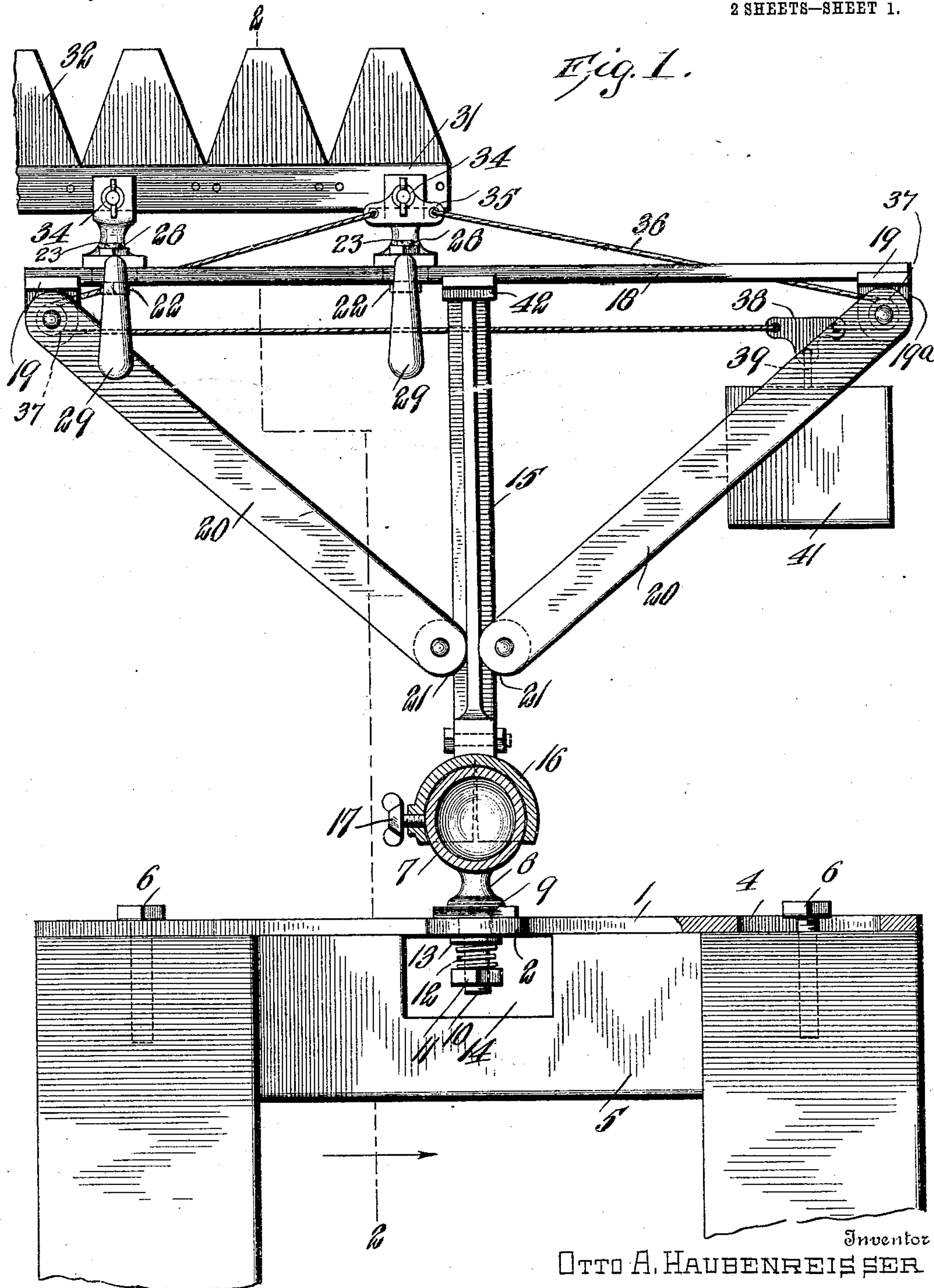


O. A. HAUBENREISSER.
SICKLE SHARPENER.
APPLICATION FILED APR. 10, 1909.

930,284.

Patented Aug. 3, 1909.
2 SHEETS—SHEET 1.



