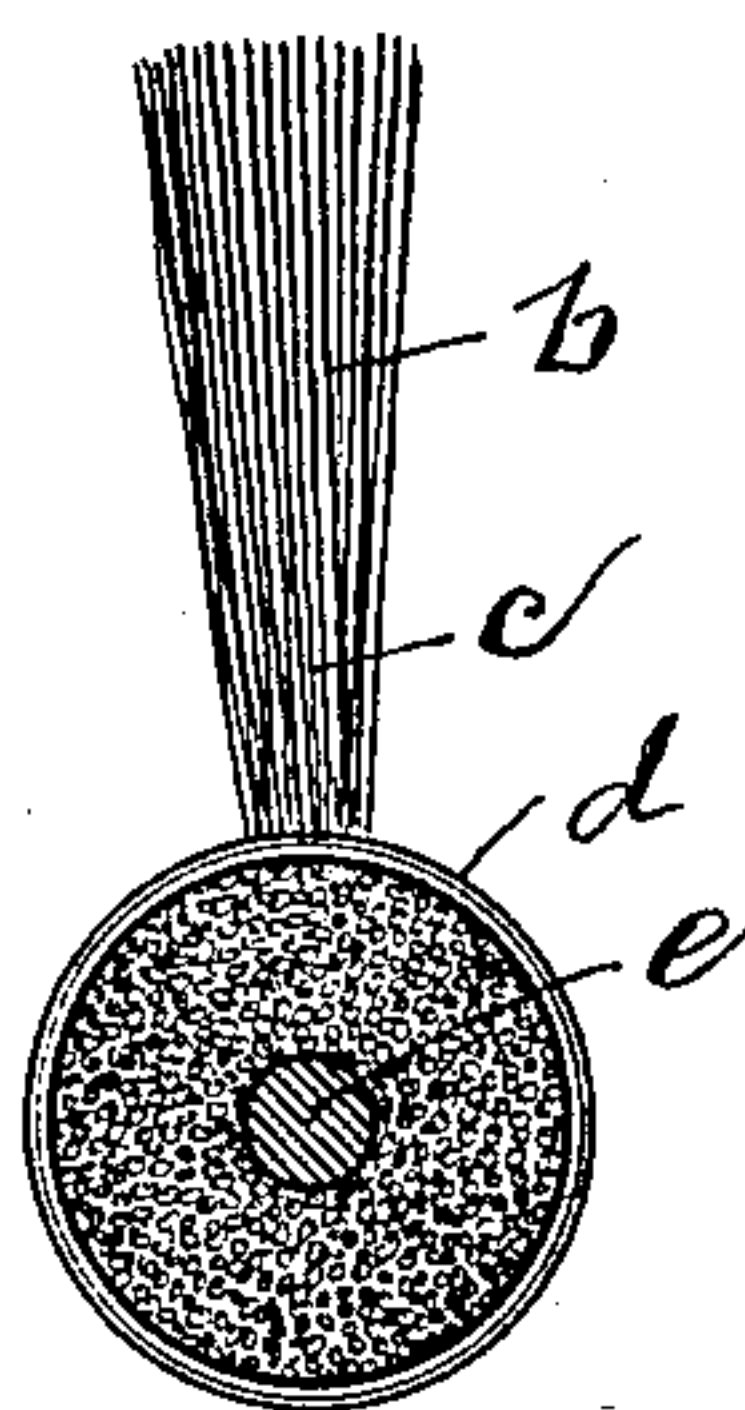
