(No Model.)

G. H. P. FLAGG.

ROLL FOR BUFFING AND POLISHING MACHINE.

No. 257,308. Patented May 2, 1882.

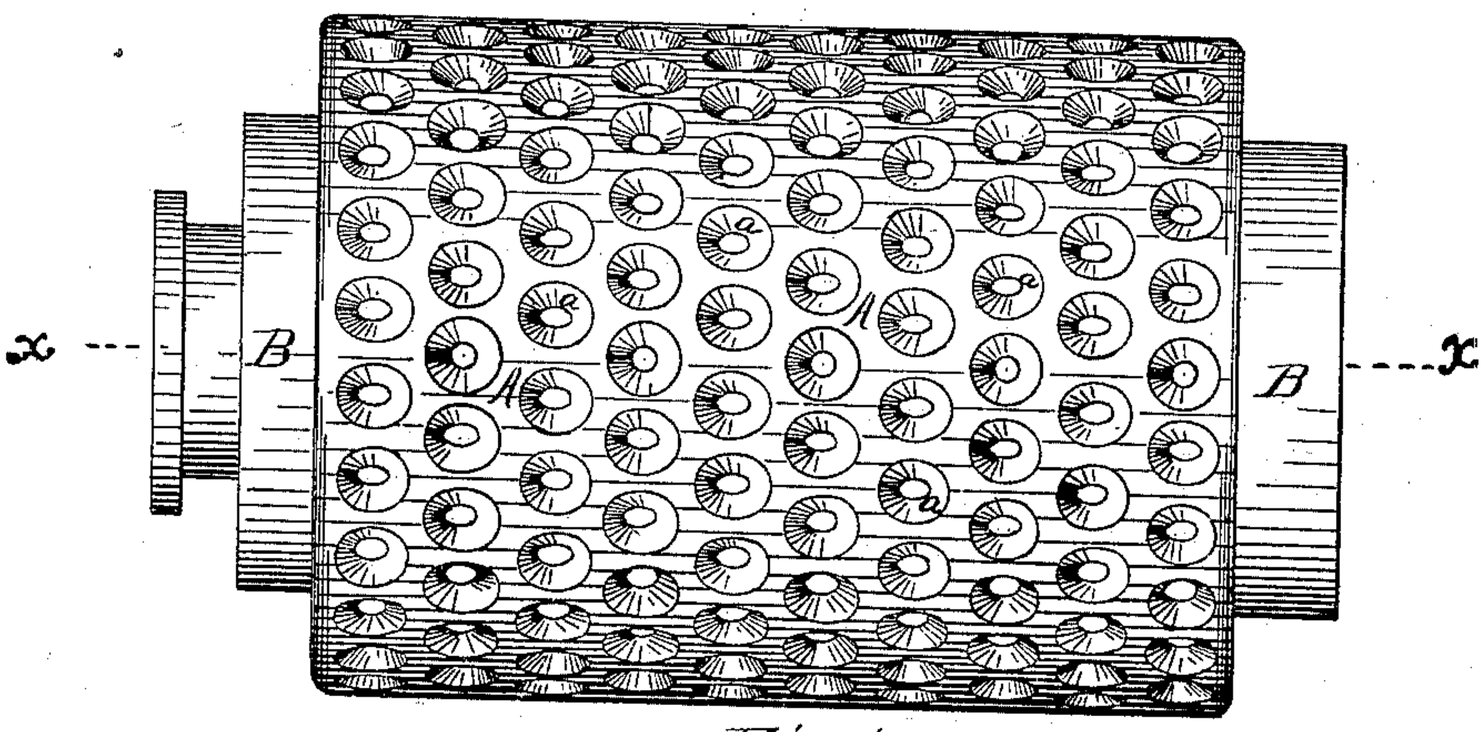

Fig. 1.

