

No. 702,010.

Patented June 10, 1902.

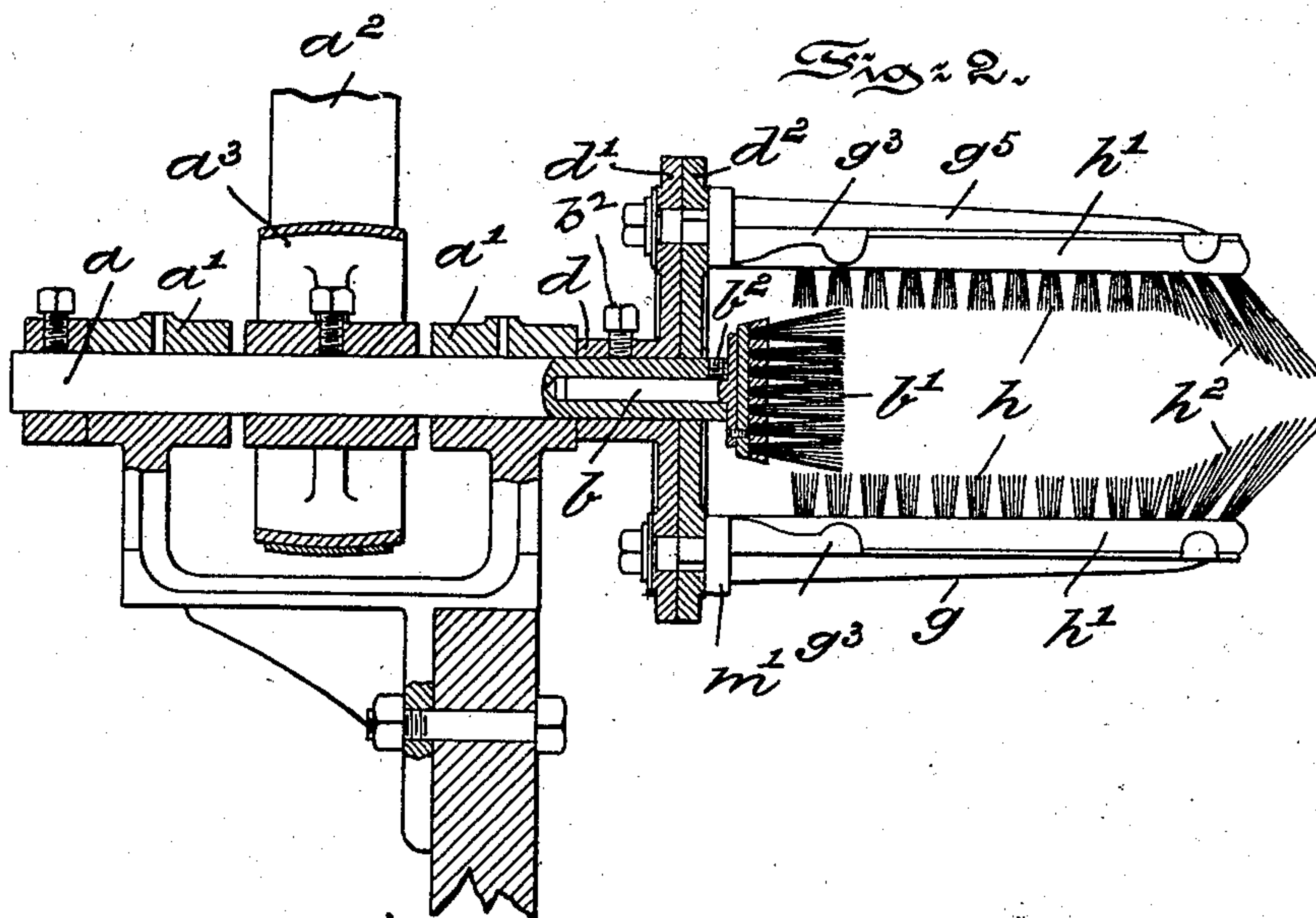