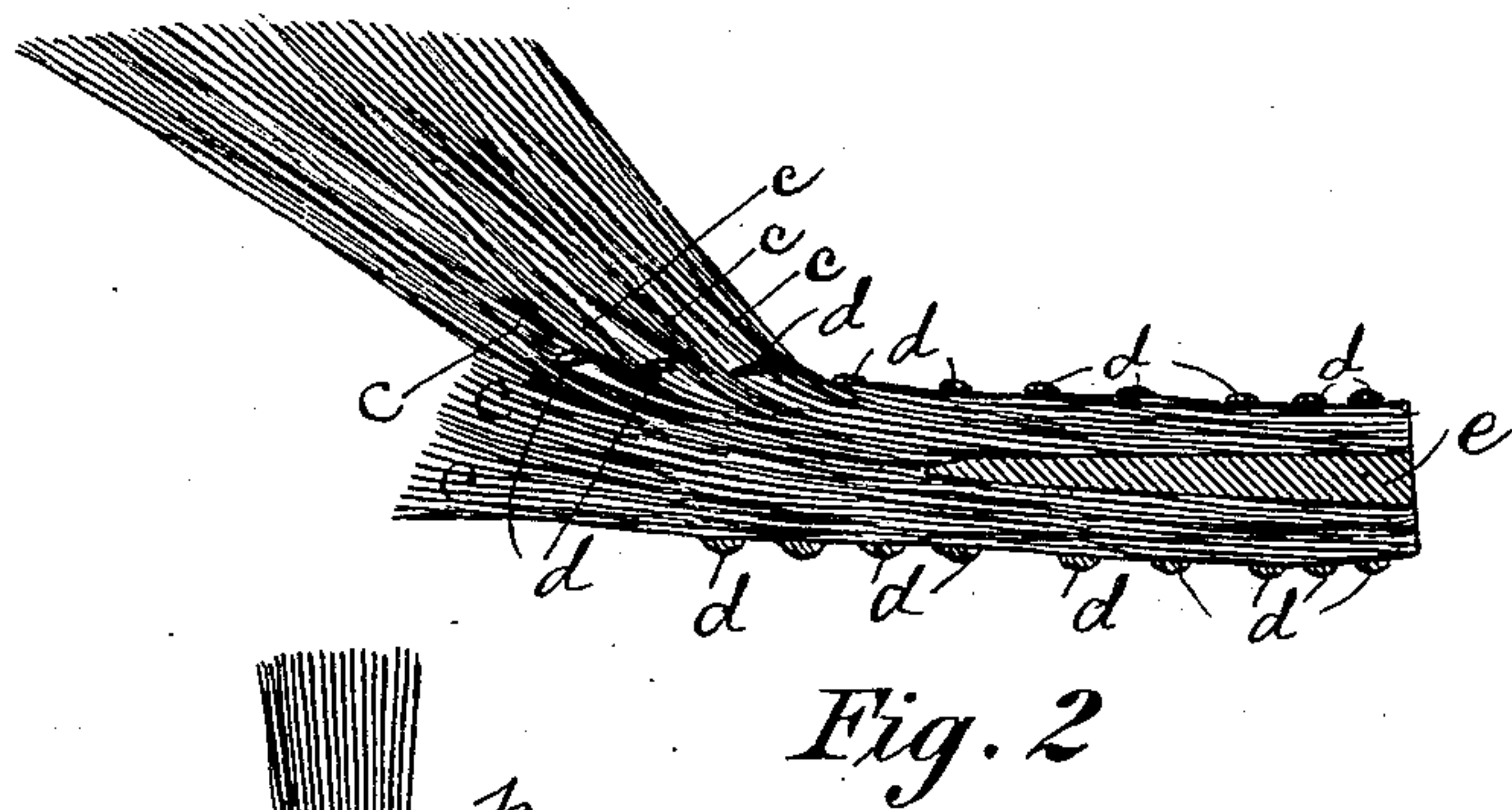
