

(No Model.)

C. C. MOORE.  
MECHANICAL MOVEMENT.

No. 533,076.

Patented Jan. 29, 1895.

*Fig: 1*

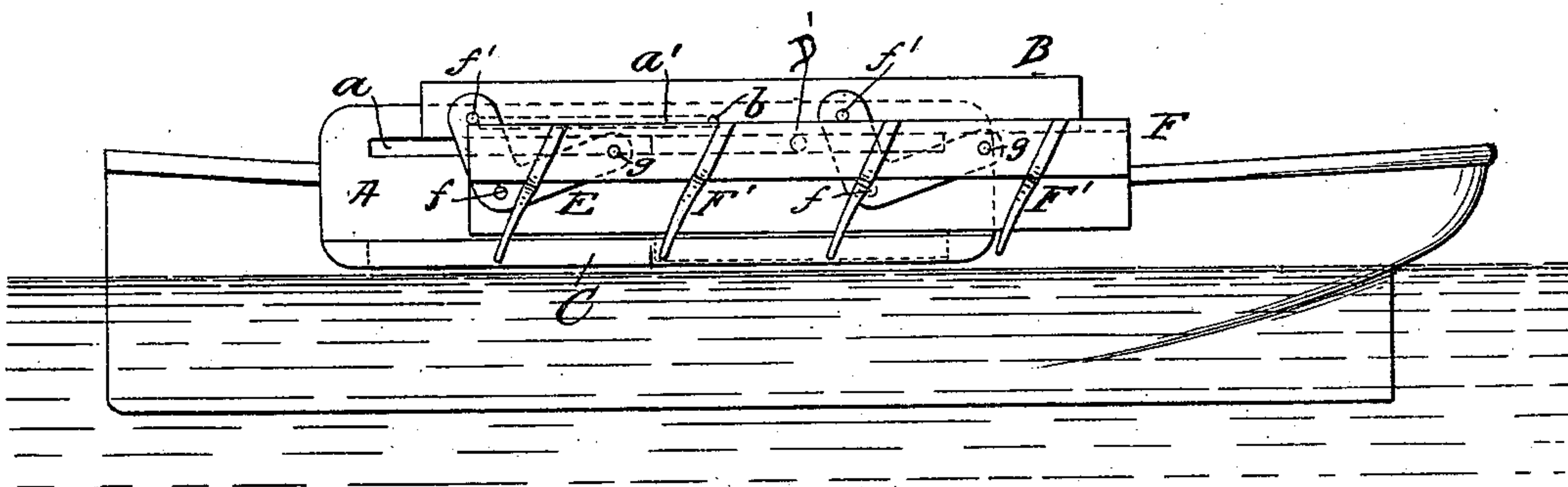


