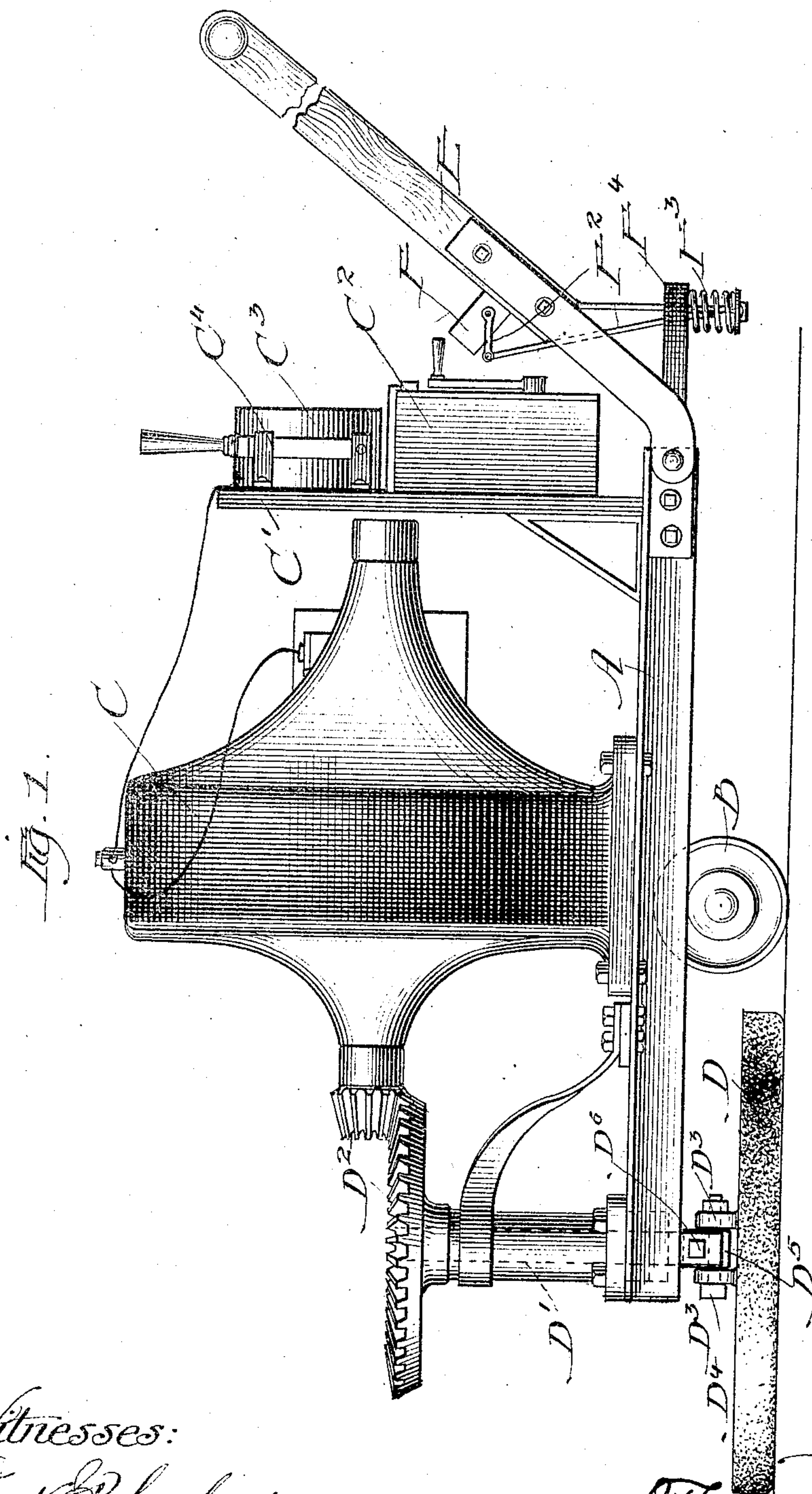


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ELECTRICAL POLISHING DEVICE.  
APPLICATION FILED AUG. 22, 1904.

