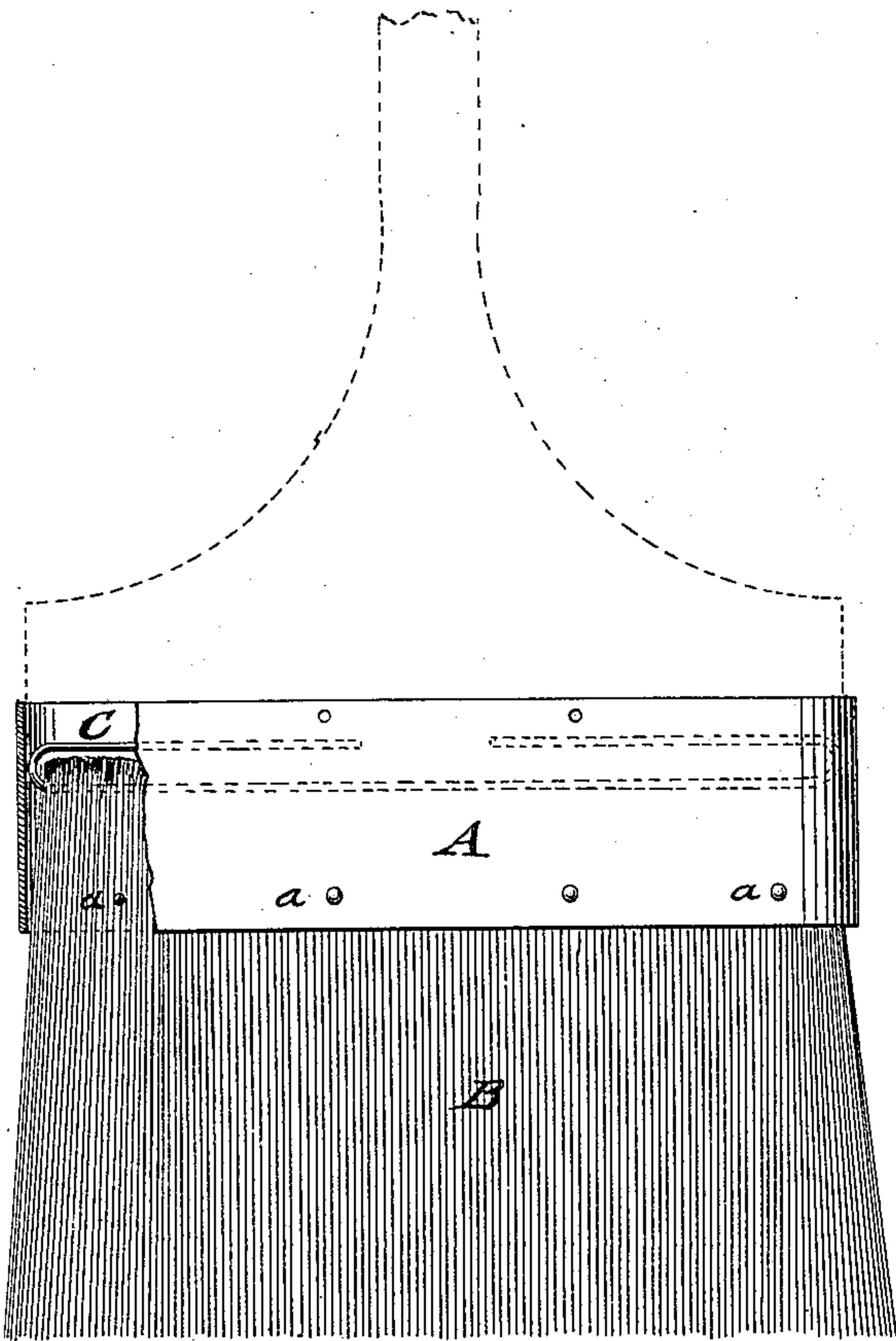


T. JESSON & T. DUGGAN.  
BRUSHES.

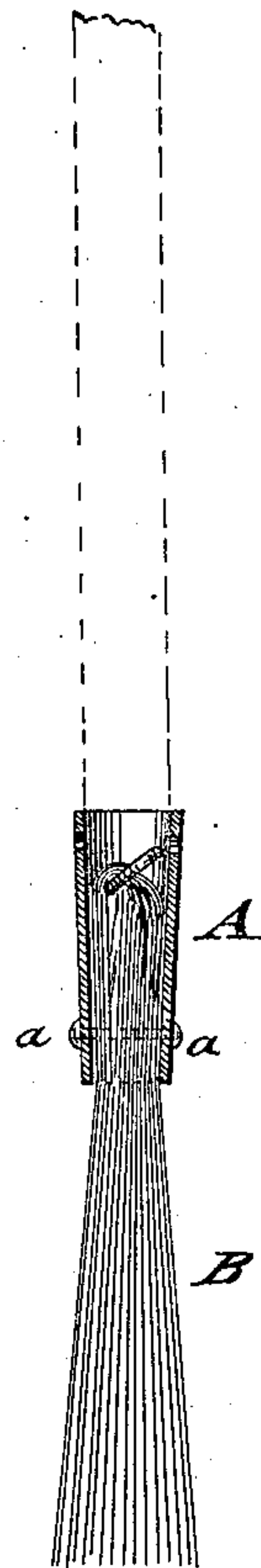
No. 195,016.

Patented Sept. 11, 1877.