Inventor
OTTO A. HAUBENREISSER

Witnesses
E. J. Gallagher
A. E. T. J. J.

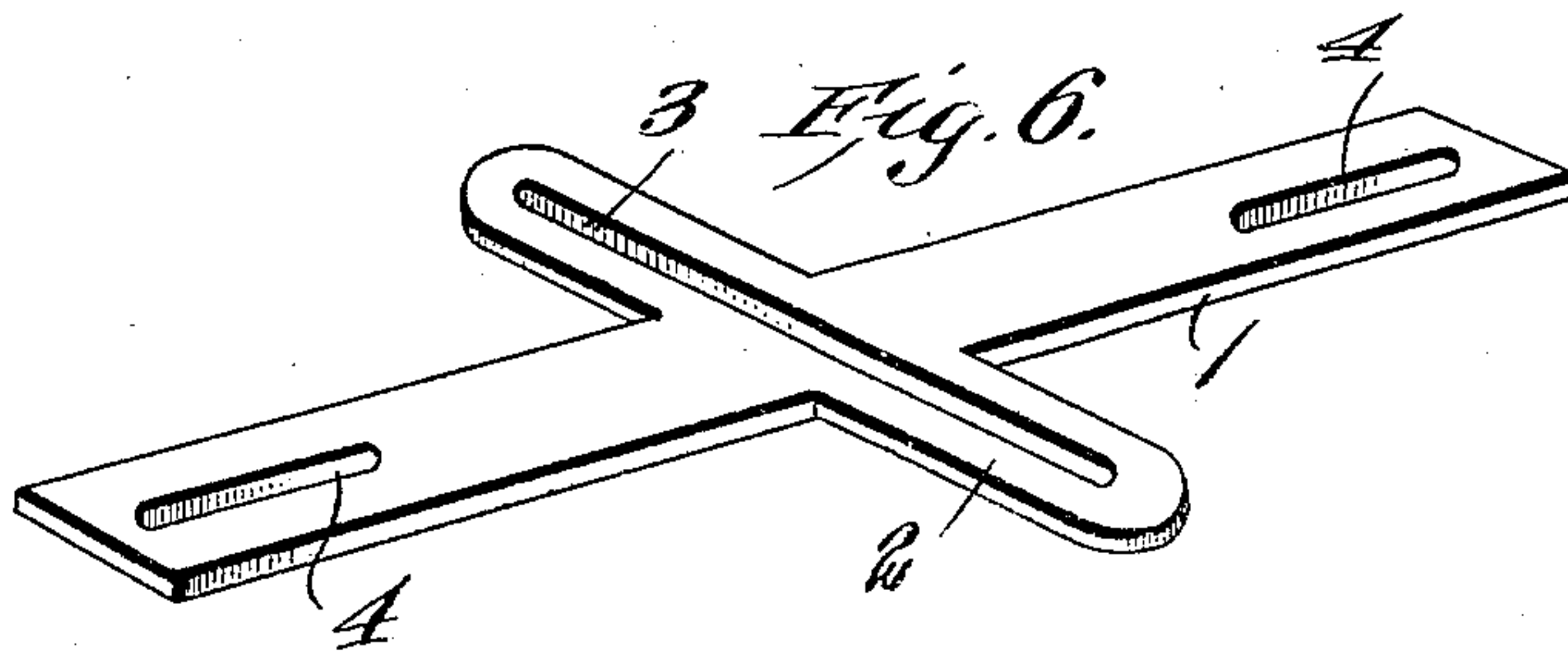
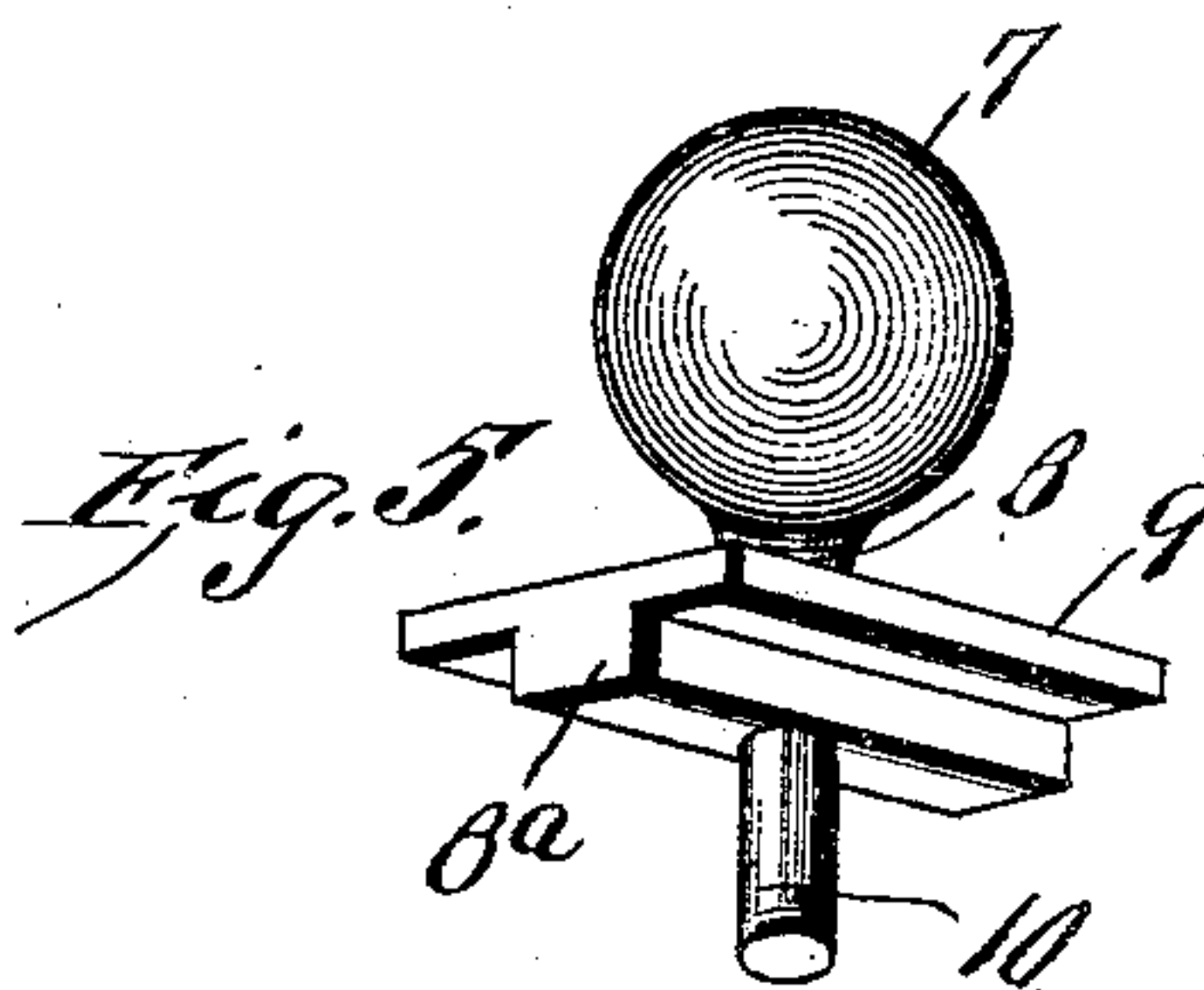
