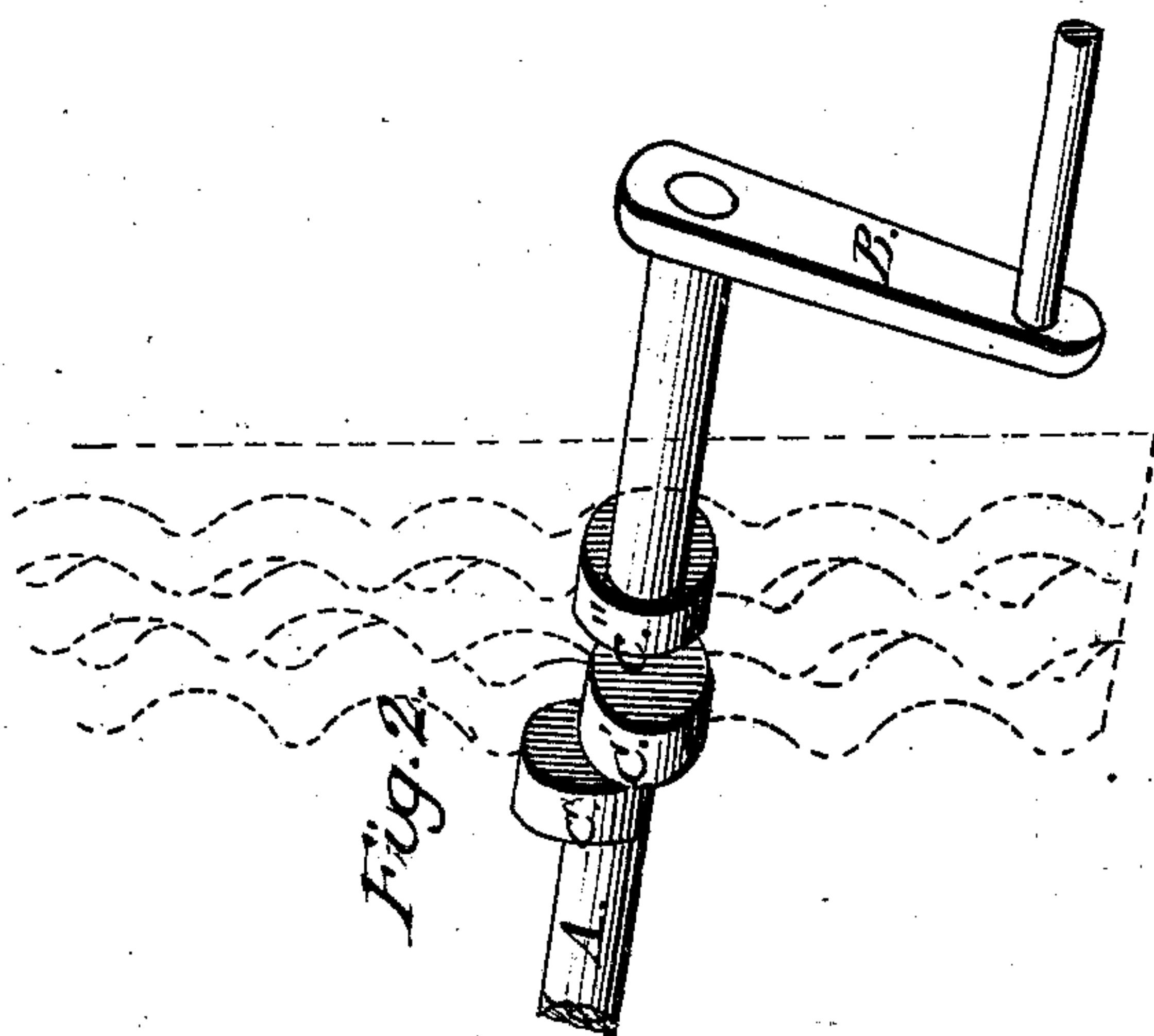
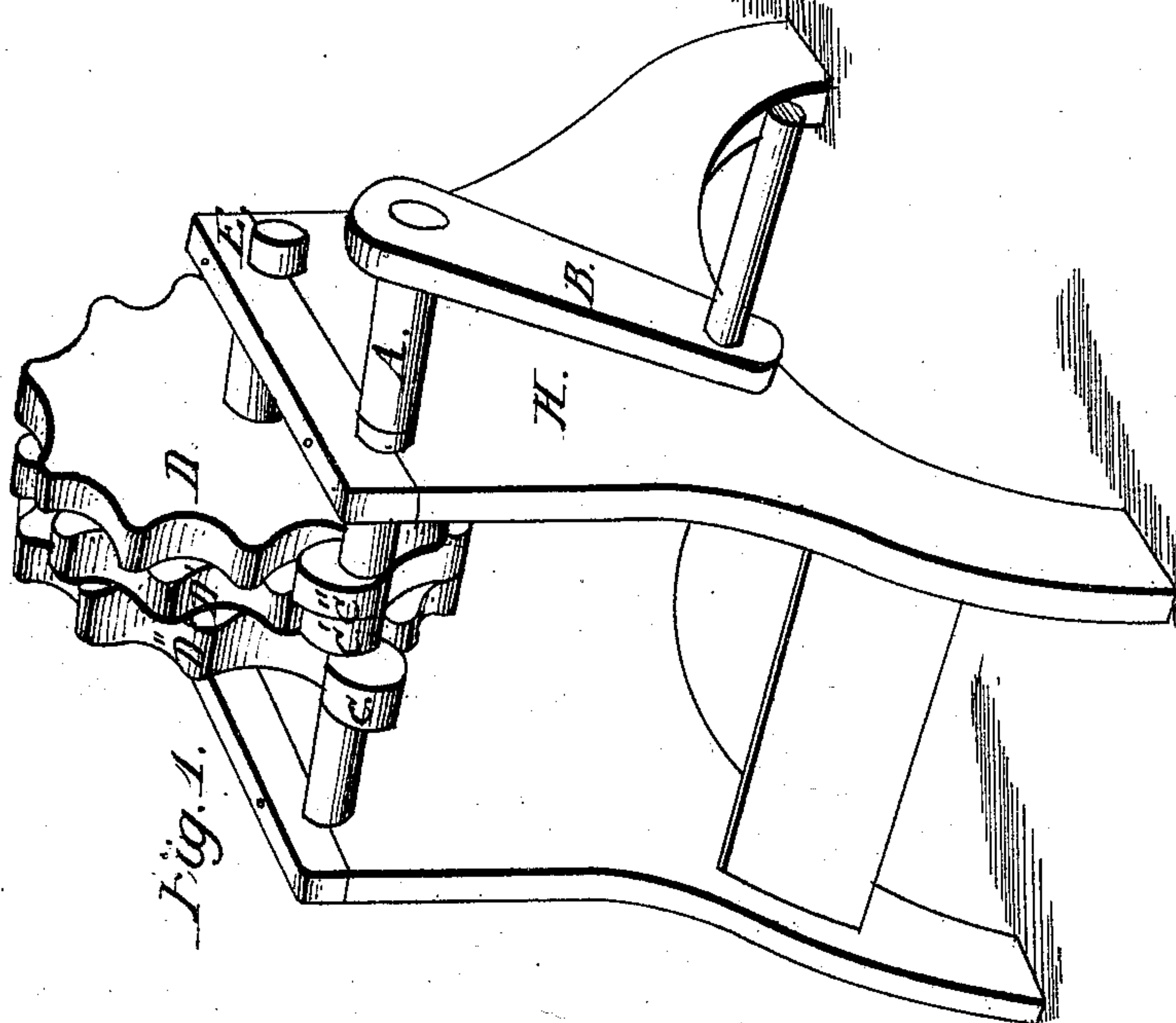