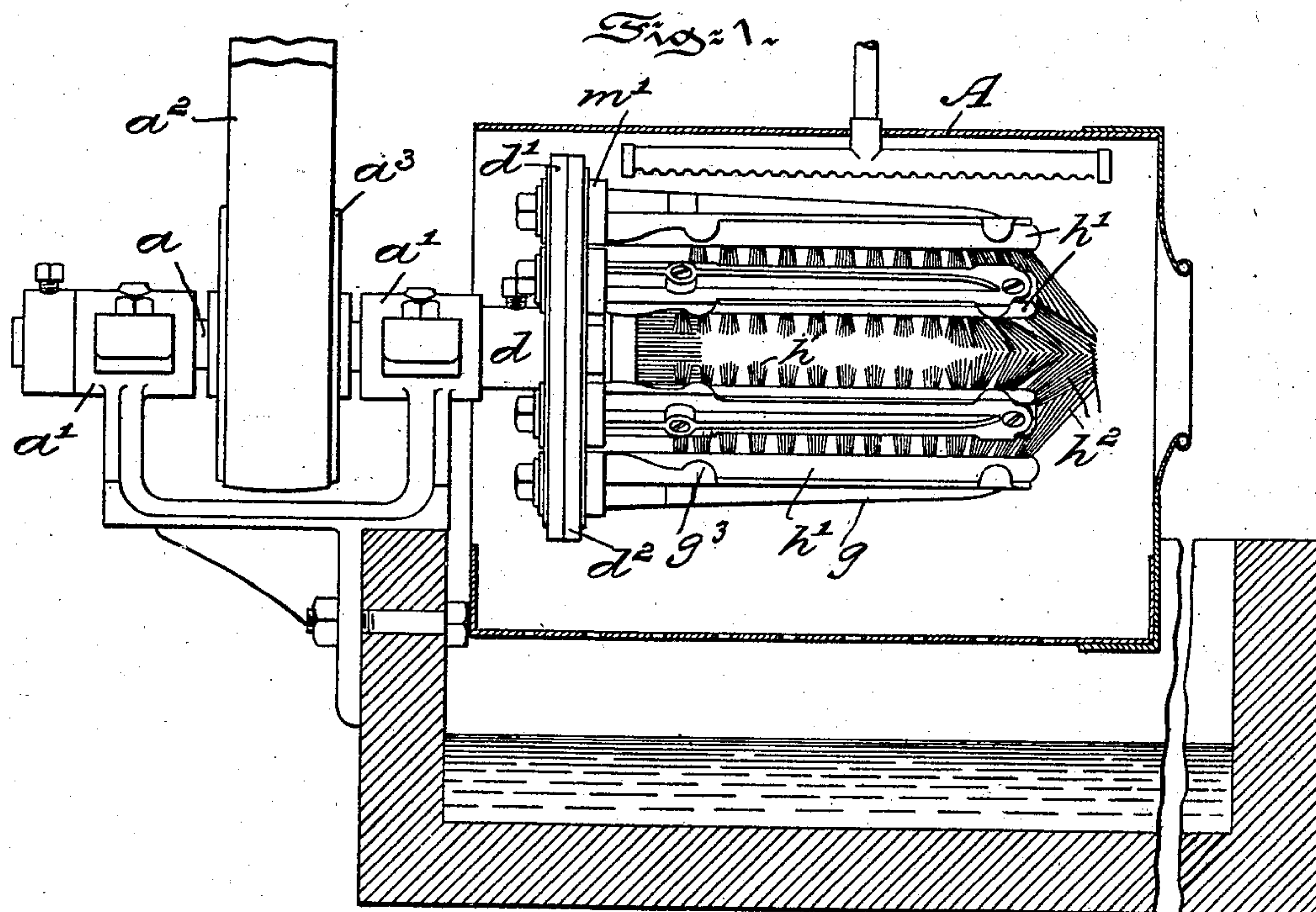
J. KAYSER.

