

2 Sheets—Sheet 1.

No. 496,213.

Patented Apr. 25, 1893.



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APPARATUS FOR CLEANING KNIVES.

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FIG. 4.

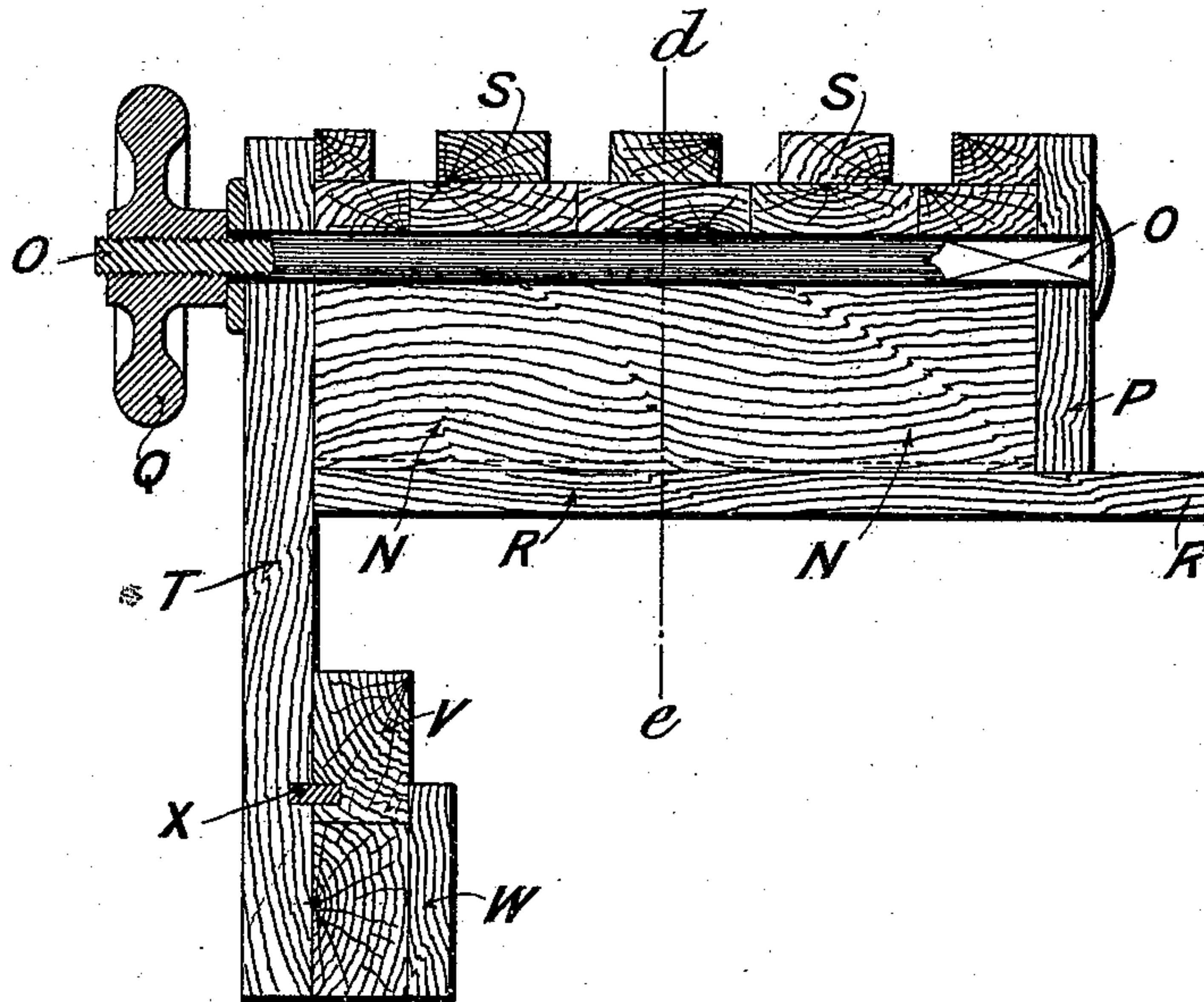
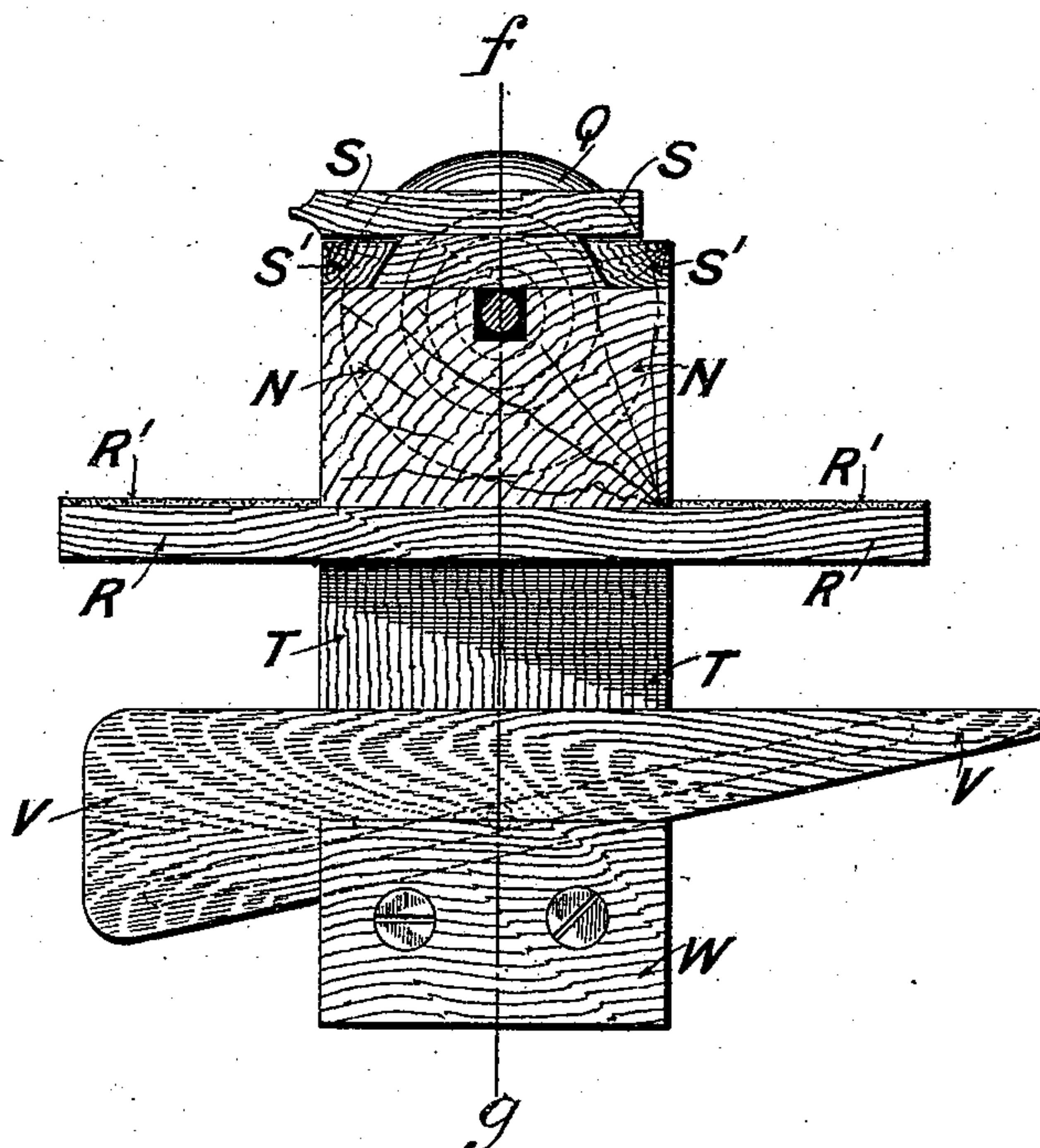


