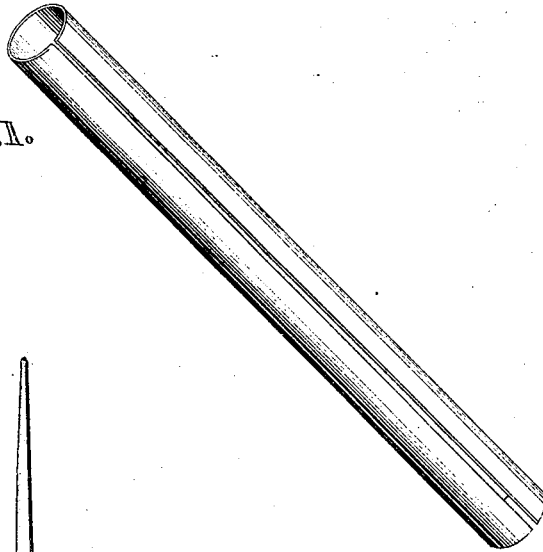


*E. P. Marble,*  
*Broom.*

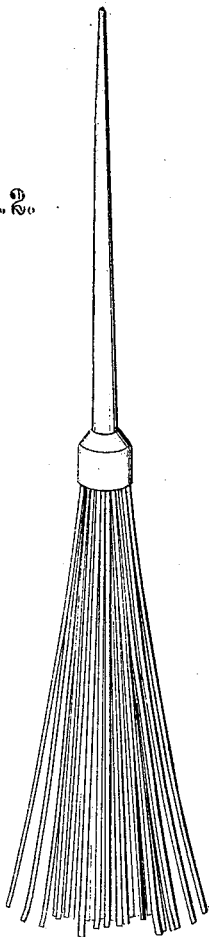
*No. 111,464.*

*Patented Jan. 31. 1871.*

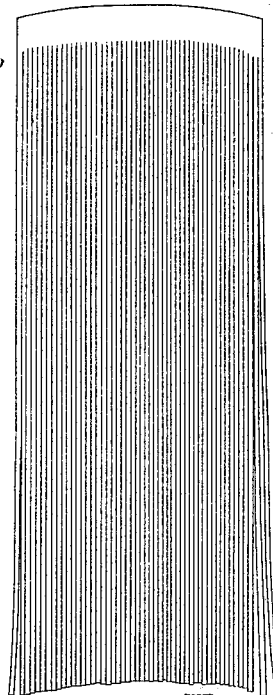
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*  
*Chas. Kenyon,*  
*Wm. Anderson.*

*Inventor:*  
*E. P. Marble,*  
*Chipman & Osmer & Co*  
*Attys*

# United States Patent Office.

EZRA P. MARBLE, OF SUTTON CENTRE, MASSACHUSETTS.

Letters Patent No. 111,464, dated January 31, 1871.

## IMPROVEMENT IN THE MANUFACTURE OF BROOMS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, EZRA P. MARBLE, of Suffolk Centre, in the county of Worcester and State of Massachusetts, have invented a new and valuable Improvement in the Manufacture of Brooms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of the cortex.

Figure 2 is a representation of a brush manufactured.

Figure 3 is a representation of the bark slit.

My invention has relation to the utilization of the stalk of broom-corn below the top or straw; and

It consists in the novel method of preparing it, whereby it becomes serviceable in the manufacture of brushes, brooms, and other articles of like nature.

The envelope or cortical portion of the broom-corn stalk is highly silicious, and yet very elastic, rendering it very suitable for the object in view when properly prepared.

After the top or straw has been removed the stalk is cut into suitable lengths. Each length is then cut

open longitudinally, and the pith carefully removed without injuring the inner surface of the cortex. Thus prepared, the bark or cortex is shown at fig. 1 of the drawing.

The next step is to slit the bark or cortex longitudinally, carrying the divisions from one end nearly but not quite to the other, as shown in fig. 3 of the drawing.

The sections are now rolled up, by means of their undivided ends, and are ready for attachment to the brush-body or broom-handle.

My invention is designed to effect a great saving in the manufacture of brooms, brushes, &c., and will make these articles more plentiful.

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

In the manufacture of brooms and brushes, the utilization of the cortical envelope of the broom-corn stalk, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EZRA P. MARBLE.

Witnesses:

THOMAS CALLAGHAN,  
JOHN HOPKINS.