BOTTLE WASHING MACHINE.

(Application filed Sept. 20, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
Wilhelm Vogt
Thomas M. Smith

Inventors
Joseph Kayser,
J. Walter Douglas
Attorneys.

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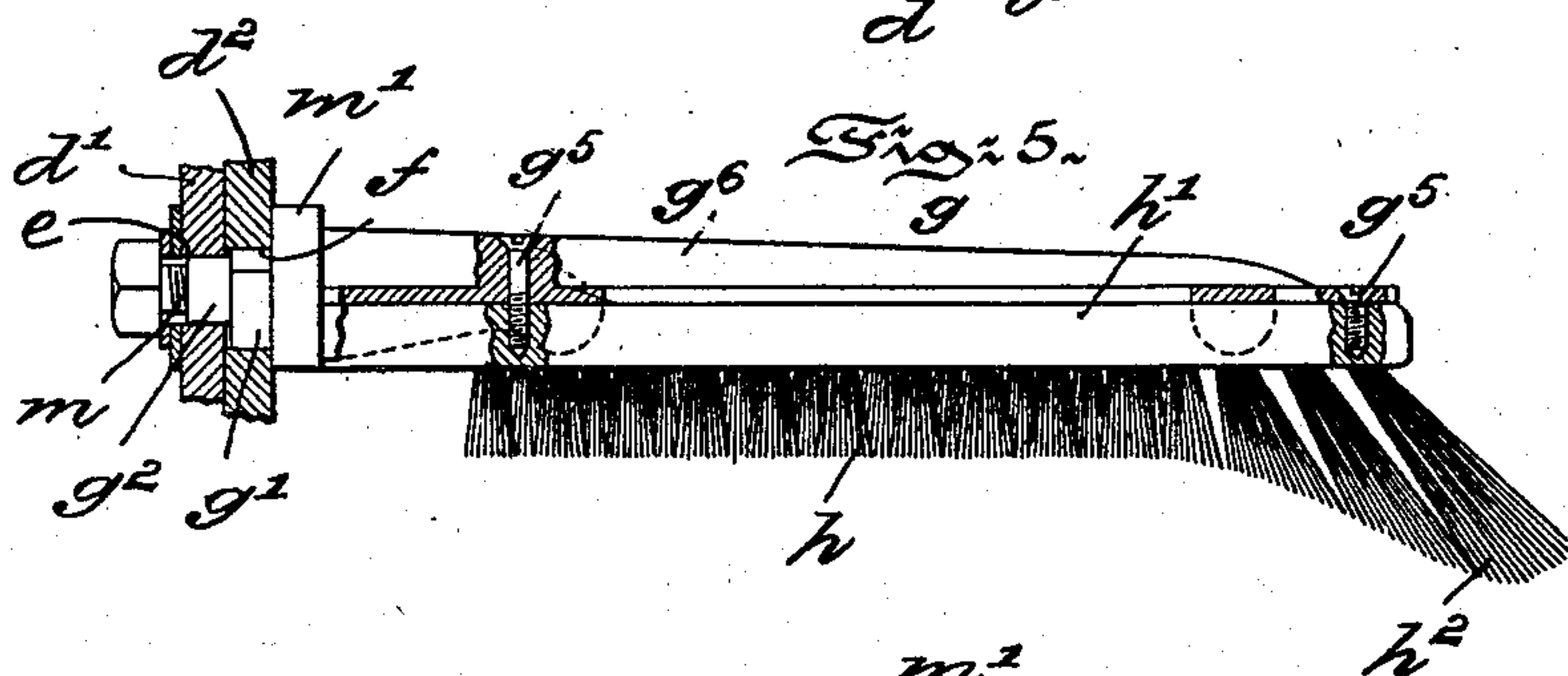
