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Patented Oct. 29, 1901.

A. E. WHITEHEAD.

SELF PLAYING ATTACHMENT FOR MUSICAL INSTRUMENTS.

(Application filed May 18, 1901.)

(No Model.)

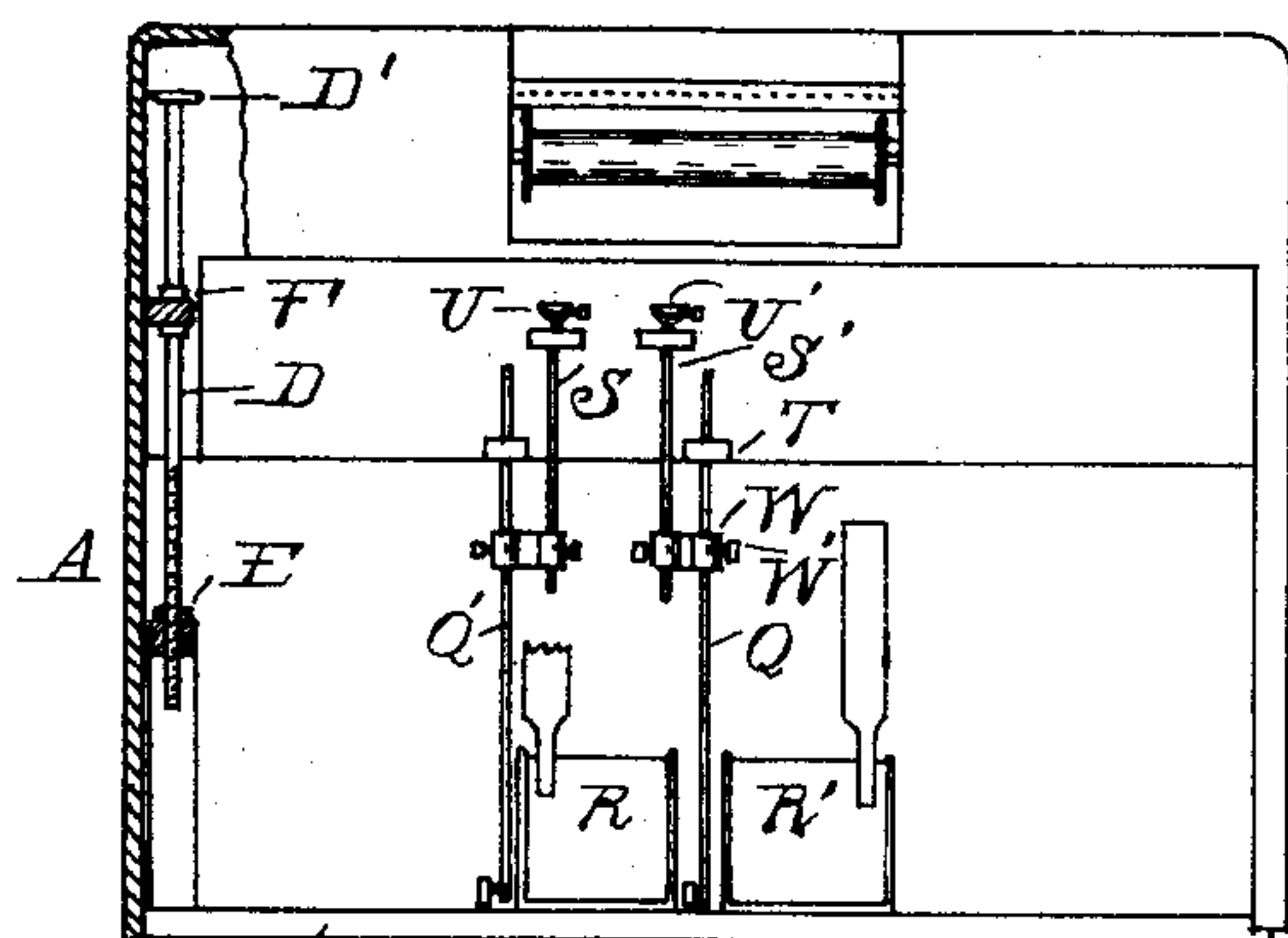


Fig. 2

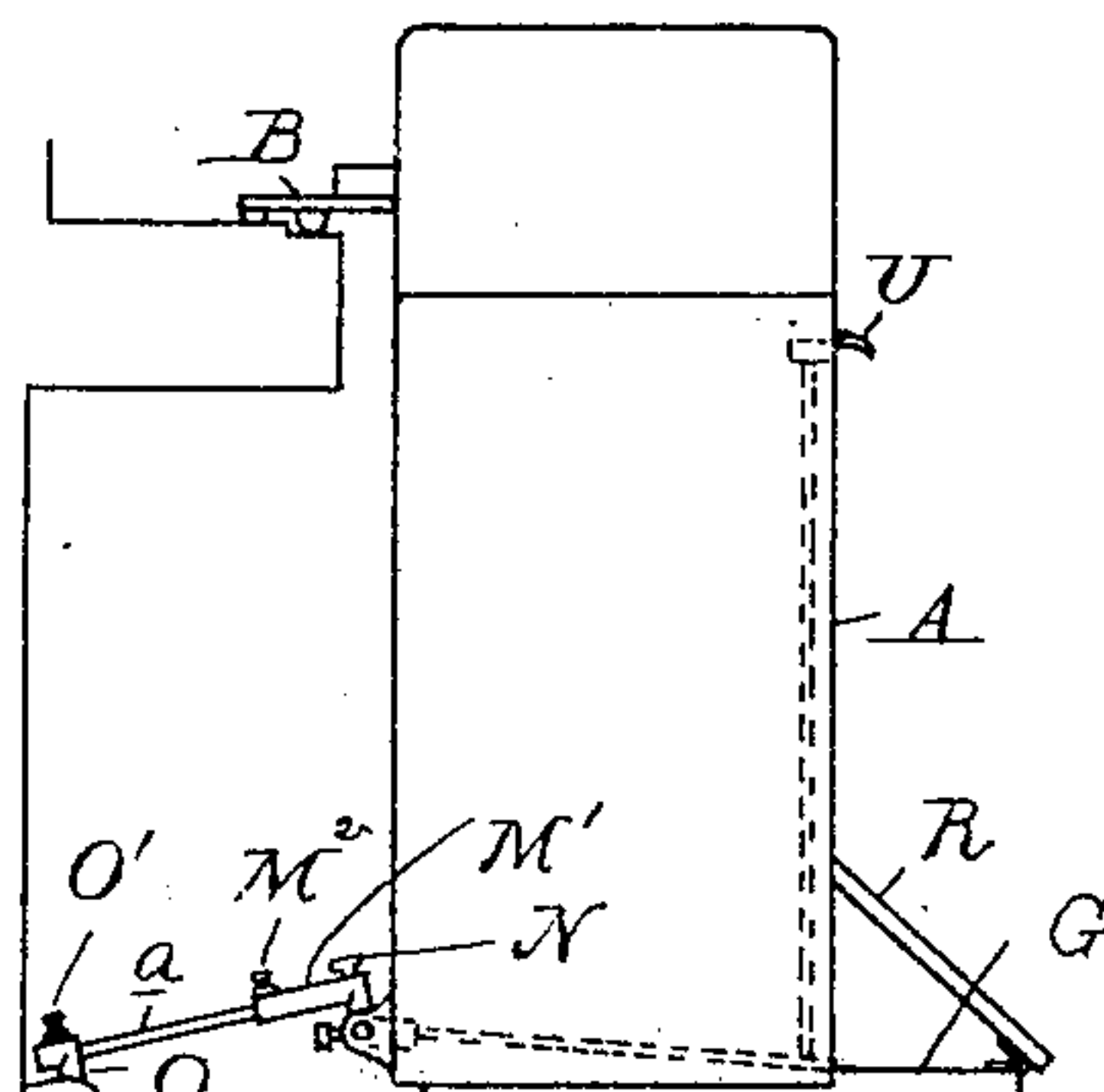


Fig. 1.