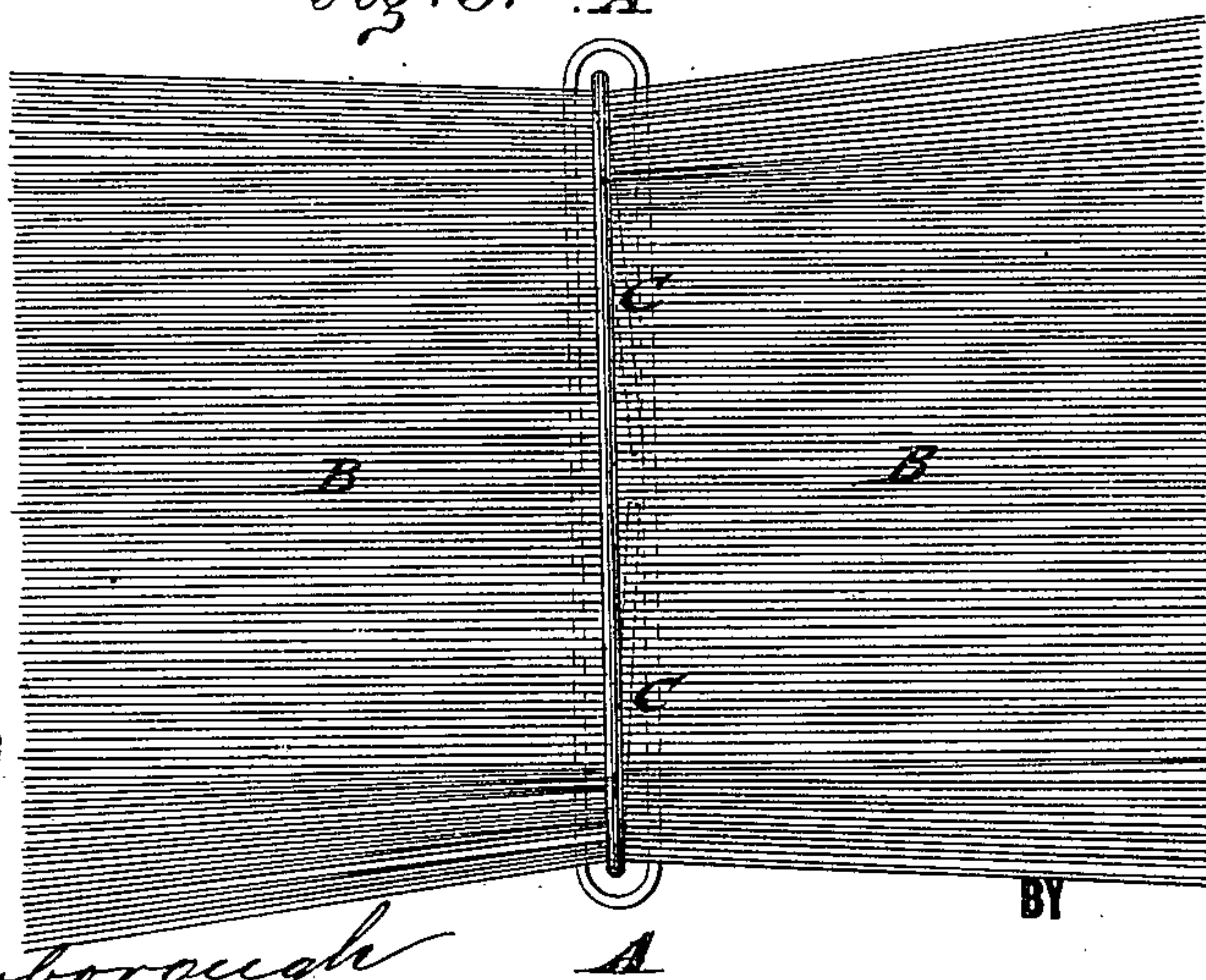
*Fig: 1.*



*Fig: 2.*



*Fig: 3. A*



WITNESSES:

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BY

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

THOMAS JESSON, OF GALWAY, AND THOMAS DUGGAN, OF GLASNEVIN,  
IRELAND.

## IMPROVEMENT IN BRUSHES.

Specification forming part of Letters Patent No. 195,016, dated September 11, 1877; application filed April 23, 1877.

*To all whom it may concern:*

Be it known that we, THOMAS JESSON, of Galway, county of Galway, and THOMAS DUGGAN, of Glasnevin, county of Dublin, in Ireland, have invented a new and Improved Brush, of which the following is a specification:

Our invention relates to improvements in the manufacture of brooms and brushes, so that the same may be made in a cheaper, stronger, and more durable manner.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the accompanying drawing, Figure 1 represents a front elevation of our improved brush; Fig. 2, a vertical transverse section of the same; and Fig. 3, a top view of the brush material, shown ready to be bound and forced into the head or stock.

Similar letters of reference indicate corresponding parts.

In the drawing, A represents the head or stock of our improved brush or broom, which may be of concave shape, in the form of a socket-cap, or in the nature of a band, into the end of which the butt-end of the handle is secured in a suitable manner.

The head or brush-stock A may be made of galvanized, tinned, bronzed, or lacquered iron, or of other suitable material.

The material B of which the brush is formed, whether bristles, hair, or fiber, is placed transversely across the lower end of the brush head or stock, either in layers suitably divided by cloth, felt, or other fabric, or solid, as may be required. Across the center of the material is arranged a binding wire or rod, C, of about double the length of the width of the brush to be made, the free ends