(Model.)

B. NORMANDIN.

BRUSH.

No. 308,427. Patented Nov. 25, 1884.

Fig: 1.

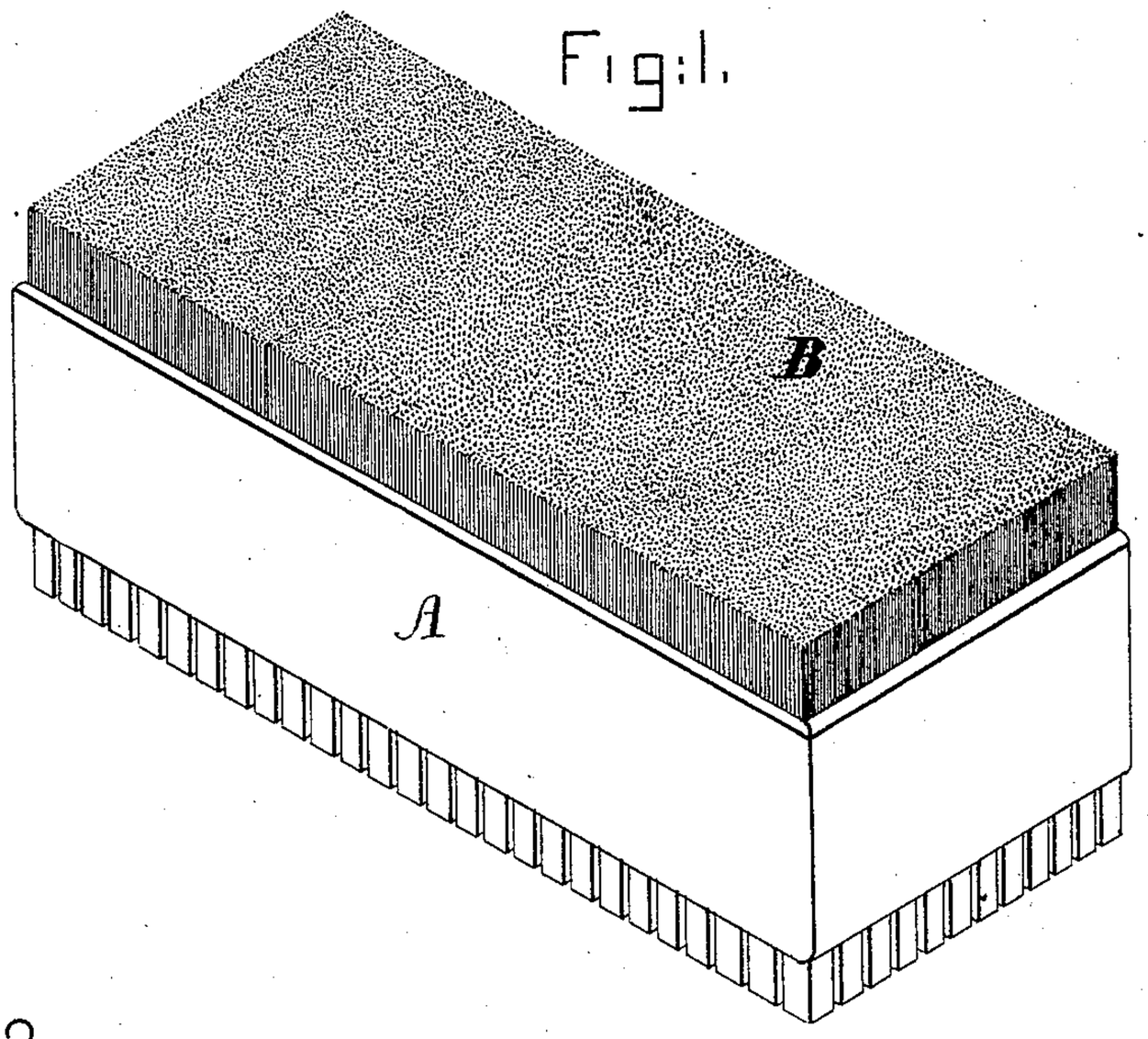


Fig: 2.

Fig: 3.

