

No. 661,512.

J. H. FULLMER.

Patented Nov. 13, 1900.

WATER MOTOR.

(Application filed Feb. 21, 1900.)

(No Model.)

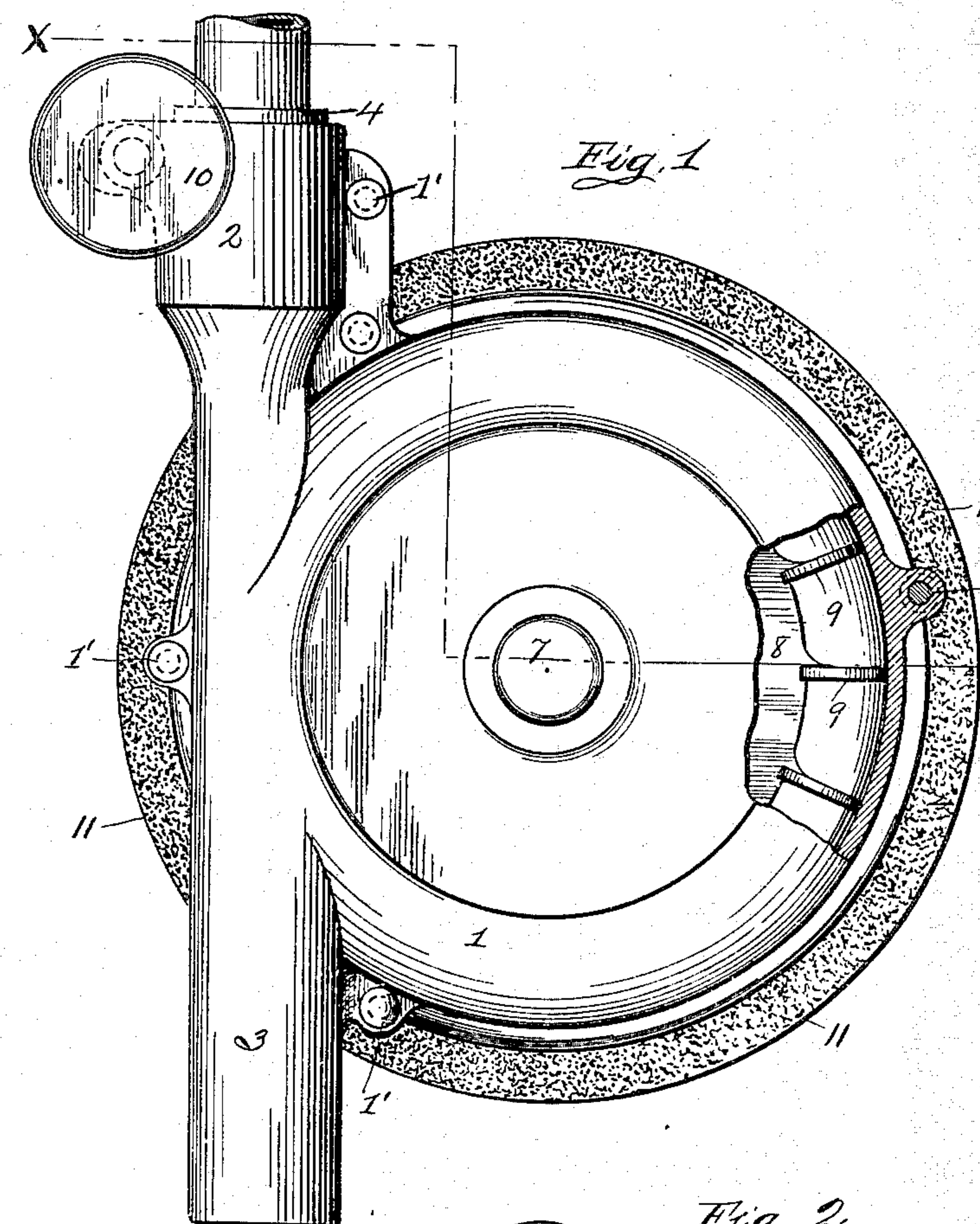


Fig. 1

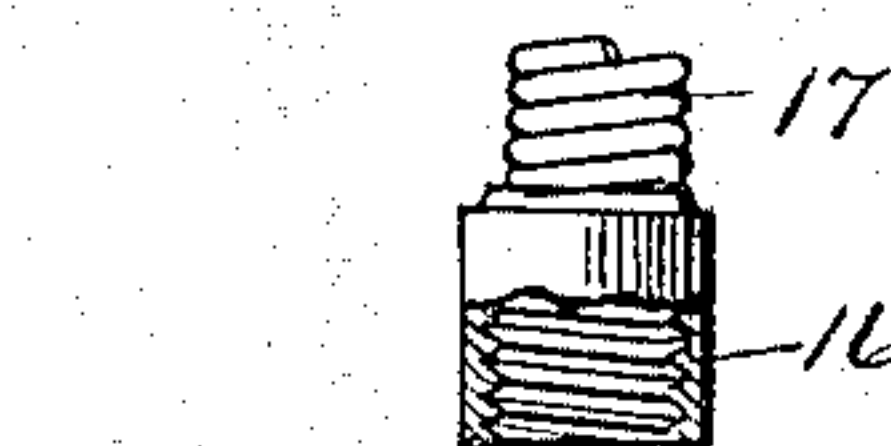
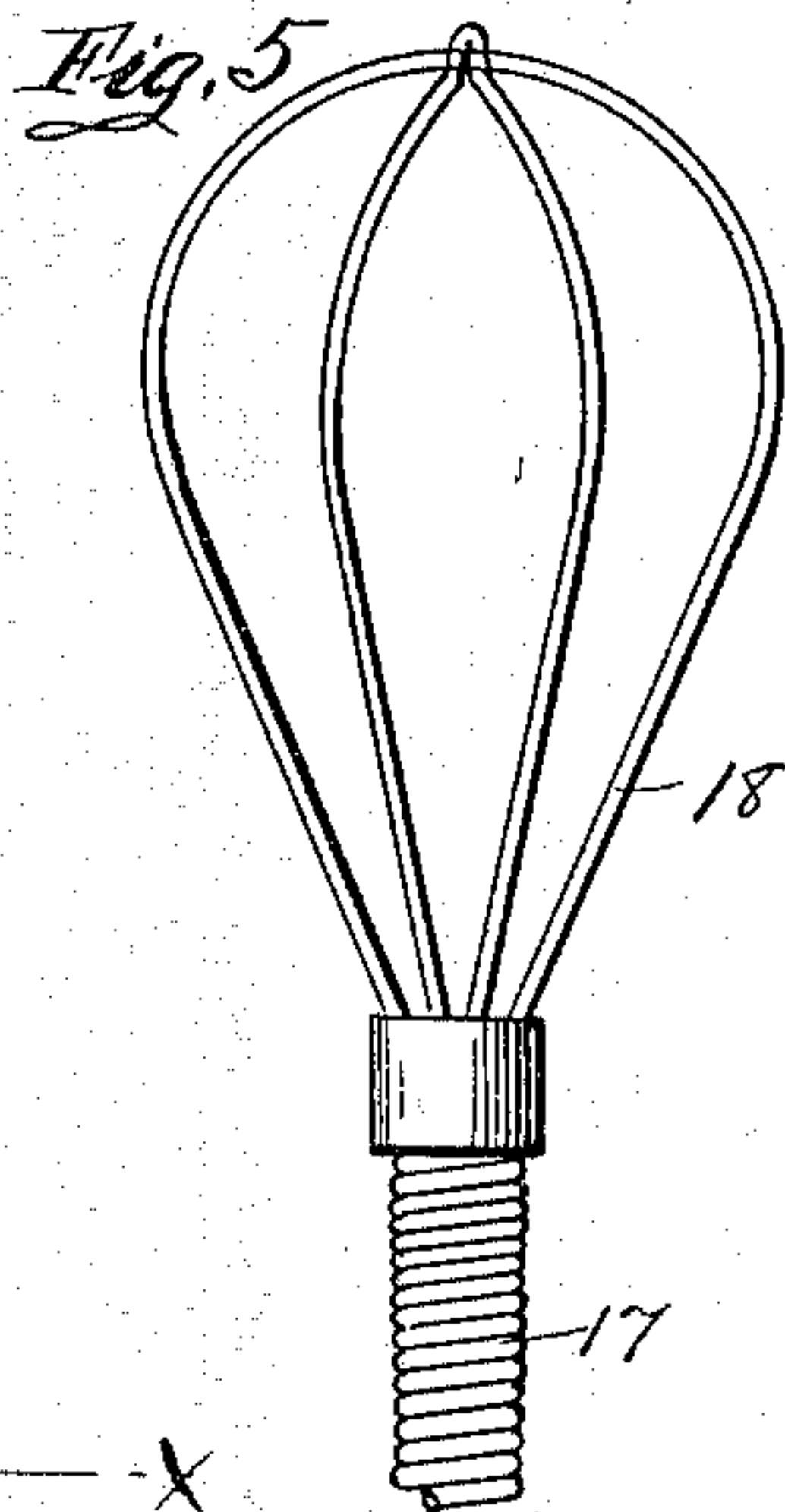


