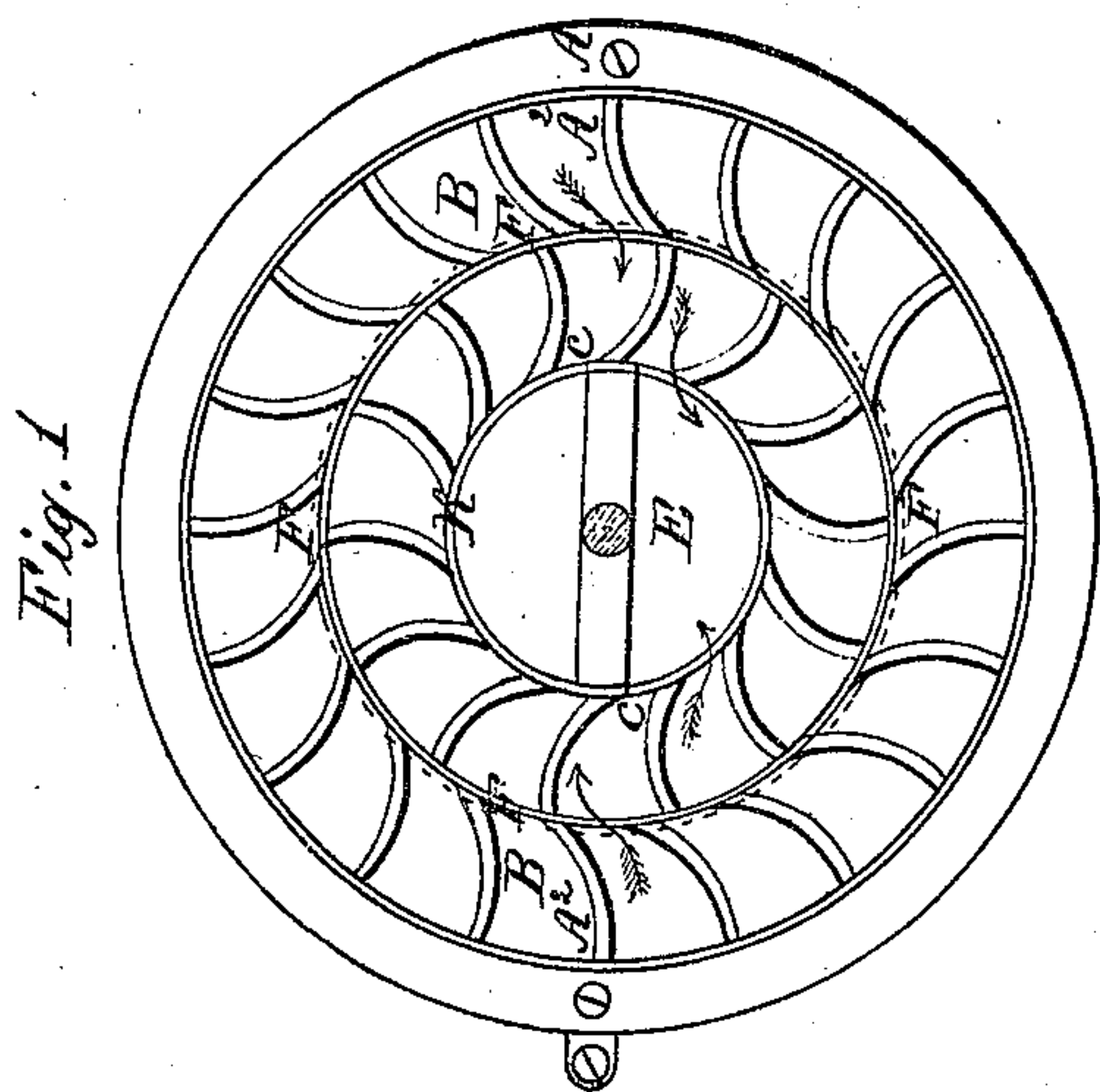
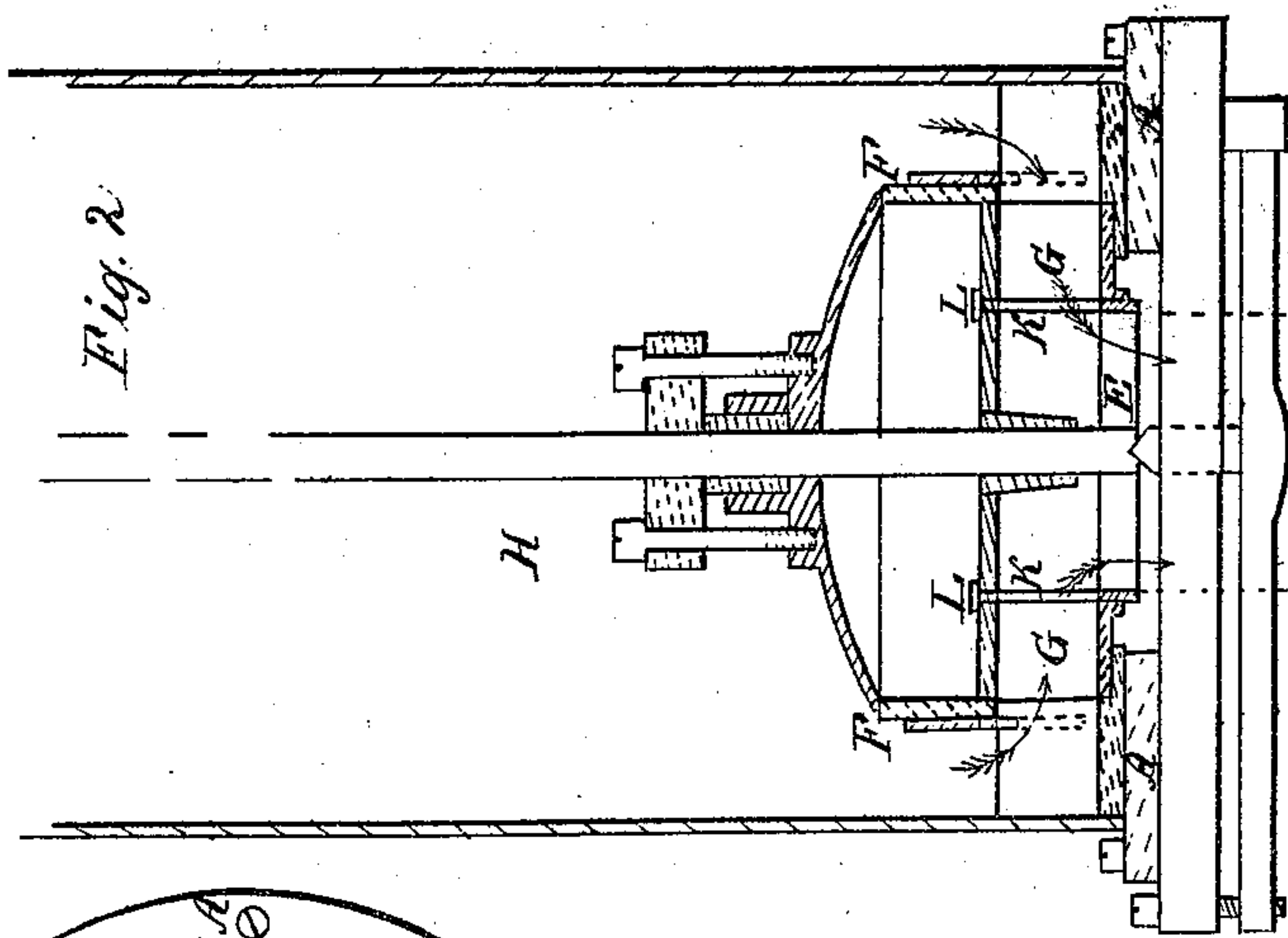
