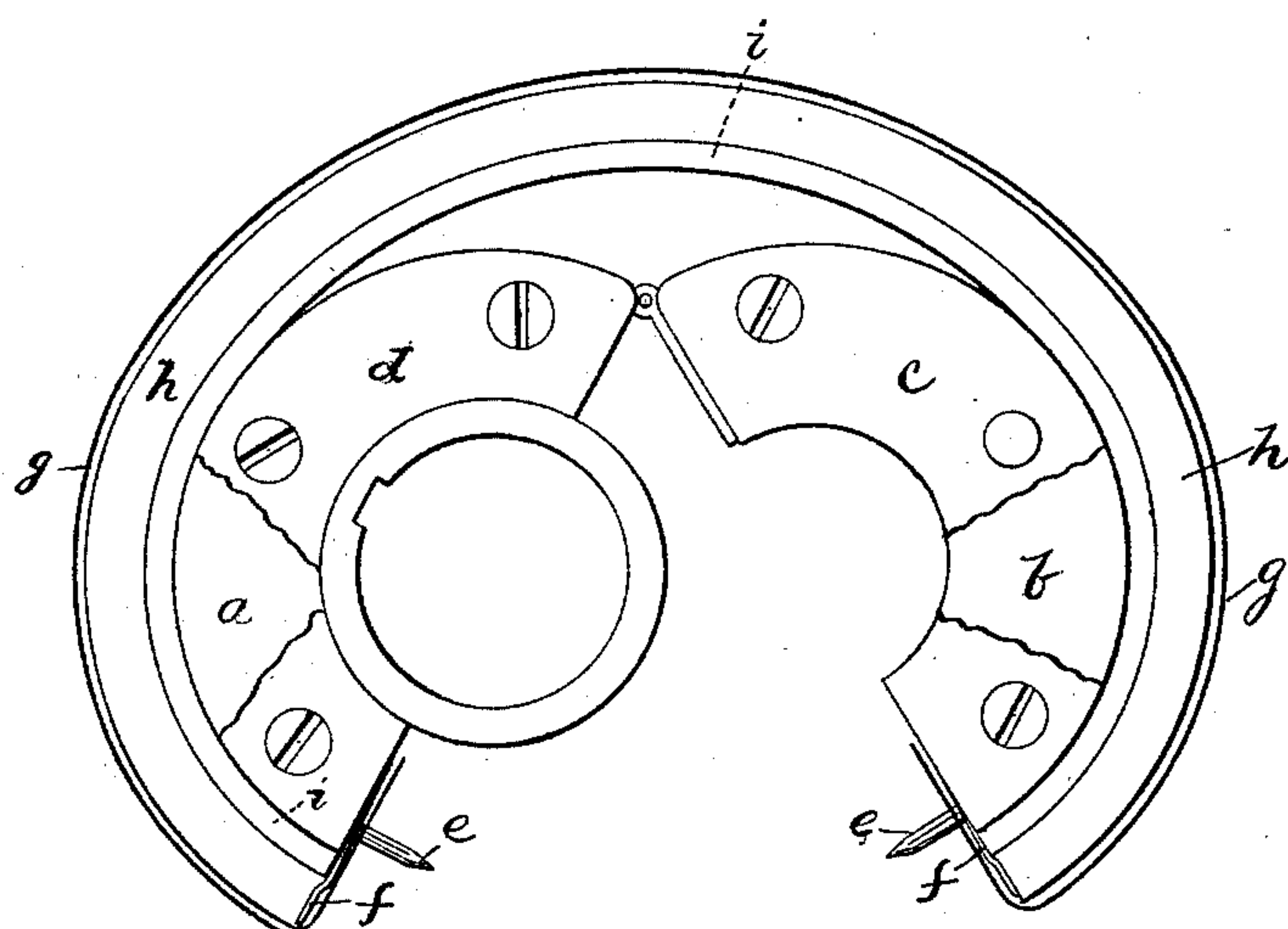


(No Model.)

J. G. BUZZELL.
Buffing Roller.

No. 232,333.

Patented Sept. 21, 1880.



WITNESSES:

W. E. Whitney,
V. D. Durborn.

INVENTOR=

John G. Buzzell,
by Lewis Gregory, Atty.

