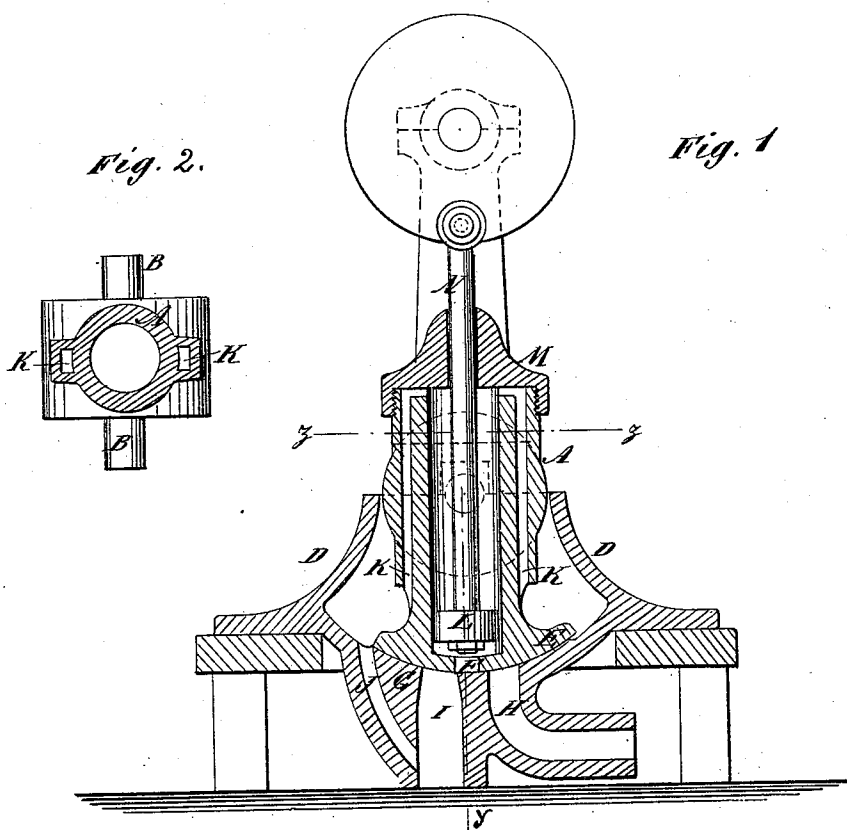


G. WELLS.
WATER-ENGINES.

No. 182,003.

Patented Sept. 5, 1876.



WITNESSES:
C. Nereux
John Goethals

INVENTOR:
George Wells
BY *Munn*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE WELLS, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO HIMSELF
AND C. H. SOLOMON & CO., OF SAME PLACE.

IMPROVEMENT IN WATER-ENGINES.

Specification forming part of Letters Patent No. **182,003**, dated September 5, 1876; application filed
June 6, 1876.

To all whom it may concern:

Be it known that I, GEORGE WELLS, of Montreal, in the Province of Quebec and Dominion of Canada, have invented a new and Improved Water-Engine, of which the following is a specification:

The invention will first be described in connection with drawing, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved engine, taken on the line *xx* of Fig. 2. Fig. 2 is a horizontal section on line *zz*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the cylinder, which is mounted in bearings C of a case, D, on trunnions B, and has a circular valve, E, formed on the lower end, with one port, F, and fitted to the correspondingly-shaped valve-seat G, in which is the inlet H and the exhaust I, also the exhaust J, for the waste from the interior of case D.

K represents passages cored out in the cylinder, from the upper end down to the interior of the waste-water case, to conduct any water

leaking past the piston L into the case, to be discharged through the exhaust. A cap, M, screws onto the top of the cylinder, for a guide to the piston-rod N, and these passages K enter the cylinder, above the piston, under this cover.

The machine is also useful as a pump.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of waste-water case D, having exhaust J, with the oscillating cylinder A, substantially as specified.

2. Cylinder A, having passages K cored out from the upper end and opening into case D, substantially as specified.

GEORGE WELLS.

Witnesses:

O'HARA BAYNES,

Of the city of Montreal, Notary Public.

JOHN C. GRIFFIN,

Of the same place, Justice of the Peace and Notary Public.