FIG. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT HARLEY STOREY, OF LONDON, ENGLAND.

APPARATUS FOR CLEANING KNIVES.

SPECIFICATION forming part of Letters Patent No. 496,213, dated April 25, 1893.

Application filed March 8, 1892. Serial No. 424,210. (No model.) Patented in England September 9, 1889, No. 14,208; in France June 12, 1890, No. 206,315; in Germany June 15, 1890, No. 55,417, and in Belgium July 20, 1891, No. 95,701.

To all whom it may concern:

Be it known that I, ALBERT HARLEY STOREY, a subject of the Queen of Great Britain and Ireland, and a resident of London, England, have invented an Improved Apparatus for Cleaning Knives, (for which I have obtained a British patent, No. 14,208, dated September 9, 1889; a French patent, No. 206,315, dated June 12, 1890; a German patent, No. 55,417, dated June 15, 1890, and a Belgian patent, No. 95,701, dated July 20, 1891,) of which the following is a specification.

The object of my invention is to provide for domestic and other use a very simple and cheap, and yet extremely efficient and serviceable apparatus in and by which knives of all styles and sizes can be cleaned, with a minimum of labor. I carry out this object by mounting two pieces of leather or other suitable material on two pieces of wood or rigid material, and causing them to face each other, one or both of the leathers being so mounted that, when the blades of the knives are inserted between them, the leather can accommodate itself to the varying shapes and thicknesses of these blades; and by providing a clamp for holding the handles of the knives; and then, by a reciprocating movement of one of these parts of the apparatus, cleaning the blades rapidly and efficiently.

