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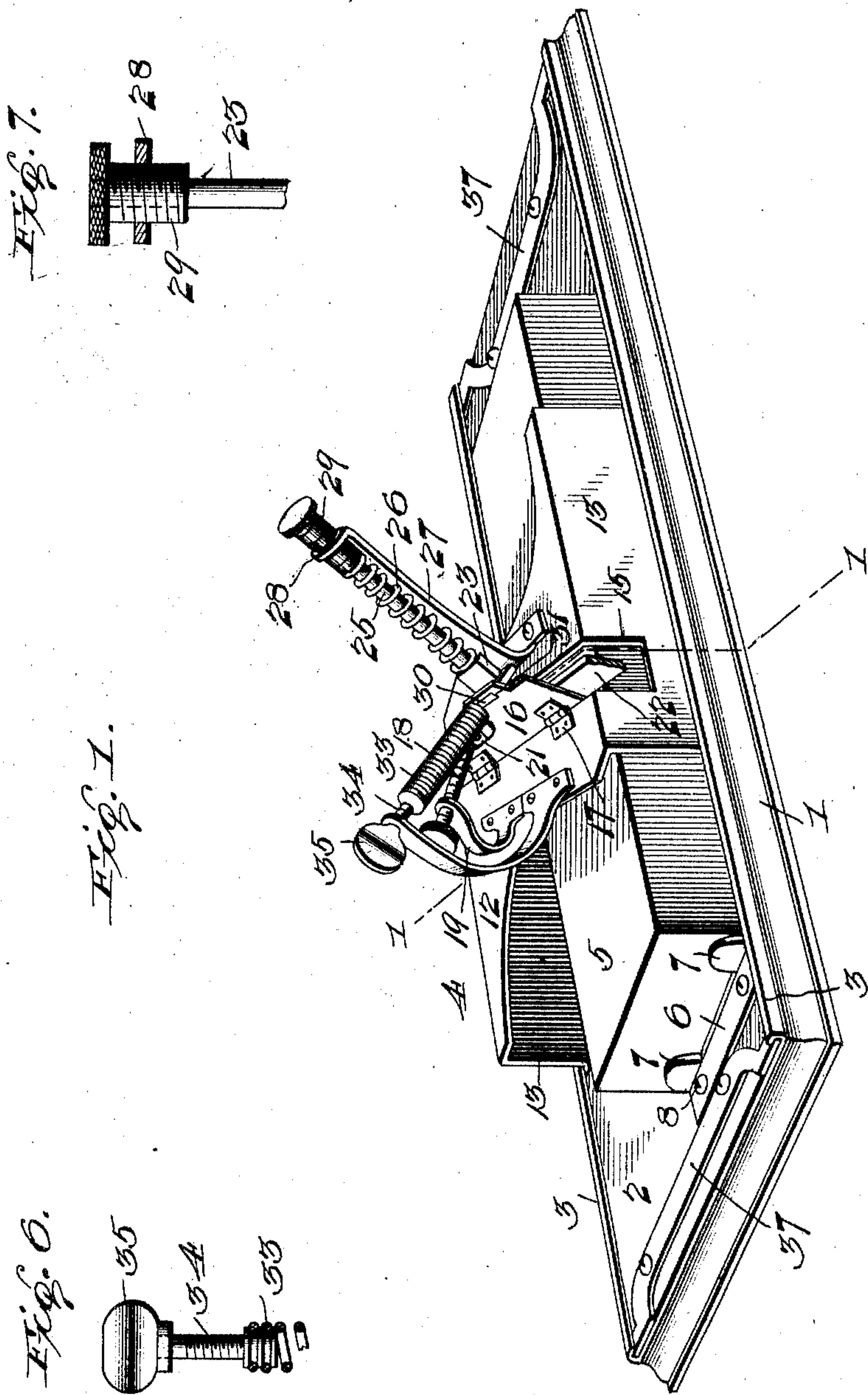
J. H. VAN TASSEL & J. M. THORNTON.

SHARPENER FOR SHEARS.

APPLICATION FILED MAY 18, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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NO MODEL.

2 SHEETS—SHEET 2.

Fig. 2.

