

O. FULLER.  
WATER WHEEL.

No. 104,726.

Patented June 28, 1870.

Fig. 2.

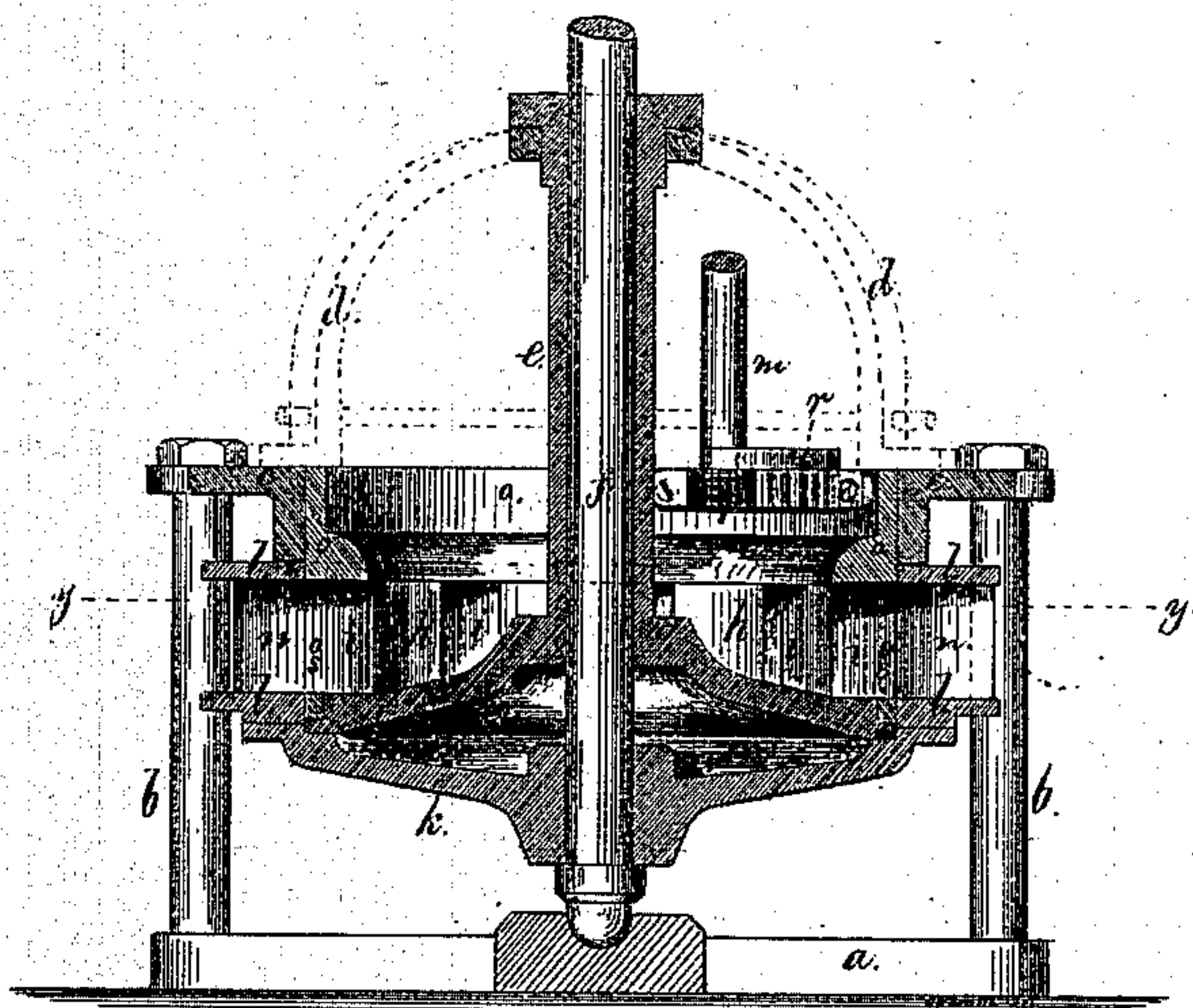


Fig. 1.

