

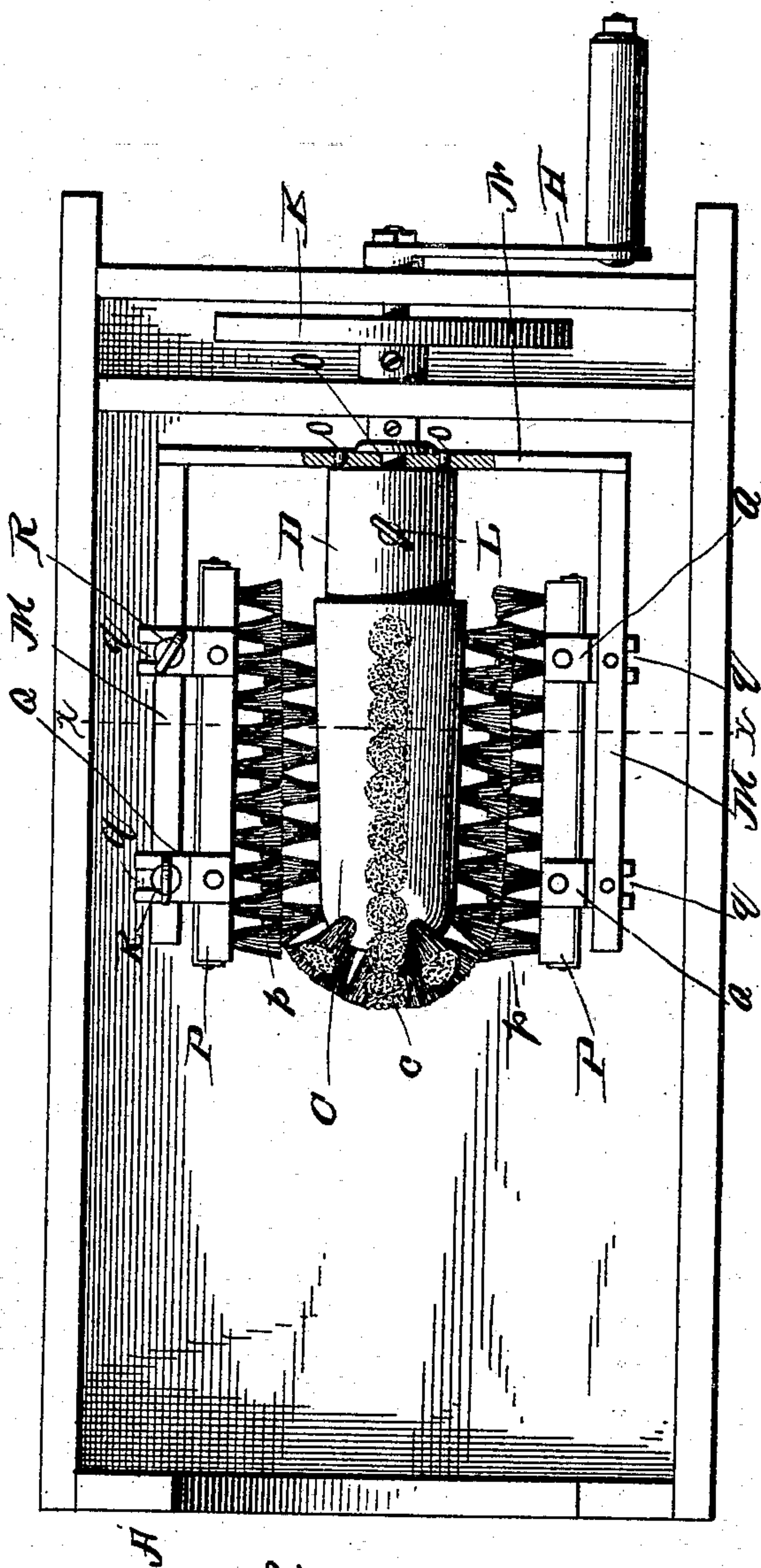