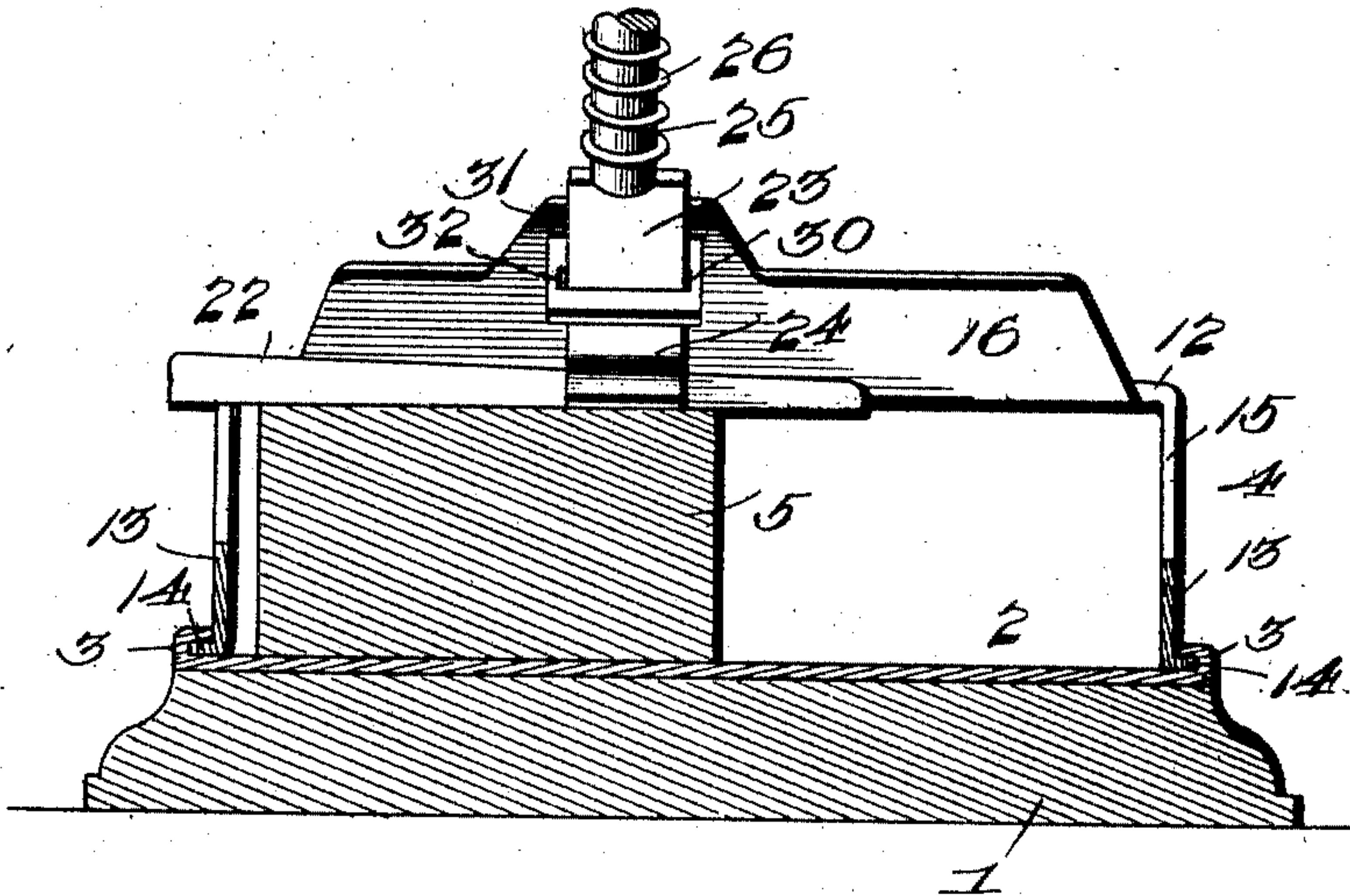


Fig. 3.

