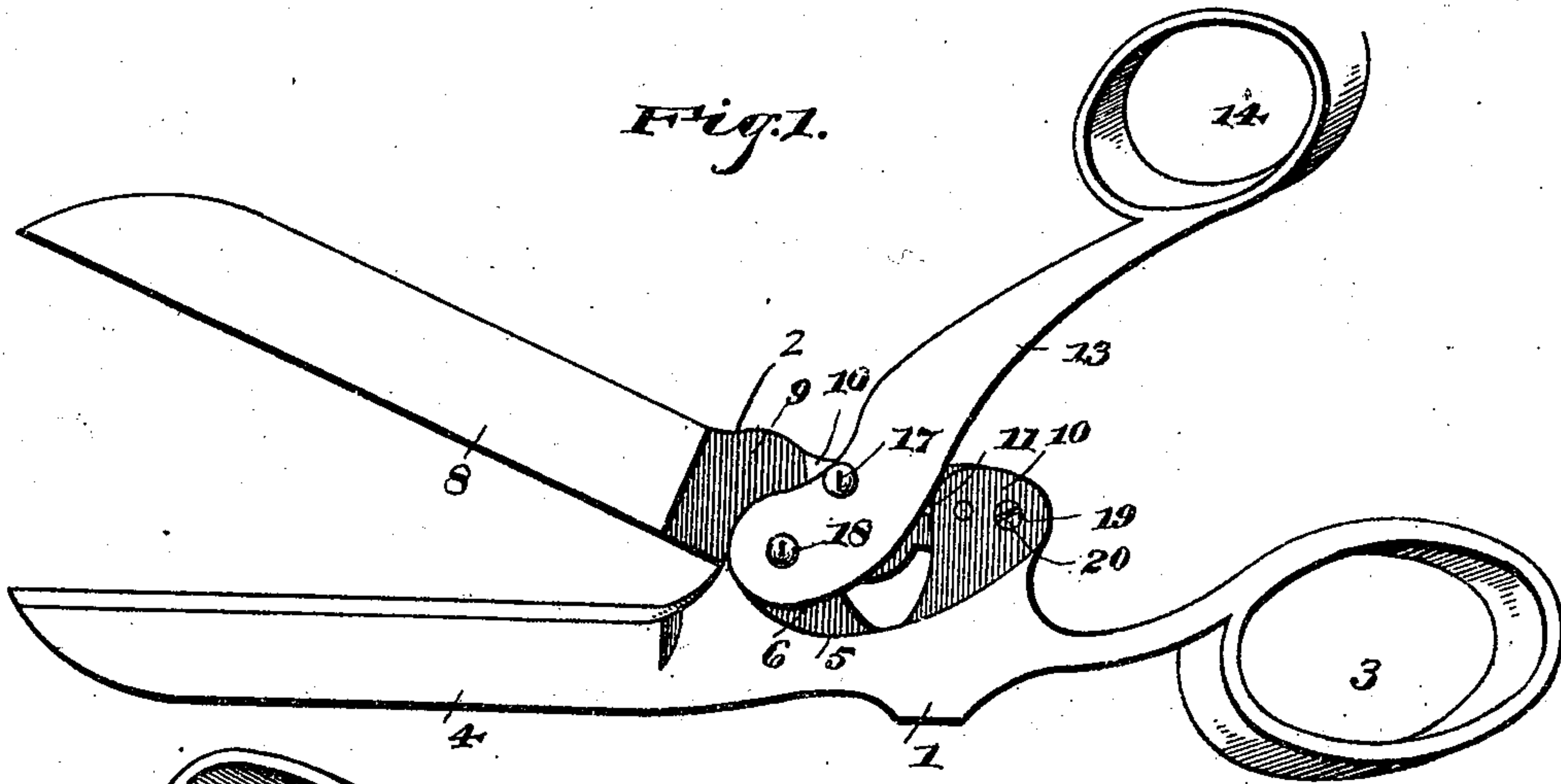


Fig. 2.

