

United States Patent Office.

JAMES C. VANCEAVE, OF HAMBURG, ARKANSAS.

Letters Patent No. 99,611, dated February 8, 1870.

IMPROVEMENT IN MECHANICAL MOVEMENT.

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, JAMES C. VANCEAVE, of Hamburg, in the county of Ashley, and State of Arkansas, have invented a new and valuable Improvement in Machinery; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1, of the drawings, is a side plan view of my invention.

Figure 2 is a top plan view of the same.

My invention relates to mechanical movements; and

It consists in the construction and arrangement of devices, by which motion is accelerated and power economized.

The letter A of the drawings represents a fly-wheel, arranged upon a suitable revolving shaft, and to the outer ends of such shaft, I attach cranks, marked *a*.

The letters *c* represent rods, extending from the handles of cranks *a* upward, and having pins on their upper ends, as shown, to provide means for attachment to the springs, hereinafter mentioned.

The letters E represent two springs, hinged to the upright post D, and united with the rods *c*, as shown.

I form slats in these springs, at the points of union with the rods, to afford suitable play for the heads of said rods, when in motion.

The letters H are levers, attached to the springs E by means of the staples *s*, as shown, and hinged respectively to the bottom of a cross-head upon the standard or post D.

The letter *u* represents a lever, pivoted to the small standard *v*, and united by suitable hinges with the upright arms *y*. Said lever is pivoted at its centre, and united with the arms at its extreme ends, as shown.

The arms *y* are respectively pivoted to the inner sides of the levers H.

By means of the foregoing devices, when the power is applied at the right-hand ends of levers H, a constant spring-force is secured to the movements of the fly-wheel, accelerating its movement, and greatly economizing the power applied.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination and arrangement of the fly-wheel A, cranks *a*, rods *c*, springs E, levers H and *u*, and arms *y*, substantially as and for the the purposes specified.

In testimony that I claim the above, I have hereunto subscribed my name, in the presence of two witnesses.

JAMES C. VANCEAVE.

Witnesses:

H. C. LAWSON,
JOHN L. HICKS.