S. NELSON.

WATER MOTOR.

APPLICATION FILED JULY 14, 1910.

996,787.

Patented July 4, 1911.

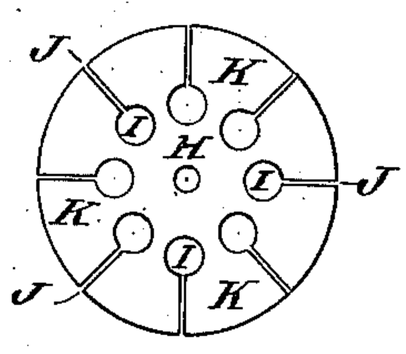

Fig. 3.

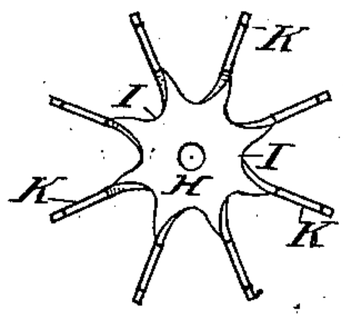

Fig. 4.

Fig. 1.

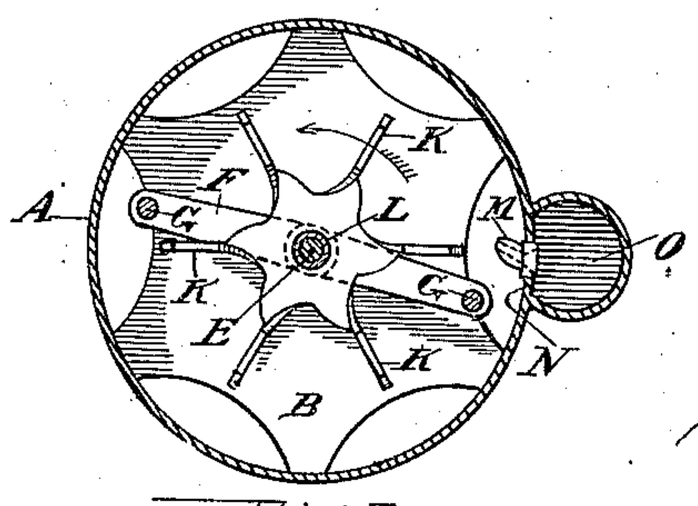

Fig. 2.

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SVEN NELSON, OF ROSLINDALE, MASSACHUSETTS.

WATER-MOTOR.

996,787. Specification of Letters Patent. Patented July 4, 1911.

Application filed July 14, 1910. Serial No. 572,015.

To all whom it may concern:

Be it known that I, SVEN NELSON, a citizen of Sweden, and a resident of Roslindale, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Water-Motors, of which the following is a specification.

My invention relates to improvements in water-motors and it comprises, essentially, a cylindrical apertured casing or chamber having an externally positioned liquid receiving inclosure, provided with a series of jets tangentially arranged to impel the liquid under pressure against a plurality of rotatable wheels having radially extended blades parallel with their attached supporting sleeve, and spindle to which may be secured a shaft, flexible or otherwise, adapted to actuate certain mechanisms in various avocations requiring a limited power.

The object of my improved invention is the production of a jet motor applicable to any faucet, and operated by water pressure to produce power through efficient, durable, and inexpensive appurtenances. I attain this object by the apparatus illustrated in the annexed drawing forming a part of this specification, in which—

Figure 1, is a view in perspective, a portion of the exterior broken away to disclose the interior construction. Fig. 2, denotes a transverse section on broken line 2—2 of Fig. 1 exhibiting the interior power producing elements. Fig. 3, is a plan of the prepared metal blank from which is formed the water wheel. Fig. 4, designates a similar view of the perfected wheel in condition for assemblage.

Corresponding letters of reference indicate similar parts throughout the several views, referring to which—

A, denotes the cylindrical casing having an apertured or foraminous bottom B permitting free egress of water by gravity after performing its function, said casing is closed at its opposite end by the cover C preferably screw engaged with the casing A and provided centrally with the integral outward projecting hub D forming a journal for the protruding portion of the rotatable shaft or spindle E mainly positioned centrally within the cylinder A, and therein supported by the cross bar F and its attached standards G—G collectively forming a spider, and which is firmly secured to the inner side of the removable cover C, and adapted to sustain the spindle E in a revoluble manner, together with its aggrouped liquid actuated wheels H H H. Said wheels comprise annular disks of thin metal having perforations I, concentric with, and intermediate their axis and periphery, radial slots J from said perforations I outwardly, separate the disks into several uniform segments K (Fig. 3) which are individually bended to a position parallel with their sustaining sleeve L (Fig. 1) thus forming blades which receive the impact of the liquid issuing from the jet plugs M corresponding in number to the wheels H, and tangentially alined in their relation thereto. Said jet plugs M, are screw threaded or in any suitable manner secured within the partition N, isolating the cylinder A from the inclosure of conduit O with their orifices opening therefrom to permit the water, under pressure, to pass therethrough and impinge against each of the blades K as they successively rotate within the sphere of the water jets. To secure an unimpeded or continuous revolution of said water wheels H the same are disposed about the sleeve L, to bring the blades K in a staggered position substantially as illustrated.

P denotes the cylindrical liquid receiving chamber forming an extension of the inclosure O, screw engaged thereto, and provided with an internal flange Q adapted to support the detachable elastic gasket R forming a liquid tight orifice receiving and embracing the delivery faucet, and adapted to various diameters. To further promote the adaptability of these gaskets, they are interchangeable, and differ only in the capacity of their orifices.

An internally screw threaded cap S having a central opening, engages with the female thread of the extension to close the chamber P in a manner to compress the peripheral body of the gasket firmly, and is provided with means for the retainment of a flexible attachment T supporting the organized appurtenance in a workable position as shown.

In the construction of my improved liquid actuated motor, a non corrodible, light and strong material is employed with the adoption preferably of the hexahedral bladed wheel (Fig. 2) as one productive of the best results, and, as there are other modifications structurally departing from the manner herein illustrated, I desire not to be held to the strict interpretation herein disclosed but

may use such equivalents therefor as will come within the fair scope of my invention, which, having thus ascertained I desire to secure by Letters Patent of the United States, and I claim—

1. In combination with a casing, a spindle, a wheel thereon, a cross bar in which said spindle is journaled, a standard secured to each end of said bar extending upwardly therefrom, and a top resting on the casing and having the upper ends of said standards secured thereto whereby all of said parts are carried by the top and may be removed through the casing by mere lifting movement of the top, the spindle having its upper end journaled therein.

2. In combination with a casing, a removable cover for the casing, a spindle having its upper end extending through the casing cover and carrying a water wheel, and means carried by the cover to form a bearing for the lower end of the spindle, said spindle, water wheel and the bearing means therefor being removable with the cover and through the upper end of the casing while attached to the cover.

In testimony whereof I have affixed my signature, in presence of two witnesses.

SVEN NELSON.

Witnesses:
FRANK ANDREWS,
WALTER E. ROGERS.