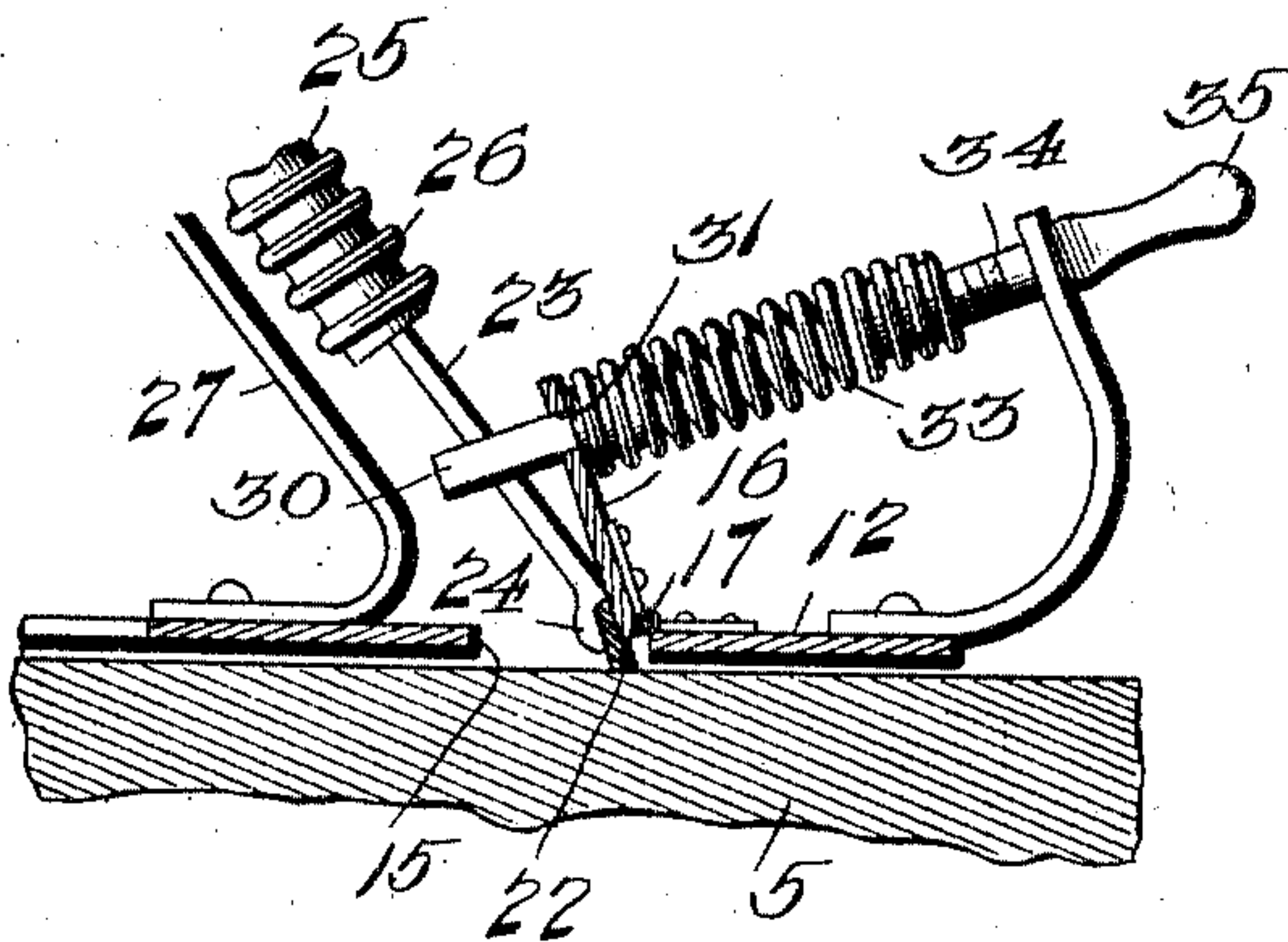


Fig. 4.