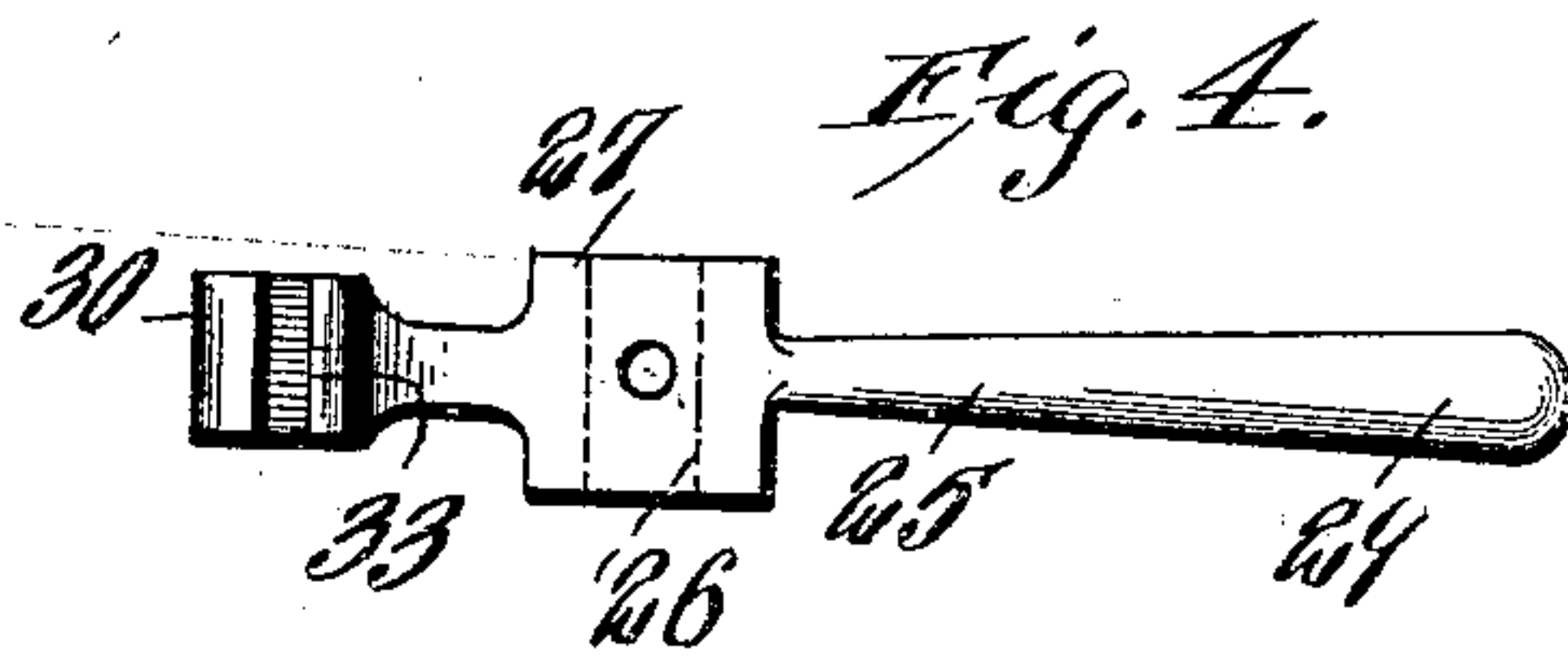
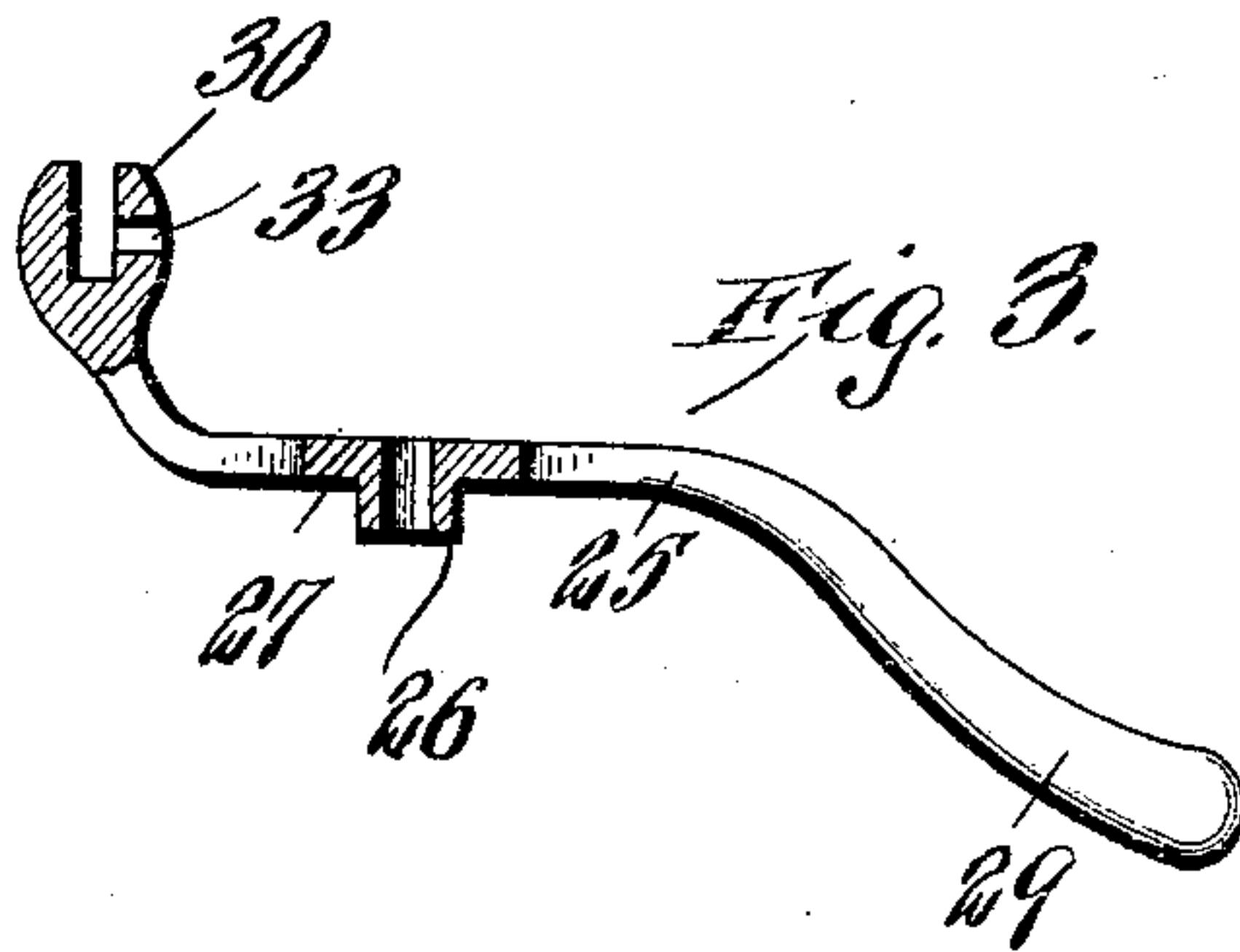