Patented July 20, 1909.  
4 SHEETS—SHEET 1.



Witnesses:  
Frank Blanchard  
Fred G. Fischer

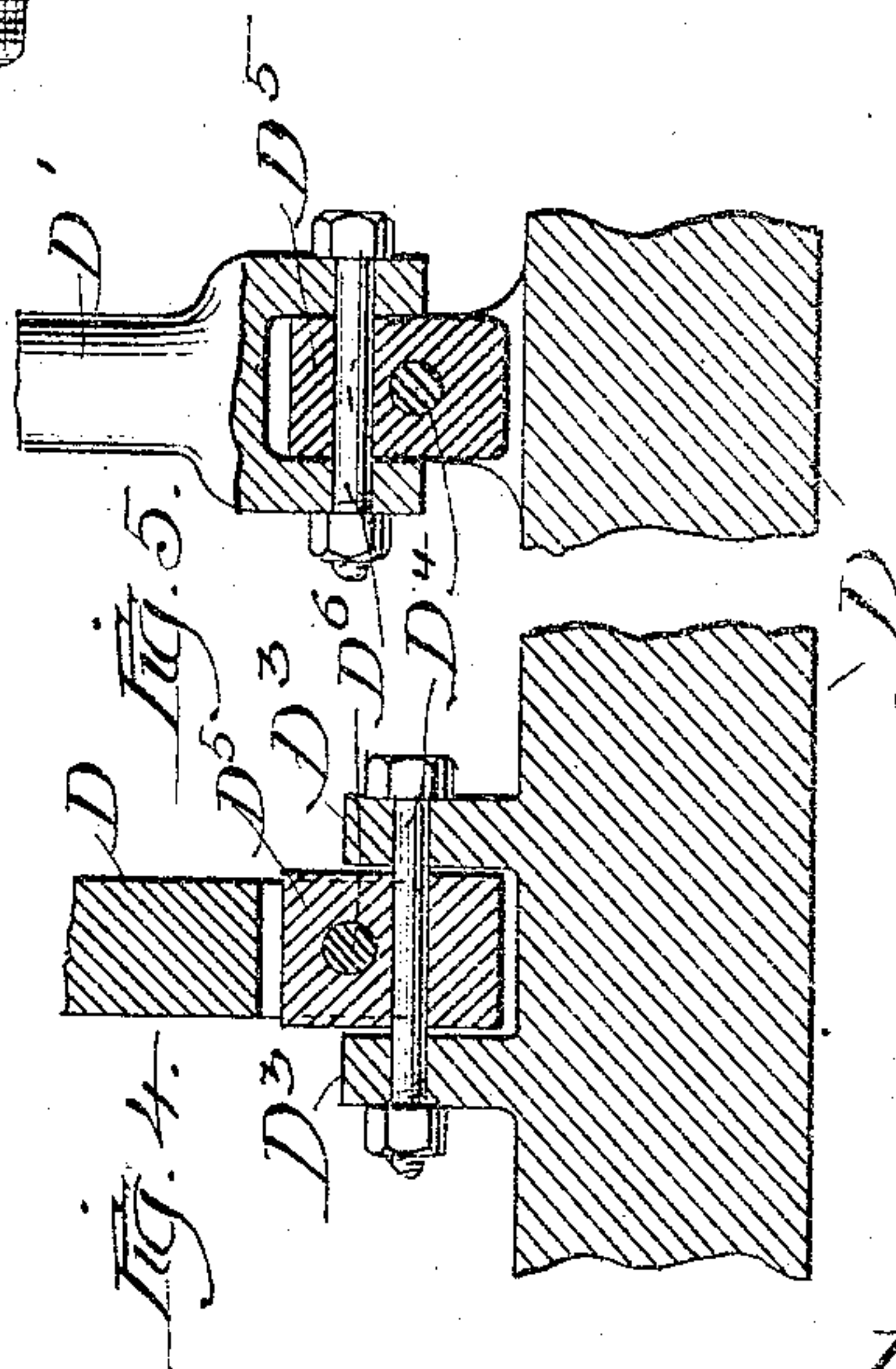
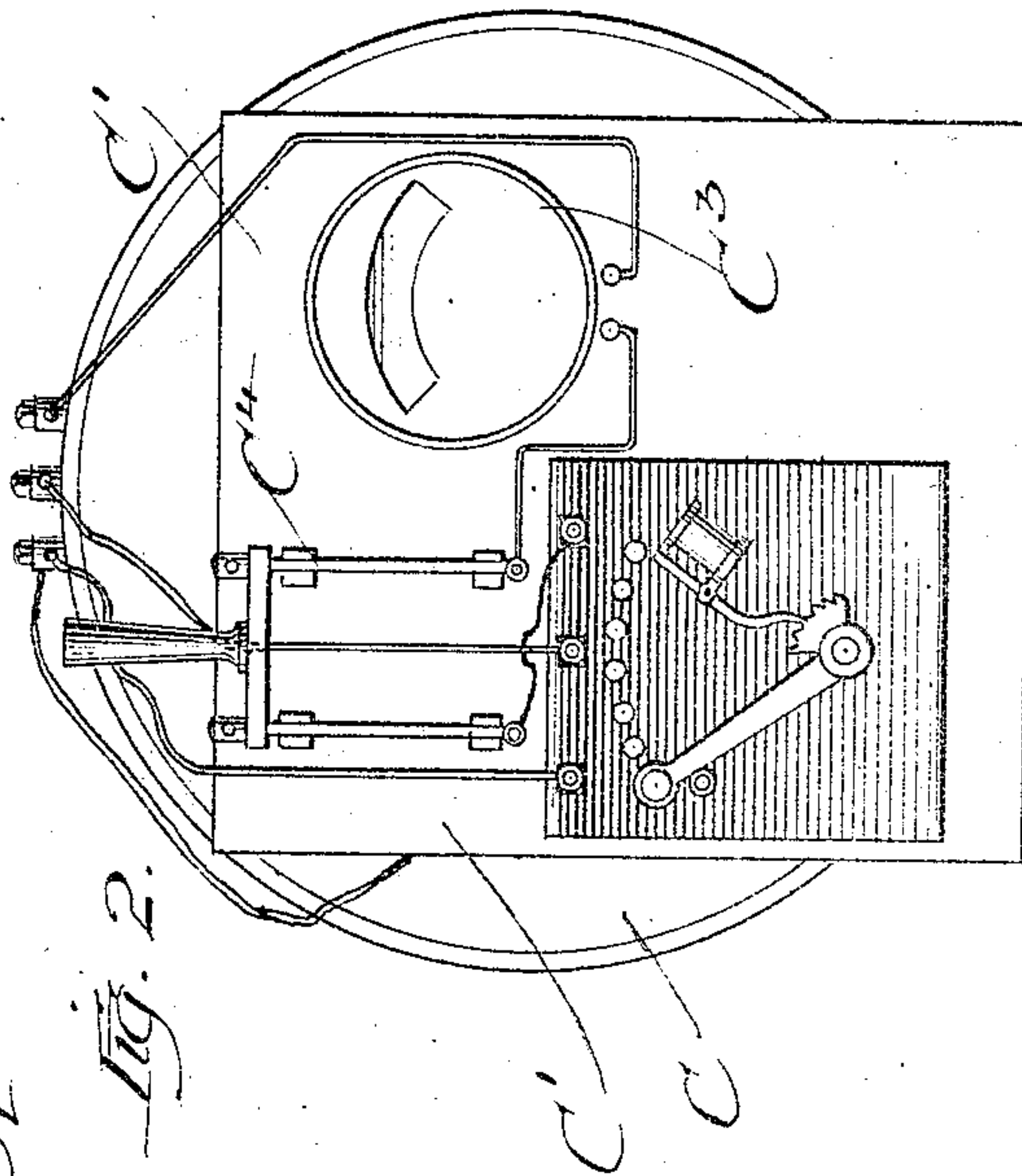
