

No. 744,118.

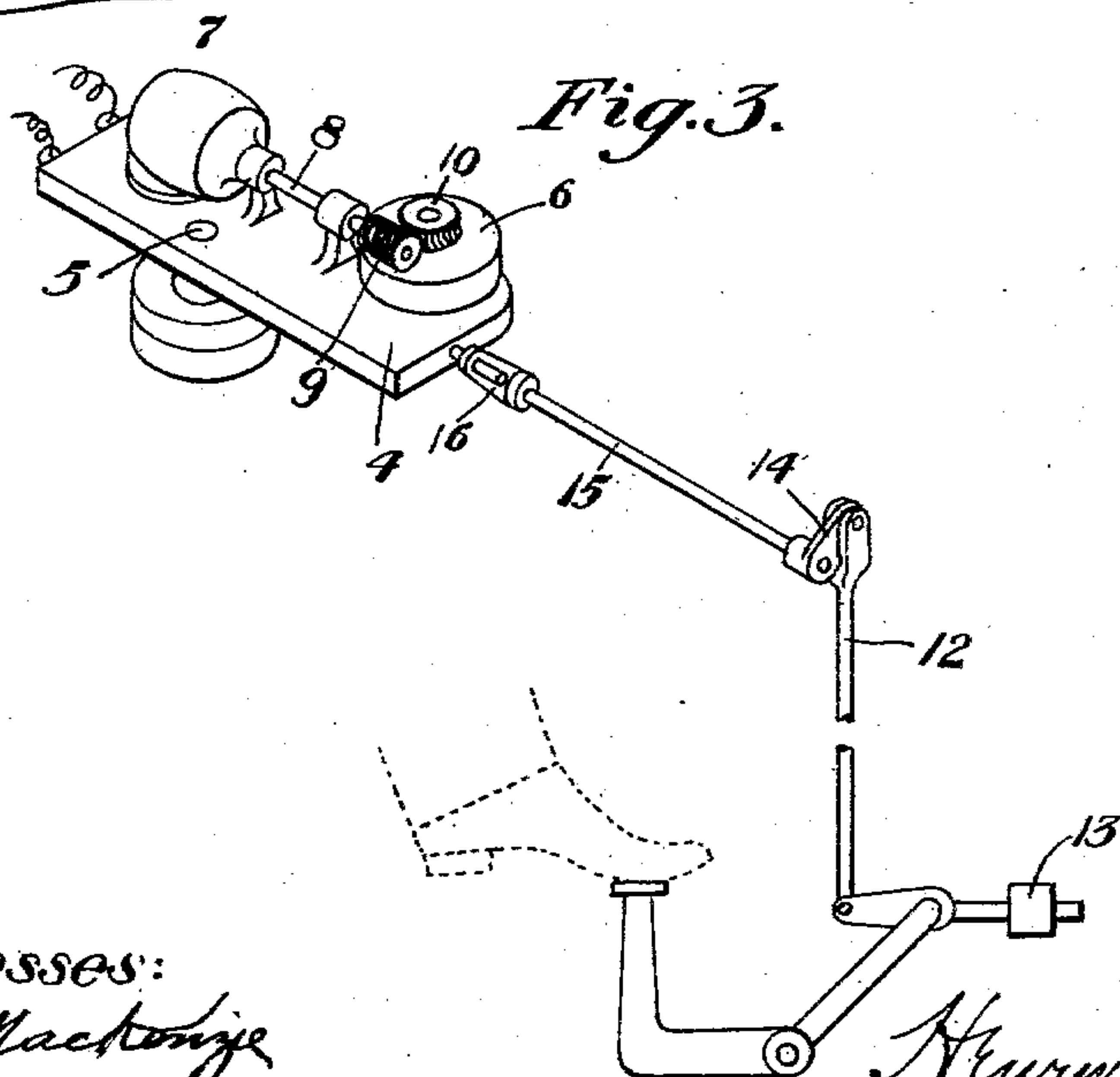
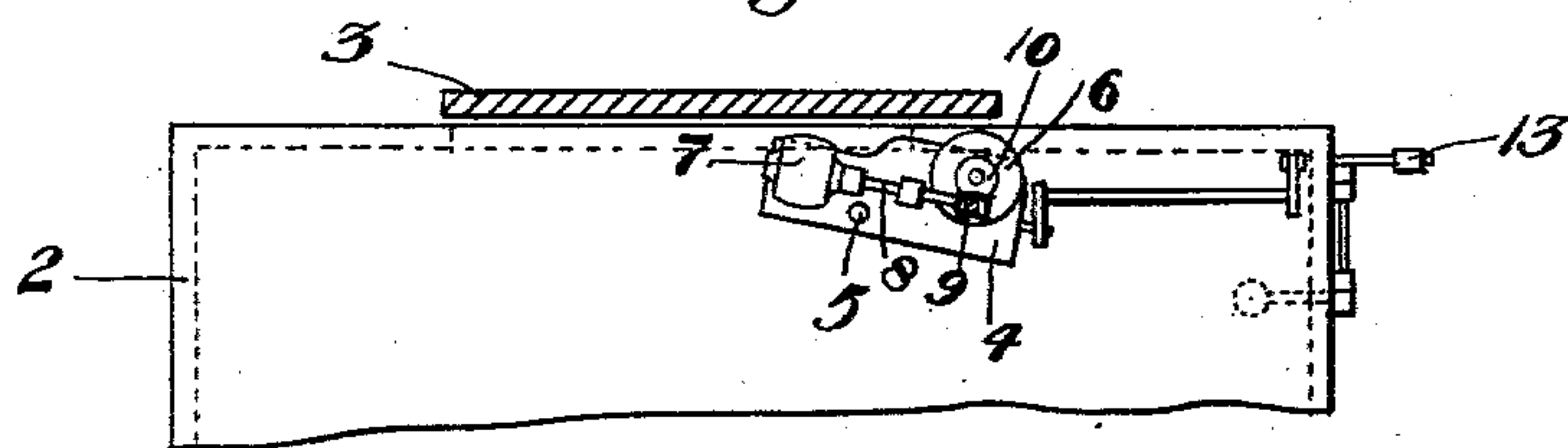
