No. 816,662. PATENTED APR. 3, 1906.

J. C. JEFFREY.

SHEAR SHARPENER.

APPLICATION FILED MAY 15, 1905.

2 SHEETS—SHEET 1.

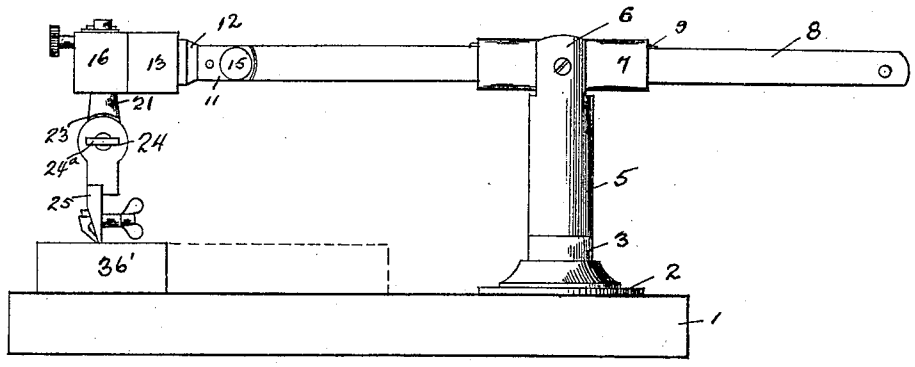

FIG. 1.

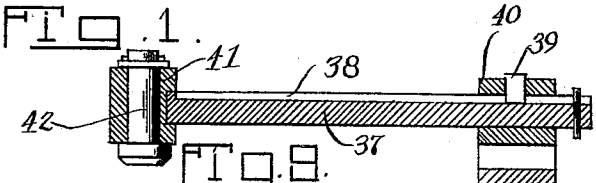

FIG. 4.

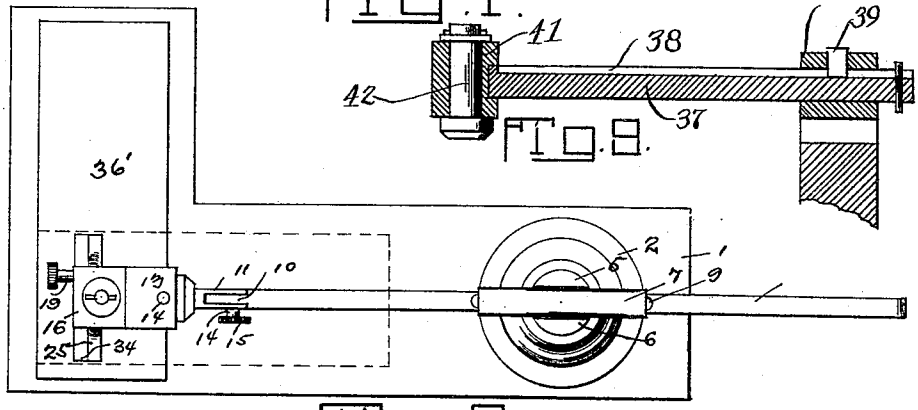

FIG. 2.

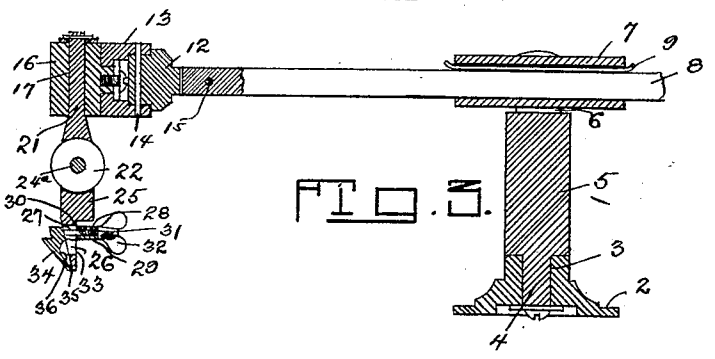

FIG. 3.

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2 SHEETS—SHEET 2.

