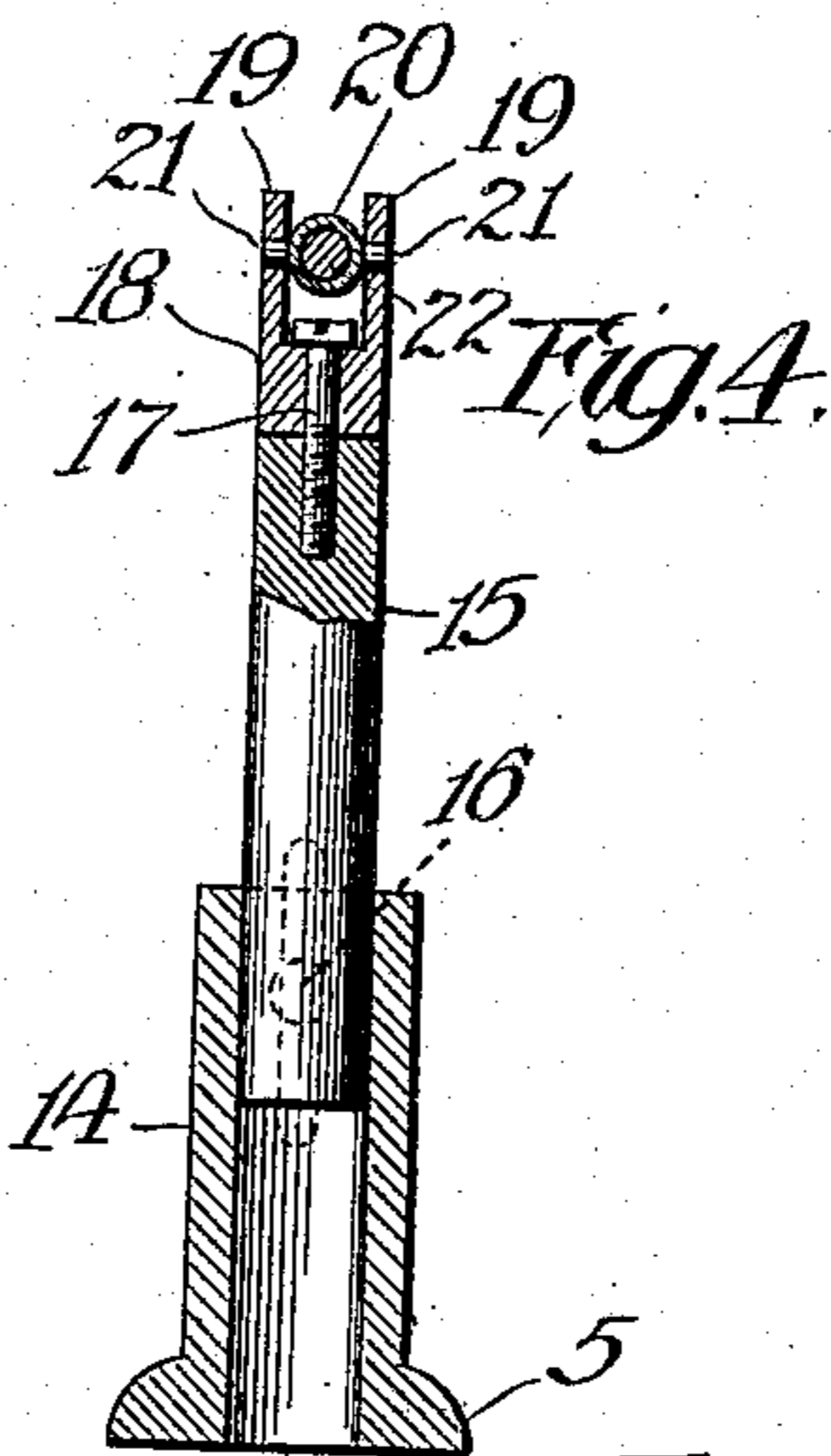
