

C. N. BACON.
POLISHING-WHEEL.

No. 172,242.

Patented Jan. 18, 1876.

Fig. 1.

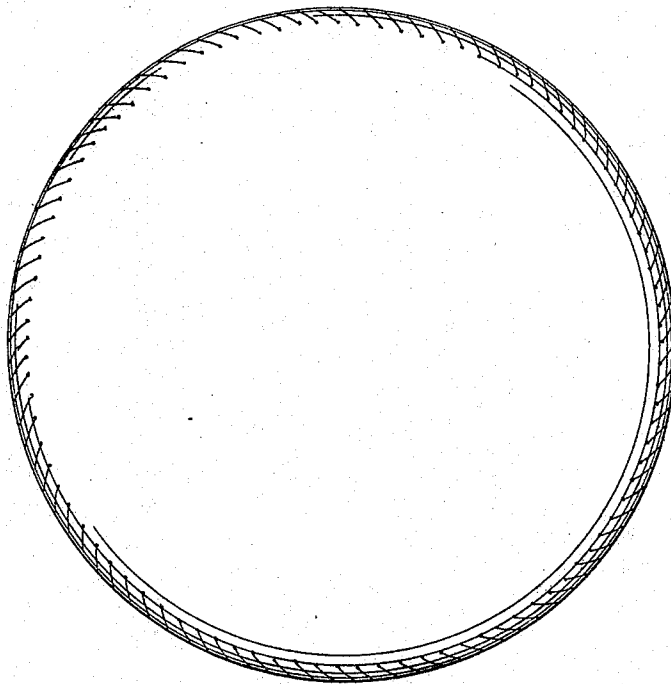
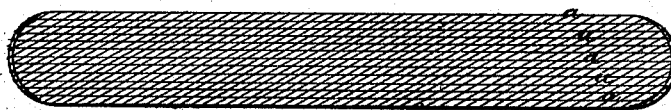


Fig. 2.



Witnesses:
W. Allen
Jos. C. Forney

Inventor:
Charles N. Bacon.
by Allan Andren. atts.

UNITED STATES PATENT OFFICE

CHARLES N. BACON, OF WINCHESTER, MASSACHUSETTS.

IMPROVEMENT IN POLISHING-WHEELS.

Specification forming part of Letters Patent No. **172,242**, dated January 18, 1876; application filed September 30, 1875.

To all whom it may concern:

Be it known that I, CHARLES N. BACON, of Winchester, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Polishing-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in felt-polishing wheels; and consists in a solid felted wheel made from a number of circular sheets of felt, the fibers of each successive sheet being crossed by the fibers of the next one, after which the sheets of felt are dampened and piled upon each other, and steamed in a closed vessel and hardened. The steaming and hardening are repeated several times, after which the wheel is stitched with suitable thread or yarn all round its outer circumference, to prevent it from spreading apart at said place. The wheel is afterward soaked in diluted acid, and is brought to the fulling-mill, and after being taken from the fulling-mill it is pounded, shaped, and pressed, and, lastly, finished with the aid of pumice-stone, or similar material.

On the accompanying drawing, Figure 1 represents a plan of my improved polishing-wheel, and Fig. 2 represents a central longitudinal section.

The wheel is shown in Fig. 2 as being composed of a number of circular sheets of felt, *a a*, that are laid over each other with the fibers crossing each other, after the sheets have first been dampened. I then press the damp-sheets in a suitable press, so as to re-

duce them to about one-half of their original thickness, after which they are steamed in a close vessel, and brought to the "hardener," a similar instrument as used by hatters. The steaming and hardening are repeated several times, and the circumference of the sheets is sewed with suitable thread or yarn, so as to prevent the sheets from spreading apart. I now saturate the whole with a diluted acid, and bring the wheel to the fulling-mill, after which it is pounded, shaped, and pressed to its proper form, and finally finished by means of pumice-stone or similar material.

In this manner I am able to make a very compact, durable, and solid wheel from any number of sheets, and of any desired thickness.

What I wish to secure by Letters Patent, and claim, is—

The herein-described process of manufacturing polishing-wheels, consisting in laying up a number of dampened sheets of felt one above the other, with crossing fibers, and steaming the whole in a closed vessel, after they have been reduced by pressing to about half their thickness, and afterward hardened, which steaming and hardening, after being repeated, is followed by stitching the circumference of the sheets together, and soaking them in diluted acid, and finally the wheel is put through a fulling-mill, after being taken from which it is pounded, shaped, pressed, and finished in a manner and for the purpose set forth.

In testimony that I claim the foregoing as my own invention, I have affixed my signature in presence of two witnesses.

CHARLES N. BACON.

Witnesses:

ALBAN ANDRÉN,
F. ALLEN.