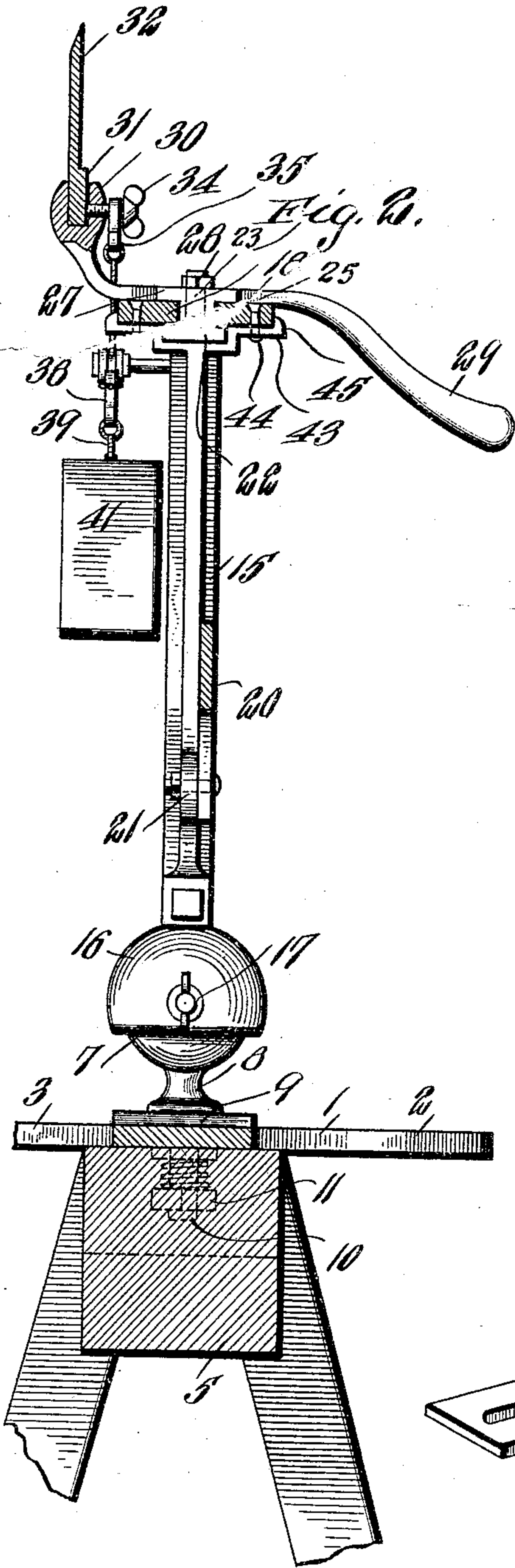
By *Munn & Co.*