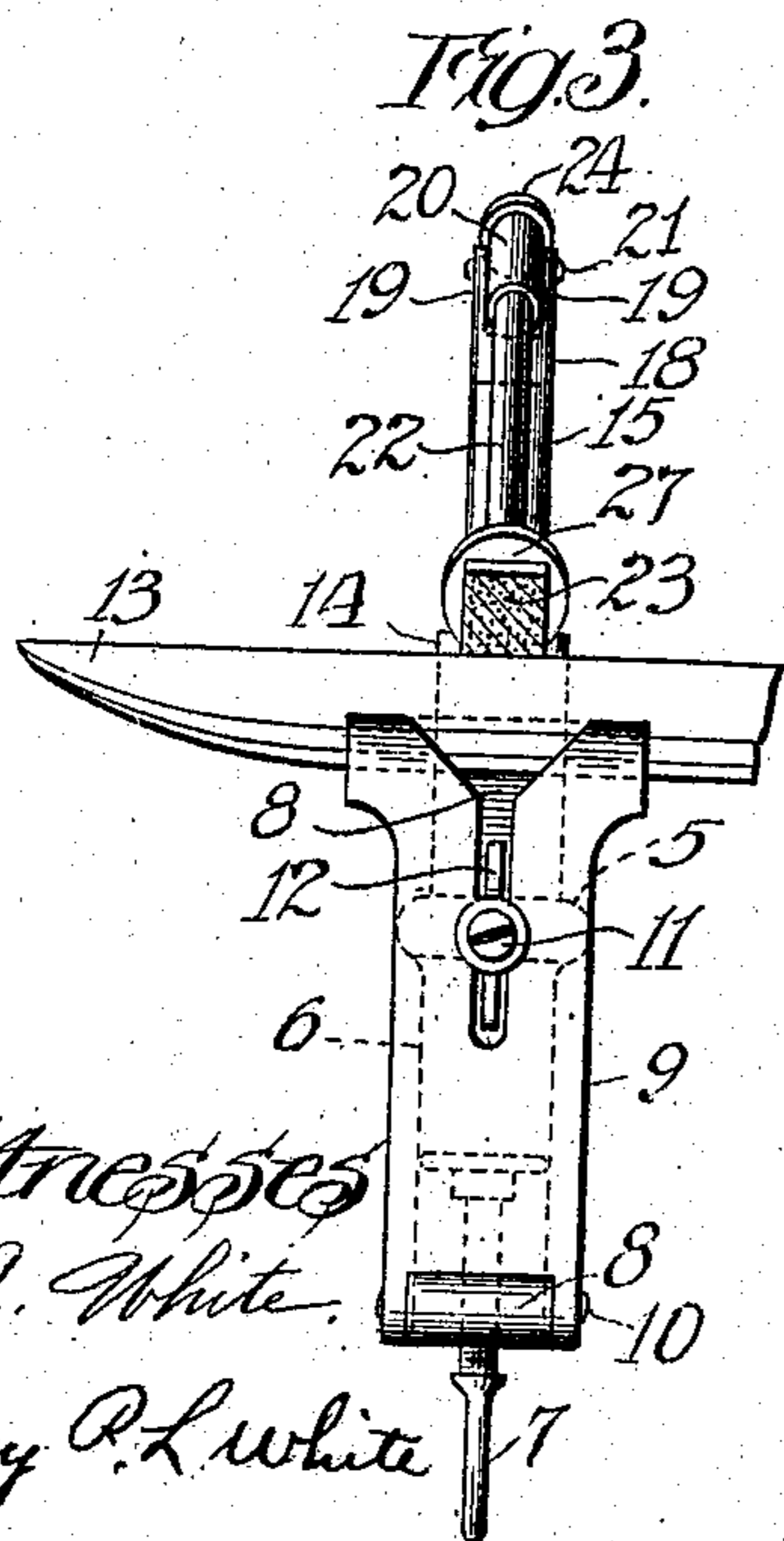
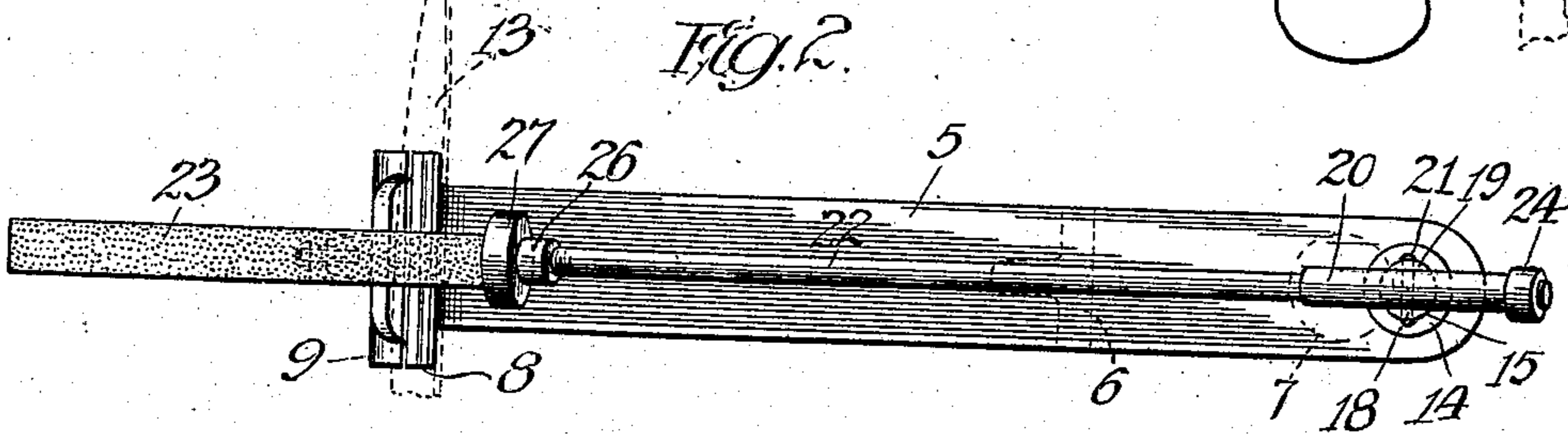