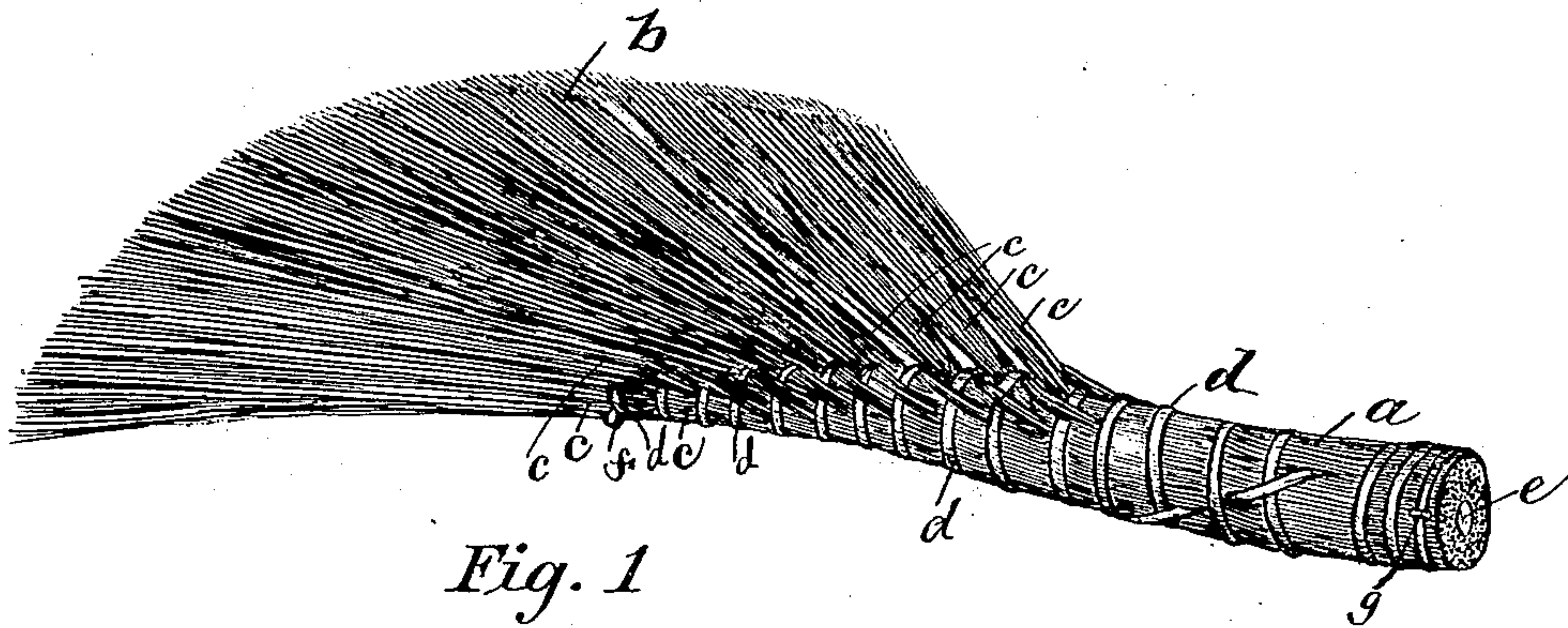