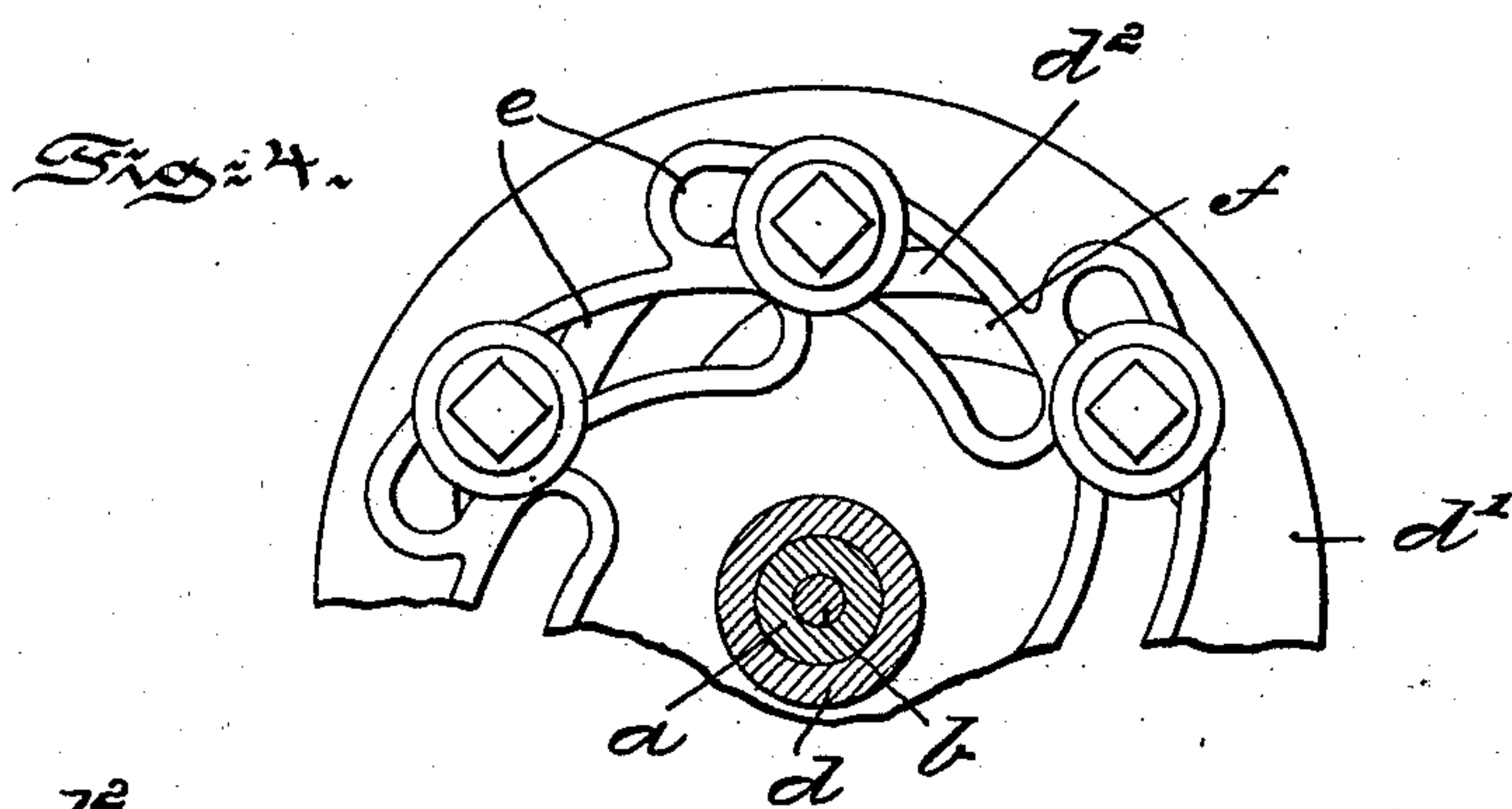
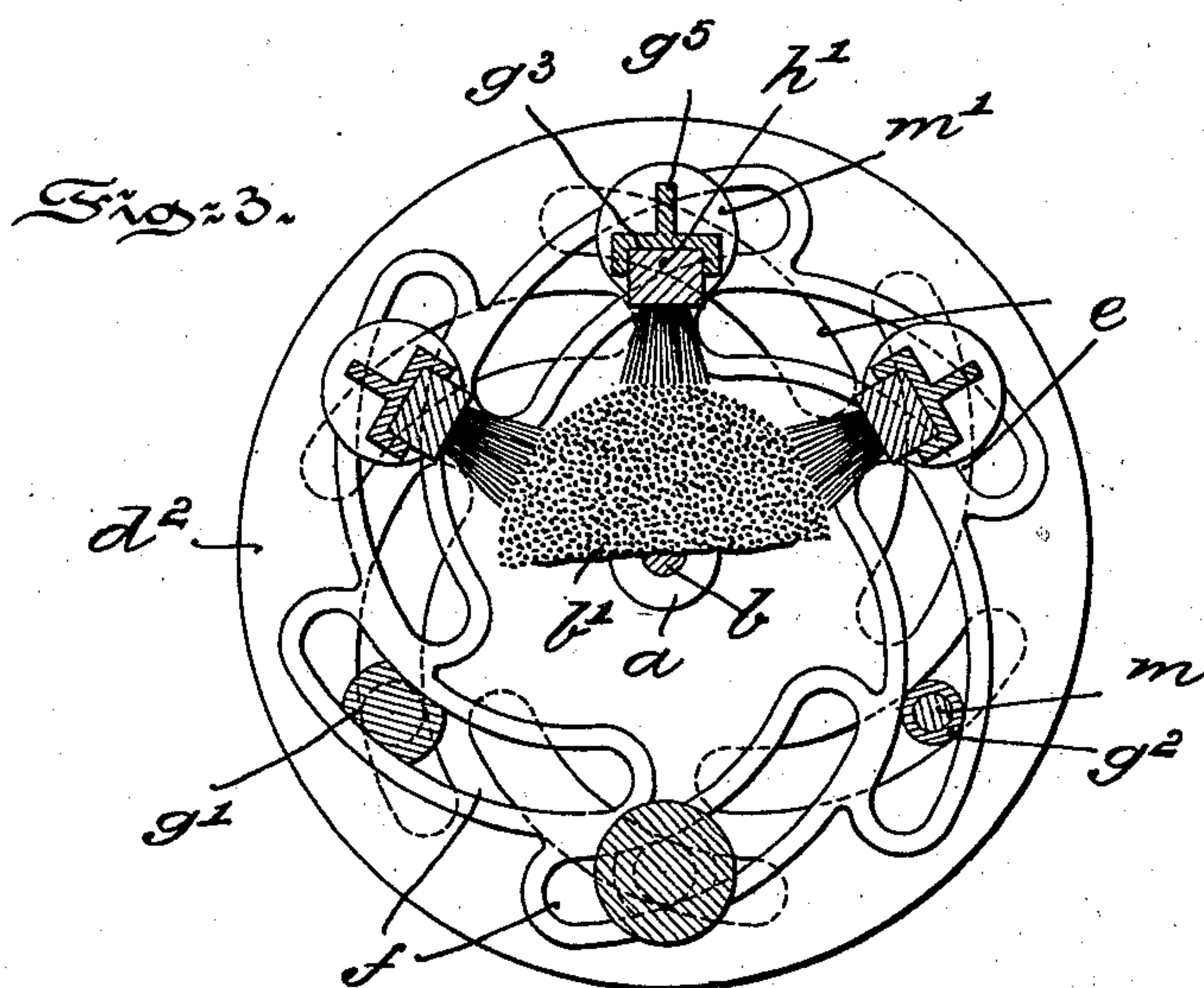
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2 Sheets—Sheet 2.