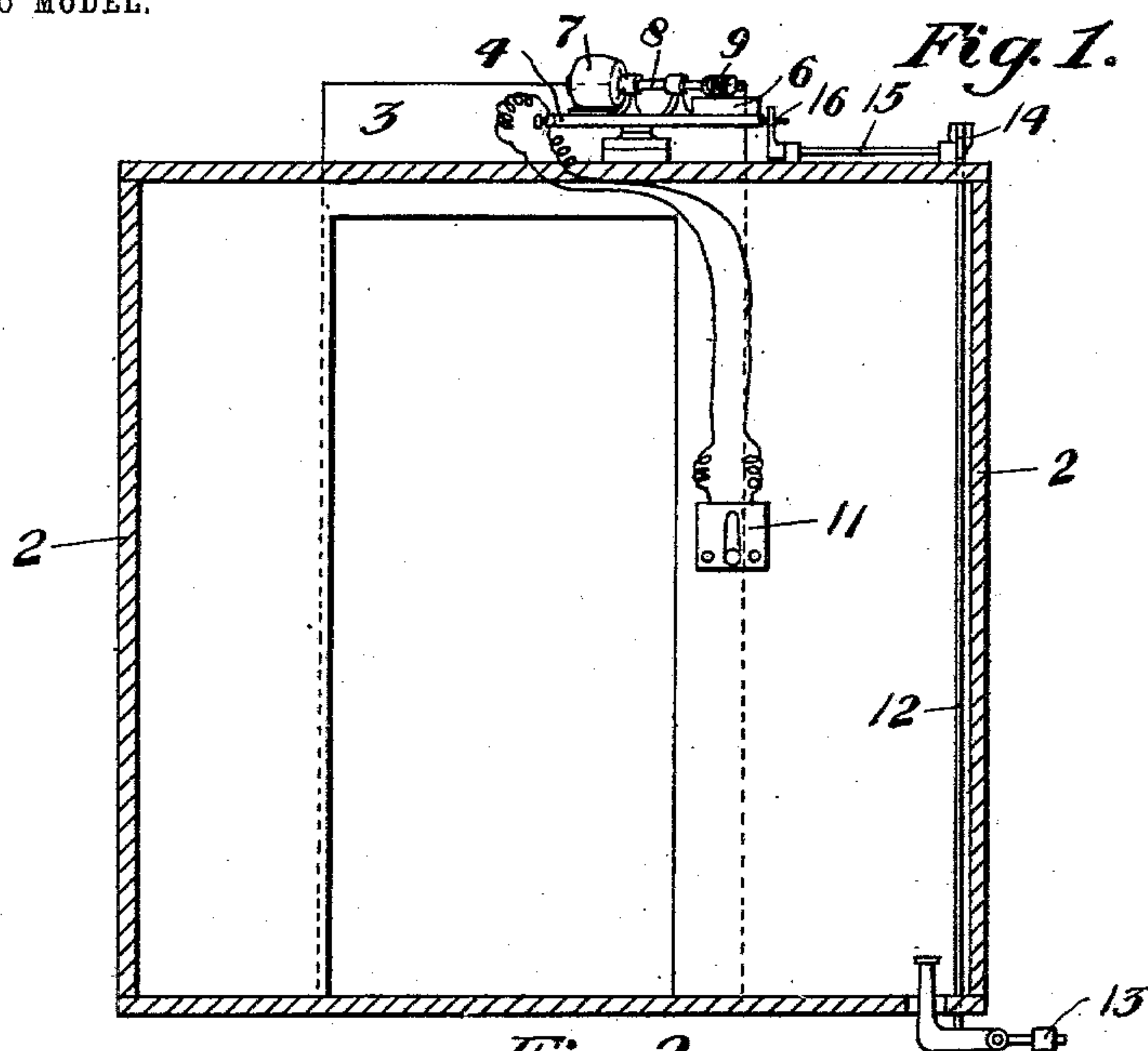
PATENTED NOV. 17, 1903

H. C. SEIPP.

MECHANISM FOR OPERATING ELEVATOR DOORS.