(No Model.)

W. J. OWEN.
BRUSH.

No. 453,292.

Patented June 2, 1891.



WITNESSES:

Robert A. Perry
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BY

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UNITED STATES PATENT OFFICE.

WALTER J. OWEN, OF CLEVELAND, OHIO, ASSIGNOR TO NANCY L. HOWARD
AND CURTIS C. HOWARD, TRUSTEES.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 453,292, dated June 2, 1891.

Application filed January 16, 1891. Serial No. 378,045. (No model.)

To all whom it may concern:

Be it known that I, WALTER J. OWEN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Brushes, of which the following is a specification.

My invention relates to the improvement of hand-brushes of that class ordinarily formed of broom-straw or other similar material; and the objects of my invention are to produce a hand-brush of this class of novel form and construction, to so shape and construct said brush as to particularly adapt it for use as a crumb-brush and at the same time produce a brush which may be conveniently utilized as a hat or hearth brush or for other purposes to which hand-brushes are applied, to so construct and bind together the material forming said brush as to render it strong and serviceable, and to produce said brush in a neat and attractive form. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved brush. Fig. 2 is a central longitudinal section of the handle portion thereof, and Fig. 3 is an end view of said handle.

Similar letters refer to similar parts throughout the several views.

In forming my improved brush I preferably form the body thereof of broom-straw, employing what is known as the "hurl fiber."

As shown in the drawings, the brush when finished has approximately a feather form, *a* representing the handle, and *b* the brush-head thereof, the whole being formed and constructed in a suitable machine, which is the subject of a patent application dated January 7, 1891, Serial No. 378,044. The formation of the brush is, however, accomplished by building one upon the other small bunches or whisks *c* of the straws or fiber. The lower or foundation bunch has tied or bound about the same at the desired distance from the outer ends thereof one end of a binder-strip *d*, of rattan or other suitable material, as shown at *f*. As each additional bunch of fiber is placed in position the binder-strip is given one turn about the same and the lower bunch, said bunches being so laid as to bring

the head ends of one bunch slightly in the rear of the head ends of the bunch immediately beneath. This difference in the position of the whisks or bunches results, as shown, in the gradual upward and rearward incline of the brush-head ends, which produce the approximately feather-blade form of the brush-head shown. It also results in the binder encircling the bound portions of the fiber spirally, each turn of the binder being made a step nearer the rear end of the handle, in order to produce uniform length of brush-head fibers. A sufficient number of the whisk or fiber bunches *c* having been bound together, as above described, the binder is wound spirally about the remaining stems of the fibers which form the brush-handle *a*. The end of the binder is then secured by inserting it, as shown, one or more times through portions of the handle, as shown in Fig. 1 of the drawings. The uneven rear ends of the fibers having been cut off, a wooden peg or pin *e* is driven into the center of the handle end, said peg both serving to crowd the fiber stems which surround it tighter against the binder and to give the desired stiffness or rigidity to said handle. The pin *e* having been inserted, as described, one or more staples *g* are driven into the brush-handle, the inner points of said staple entering the pin *e* near its outer end, serving to clamp one coil of the binder *d* against the body of the handle.

From the construction shown it will be observed that those portions of the bound fibers or stems thereof from which are formed the brush-head serve to form a backbone for said brush-head of the desired stiffness.

Although sufficient rigidity or stiffness is imparted to the handle by the construction shown and described, it is obvious that said handle will be sufficiently pliable to prevent injury thereto by such pressure as may be exerted thereon.

From the construction shown and described it will be seen that an exceedingly novel and desirable form of brush is produced, the approximately feather form of which will render it of great utility as a table crumb-brush or for purposes as previously set forth in the objects hereof.

The manner shown and described of sepa-

ately binding the various bunches of material which form my improved brush greatly adds to the strength and durability of the latter, and at the same time admits of its being
5 manufactured in a systematic and comparatively inexpensive manner.

As shown in the drawings, the backbone and handle continuation of my improved brush may have imparted thereto any desired
10 bend or inclination which will facilitate the handling and use of the same.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

15 1. A brush consisting of a handle portion *a* and a brush-head portion *b*, said brush formed of successively-arranged bunches of fibers, each of said bunches bound separately, as described, to the body of the brush by a spirally-
20 wound binder *d*, substantially as and for the purpose specified.

2. In a brush, the combination, with the

handle portion *a*, consisting, as described, of bound fiber stems, of an approximately feather-blade-shaped brush-head *b*, formed by the
25 fiber heads, the latter being approximately of equal length and extending from the handle portion in bunches or whisks at varying distances from the handle end, substantially as described.
30

3. In a brush, the combination of the integral handle and brush-head thereof, said brush-head and handle formed of successively-arranged bunches of fiber, said bunches bound separately and successively to the body
35 of the brush at different points thereon, and said handle portion spirally wound, as described, and a central pin *e*, driven within said handle, as described, substantially as specified.

WALTER J. OWEN.

In presence of—

C. C. SHEPHERD,
BARTON GRIFFITH.