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Patented Feb. 7, 1899.

N. CAMPBELL.
ROTARY BRUSH.

(Application filed Apr. 18, 1898.)

(No Model.)

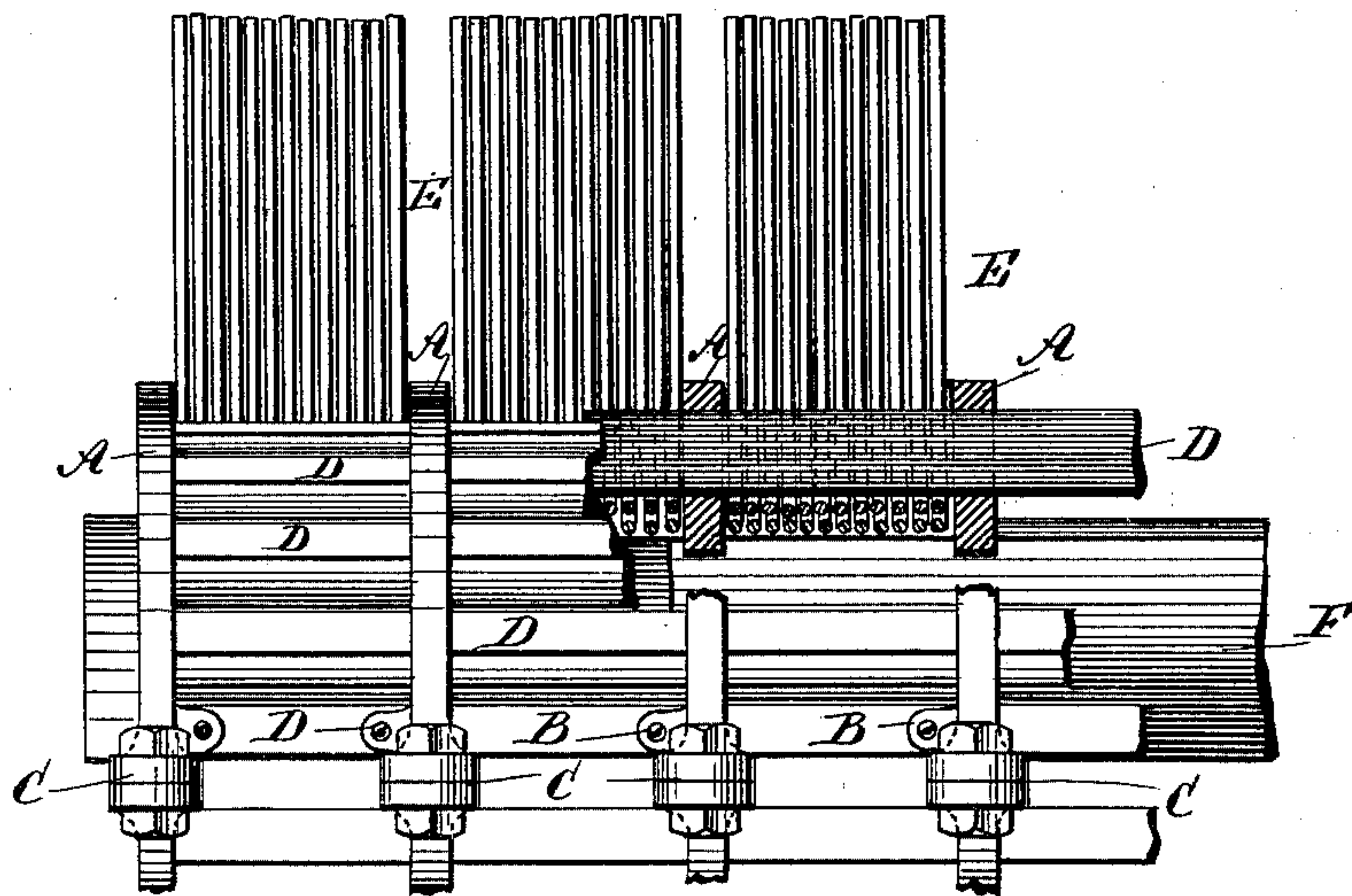
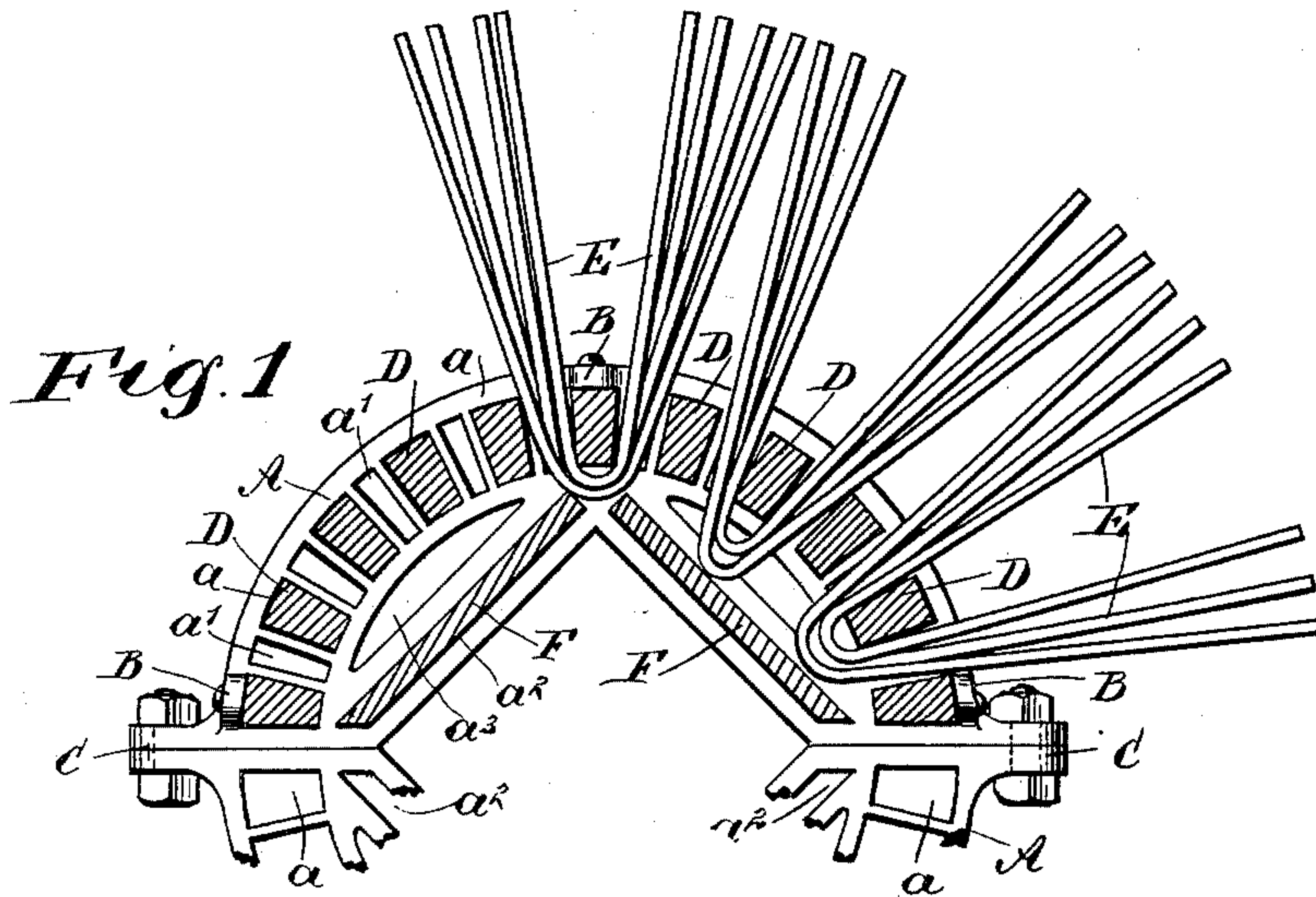