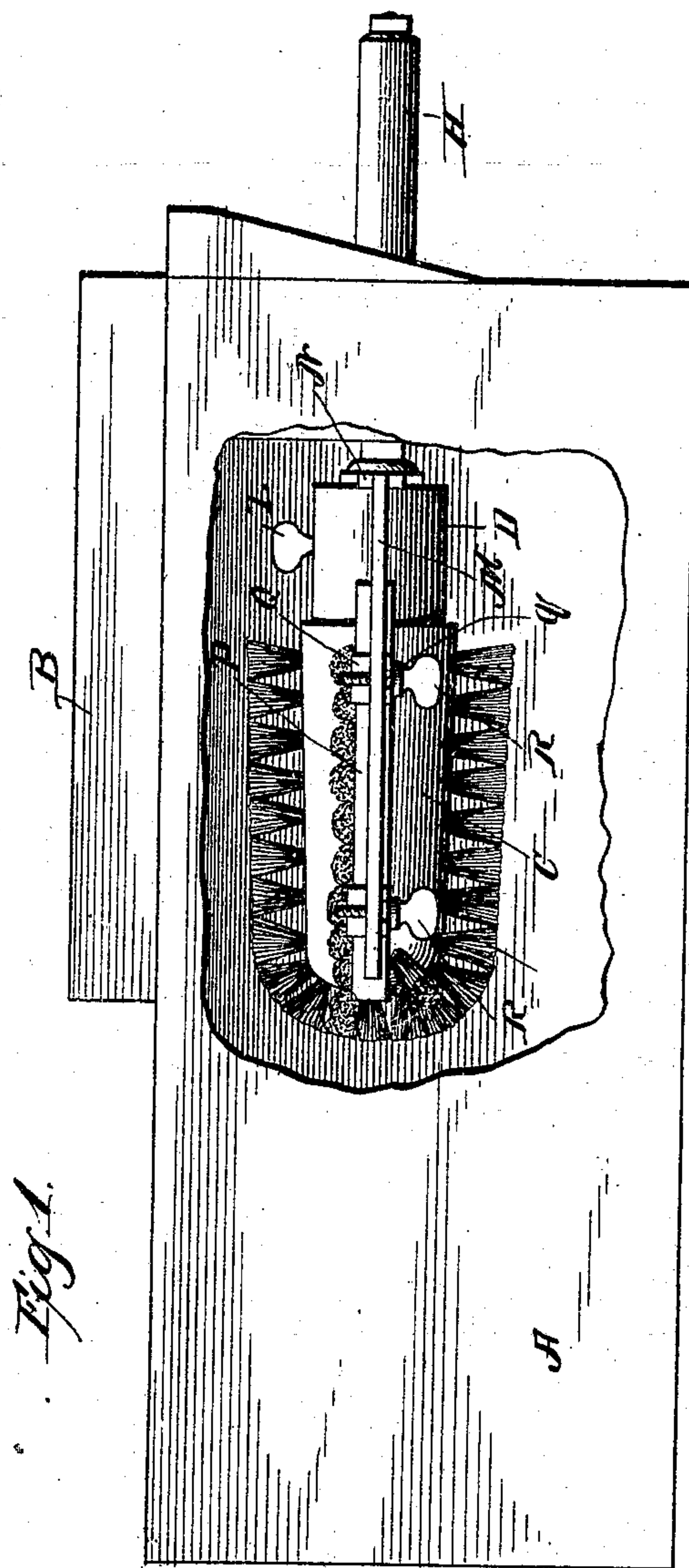
(No Model.)