Fig. 2.<sup>x</sup>

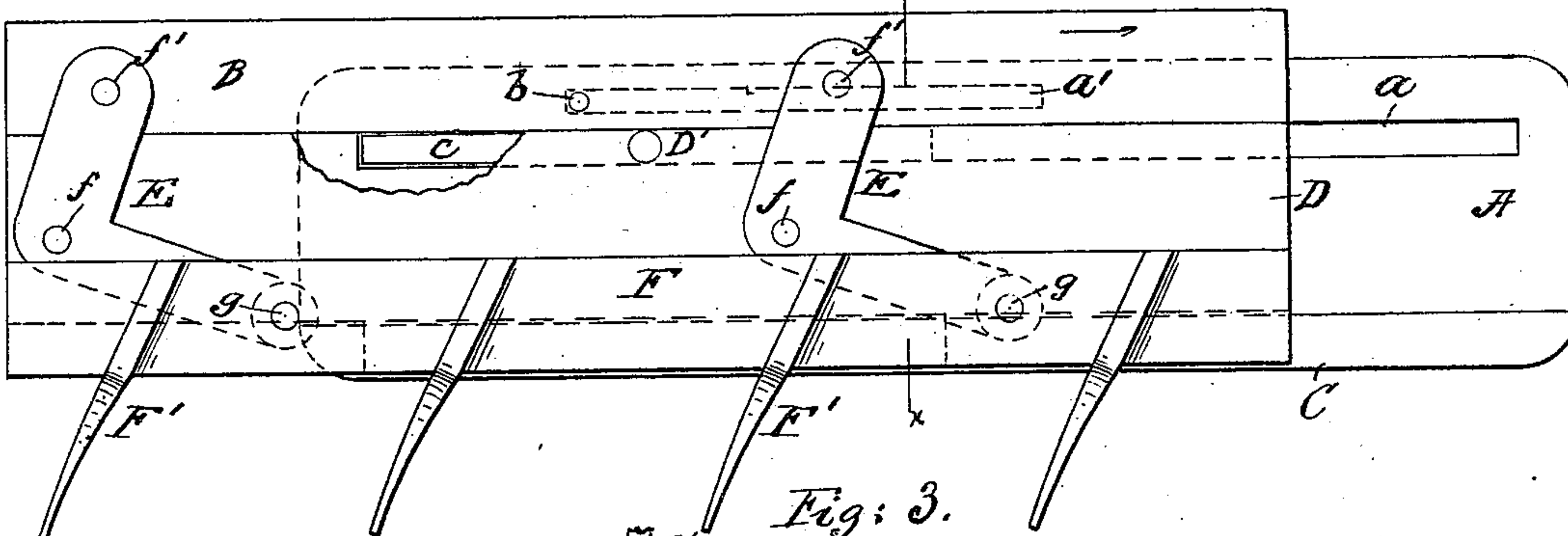
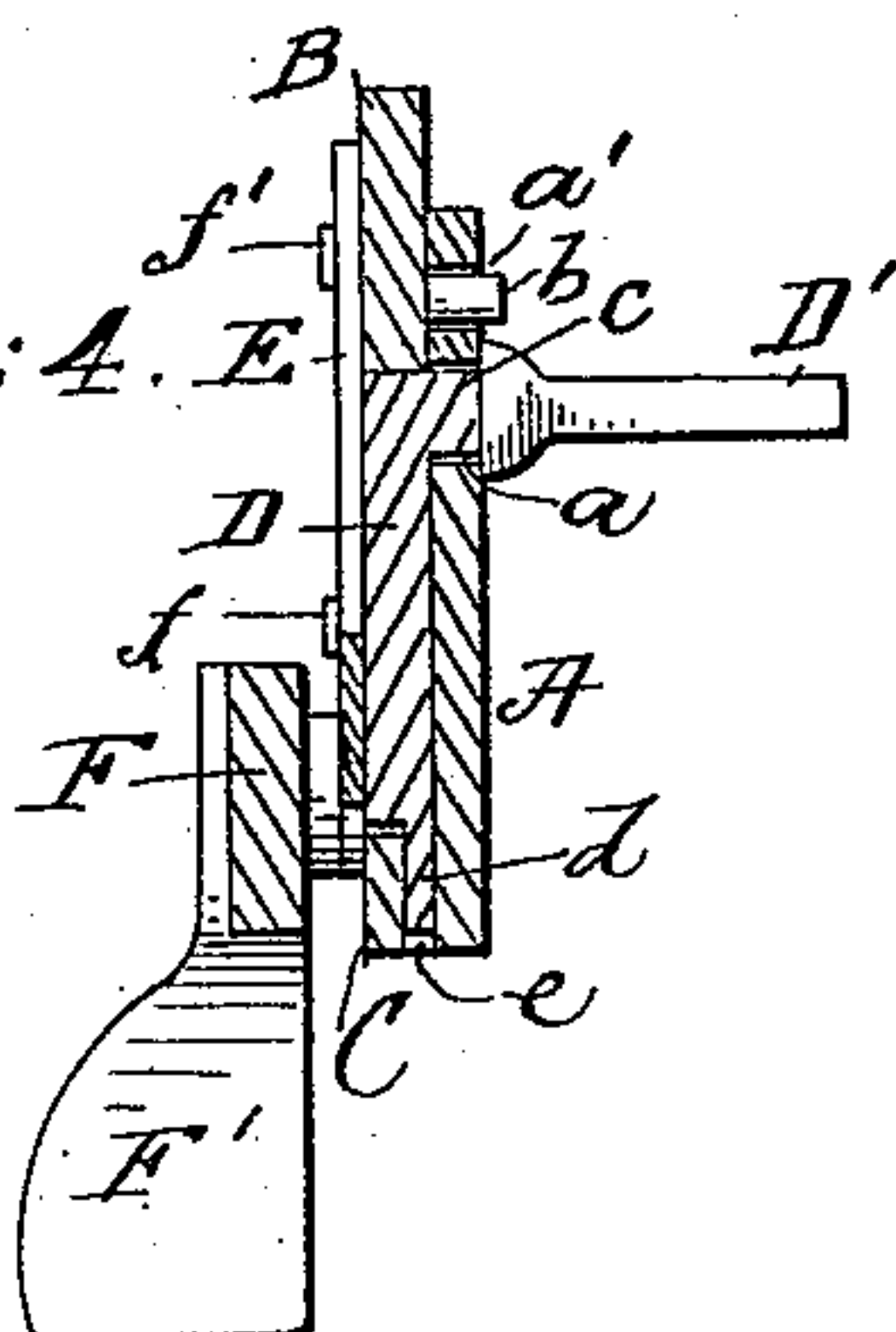
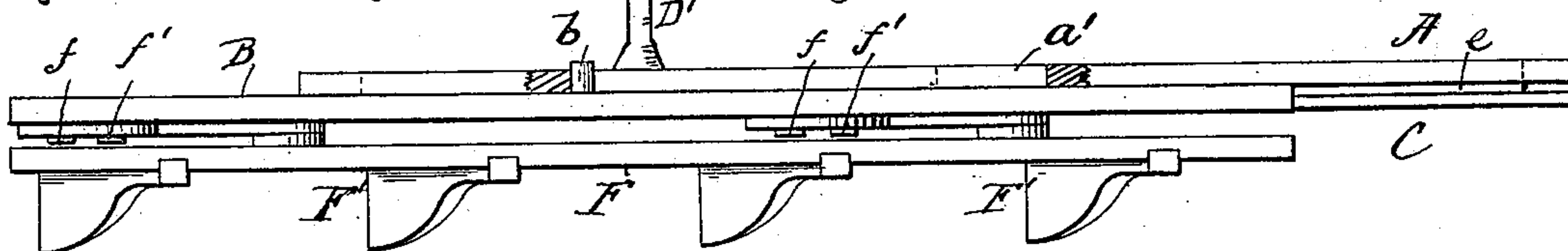