UNITED STATES PATENT OFFICE.

JOHN G. BUZZELL, OF LYNN, MASSACHUSETTS.

BUFFING-ROLLER.

SPECIFICATION forming part of Letters Patent No. 232,333, dated September 21, 1880.

Application filed August 2, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. BUZZELL, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Buffing-Rollers, of which the following description, in connection with the accompanying drawing, is a specification.

This invention relates to rollers for buffing leather, as in the manufacture of boots and shoes, and has for its object to hold and support in a firm and substantial manner the belt which serves as a backing for the sand or other equivalent paper or cloth which forms the abrasive surface of the said buffing-roller and prevent it from being stretched out of shape or being otherwise injured by either the strain upon the belt through pressure against the paper on it or by reason of opening the roll.

This invention is an improvement on the rollers described in United States Patent No. 100,229, February 22, 1870, and No. 137,187, March 25, 1873, to which reference may be had.

My invention in buffing-rollers having a sand-paper or equivalent surface supported upon a layer of felt consists in combining with the said layer of felt a strong flexible but non-elastic backing composed of leather or duck or material of that nature, upon which the felt is secured by a suitable cement. The ends of the said belt or the backing may be secured to the roller or metal plates at its dividing-line, as in the said patents.

The felt support for the sand-paper, if not held firmly and rigidly by some non-elastic substance during the operation of the sand-paper upon the work being buffed, will be stretched and buckled up near its junction with the cylinder. To obviate this the felt has been glued directly upon the periphery of the wooden roller. It was necessary to use glue for this purpose; but this plan has been found to be objectionable, because the glue readily penetrates the felt at its under side and hardens it, and also because the said felt either becomes detached from the roll when opening it, thus leaving the felt free to stretch and pucker, or also, if the felt adheres to the roller where it is to be separated, to apply a fresh sheet of sand-paper, the felt, which must then be bent in the line of the seam, obstructs the opening of the roller, and if the felt is very thick jams

or creases it so as to make an uneven or hard streak.

I avoid all these objections by attaching the felt to a backing of leather, heavy duck, or other flexible but non-elastic backing material, such backing actually preventing the felt from stretching by pressure against the sand-paper when the roll is in rotation, and as the backing covers loosely the hinged joint of the roller, and substantially its whole periphery, it follows that the roller can be freely opened and closed for the renewal of the sand-paper, and the roll and felt are each rendered more lasting and better in actual use.

India-rubber cement will stick to leather, but will not to wood; so I am enabled by the employment of the leather backing to employ such cement instead of glue, and such cement in no way affects or lessens the elasticity or softness of the felt.

The drawing represents, in end view, a buffing-roller embodying my invention, the said roller being opened to show the action of the backing and felt when so opened.

The buffing-roller is composed, as usual, of two shells, *a b*, of wood, suitably connected together by a metal or flexible hinge of any usual sort. At the ends of these shells are metal plates *c d*, shaped, as usual, to embrace the shaft upon which the roll is to be mounted.

The pins *e* to enter the sand-paper *g*, the felt *h*, and plates *f*, with which the felt is attached at its end by sewing or otherwise, are and may be as usual. I add to these well-known elements the backing *i*, preferably of leather, but it may be of any usual or well-known flexible but non-elastic material, such as duck.

The felt is secured by cement upon the backing, and is then secured to the rollers at the plates *f*, the backing being loose upon the periphery of the roll.

The backing prevents the felt from becoming stretched, and when the roller is to be opened, as shown in the drawing, which is frequently the case, the said backing falls back from the surface of the roller and does not obstruct the easy opening of the roller, nor does it in any way injure the felt or render it less useful by reason of opening the said roller and again closing it.

I claim—

As an improved article of manufacture, a

buffing-roller composed of a divided shell and
a sheet of felt attached to a flexible but non-
elastic backing, substantially such as de-
scribed, the felt and backing being secured to
5 the said shell, as set forth, to support a sand-pa-
per or buffing surface, prevent stretching the
felt, and permit the shell to be easily opened.

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

JOHN G. BUZZELL.

Witnesses:

G. W. GREGORY,
N. E. C. WHITNEY.