Attorneys

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Witnesses
E. M. Callaghan
A. G. Truett

Inventor
OTTO A. HAUBENREISSER

By *Munn & Co*

Attorneys

UNITED STATES PATENT OFFICE.

OTTO ALBIN HAUBENREISSER, OF LITTLE ROCK, ARKANSAS.

SICKLE-SHARPENER.

No. 930,284.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed April 10, 1909. Serial No. 489,180.

To all whom it may concern:

Be it known that I, OTTO ALBIN HAUBENREISSER, a citizen of the United States, and a resident of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Sickle-Sharpener, of which the following is a specification.

My invention is an improvement in sickle sharpeners, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof: Figure 1 is a plan view of the improvement; Fig. 2 is a section on the line 2—2, looking in the direction of the arrow; Fig. 3 is a side view of one of the holders partly in section; Fig. 4 is a plan view of the same; Fig. 5 is a perspective view of the ball mounting; and Fig. 6 is a similar view of the base plate upon which the device is mounted.

The present embodiment of the invention comprises a base plate 1, provided with a cross arm 2, having a longitudinal slot 3, the ends of the plate being also slotted, as at 4, and the plate is secured to a suitable support 5 by means of lag screws 6, passing through the slots 4, and entering the support.

A hollow ball 7 is connected by a neck 8 with a block 8^a, which is received and is slidable in the slot of the cross arm, the block having flanges 9 which rest upon the arm, and a threaded stem 10, which extends below the plate and is engaged by a nut 11. A spring 12 is interposed between the nut and a washer 13 slidable on the stem and resting against the plate. As shown in Figs. 1 and 2, the support is provided with a recess 14 for receiving the stem. An arm 15 is provided with a socket 16, receiving the ball, and retained in adjusted position thereon by a set-screw 17 threaded through the socket and engaging the ball. At its outer end the arm is provided with a transverse longitudinally slotted guideway 18, each of whose ends is provided with a bracket 19 having a lug 19^a, to which is pivoted one end of a link 20, whose other end is pivoted to a lug 21 on the arm 15. A plurality of arms 25 is mounted on the guideway, each being provided near its center with a transverse slide 26 engaging the slot of the guideway, and having lateral flanges 27 on each side engaging the upper face of the guideway, and the block is per-

forated to receive a bolt 23 whose head 22 engages below the guideway, the bolt being engaged by a nut 28 to retain the parts in position. The arms 25 are each provided with a handle portion 29, and a pair of spaced jaws 30, for receiving the sickle bar 31, whose blades 32 are to be sharpened, and one of the jaws is perforated, as at 33, for engagement by a set-screw 34, which engages the bar to retain it in place. One of the arms is provided adjacent to the jaws with lateral ears 35, which are perforated to receive the ends of a rope or other flexible strand 36. The rope 36 passes over a pulley 37 at each end of the guideway, and a plate 38 is interposed in its length, the plate having ears for engagement by the rope and an ear 39 for receiving a hook or eye 40 on a weight 41.

The brackets 19, and the central bracket 42 which connects the arm 15 with the guideway, are of the shape shown more particularly in Fig. 2, each comprising a channeled body portion and lateral wings 43 connected to the guideway by rivets 44, and having at their outer ends lugs 45 engaging the edge of the guideway.

The support 5 will ordinarily be the support of a grindstone, and the stone will be arranged at right angles to the guideway when it is in the position shown in Fig. 1. With the stone in such position, the bar is inserted in the jaws and clamped in position by the set-screws 34, and the set-screw 17 is loosened to permit the blades to be lowered onto the stone. The stone is turned and as the separate blades are sharpened the bar is moved transversely of the stone by means of the handles 29, by means of which the blades are also held against the stone, and the guideway is given the proper angle to engage the cutting edge of the blade with the stone.

