

J. M. Thompson,
Water-Wheel.

Nº 76,003.

Patented Mar 24. 1868.

Fig. 1.

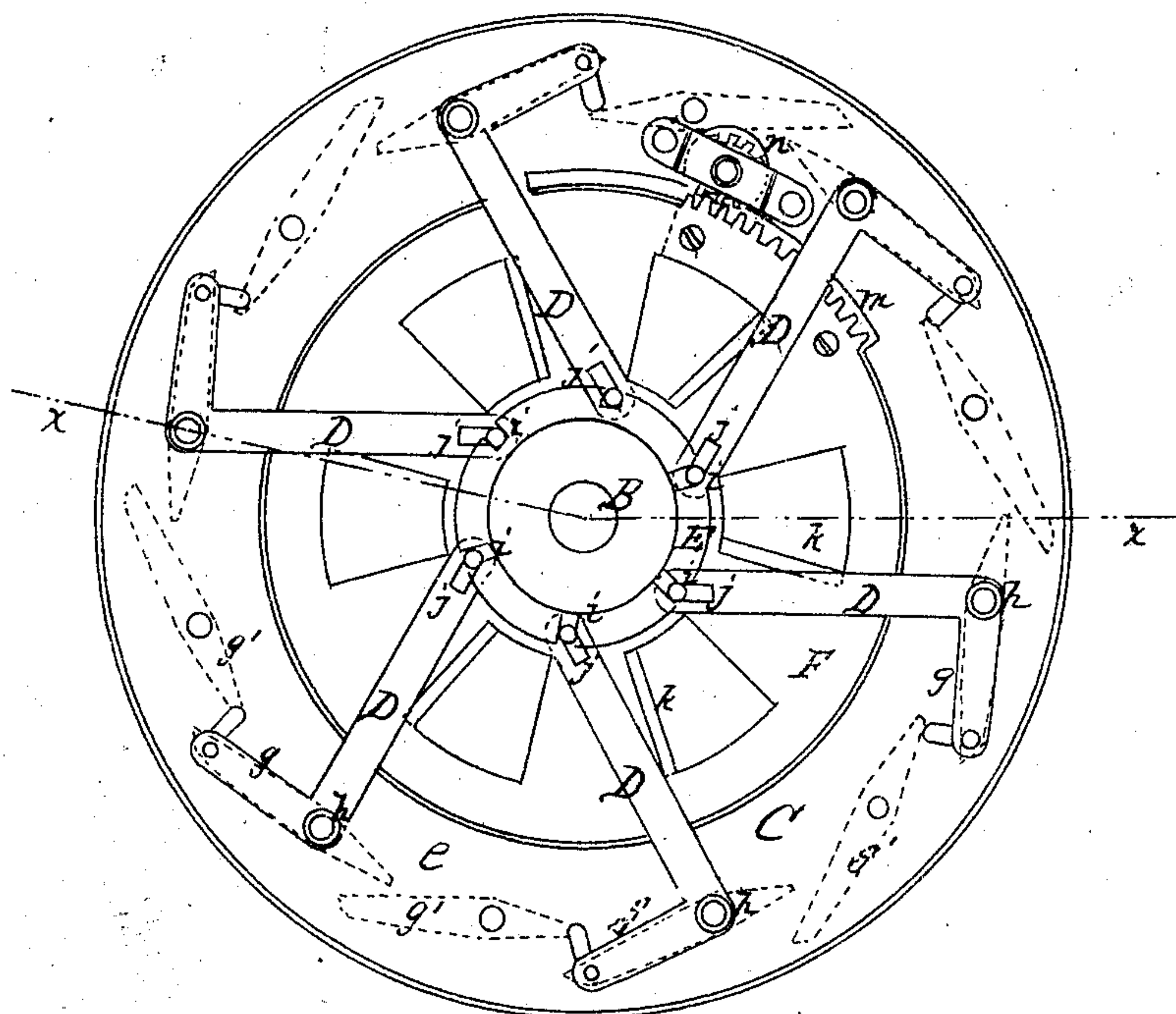
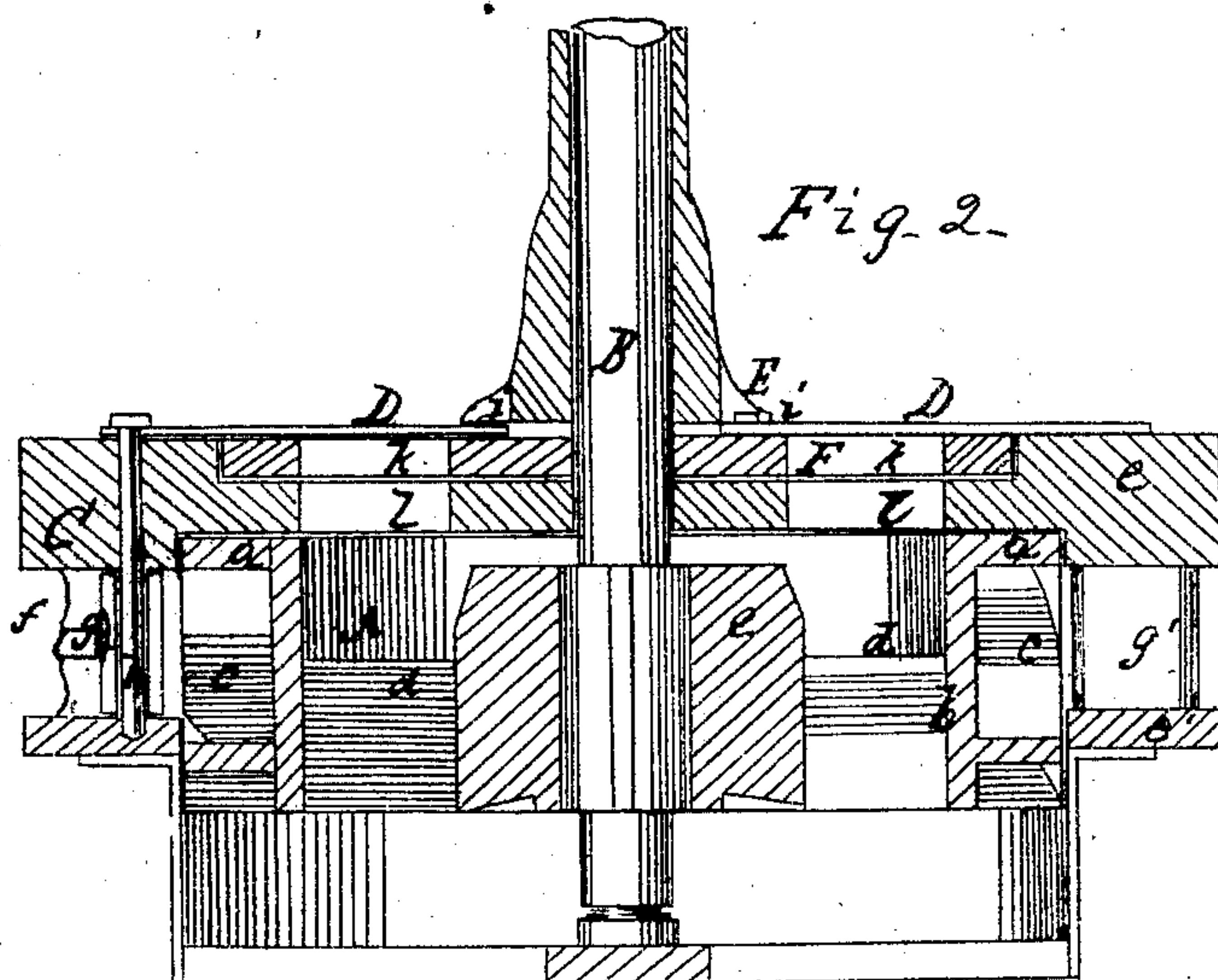