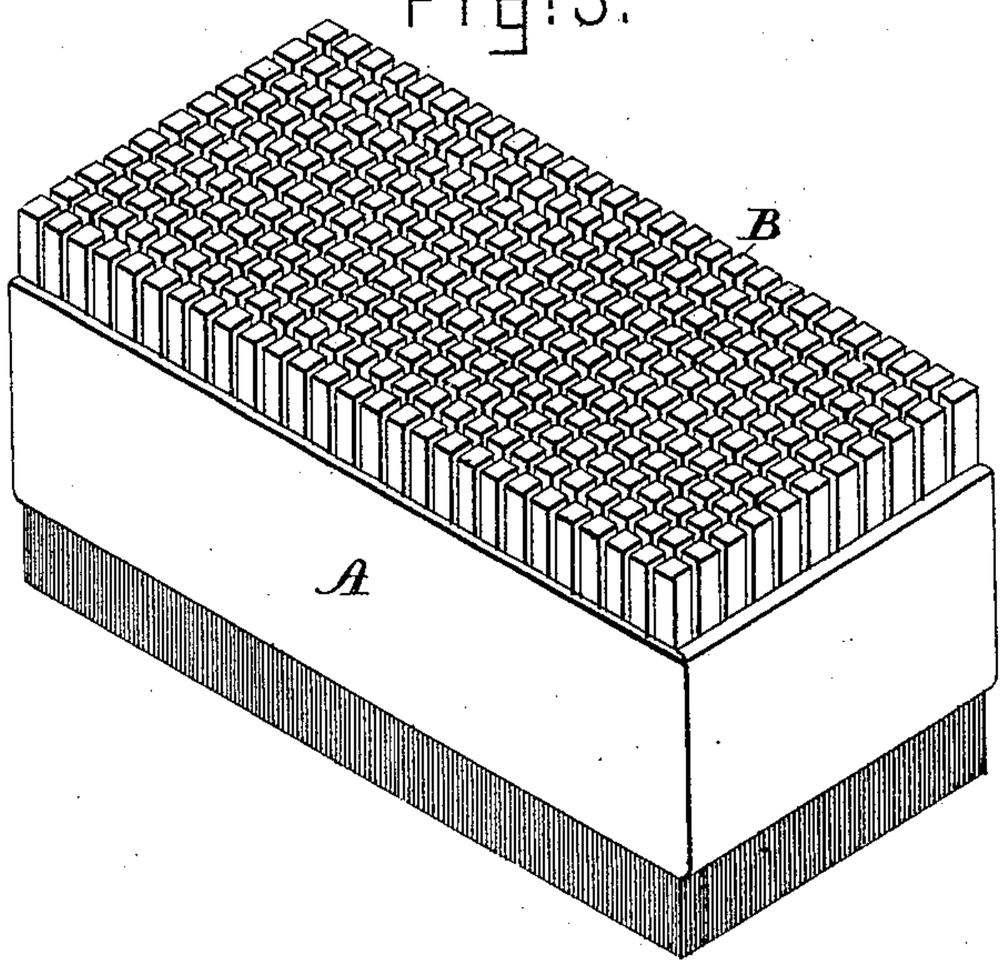
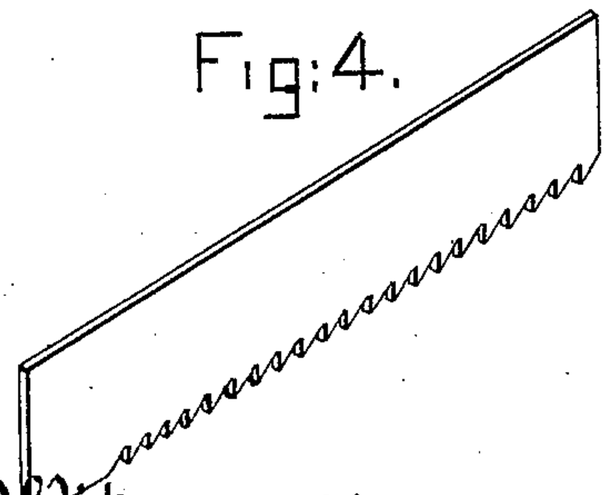


Fig: 4.



Witnesses,
Geo. H. Strong.
J. L. Morse

Inventor,
Benj. Normandin
By Dewey & Co.
Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN NORMANDIN, OF SAN FRANCISCO, CALIFORNIA.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 308,427, dated November 25, 1884.

Application filed December 17, 1883. (Model.)

