

No. 650,063.

Patented May 22, 1900.

P. & L. KERSTEN.
POWER MOTOR.

(Application filed Mar. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

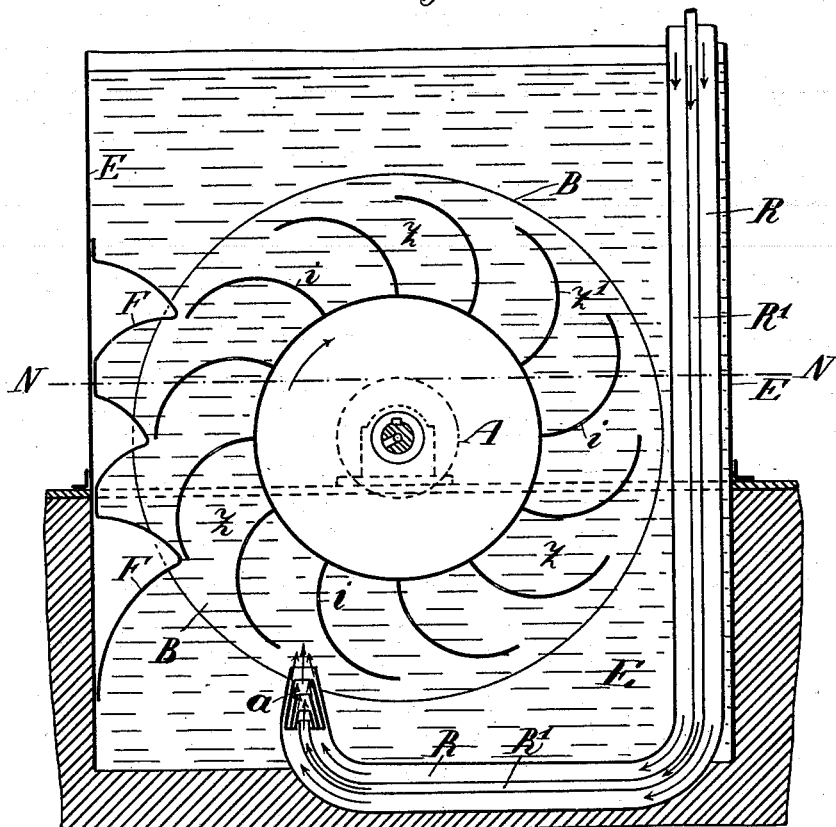
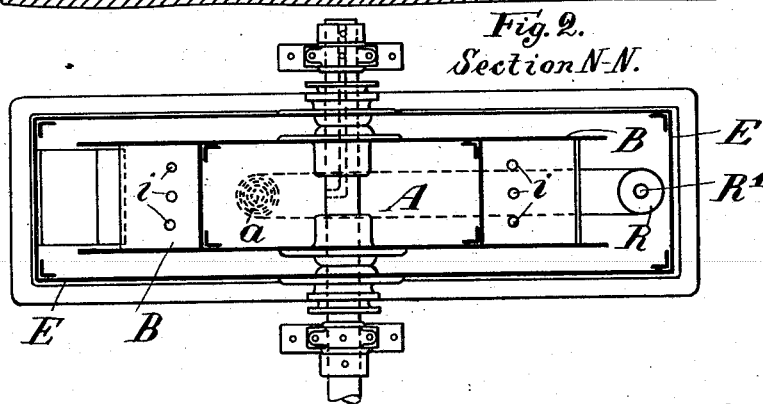


Fig. 2.
Section N-N.



Witnesses:

Wm. J. Morrison
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Inventor:

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Fig. 3.