In the accompanying drawings, Figure 1 is a side elevation of one form of construction of the cleaning part of the apparatus; and Fig. 2 is a transverse section of the same, taken at *a b* in Fig. 1. Fig. 4 is a longitudinal section of the clamping part of the apparatus wherein the handles of the knives can be so held, taken at *f g* in Fig. 5; and Fig. 5 is a transverse section of the same, taken at *d e* in Fig. 4.

I take two similar pieces A and A' of any material that will clean and polish the blades of knives, and in and for the purposes of this specification I will presume that I use leather, which indeed is very suitable; and these pieces A and A' are of any length, having regard to the number of knives that it may be desired to clean in and by the apparatus at one and the same time, and of any breadth, having regard to the lengths of the

blades of these knives, preferably somewhat less than the shortest of the said blades. I also take two similar pieces B and B' of any rigid material, and in and for the purposes of this specification I will presume that I use wood, which indeed also is very suitable; and these pieces B and B' are of such corresponding length and breadth that the pieces A and A' can be mounted separately thereon in such wise that, when the pieces B and B' are secured in position, the blades of one or more knives can be inserted between the opposing faces of the pieces A and A'; and the longitudinal reciprocating movement, either of this apparatus, or of the knives transversely to the line of the blades thereof, shall properly clean and polish the knives, as is desired.

To enable this apparatus efficiently to clean the knives, it is obviously requisite that the leather A shall be so mounted on the wood B, as to be capable of accommodating itself to the varying shapes and thicknesses of the blades of the knives.

In Figs. 1 and 2, I show one method and style of fitment; according unto which I interpose between the leather A A' and the wood B, B' a number of small transverse strips C C' of wood or other rigid material, and of a semicircular or other shape in cross section, which can very conveniently be secured on a piece D D' of calico, flannel or other textile or other material, as close together as may be considered expedient; and between these strips C C' and the wood B B' I further interpose coiled or other springs, or separate blocks E E' of india rubber or other compressible material, or it may be a continuous tubular or other piece of the same, in all cases these springs being arranged to act longitudinally and preferably centrally along the length of the wood B; the blocks E, E' being in the center form a sort of pivot for the rigid strips C, C', so that when a knife is inserted between the leathers, and the thicker part near the handle separates the leathers at one side, these strips C C' tilt on these central blocks E, E' and close down upon the thin part of the knife at the other side, and the ends of the leather A, and of the piece D if any, are

secured to the wood B or to blocks thereon in any convenient manner; and this arrangement aforesaid is preferably so applied between each of the pieces A of leather and its own piece B of wood, as is shown in these figures.

It is obviously necessary in this apparatus that the two opposing faces of the leathers A shall be kept duly pressed together when and while the blades of the knives are between them, so that these blades shall be properly cleaned on both sides. This can be effected by inclosing the apparatus in a box or casing, with open sides; and, by screws or other usual appliances, through or between the lid or top of the box and the wood B', and also if desired through or between the base or bottom of the box and the wood B, pressing the leathers A together; but I preferably proceed as is shown in Fig. 1.

On the piece of wood B, which forms the base or bottom of the apparatus, I erect an end piece F of wood or other suitable material, whereto I hinge, preferably as is shown by the loose hinge G, the other piece of wood B', which forms the top of the apparatus; and the bottom B is so prolonged beyond the end piece F that a handle H it may be like that of a plane can be mounted thereon, being capable of turning on its vertical pivot H'. The handle H has a horizontally projecting arm J, which can extend over the end piece F and the top B' to a position at or about the middle of the length of the apparatus, where it is provided with a thumb or other screw K, by which the desired pressure can be put on the opposing leathers A. When the apparatus is so made and fitted, it is most convenient to mount disks L and L' of leather or other suitable material on both sides of the free ends of the pieces of wood B and B', in such wise as to guide the blades of the knives in between the opposing faces of the leathers A, and prevent the same being cut thereby. When for any purpose it may be desired so to do, the screw K can be relaxed, and the handle H be turned on its pivot H' until the arm J is no longer over the top B', which with its attached leather A', and piece D', strips C' and springs E' if any, can then be lifted up, as is shown by dotted lines in Fig. 1.