Fig. 2.



Witnesses:
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Fig. 3.

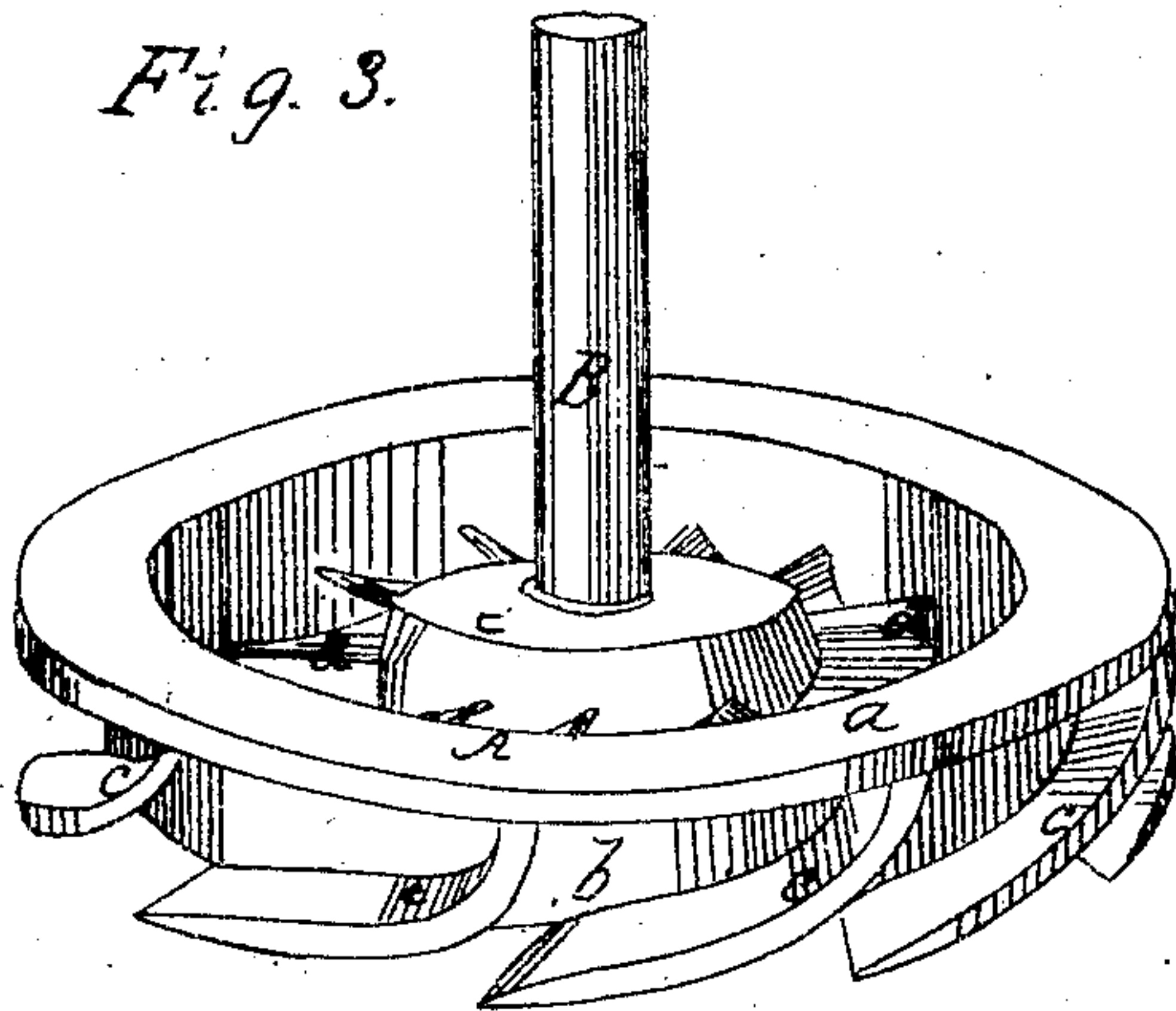
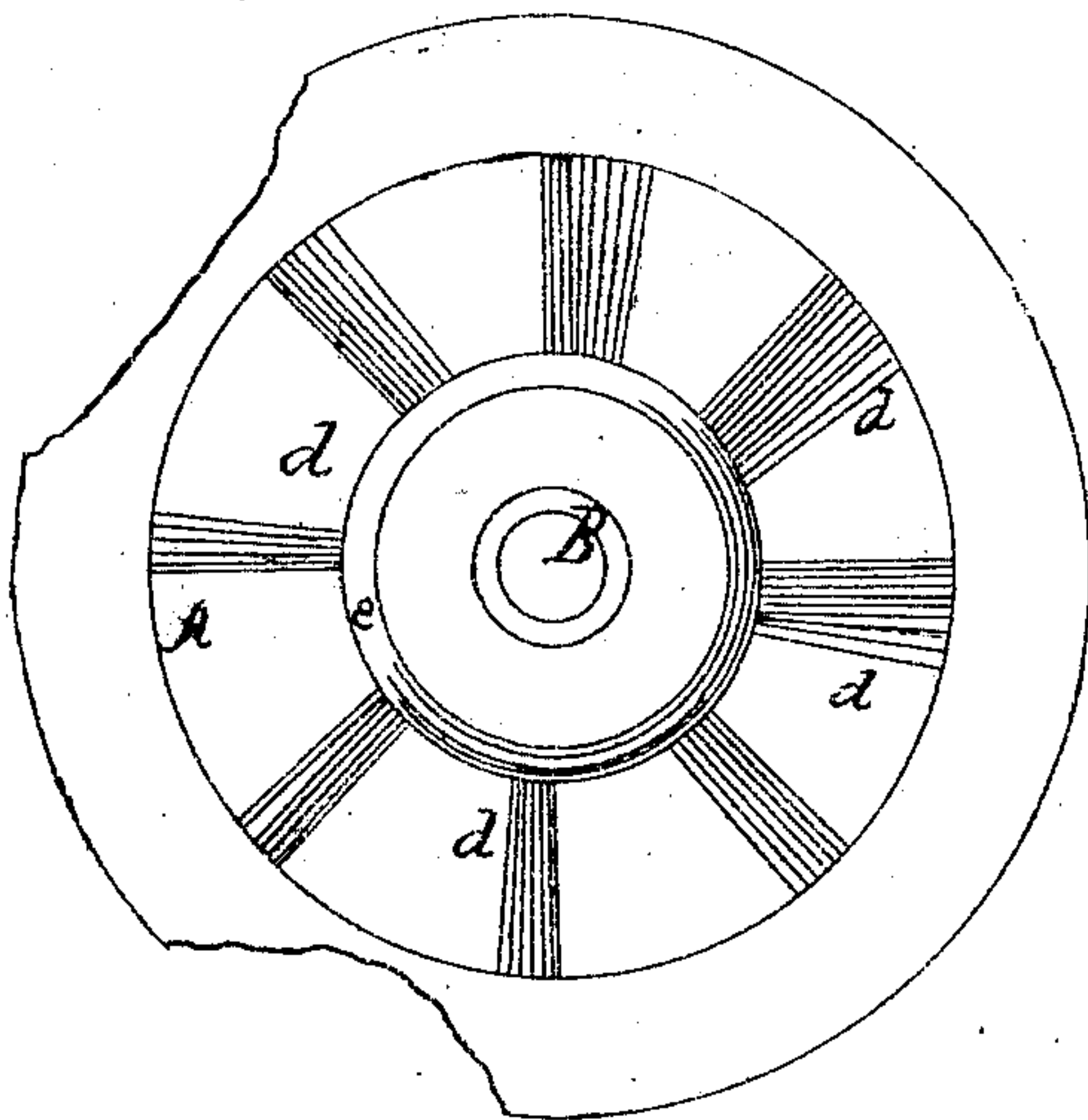