Fig. 3.

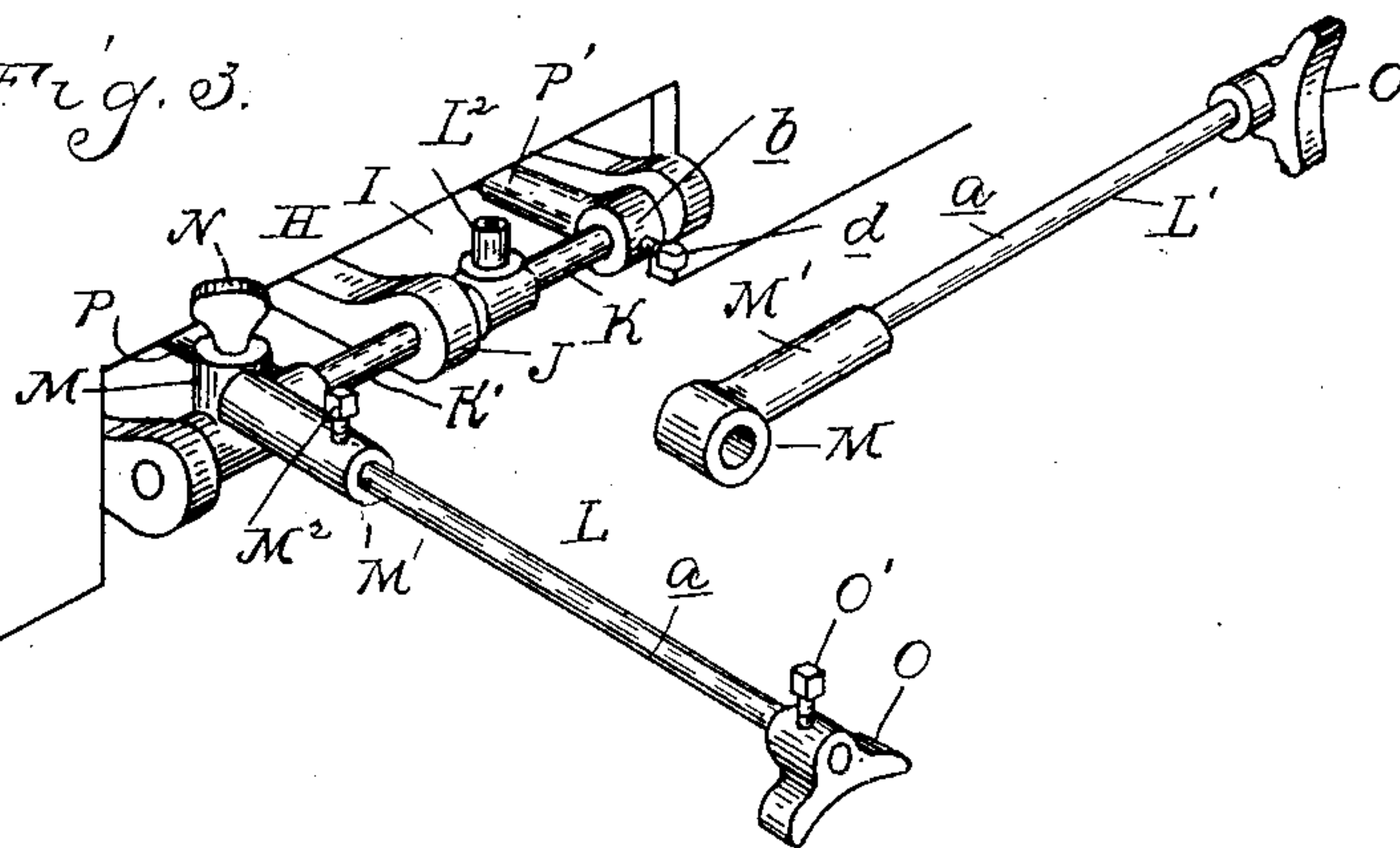


Fig. 5.