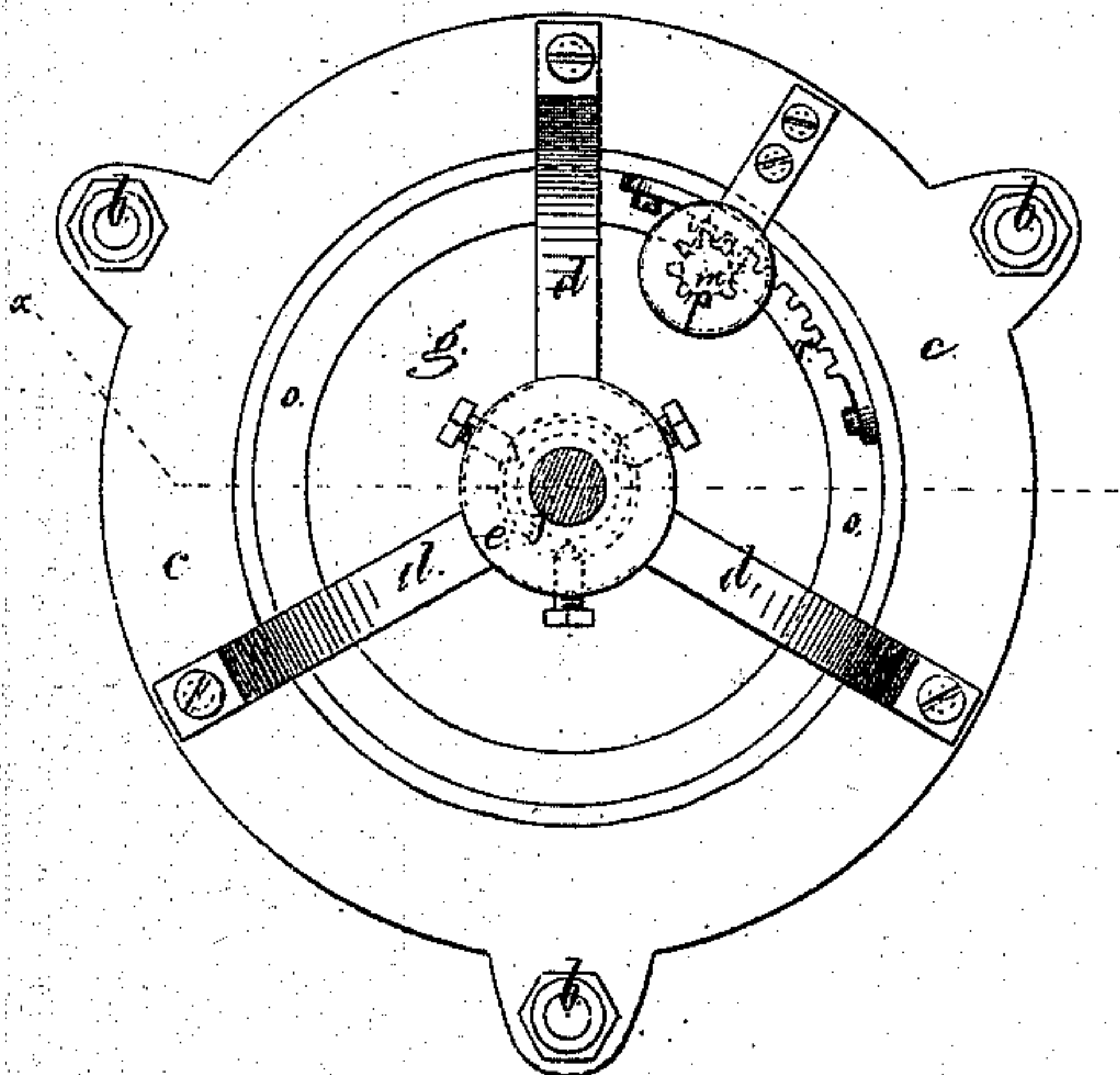
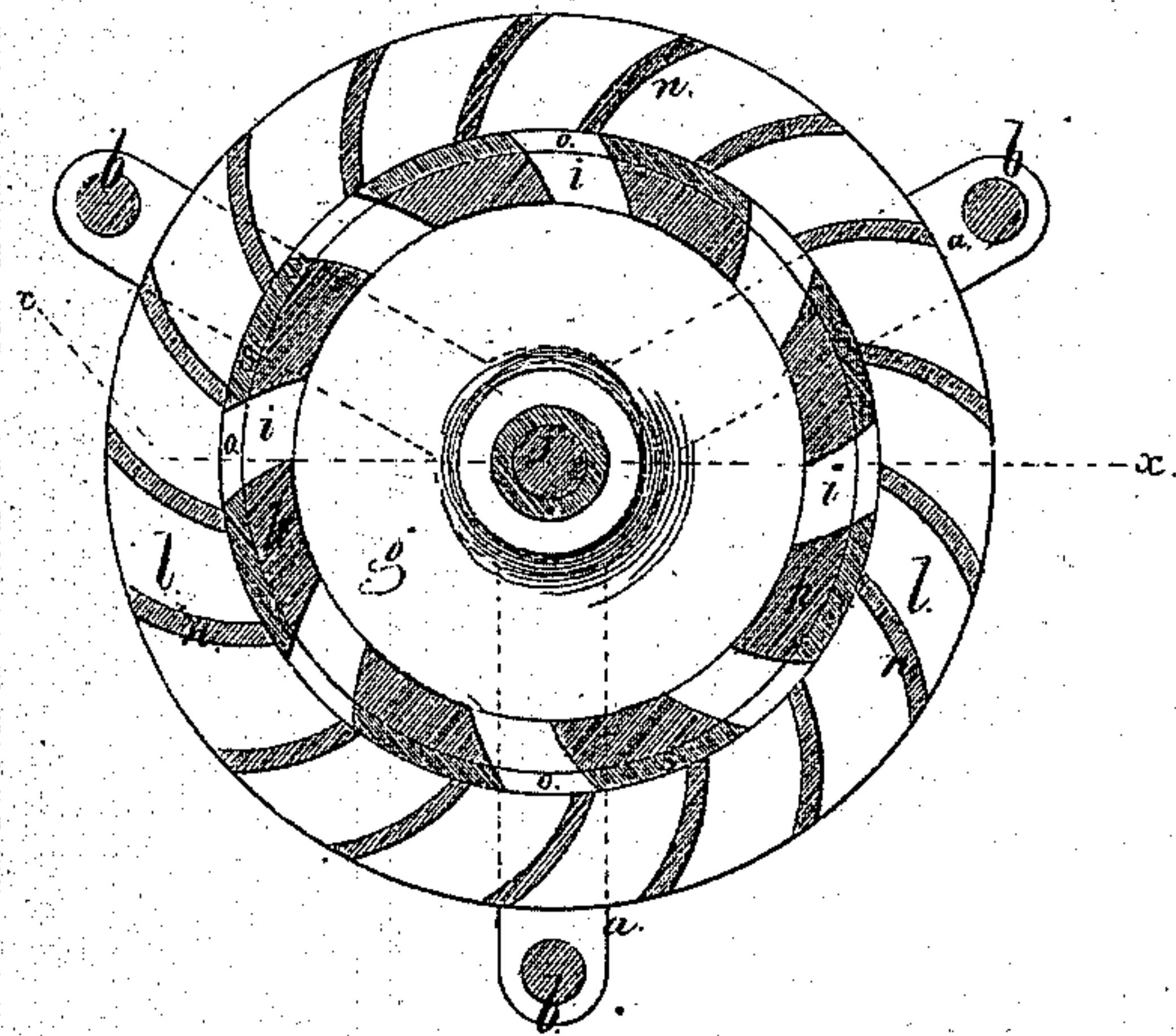


