(No Model.)

L. W. MORSE.

MECHANICAL MOVEMENT.

No. 414,564. Patented Nov. 5, 1889.

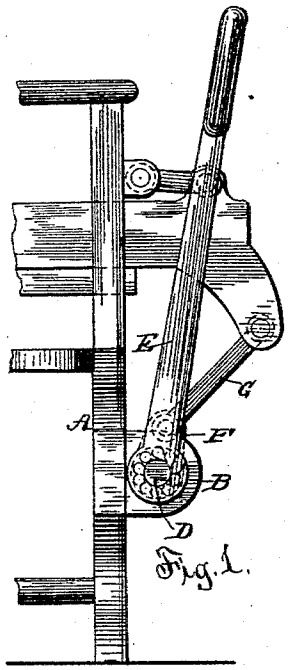


Fig. 1.

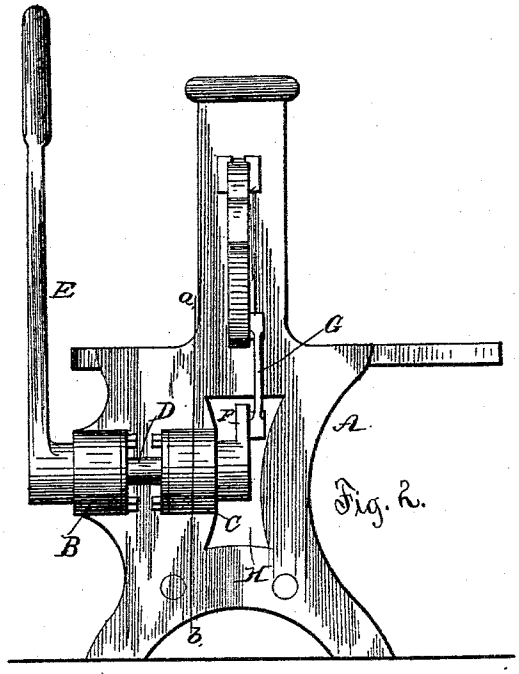


Fig. 2.

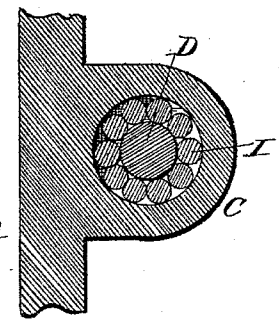


Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

LEONARD W. MORSE, OF MYSTIC RIVER, CONNECTICUT.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 414,564, dated November 5, 1889.

Application filed October 6, 1886. Renewed September 20, 1889. Serial No. 324,483. (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.

My invention relates to mechanical movements; and it consists in certain improvements on the invention patented to me June 15, 1886, No. 343,672.

In the accompanying drawings, Figure 1 is an end elevation, and Fig. 2 is a side elevation, of my improved device. Fig. 3 is a detail sectional view on the line *a b*, Fig. 2.

Referring to the drawings by letter, A indicates a portion of any machine to which my device may be applied, such as a paper-cutting machine, lifting-jack, or other machine in which the work done is performed by some part or parts which move in a straight or nearly straight line, that shown in the present case being a paper-cutting machine. Journal-boxes B C are made integral with the frame A, and a shaft D is inserted through and carried by these journal-boxes, as shown. An operating-lever E is rigidly secured to that end of the shaft D which projects past the edge of the frame A, as shown in Fig. 2, and the opposite end of the said shaft is provided with a crank F, which is connected to the operated machine by an arm G, as shown. The frame A is provided with an opening or slot H, to allow the crank F sufficient play for the proper operation of the device. In order to reduce the friction, I arrange a series of small rollers I between the shaft D and the journal-boxes B C. I thereby provide a machine which operates easily and smoothly. The journal-boxes B C may be formed separately and attached to the frame or made integral with the same, as shown in Fig. 3.

My device is especially applicable to machines which require a great degree of power with a compact arrangement of the driving parts. Its operation is the same as that of my former device and need not be elaborated herein.

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

The combination, with the supporting-frame A, provided with journal-boxes B C, of the shaft D, run through said journal-boxes, anti-friction rollers interposed between said shaft and the journal-boxes, an operating-lever secured upon one end of the shaft D, a crank F, secured upon the other end of said shaft D, and an arm G, connecting the crank to the machinery to be operated, substantially as specified.

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

LEONARD W. MORSE.

Witnesses:
LEMUEL CLIFT,
ALBERT WILLIAMS.