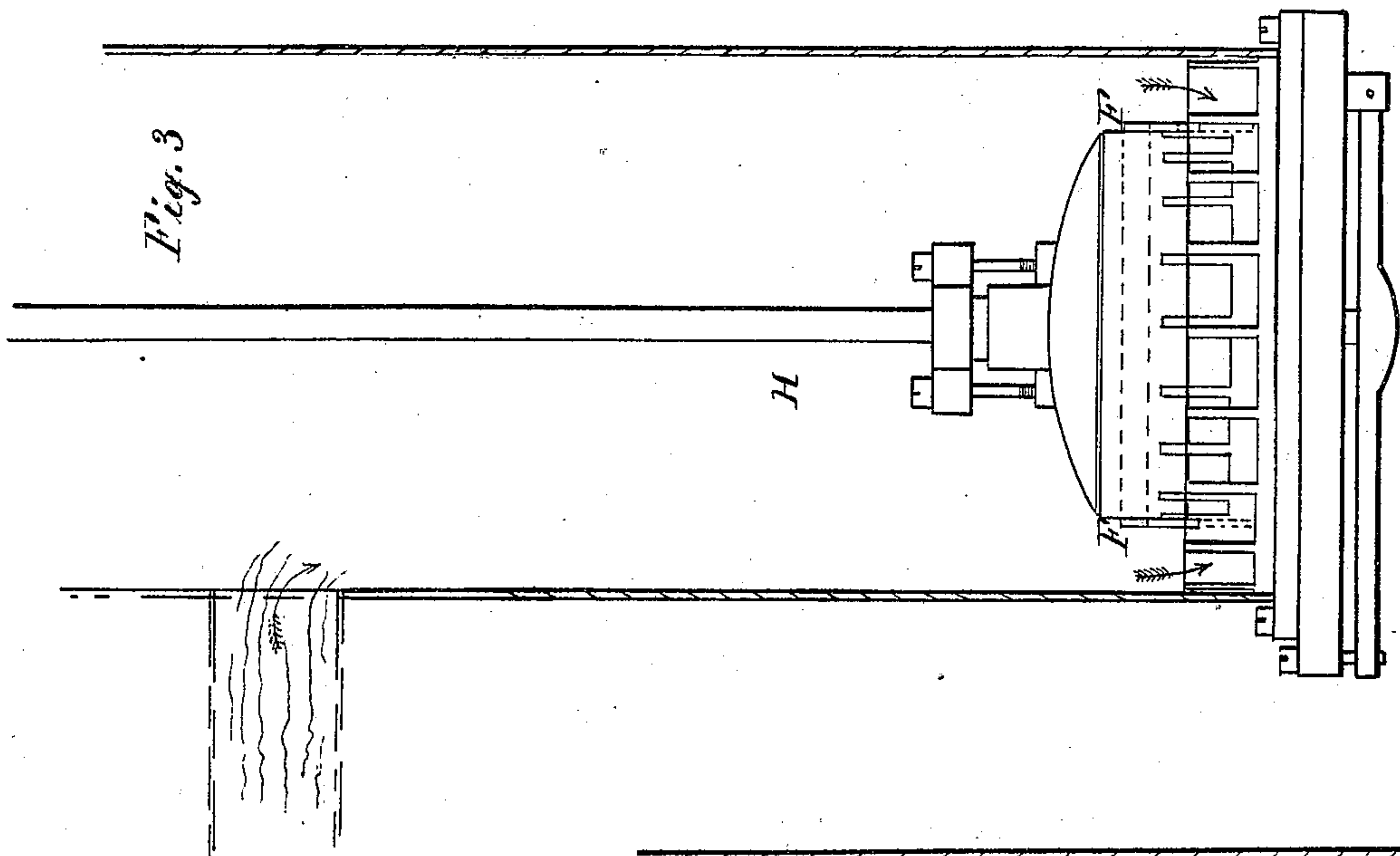