The ball and socket connection is a universal joint, and permits the guideway to take any position with respect thereto. When the guideway is adjusted to properly grind the edge of one blade, it may be locked in this position by the set-screw 17, which will insure each blade meeting the stone at the same angle. When one side of each blade is ground, the guideway is adjusted for the other edge and the process is repeated. The weight equalizes the weight of the sickle bar, so that the handles are easily moved from end to end of the guideway,

and the arm may be adjusted transversely of the stone by loosening the lag screws 6, and sliding the base plate to either side. The yielding connection of the ball with the base plate prevents undue strain on the arm from inequalities of the stone.

The arm 15 and the stem 8 form together a supporting arm whose sections are connected by a universal joint, the one section being adjustably and yieldingly connected with the base, and the other having the sickle bar supporting means connected therewith.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the class described, comprising a base plate having a transverse slot and provided with means whereby it may be secured to a support, a ball provided with a stem engaging the slot, and with a shoulder resting upon the face of the plate, a nut on the stem, and a spring interposed between the plate and the nut, an arm provided at one end with a socket receiving the ball, a set-screw traversing the socket and engaging the ball, a transverse guideway at the other end of the arm, a pulley at each end of the guideway, a plurality of slides movable in the guideway, an arm in connection with each slide, and having at one end a handle portion and at the other a pair of jaws for receiving a sickle bar, means for securing the bar in the jaws, a cable passing over the pulley and having its ends secured to one of the slides, and a weight interposed in the cable.

2. A device of the class described, comprising a base plate provided with means whereby it may be secured to a support, a ball adjustable transversely of the support and yieldingly connected therewith, an arm having a socket for receiving the ball, a guideway arranged transversely of the arm, slides movable in the guideway, means for supporting a sickle bar in connection with the slides, and a counterbalance connected with one of the slides.

3. In a device of the class described, a guideway, means for supporting a sickle bar movable in the guideway, an arm for supporting the guideway, and comprising a plurality of sections connected by a universal joint, means for fixing the sections with respect to each other, a base plate, an adjustable connection between one of the sections and the base plate, and a spring interposed in said connection for the purpose set forth.

4. In a device of the class described, a sectional arm having a universal joint between the sections, a base, a yielding connection between the base and one of the sections, a guideway in connection with the other sec-

tion, means for supporting a sickle bar movable in the guideway, and a counterbalance connected with said means.

5. In a device of the class described, a sectional arm having a universal joint connection between the sections, means for fixing the sections with respect to each other, a base, a yielding and adjustable connection between one section and the base, a guideway on the other section, and means for supporting a sickle bar movable in the guideway.

6. In a device of the class described, a sectional arm having a universal joint connection between the sections, a base, a yielding connection between one section and the base, a guideway on the other section, and means for supporting a sickle bar movable in the guideway.

7. In a device of the class described, a sectional arm having a universal joint connection between the sections, a base, an adjustable connection between one section and the base, and means for supporting and moving a sickle bar transversely of the other section.

8. In a device of the class described, an arm, a base, a yielding connection between one end of the arm and the base, and means at the other end of the arm for supporting and moving a sickle bar transversely thereof.

9. In a device of the class described, an arm composed of a plurality of sections connected by a universal joint, means for supporting and moving a sickle bar transversely of one of the sections, a base, provided with a slot, the other section having a threaded stem traversing the slot, a nut engaging the stem, and a spring between the nut and the base.

10. In a device of the class described, a guideway, means for supporting the guideway, a supporting means for a sickle blade movable in the guideway, and a counterbalance connected with said means.

11. In a device of the class described, a guideway, a pulley at each end thereof, a supporting means for a sickle bar movable in the guideway, a rope passing over the pulleys and having its ends connected with the supporting means, and a weight on the rope.

12. In a device of the class described, a sickle bar supporting means, and a base plate upon which said means is supported, said plate having at each end a slot for the purpose set forth, and a cross arm having a slot at right angles to the plate, and in which said means is mounted.

Little Rock, Ark., April 6, 1909.

OTTO ALBIN HAUBENREISSER.

Witnesses:

LOUIS KATZENBERG,
R. E. STEVENSON.