Fig: 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 533,076, dated January 29, 1895.

Application filed June 13, 1894. Serial No. 514,380. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. MOORE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented a certain new and useful Mechanical Movement, of which the following is a specification.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which like letters of reference indicate corresponding parts in all the figures.

Figure 1 shows my invention applied for propelling a boat. Fig. 2 is an enlarged side view of the movement. Fig. 3 is a broken plan view of the same, and Fig. 4 is a transverse sectional view taken on line  $x-x$  of Fig. 2.

A represents a main frame or supporting plate which may be made of any appropriate size depending upon the use to which my invention is to be applied. It is formed with two slots or races  $a$   $a'$  of unequal lengths, the ends of the slot or race  $a'$  serving to limit the movement of a reciprocating plate or bar B, through the medium of a pin or stud  $b$  which is connected to said bar B and works in said slot or race  $a'$ . On the face of the main frame or plate A at or near its lower edge is secured a keeper C for retaining the lower edge of another reciprocating bar or plate D which is formed with a flange  $d$  to run freely in the space  $e$  between the keeper C and main frame or plate A, as shown clearly in Fig. 4. The bar or plate D is reciprocated by a pitman connection or handle D' which in this instance is connected from the back through slot or race  $a$  in the main frame or plate A and by preference I employ in connection therewith a race block  $c$  which moves freely in the slot or race  $a$  and whose ends limit its reciprocation by abutting against the ends of the slot or race  $a$  after the stop pin or stud  $b$  has reached its limit of reciprocation.

E E represent elbow levers. There may be one or more of these. Each of said levers reciprocates bodily and can also oscillate on a pivot  $f$  which connects it at or about the center to the reciprocating bar or plate D. The upper end of each lever E is connected by a pin  $f'$  to the upper reciprocating bar B, while to the

lower end of same is connected by pivot pins  $g$  a working plate or bar F to which paddles F' are attached in the application here shown.

In case this movement be made in metal the pins  $f'$  should work in a slightly enlarged or elongated aperture in the levers E to compensate for the slight arc described by the pins  $f$ , but if made of wood, the arc will find ready compensation in the elasticity of the keeper C.

The operation is as follows: The parts being in the position shown in Fig. 2, the connection or handle D' is to be moved in the direction of the arrow. There being a resistance against F' this carries bars B, D, F, levers E, race-block  $c$  and limit pin  $b$  back until pin  $b$  strikes the rear end of the race  $a'$  whereupon plate B and the pivots  $f'$  of levers E are brought to rest, but the handle D', race block  $c$  and bar or plate D are permitted to move still farther—that is, until the end of the race-block strikes the end of the slot  $a$ . This independent movement causes bar or plate D to swing the levers around  $f'$  which causes them to lift the bar F to the position shown in Fig. 1. On the reverse movement of the handle D' all of the parts move together until the pin  $b$ , bar B and upper ends of the levers E are brought to rest at the front end of the slot  $a'$ . At this time handle D', race-block  $c$ , bar D and lower portions of lever E move independently of the bar B causing bar D to shift forward the lower portions of the said levers thus turning them to their original positions and lowering bar F to its original position.

It will be noticed that the bar B is to all intents and purposes carried by the pivots  $f'$ , and that when the levers swing around these pivots the pivots  $g$  stand on a line with or above the pivots  $f$  so that the return movement is practically positive.

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

1. The mechanical movement herein described consisting of a main frame or plate formed with two races of different lengths, and two reciprocating bars limited in movement by said races, in combination with a working bar and intermediate levers con-

nected thereto and to the two reciprocating bars, substantially as described.

2. The main frame or plate A formed with two slots of different lengths, a reciprocating  
5 bar B and limit pin *b* working in the shorter slot and a race block *c* working in the longer race in combination with a reciprocating bar D moving with said race block and levers E connected to the reciprocating bars B and D,  
10 substantially as described.

3. The main frame or plate A having races *a a'* and keeper C in combination with the reciprocating bars B, D, F, race block *c*, limit pin *b* and bent levers E connected to the said bars B, D, F, substantially as described.

CHARLES C. MOORE.

Witnesses:

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JOHN M. DEIMER.