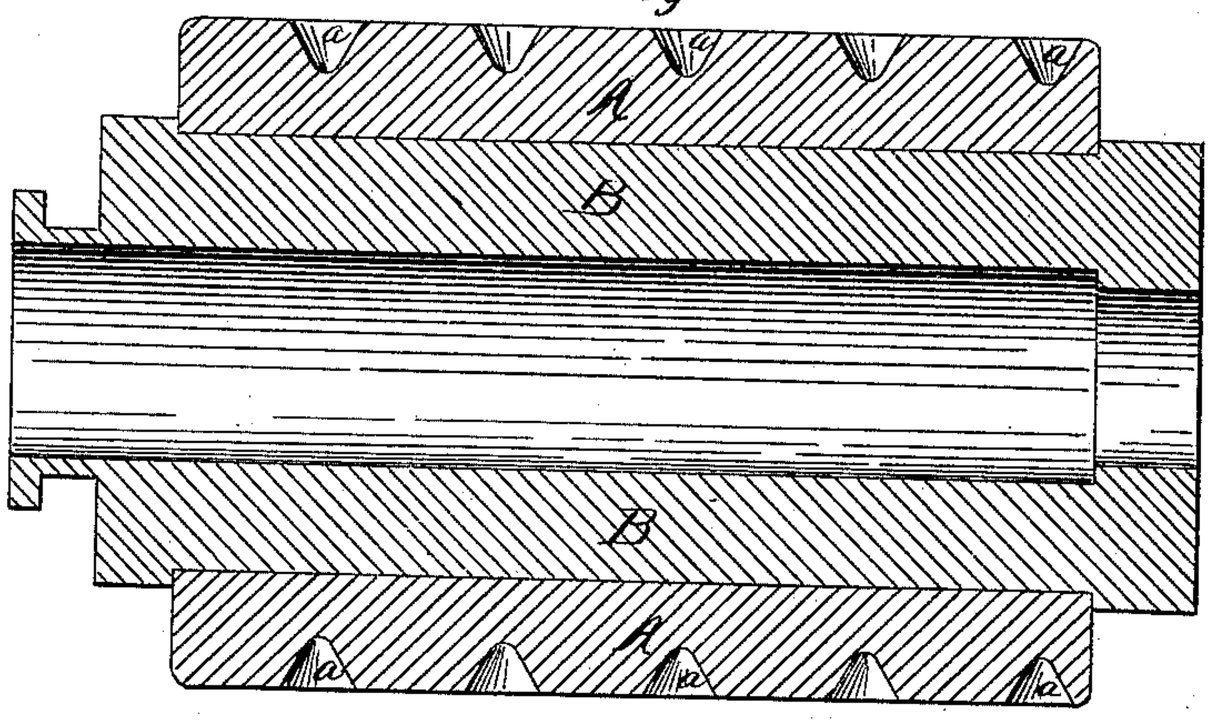

Fig. 2.

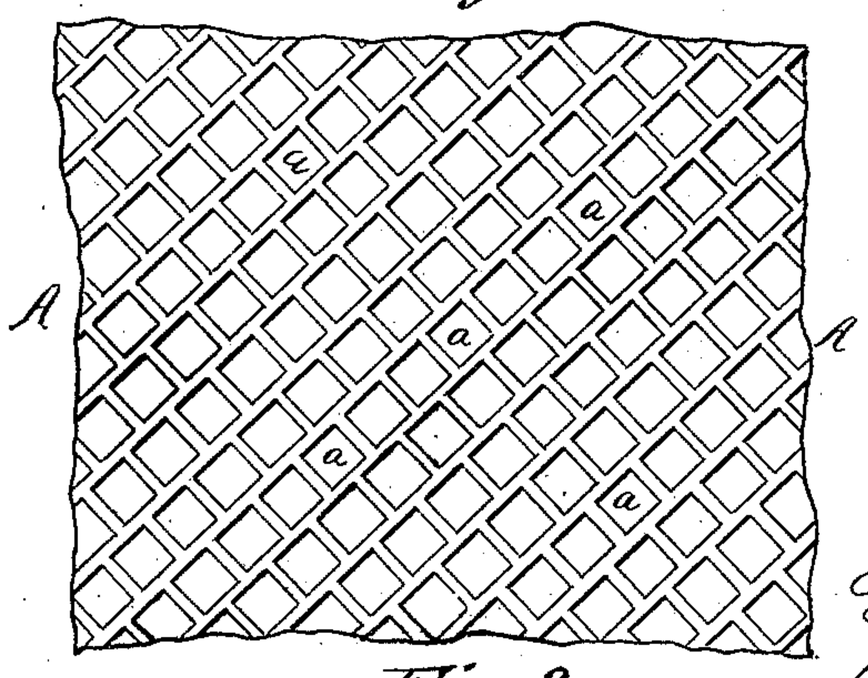

Fig. 3.

Witnesses:
Wm. Littell
J. R. Snow.

Inventor:
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by J. Edwin Madison
his atty.

UNITED STATES PATENT OFFICE.

GEORGE H. P. FLAGG, OF BOSTON, MASSACHUSETTS.

ROLL FOR BUFFING AND POLISHING MACHINES.

SPECIFICATION forming part of Letters Patent No. 257,308, dated May 2, 1882.

Application filed November 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. P. FLAGG, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Roll for Buffing and Polishing Machines, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of a roll embodying my invention. Fig. 2 is a section on the line *x x*, Fig. 1. Fig. 3 shows a second pattern for the outer surface of the cover of the roll.

In machines for buffing the bottoms of boots and shoes the rolls carrying the sand-paper require some sort of soft elastic covering; and my invention relates to this covering for such rolls; and it consists in a rubber covering the surface of which is formed of numerous ridges with spaces between them.

In the drawings I have shown two forms of these ridges, one form having spaces which are circular, the other having spaces which are square, and it is obvious that many other forms may be adopted. A covering made of a cylinder of rubber has been long known for rolls of this kind, used in machines for sandpapering metal and wood, and I have used it experimentally on the rolls of machines for buffing boot and shoe soles, but have not found it as good as the felt covering usually used, because its elasticity was of a kind or quality not suitable for sandpapering leather; but when the rubber covering is formed with ridges, so that the sand-paper is supported by the tops of these rubber ridges, instead of being supported by an unbroken surface of rubber, the effect is widely different, and the quality and degree of elasticity of the rubber covering can be regulated with the utmost nicety, the ridges not only yielding under pressure as the particles of rubber or other elastic bodies yield, but also bending, much as a strip of sheet-rubber will bend if supported on one edge, under pressure applied to the other edge.

The ridges should be so shaped as to form small inclosed spaces *a*, for if the spaces be too large the difference between the elastic support of that part of the sand-paper in contact with the ridges and that part of the sand-paper not in contact with them, but lying directly over the spaces, will be so marked as to make imperfect work. In the drawings I have shown the ridges as true ridges and united in one continuous sheet, A. This is for convenience in molding the covering A on the metal part B of the roll; but the covering A may be open-work, and may be secured upon the metal part B of the roll in any suitable way, the main feature of my invention being the elastic covering A, formed to support the sand-paper at intervals instead of supporting it at all points under pressure, as in rolls now in use.

What I claim as my invention is—

The improved roll above described, consisting of the central core, B, having secured upon it the rubber covering A, made with a large number of cells, *a*, in it, substantially as described.

G. H. P. FLAGG.

Witnesses:
WM. ZITTEL,
J. R. SNOW.