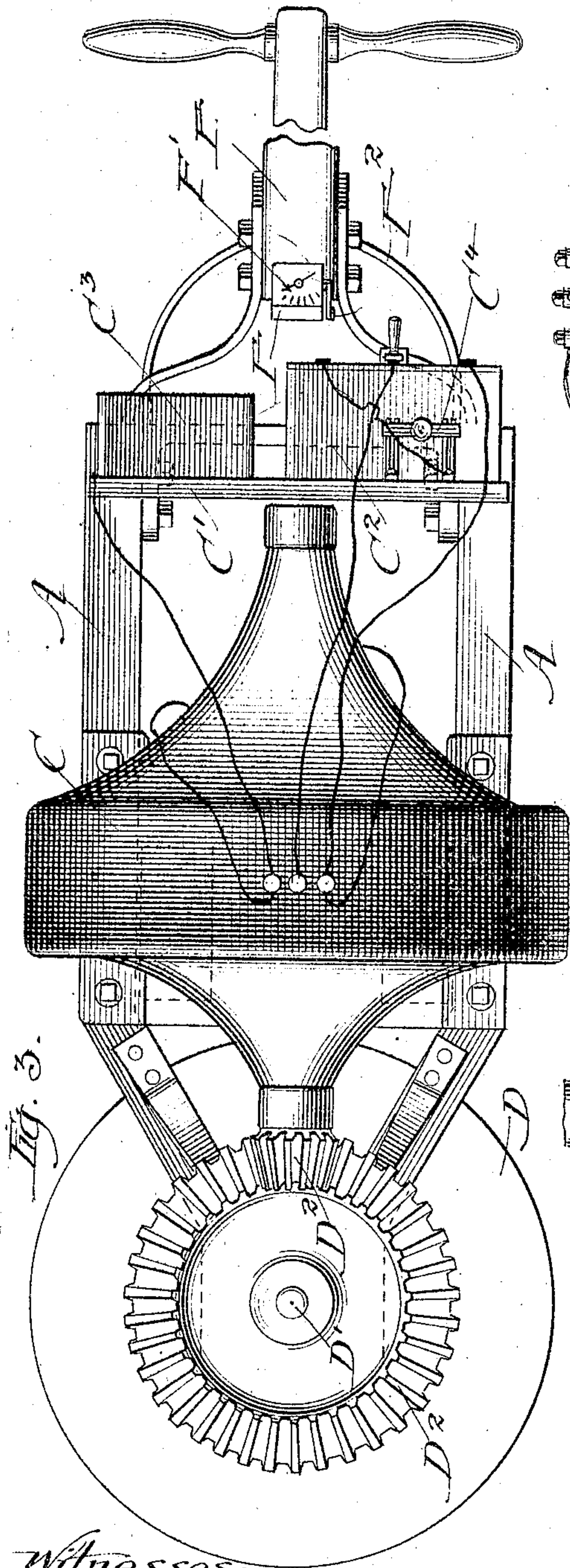
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4 SHEETS—SHEET 2.