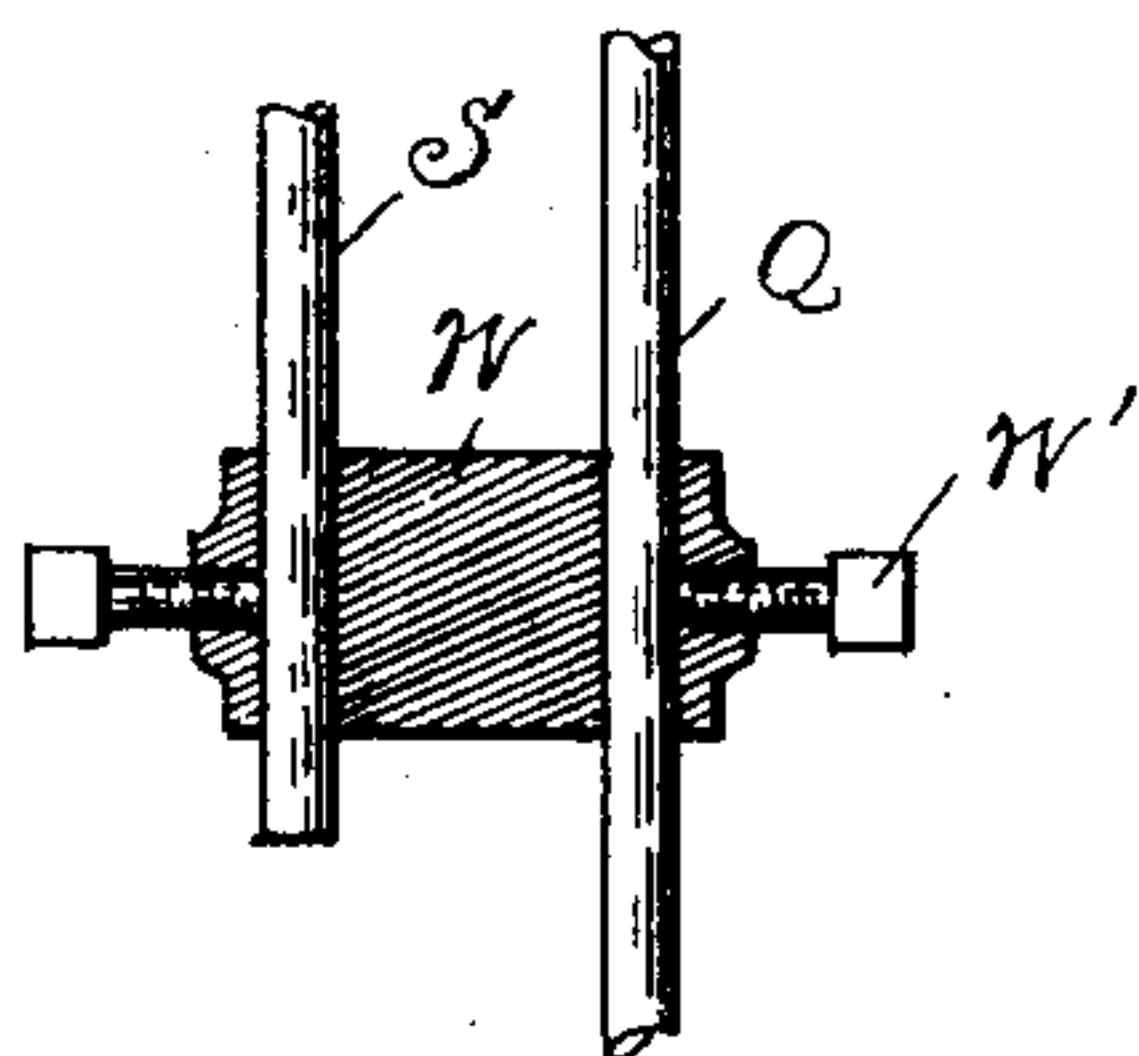