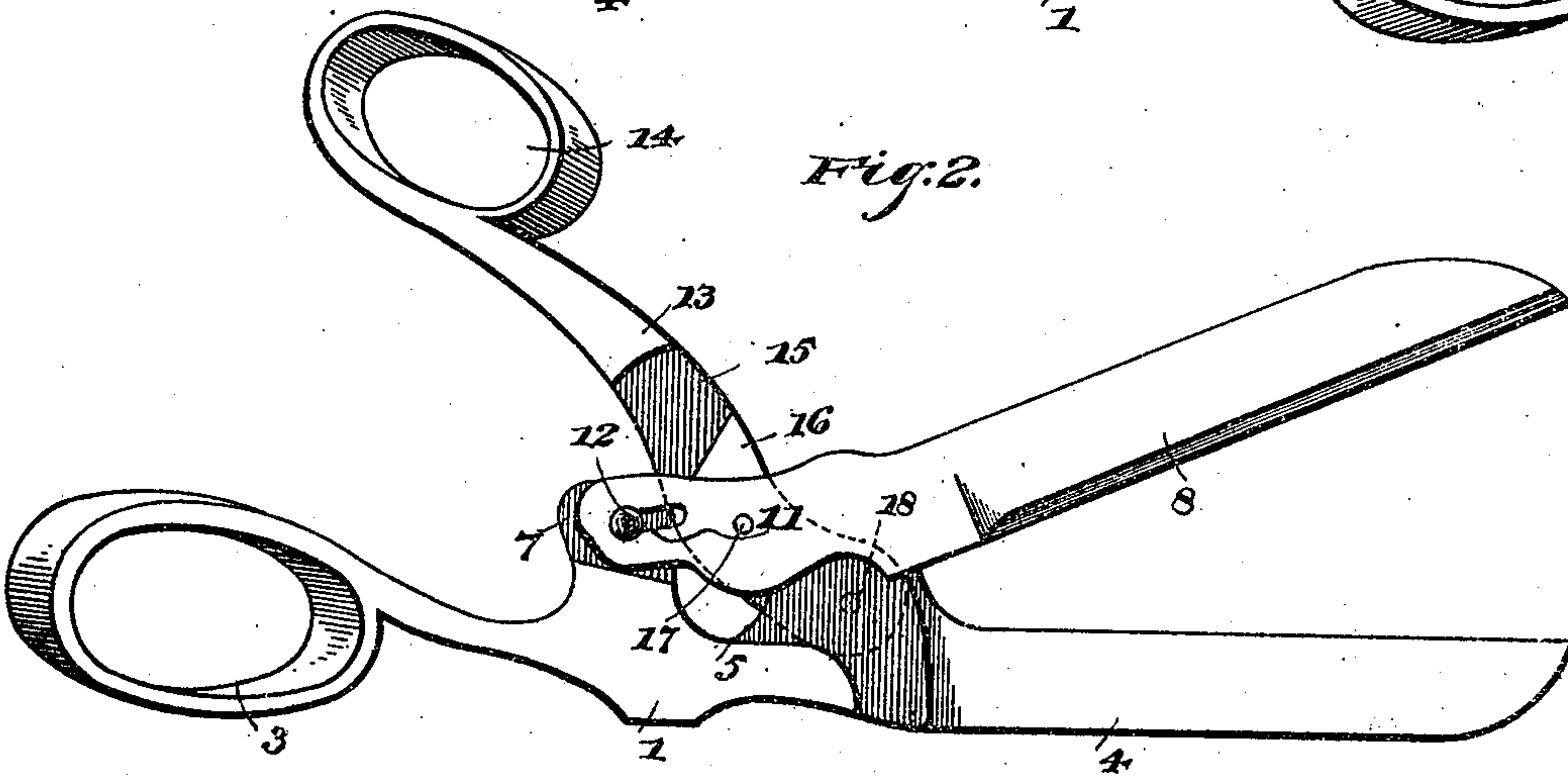


Fig. 3.