Witnesses:  
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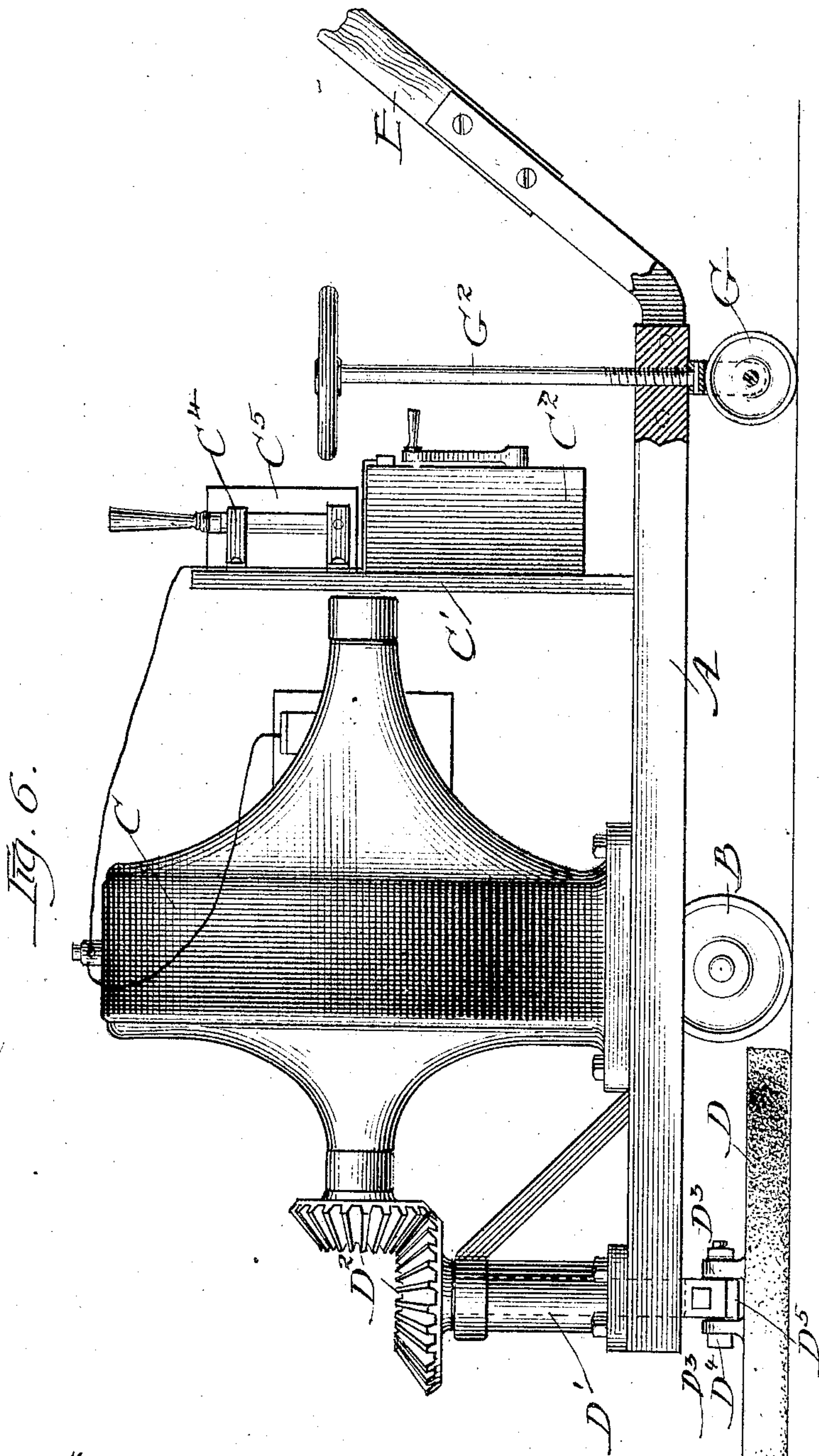