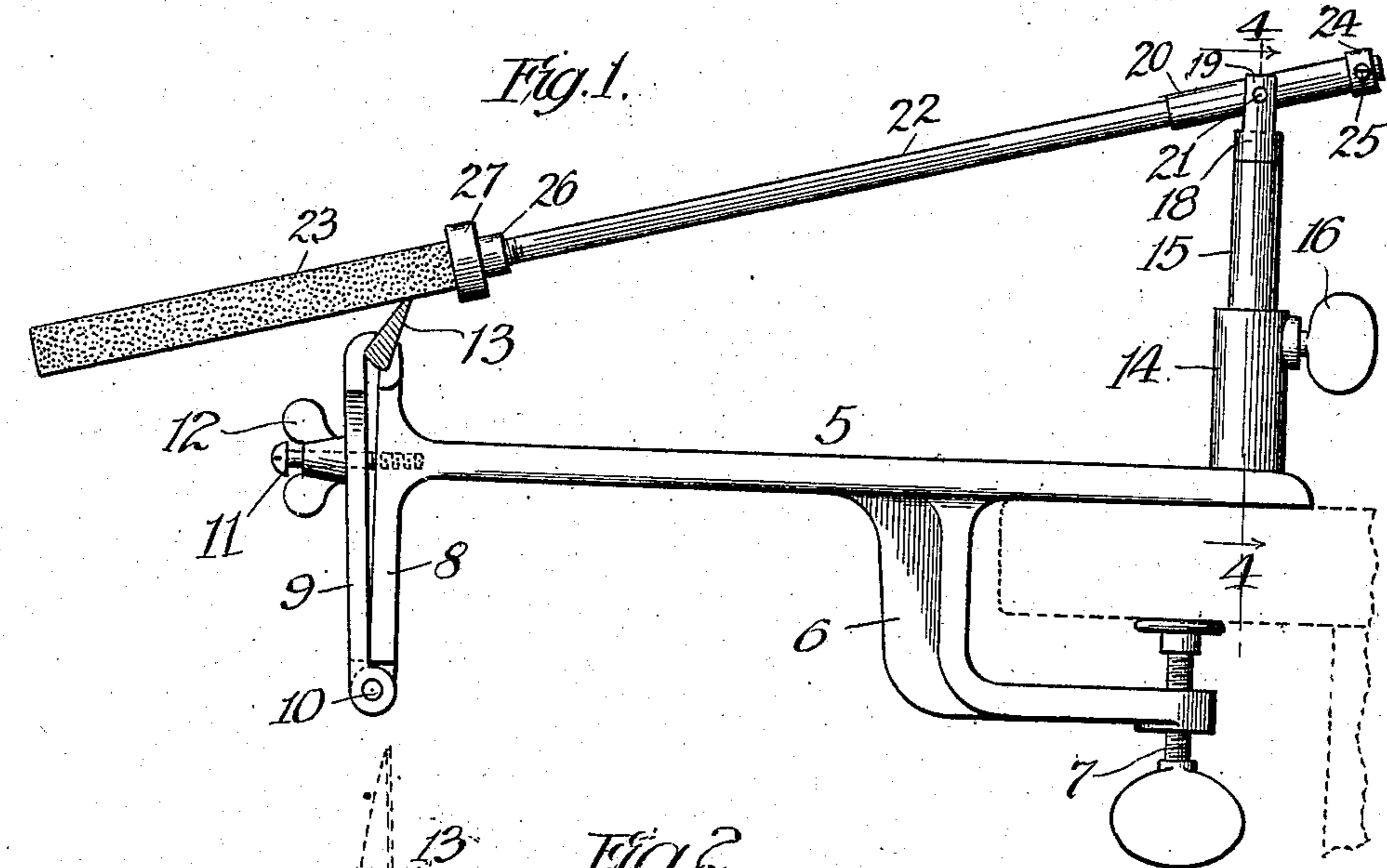


