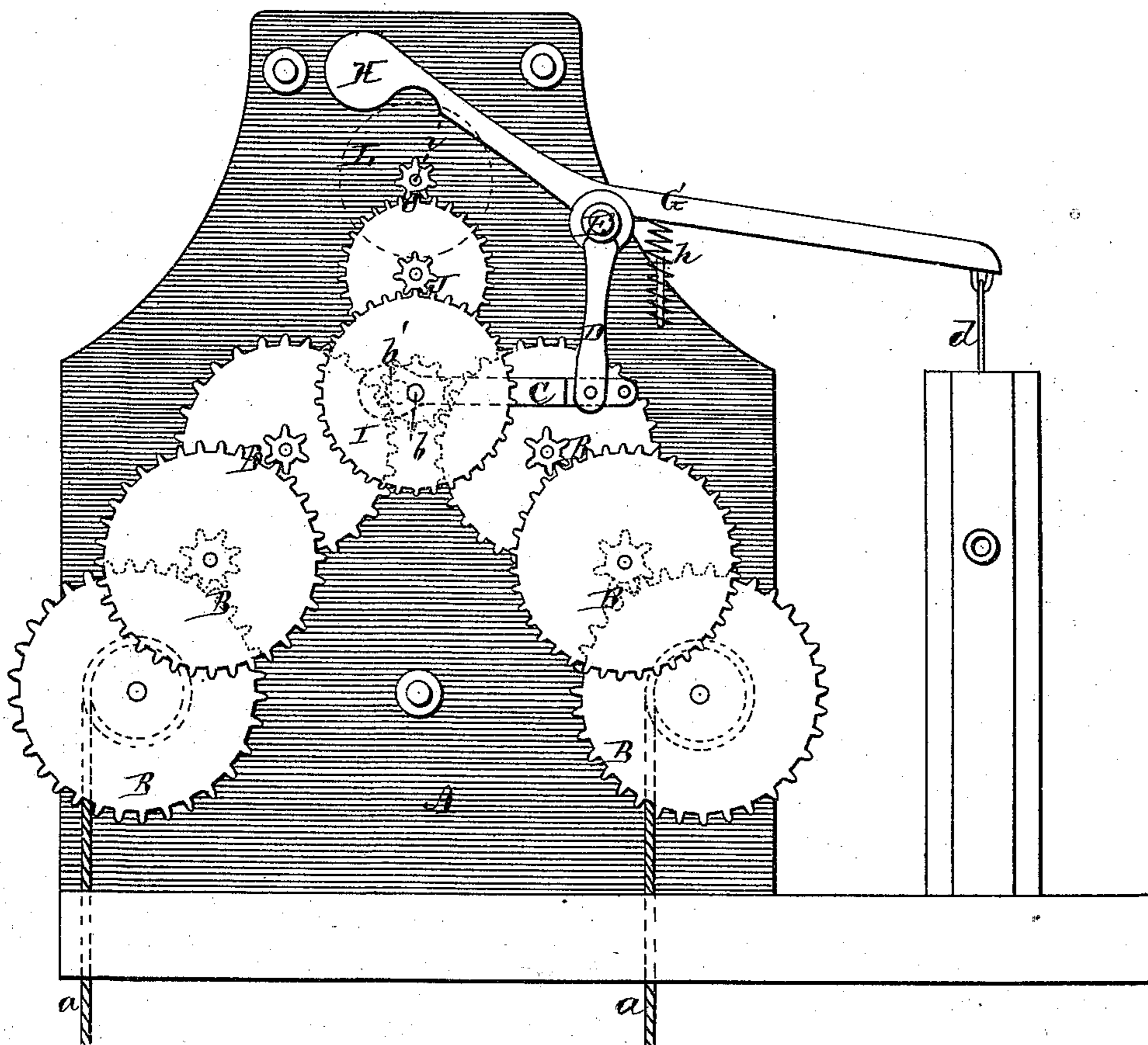


W. H. KARICOFÉ.
MECHANICAL-POWER.

No. 173,644.

Patented Feb. 15, 1876.



WITNESSES

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WILLIAM H. KARICOFÉ, OF HARRISONBURG, VIRGINIA.

IMPROVEMENT IN MECHANICAL POWERS.

Specification forming part of Letters Patent No. **173,644**, dated February 15, 1876; application filed January 12, 1876.

To all whom it may concern :

Be it known that I, WM. H. KARICOFÉ, of Harrisonburg, in the county of Rockingham and in the State of Virginia, have invented certain new and useful Improvements in Mechanical Powers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a mechanical power, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which represents a side elevation of my machine, with one side of the frame-work removed.

A represents a frame-work of any suitable construction for containing the mechanism. In this frame are arranged two separate and independent trains of gearing, B B, each operated by its own cord *a*, and weight attached thereto, the cord being wound on a drum belonging to the train. Both trains converge, as shown, and operate upon the same pinion *a*, on a horizontal shaft, *b*, having its bearing in the sides of the frame A.

This shaft *b* is formed with a crank, *b'*, upon which is placed a pitman, C, the outer end of said lever connecting with an arm, D, projecting from a rocking shaft, E. On the shaft E is secured the operating lever G, the outer end of which is connected with a pump-rod, *d*, or other mechanism, to be operated by the power.

The inner end of the lever G is provided with a weight, H, proportioned to the work to be performed, in the following manner. This weight should be such that this end of the lever will balance the outer end, and one-half the weight of the devices suspended from the outer end of the lever. In other words,

the two ends of the lever should balance, and if then the pump-rod and sucker or other devices suspended from the outer end of the lever weigh, say, two pounds, the weight on the inner end of the lever should be increased one pound. Thus, in operation, the weight H actually lifts one-half, while the machinery lifts the other half, enabling me to build the machinery a great deal lighter than would otherwise be the case. In addition hereto, I also employ a spring, *h*, connected at any suitable point under the lever between the rock-shaft E and the pump-rod. The action of this spring is to start the outer end of the lever in its upward movement, thus aiding the machinery in overcoming the sudden dead weight at the time when the motion of the lever is reversed.

On the shaft *b* is secured a cog-wheel, I, which, by a single train of gearing, J, is connected with and operates a horizontal shaft, *i*, in the upper part of the frame A, and on each end of this shaft is a fly-wheel, L.

It will thus be seen that I have two separate and independent trains of gearing converging toward and operating a single crank-shaft, *b*, and from this shaft runs a single train of gearing to a separate shaft, *i*, carrying the fly-wheels. By these means the fly-wheels obtain a rapid motion, and act as governors for the movement of the lever G, causing the same to move steady and uniformly.

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

The combination of the crank-shaft *b*, operated by two separate and independent trains of gearing, the pitman C, rocking shaft E, arm D, lever G, with weight H, and spring *h*, substantially as and for the purposes set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 11th day of January, 1876.

WM. H. KARICOFÉ.

Witnesses:

H. A. HALL,

M. L. STOWELL.