

Adolph Fischer, Brush for Cleaning Tumblers.

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Fig: 1.

PATENTED AUG 1 1871

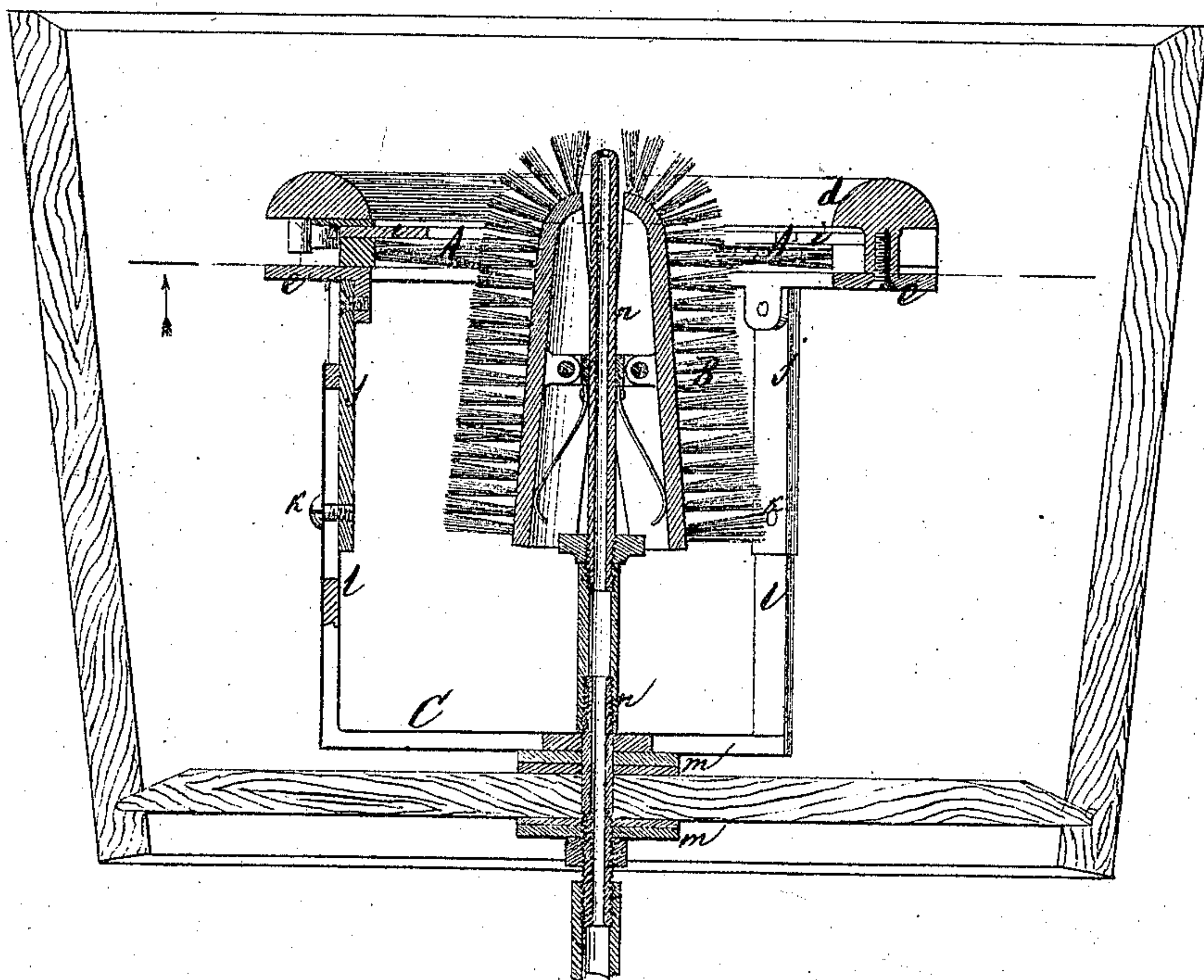