In Fig. 3 I show an alternative method and style of fitment, according unto which, instead of the rigid transverse strips and longitudinally arranged springs hereinbefore described, I interpose between the leather A A' and the wood B, B' a number of transversely arranged and acting coiled or other springs, or transverse pieces M M' of tubular or other india rubber or compressible material, which also may be secured on the piece D of calico or other material as close together as may be considered expedient; and this arrangement also is preferably so applied between each of the pieces A of leather and its own piece B of wood, as is shown in this figure. In both these

methods and styles of fitment, the transverse pieces or appliances that are outside of and support the leathers, whether they be of rigid material or of spring or compressible material, may be arranged opposite each other as is shown in Fig. 1, or may be arranged alternately as is shown in Fig. 3, or otherwise as may be desired.

When, as will generally be the case, two or more knives are to be cleaned at one and the same time in and by the apparatus aforesaid, it is obvious that these knives must be very firmly and rigidly held in position; and, in the accompanying drawings, Fig. 4 is a longitudinal section of the clamping part of the apparatus wherein the handles of the knives can be so held, taken at *f g* in Fig. 5; and Fig. 5 is a transverse section of the same, taken at *d e* in Fig. 4.

Longitudinally in the upper part of a suitable block or case N of wood, metal or other material I place a horizontal bolt O, the rear end whereof is attached to the separate vertical end piece P, and at the front end is a screw thread on which the wheel Q can be screwed. The block N is secured on a platform R, on the projecting sides whereof can conveniently be pieces R' of leather or other material, on which the back edges of the knives can be cleaned. Along the top of the block N is fitted a number of separate transverse strips S of wood or other material, the lower parts whereof can slide in a longitudinal recess S' formed in or by the block N immediately above the bolt O, of the usual V shape; and these strips S, and especially the upper parts thereof, are so formed, constructed and fitted that the handles of the knives can be separately placed between these upper parts, with the blades thereof projecting from the block N and at right angles thereto or thereabout, and all lying in the same level; and then, by the proper turning of the wheel Q, these strips S are by the end piece P drawn together, until the handles of the knives are very tightly clamped between the same as is desired.

This clamping part of the apparatus may be secured on the table or in other position where it is required in any ordinary manner; it may be by screws through its platform R or otherwise. In the drawings I show one very convenient manner, wherein a downwardly projecting end piece T is secured on the front end of the block N, on the lower part whereof is fitted an inclined guide W; and a wedge V can slide therein, being prevented from being drawn thereout by a stud X, which travels in a slot made therefor in this wedge V as the same is moved in the one direction to secure this clamping part of the apparatus to and on the edge of the table or other article or elsewhere, or in the other direction to release the same therefrom. When therefore the clamping part of the apparatus is duly secured in position, and the handles of the knives, being

properly placed between the strips, are therein and thereby tightly clamped as is hereinbefore described, the cleaning part of the apparatus, being carried by its handle, is so moved that
 5 the blades of the knives successively and consecutively enter between the opposing faces of the leathers, and the desired pressure having been put thereon, longitudinal reciprocating movement is given to the cleaning part
 10 of the apparatus; and thus the desired effect of cleaning the knives is very speedily produced, with a minimum of labor.

I would however have it clearly understood that, although as a general rule, I consider it
 15 preferable to move the cleaning part of the apparatus, keeping the clamping part of the apparatus stationary, as is hereinbefore described and shown in the drawings; yet, as is indeed obvious, I may transpose the handle
 20 and the other necessary parts, and in a similar manner make the clamping apparatus the moving part, and the cleaning apparatus the stationary part; by which arrangement the same effect would be produced.

25 I claim as my invention and desire to secure by Letters Patent—

1. In a knife cleaning apparatus, the combination of cleaning surfaces A, A', as of leather, forming opposing faces between which
 30 the knife blades are placed, with supporting pieces B, B' as of wood on which the cleaning pieces A A' are mounted, rigid transverse strips C C' mounted on longitudinally arranged springs E E' being interposed between
 35 the cleaning pieces A A' and supporting

pieces B B' respectively, substantially as and for the purposes set forth.

2. In a knife cleaning apparatus the combination of mounting pieces B, B' with cleaning pieces A, A' mounted on the pieces B, B',
 40 the said pieces A, A' adapted to face each other when in position, with rigid transverse strips C, and springs E substantially as and for the purposes set forth.

3. In a knife cleaning apparatus, the combination of mounting pieces B B' and cleaning pieces A, A' adapted to face each other
 45 when in position between which the knife blades are placed, with an end piece F mounted on the piece B, to which end piece the part
 50 B' is hinged, and the handle H pivoted on the piece B, and having a horizontal arm J provided with a screw K, substantially as and for the purposes set forth.

4. The combination of a knife cleaning apparatus with a clamping apparatus consisting of a block N provided with a recess S', a
 55 longitudinal bolt O carried by this block N and being provided with an end piece and a screw Q, and strips S sliding in the said recess
 60 S', all substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT HARLEY STOREY.

Witnesses:

JAMES HART DAVIES,
 FRED JONES.