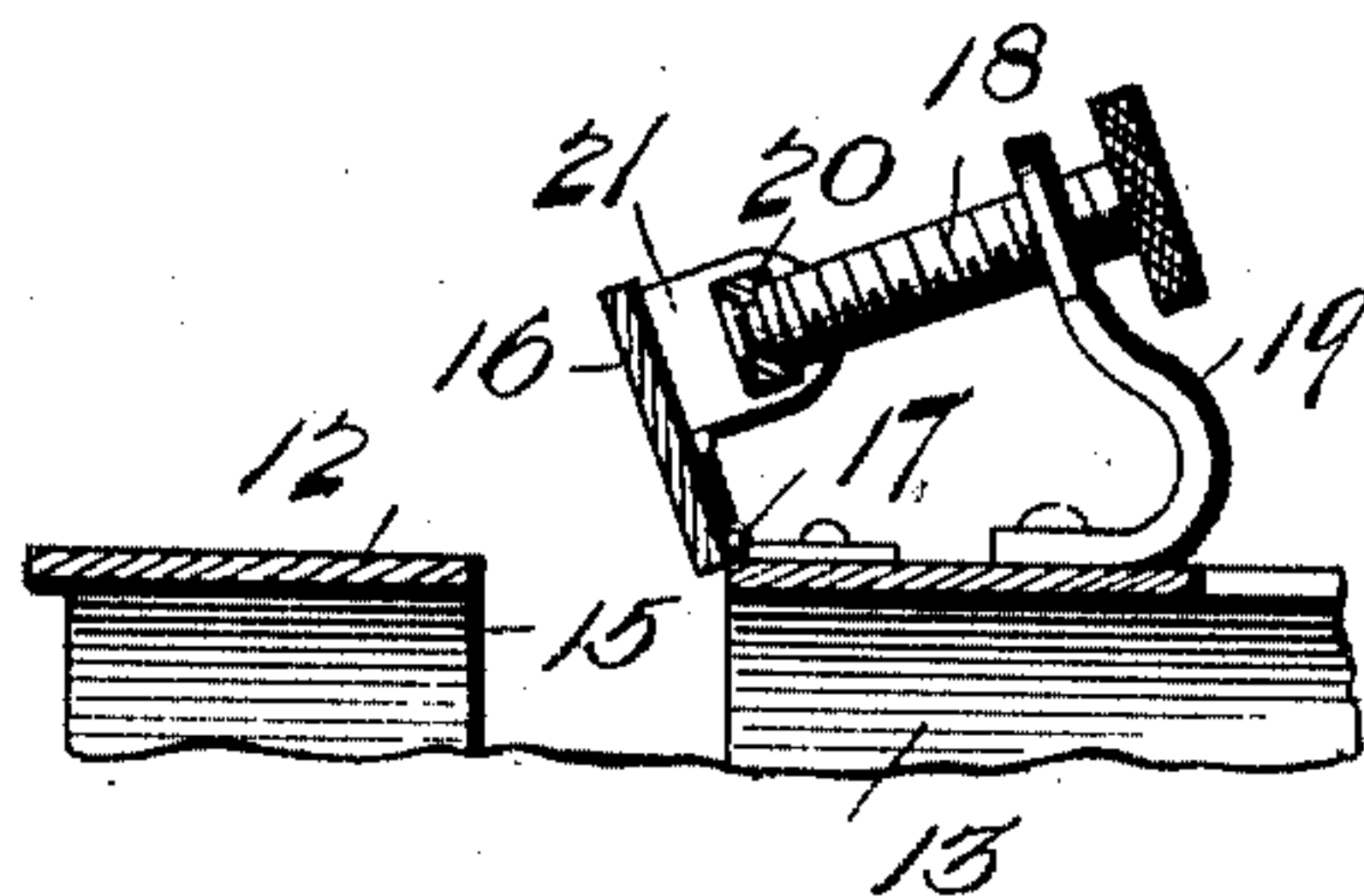