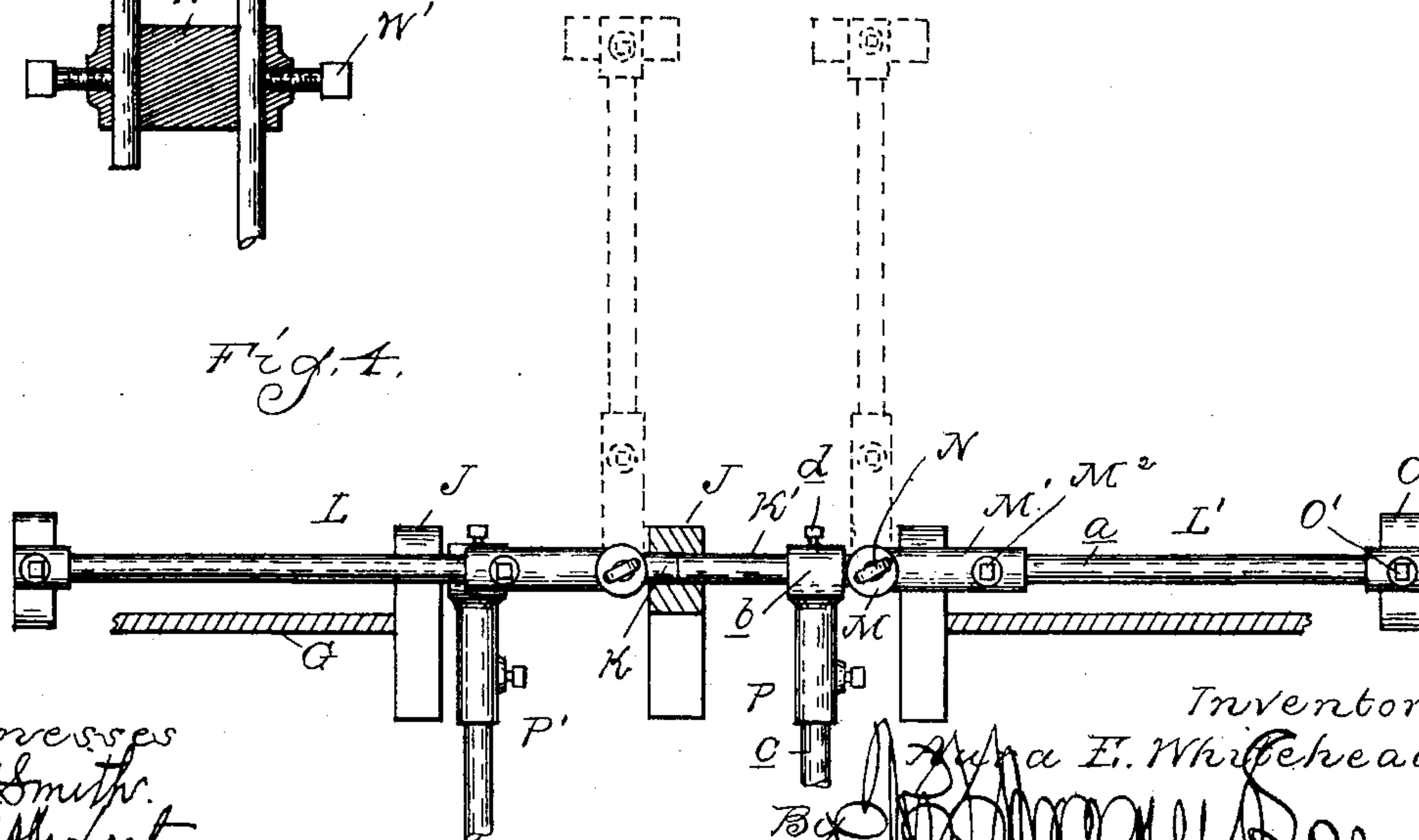


