No. 720,009. PATENTED FEB. 10, 1903.

P. DUPLESSIS.

WHEEL FOR SMOOTHING THE EDGES OF SOLES AND THE SIDES OF HEELS OF BOOTS OR SHOES.

APPLICATION FILED NOV. 4, 1902

NO MODEL.

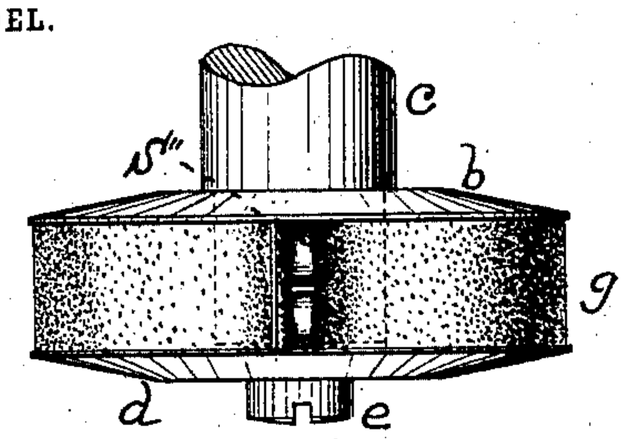

Fig. 1.

Fig. 4.

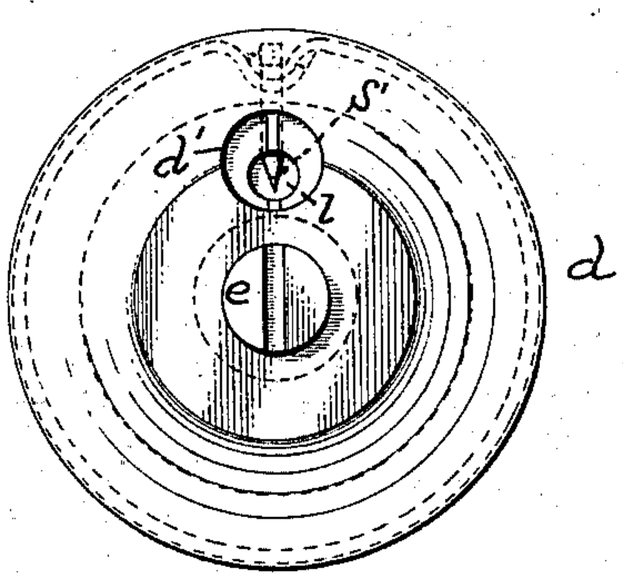

Fig. 2.

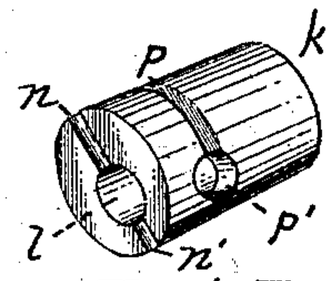

Fig. 5.