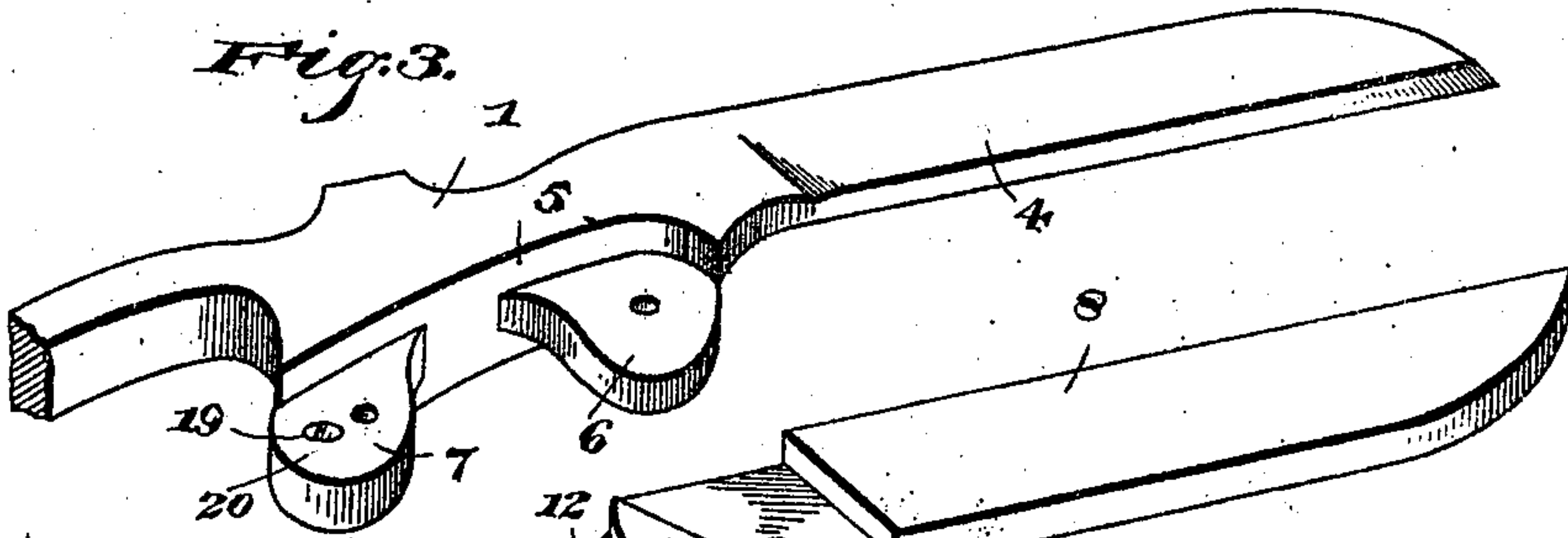


Fig. 5.