O.C. & J.O. Ford,
 Water Wheel,
 No 24,019, Patented May 17, 1859.



Witnesses
Chas. H. Raymond

Inventor
 O. C. Ford
 J. O. Ford
 Ballinsville Conn
 At 25th 1859

UNITED STATES PATENT OFFICE.

O. C. FORD AND J. O. FORD, OF COLLINSVILLE, CONNECTICUT.

WATER-WHEEL.

Specification of Letters Patent No. 24,019, dated May 17, 1859.

To all whom it may concern:

Be it known that we, OMRI C. FORD and JARVIS O. FORD, of Collinsville, county of Hartford, and State of Connecticut, have
5 invented a new and useful Improvement in the Mode of Constructing Water-Wheels; and we do hereby declare that the following is a correct description thereof, reference being had to the accompanying drawing and
10 to the letters of reference marked thereon.

The nature of our invention consists in the improved construction of a reversed action turbine water wheel.

To enable others skilled in the art to make
15 and use our invention we will proceed to describe its construction and operation.

In the drawing Figure 1 an horizontal plane sectional view; Fig. 2 a vertical section; Fig. 3 a vertical view with section of
20 flume and reservoir.

In the construction of our reversed action turbine water wheel, we adhere to the general mechanical arrangements required in such cases.

25 On a permanent circular bottom plate A or platform of the required size we construct the vertical and curved guides A², and the passage water courses B, to receive the water from the reservoir H, and conduct the same
30 into and against the reversed curved guides or buckets to the openings C in the revolving center wheel, and passes through the said openings and is discharged through the center vent E after expending its force.

35 The supply of water is regulated by the rise and fall of the encircling cut off F which

is slotted to pass down over the curved guides A², and cover up the openings of the water courses B.

The interior regulator and cut off K en- 40 circles the whole of the inner part of the revolving wheel, and is slotted to correspond with the discharging openings C, and is moved laterally by means of the pins and slots in the top part of the wheel, L, this cut 45 off retains the water in the wheel to receive all the power from the same, and to regulate the discharge.

Operating machinery will be attached to the main shaft G. 50

The reservoir H contains the supply of water we make of the requisite size that the situation and circumstances of the case may be, depending generally upon the head or fall of water. 55

We are satisfied by experience that we can gain more powers from a small or low head of water by our wheel than any other water wheel of this description.

What we claim as our invention and de- 60 sire to secure by Letters Patent, is—

The application of the reversed curved buckets or guides, to form a reversed action, centripetal and center vent turbine water wheel, in combination with the inner and 65 outer cut off F' and K in the manner substantially as herein set forth and described.

O. C. FORD.
J. O. FORD.

Witnesses:

WM. VINE,
DAVID H. RAYMOND.