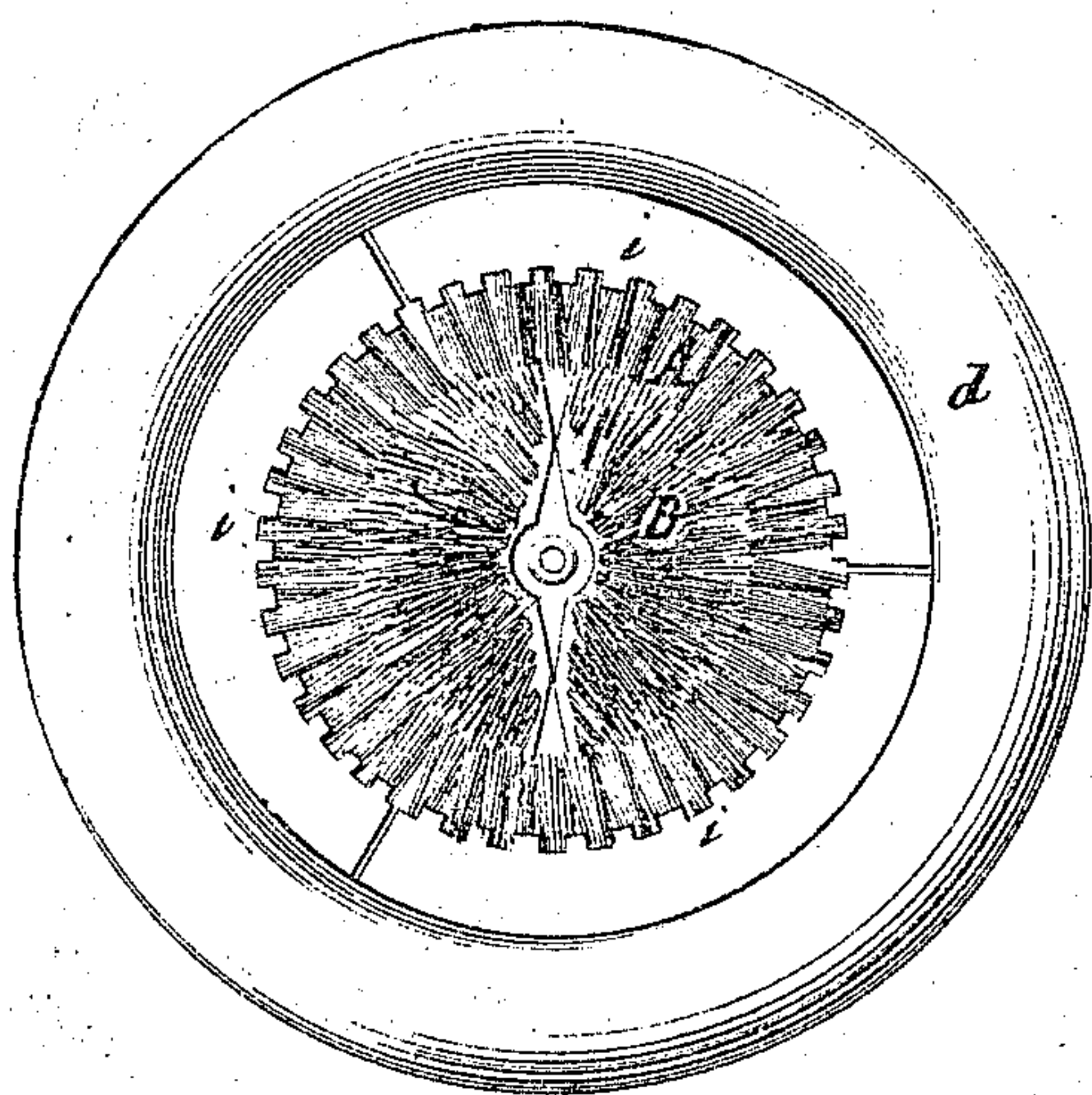
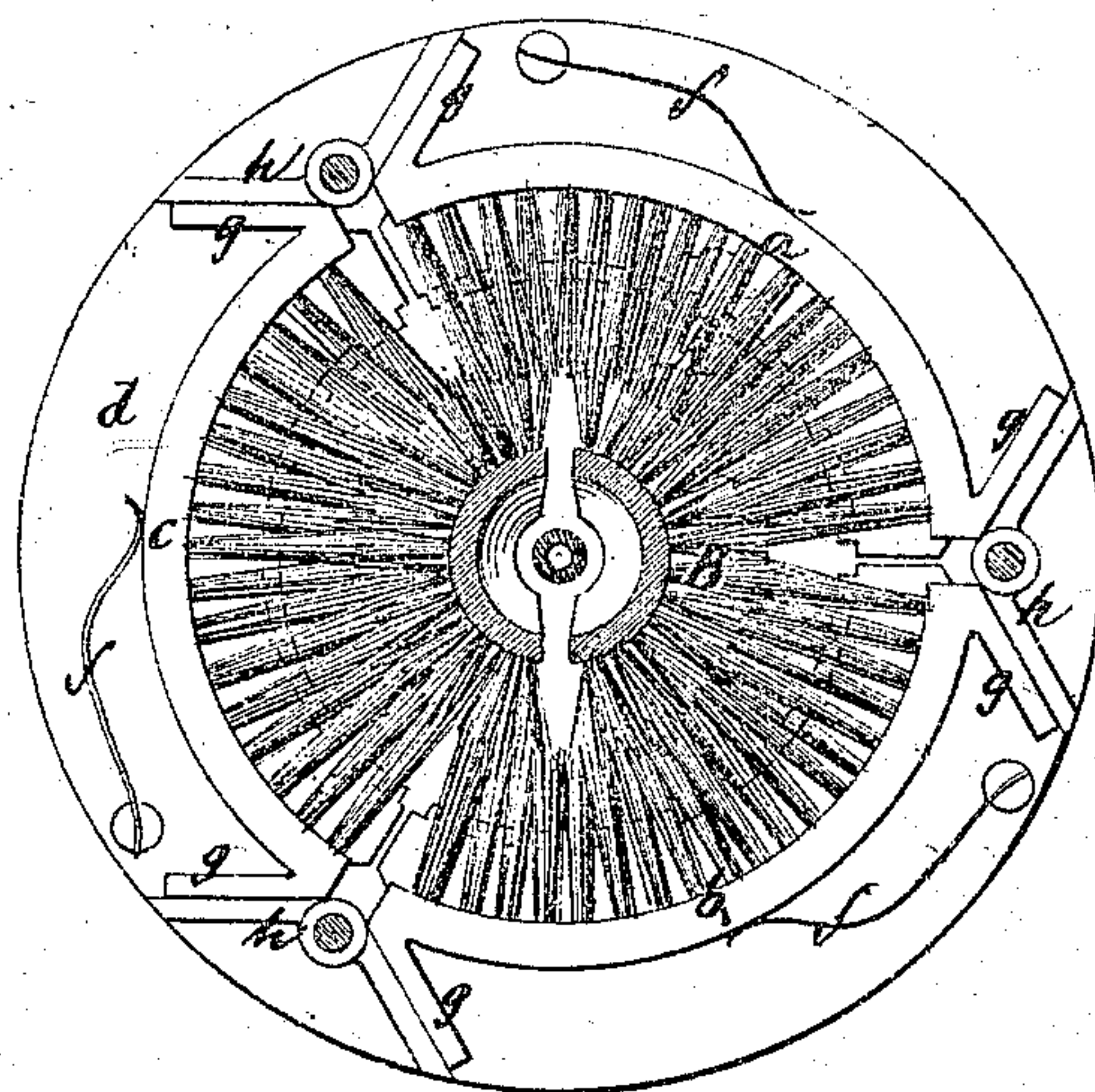


