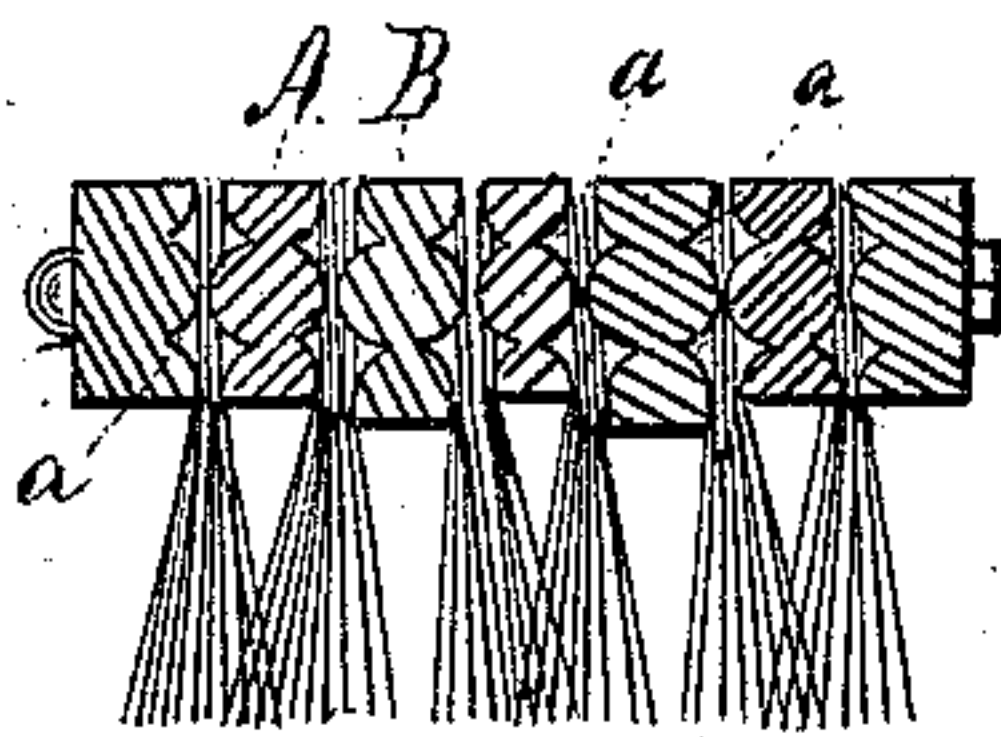
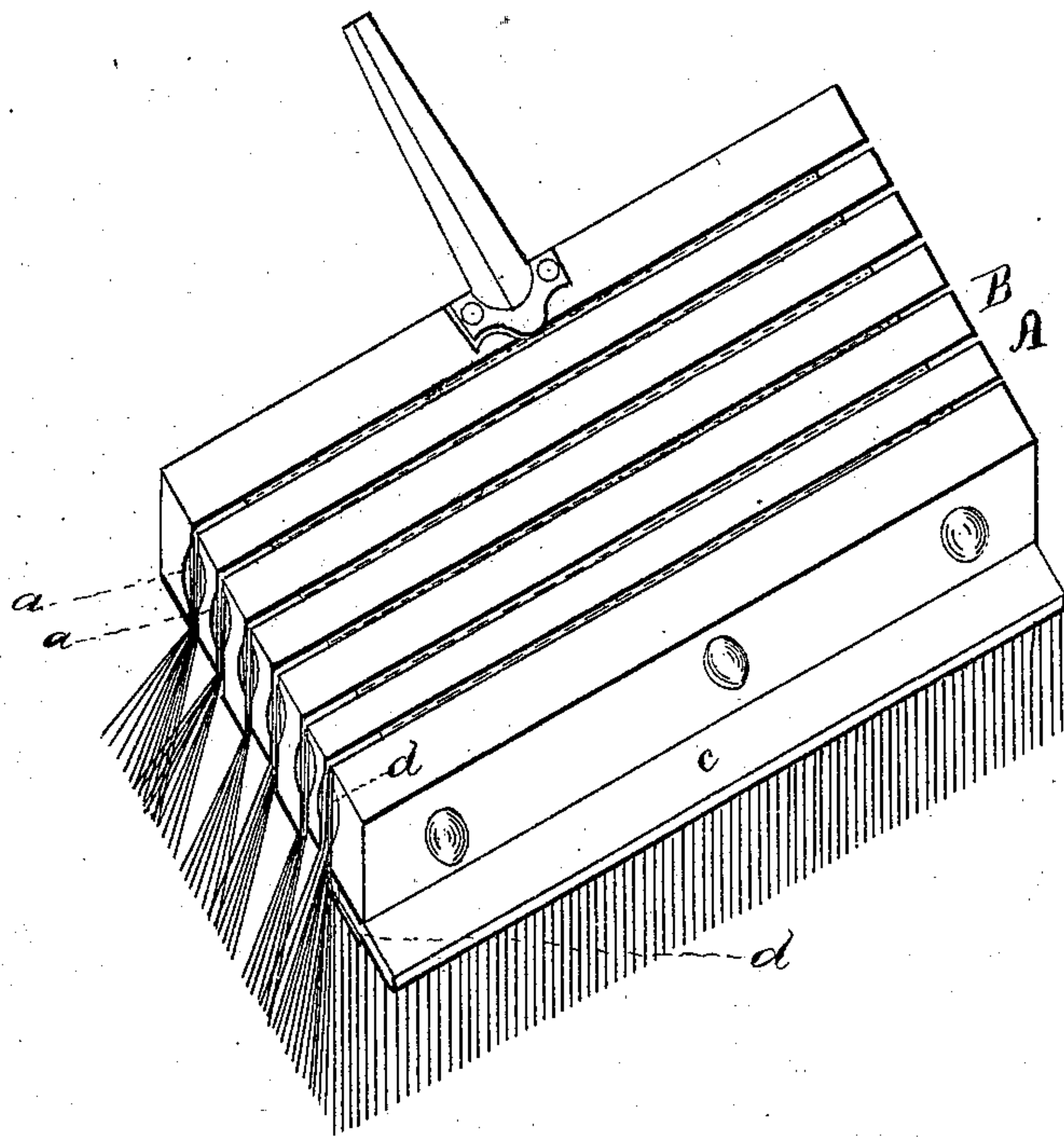