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4 SHEETS—SHEET 3.



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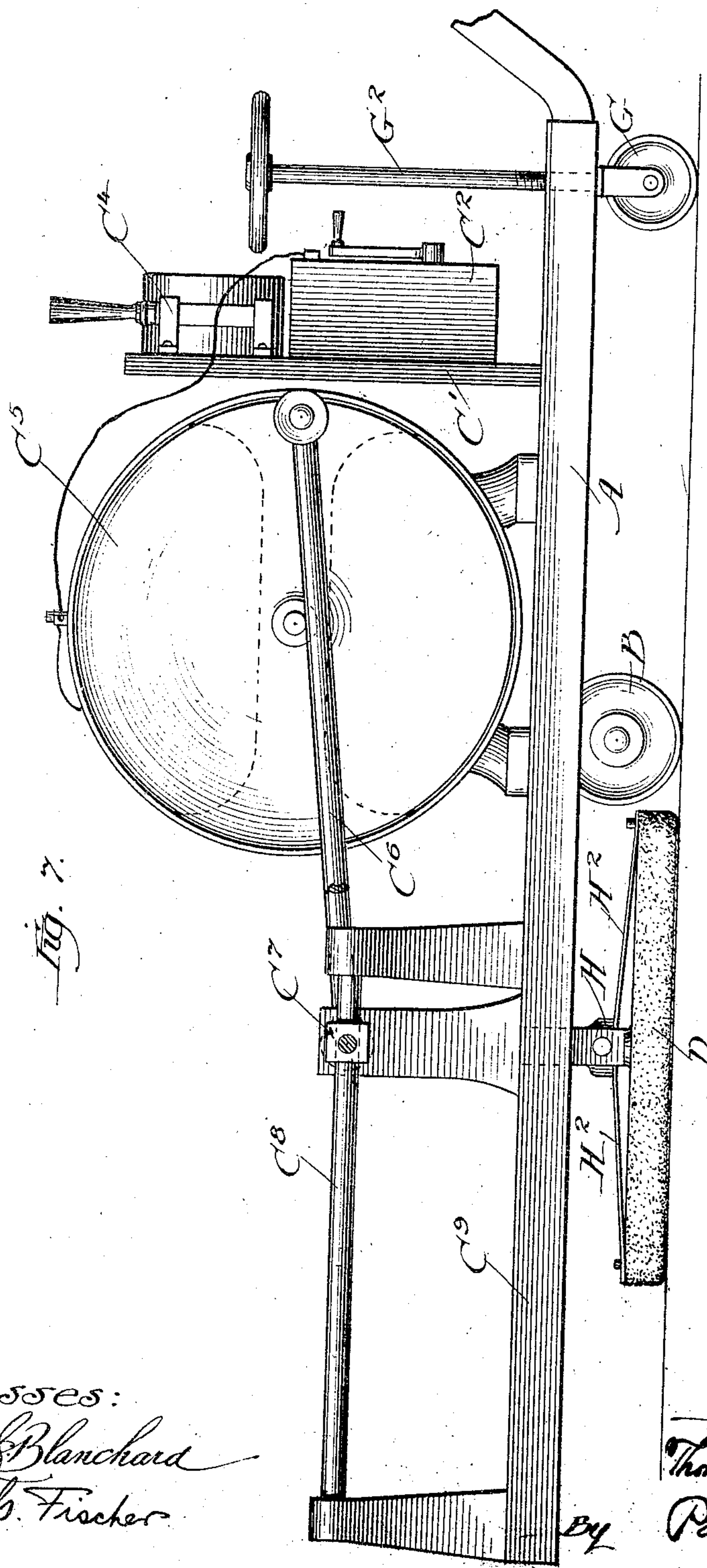


Fig. 7.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

THOMAS H. RODMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO G. A. EDWARD KOHLER AND FRANKLIN W. KOHLER, OF CHICAGO, ILLINOIS.

## ELECTRICAL POLISHING DEVICE.

No. 928,702.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed August 22, 1904. Serial No. 221,612.

*To all whom it may concern:*

Be it known that I, THOMAS H. RODMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Electrical Polishing Devices, of which the following is a specification.

My invention relates to polishing devices, and has for its object to provide a new and improved device of this description.

