

J. L. CRABTREE.

APPARATUS FOR TRANSMITTING POWER.

No. 172,708.

Patented Jan. 25, 1876.

Fig: 1.

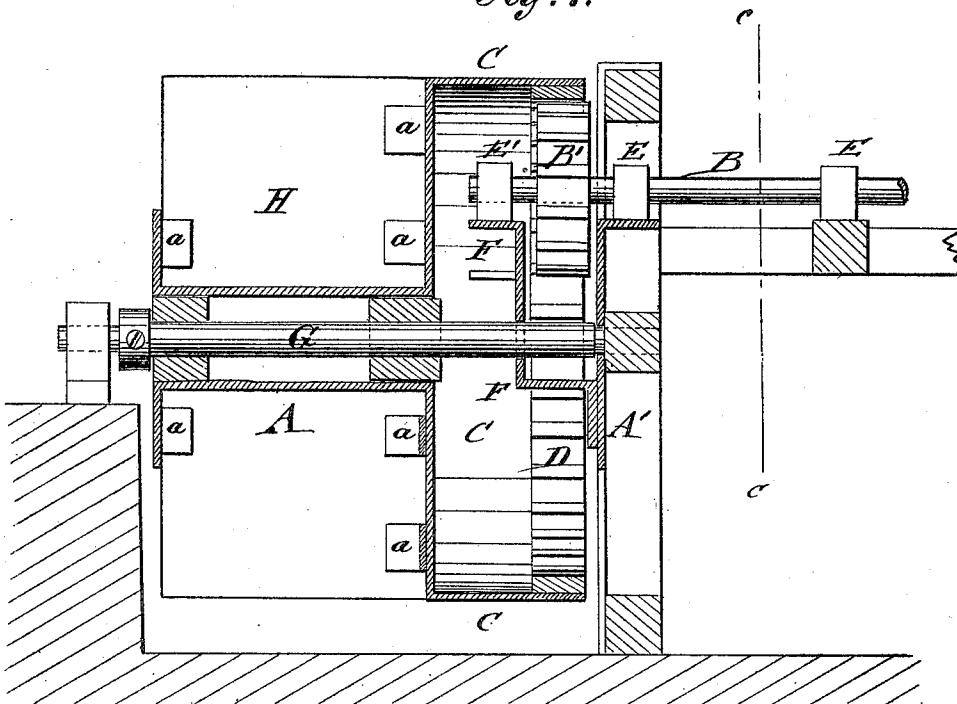
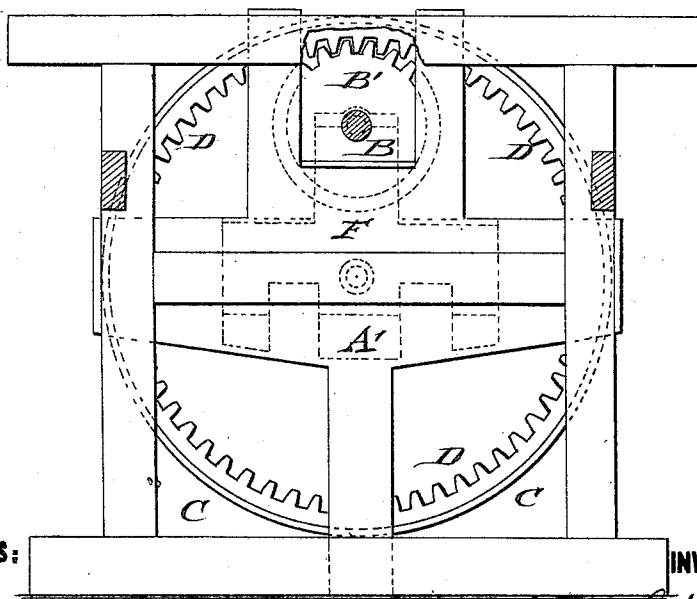


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH L. CRABTREE, OF FLINTSTONE, MARYLAND.

IMPROVEMENT IN APPARATUS FOR TRANSMITTING POWER.

Specification forming part of Letters Patent No. **172,708**, dated January 25, 1876; application filed October 23, 1875.

To all whom it may concern:

Be it known that I, JOSEPH L. CRABTREE, of Flintstone, in the county of Alleghany and State of Maryland, have invented a new and Improved Water-Wheel, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved water-wheel, and Fig. 2 an end elevation of the wheel, partly in section, on line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to certain improvements in over and under shot water-wheels; and it consists in the peculiar construction and arrangement of parts to form a wheel, in combination with a cylindrical end flange, carrying interior cogs, which gears with a pinion upon an eccentric shaft, to transmit to greater advantage the power received.

In the drawing, A represents a revolving sleeve, provided at each end with journal-bearings, which revolve upon the stationary shaft G. Said sleeve carries end plates, which are provided with keepers *a*, into which slide the buckets H, which, together with the parts before mentioned, constitute the wheel. Upon one of the end plates is constructed a cylindrical flange, C, in which is arranged the

interior cog-wheel D. B is a shaft for transmitting the power, which said shaft is arranged eccentrically, and carries a pinion, B', which meshes with the interior set of cogs. The said shaft B is journaled in bearings E E', of which E' is located inside of the cylindrical flange upon a bracket, F, attached to support A'.

From the above description it will be seen that I dispense entirely with the very heavy wooden shaft ordinarily used for water-wheels of this class, and the eccentric arrangement of the shaft and pinion B B' with the cog-wheel D in the flange C enables me to apply directly the motive power of the wheel to the operating mechanism, and also enables me to adjust the wheel in its arrangement to the building to greater advantage.

Having thus described my invention, what I claim as new is—

The revolving sleeve A, having flange C and end plates with keepers *a* to receive the buckets, in combination with the cog-wheel D, pinion B', and eccentric shaft B, located in bearings E E', substantially as and for the purpose described.

JOSEPH LEWIS CRABTREE.

Witnesses:

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NATHAN RUBY.