APPLICATION FILED NOV. 5, 1902.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY C. SEIPP, OF PITTSBURG, PENNSYLVANIA.

MECHANISM FOR OPERATING ELEVATOR-DOORS.

SPECIFICATION forming part of Letters Patent No. 744,118, dated November 17, 1903.

Application filed November 5, 1902. Serial No. 130,146. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SEIPP, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Mechanism for Operating Elevator-Doors, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of this specification.

Figure 1 is a vertical sectional view of an elevator-car provided with my improved door-opening mechanism. Fig. 2 is a plan view thereof. Fig. 3 is a perspective detail view of the operative friction driving device.

My invention relates to an improved means for opening and closing the doors of elevator-shafts by an actuating mechanism mounted on the car and adapted to operate on each door at varying positions of the elevator. It is designed to obviate the difficulties present where separate operating mechanisms are provided at each floor and to place the controlling means within easy reach of the elevator attendant.

Referring to the drawings, 2 is the car, the door-opening of which is adapted to register with the sliding door 3 at each landing. Mounted on the top of the elevator or in any other convenient position is a swinging frame 4, adapted to swing on a pivot 5 toward or from the door 3 as the frame may be thrown in or out by the operator.

6 is a friction-wheel, which may also be provided with teeth or a facing of any suitable substance, as rubber, adapted to engage and drive the door forward or back, according to which direction the wheel 6 is driven. This wheel may be rotated in either direction by any suitable driving mechanism, and I have shown an electric motor 7 mounted on the swinging frame 4 and adapted to transmit movement to wheel 6 in either direction by shaft 8 and worm 9, engaging worm-wheel 10 on the shaft of wheel 6. The motor is controlled as to its direction of movement by a switch 11, located in the interior of the elevator-car within easy reach of the operator, suitable connecting-wires being provided to establish communication with the motor and with any source of supply, as by a trolley. Such portions of the invention are not given in de-

tail and are within the province of the skilled mechanic or electrician. The identity of the motor proper, as shown, is not essential to the operation of the invention, as other forms or kinds of motors may be used with equally good results, and I do not desire to be confined to an electric motor, but to include as within the scope of the claims any suitable motor adapted to rotate wheel 6 in either direction.

For the purpose of swinging the pivoted frame 4 in or out to throw the friction-wheel into contact with the door or with any supplemental portion or face-plate thereon I have provided the treadle-rod 12, normally held up by spring or counterweight 13, connected at its upper end with crank 14, secured to rock-shaft 15, provided with a crank-arm 16, adapted to engage a pin or other suitable device on the swinging frame. By depressing the treadle the frame is thrown inwardly, bringing the wheel 6 into contact with the door, so as to engage it frictionally and throw it open or shut, as desired, the direction of movement of the motor being appropriately controlled by the switch or other controlling device.

Other means for connecting with the door may be provided, but an especial advantage of the friction-wheel and its contact is that in case of obstructions of any kind—as, for instance, interference by a passenger—the contact device will slip and avoid accidents.

Changes and variations may be made in the motor-wheel contact-face of the door, the means for throwing the wheel inwardly or other features or details without departing from the invention, but all such are to be considered as within the scope of the following claims.

I claim—

1. Door-shifting apparatus for elevators consisting of a pivotally-mounted base, a motor thereon, a driving-wheel operatively connected with the motor and adapted to make contact with the door, and means for shifting the pivotally-mounted base, substantially as set forth.

2. Door-shifting apparatus for elevators consisting of a pivotally-mounted base, a motor thereon, a driving-wheel operatively connected with the motor and adapted to make

contact with the door, means for shifting the pivotally-mounted base and means for reversing the direction of the motor, substantially as set forth.

- 5 3. Door-shifting apparatus for elevators consisting of a pivotally-mounted base, a motor thereon, a driving-wheel operatively connected with the motor and adapted to make contact with the door, and means for shifting
10 the pivotally-mounted base located in the interior of the car, substantially as set forth.

4. Door-shifting apparatus for elevators consisting of a pivotally-mounted base, a motor thereon, a driving-wheel operatively connected with the motor and adapted to make
15 contact with the door, a shifting foot-treadle mounted in the interior of the car, and connections between the treadle and the pivotally-mounted base by which it is actuated,
20 substantially as set forth.

5. In combination with a movable car, a

pivotally-mounted frame, a motor and a friction-wheel mounted thereon, and mechanism for actuating the frame to make driving engagement with the door adapted to be operated from the interior of the car, substantially as set forth. 25

6. In combination with a movable car, a pivotally-mounted frame, a motor and a friction-wheel mounted thereon, and mechanism
30 for actuating the frame to make driving engagement with the door adapted to be operated from the interior of the car, and means for controlling the direction of the motor, substantially as set forth. 35

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

HENRY C. SEIPP.

Witnesses:

CHAS. W. V. FEIGEL,
C. M. CLARKE.