2 Sheets—Sheet 1.

A. ZAUNER.
TUMBLER WASHER.

No. 503,638.

Patented Aug. 22, 1893.



Witnesses

O. H. Hardman

O. D. Duff

Inventor

Alexander Zauner

By *his* Attorneys,

C. A. Snow & Co.

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Fig. 3.

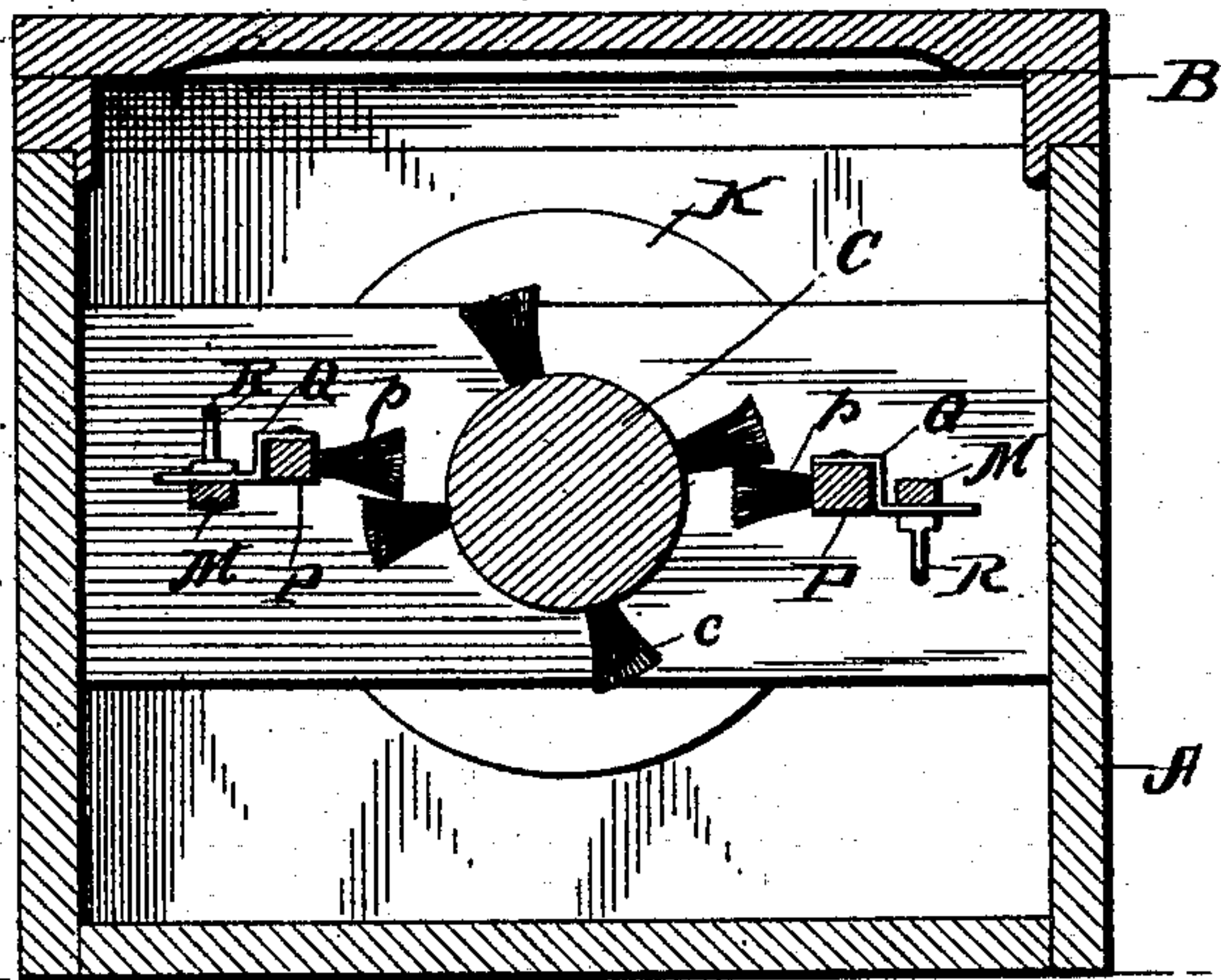
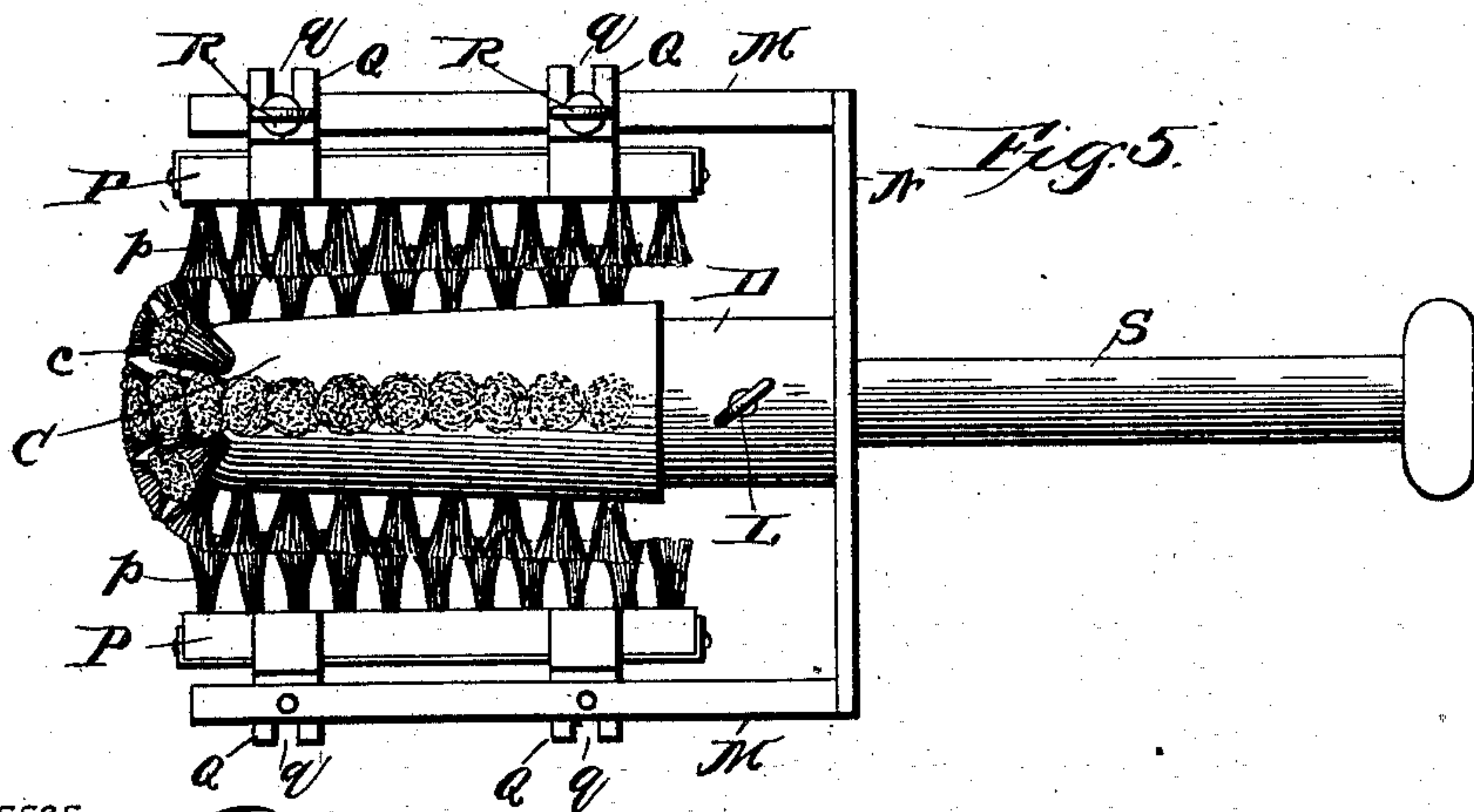
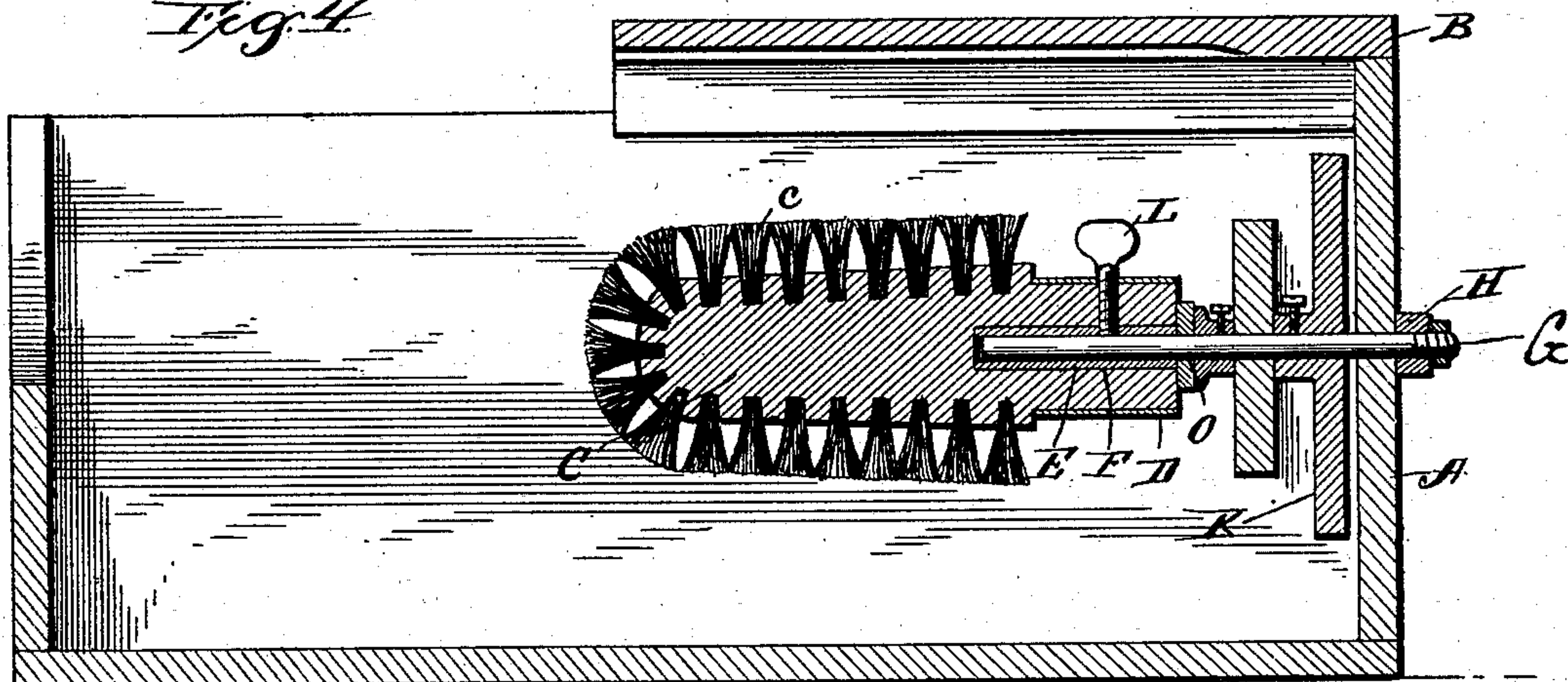