L. M. LARSEN & F. E. NELSON.
SCISSORS SHARPENER.
APPLICATION FILED MAR. 16, 1908.

905,331.

Patented Dec. 1, 1908.



Witnesses
R. A. White.
Harry R. L. White

Inventors
Louis M. Larsen and
Frederick E. Nelson
By Jno. A. Elliott Atty.

UNITED STATES PATENT OFFICE.

LOUIS M. LARSEN, OF CHICAGO, AND FREDRICK E. NELSON, OF ELGIN, ILLINOIS.

SCISSORS-SHARPENER.

No. 905,331.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed March 16, 1908. Serial No. 421,489.

To all whom it may concern:

Be it known that we, LOUIS M. LARSEN and FREDRICK E. NELSON, citizens of the United States, and residents of Chicago and Elgin, respectively, in the counties of Cook and Kane and State of Illinois, have invented certain new and useful Improvements in Scissors-Sharpener, of which the following is a full, clear, and exact specification.

This invention relates to improvements in shear-sharpener provided with a clamp adapted in form to and for holding the shear-blades one at a time in an inclined position relative to a horizontal plane, and in which the sharpening device consists of a stone mounted upon a rod supported guide in such a manner that the stone may be reciprocated across the edge of the shear-blades at a right angle thereto on a fixed line of inclination.

