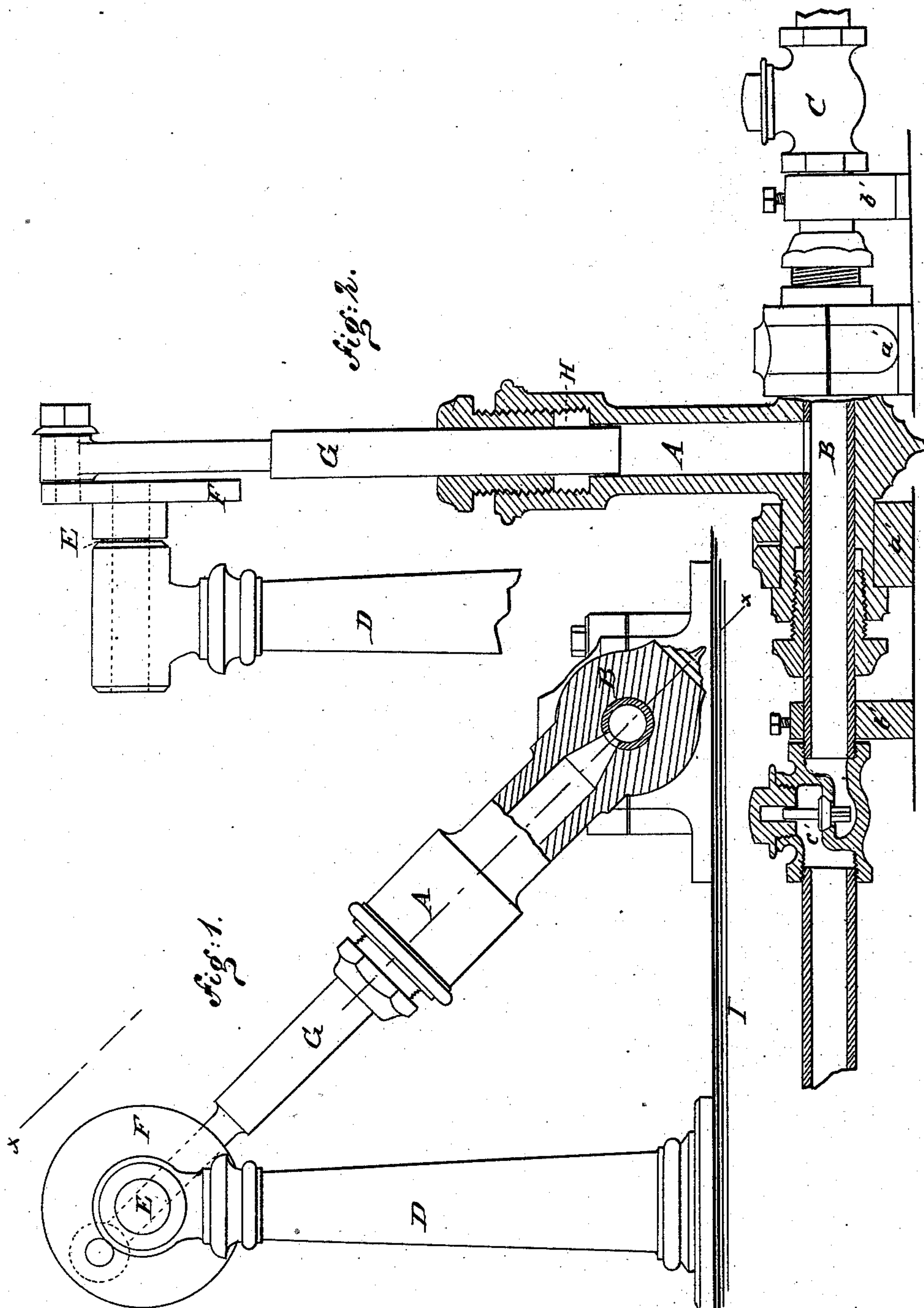


D. PALACIOS.  
Oscillating-Pump.

**No. 216,444.**

**Patented June 10, 1879.**



WITNESSES:

WITNESSES:  
Chas. Noyes  
b. Sedgwick

**INVENTOR:**

BY

*D. Palacios*  
*Munoz &*  
**ATTORNEYS.**

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# UNITED STATES PATENT OFFICE.

DANIEL PALACIOS, OF NEW YORK, N. Y.

## IMPROVEMENT IN OSCILLATING PUMPS.

Specification forming part of Letters Patent No. **216,444**, dated June 10, 1879; application filed May 2, 1879.

*To all whom it may concern:*

Be it known that I, DANIEL PALACIOS, of the city, county, and State of New York, have invented a new and Improved Oscillating Pump, of which the following is a specification.

Figure 1 is a side elevation of the pump, partly in section. Fig. 2 is a sectional front elevation of the same on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to construct an improved oscillating pump.

The invention consists of the cylinder A, whose lower end is connected at right angles with and opens into the horizontal cylinder or pipe B, one branch of which serves as an induction and the other as an eduction pipe, and attached to each of them or on continuations of them are the valves C C'.

The pillow-blocks *a' a'* and *b' b'* support the pump and the horizontal pipe in proper journal-boxes, that permit the rocking or oscillating movement of the said pump and the horizontal cylinder B.

The standard D supports the driving-shaft E, on one end of which is the eccentric F, to which is attached the plunger or piston G, that

moves in the cylinder A, and the stuffing-box closes the head of the cylinder around the piston.

When in operation, the oscillation of the piston by the eccentric causes a corresponding oscillation or rocking of the cylinders A and B, and hence the water is successively admitted through the downwardly-opening valve C of the induction-pipe, and discharged through the upwardly-opening eduction-valve C'.

The standard and pillow-blocks are firmly set upon the bed-plate I, which gives stability to the whole structure.

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

The within-described oscillating pump, consisting of cylinders A and B, valves C C', pillow-blocks *a' a'* and *b' b'*, provided with journal-boxes, standard D, driving-shaft E, eccentric F, piston G, stuffing-box H, and plate I, constructed and arranged substantially as herein shown and described.

DANIEL PALACIOS.

Witnesses:

JOSÉ BADA GUMA,  
JOHN W. FOSTER.