*H. F. Shaw's*  
*Mechanical Movement.*

*Nº 93,485.*

*Patented Aug. 10. 1869.*



*Witnesses:*  
*Geo. J. Biteman*  
*Franklin Parker.*

*Inventor:*  
*Henry F. Shaw.*

# United States Patent Office.

HENRY F. SHAW, OF WEST ROXBURY, MASSACHUSETTS.

*Letters Patent No. 93,485, dated August 10, 1869.*

## IMPROVED 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, HENRY F. SHAW, of West Roxbury, in the county of Norfolk, and State of Massachusetts, have invented a certain new and useful Mechanical Movement; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in combining a series of cams attached to a single shaft, with a series of fluted wheels, also attached to a single shaft, the cams so set in relation to the fluted wheels that the action of the cams is successive, one no sooner ceases to bear than another comes into action; by which device I am enabled to produce a continuous action of very great leverage.

To enable others skilled in the art to make and use my invention, I will proceed to set forth its construction and use.

In the drawings—

Figure 1 is a perspective view of one application of my invention.

Figure 2 shows in full lines the cam-shaft, and in dotted lines a fluted or corrugated rack to be actuated by the cams.

A is a shaft propelled by a crank, or by any desirable means.

On this shaft, a series of cams or eccentrics, C C' C", is made fast.

These cams are set so that the angles made by the longer diameters each to each shall be equal, that is, with three cams the diameter will make angles of one hundred and twenty degrees, or one-third of a circle each. With four cams, the diametric angles will be each ninety degrees, &c.

E represents the shaft to which the fluted wheels D D' D" are attached, these fluted wheels being, in number, equal to the cams, and are set in relation to each other, so that their corrugations will be acted upon successively by the cams C C' C".

In fig. 2, I have shown my device as it would appear on a lifting-jack.

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

As a new mechanical movement, the series of cams C C' C", actuating a corresponding fluted bar or compound wheel, substantially as described and for the purpose set forth.

HENRY F. SHAW.

Witnesses:

FRANK G. PARKER,  
CHAS. J. BATEMAN.