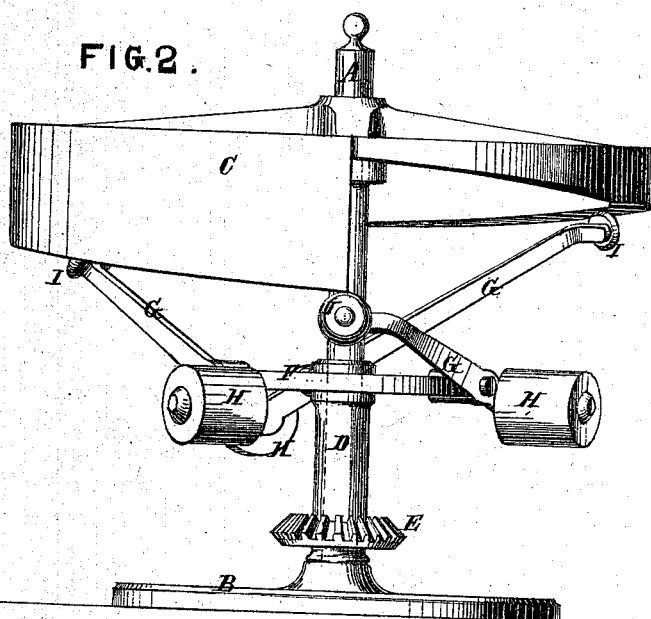
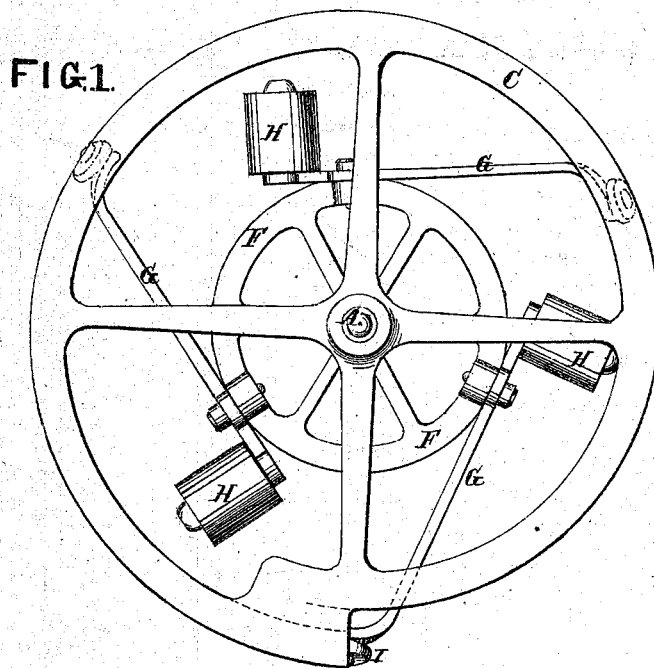


JACOB WOOLF.  
 Improvement in Mechanical Movements.  
 No. 115,406. Patented May 30, 1871.



WITNESSES.

*Wm. H. Brenetson*  
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# UNITED STATES PATENT OFFICE.

JACOB WOOLF, OF BURR OAK, MICHIGAN.

## IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. 115,406, dated May 30, 1871; antedated May 17, 1871.

I, JACOB WOOLF, of Burr Oak, in the county of St. Joseph and State of Michigan, have invented a new and useful Mechanical Movement, of which the following is a specification:

### *Nature and Objects of the Invention.*

My device is constructed with one or more weights attached to lever-arms and carried around in a horizontal or nearly horizontal plane beneath a cam-surface, by which the weights are raised, with a slight expenditure of power, by a gradual movement extending through their whole revolution, and are caused to descend successively at the desired point or points to give out the power due to their gravity.

### *Description of the Accompanying Drawing.*

Figure 1 is a plan or top view of the apparatus. Fig. 2 is a side elevation of the same.

### *General Description.*

A represents a vertical shaft mounted on a bed, B, and supporting a stationary cam or rim, C, the under surface of which forms an inclined plane, either descending gradually and continuously throughout the circuit, as shown in Fig. 2, or divided into two or more steps or sections. A sleeve, D, fitted to turn freely on the shaft A, carries a bevel-pinion,

E, or other means of driving it, and a wheel, F, to which are pivoted one or more levers, G, on the forward ends of which are weights H. The rear ends of the said levers are provided with friction-rollers I, which are pressed upward against the inclined plane C by the gravity of the weights H.

### *Operation.*

The sleeve D and wheel F being rotated by any convenient power in the direction indicated by the arrow, the weights H will be gradually elevated by the depression of the rear ends of the lever G as they are carried around under the stationary cam or cams C, and as each one arrives at the end of the incline, or of each incline where more than one is used, the weight is allowed to descend, and the entire power of its gravity is applied to any mechanism which it is desired to operate with a heavy descending force.

### *Claim.*

I claim as my invention—

One or more weights, H, levers G, and inclines C, adapted to operate in connection, substantially in the manner set forth.

JACOB WOOLF.

Witnesses:

H. C. ELLIOTT,

WM. H. BRERETON, Jr.