(No Model.)

J. H. RIEDELL

ABRADING PAD.

No. 384,076. Patented June 5, 1888.

Fig. 1.

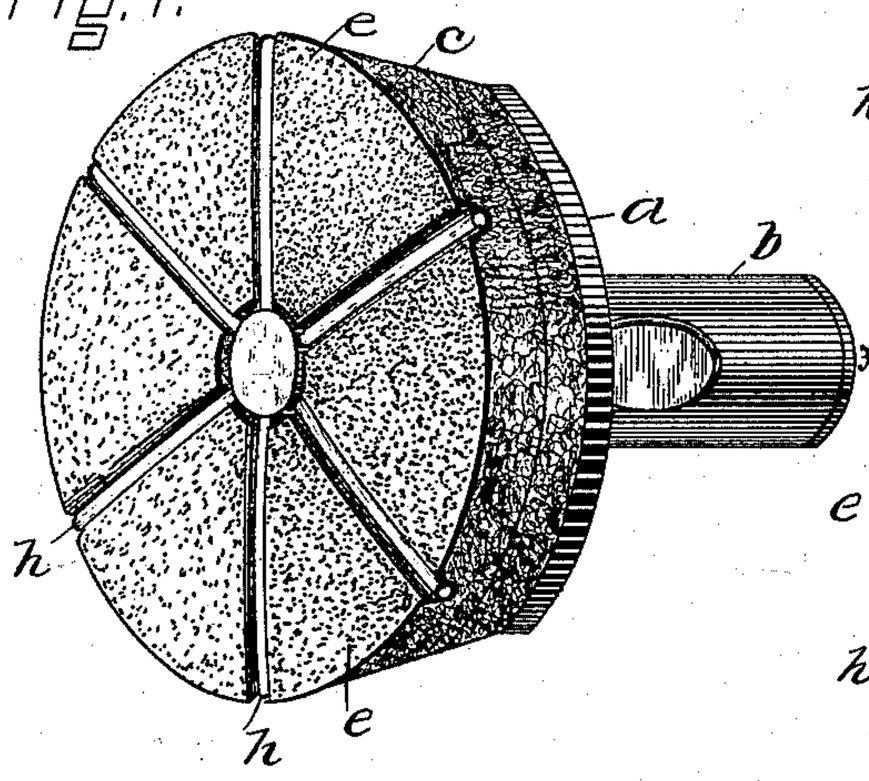


Fig. 2.

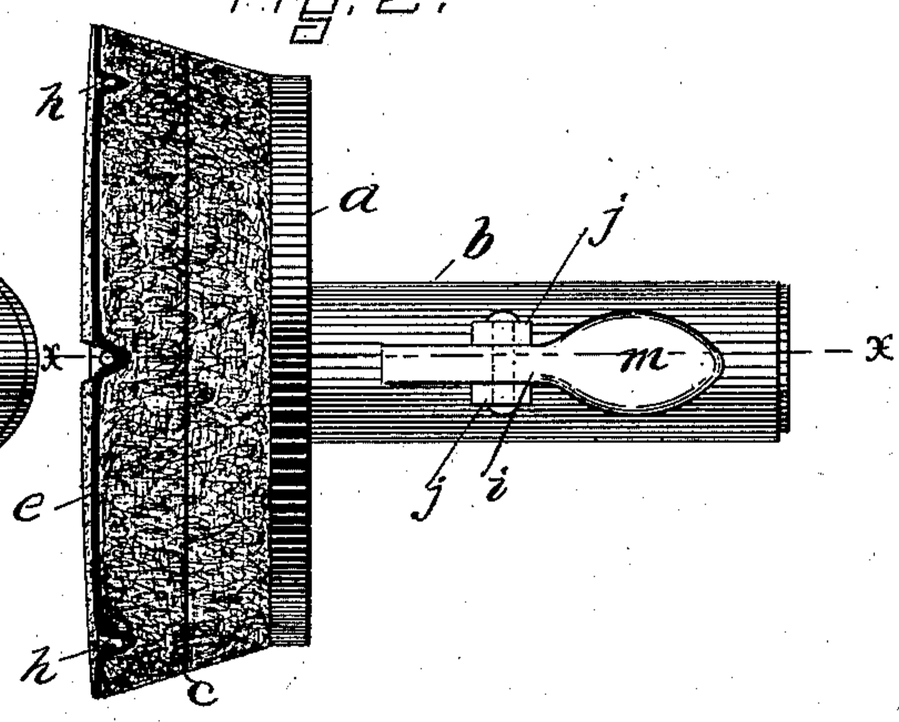


Fig. 3.