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SELF-PLAYING ATTACHMENT FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 685,546, dated October 29, 1901.

Application filed May 18, 1901. Serial No. 60,921. (No model.)

To all whom it may concern:

Be it known that I, AURA E. WHITEHEAD, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Self-Playing Attachments for Musical Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to self-playing attachments for musical instruments, and more particularly to the means employed for operating the pedals of the musical instrument.

It is the object of the invention to obtain a construction which will permit of adjustment to various musical instruments and which when not in use may be conveniently stored.

The invention consists in the construction as hereinafter described and claimed.

In the drawings, Figure 1 is a diagrammatic end elevation of a piano-player to which the improvements are applied. Fig. 2 is a front elevation thereof with the front board of the case removed. Fig. 3 is a perspective view of the pedal-operating arms. Fig. 4 is a plan illustrating the arrangement of said arms when the instrument is not in use. Fig. 5 is a detail section of the yoke.

A is a self-playing attachment for musical instruments of any desired construction and provided with the usual finger-levers B, adapted to extend over the keys of the instrument. As the keyboards of various musical instruments differ in height, it is necessary to provide a vertical adjustment for the finger-levers, and in the particular construction of device shown in Figs. 1 and 2 this adjustment is effected by raising or lowering the action and outer casing in relation to the case. The raising and lowering means shown consists in screw-threaded rods D, arranged at opposite ends of the case, engaging with nuts E upon the base-frame and having a swiveled engagement F with the casing. Thus when said rods are turned by means of operating-handles D' the action and outer casing will be raised or lowered in relation to the base G, thereby correspondingly raising and lowering the finger-levers B.

The parts thus far described form no part of the present invention, which relates to pedal-actuating devices of the following construction:

The rear wall H of the casing is centrally cut away at I, near the bottom thereof, and projecting through the aperture thus formed are the brackets J, secured to the base G. In these brackets are journaled, preferably in axial alinement with each other, two rock-shafts K and K'. To these rock-shafts are secured rock-arms L and L', adapted to extend outwardly from the casing into proximity to the musical instrument. These rock-arms are so attached to their rock-shafts that when not in use they may be folded into a plane adjacent to the rear wall of the casing. To permit of thus folding, the rock-shafts K and K' are preferably provided each with an upward-projecting pin L², adapted to engage with the socket M, formed at one end of each arm. Each of the sockets M is preferably formed of cast metal and is provided with a shank M', with which the outwardly-extending portion *a* of the arm telescopically engages. To clamp the sockets in position, the pins L² are preferably provided with screw-threaded apertures, with which winged clamping-bolts N engage, said bolts having a bearing upon the upper face of the socket member. At the outer ends of the rods *a* are secured adjustable feet O, having concaved and cushioned lower faces adapted to engage with the pedals of the instrument. These feet are adjustably secured in position by set-screws O'.

In addition to the arms L and L' the rock-shafts have secured thereto the inwardly-projecting rock-arms P and P'. These are preferably formed of cast socket members *b*, sleeved upon said rock-shafts, and the inwardly-extending rods *c*, engaging with the shanks of said sockets. They are adjustably secured in position on the rock-shafts by set-screws *d*. The inner ends of the rock-arms P and P' extend into adjacency to the front of the case and are there pivotally secured to vertical rods Q and Q', which latter extend upward between the action and the case. The

rod Q is arranged to extend in the space between the two pumping-pedals R and R', while the rod Q' is arranged at one side of the pedal R.

5 S and S' are two rods extending parallel and respectively in adjacency to the rods Q and Q', being slidably secured in bearings T upon the action.

U and U' are finger-pieces secured to the upper ends of the rods S and S' and extending outward through slots in the front board of the case. The rods S and S' are respectively connected to the rods Q and Q' by yokes W, which are sleeved upon said rods and secured thereto by set-screws W'.

