

(No Model.)

F. W. McARDLE.
MECHANICAL MOVEMENT.

No. 523,170

Patented July 17, 1894.

FIG. 1.

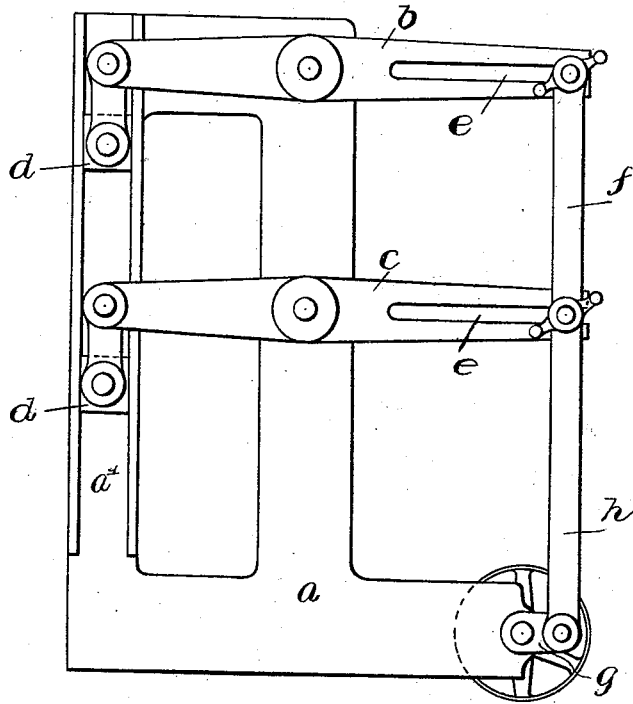


FIG. 2.

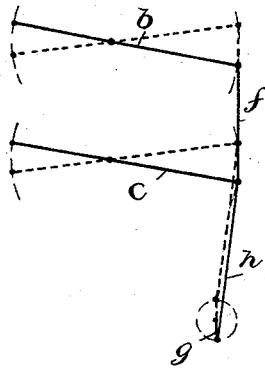


FIG. 3.

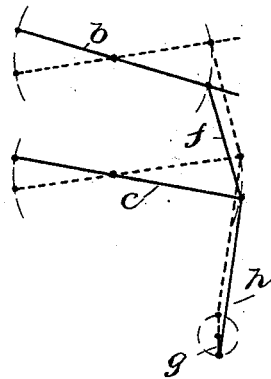
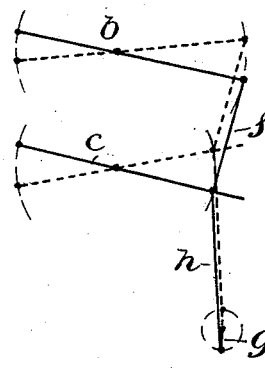


FIG. 4.



WITNESSES:

Barker Davis,
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INVENTOR:

F. W. McArdle
by
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UNITED STATES PATENT OFFICE.

FRED W. McARDLE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO EDWARD C. JUDD, OF SAME PLACE.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 523,170, dated July 17, 1894.

Application filed October 30, 1893. Serial No. 489,537. (No model.)

To all whom it may concern:

Be it known that I, FRED W. McARDLE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Mechanical Movements, of which the following is a specification.

The object of the present invention is to provide an improved mechanical movement whereby reciprocations or oscillations of two parts driven from the same source may be varied in degree with respect to each other as desired, and to this end may be said to consist essentially in a pair of levers, a rod adjustably connected with each lever so that its point of connection therewith may be changed with relation to the pivot of the lever and such point of connection may be nearer the pivot in one lever than in the other, and reciprocating means connected with the said connecting rod.

The accompanying drawings illustrate means for embodying the invention.

Figure 1 shows an elevation of such means. Figs. 2, 3 and 4 show diagrams.

The letter *a* designates a suitable support shown as provided with a slide-way *a'*.

b and *c* designate two levers pivoted to said support and shown as of the same length on the same sides of their pivot, and as connected on one side with slides *d* respectively, fitting the slide-way *a'*, which slides serve as roll or tool carriers as hereinafter referred to. On the opposite side of the pivots the two levers are slotted lengthwise as at *e*, and are connected together by a rod *f*, which is connected with the levers by fastenings engaging the slots *e*. A driving crank *g* is connected by a pitman *h* with the rod *f*, being pivotally connected with the latter.

When the parts are in the adjustment shown in Figs. 1 and 2, it is evident that the levers will both vibrate in the same degree, and produce reciprocations of the slides through the same extent.

By changing the points of connection of the levers and connecting rod *f*, the vibrations of the levers may be varied with relation to each other. For example, allowing the point of connection of the rod with the lever *c* to remain as it appears in Fig. 2, and moving the point of connection of the said rod with the other lever *b* nearer the pivot of the latter, (see Fig. 3) it is evident that while the lever *c* vibrates to the same extent as before, the lever *b* vibrates in a greater degree. This condition may be reversed by adjusting the parts as illustrated in Fig. 4, so that the point of connection of the rod *f* with the lever *c* is nearer the pivot of that lever than the point of connection of said rod with the lever *b* is to the pivot of the latter lever. Thus it will be seen that the relative vibrations of the levers may be regulated as desired.

A mechanical movement of the above description may be applied to advantage in many connections, as for example in a sole-leveling machine for oscillating or reciprocating the leveling tools or rolls, which tools may be carried by the slides *d*.

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

A mechanical movement comprising in its construction a pair of levers, tool carriers connected with their free ends, a rod having an independently adjustable connection with each lever, whereby its point of connection therewith may be changed with relation to its distance from the pivot of either lever, and means connected with said rod at one end for reciprocating it.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 25th day of October, A. D. 1893.

FRED W. McARDLE.

Witnesses:

C. F. BROWN,
F. PARKER DAVIS.