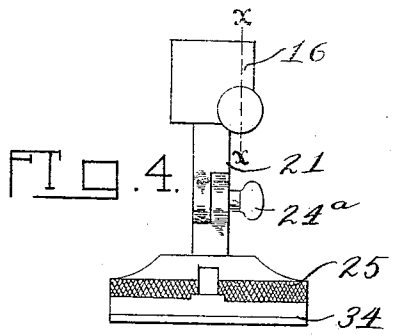

FIG. 4.

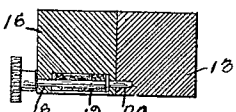

FIG. 5.

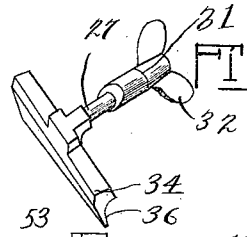

FIG. 6.

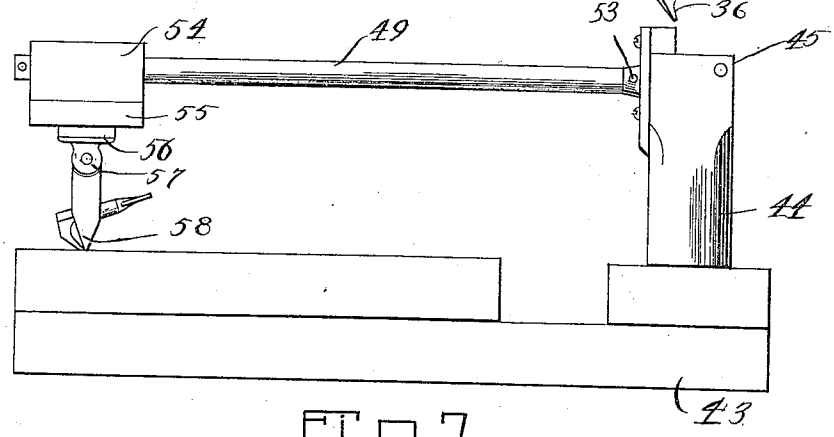

FIG. 7

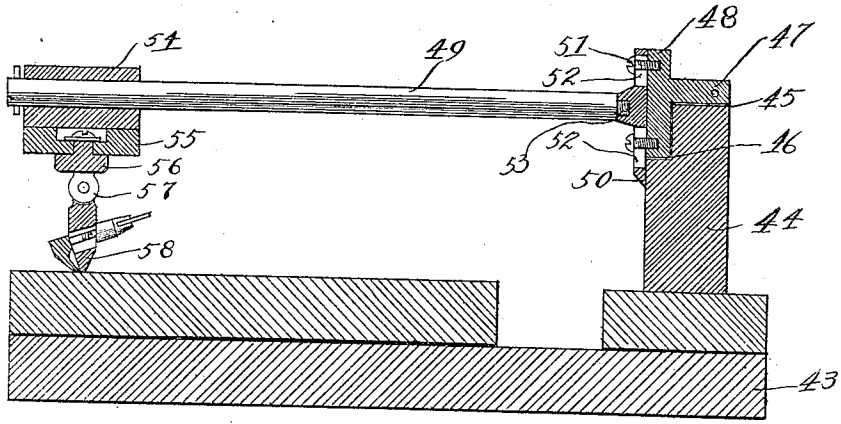

FIG. 8.

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UNITED STATES PATENT OFFICE.

JAMES C. JEFFREY, OF BEAUMONT, TEXAS.

SHEAR-SHARPENER.

No. 816,662. Specification of Letters Patent. Patented April 3, 1906.

Application filed May 15, 1905. Serial No. 260,458.

To all whom it may concern:

Be it known that I, JAMES C. JEFFREY, a citizen of the United States, residing at Beaumont, in the county of Jefferson and State of Texas, have invented certain new and useful Improvements in Shear-Sharpeners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in shear-sharpeners, and has special reference to a new and novel construction by which shears are quickly and properly sharpened, as I provide a means whereby a shear is held at the proper bevel while being moved over an oilstone or the like.

To this end my invention consists of a pivotally-mounted adjustable member carrying at one end a shear or scissor holder, which is also adjustably mounted, so as to present the cutting edge of the shear at the proper bevel to the grinding-stone, thus providing a means which properly sharpens the entire blade from one end to the other and which provides for the slight curvature of all shears or scissors, so that the proper sharpened edge is provided throughout its length.