Fig. 2

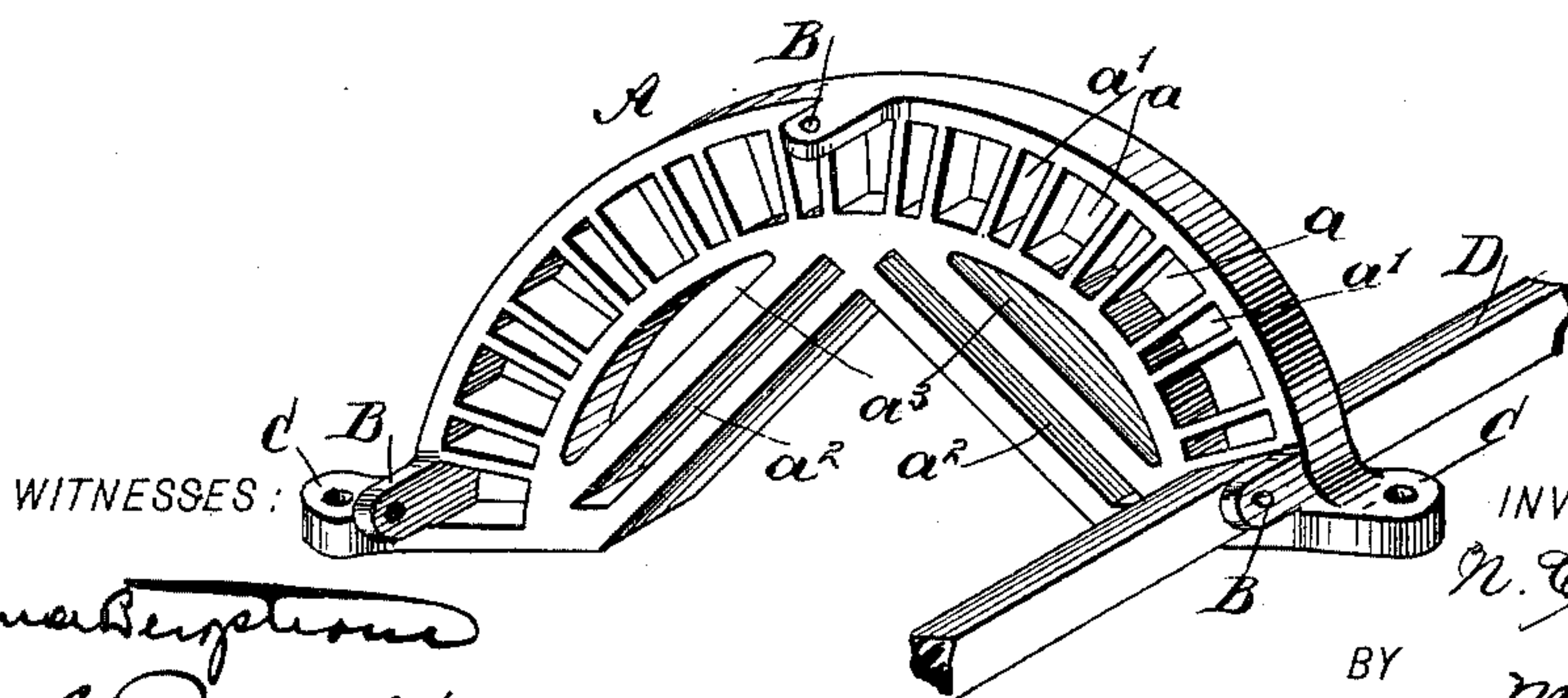


Fig. 3

WITNESSES:

John B. Reynolds
H. L. Reynolds.

INVENTOR

N. Campbell

BY

Attorneys.

UNITED STATES PATENT OFFICE.

NEIL CAMPBELL, OF JERSEY CITY, NEW JERSEY.

ROTARY BRUSH.

SPECIFICATION forming part of Letters Patent No. 619,134, dated February 7, 1899.

Application filed April 18, 1898. Serial No. 678,007. (No model.)

To all whom it may concern:

Be it known that I, NEIL CAMPBELL, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Broom-Head for Rotary Sweepers, of which the following is a full, clear, and exact description.

My invention relates to an improvement in the broom-heads for rotary sweepers such as are used for street-sweeping and for removing the snow upon street-railways.

My invention consists of the novel features which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-section showing a portion of the broom-head. Fig. 2 is a side elevation and partial section of a part of the broom-head, and Fig. 3 is a perspective view showing one of the webs upon which the head is built.

The object of my invention is to provide a construction of broom-heads for rotary sweepers which shall be stronger than the ordinary wooden head used and which at the same time shall be cheaper to make and easier to repair.