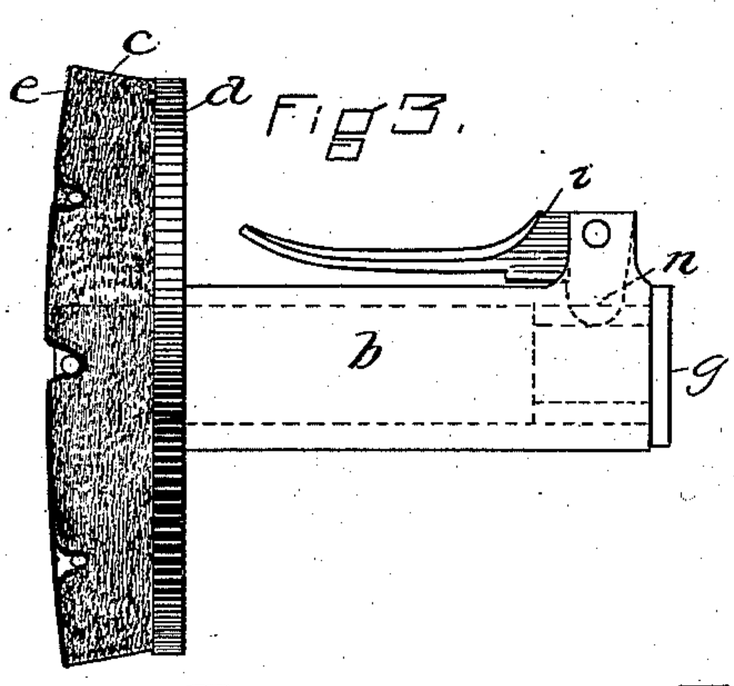


Fig. 4.

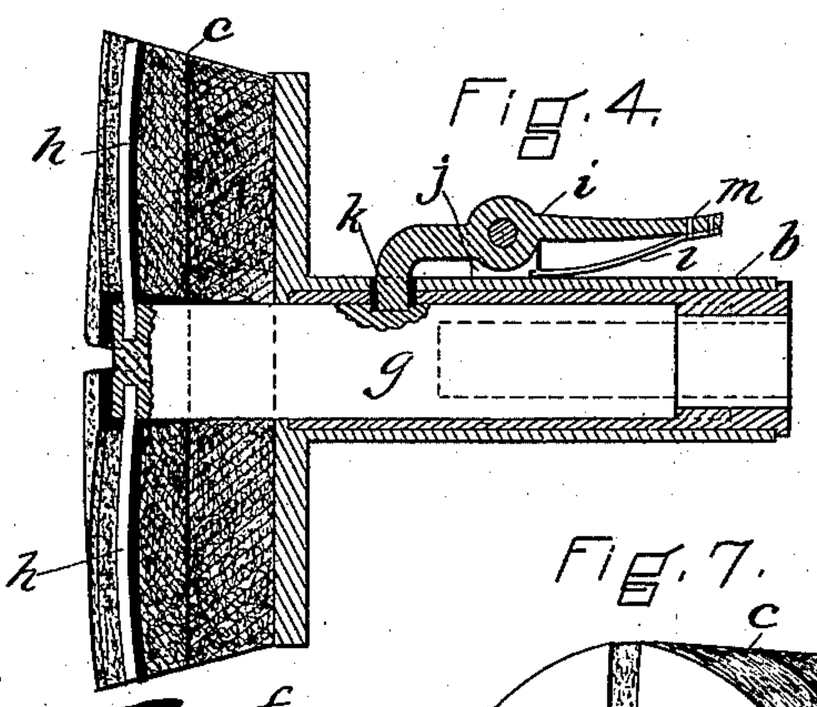


Fig. 5.