of which are turned over and under the sides of the material, which is then forced with the wire, by a suitable apparatus, into the head, so that the material is doubled up, and the free ends of the iron wire or rod doubled over underneath the material, so as to grasp the same tightly, and rest, finally, tightly against the

back of the stock, or against the butt-end of the handle.

In brushes in which bands or open heads are used the material is driven in only to a certain depth, so that the necessary space for the handle is preserved.

Apertures or holes are arranged in the sides of the brush head or band A, for the passage of transverse pins or rivets *a*, when necessary to further secure the material, as in the case of heavy brushes.

The free ends of the binding-wire may also be forced into eyes or hooks of the inside of the stock, so as to hold them fast therein when driven in with the embraced layer of material.

For strong brooms and brushes, as required for street-sweeping and machine work, the binding-wire is made with several hoops or eyes, through which pins or screws are passed, that are forced through the layer of material when the same is driven into the stock, and subsequently caught through a slot at the bottom or back of the stock, and made fast by nuts or rivets, as may be deemed most suitable.

For the lighter kinds of brooms and brushes, these additional fastenings may be altogether dispensed with, and the material in the stock secured by simply pressing the sides of the stock together in an ordinary vise or clamp, so as to powerfully compress the material in an effectual and permanent manner.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination, with doubled brush material B, of the band A, rivets *a*, and wire C, arranged and applied as and for the purpose specified.

THOMAS JESSON.  
THOMAS DUGGAN.

Witnesses:

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*Writing Clerk, Galway.*