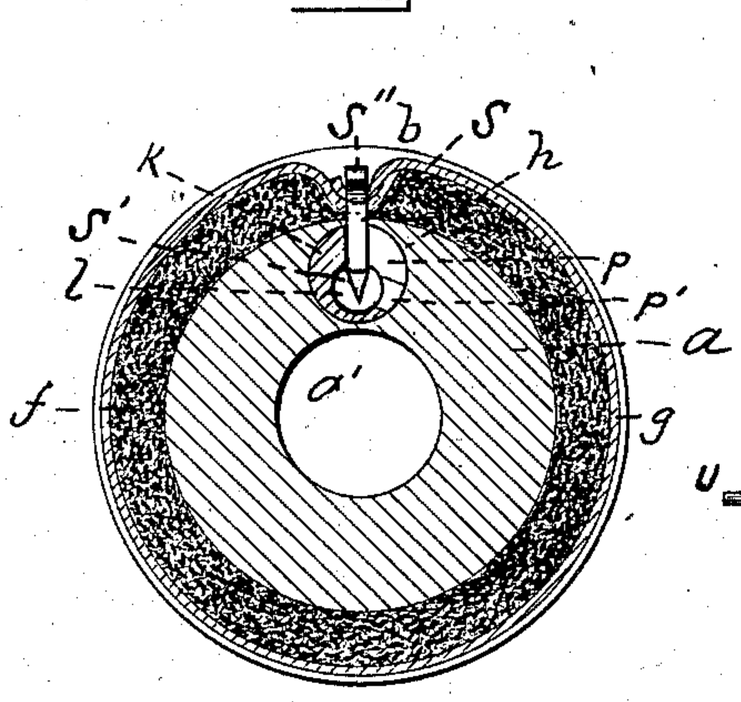

Fig. 3.

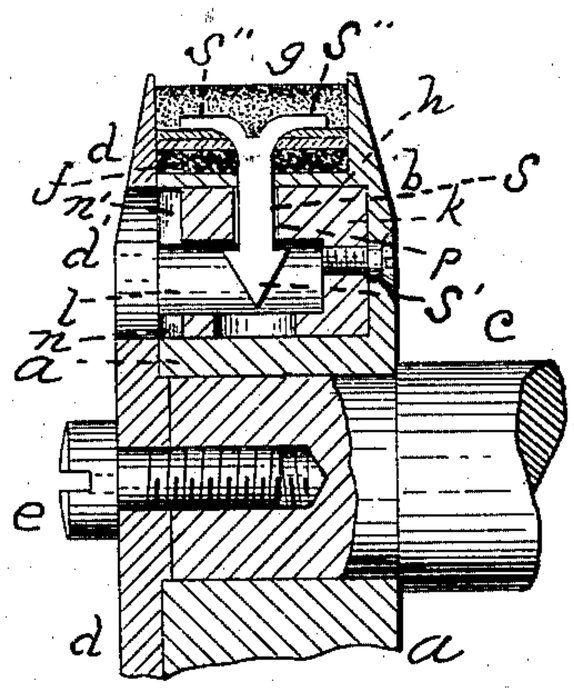

Fig. 6.

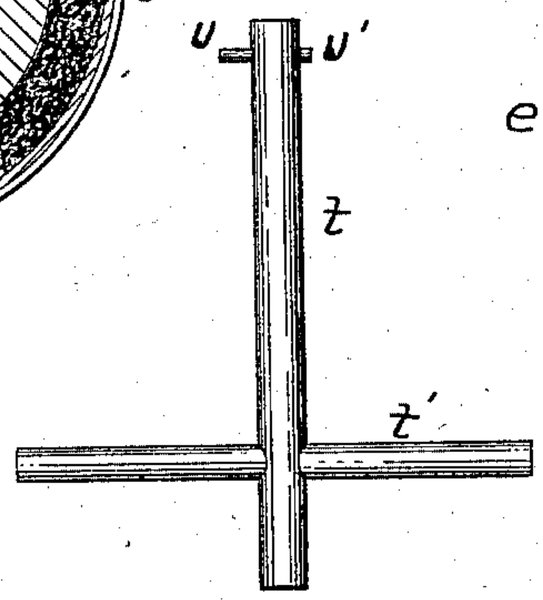

Fig. 7.

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PAUL DUPLESSIS, OF MARLBORO, MASSACHUSETTS, ASSIGNOR TO THE S. H. HOWE SHOE COMPANY, OF MARLBORO, MASSACHUSETTS, AND BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

WHEEL FOR SMOOTHING THE EDGES OF SOLES AND THE SIDES OF HEELS OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 720,009, dated February 10, 1903.

Application filed November 4, 1902. Serial No. 130,060. (No model.)

To all whom it may concern:

Be it known that I, PAUL DUPLESSIS, a citizen of the United States, residing in Marlboro, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Wheels for Smoothing the Edges of Soles and the Sides of Heels of Boots or Shoes, of which the following is a specification.