In the accompanying drawings, Figure 1 is a side elevation of the complete machine. Fig. 2 is a top plan view thereof. Fig. 3 is a sectional view taken through the support, base, and the holding mechanism. Fig. 4 is an end view of the bar or arm 8 with one of the clamping-arms in position. Fig. 5 is a cross-section on line X X of Fig. 4. Fig. 6 is a detail perspective view of one of the shear-clamping jaws. Fig. 7 is a side elevation of a modified form, and Fig. 8 is a longitudinal sectional view thereof. Fig. 9 is a view of another modified form of my invention.

Referring to the drawings, the numeral 1 designates the base, which is made substantially L-shaped in elevation and has mounted upon the upper face thereof near one end the circular plate 2, provided with the socket or casing 3 for the reception of the end 4 of the pivotal standard or support 5. This standard or support is provided with the upper bifurcated or slotted end 6, in which is pivotally mounted a rectangular sleeve or casing 7. Slidably mounted within this sleeve or casing is the bar or arm 8, which is held in the proper adjustment within the sleeve by means of the flat spring 9. This flat spring, however, is of such a tension as to allow the arm or support to be readily moved within the sleeve, but yet of sufficient tension to hold it at the adjusted position while operating the device. The outer end of this arm is reduced, as at 10, and is adapted to fit in the slotted or bifurcated end 11 of the projection 12 of the head 13, the said head being pivoted, by means of the pin 14, to the arm, the purpose of which will presently appear. In order to hold the parts so that the projection will be a continuation of the arm, I employ the set-screw 15, which passes through the projection and the reduced end of the arm. Pivotally arranged to the outer end of the head 13 is the block 16, which is provided with the vertical channel or opening 17 therethrough, the said block being provided with a small opening 18, in which is mounted the spring-actuated pin or bolt 19, which is adapted to project beyond the inner face and enter the socket 20 formed in the outer face of the block 16, and thus hold the block against any pivotal or rotary movement.

Arranged within the vertical channel or opening of the rectangular block is a cylindrical pin 21, whose lower end is formed with the circular disk 22 and the curved abutting shoulder 23, the circular disk 24 being adapted to aline with the circular disk 22 and have its periphery engage the circular shoulder, an adjustable set-screw being adapted to secure the disks together, so that the stationary jaw 25 will be so mounted as to be swung inward or outward toward or from the support. The stationary jaw is provided with a rectangular elongated slot 26, through which is adapted to pass the rectangular pin 27, which terminates in the reduced threaded portion 28 and has surrounding it the washer or sleeve 29, which is provided with the inner inclined surface 30 and the outer flat surface 31, the outer surface being adapted to be engaged by the thumb-nut 32, so that the washer or sleeve will be clamped securely against the inner face 33 of the stationary jaw and hold the movable jaw 34 carried by the rectangular pin in its adjusted position with relation to the stationary jaw. The outer face 35 of the stationary jaw is milled and at an incline, while the inner face 36 of the movable jaw is recessed so as to receive the outer surface of the scissor or shear blade and clamp the inner surface against the milled surface of the stationary jaw. Mounted upon the base and adapted to be contacted by the scissor or shear blade as it is reciprocated across the

base is the stone or proper polishing-surface 36', this stone being adapted to be placed in the position either lengthwise or crosswise of the base, as may be desired.

As shown in Fig. 9, the bar or arm 37 instead of being rectangular in cross-section is circular and is provided with a longitudinal groove 38, which is adapted to have the rectangular pin 39 pass through the sleeve or casing 40 into the groove to prevent the arm from turning, but allow it to slide. A stationary head 41 is employed in which is mounted the vertical shaft 42, which carries the shear-carrying clamp of the construction used in Fig. 1.

In Figs. 7 and 8 of the drawings a simple form of sharpener is employed, and though employing the same principle as the form above described is much simpler in construction. It consists of the base 43, having the pivoted standard or support 44, provided with the bifurcated upper end 45 and the elongated slot or recess 46. Pivoted in the bifurcated end 45 is the lug 47, which is integral with the plate 48, the lower end of which fits in the socket or recess 46, while the arm 49 is carried by the adjustable plate-support 50, which is connected to the plate 48 by means of the screw 51, the said support 50 being provided with elongated openings 52, through which the screws pass. The arm is held against turning by means of a pin 53 or any well-known means. Slidably mounted upon this arm, which may either be circular or rectangular in cross-section, is a block 54, carrying a depending plate 55, in which is pivotally mounted the stem 56, carrying the knuckle-joint 57, to which is connected the shear-holding clamp 58, which is similar to the clamp above described.

