

No. 753,970.

PATENTED MAR. 8, 1904.

A. W. FOSTER.
NAP RESTORING DEVICE.
APPLICATION FILED JUNE 4, 1903.

NO MODEL.

FIG. 1.

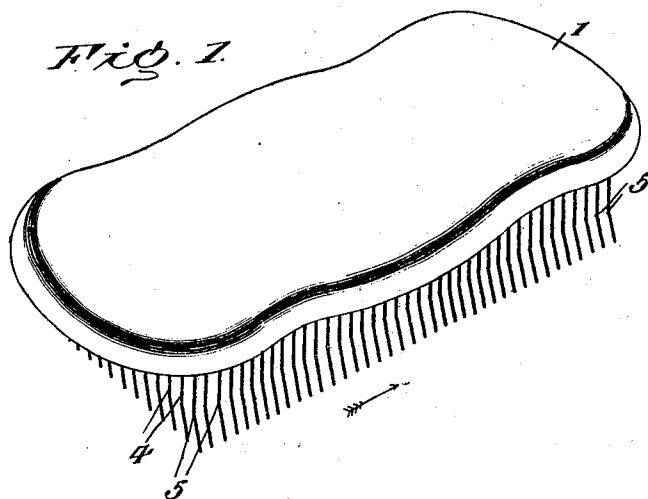


FIG. 2.

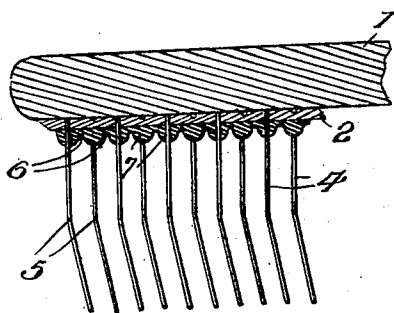


FIG. 3.

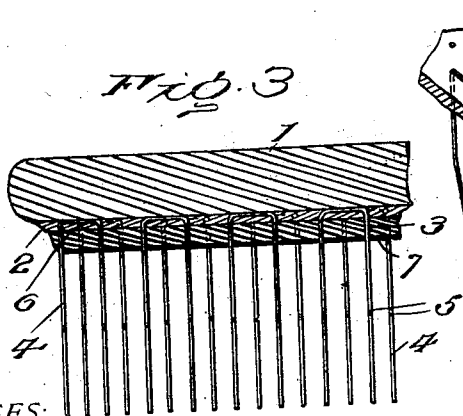
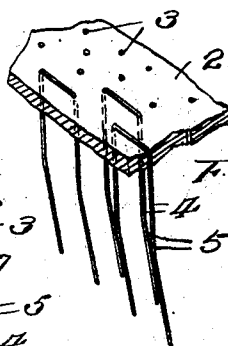


FIG. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ALFRED W. FOSTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO THE FOSTER BRUSH MANUFACTURING COMPANY, OF WASHINGTON,
DISTRICT OF COLUMBIA, A CORPORATION.

NAP-RESTORING DEVICE.

SPECIFICATION forming part of Letters Patent No. 753,970, dated March 8, 1904.

Application filed June 4, 1903. Serial No. 160,138. (No model.)

To all whom it may concern:

Be it known that I, ALFRED W. FOSTER, a citizen of the United States of America, and a resident of Washington, District of Columbia, have invented certain new and useful Improvements in Nap-Restoring Devices, of which the following is a specification.

My invention relates to certain new and useful improvements in devices for restoring the nap to cloth; and the object thereof is to provide a device which will when used on a piece of cloth which has been worn shiny pick up a new nap, and thereby remove from the cloth the shine, which is due to the fact that the nap on the cloth has been worn off.

By my invention I restore the nap without wearing out the cloth, as the nap is picked up from the wool.

I am aware that attempts have been made to restore a nap to worn goods by rubbing them with emery-cloth or sandpaper. This, however, is very objectionable, because to produce even a slight nap a great deal of the cloth has to be worn away, whereas by my invention the nap is produced without wearing away the cloth.

Referring to the drawings, wherein I show the preferred form of my invention and wherein like parts are designated by the same reference-numerals wherever they occur, Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a section taken at right angles to Fig. 2. Fig. 4 is a detail view showing how the wire bristles are secured to the brush.

1 is the back of the brush, made in any desired form or size.

2 is a sheet of leather, rubber, or other suitable material which is provided with the holes 3, as best shown in Fig. 4.

4 represents the bristles, which are preferably bent in U-shaped form, so that they may be inserted in the holes 3 in the manner shown in Fig. 4. These wire bristles are long and flexible, being preferably made of fine steel wire, such as piano-wire, so that they may readily yield when drawn over a piece of cloth. The bristles must be of such a length

and of such a degree of flexibility that when the brush is drawn over a piece of cloth in the direction of the arrow in Fig. 1 the points of the bristles will catch under the fibers of cloth, and as the brush is drawn along the bristles will yield until the ends of the bristles move to a perpendicular position or slightly beyond, when the bristles will be released from the fiber of the cloth. In this way the nap which is formed by the fiber of the cloth will be raised without tearing the surface. It will thus be seen that the ends of the bristles stand first in such relation to the cloth as to be in a position where they will tend to catch under the fiber and then in a position where they will withdraw from the fiber as the brush is moved over the cloth. In order that the bristles may readily pick up the nap, they are provided with the bend 5 about midway of their length, so that their free ends are not perpendicular to the back of the brush.

In order to increase the spring of the bristles, I preferably place over the sheet 3 a second sheet 6, which is provided with a series of ridges 7, there being a ridge for each row of bristles, the rows of bristles passing through the rows of ridges, as best shown in Fig. 2.

In the operation of my device the brush is placed on a piece of cloth upon which it is desired to provide a new nap, and the brush is drawn over the cloth in the direction of the arrow in Fig. 1. The points of the fine-wire bristles will catch in the body of the cloth and will raise the fibers forming the body without-tearing them and will in this way provide the surface of the cloth with a nap.

As the shine which appears on worn goods is due to the fact that the nap has been worn off, renewing the nap will remove this shine and will give the cloth the appearance of new. Thus it will be seen that cloths which have become worn and shiny may by the use of my brush be restored to their original condition.

While I have described what I deem to be the preferred form of my invention, I desire to have it understood that changes may be made in the form and construction of the

parts thereof without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

5 As a new article of manufacture, a nap-restoring brush consisting of a suitable back, a sheet of suitable material secured to the back, elastic-wire bristles passing through the sheet, the bristles being bent at an angle between
10 their ends and being of such a length and of such an elasticity that when the device is drawn over a piece of cloth in the direction for the ends of the bristles to catch under the

fiber of the cloth when the bristles are in their normal position, they will yield until 15 they are in a position to disengage from the fiber of the cloth, whereby the fiber of the cloth will be picked up and the nap restored without tearing the cloth.

Signed by me at Washington, District of Co- 20 lumbia, this 4th day of June, 1903.

ALFRED W. FOSTER.

Witnesses:

FRANCIS M. PHELPS,
DENIZA MATTHEWS.