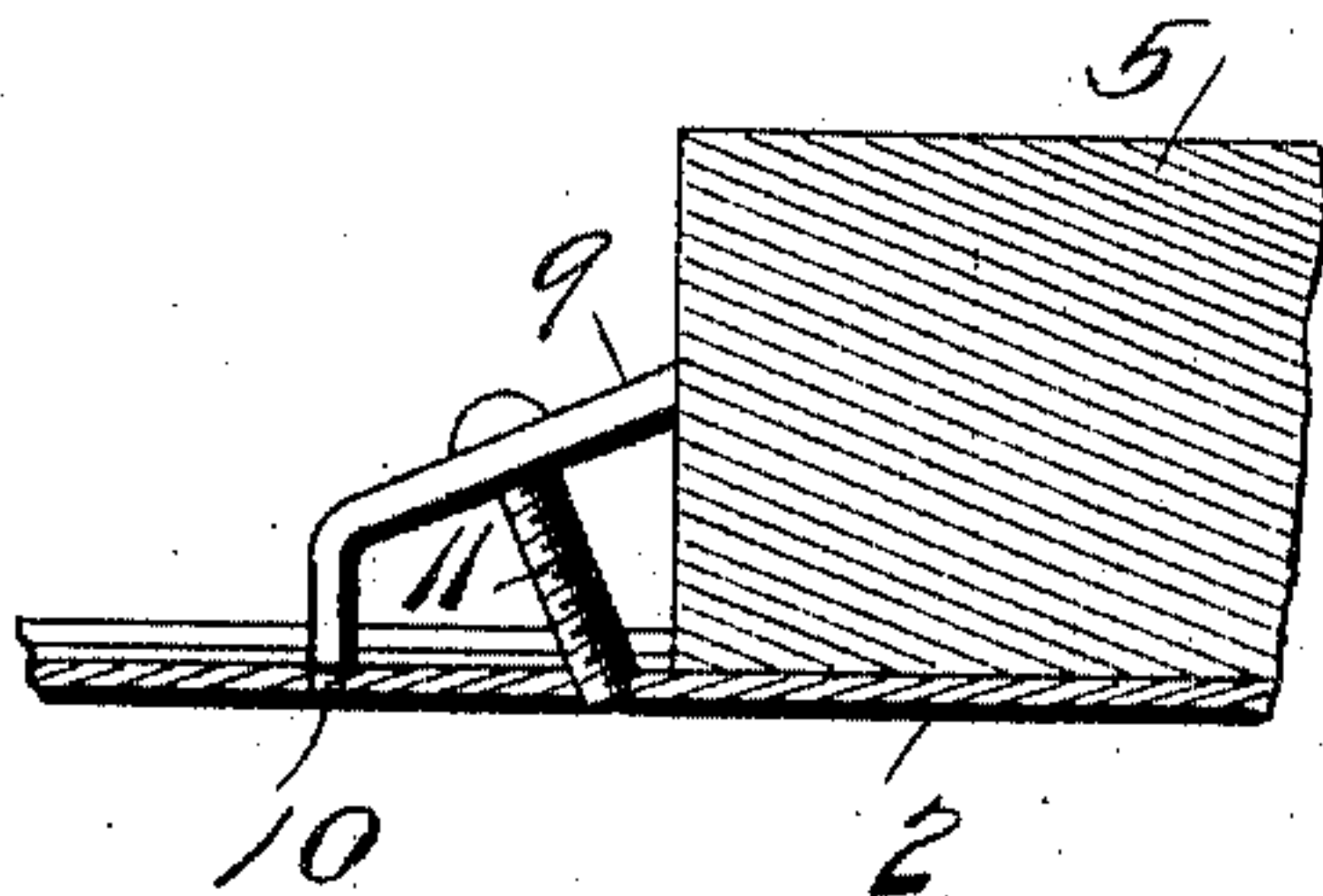


