

(No Model.)

J. G. BUZZELL.

MACHINE FOR SHAVING AND WHITENING LEATHER.

No. 252,928.

Patented Jan. 31, 1882.

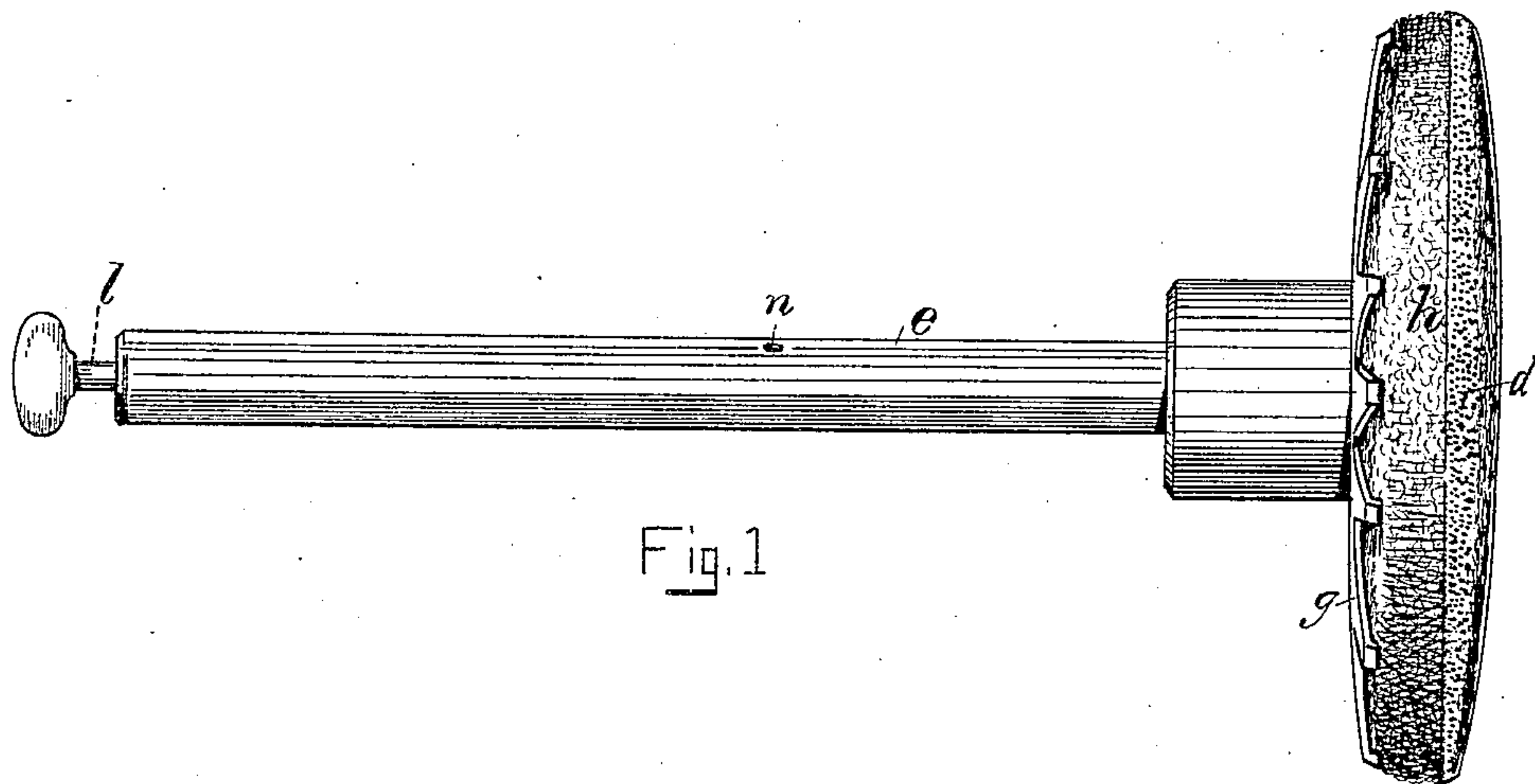


Fig. 1

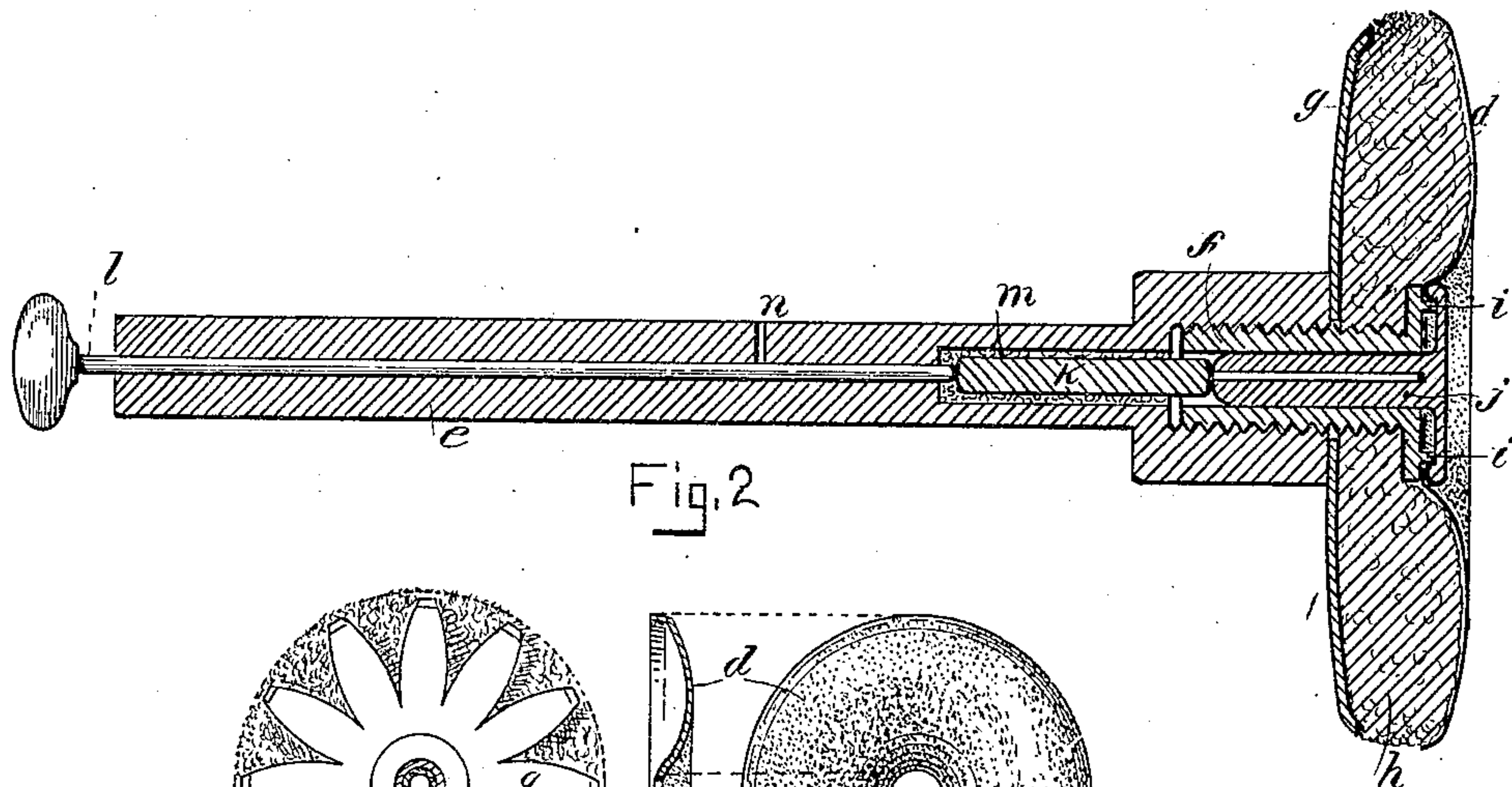