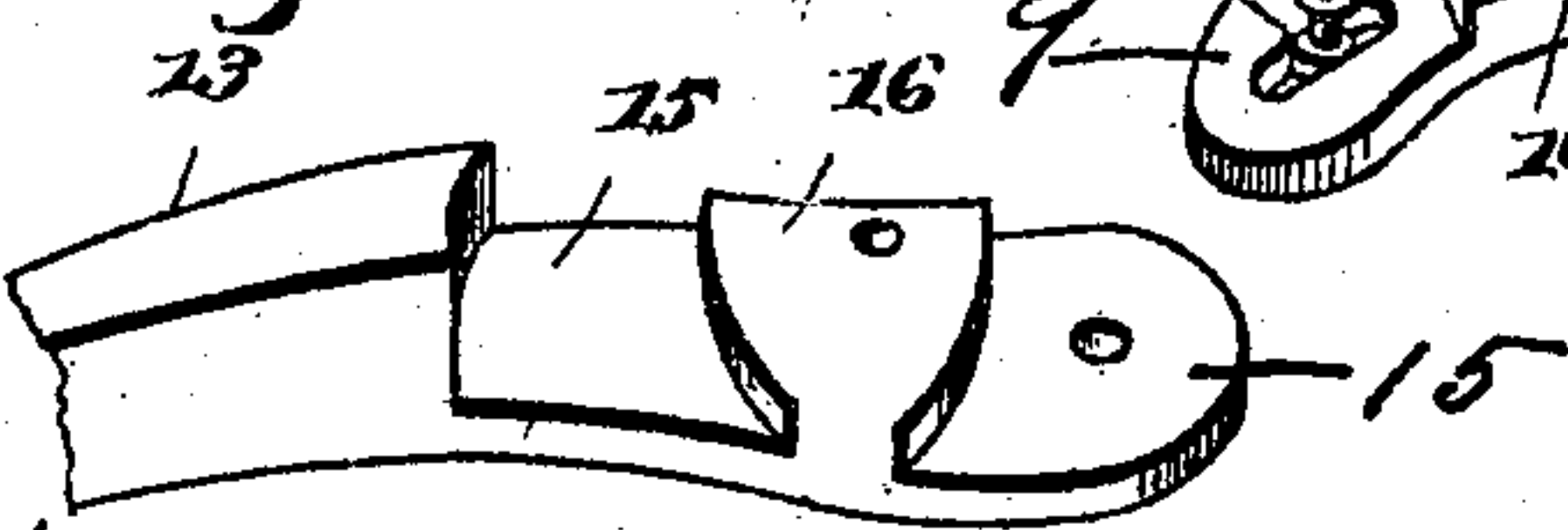


Fig. 4.

Witnesses

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SHEARS.

SPECIFICATION forming part of Letters Patent No. 502,809, dated August 8, 1893.

Application filed February 28, 1893. Serial No. 464,080. (No model.)

To all whom it may concern:

Be it known that I, PASCHAL GREGORY CASPIAN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Shears, of which the following is a specification.

My invention relates to improvements in shears; and the objects in view are to produce a pair of shears so constructed as to facilitate operating the same through cloth or other material, that is to say, adapting them to be operated with greater ease; to so construct them as to provide for a ready adjustment of the blades against each other, whereby they are self-sharpening; to avoid in producing such adjustment a binding of the pivots of the shears, whereby they are not materially obstructed in their pivotal movements; and to so construct the shears that the cutting or movable blade will operate upon the material in a knife-like manner, that is to say, with a draw-cut instead of a shear-cut as has heretofore been the case, whereby the work is drawn into the cutting-point of the shears instead of being forced away from such point by the coming together of the shears.

Other objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claim.

Referring to the drawings:—Figures 1 and 2 are reverse elevations of the shears embodying my invention. Fig. 3 is a detail in perspective of the stationary member. Fig. 4 is a similar view of the blade of the movable member. Fig. 5 is a detail in perspective of the force-arm or lever of the movable member.

Like numerals of reference indicate like parts in all the figures of the drawings.

The shears, as is usual, consist of two members, in this instance one member, the lower one, being designated as 1 and the upper or movable member being designated as 2. The lower member 1 consists of a central body-portion, whose rear extremity is shaped to form a thumb-loop 3, as is usual, and whose front portion is shaped to form a reduced shear-blade 4. The inner face of the body-portion 1 is recessed as indicated at 5, and said body-portion back of said recess is pro-

vided with front and rear lugs 6 and 7, respectively, the latter being slightly above the former. The movable member comprises a movable shear-blade 8 which is located upon the rear or outer side of the lugs 6 and 7 and is recessed near its butt-end and upon its inner face as at 9, to receive the lugs 6 and 7, thus forming an intermediate inwardly-projecting face 10, which takes between the lugs 6 and 7 and is of about half the thickness thereof. The inner extremity of the blade 8 is provided with a curved slot 11, and through this slot extends a headed-pin or screw 12 carrying a loose roller (Fig. 4) whose inner end takes into the rear lug 7 of the body-portion of the lower member.