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## SHARPENER FOR SHEARS.

SPECIFICATION forming part of Letters Patent No. 776,967, dated December 6, 1904.

Application filed May 18, 1904. Serial No. 208,580. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES H. VAN TASSEL and JAMES M. THORNTON, citizens of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented new and useful Improvements in Sharpeners for Shears, of which the following is a specification.

Our invention relates to sharpeners for shears or scissors; and one of the objects of the same is to provide a device of comparatively simple and inexpensive construction which may be successfully operated by an unskilled or inexperienced person.

Another object is to provide a shear-sharpener for use by barbers, dressmakers, and for household use which will not readily get out of order and which can be quickly and easily adjusted to grind any desired bevel on the blades of a pair of scissors or shears by an unskilled operator.

These objects are attained by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a shear-sharpener made in accordance with our invention. Fig. 2 is a cross-sectional view of the same on the line 1 1, Fig. 1. Fig. 3 is a detail sectional view of the blade-clamp. Fig. 4 is a detail section of the bevel-adjustment means. Fig. 5 is a detail view illustrating the means which we use for holding the grinding-stone or hone in place. Fig. 6 is a detail view of one of the adjusting-screws. Fig. 7 is a similar view of another adjusting-screw.

Like numerals of reference designate like parts wherever they occur in the different views of the drawings.

The numeral 1 designates a base, upon which is mounted a metal plate 2, having its side edges bent upward and inward to form a slide-way 3 for the blade-clamp 4. A grinding-stone or hone 5 is secured to the base by means of the metal stop 6, provided with ears 7, bearing against one end of the grindstone or hone, said stop being secured in place by screws 8, the opposite end of the stone having a holding device comprising a plate 9, bearing at one end against the stone, while the other end

is provided with a toe 10, inserted in a small opening in the plate 2. A binding-screw 11 secures the holding device and the stone in place, as shown in Fig. 5.

The sliding clamp 4 comprises a plate 12, having a horizontal upper surface and downwardly-extending side portions 13, the terminal edges of which are bent outward to form feet 14, which slide in the way 3. A slot 15 extends diagonally across the horizontal portion of the clamp 4. A plate 16, secured by hinges 17 near one edge of the slot 15, is adjustable to give the required bevel to the shear-blade by means of a set-screw 18 passing through a bracket 19, secured to the plate 2, one end of said set-screw being seated in a cross-bar 20, extending between the ears 21, projected backward from the plate 16. The set-screw 18 is fitted to turn freely within the cross-bar 20, and the threads of the screw work within the threaded opening in the bracket 19. (See Fig. 4.)

The blade 22 of the shears is held in place by a clamp comprising a rod 23, having a suitably-shaped lower end 24 to bear against the side and top of the blade, said rod being secured to or formed with a rod 25, encircled by a spring 26. A bracket 27 secured to the base has an ear 28 at its upper end, and a cap-nut 29 is threaded to fit an opening in the ear 28, the upper end of the rod 25 extending into the nut 29, and thus permitting an adjustment of the tension of the spring 26 in securing the blade 22 in place.

To hold the clamp-rod 23 against the side of the blade 22, a plate 30 passes through a slot 31 in the plate 16 and is provided with a slot 32, through which the rod 23 passes. A tension-spring 33 surrounds the stub end of the plate 30, and the opposite end of spring 33 encircles the shank 34 of a set-screw 35, threaded to fit a threaded opening in a bracket 36, secured to the base 1. Suitable stops 37 are secured near the ends of the base to prevent the sliding clamp from moving off the base.

The operation of our invention is as follows: The blade of the shears to be sharpened is clamped in place and the desired adjustment given to the bevel-clamp. The sliding clamp



4 is then reciprocated by hand, the edge of the blade being held down to the grindstone.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a sharpener for shears, a base having a hone or grinding-stone secured thereto, a clamp extending across the stone and base and sliding upon the base and carrying means for  
10 holding the blade at any required inclination.

2. A scissors-sharpener comprising a base having a hone or grinding-stone secured thereto, a slotted sliding clamp extending across the base and stone and sliding upon said base,  
15 a blade-holder, and means for giving the required inclination to the blade.

3. A shear-sharpener comprising a base having inturned flanges at its edges, a grinding-stone secured to said base, a slide engaging the flanges on the base and extending  
20 across the stone, a spring-blade holder carried

by the slide, and a plate hinged to the slide and provided with means for holding it at any required inclination, substantially as described.

4. In a shear-sharpener, a base-plate, a grinding-stone secured to said base-plate by means of a plate and in combination with a slotted sliding clamp extending across the base and sliding thereon, and means carried  
25 by said clamp for securing the shear-blade and holding said blade at any required angle.

5. In a shear-sharpener, a base, a grinding-stone secured thereto, a reciprocating clamp carrying a blade-holder, a hinged plate, and  
35 means for holding the plate at any required inclination, substantially as described.

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