Fig. 2

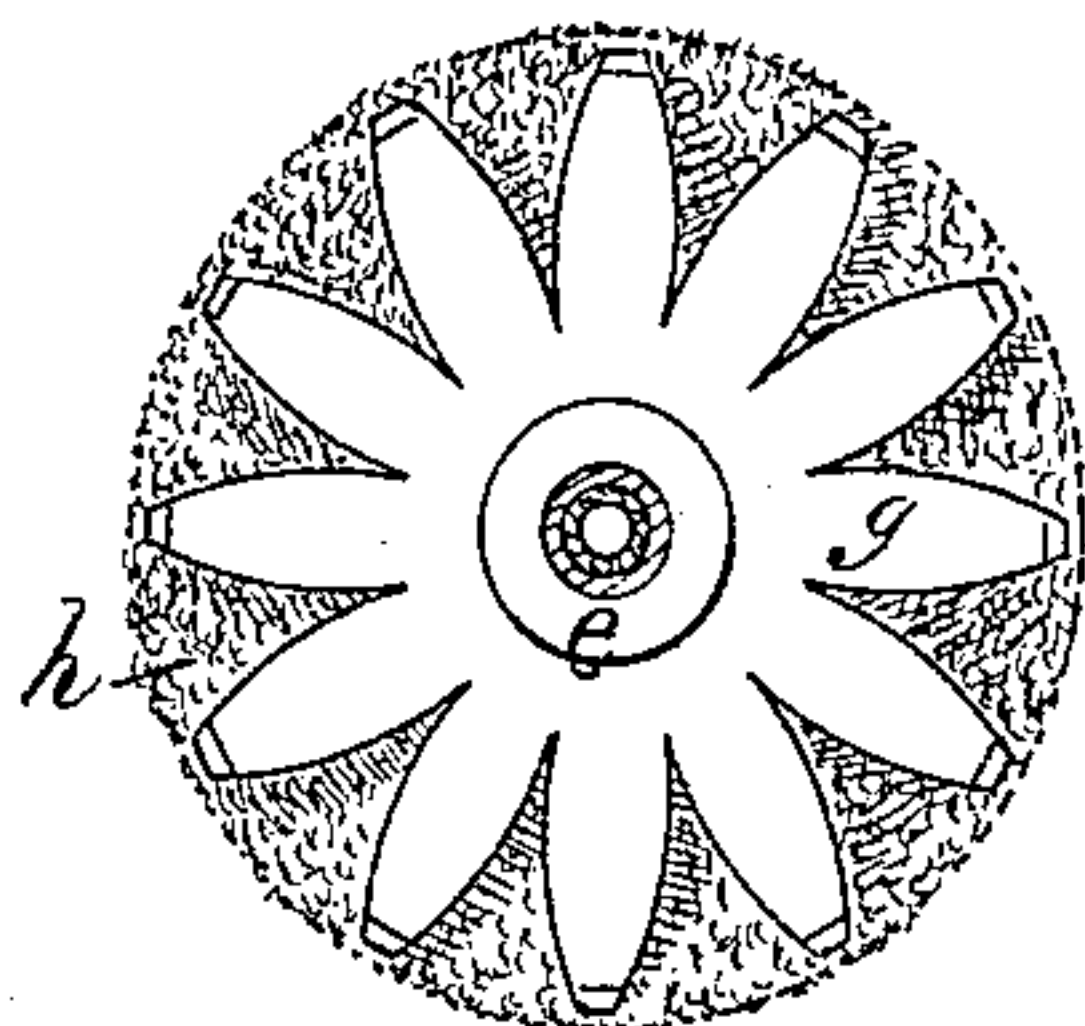


Fig. 4

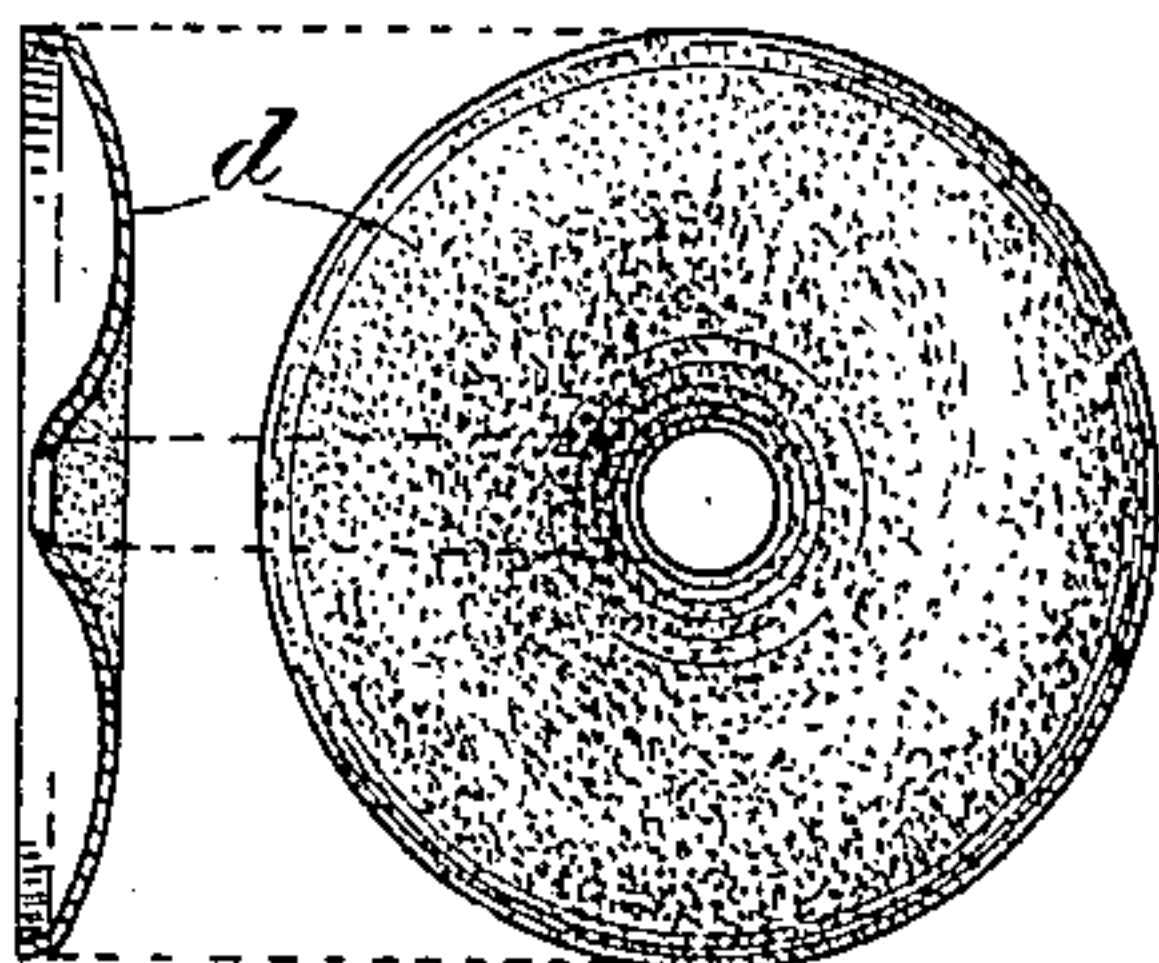


Fig. 3

Witnesses.

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JOHN G. BUZZELL, OF LYNN, MASSACHUSETTS.

MACHINE FOR SHAVING AND WHITENING LEATHER.

SPECIFICATION forming part of Letters Patent No. 252,928, dated January 31, 1882.

Application filed December 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. BUZZELL, of the city of Lynn, State of Massachusetts, have invented an Improvement in Machines for Shaving and Whitening Leather and in the Abrading-Disks thereof, of which the following is a specification.