Fig. 4.



United States Patent Office.

I. M. THOMPSON, OF EDINBURG, INDIANA.

Letters Patent No. 76,003, dated March 24, 1868.

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, I. M. THOMPSON, of Edinburg, in the county of Johnson, and State of Indiana, have invented a new and improved Water-Wheel; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved water-wheel of that class which are fitted or placed on a vertical shaft and rotate in a horizontal plane.

The invention consists in combining two wheels in one, and providing each with a series of gates, arranged in such a manner that both sets of gates may be operated, opened, and closed simultaneously by a single manipulation on the part of the operator, all being constructed and arranged in such a manner that a large percentage of the power of the water is obtained. In the accompanying sheet of drawings—

Figure 1 is a plan or top view of my invention.

Figure 2, a vertical section of the same, taken in the line *x x*, fig. 1.

Figure 3, a detached perspective view of the wheel.

Figure 4, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

A represents the wheel, which is fitted on a vertical shaft, B, and is composed of an angle-shaped rim, having a horizontal upper part, *a*, and a vertical lower part, *b*, as shown clearly in fig. 2. On the exterior of this rim, underneath the horizontal part, *a*, thereof, there is a series of buckets, *c*, the shape of which is shown clearly in fig. 3, the lower parts being slightly inclined from a horizontal plane, and the upper parts extending downward from *a*, and having a rather quick curve to form a connection with the lower parts. Within the rim of the wheel there is a series of radial buckets, *d*, inclined in their transverse section, and extending from the rim to the hub *e* of the wheel, the buckets *d* being inclined in the same direction as the buckets *c*.

The wheel thus constructed is fitted within an annular frame, C, composed of an upper and lower rim, *e e'*, connected by standards *f*, the space between the rims being enclosed by gates *g g'*, the gates *g* being hung on pivot-bolts *h*, and the gates *g'* being fixed or immovable. The bolts *h* pass up through the top rim *e*, and have bent levers, D, fitted on them, the bolts passing through the levers at their angles. These levers extend inward and towards the centre of the wheel, and are all connected to a collar, E, on shaft B, by pins *i*, which pass through oblong slots *j* in the levers. The lower end of the collar E has a circular plate, F, attached, which is fitted and works in an annular rebate in the inner edge of the upper rim, *e*, of the frame C, and the plate F has a series of radial openings, *k*, made in it, which correspond with similar openings *l* in *e*. The plate F, it will be seen, forms a gate for the buckets *d*, and this gate has a segment-toothed plate, *m*, attached to it, into which a pinion, *n*, gears, said pinion being fitted on a suitable shaft. By turning the pinion *n* the gate *f* will be turned, and the gates *g* also moved, both series of gates being opened or closed simultaneously, to admit water to the buckets *c* and *d*, or to shut it off therefrom, as may be desired.

By this construction and arrangement of parts a very efficient water-wheel is obtained, a large percentage of the power of the water being obtained.

I claim as new, and desire to secure by Letters Patent—

The combination of the two sets of buckets *c d* with the two sets of gates *g* and F, all constructed and arranged to operate in the manner substantially as and for the purpose set forth.

I. M. THOMPSON.

Witnesses:

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G. C. ADAMS,

H. C. EDGERLY.