Fig: 2.



Witnesses:
Ernst Bilhuber.
S. Wablers.

Ex 93.



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attys

UNITED STATES PATENT OFFICE.

ADOLPH FISCHER, OF NEW YORK, N. Y.

IMPROVEMENT IN BRUSHES FOR CLEANING TUMBLERS.

Specification forming part of Letters Patent No. 117,614, dated August 1, 1871.

To all whom it may concern:

Be it known that I, ADOLPH FISCHER, of the city, county, and State of New York, have invented a new and useful Improvement in Brush for Cleaning Tumblers; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a vertical central section of this invention. Fig. 2 is a plan or top view of the same. Fig. 3 is an inverted plan of the sectional annular brush.

Similar letters indicate corresponding parts.

This invention relates to an improvement in that class of brushes which I have described in Letters Patent No. 106,476, granted to me August 16, 1870. My present improvement consists in the arrangement of a rubber flange over the bristles of the annular brush for the purpose of retaining said bristles in the required radial position, and preventing them from being thrown in disorder by the action of the tumblers. It consists, further, in constructing said annular brush in sections, each section being subjected to the action of a spring, so that the same can accommodate themselves to the outer surfaces of tumblers of different size and shape. It consists also in the construction of the internal or central brush, which is made in two or more sections, so that the same can accommodate themselves to the inner surfaces of tumblers of different size and shape. It consists, further, in combining with the brushes an extension-frame, capable of being lengthened or shortened, so that the device can be adjusted for tumblers of different height.

In the drawing, A designates the annular brush, which, in conjunction with the central brush B, constitutes my device for cleaning tumblers. Said annular brush is constructed in two or more sections, *a b c*, (see Fig. 3,) which are placed loosely between the cap *d* and the supporting-ring *e*, each being subjected to the action of a spring, *f*, which has a tendency to press its

section inward. The back of each section is bent out at each end in a tangential direction, forming guide-flanges *g*, which bear against lugs *h* projecting from the inner surface of the cap *d*, so that said sections are compelled to open and close in radial directions, and are prevented from binding. Over the bristles of the annular brush A I have arranged flanges *i*, of India rubber, whereby the bristles are prevented from being thrown out of the desired radial position by the action of the tumblers which come in contact with them. The annular brush, being made in sections which are subjected to the action of springs, is rendered capable of accommodating itself to the outer surfaces of tumblers of different size and shape; and furthermore, if any one of the sections should wear out it can be easily replaced without affecting either of the other sections. The supporting-ring *f* of the annular brush is secured to arms *j*, which are secured by set-screws *k* to the uprights *l* of the supporting-frame C. Said uprights are provided with slots, through which the set-screws *k* pass, so that, by releasing said set-screws, the arms *j* can be drawn out or pushed in, and thereby the annular brush can be raised or lowered, and its position in relation to the central brush and in regard to the base of the supporting-frame can be regulated at pleasure. The supporting-frame C is secured to the bottom of a bucket or other vessel by means of nuts *m*, which screw on a pipe, *n*, that forms the support of the central brush B. This pipe is made in two or more sections, which are hinged to the tubular stem *n*, as shown in Fig. 1 of the drawing, so that they can adapt themselves to the inner surfaces of the tumblers to be cleaned. Through the pipe *n* water is admitted to the tumbler, which is pushed down between the two brushes in an inverted position.

By these improvements the apparatus described in my patent No. 106,476 is rendered more perfect and applicable to more general use than it was heretofore.

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

1. The flanges *i*, of rubber or other suitable flexible and elastic material, in combination with the annular brush A, substantially as described.

2. The annular brush A, when made in two or more sections, substantially as and for the purpose set forth.

3. The central brush B, when made in sections and applied in combination with the annular brush A, substantially as described.

4. The extension arms *j* on the frame C, supporting the annular brush A, substantially as set forth.

This specification signed by me this 5th day of July, 1871.

ADOLPH FISCHER.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.