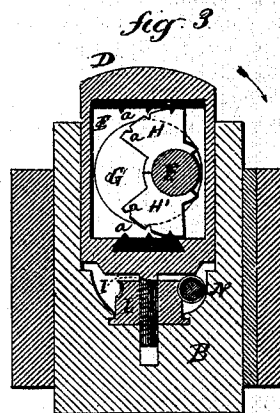
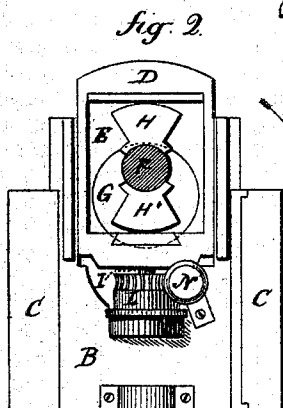
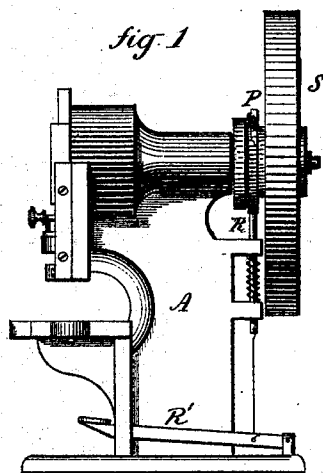


J. B. DOOLITTLE.
Mechanical Movements.

No. 139,499.

Patented June 3, 1873.



Witnesses

W. H. Murray
R. D. White

James B. Doolittle
 Inventor
 By Atty.

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UNITED STATES PATENT OFFICE.

JAMES B. DOOLITTLE, OF WALLINGFORD, CONNECTICUT.

IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. **139,499**, dated June 3, 1873; application filed April 3, 1873.

To all whom it may concern:

Be it known that I, JAMES B. DOOLITTLE, of Wallingford, in the county of New Haven and State of Connecticut, have invented a new Improvement in Mechanical Movement; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a front view of the slide; Fig. 3, a vertical section of the same.

This invention relates to an improved method of converting rotary into reciprocating motion, adapted to various purposes, but here represented as applied to a power-press. The invention consists in combining with a crank-pin or eccentric a pair of segments, each resting upon opposite sides of the said eccentric, and bearing, respectively, upon the opposite ends of a slot or stirrup, the length of the said stirrup being the diameter of the combined segments and crank-pin, so that as the crank-pin revolves the said segments rock to and fro in the said slot, imparting to the piece or thing within which the said slot is formed a reciprocating movement corresponding to the throw of the crank-pin or eccentric.

As applied to a power-press, A represents the frame, B the slide working vertically in guides C. In connection with the slide B is a stirrup or frame, D, having a slot, E, formed therein. Within this slot the crank-pin F extends from the shaft G. This may be a crank-pin or other device to impart a rotary move-

ment. Within the slot E, and upon the crank-pin, I arrange a segment, H, above, and H' below, the crank-pin fitting between the two, as seen in Fig. 2, and the extreme diameter between the two segments being equal to the length of the slot E; therefore, as the crank-pin revolves, starting from the highest point, as seen in Fig. 2, and turning to the right to one-fourth around, as seen in Fig. 3, the segments, rocking upon their respective bearings in the frame, turn over to the right, and, passing down, will at their lowest point again assume a vertical position, and at the third quarter the extreme position to the left, then again to a vertical position at the last quarter or up position, each revolution causing the segments to rock back and forth in the slot. To retain the segments in their proper position corresponding teeth or notches, a, are formed on the bearing-surfaces between the segments and the frame, as seen in Fig. 3. Thus at each full revolution of the shaft a full reciprocating movement to the extent of the throw of the crank-pin is imparted. This method of converting motion is applicable to many purposes where such a conversion is desirable.

I claim as my invention—

In combination with the crank-pin or eccentric F and frame D, the two segments H and H', working within the said frame, so that the rotary movement of the shaft imparts a reciprocating movement to the frame, substantially as set forth.

J. B. DOOLITTLE.

Witnesses:

C. H. BROWN,
L. M. BENHAM.