To all whom it may concern:

Be it known that I, BENJAMIN NORMANDIN, of the city and county of San Francisco, and State of California, have invented an Improvement in Brushes; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the class of brushes used for clothes, hats, &c.; and it consists of a brush, as a new article of manufacture, the rubbing or frictional surface of which is made of the bark of that genus of tree known as *Sequoia*, as I shall more fully explain.

The object of my invention is to provide a brush for cleaning clothes, hats, and similar articles, or for use as a flesh-brush, or any other use to which the material of the brush is well adapted.

Referring to the accompanying drawings, Figure 1 is a perspective view of my brush, showing the softer or velvety surface. Fig. 2 is a perspective view of one of the strips or slabs of which my brush is composed. Fig. 3 is a perspective view showing a rougher surface. Fig. 4 is a perspective of the instrument which I employ in making suitable surfaces by separating or cutting the fiber.

A is the frame of the brush, which may be made in any suitable manner, to inclose, encircle, or serve as a handle for the material, B, composing the body of the brush.

On the western coast of the United States, and especially in the State of California, are trees commonly known as "redwood" and "big trees." These belong to the genus *Sequoia*, of the sub-order *Cupressineæ*, the redwood being a species of this genus named *Sempervirens*, and the big trees being the only other species, and named *Gigantea*. In both of these the bark is very similar, possessing the same characteristics, and adapted to be applied to similar purposes; but on account of the vastly greater number of the species *Sequoia sempervirens* its bark is more readily obtainable, and therefore is the most applicable to my present invention. The bark of the redwood is of a peculiarly fibrous nature, of a rich cinnamon-brown color, and of a thickness proportionate to that of the wood, which fact, as the trees grow to an immense diameter, renders it easy to obtain masses of bark of suitable dimensions for my purpose. When cut and manipulated as I shall explain, the ends of the fiber are separated, and are soft and velvety, being yet tough enough to wear well under friction, and pliable or yielding enough to serve the purpose of a brush. Its density makes it very effective for cloth, and its softness renders it peculiarly adapted for use as a silk or flesh brush. Its color makes it attractive and prevents obvious soiling, so that it will retain its new appearance a long time. The bark unprepared is too dense for a proper brushing-surface, but the fibers are readily separable. Though a single block might have its surface prepared, it would take too long, and could not be finished to the best advantage; therefore I make the body B of my brush of a number of thin separate slabs or strips, *b*, one of which is shown in detail in Fig. 2. These are easily cut from the main block, and are to have superficial dimensions requisite for the particular brush. I take each slab or strip, and laying its edge on a suitable surface—such as a table—I hammer it on both sides to a depth equal to whatever length of bristles I desire the fiber to make. This length may of course be varied according to the character of the brush and the use for which it may be intended. I continue the hammering until the fibers yield and become pliable enough to be bent forward and back by hand or other rubbing under pressure. In this condition, the fibers being separated into minute hairs, soft and pliable, I take all the strips and secure them together in any manner—as by gluing—and bind them tightly by a suitable frame, such as A, thus forming a brush of required size. After this, in order to smooth the surface and make it soft and velvety, such as indicated in Fig. 1, I go over it with a small metal blade having a serrated edge, such as shown in Fig. 4. This completes the loosening of the fibers and makes the surface as velvety and soft as possible, resembling plush, having a long pile, with a fine silky appearance peculiar to the bark of the redwood.

In Fig. 3 I show a slightly-modified surface for rougher use. This is cut or sawed longitudinally and transversely in grooves or cuts, forming a number of points which take better hold; and in making this surface I do not

separate the fiber so much, leaving it harder and rougher. Of course it could be given other surfaces suitable for different brushes and uses, and under any preparation its fiber is sufficiently tenacious to hold well together, no matter how cut or grooved.

I am aware that brushes have been made from the bark of the basswood and other trees, and I therefore do not claim, broadly, the making of brushes from the bark of trees as my invention, but confine myself to the bark taken from the genus *Sequoia gigantea*, which, as before stated, possesses peculiar qualities, specially adapting it, on account of its fine fiber and glossy and silky appearance, for clothes and other brushes.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A brush made of the bark of the redwood (genus *Sequoia*) reduced or partially reduced to a fiber and secured in a handle or frame, as herein set forth.

In witness whereof I have hereunto set my hand.

BENJAMIN NORMANDIN.

Witnesses:
C. D. COLE,
J. H. BLOOD.