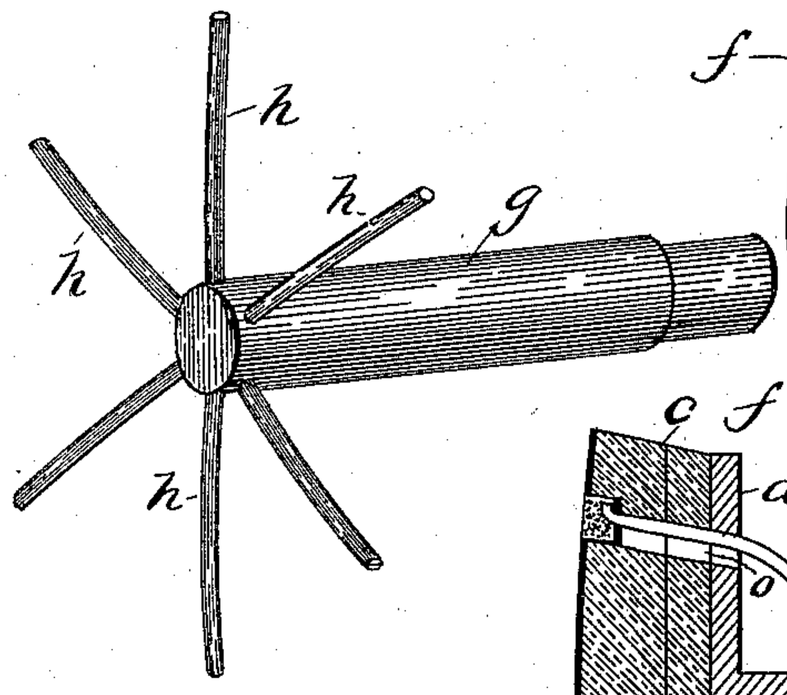


Fig. 6.

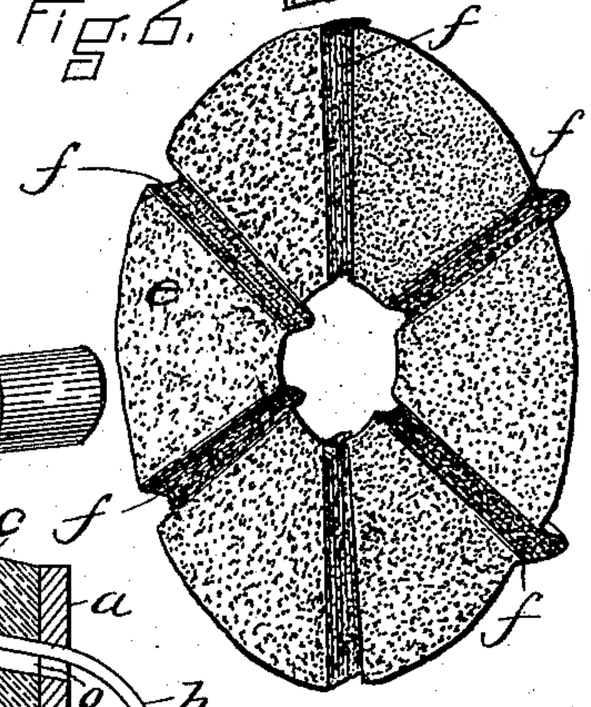


Fig. 7.

