B. F. CARPENTER & G. W. LEE.

Wooden Brush.

No. 221,032. Patented Oct. 28, 1879.

Fig. 1.

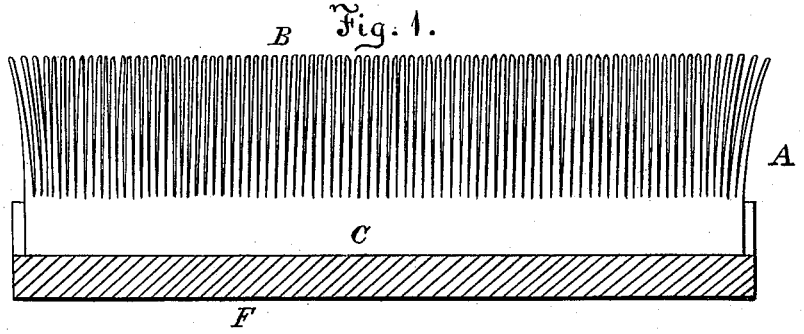


Fig. 2.

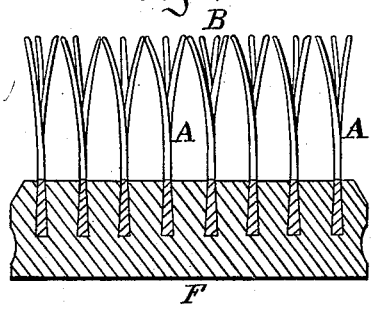
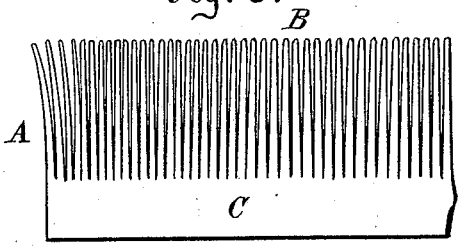


Fig. 3.



Witnesses :

W. Burris

G. B. Towles.

Inventors :

Benj^a F. Carpenter

& Geo. W. Lee

by A. A. Daniels

Attorney.

UNITED STATES PATENT OFFICE

BENJAMIN F. CARPENTER AND GEORGE W. LEE, OF ROSELLE, NEW JERSEY; SAID LEE ASSIGNOR TO SAID CARPENTER.

IMPROVEMENT IN WOODEN BRUSHES.

Specification forming part of Letters Patent No. **221,032**, dated October 28, 1879; application filed September 6, 1878.

To all whom it may concern:

Be it known that we, BENJAMIN F. CARPENTER and GEORGE W. LEE, of Roselle, in the county of Union, in the State of New Jersey, have invented a new and useful Improvement in Wooden Brushes and Brooms, of which the following is a specification.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal central section of our improved brush. Fig. 2 is a transverse section of the same. Fig. 3 represents a part of one of the strips partly cut into splints to be used in forming the brush.

Our invention relates to wooden brooms or brushes having splints cut from an edge of a block, and is designed as an improvement on patent of George Lee, No. 200,736, February 26, 1878. His patent employed blocks of wood large enough for a brush, and he cut saw-kerfs through this block, dividing it in sections on one side and leaving solid wood on the other side, and then the sections separated by the kerfs were cut to form fibers or teeth. This was found to take much more wood than was needed to make a brush, and to be attended with much more labor and expense than was desirable. To correct these evils is the object of this improvement; and it consists in preparing our brush material in thin long strips, with the grain running across the strips, cut on the edge into splints, leaving a solid section, by which they are made up into brooms or brushes, and leaving space between the sections for economy, ventilation, and greater elasticity; and this improvement on the patent of Lee secures also a saving of material, greater variety and facility in the manufacture, and a reduction of expense.

Our brush material is prepared by cutting from blocks of wood long thin strips A, which are made thinner at one edge, B, to allow the splints when cut from this edge room to spread out and have greater elasticity when the strips are to be united closely together. These strips may be made up into brooms or brushes by the solid edges C being available to form the back or shank, or to be united to some suitable backing or handle.

As is desirable in forming some brushes—as flue-brushes, for instance—both edges of the strip of wood may be cut into splints, in which case the solid section of the strip is along the center, where the handle is to be attached.

The brushes may be made up as seen in Fig. 1, wherein the edge C is set in a block, F, and a space left between the strips to give ventilation to the brush, so that it will dry out after using, and not be subject to rotting; also to allow the splints to spread out and have greater elasticity than when the strips are set closely together. This space may also be secured by making the strips with a shoulder or enlargement on the solid edge, so that if strips are set closely together at this solid part the splints will have space to spread out.

We are aware of the patent of Alex. Thompson for making brushes from the disintegrated fibers of bass-wood, which fibers, following the grain only, are not cut—he nowhere speaks of cutting—but they are pounded, soaked, or chemically eliminated from the cohesive substance by which they are held in growth, and this substance removed provides for a measure of elasticity in the brush. But we do not work bark of any kind, much less specifically bass-wood bark, perhaps the only bark or wood either that admits of that kind of treatment—the separation of fibers as above indicated—and we do not accomplish the separation of fibers as such; but we take tough elastic wood, usually oak or hickory, and cut splints, following in a general way the grain, but not being confined to the fibers.

Our invention is not in reducing bark to fibers by relieving them of the binding element by some dissolving process, but consists in cutting splints from wood, and, in this instance, making an improvement on the patent of George Lee, in cutting splints from thin strips of wood, to be worked into brooms and brushes, as above shown. Therefore,

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The long thin strip or strips of wood, A, with the grain running crosswise, having a

portion, B, cut into splints, leaving a solid section, C, by which they can be made into a suitable brush or broom, substantially as specified.

2. A brush composed of the long thin strips A, having the grain running crosswise, and having the splintered portion B and the solid section C, and united to a suitable handle or backing, F, substantially as set forth.

BENJAMIN F. CARPENTER.
GEORGE W. LEE.

Witnesses:
HORACE HARRIS,
A. C. JENKINS.