Fig. 3

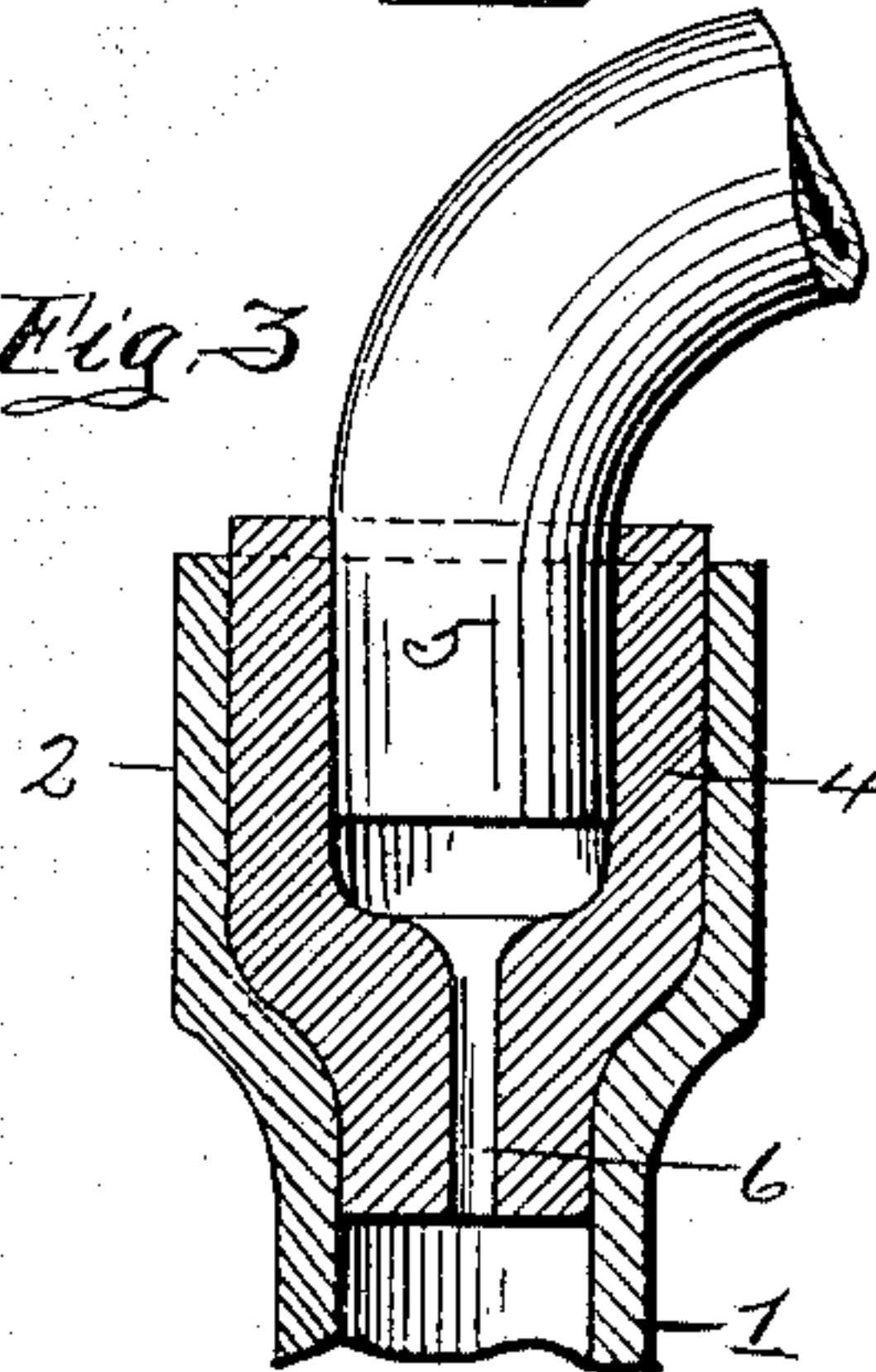