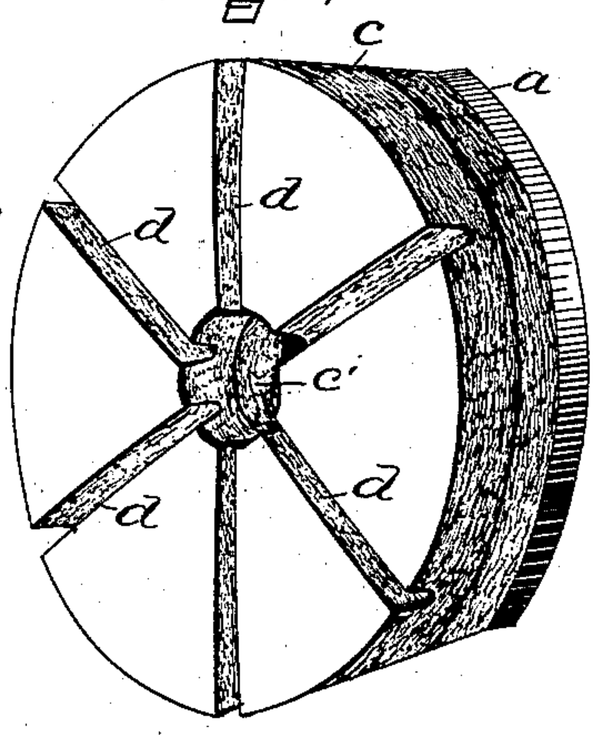
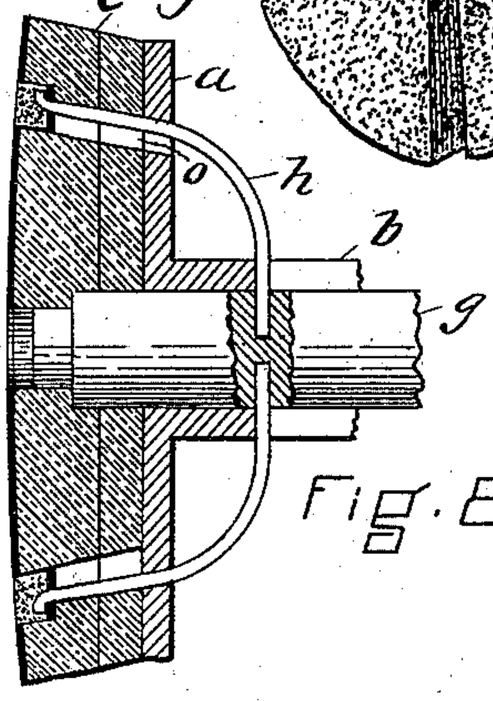


Fig. 8.



WITNESSES:
H. C. Ramsay.
A. D. Harrison.

INVENTOR:
John H. Riedell.
by Mich. Brown & Crosley
his attys.

UNITED STATES PATENT OFFICE.

JOHN H. RIEDELL, OF LYNN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO CHARLES F. BROWN, TRUSTEE, OF READING, MASSACHUSETTS.

ABRADING-PAD.

SPECIFICATION forming part of Letters Patent No. 384,076, dated June 5, 1888.

Application filed December 9, 1887. Serial No. 257,370. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. RIEDELL, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Pads for Buffing or Smoothing or Finishing the Bottoms or Soles of Boots or Shoes, of which the following is a specification.

It is the object of my invention to provide such improvements in buffing pads or wheels employed in smoothing or finishing the bottoms or soles of boots or shoes as will enable the operator to quickly remove, replace, and clamp or secure in position the sand-paper face or covering of the pad.

It is also the object of my invention to provide such improvements as will render more economic and simplify the construction of buffing pads or wheels, and at the same time increase their efficiency and convenience of use.

My invention consists, first, in an improved pad for buffing-wheels; secondly, in an improved sand-paper covering or facing for the pad, and, thirdly, in improved means for clamping or securing the sand-paper covering or facing to the pad.

My invention will first be described in connection with the accompanying drawings, forming a part of this specification, and subsequently pointed out with particularity in the claims hereto appended.

Of the annexed drawings, Figure 1 represents a perspective view of a buffing-wheel equipped with my improvements. Fig. 2 is a side view of the same. Fig. 3 is a side view of a wheel provided with a slightly-modified form of pad. Fig. 4 is a sectional view taken on the line *x x* of Fig. 2. Figs. 5, 6, and 7 are respectively perspective views of the radially-armed rod for engaging and holding the sand-paper face or covering on the pad, the sand-paper covering or face, and the pad proper and its base. Fig. 8 is a modified form of the means for clamping the molded sand-paper facing to the pad.

