

(No Model.)

L. W. MORSE.  
MECHANICAL MOVEMENT.

No. 343,672.

Patented June 15, 1886.

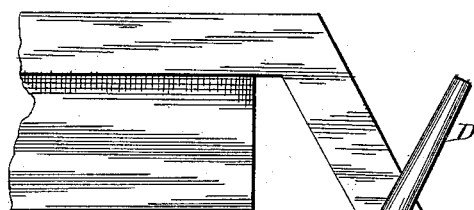


Fig. 1.

Fig. 2.

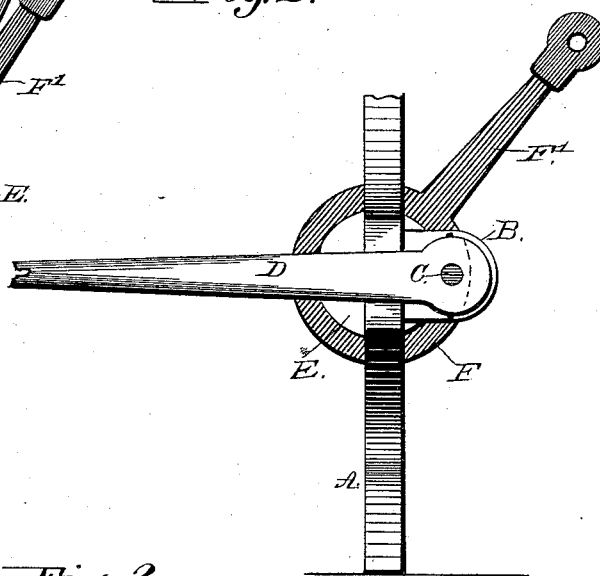
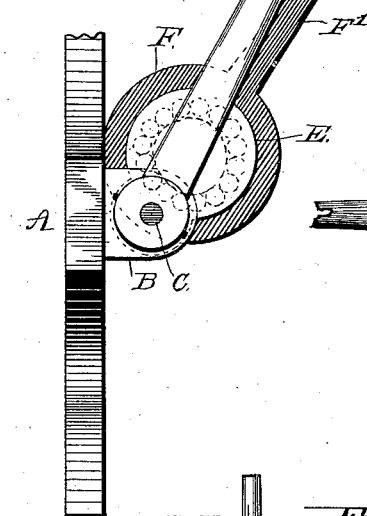
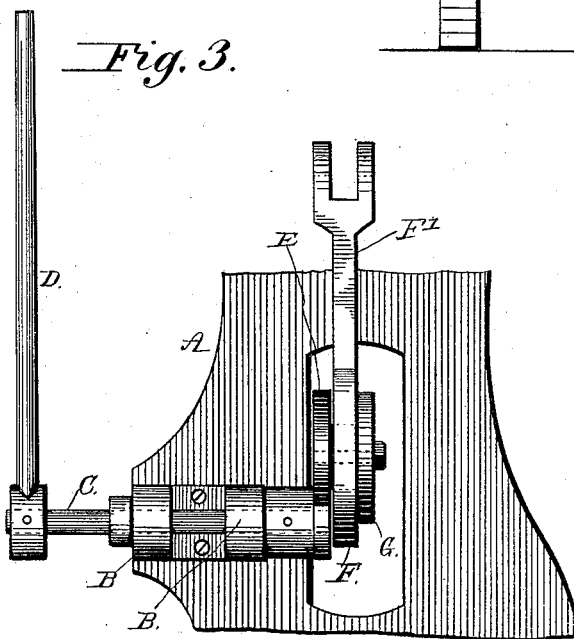


Fig. 3.



Witnesses:

B. C. Fenwick  
G. S. Cooper.

Inventor:

L. W. Morse

A. F. Tunis.  
Atty.

# UNITED STATES PATENT OFFICE.

LEONARD W. MORSE, OF MYSTIC RIVER, CONNECTICUT.

## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 343,672, dated June 15, 1886.

Application filed April 20, 1886. Serial No. 199,558. (No model.)

*To all whom it may concern:*

Be it known that I, LEONARD W. MORSE, a citizen of the United States, residing at Mystic River, in the county of New London, and State of Connecticut, have invented certain new and useful Improvements in Mechanical-Movements; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in mechanical movements; and it consists in certain novel features hereinafter fully set forth and claimed.

In the accompanying drawings, which fully illustrate my invention, Figures 1 and 2 are end elevations, showing my device in different positions; and Fig. 3 is a front elevation of the same.

Referring to the drawings by letter, A indicates a part of the supporting-frame of my machine to which my device may be applied. Upon the side of this supporting-frame I secure two journal-boxes, B B, through which I run the shaft C, as clearly shown. On one end of this shaft I secure, by any suitable means, a lever, D, by which the mechanism composing my movement is operated. The other end of this shaft is secured to a lug on the periphery of a disk, E. This disk is provided with a circular offset, which is surrounded by a ring, F, provided with an arm, F', extending therefrom. The free end of this arm F' is connected with the machinery operated upon, either directly or through intermediate devices.

To reduce friction in the operation of the device I provide anti-friction rollers between the edge of the offset on the disk E and the inner circumference of the ring F, as shown in dotted lines in Fig. 1. To prevent the rollers falling out from their place, I provide a shield, G, consisting of a circular plate, which is secured against the ring F, as shown in Fig. 3, by a set-screw or similar device passed through the center of the shield and the offset on the disk E.

From the foregoing description and the drawings it is thought that the operation of my

device will be readily understood. When in its normal position the several parts will be in the position shown in Fig. 1. By throwing the lever down to the position shown in Fig. 2 the disk will also be thrown down and the machinery lowered. It will be seen that the disk and the operating-lever are both projected to the same side of the shaft, and the position of the two will always correspond. The ring F and arm F' will not follow the disk E, as the free end of the said arm will be prevented from swinging by reason of its connection with the machine operated on. The end of the arm will travel in a straight or nearly straight line, and the circular motion of the operating-lever will be converted into rectilinear motion of the swinging arm.

My device is designed for use on machines which require great lever-power and a compact arrangement of the working parts, and is especially adapted for operating lifting-jacks, paper-cutting machines, and other machines, in which the work done is performed by some part or parts which move in a straight or nearly straight line.

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

1. The combination, with the supporting-frame of a machine, of a shaft supported upon the said frame, an operating-lever secured upon one end of the shaft, a disk secured upon the other end of the shaft, and a swinging arm connected to the operated machine and driven by the disk, substantially as set forth.

2. The combination, with the supporting-frame of a machine, of journal-boxes secured to said frame, a shaft run through the journal-boxes, an operating-lever secured to one end of the shaft, a disk secured to the other end of the shaft provided with an offset to one side of the shaft, a ring surrounding the offset and provided with an arm which is connected to the machinery operated upon, and anti-friction rollers placed between the offset and the surrounding ring, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

LEONARD W. MORSE.

Witnesses:

LEMUEL CLIFT,

DANIEL B. DENISON.