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ALEXANDER ZAUNER, OF SAN ANTONIO, TEXAS.

TUMBLER-WASHER.

SPECIFICATION forming part of Letters Patent No. 503,638, dated August 22, 1893.

Application filed July 6, 1892. Serial No. 439,140. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER ZAUNER, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Glass-Cleaning Machine, of which the following is a specification.

My invention relates to a device for cleaning glasses, and has for its object to provide means whereby glasses, mugs, and articles of a similar nature, may be thoroughly cleansed, outside and inside, simultaneously, without placing the hands in the water or other liquid.

A further object of my invention is to provide means whereby the brushes, which are used in connection with my cleanser, may be adjusted to adapt the device for glasses and mugs of different sizes.

Brushes having long bristles or hair, are not suitable for washing glass and similar materials, and therefore in order that I may successfully employ brushes with short hair I provide the adjusting features by which the brushes may be moved to suit the size of the vessel to be cleansed.

My invention is fully described hereinafter in connection with the drawings, and the points of novelty are carefully distinguished in the appended claims.

In the drawings:—Figure 1 is a side view, partly broken away, of a device embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a transverse sectional view, on line $x-x$ of Fig. 2. Fig. 4 is a sectional view taken axially through the interior brush. Fig. 5 is a detail view of the brushes with a handle attached, whereby they may be operated by hand.

The case or container, A, in which my improved cleansing mechanism is arranged, is open at one end, as shown, and is covered, above the brushes by a partial lid, B, to prevent the splashing of the water, or lye. The interior brush comprises a core, C, of wood or other similar material, and bristles, $c c$, carried thereby, the end as well as the sides of the core being provided with bristles. The inner end of the core is provided with an encircling band, or collar, D, to prevent the splitting of the core, a socket, E, provided with a tubular,

metal sleeve, F, arranged in said socket, being formed in the end of the core to receive the ends of the shaft, G, which is mounted in a bearing in the end of the case or container. The shaft is provided upon its outer end with a crank, H, by means of which the brushes may be rotated, and the shaft also carries, close to the end wall of the case or container a balancing weight, K, consisting of a disk, which is secured at its center to the shaft and rotates therewith. The core is secured to the end of the shaft and locked firmly in place thereon by means of set screw, L, which is mounted in the band or collar, above described.

The exterior brush, which is rotated simultaneously with the interior brush, comprises the arms, M M, arranged parallel with the axis of the core and sustained in place by the radial braces, N N, consisting of a cross-bar which is provided with the central aperture, O, to receive the shaft, and is also provided, upon opposite sides of said aperture with perforations, $o o$, to receive pins upon the end of the core, whereby the exterior brush is caused to rotate simultaneously and in the same direction with the interior brush.

The arms, M M, carry adjustable brush frames, P P, the bristles, $p p$, of which project inwardly, or toward the core, said brush frames being provided on their outer sides with clips, Q Q, provided with slots $q q$, to be engaged by thumb-screws, R R, in the arms M, whereby the brush frames may be adjusted toward or from the core, at will, to suit the size of the glass or article to be washed.

The operation of the cleaner is as follows:—The glass is slipped over the end of the core, until the bristles upon the end of the latter come in contact with the bottom of the glass. The crank is then rotated, causing the interior and exterior brushes to rub the outside and inside of the glass simultaneously.

To adjust the exterior brush-frames it is simply necessary to loosen the thumb-screws and move the frames to the desired positions.

By loosening the set-screw, L, the brushes may be removed from the shaft, and a handle, S, as shown in Fig. 5, attached.

Having thus described my invention, I claim—

1. The combination with a suitable case or container of a shaft, a brush core carried by said shaft, the parallel arms M M carried by the shaft, and the adjustable brush frames
5 attached to said arms, having slotted clips engaged by thumb-screws on the arms, substantially as specified.

2. The combination with a suitable case or container, of a shaft, a core carrying brush
10 bristles and provided in one end with a socket to receive the end of the shaft, the core being locked upon the end of the shaft by a set-screw, the arms M M carried by a cross-bar

which fits upon the shaft and is locked thereon by pins in the end of the core engaging
15 perforations in said bar, and the adjustable brush-frames carried by the said arms, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALEXANDER ZAUNER.

Witnesses:

JUAN E. BARRERA,
JOHN STAPPENBECK.