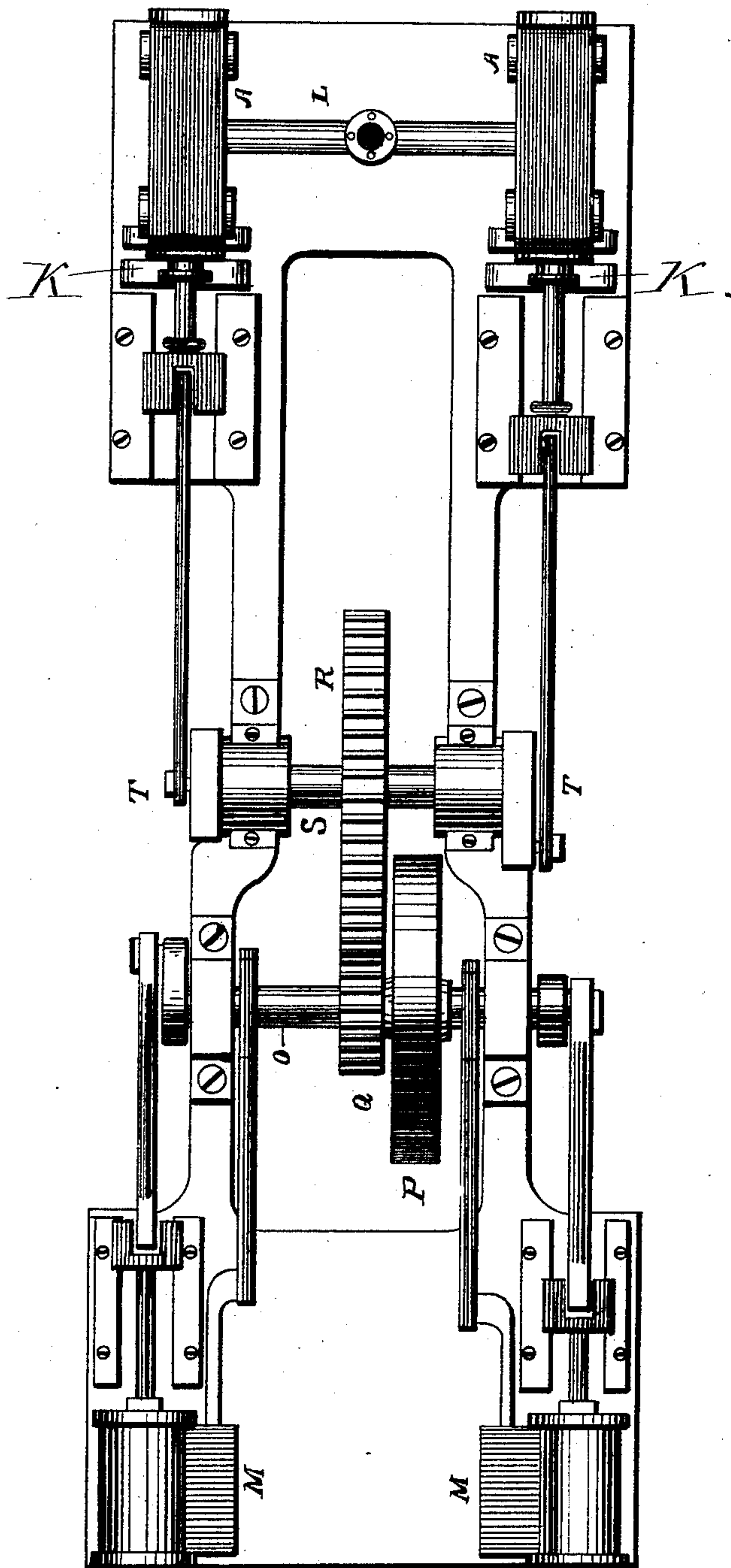


E. MARTIN.
Pump.

No. 223,000.

Patented Dec. 30, 1879.



Witnesses.
Frank M. Faber.
E. P. Peckham

Inventor
Edwin Martin.
By Legett & Legett
Attys.

UNITED STATES PATENT OFFICE.

EDWIN MARTIN, OF CLEVELAND, OHIO.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **223,000**, dated December 30, 1879; application filed September 17, 1879.

To all whom it may concern:

Be it known that I, EDWIN MARTIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Pumps; 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 pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to water-pumps and to means and mechanism for actuating them.

The drawing is a plan view, representing two of my pumps operated by steam-motor with intermediate connections.

According to my invention I provide two steam-engines, M, operating to drive a common shaft, O.

P is a balance-wheel, and Q is a driving-pinion fixed upon the shaft O, which meshes with the gear-wheel R upon a shaft, S, to which shanks are fixed cranks T, adjusted to differ in position with each other—say, a quarter turn upon the shaft S, or in any other suitable manner to impart to the pumps A A the

constant suction and forcing action already named.

By the employment of the engines M, pinion Q, and driving-wheel R, I can accomplish a very steady movement of the pumps A, and, so far as I am aware, this arrangement of mechanism has never before been employed.

What I claim is—

1. The combination of two or more pumps, A A, constructed to have differing strokes, the crank-shaft S, gear-wheel R, traveling pinion Q, and a suitable motor for imparting a revolving motion to said driving-pinion Q, substantially as and for the purpose shown.

2. The combination, with the engines M M, shaft O, traveling pinion Q, gear-wheel R, shaft S, cranks T, pumps A A, and common exit L, substantially as and for the purpose shown.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN MARTIN.

Witnesses:

JNO. CROWELL, Jr.,
WILLARD FRACKER.