Fig. 4

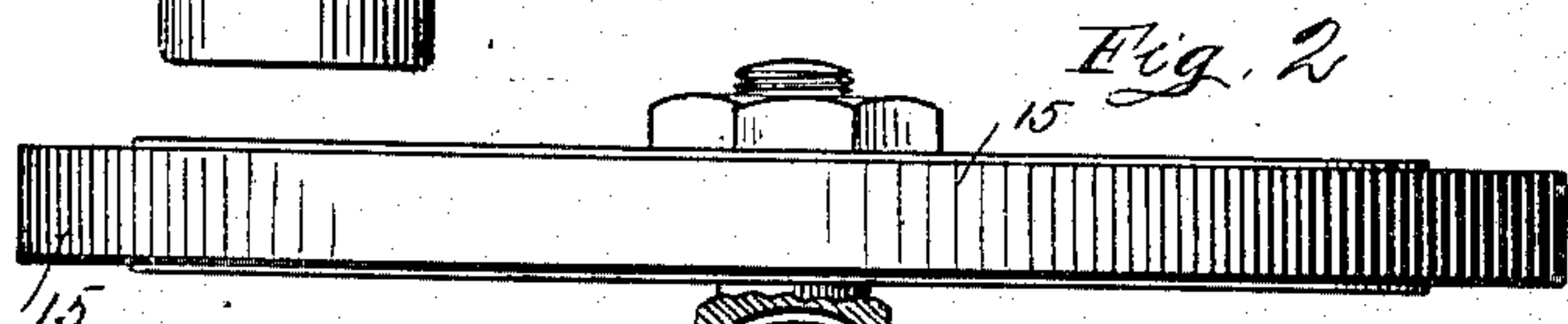