S. W. RUSSELL.
Scrubbing-Brushes.

No. 150,619.

Patented May 5, 1874.



WITNESSES:

Philip W. Hale,
Wm. Beale Hale.

INVENTOR.

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UNITED STATES PATENT OFFICE.

SYLVESTER W. RUSSELL, OF DUBUQUE, IOWA.

IMPROVEMENT IN SCRUBBING-BRUSHES.

Specification forming part of Letters Patent No. **150,619**, dated May 5, 1874; application filed April 16, 1874.

To all whom it may concern:

Be it known that I, SYLVESTER W. RUSSELL, of Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Scrubbing-Brushes; 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 drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in that class of scrubbing-brushes the backs or stocks of which are composed of series of slats, between which the bristle, straw, or other material of which the brush is made, is clamped; and consists, first, in making the slats of which a brush-back is composed of different widths alternately, the width increasing toward the center of the brush; secondly, in corrugating the adjacent faces of the slats.

The functions of these features of my improvement I will now explain in connection with a description of the illustrative drawing, in which—

Figure 1 is an isometric perspective view of a scrubbing-brush constructed according to my invention. Fig. 2 is a section thereof on the line *x x*, Fig. 1. Fig. 3 is a section of a brush, showing a modification of the corrugations.

A A are the narrow slats, and B B the wide ones. This arrangement of the slats, widening toward the center of the brush and being of different widths, affords less support to the outsides of the rows of bristles or straw than to the inner sides, except in the two center rows. The outer rows are thus caused to incline outward, and give an increased working-face to the brush, while the inward inclination of the two center rows gives a compact and efficient center, and at the same time

the two inclinations prevent the clogging up of the brush, which is a well-known bar to the efficiency of brushes of ordinary construction. *a a a* show the corrugations upon adjacent faces of the slats.

When these faces are plain and the brush becomes wet in use, the absorption of water causes the bristles or straw to swell and project upward through the back, and by pressure they are forced out of proper position; but when the faces are corrugated, as shown, the swell is most, of course, in the depressions where there is most room, and the projection thus caused prevents the straw or bristles from moving longitudinally; and even when dry, the increased friction occasioned by the corrugations prevents the straw or bristle from moving.

c is a strip of rubber, fastened, in this instance, to the under side of the front slat of the brush-back, so as to project in front of and at a right angle to the straw or bristle. This strip *c* is secured to the slat firmly its entire length by means of a strip of sheet metal, *d*, which, being secured by nails or screws to the inner face of the slat, is bent upward against the strip *c*, and fastened here also by nails or screws, which at the same time pass through and hold in position the strip *c*.

I am aware that rubber strips have heretofore been combined with the bristle or straw of brushes; but, so far as I have been able to ascertain, they have been arranged parallel with the bristle or straw, and serve an entirely different purpose from mine. They are intended to assist the scrubbing, while my arrangement is for the purpose of drying by scraping off the water from the surface scrubbed after scrubbing. I do not claim, broadly, therefore, the combination of such a strip with a brush.

Having now fully described the construction and operation of my improvement, I claim, and desire to secure by Letters Patent—

1. A scrubbing-brush head formed by the parallel arrangement of slats of different widths, so that while they are even on top, the under edges are unequal, thus permitting the bristles or broom-corn to incline chiefly under the narrow slats, substantially as described.

2. The series of slats forming the brush-head, having their faces, between which the bristles or broom-corn are held, corrugated longitudinally, the depressions in each slat

being directly opposite those in the next adjacent slats, substantially as and for the purpose set forth.

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

SYLVESTER W. RUSSELL.

Witnesses:

WM. BEALE HALE,

J. B. THOMPSON.