My invention is illustrated in the accompanying drawings, wherein,

Figure 1 is a view showing one form of device embodying my invention; Fig. 2 is a front view of the electric motor; Fig. 3 is a plan view of the device shown in Fig. 1. Figs. 4 and 5 are views showing the connection of the polishing wheel with its operating shaft; Fig. 6 is a side elevation showing a modified construction; Fig. 7 shows another modified construction where the polisher D instead of being rotated is reciprocated.

Like letters refer to like parts throughout the several figures.

My present invention is adapted for a large variety of uses, such, for example, as polishing floors of all descriptions, mosaic work, and the like.

As shown in Figs. 1 and 2 there is provided a frame or supporting part, A, mounted upon two wheels, B. Upon the frame A is mounted an electric motor C. This motor is operated in any desired manner, and as shown there is also mounted upon the frame A a switch board C<sup>1</sup> carrying a rheostat C<sup>2</sup> and an ammeter C<sup>3</sup>, a switch C<sup>4</sup>, and any other desired apparatus. The polisher, which may be of any suitable construction, is shown in Fig. 1 as a wheel or disk D connected with a shaft D<sup>1</sup> mounted in suitable bearings and driven from the motor by means of the gears D<sup>2</sup>. This polisher is connected with the shaft D<sup>1</sup> by a universal joint so that it may readily adapt itself to inequalities in the floor, and to the conditions presented by the various positions of the device. This connection may be made in any desired manner, and, as herein shown, the polisher is provided with lugs D<sup>3</sup>, through which passes a bolt D<sup>4</sup>. The bolt D<sup>4</sup> carries a part D<sup>5</sup>

mounted thereon which is connected by a bolt D<sup>6</sup> with the end of the shaft D<sup>1</sup>, which is preferably bifurcated to receive this connection. The frame or support A is provided with a handle E. The whole device is mounted upon the wheels B so that it may be rocked thereabout in order to give complete control over the apparatus. It will be seen that by this construction the pressure between the polisher and the surface acted upon may be varied and may be controlled as desired. I preferably provide some suitable means for registering this pressure so that it can be accurately gaged. This may be done, for example, by means of the ammeter C<sup>3</sup>, as the current required by the motor will vary as the pressure. This result may also be secured by some suitable mechanical device. As shown in Figs. 1 and 2 I provide a pressure gage F which is attached to the handle E, said handle being pivoted to the support or frame A. This pressure gage is suitably graduated, and is provided with a pointer F<sup>1</sup> which is controlled by a lever F<sup>2</sup> which passes through a coil spring F<sup>3</sup> attached to some stationary part of the frame, as the bracket F<sup>4</sup>. It will be seen that as the handle is lifted this coil spring is compressed, and the pressure pulls down the lever F<sup>2</sup> and is registered upon the dial of the pressure gage. It will be seen that by this construction the device is under perfect control, and that it can be easily handled and brought to any desired position, and the entire surface of the floor, or other material, suitably polished. The current is conducted to the motor by a flexible cord or other suitable device. It is, of course, evident that I may use any other desired motor for operating the device.

In Fig. 6 I have shown a construction where there is added to the device an adjusting wheel G. This adjusting wheel is placed at the front of the frame or support A, and is provided with means for varying its position with relation to said frame, such, for example, as the rod G<sup>2</sup>, screw threaded or otherwise adjustably attached to the frame A, the wheel being carried by said rod. It will be seen that by turning the rod G<sup>2</sup> the pressure between the polisher and the material acted upon may be varied, and controlled, and may