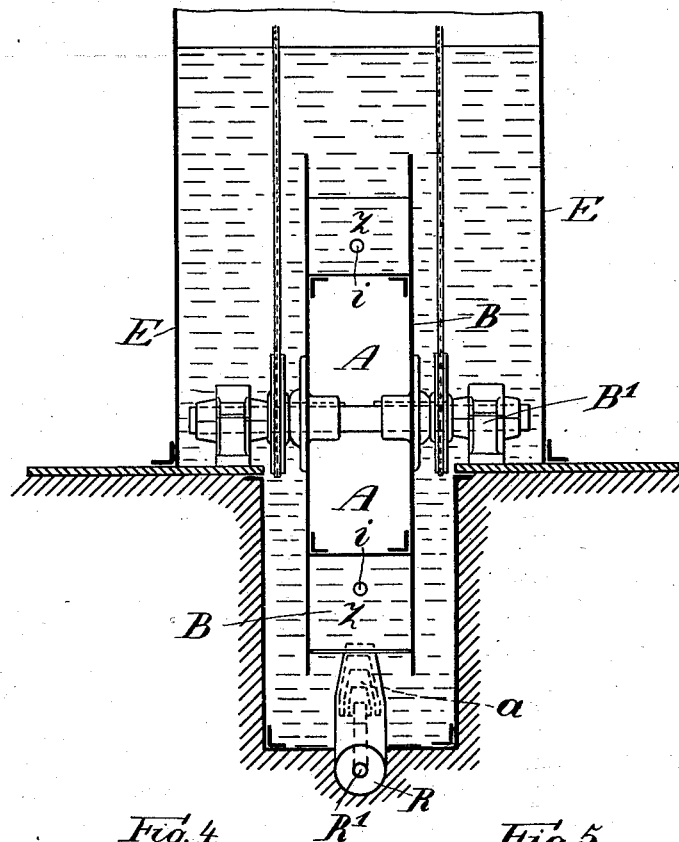


Fig. 4.

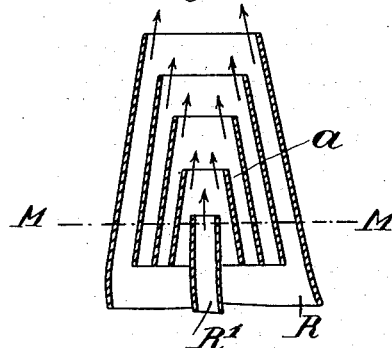
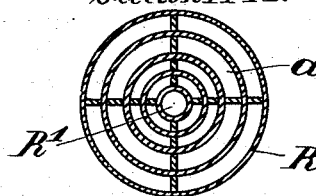


Fig. 5.
Section M-M.



Witnesses:

Alfred M. ...
Hugo Böhm.

Inventor:

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Att'y.

UNITED STATES PATENT OFFICE.

PAUL KERSTEN AND LOUIS KERSTEN, OF KOESEN, GERMANY.

POWER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 650,063, dated May 22, 1900.

Application filed March 28, 1899. Serial No. 710,813. (No model.)

To all whom it may concern:

Be it known that we, PAUL KERSTEN and LOUIS KERSTEN, subjects of the Emperor of Germany, and residents of Koesen, in the Empire of Germany, have invented certain new and useful Improvements in Power-Motors, of which the following is a full, clear, and exact description.

The present invention consists of a motor, and according to the same a wheel having a series of peripheral cells or chambers is mounted in a fluid and a jet is caused to blow or inject a gas into the fluid under the cells, so that the tendency of the gas to pass upwardly to the surface of the liquid will cause the wheel to rotate.

In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a vertical section through one form of carrying the invention into practice. Fig. 2 is a horizontal section on line N N of Fig. 1; Fig. 3, a vertical section showing the bearings for the wheel mounted in the liquid. Figs. 4 and 5 are vertical section and sectional plan, respectively, of a nozzle or jet.

Within the liquid-chamber E, which may contain any suitable liquid, (advantageously water,) is mounted a wheel A in suitable bearings, the said wheel having a series of peripheral chambers $z z$, formed by curved transverse plates or wings z' , and the face-plates B B, mounted at either side of the wheel. Below the wheel a jet or injector a is mounted, comprising the steam or other fluid pressure pipe R' and the gas or air pipe R, which is of larger diameter and incloses advantageously the smaller pipe. The nozzle or jet a may be of any suitable injector-head construction—for instance, as illustrated at Figs. 4 and 5.

The operation of the device is as follows:
The injector-head a forces the gas or air com-

ing from the pipe R into the cells or chambers $z z$ of the wheel A, and the gas in rising to the surface of the liquid will turn the wheel. In order at starting to allow the air injected to pass into several chambers, the plates or wings z' are provided with small openings $i i$, which, however, when the wheel is running make no appreciable difference in the power. The inner walls of the receptacle E may be provided with wings F F, extending toward the wheel. The wheel A is advantageously constructed, so that the liquid will carry its weight and relieve the bearings almost entirely.

As shown at Fig. 3, if desired the bearings B' may be mounted within the liquid.

We claim as our invention—

1. In a power-motor comprising a wheel with peripheral chambers z mounted in a liquid-tank, the combination of a compound steam and air injector jet, an open air-pipe extending into the liquid below the wheel to the end of which said jet is attached, a series of conical rings one within the other and open at both ends and a steam-pipe leading to and opening into the innermost conical ring in the manner and for the purpose substantially as described.

2. In a power-motor having a wheel with peripheral open chambers mounted in a liquid-tank, the combination of an open air-pipe leading down into the tank below the wheel, a steam-pipe within said air-pipe and an injector-head at the air-pipe end turned toward the mouth of the wheel-chambers, and a series of small openings in the partition-walls between the said chambers in the manner and for the purpose substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

PAUL KERSTEN.
LOUIS KERSTEN.

Witnesses:

HERM. SACK,
RUDOLPH FRICKE.