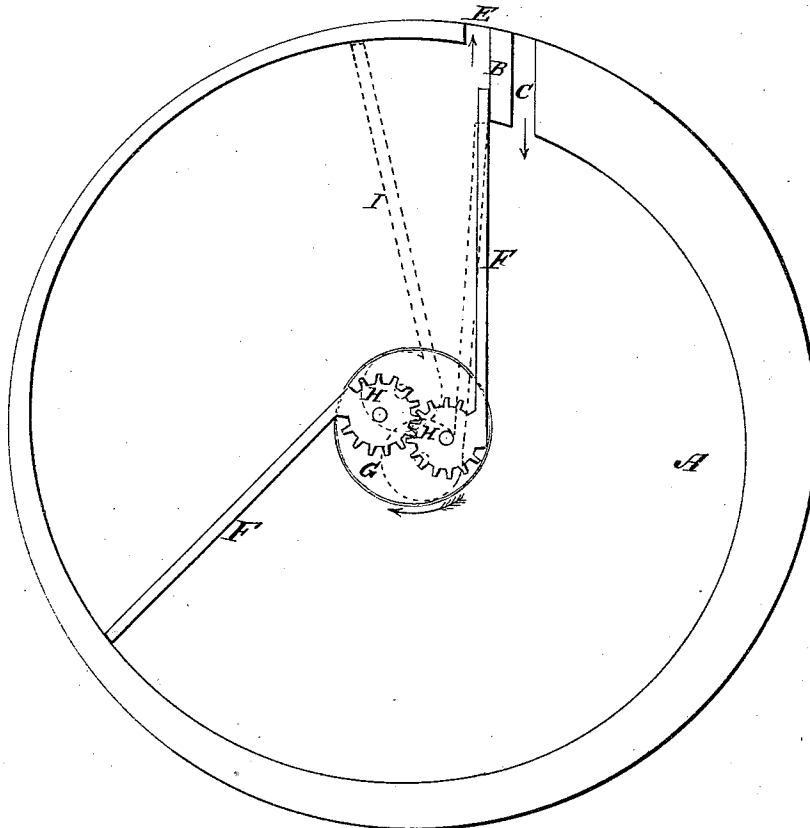


H. C. WORK.
Mechanical Movements.

No. 148,911.

Patented March 24, 1874.



WITNESSES:

E. Woff
and F. Roberts

INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY C. WORK, OF BROOKLYN, NEW YORK, ASSIGNOR TO ALANSON WORK, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. **148,911**, dated March 24, 1874; application filed October 11, 1873.

To all whom it may concern:

Be it known that I, HENRY C. WORK, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Mechanical Movements, of which the following is a specification:

The object of this invention is to furnish a new combination of wheels for producing a new mechanical movement for the application of steam, or for elevating and forcing water, and for all the purposes for which it may be adapted; and it consists in a disk which rotates on a central axis or arbor, with two gear-wheels pivoted thereon eccentrically to the center, which wheels engage or work together, with each an arm attached to the periphery thereof, or connected therewith, which sweep the surface of an irregular scroll-cylinder, the construction and arrangement of parts being as hereinafter more fully described.

The invention is illustrated in the accompanying drawing.

Similar letters of reference indicate corresponding parts.

A represents the irregular scroll. B is an offset. C is the induction-port. E is the education-port. F F are the arms or sweeps, which act as pistons. G is the disk, which is rotated in the center of the head of the scroll-cylinder. This disk is attached to a shaft or axis, which extends through the cylinder, by which means power may be imparted or applied—the former in case the movement is employed as a rotating steam-engine, the latter when employed as a rotary pump, or for a similar purpose. H H are gear-wheels, pivoted eccentrically to the face of the disk, with their cogs engaged at the center of the disk, as seen in the draw-

ing. The arms F F are rigidly attached to the edges of these gear-wheels. The wheels, being revolved by the disk, and also on their own centers, make two revolutions where the disk makes one. The arms work alternately. At every revolution one arm is stopped by the offset B, while the other sweeps round the cylinder and forces out the water, or allows the steam to escape when the device is employed as a rotary engine. While the wheel of the stationary arm is at rest, except as it moves with the disk, the other wheel revolves on its own axis, and is also moved or carried round by the disk. When the moving arm arrives to the position seen in dotted lines I, the other arm slips from the offset and commences its revolution, while the other arm strikes the offset and stops, and so on indefinitely. The motion of the disk, as well as the course of the steam or water, is indicated by arrows. These gear-wheels may be arranged on the outside of the cylinder, and separate from the arms, if desired.

The movement may be applied to rotary pumps, rotary engines, or to any purpose for which it may be adapted.

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

A mechanical movement consisting of the scroll-cylinder A, disk G, or its equivalent, gear-wheels H H, and arms F F, all combined and arranged to operate substantially as shown and described.

HENRY C. WORK.

Witnesses:

ALFRED LURCOTT,
ALEX. F. ROBERTS.