

UNITED STATES PATENT OFFICE.

VECKTOR PETERSON, OF ARLINGTON, NEW JERSEY.

TURBINE.

935,322.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, VECKTOR PETERSON, a citizen of the United States, residing at Arlington, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Turbines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a motor of the rotary type, and is designed to provide a turbine that is cheap to manufacture and extremely simple in construction.

The turbine is designed to have a disk provided with buckets on its periphery, this disk having the buckets preferably formed integral therewith, the disk being cast with openings to form the buckets, and a shield within the casing against which the periphery of the disk and its buckets fits for a portion of its rotation. The shield has openings therein which lead from inlets, one of which is formed to provide for a jet of steam to act on the buckets, and the other is designed to provide for the injection of water into the buckets to cause the rotation of the turbine. It will be understood that when one of these inlets is used, the other can be capped or otherwise secured against the escape of fluid.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a side view with the front plate and the disk partly broken away. Fig. 2 is a central horizontal section on Fig. 1, and Fig. 3 is a view of a portion of the shield showing the inlets of the fluids for driving the turbine.

The device comprises a casing 10 which is circular for the most part and has a flange 11 and is adapted to sit on a base 12. Sitting on the base 12 and fitting against the front edges of the flange 11 is a front plate 13 which is secured to the casing by the screws 14 or any other similar means. Projecting from the casing 10 is a sleeve 15, and projecting from the front plate 13 is a sleeve 16, these sleeves being in line and acting as bearings to receive a shaft 17.

On the shaft 17 is a disk 18 which is

widened on its periphery as at 19 and is preferably cast, being formed with the recesses 20 which form buckets, but which leave the peripheral edge of the wheel or disk 18 unbroken. Secured in the casing, in any usual way, is a shield 21 which extends part way around on one side of the casing and has the blocks or end portions 22 to bear against the casing to hold the shield in its proper position. An inlet pipe 23 leads in through the casing and is adapted to feed steam to an opening or slit 24 which spreads the steam and directs it in the shape of a wide, thin jet against the buckets of the wheel. An inlet pipe 25 passes down and is adapted to feed water to an opening 26 in the shield 21.

Steam passing into the machine through the pipe 23 and being forced as a jet through the opening 24 will act on the buckets and rotate the wheel 18, any steam being thus fed is confined until the buckets being actuated pass the end of the shield, and in the same way any leakage from one bucket into the next will still have a slight power. The bottom of the casing is open to form an outlet for either the water or the steam used in the machine.

The turbine is designed for use in a great many different connections, and can be used in factories or for a household device, it being illustrated in Fig. 2 as a bottle washer where a sleeve 27 is secured by a screw 28 to the end of the shaft 17 and is provided, on its end, with a brush 29 which can be used in washing bottles or similar receptacles. The uses of this device, however, are many, and I do not wish to be understood as limiting myself to the particular construction shown or described herein.

Having thus described my invention, what I claim is:—

A turbine comprising a casing having a back and a peripheral flange, a front plate, a hollow shield within the casing having a slit therein, the shield having end blocks to engage the sides and the back of the casing and the peripheral flange, an inlet pipe passing through the casing to the shield and adapted to conduct a fluid under pressure to the slitted opening, a second opening in the shield, a second inlet pipe adapted to pass through the casing and to the shield to conduct fluid under pressure to the second opening, and a wheel mounted in the casing, the

wheel having its periphery arranged to bear on the shield for a portion of the length of the periphery, the periphery having recesses therein to form buckets to receive the fluid under pressure from the openings in the shield.

In testimony, that I claim the foregoing,

I have hereunto set my hand this 8th day of June 1909.

VECKTOR PETERSON.

Witnesses:

E. A. PELL,

WM. H. CAMFIELD.