The prime object of our invention is to have the sharpening stone so supported relative to the clamped shear-blade that it may have reciprocation across the edge of the said blade conjointly both longitudinally and transversely thereto, and in such a manner that it may be readily and conveniently operated to cut down and sharpen the blade by a shear-like cut extending at every stroke from end to end of the blade and resulting in a perfect and uniform beveling and sharpening of the blade from end to end, a very difficult operation when the stroke of the cutting stone is limited to a movement at a right angle across the edge of the shear-blade.

A further object of our invention is to clamp the shear-blades in a position which is permanently fixed and to have the cutting stone so supported that it may be adjusted to different angles adapted for sharpening shear-blades the cutting edge of which varying in angle as they frequently do between differing shears.

A further object of our invention is a shear-sharpener which may be removably secured in a fixed position to an edge of an ordinary table in its operative position and of such construction that it may be successfully operated without more than ordinarily common skill on the part of the operator.

With these ends in view, our invention finds embodiment in certain features of novelty in the construction, combination and arrangement of parts, by which the said objects and certain other objects hereinafter

appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings: Figure 1 illustrates a side elevation of the shear-sharpener embodying our invention with the shears and the cutting-stone held and supported in their operative position; Fig. 2 a top plan view of the same; Fig. 3 a front end elevation; and Fig. 4 a vertical section on the line 4—4, of Fig. 1.

5 indicates a bed-plate of the sharpener, which as indicated in Figs. 1 and 2, is an elongated narrow bar having secured to its underside a bent plate 6 forming a bearing for a thumb-screw 7 by which the sharpener structure may be secured to the edge of the board or table, as indicated in dotted lines in Fig. 1 so as to hold the structure firmly in a conveniently operative position.

On the forward and free end of the bar 5 is secured a rigid jaw 8 of a clamp the movable jaw 9 of which is secured to the lower end of the rigid jaw 8 by means of a pivot 10.

In the rigid jaw 8 is secured a screw 11 projected through a slot in the movable jaw and having on its outer end a thumb-nut 12 by which the movable jaw is actuated towards the fixed jaw to clamp between the upper ends of both edges the shear blade 13, the jaws being provided with inner angular faces by means of which the shear-blade is held at an oblique angle with reference to the plane of the jaws and in the best possible position for sharpening the edges to the desired angle which they must have with reference to the opposing faces of the two blades composing the shears.

Rising from the rear end of the bed-plate is a hollow post 14 in which socket is vertically adjustable a rod or bar 15 held in its adjusted position by a thumb-screw 16 passing through the hollow post and impinging against the rod.

Pivoted to the upper end of the rod 15, (see Fig. 4) by means of a screw 17 is a bracket 18 between the arms 19—19 of which is a short tube 20 by means of lugs 21—21 projecting laterally therefrom and bearing any suitable perforations in the arms 19—19. The short tube 20 forms a bearing for the rod 22 which has secured thereto at its forward end a cutting stone 23 the rod being limited in its reciprocation through the tube by a collar 24 secured on the rear end of the

rod by an impinging screw 25, which collar 24 also affords a convenient handhold for the rear end of the rod when reciprocating the cutting stone across the edge of the shears during its sharpening operation.

As shown in the drawings, the forward end of the rod 22 is screw-threaded in the hub 26 of a cap 27 in which the end of the cutting stone is firmly secured so that when the stone is worn out or injured it may be conveniently removed and a fresh one substituted.

The vertical adjustment of the rod 15 provides for adjusting the angle of the cutting face of the stone to the angle which is desired to bevel the shear-blade for sharpening purposes, and which varies in differing makes and sizes of shears and the short tube serves as a bearing providing for not only the reciprocation of a stone at a right angle to the blade, but in conjunction with a bracket for a concurrently lateral movement of the stone, that is to say, a movement longitudinally of the blade being sharpened, and which enables the cutting-stone to be so manipulated by hand that it will operate with a shear cut one stroke of which may carry it along the entire length of the blade.