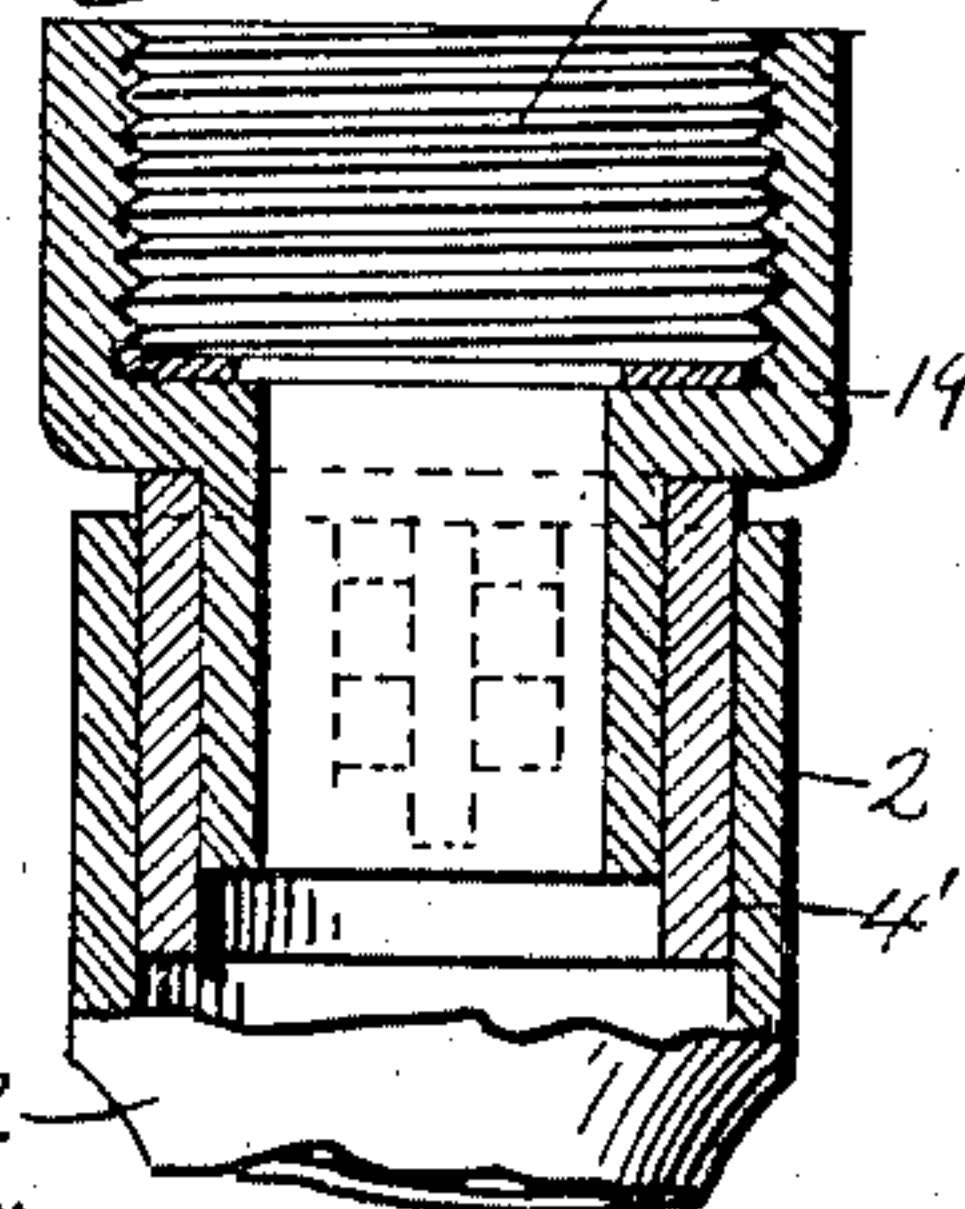