also be held or fixed at a predetermined or specific amount. This device constitutes a portable polishing device. The frame or support, it will be seen, is, as it were, movably or rotatably mounted about an axis, which in this instance passes through the axle or axles of the supporting wheels, and the frame may be rocked or rotated or moved about this axis. It will further be seen that the movable or rotating part which makes contact with the surface acted upon is on one side of this axis or these supporting wheels, and that the adjusting device is on the opposite side, and, consequently, the device is under perfect control and may be adjusted and manipulated in accordance with the conditions presented. In this construction the motor is provided with a crank disk C<sup>5</sup> to which is connected a connecting rod C<sup>6</sup> attached to a cross head C<sup>7</sup> which works upon the guide C<sup>8</sup> mounted upon the rearwardly projecting parts C<sup>9</sup> of the frame. I have shown only one connecting rod C<sup>6</sup> and guide C<sup>8</sup>, but in practice I would have these parts duplicated, there being one on each side of the motor, the rearwardly projecting parts C<sup>9</sup> being separated so as to leave a space for the connection to the polisher. The polisher D is connected with the cross head, and this connection is preferably pivotal, a projection from the cross head being pivoted to a part H to which are connected springs H<sup>2</sup>, said springs being attached to the polisher. The springs H<sup>2</sup> make the connection with the polisher adjustable and elastic, and allow for the variation in incline of the frame in adjusting the device by means of the adjusting wheel, and also for inequalities in the surface treated.

I claim:

1. A polishing device comprising a frame mounted between its ends upon an axle about which it rocks, wheels on said axle, a motor mounted on said frame above said axle, a polishing device connected with said motor so as to be operated thereby, and means independent of the operating handle for rocking the frame about the axle so as to vary the pressure with which the polishing device is forced against the surface acted upon.

2. A polishing device comprising a frame, an axle connected with said frame between its ends, wheels on said axle, an electric motor mounted on said frame above said axle and opposite thereto, a polishing device carried by said frame, an operative connection between said motor and said polishing device, and means for rocking said frame about said axle so as to vary the pressure of the polishing device against the surface acted upon, and means for holding said frame in any desired position independent of the handle, for maintaining said pressure as desired.

3. A portable polishing device comprising

a frame adapted to be rocked about an axis, suitable supports for said axis, a motor mounted on said frame opposite said axis so as to be substantially balanced thereabout, a polishing device connected with said motor so as to be moved thereby independent of the supports for said axis, means for rocking said frame about its axis so as to vary the pressure exerted by the polisher, and means for determining said pressure so that the desired amount may be readily secured.

4. A portable polishing device comprising a frame or support having two supporting wheels about which it is adapted to be rocked, a motor mounted upon said frame vertically above the axis of said wheels, a polisher operatively connected with said motor so as to be actuated thereby, and means for adjusting the position of said frame a device associated with the frame for holding it in any desired position.

5. A portable polishing device comprising a rotatably supported frame, a polisher connected therewith, a motor mounted on said frame at the point where it is rotatably supported and operatively connected with said polisher and a compensating connection between the polisher and the motor to compensate for the rotary movement of said frame.

6. A polishing device comprising a rotatably supported frame, a polisher connected therewith, a motor mounted on said frame at the point where it is rotatably supported and operatively connected with said polisher, said polisher adjustably connected with the motor so as to adjust itself to the relative positions of the frame and surface acted upon, a support for said frame, means for rocking it about said support so as to raise or lower the polisher, and a device on the frame for holding it in any desired position.

7. A polishing device comprising a frame, an axle provided with two wheels connected with said frame near the middle, a motor mounted upon said frame above said axle and in the same vertical plane as the axle so as to be supported upon said wheels, the frame projecting on each side of said motor, a polishing device at one end of the frame connected with said motor so as to be actuated thereby, and means at the other end of the frame for changing the incline of said frame and holding it in any desired inclined position.

8. A polishing device comprising a frame, an axle provided with two wheels and connected with said frame near the middle thereof, a motor mounted on said frame above said axle and in the same vertical plane as the axle so as to be supported upon said wheels, a polishing device at one end of said frame operatively connected with said motor, a wheel at the other end of said frame, a screw threaded rod to which said wheel is



connected and operating in threads in said frame so that it may be rotated to adjust and hold the frame in any desired position.

9. A portable polishing device comprising a frame, a polishing device mounted thereon, an electric motor on said frame and connected with said polishing device, means for varying the pressure between the polishing

device and the surface acted upon, and means for indicating this pressure so as to secure the desired amount.

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