The parts being constructed as shown and described, the manner of adjusting the device to the musical instrument and of operating the pedals of the latter is as follows:
 20 When the playing attachment is first placed in relation to the musical instrument, it is necessary to adjust the height of the finger-levers by means of the screw-threaded rods D. Before this adjustment is effected one of the set-screws W of each yoke is loosened, so as to permit the rods Q and Q' to slide therein. After the playing attachment is adjusted to the proper height the rock-arms P and P' are arranged with their inner ends resting upon the base G. The set-screws W and W' are then tightened to couple the rods Q and Q' with the rods S and S', respectively. The set-screw d and winged clamping-bolts N are then loosened, so as to permit of turning the rock-shafts K and K' and also of swinging the rock-arms L and L' thereon until they extend into proximity to the pedals of the instrument. The set-screws O' are then loosened to permit of adjusting the feet O in position to be directly over said pedals, and, if necessary, the set-screws M² are also loosened to permit of adjusting the rods a outward or inward in the sockets M'. When the feet O are accurately positioned over the pedals and are allowed to rest thereon, the various set-screws are tightened. The device is then ready for use, and in playing whenever it is desired to operate either pedal it is only necessary for the player to take hold of the finger-pieces U' U' and raise the rods S Q' or S' Q', thereby rocking the arms P or P' and imparting a like rocking movement to the arms L or L'. The latter will cause the feet O to press downward on the pedals and operate the same.
 55 When the instrument is not in use, the winged clamping-bolts N may be loosened and the rock-arms L and L' swung into proximity with the rear wall of the case, as shown in Fig. 4.

What I claim as my invention is—

60 1. In a piano-player, the combination with the case of the pedal-operating device comprising a horizontal shaft journaled in longitudinal bearings at the rear of the case, a pedal-actuating arm secured to said shaft, a

vertical swivel-joint connecting said pedal-actuating arm to the shaft, and means for actuating the rock-shaft from the front of the case.

2. In a piano-player, the combination of two rock-shafts journaled in longitudinal bearings at the rear of the case, outwardly-extending pedal-operating arms swiveled to vertical journals on the rock-shafts whereby the operating-arm may be turned at any desired angle to the rock-shafts or folded parallel with the case, actuating rock-arms secured to the rock-shafts, and means such as the set-screws d for effecting a rotary adjustment of the pedal-operating arms in relation to the rock-shafts and the operating-arms.

3. In a piano-player, a pedal-operating device comprising a rock-arm and means for actuating the rock-arm from the front of the machine, a horizontal shaft journaled in longitudinal bearings at the rear of the machine and an adjustable connection between that rock-arm and rock-shaft, a vertical journal carried by the rock-shaft, a socketed arm pivoted on said vertical journal and a rod telescopically and adjustably engaging with said socketed arm and adapted to extend into contact with the pedal, substantially as described.

4. In a pedal-operating device for a piano-player, a rock-shaft having a pin projecting perpendicularly therefrom, a rock-arm having a socket for engaging said pin and a foot at the free end of said rock-arm for engaging the pedal of the instrument.

5. In a pedal-operating device for a piano-player, a rock-shaft having a pin projecting therefrom perpendicular to its axis, a rock-arm having a socket member for engaging said pin and a clamping-bolt for adjustably securing said socket member to said pin, a rod longitudinally adjustably secured to said socket member, and a foot at the free end of said rod.

6. The combination with a base, of pedals pivotally secured thereon, the case vertically adjustably secured upon the base, a horizontal rock-shaft journaled at the rear of the case, a rock-arm secured to the rock-shaft and extending to the front of the case, an actuating-rod extending up from the rock-arm and having an actuating finger-piece extending through the front of the case, a pedal-actuating arm extending outward from the horizontal rock-shaft, and means for effecting a change of the angular relation between the actuating rock-arm and the pedal-actuating arm, substantially as described.

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

AURA E. WHITEHEAD.

Witnesses:

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H. C. SMITH.