The maintaining of the shear-blade rigidly and in a fixed position and within the limits of the movement of the cutting stone so supported that it may be operated to produce a shear cut upon a blade being sharpened is an important feature of my invention in that it both quickens the sharpening operation and provides for uniformly sharpening not only one but both blades of a shears with absolute uniformity from end to end of the opposing edges, and this particularly in the hands of operators having no particular skill in the handling of sharpening implements and for which my invention is particularly designed.

When the blade to be sharpened is clamped in its operative position the cutting-stone adjusted to the angle of the cutting-blade, or to some other angle it may be desirable for it to have the operator by taking hold of the collar or hand-rod with the hand towards its rear end and the free end of the stone with the other hand, and when so held guiding the stone can hardly fail with the most ordinary care and watchfulness to uniformly sharpen the shear-blade from end to end, and bring it to a perfectly sharp edge, and if he should wish, after once adjusting the cutting stone to the desired angle, to change the angularity of the then predetermined bevel the cutting-blade shall be sharpened until he has loosened the thumb-screw 16, and furthermore, the stone is so completely under the control of his hands that it does not require even visual inspection to determine when the cutting edge of the blade may be in one place more than another be-

sides the compound reciprocatory vibrating movement of the stone which is provided for and by which uniformity in sharpness of the shear blade from end to end is made is a much easier and more natural movement than if the stone was confined to either one of these movements to the exclusion of the other.

In conclusion it should be observed that the sharpening structure as a whole is cheaper and more durable of construction and contains no parts that are liable to get out of order or worn to a degree reducing the efficiency of the structure even after the stone has been used for a very long time, and that it is readily attachable for operative purposes to the projecting edge of any ordinary table or the side or arm of a chair.

Having described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. A shear-sharpener, comprising in combination a fixed supporting holder for the blade to be sharpened, a cutting stone and means for supporting the same at one end whereby the face of said stone may be inclined to correspond with the cutting edge of the shear-blade and be moved across the edge thereof so as to produce a shearing cut upon the edge of the said blade, substantially as described.

2. A shear-sharpener, comprising in combination a holder for the shears, means for maintaining said holder rigidly in its operative position, a cutting stone, a rod secured to one end thereof and a swivel supporting said rod whereby the cutting stone may be simultaneously reciprocated both laterally and longitudinally when the cutting face thereof is held at an angle corresponding with the cutting edge of the blade to be sharpened, substantially as described.

3. A shear-sharpener, comprising in combination a rigid holder adapted to hold a shear-blade fixed and in an inclined position relative to a horizontal plane, a cutting stone, a rod secured at one end of said stone, means for adjusting said rod and stone to varying angles of inclination and means whereby the cutting face of the stone may simultaneously have a reciprocation both longitudinally and transversely of the cutting edge of the blade to be sharpened, substantially as described.

4. A shear-sharpener, comprising in combination a holder adapted to clamp and hold the blade to be sharpened at a fixed inclination relative to a horizontal plane, a cutting stone, a rod secured to one end of said stone, a tube forming a bearing and guide for said rod, a bracket, a pivotal connection between said bracket and tube, the axis of which tube and bracket are at a right angle, substantially as described.

5. A shear-sharpener, comprising in com-

5 bination a bed-plate, means for removably
securing the same to a fixed support there-
for, a rigid jaw at one end of said plate, a
movable jaw pivoted thereto and adapted to
10 hold and support the blade to be sharpened
at an inclined angle relative to said jaws, a
hollow post at the opposite end of said bed-
plate, a bar vertically adjustable therein, a
bracket pivoted to the upper end of said bar,
10 a tube pivoted in said bracket at a right
angle to the axes thereof, a cutting stone, a

rod secured to one end of said stone and
bearing towards its opposite end in said
tube, substantially as described.

In witness whereof, we have hereunto set 15
our hands and affixed our seals, this seventh
day of March A. D. 1908.

LOUIS M. LARSEN. [L. S.]
FREDRICK E. NELSON. [L. S.]

Witnesses:

JNO. G. ELLIOTT,
M. G. FITZSIMMONS.