Like letters of reference designate like parts in all of the figures.

In the drawings, *a* designates the buffing-wheel or base or support for the pad, having the hollow stem or shank *b*, as seen in Fig. 4.

c designates the pad composed of a plurality of layers of felt or other suitable soft or spongy material, as represented in Figs. 1, 2, 4, and 7; or the pad may be composed of a single layer of suitable material, as shown in Fig. 3. A hole, *c'*, is formed through substantially the center of the pad, and grooves *d* are made in the face of the pad, extending from said hole *c'* radially outward, as shown most clearly in Fig. 7.

e designates the molded sand-paper covering or facing for the pad, provided with indentations or corrugations *f*, extending radially from a central opening or hole formed in the covering, said corrugations *f* corresponding in form and position to the grooves *d* in the pad *c*, so that when said covering or facing *e* is placed on the pad the convex portions of the corrugations will fit in the grooves, as shown in Figs. 1 to 4, inclusive.

g designates a rod adapted to extend into the hollow shank *b* of the wheel *a*, and through the hole formed in the pad *c* and molded sand-paper covering *e*, said rod being provided on the end extending through the pad with radial arms *h*, constructed and positioned so as to rest in the corrugations of the sand-paper covering and the grooves of the pad aforesaid, and (when the rod *g* is locked or held in the hollow shank *b*) hold the sand-paper facing or covering on the pad.

Any suitable means may be provided for locking or latching the rod *g* in the shank *b*, that here shown in Figs. 1, 2, and 4 being a lever *i*, pivoted on lugs *j*, formed on the shank *b*, and provided on one end with a dog, *k*, adapted to pass through a hole formed in the side of the shank *b* and enter a notch formed in the side of the rod *g*. A spring, *l*, is interposed between the opposite end, *m*, of lever *i* and the shank *b*, said spring operating to keep the dog *k* in engagement with the notch in rod *g*. To release the rod *g*, the operator simply depresses the end *m* of the lever *l*.

In Fig. 3 I have shown a cam, *n*, formed on the lever *i*, which cam, operating through a slot formed in shank *b*, operates against rod *g* to clamp or lock it in said shank.

Instead of forming the radial arms *h* on the

end of rod *g*, and having them extend out to the edge of the pad in the corrugations of the sand-paper covering, said arms may be attached to the rod *g* above the wheel or disk *a*, and extend through slots or holes *o* formed in the disk or wheel, the pad, and the sand-paper covering, and outward into short corrugations formed in the sand-paper covering and fitting in the pad, as shown in Fig. 8.

Sand-paper coverings provided with corrugations or depressions in their face, as shown in Fig. 6, can be readily struck up or molded, and buffing-pads having grooves, as pictured in Fig. 7, are easily and cheaply manufactured, both pad and coverings, and may be quickly applied to the wheel, base, or disk, or removed therefrom.

While I have termed the covering or facing for the pad "sand-paper" it will be understood that emery cloth or paper or other material of a similar nature is included therein, being adapted to perform the same function.

Though I have been quite particular to describe the form and arrangement of the parts as here shown, it is obvious that these may be varied without departing from the nature or spirit of the invention.

Having thus described my invention, what I claim is—

1. The herein-described covering or facing for buffing-pads, consisting of a sheet of sand-paper or similar material, having radial corrugations or depressions *f* permanently molded or formed therein, substantially as and for the purpose set forth.

2. The herein-described buffing-pad, consisting of felt or other suitable soft or spongy material, having radial grooves or depressions *d* permanently formed in its face, substantially as and for the purpose set forth.

3. The pad provided with grooves or depressions, the support for the pad, and the sand-paper facing having corrugations or depressions, combined with a rod having radial arms constructed and arranged to extend into the depressions of the pad and facing, and a locking or clamping device for securing said rod to said pad-support, all combined, arranged, and operating substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 3d day of December, A. D. 1887.

JOHN H. RIEDELL.

Witnesses:
ARTHUR W. CROSSLEY,
C. F. BROWN.