This device is adapted particularly to be mounted on or applied to the cutter-shaft of a four-part edge-trimming machine or the head-shaft of a heel-scouring machine; and it is intended to be applied to the sole and heel for smoothing purposes after the same have been trimmed and to smooth or scour them without marking or scratching the uppers or sides of the shoes.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved smoothing-wheel applied to a cutter-shaft or head-shaft. Fig. 2 is a side elevation of the same. Fig. 3 is a central vertical section. Fig. 4 is a perspective view of the locking-pin removed. Fig. 5 is a perspective view of the cam-piece removed. Fig. 6 is an enlarged detail in section at right angles with the section illustrated in Fig. 3 of my device, illustrating the locking mechanism. Fig. 7 is a plan view of a key adapted to unlock the locking mechanism.

Similar letters of reference indicate corresponding parts.

a represents the body of the wheel, made preferably of metal and provided with the back guard b, integral with the said body. The main portion is suitably bored at a' to receive the cutter-shaft or head-shaft c.

d represents a removable shield adapted to be secured to the shaft by a suitable screw e and formed with an opening d' to provide for the admission of the key into the lock.

The core or main portion a is encircled by a layer of felt or similar material f, around which is a peripheral strip of emery, sandpaper, or equivalent abrading or smoothing material g, the felt and emery lying between the back guard and shield. It is important that this strip of emery-cloth should be readily removed and replaced, that it should be securely locked in position, and that it should be taut and smooth. In order to accomplish these results the main or body portion a is transversely bored at h to receive a cam-piece or cam-roll k, hollowed out or chambered longitudinally but non-centrally at l and formed with the two opposite radial slots n n', which extend from the eccentrically-arranged chamber or recess l to the periphery of the cam-roll. This cam-roll is further provided with a transverse slot p, parallel with its outer end or face and extending to and intersecting the chamber or recess l, said slot being broadened at one end into the head portion p.

s represents the shank portion of a key, one end of which is broadened oppositely into the head s', and the opposite end is bifurcated and spread into the oppositely-extending projections s''.

The opening d' in the shield d is adapted to register with the bore h in the core or main portion a.

t represents a key, of which t' is the handle and u u' the pins adapted for engagement with the slots n n'.

The felt f is permanently secured by cement or other suitable means to the body or main portion a. The emery-strip g is removably applied to the periphery of the felt by overlapping its ends and pressing them down by means of the key s s' s'', as illustrated in Figs. 3 and 6. To apply the emery-strip, the cam-roll k is first rotated into a position in which the slot n' extends up toward the point at which the key s s' s'' is to be applied. This rotation is accomplished by inserting the portions u u' of the key t through the hole d' in the removable shield d into the slots n n', respectively. The cam-roll being in the above-stated position, the enlarged end p' of the slot p is uppermost, and the enlarged and pointed end s' of the key s is pressed through the overlapping ends of the emery g and through the felt f into and through said enlarged portion p', the arms s'' extending transversely across the emery-strip. The cam-roll is then

rotated toward the right by the key $t\,u\,u'$ until the slot n is uppermost, the cam as the shank s is drawn through the slot p pulling the end s' downward and crowding the arms s'' upon the ends of the emery-strip until the parts assume the position indicated in Figs. 1, 3, and 6. Thus the strip can be quickly removed and replaced by another, and the arms s'' of the metallic key s are sufficiently below the surface to prevent any interference with the efficiency of the emery-strip. When the wheel is applied, the shield is next the upper and prevents marking or scratching the leather.

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

In a wheel of the character and for the purpose described, the main portion or body a recessed at h and provided with the abrading or smoothing strip g and intermediate cushion or base f; the back guard; the shield; the cam-roll k provided with the eccentrically-located chamber l, the slot p formed with the enlarged end p', and at the outer end of the cam means for engagement by a suitable key whereby the cam may be rotated; and the key comprising the shank s, head s' and clamping-arms s'', substantially as set forth.

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

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