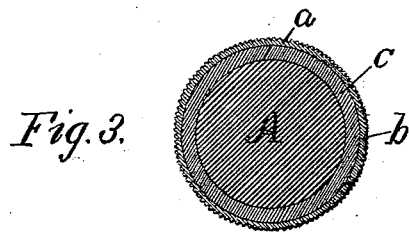
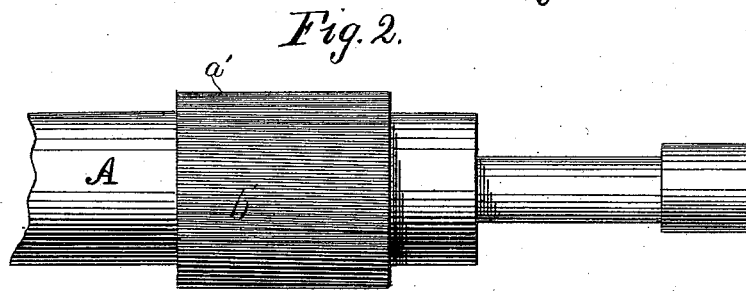
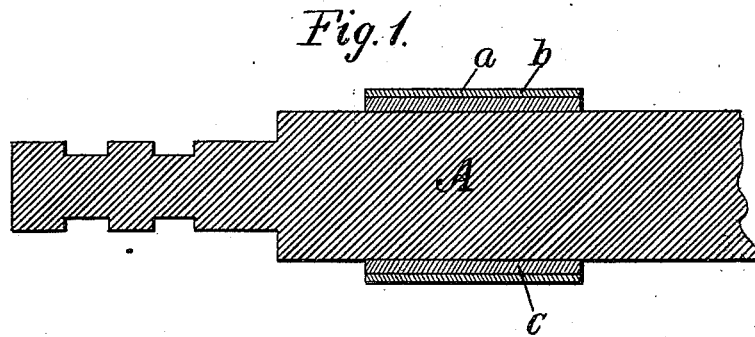


W. PLACE.  
Leather-Buffering Roll.

No. 213,247.

Patented Mar. 11, 1879.



Witnesses.  
*H. E. Lodge.*  
*J. H. Hummel.*

Inventor.  
*Wallace Place.*  
*J. Curtis. Atty.*

# UNITED STATES PATENT OFFICE.

WALLACE PLACE, OF CAMBRIDGEPORT, MASSACHUSETTS, ASSIGNOR OF  
ONE-HALF HIS RIGHT TO STEPHEN A. FERRIN, OF SAME PLACE.

## IMPROVEMENT IN LEATHER-BUFFING ROLLS.

Specification forming part of Letters Patent No. 213,247, dated March 11, 1879; application filed  
January 13, 1879.

*To all whom it may concern:*

Be it known that I, WALLACE PLACE, of the town of Cambridgeport, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Leather-Buffing Rolls, of which the following is a specification:

This invention is an improvement in machines for buffing the soles of boots and shoes, and relates to the buffing-roll—that is to say, that portion of the machine which consists of a horizontal cylinder whose periphery is covered with an abrasive material for finishing the surface of a sole.

Heretofore the covering of these rolls has universally been composed of sand-paper, which is wound about them, and secured by suitable means. The objectionable feature of the sand-paper covering is that it rapidly wears out, and must be often renewed, while its surface is never continuously in the same condition. When new it tends to scratch the surface of the leather, and when worn it is ineffective, and as its surface begins to get smooth the friction between it and the leather tends to burn or discolor the surface of the latter.

My improvement, which is designed to obviate these objectionable results in the use of sand-paper, consists in the employment of a covering for the roll, consisting of a tube or cylinder of thin steel, whose outer surface is toothed, fluted, or otherwise roughened to exert the desired effect upon the leather.

The drawings accompanying this specification represent, in Figure 1, a sectional elevation, Fig. 2 a plain elevation, and Fig. 3 a cross-section, of the buffing-roll as provided with my improvement.

In these drawings, A represents the body of the roll, which in practice is about thirty inches long between its journals and about two and one-half inches in diameter. The abrasive covering of the roll is shown at *a a'* as applied at two points and of different grades or coarseness, as the practice has been to apply the covering in this manner, in order that the desired finish may be imparted to the leather by a preparatory action, by the first on

coarser portion of the covering, and completed upon the finer.

In carrying out my invention I discard the sand-paper heretofore used, and in its place I employ a tube or cylinder, *b* or *b'*, composed of sheet-steel, whose outer surface is toothed or roughened in such manner as to act in the desired manner upon the leather.

My present plan is to cut the surface of the covering into the teeth resembling the surface of single cut or float files, and this will undoubtedly be found the most desirable surface, as it effects its work rapidly and perfectly.

As shown in the present instance, the covering *b b'* is made from a sheet of steel, first cut with the teeth, as stated, then formed into a cylindrical tube, and is lapped and riveted or otherwise secured together, and then properly hardened.

The tube thus prepared is placed upon the roll A with a tube, C, of india-rubber or other elastic material, interposed between it and the surface of the roll, to provide a yielding cushion or backing to prevent abrupt or unyielding pressure between the roll and the leather held against it.

I do not confine myself to the particular manner herein stated of forming or roughening the covering *b b'*, or applying it to the body of the roll, as these may be varied with the exercise of little experience on the part of the mechanic. I consider my invention to consist in producing a buffing-roll with a covering of steel having its surface properly roughened to exert the proper abrasive action upon leather.

The advantages of my improvement are several and marked: First, the action of the steel covering is more beneficial than sand-paper, for the reason that it does not scratch, but makes a smooth cut; second, it is very durable, and requires renewal only at long intervals of time; third, its surface remains for a long time in the same condition; therefore, the soles of boots and shoes buffed by it will present a uniform finish, and for the same reason the leather is not burned or discolored, as would be the case were the covering to wear

smooth; fourth, the labor, loss of time, and stoppage of the machine consequent upon the frequent renewal of the sand-paper covering is avoided in my case.

I claim—

1. A buffing-roll whose body is provided with a removable covering of thin steel roughened to exert the desired abrasive action upon the surface of the leather, substantially as set forth.

2. In buffing-rolls provided with a roughened steel covering or surface, the intermediate elastic cushion, substantially as stated.

WALLACE PLACE.

Witnesses:

H. E. LODGE,  
GEO. L. HALL.