This invention relates to certain improvements in the machine for which Letters Patent of the United States were issued to me on the 9th day of April, 1878; as also to certain improvements in the abrading-disks which are used in connection with my present improvement, and in improved molds, wherein said disks are shaped or molded for use, in connection with my present improved machine; and the invention will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

Figure 1 is a side elevation of the disk-carrying arbor, with the elastic disk-like cushion, its engaging and supporting diaphragm, and the abrading-disk thereon mounted. Fig. 2 is a longitudinal section of the parts shown in Fig. 1, with a device for locking the abrading-disk, also shown in section. Fig. 3 is a diminished plan view and diametric section of the abrading or sand-paper disk. Fig. 4 is a diminished top-plan view of the arbor, the disk-cushion, and its supporting-diaphragm.

In said views, *d* represents the improved abrading-disk, which is cut from sand-paper or other suitable material, and which, by moistening or other necessary preparation, is fitted for molding or shaping, as shown in Figs. 2 and 3, which may be effected by compressing in a suitably formed and heated mold, or by such other process or method as will give thereto the required configuration of cross-section, which latter is shown in said figures as consisting of a depressed center, with an encircling raised portion, having a convex cross-section and a backward-turned border or periphery.

In my said former machine the abrading or sand-paper disks were secured to the rotary cushion by a band, which confined the edge of such disk around the periphery of the cushion, which method of confining necessitated great waste of the sand-paper, and was also

objectionable in its effectiveness and operations. In my present improvement the enlarged lower portion of shaft *e* is formed with an axial-threaded passage, wherein is fitted the tube *f*, having a thin button-like head or projecting flange, which is readily depressed in the felt cushion *h*.

Upon tube *f*, next to the lower face of shaft *e*, is mounted the diaphragm *g*, which, toward its outer periphery, is formed with a series of fingers, whose points are so turned as to penetrate the cushion *h*, (see Figs. 1, 2;) but said diaphragm has been heretofore patented to me, and hence is not herein claimed as new. When the head of tube *f* is suitably depressed in cushion *h* and the outer edge of the cushion is suitably rounded or curved the molded disk of sand-paper *d* fits thereon, and is held in position by two or more spurs, *i*, which project from the face of the head of tube *f* and penetrate the paper, while the slotted or divided spring-pin *j*, whose shank fills the hole in the paper, and which, by its yielding contact in tube *f*, is secured therein, is forced into said tube until its head confines the sand-paper closely against the head of tube *f* and against cushion *h*, the head of pin *j* being hollowed out on the back or inner side to receive the points *i* without injury thereto. For the purpose of turning in sleeve *f* with the requisite force, two small holes may be formed in the head thereof for the insertion of the pins of a key-wrench, or any well-known device may be employed.

To expel pin *j* a pin, *k*, surrounded by a packing, *m*, is secured in arbor *e*, while a smaller rod, *l*, provided with a suitable head, is arranged in the upper portion of said arbor, so as to act on pin *k* for the expelling of pin *j* when a change of sand-paper is requisite, and by means of a transverse passage, *n*, in arbor *e* the axial passage in said arbor may be utilized for oiling the lower bearing thereof.

By reference to my said former patent it will be evident that the adjustable supporting-bar on which the article being whitened rests only extends across a portion of the abrading-disk, between its center and periphery, and hence any pressure so produced upon the sand-paper when arranged as herein shown has no tendency to warp or cockle the same, as the

outer edge is free, while on the contrary, when secured by a hoop upon a convex disk the pressure upon the sand-paper tended to slacken the same, as the convexity thereof was so diminished, and thereby decreased its efficiency and rendered it liable to be torn and rendered useless.

I claim as my invention—

1. The abrading-disk *d*, molded and set to form, with a depressed center, and the swelled line from such center to the retiring or backward-turned periphery, substantially as specified.

2. The combination of the elastic or cushioning disk *h*, the molded abrading-disk *d*, and

a device to secure said abrading-disk in position by engagement with the depressed center thereof, substantially as specified.

3. The combination of disks *d* and *h*, the flanged sleeve *f*, secured in shaft *e*, and the broad-headed pin *j*, secured in said sleeve, substantially as specified.

4. The combination of the flanged sleeve *f*, the pins *i i*, the broad-headed pin *j*, and disks *d h*, substantially as specified.

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Witnesses:

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