Witnesses:
Wilhelm Vogt
Thomas M. Smith

Inventor:
Joseph Kayser,
J. Walter Douglas
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH KAYSER, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 702,010, dated June 10, 1902.

Application filed September 20, 1901. Serial No. 75,762. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KAYSER, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bottle-Washing Machines, of which the following is a specification.

My invention has relation to a machine for washing the exterior of bottles and similar receptacles, and in such connection it relates to the construction and arrangement of such a machine.

The principal objects of my invention are, first, to provide in a machine for washing the exterior of bottles and the like a series of brushes of suitable shape arranged around a common center, the standards for the brushes being removably secured to a disk or disks to which rotary movement is imparted and an auxiliary central brush for the base of the receptacle, said auxiliary brush being adjustably secured in the shaft from which rotation of the disks is obtained, and, second, to provide in such a machine a simple and easily-manipulated means whereby the series of brushes may be adjusted, so that they may approach toward or recede from the central axis around which the brushes rotate.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a side elevational view, partly in longitudinal section, illustrating a machine embodying main features of my invention. Fig. 2 is a longitudinal sectional view of the brushes, the disks, and shaft and auxiliary parts. Fig. 3 is a front elevational view, enlarged and sectioned, illustrating the means for adjusting the series of brushes in the disks. Fig. 4 is a rear elevational view of said disks; and Figs. 5 and 6 are respectively side and rear elevational views, enlarged, of one of the series of brushes.

Referring to the drawings, a represents the driving-shaft, supported in suitable bearings a' a' and driven by a belt a^2 , passing over the fast pulley a^3 . One end of this shaft a is hollowed for the reception of the stem b of a central flat and circular brush b' . A set-

screw b^2 serves to fix the stem b in the shaft a in the desired position and also serves when loosened to permit the stem b to be adjusted in said shaft a to thereby cause the flat central brush b' to project more or less beyond the end of the shaft a . Upon the shaft b is secured a collar d , carrying a disk d' , and facing this disk d' is a second disk d^2 , adapted to turn somewhat loosely upon the shaft a when the two disks d' and d^2 are not locked together, as hereinafter explained. Each disk d' and d^2 is transversely slotted, as at e and f , respectively, the slots e in the disk d' being eccentrically arranged and curved and the slots f in the disk d^2 being also arranged to cross the slots e at an angle. Through the opening in both disks d' and d^2 , caused by the two slots e and f coinciding, the base of a standard g is passed. This base, as illustrated, has a flattened portion g' , which slides in the slots f of the disk d^2 , and a round portion g^2 , which slides in the slots e of the disk d' . The standards g are arranged to support and to securely hold the brushes h , the backs h' of which fit snugly into a channeled portion g^3 of the standard g and are secured therein by screws or other fastenings g^5 . The standards g also have for the purposes of strength a fin or rib g^6 , extending back of the channeled portion g^3 of the standards. The ends g' and g^2 of the standards g traverse both disks d' and d^2 , and the round end g^2 is provided with threads to receive a bolt m . Each of the standards g also has at the base of the channeled portion g^3 a collar or head m' , and between the head of the bolt m and the collar m' the two disks d' and d^2 may be tightly clamped by advancing the bolt m in the threaded portion of the standard. The two disks may thus be easily locked together, and the standards g may be maintained in position upon the disks d' and d^2 . Each brush h has at its free end a projecting angular portion h^2 , which is designed to fit onto the neck and shoulder of the bottle. All the brushes h are inclosed in a casing A , the construction and arrangement of which forms the subject-matter of a companion application for Letters Patent filed of even date herewith under the Serial No. 75,763.

Having thus described the nature and ob-

jects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bottle-washing machine, a main or driving shaft, a central brush having its axis
5 adjustable in said driving-shaft and forming a yielding support for the base of the bottle, a disk secured to and rotating with said driving-shaft, a series of brushes surrounding the central brush and each provided with a stand-
10 ard, means for removably fixing each standard to the disk, and means for adjusting said standards in said disk to cause the series of brushes to approach toward or recede from the central brush and driving-shaft.

15 2. In a machine of the character described, a brush, a standard having a channeled por-

tion adapted to receive and retain the back of said brush, a fin or rib extending along the entire back of said channeled portion to strengthen the standard, a round end formed
20 on the standard beyond the channeled portion, and a rotating slotted disk in which the round end of said standard is adapted to be secured.

In testimony whereof I have hereunto set
25 my signature in the presence of two subscribing witnesses.

JOSEPH KAYSER.

Witnesses:

J. WALTER DOUGLASS,
THOMAS M. SMITH.