13 designates the force or lever-arm of the shears, which like the lower member has its rear extremity shaped to form a thumb-loop 14. This force or lever-arm has its rear face recessed as at 15, in a similar manner as the blade 8 is recessed and for a similar purpose, namely, to receive the lugs 6 and 7 of the member 1. By the production of the recesses 15 a central inwardly-projecting face 16 is formed, the same being secured to and corresponding with the face 10 of the movable blade, and these two inwardly-projecting faces which meet and work upon each other between the lugs 6 and 7 are pivotally connected by means of a pivot-screw 17. The front extremity of the force or lever-arm 13 is by means of a pivot-screw 18 connected with the front lug 6 of the lower or stationary member. A countersunk screw-threaded opening 19, is formed in the inner face of the rear lug 7 and in the same a set-screw 20 is seated and mounted for adjustment, the outer end of said set-screw being designed to impinge against the inner face of the inner end of the shear-blade 8 and thus force said inner end an imperceptible degree from the lug 7 and hence its outer end in shearing contact with the cutting-edge of the lower blade 4, whereby the two blades are maintained in operative position to each other and are in a measure self-sharpening.

In operation the blade 4 remains stationary and is slid under the material to be cut and the force or lever-arm 13 is swung upon its pivot 18 by the thumb of the operator. The swinging of this lever or force-arm causes a

corresponding operation or movement upon the part of the blade 8 which, as will be seen, not only swings upon the headed-stud 12 but also reciprocates by reason of the fact that the
 5 blade 8 is eccentrically pivoted to the lever or force-arm with relation to the point of pivot 18 between said lever or force-arm and the lower member. The result is that as before stated the lower blade remains stationary
 10 while the upper blade in addition to its vibratory motion has a rearward reciprocation, that is to say, as the blade 8 closes it likewise moves to the rear so that the front end of its slot 11 is adjacent to the stud 12 and when
 15 opened the rear end of its slot 11 is adjacent to the stud 12. It reciprocates to the rear as closed and to the front as opened thus drawing the material in between the shear-blades and facilitating the cutting.

20 From the foregoing description in connection with the accompanying drawings it will be seen that I have provided shears whose blades may be forced through the material with greater facility than those heretofore
 25 constructed; that I have provided a means for adjusting the blades toward each other whereby they are in a manner self-sharpening, and that I avoid in such means the binding of the members at their pivot-points and
 30 hence do not impede to any material extent the operation of the shears; and furthermore, that the blades operate in a knife-like manner upon the material, that is so as to form a draw-cut in addition to the shear-cut, thus
 35 enabling the operator to cut through thicker or tougher material with less exertion than heretofore.

Having described my invention, what I claim is—

The combination with the lower member 40 consisting of the rear loop 3, the front blade 4, the intermediate body-portion recessed at 5 in its outer face and upon its rear face having the front and rear lugs 6 and 7 respectively, of the movable member consisting of 45 the blade 8 recessed as at 9 to receive the lugs 6 and 7 and provided intermediate said lugs with the projecting face 10, said blade being provided at its rear end with a curved slot 11, the headed-stud 12 extending through the slot 50 from the rear lug 7, the force or lever-arm 13 having a rear loop 14, said lever-arm being provided upon its rear face near its front end with recesses 15, to receive the lugs 6 and 7 and the intermediate face 16 meeting the face 10, 55 and the pivots 17 and 18, the former passed through the force or lever-arm and blade 8 at the meeting faces 10 and 16 thereof, and the latter pin passed through the front lug 6 of the lower member and the front end of the 60 force-arm or lever, the said rear lug 7 having its inner face provided with a countersunk threaded perforation, and a set-screw seated therein and at its outer end bearing against the rear end at the inner face of the movable 65 blade 8, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PASCHAL GREGORY CASPIAN.

Witnesses:

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 CHARLES W. EGGERT.