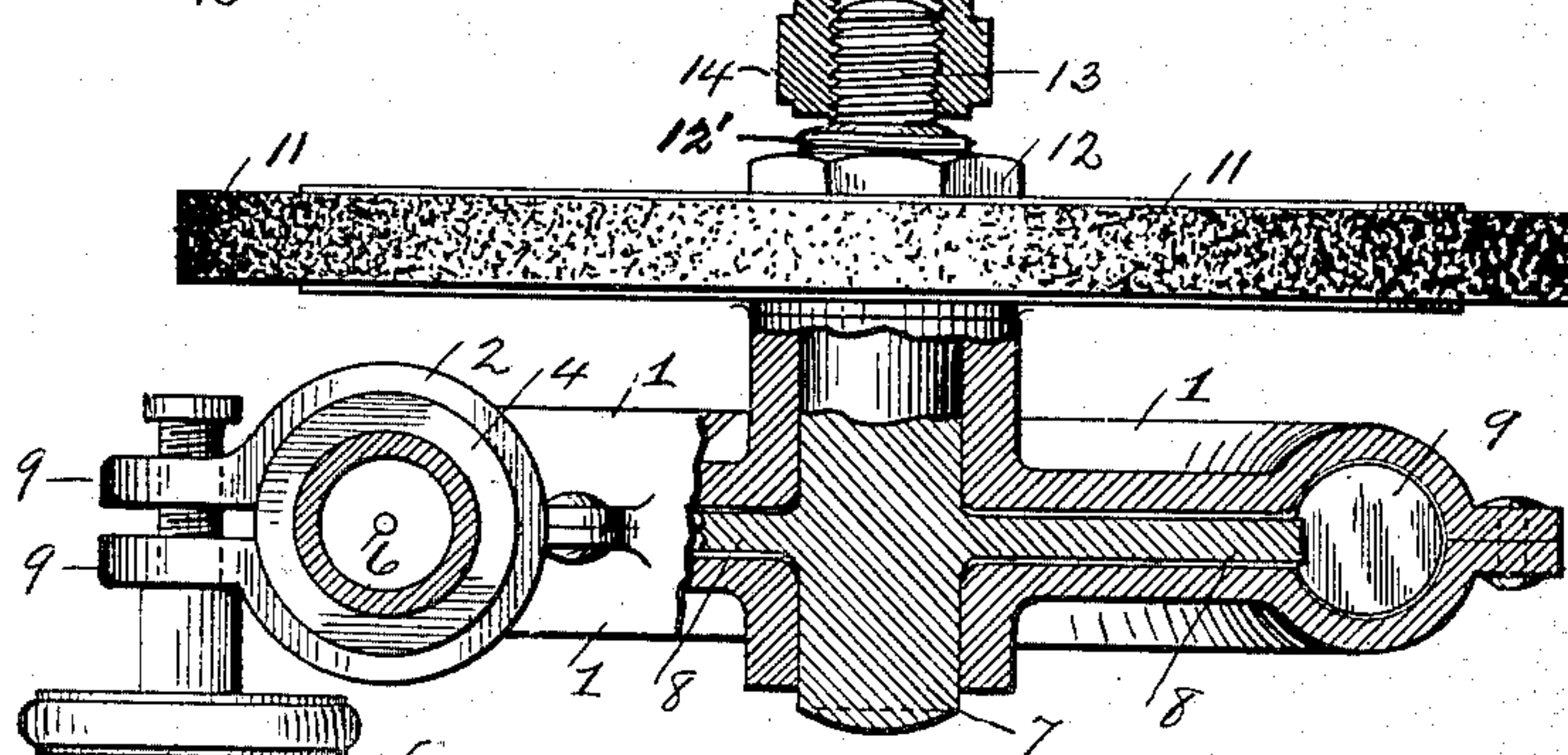