In my device the heads are built upon webs made of steel or cast-iron and connected by axially-extending ribs. These webs A are formed in semicircles bolted together, and thus the broom-head may be made in halves and then placed upon the shaft. These webs A extend in a radial direction and are provided with lugs C at each end, so that bolts passed through the same will secure the two halves together. The webs are provided with a circular row of axially-extending perforations adapted to receive the ribs to secure the broom material in place and connect the series of webs. Two sets of holes, in fact, are provided in this row, one set a adapted to receive the ribs D and the other set a' , which alternates with the first set, being provided simply to properly space the ribs and to avoid using unnecessary metal. The last set a' may be omitted without injury, excepting that it

will make the webs cost slightly more for increased weight of metal.

Within the holes a are placed the axially-extending ribs D, which connect adjacent webs and hold the broom material in place. The broom material E, which is usually formed of ratan or similar material, is bent upon itself or doubled and has its ends inserted in two adjacent spaces between the ribs D. The bend in the material is thus placed about one of the ribs. It is then forced outward until its center or the bend is close against the inner edge of the rib.

The web is provided in addition to the holes described with slots a^2 , which form chords of a circle and are adapted to receive backing-boards, which support the inner ends of the broom material and hold it in place. After the broom material has been inserted it is pounded down to place until the boards F may be inserted. These boards are inserted from one end and slid through slots a^2 in the successive webs until they have passed through all of the webs, and thus furnish a firm support for the inner ends of the broom material. As herein shown, the webs are provided with slots a^3 , lying between the slots a^2 and the circular row of holes. The object of this is simply reduction of weight. The webs are further provided with lugs B, which extend to one side from the outer edge of the web. Three of these lugs are shown, the same being located at the ends and at the center of each semicircle. These lugs are provided with holes adapted to receive a screw which is inserted through the same and into the rib D immediately beneath, thus binding the webs in place longitudinally. The central portion of each web is shaped to fit over the shaft of the sweeper. The broom-head is applied by placing the halves thereof oppositely on the shaft and securing them by bolts passing through the lugs C.

With this construction the broom may be made of sufficient strength to stand any ordinary usage, and as much power may be applied thereto as desired without endangering the broom-head. The broom-head is easily repaired, as it may be quickly taken off of the shaft and then taken apart, so as to

remove the worn-out broom material and insert fresh. It will thus save considerable in the cost of repairing, besides being stronger than broom-heads of the ordinary construction.

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

1. A broom-head for rotary sweepers, comprising peripheral and radial webs having axially-extending and alining perforations adapted to receive connecting-ribs, connecting-ribs extending through said perforations and adapted to space the broom material between them, and backing-boards secured to the radial webs within the ribs.

2. A broom-head for rotary sweepers, comprising peripheral and radial webs having a circular row of axially-extending and alining perforations adapted to receive connecting-ribs, and slots within said row of perforations forming chords of a circle, connecting-ribs passing through the circular row of perforations and adapted to hold and space the broom material, and backing-boards passing through the slots and supporting the inner ends of the broom material, substantially as described.

3. A broom-head for rotary sweepers, comprising peripheral and radial webs formed in semicircular halves and bolted together and having a circular row of axially-extending and alining perforations adapted to receive connecting-ribs, slots within said row of perforations forming chords of a circle, connecting-ribs passing through the circular row of perforations and adapted to hold and space the broom material, and backing-boards pass-

ing through the slots and supporting the inner ends of the brooms, substantially as described.

4. A broom-head for rotary sweepers, comprising peripheral and radial webs having a circular row of axially-extending and alining perforations adapted to receive connecting-ribs, and slots within said row of perforations forming chords of a circle, connecting-ribs passing through the circular row of perforations and adapted to hold and space the broom material, and backing-boards passing through the slots and supporting the inner ends of the broom material, said webs also having side extending lugs extending over the outer edges of the ribs and adapted to receive a screw to bind the two together, substantially as described.

5. A broom-head for rotary sweepers, comprising peripheral and radial webs formed in semicircular halves and bolted together, and having a row of axially-extending and alining perforations having radial side walls and adapted to receive connecting-ribs, slots within said row of perforations forming chords of a circle, and a central hole adapted to receive a shaft, connecting-ribs passing through the circular row of perforations and adapted to hold and space the broom material, and backing-boards passing through the slots and supporting the inner ends of the broom material, substantially as described.

NEIL CAMPBELL.

Witnesses:

R. H. MCKNIGHT,
H. S. WASHBURN.