From the foregoing description, taken in connection with the drawings, it is evident that with this machine every conceivable adjustment desired in sharpening shears or scissors is produced, and by means of the sliding and pivotally-mounted support the adjustable means for holding the shears or scissors can be placed at any angle with relation to the grinding-surface and be reciprocated in any motion to produce the desired sharpened surface. The scissor or shear blade can be either moved across the stone from side to side or be given a rotary motion thereon, so that the proper cutting edge is produced. If it should be desired to examine the blade while sharpening, it is simply necessary to release the spring from the ratchet-pin and revolve the rectangular block, so that the shear or scissor blade is presented upwardly, with the blade part toward the operator, after which it is simply necessary to revolve the block, and when the spring-actuated pin is in alinement with the opening in the shoulder-head of the block it will automatically lock the parts in the position. By means of the adjustable connection of the head and sliding support or arm any incline may be given the head, thus assisting the swivel connection between the clamping-jaws in presenting the blade at the proper angle to the grinding-surface. From the foregoing it is evident that I provide a new and novel construction of shear or scissor sharpener with means by which the varied-shaped cutting edges may be given to the same and whereby the parts are at all times in a position to be readily accessible to the operator, so that each point of the operation is directly under the control of the operator.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, an arm carried in the upper end of said support, and a pair of clamping-jaws adjustably and revolubly mounted in the outer end of said arm.

2. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, an arm pivotally mounted in the upper end of said support, and a pair of clamping-jaws adjustably and revolubly mounted in the outer end of said arm.

3. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, an arm slidingly mounted in the upper end of said support, and a pair of clamping-jaws adjustably and revolubly mounted in the outer end of said arm.

4. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, a slidingly and pivotally mounted arm carried in the upper end of said support, and a pair of clamping-jaws carried upon the outer end of said arm.

5. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, a slidingly and pivotally mounted arm carried in the upper end of said support, and a pair of clamping-jaws rotatably and adjustably carried upon the outer end of said arm, for the purpose set forth.

6. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, a pivoted casing or sleeve carried in the upper end of said support, an arm slidably mounted in said sleeve or casing and adjustable means for carrying a blade above the grinding-surface connected to one end of the arm.

7. In a device of this character, the combination of a base, a grinding-surface carried thereby, a pivotally-mounted support carried by the base, a pivoted casing or sleeve

carried in the upper end of said support, an arm slidably mounted in said sleeve or casing, a rotatable block carried by one end of said arm, and an adjustable blade-clamping device carried by said rotatable block.

8. In a device of this character, the combination of a base, a grinding-surface mounted upon said base, a pivotal support carried by the base, a pivotally and slidingly mounted arm carried by said support, a rotatable block carried by one end of said arm, a pin pivotally mounted within said block, and a clamp pivotally and adjustably connected to said pin adapted to carry a blade.

9. In a device of this character, the combination of a base, a grinding-surface mounted upon said base, a pivotal support carried by the base, a pivotally and slidingly mounted arm carried by said support, a rotatable block carried by one end of said arm, a pin pivotally mounted within said block, a stationary jaw pivotally connected to said pin, and an adjustable jaw carried by said stationary jaw.

10. In a device of this character, the combination of a base, a grinding-surface mounted upon said base, a pivotal support carried by the base, a pivotally and slidingly mounted arm carried by said support, a rotatable block carried by one end of said arm, a pin pivotally mounted within said block, a stationary jaw pivotally connected to said pin, an adjustable jaw carried by said stationary jaw, and means for adjusting said jaws whereby their surfaces will be at different angles to each other.

11. In a shear-sharpener, the combination of a base, a pivoted support mounted thereon, means for carrying the blade to be sharpened, and pivotally-mounted means carrying said blade-carrying means.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. JEFFREY.

Witnesses:
R. A. McREYNOLDS,
JNO. F. McDONALD.