Fig. 2



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# UNITED STATES PATENT OFFICE.

JOHN H. FULLMER, OF WILMERDING, PENNSYLVANIA.

## WATER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 661,512, dated November 13, 1900.

Application filed February 21, 1900. Serial No. 6,001. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. FULLMER, a citizen of the United States of America, residing at Wilmerding, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Water-Motors; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved water-motor for imparting rotary motion to articles for kitchen or domestic use; and it consists in a small water-motor, means for attaching the same to a faucet or hydrant, and means for attaching to said motor devices which require a rotary movement—such as an egg beater or whip or emery, grinding, or like wheels—together with the certain details of construction and combination of parts, as will be hereinafter fully described.

In the accompanying drawings, Figure 1 is a side elevation of my improved motor, which is constructed and arranged in accordance with my invention, a part of which is shown in section the better to show the inner working parts. Fig. 2 is a sectional plan view of the same, the said section being taken on the line XX of Fig. 1. Fig. 3 is a sectional side elevation of the socket, showing the means for attachment with an ordinary water-faucet. Fig. 4 is a sectional elevation of the same, showing the means whereby the motor may be attached to a hydrant or water-faucet having a screw-threaded coupling. Fig. 5 is a side elevation of the egg whip or beater, showing the flexible shaft broken.

To put my invention into practice, and thereby provide a water-motor that may be attached to an ordinary water-faucet or hydrant, I provide an annular shell 1 of a suitable size and form of construction, the said shell preferably made in two sections and the one section attached to the other by means of rivets 1' and solder to form a water-tight connection. Formed integral with this shell 1 is a water-inlet socket 2, arranged upon a tangent with the annular inner space in which the propeller of the motor operates, and directly beneath the said inlet is an outlet or drain 3. Operating within this shell 1 is an

annular disk 8, formed integral with a centrally-arranged shaft 7, which has a suitable bearing in the said shell 1, and the said disk is provided with a series of radially-arranged paddles or buckets 9, of the same shape as the annular space in which they operate.

To attach this motor to a water-faucet 5 of ordinary form, the socket 2 is fitted with an inner rubber piece 4, (see Fig. 3,) which fits tightly about the faucet 5 and is firmly clamped thereon by means of a screw-nut 10, operating through lugs 9, which partially divide the socket 2.

To attach the motor to a faucet or hydrant fitted with a screw-thread, a threaded socket 19 (see Fig. 4) is fitted in the socket 2, having an intervening rubber washer 4'.

Connected to the motor above described and adapted to be operated thereby is a grinding-wheel 11, which is attached to the power-shaft 7 by a nut 12 and the end of the said shaft 7 formed with a screw-thread 13, upon which other devices may be connected to give the said devices a rotary motion. The threaded portion of the shaft 7 is of varying diameters, so that the different devices may be readily attached thereto. For instance, as herein shown, the threaded portion 13 is of less diameter than the threaded portion 12', upon which the nut 12 is mounted to secure the grinding-wheel 11 in position.

At Fig. 2 of the drawings is shown, in addition to the above-described grinding-wheel 11, a buffing or polishing wheel 15, which is connected to the threaded shank 13 by a socket 14 and may easily be removed or detached from the motor.

At Fig. 5 of the drawings is shown an egg whip or beater consisting of a beater 18, formed from wire, having a socket connected thereto and the said socket attached to a flexible shaft 17. This shaft 17 is made of a piece of spiral wire of a suitable length and the opposite end fitted with a threaded socket 16, which may be readily connected to the shank 13 of the motor-shaft. This motor may be adapted to various uses, such as operating dental drills, &c., also for operating small fans, sewing-machines, &c., or for any like purpose where rotary motion is required. The water under pressure from the faucet or hydrant is discharged through the small per-



foration 6, formed in the rubber connection 4, and is projected directly against the radial propellers 9, thereby revolving the disk 8 and its attached shaft 7 in a manner well known in the art.

Various slight modifications and changes may be made in the details of construction without departing from the spirit of the invention. Therefore I do not confine myself to the exact construction shown and described.

Having thus described my invention, I claim—

In a water-motor of the class described, the combination with an outer annular shell formed in two sections and secured together by means of rivets, of a water inlet and outlet formed integral with said shell and arranged upon a tangent with the annular inner space in which the propeller of the motor

operates, a rubber piece 4 arranged in said water-inlet, a centrally-arranged shaft journaled in said casing and having an annular web, said web carrying a series of transversely-extending and peripherally-arranged paddles of the same shape as the annular space in which they operate, said shaft extending outwardly at one end, and having threaded portions of varying diameters whereby different devices may be attached thereto, substantially as herein shown and described.

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

JOHN H. FULLMER.

Witnesses:

JOHN GROETZINGER,  
H. E. BECCER.