Fig. 3.



Witnesses,

Chas H Smith  
Geo A Walker

Olney Fuller.  
for Lemuel W. Perrell  
att'y



# United States Patent Office.

OLNEY FULLER, OF BENNINGTON, VERMONT.

Letters Patent No. 104,726, dated June 28, 1870.

## IMPROVEMENT IN WATER-WHEELS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, OLNEY FULLER, of Bennington, in the State of Vermont, have invented an Improvement in Water-Wheels; and the following is declared to be a correct description of the same.

This invention is for regulating the quantity of water made use of, and consequently the power of a water-wheel.

The improvement consists in a cylindrical slotted gate surrounding the stationary slotted cylinder of the wheel, and between said cylinder and the ring of buckets through which the water passes, and which ring of buckets revolves around said gate.

By this construction, the cylindrical slotted gate acts, when partially revolved, to open or partially close each water-way, and thereby increase or lessen the quantity of water passing to the water-wheel.

In the drawing—

Figure 1 is a plan of my improved water-wheel;

Figure 2 is a vertical section at the lines *x x*; and

Figure 3 is a sectional plan at the line *y y* of fig. 2.

The stand or base *a* and columns *b* support the top-plate *c*, and from this a frame, *d*, rises, and sustains the central column *e*, through which the shaft *f* passes.

This column *e* is adjusted by set-screws within the frame *d*, and carries at its lower end the stationary head *g* and the cylinder *h*, in which are the vertical openings *i i*, forming the water-ways.

The wheel itself is carried by the head or disk *k*,

surrounding the shaft *f*, said wheel being formed of the top and bottom rings *l* and buckets *n n*.

Between the cylinder *h* and buckets *n* is the ring-formed gate *o*, in which are water-ways *s s*.

This ring *o* is within the top-plate *c*, and can be partially revolved by the shaft *m* and pinion *p*, acting upon the teeth *r* of the rack affixed to the inside of upper portion of the ring-gate *o*.

It will now be understood that the parts are adjusted so as to allow the wheel to run contiguous to, but without touching the outside of, the cylindrical gate *o*, and, by means of the shaft *m*, the position of this gate is adjusted so that the openings through the water-ways *i i s s* are of the desired width, according to the amount of water employed, and the consequent power of the wheel.

I do not claim a gate introduced between the stationary and revolving portions of the wheel.

I claim as my invention—

The stationary head *g* and cylinder *h*, with the openings *i*, supported by the frame *d*, and central column *e*, in combination with the ring-gate *o*, made and adjusted as specified, and the wheel *l n*, sustained by the disk *k* and shaft *f*, and revolving outside of and below the head *g*, as set forth.

Signed this 16th day of December, A. D. 1869.

OLNEY FULLER.

Witnesses:

JAMES B. MEACHAM,

JAS. A. N. WILLIAMS.