

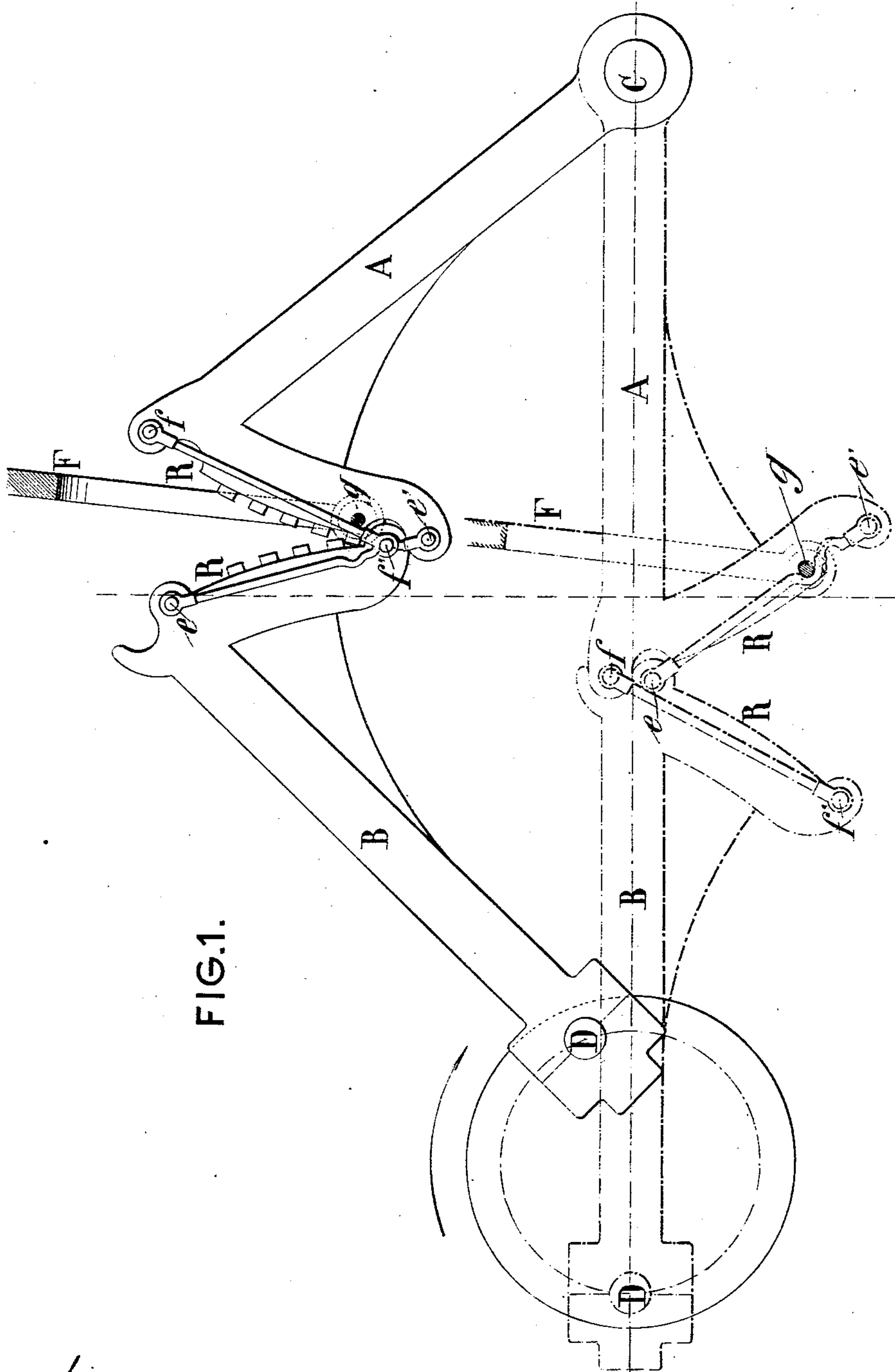
(No Model.)

2 Sheets—Sheet 1.

A. M. C. F. AUBERT.
MECHANICAL MOVEMENT.

No. 541,257.

Patented June 18, 1895.



Witnesses:
Parke C. McBride
Chas. A. [Signature]

Inventor
Adolphe M. C. F. Aubert
by W. H. Babcock
Attorney

(No Model.)

2 Sheets—Sheet 2.

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MECHANICAL MOVEMENT.

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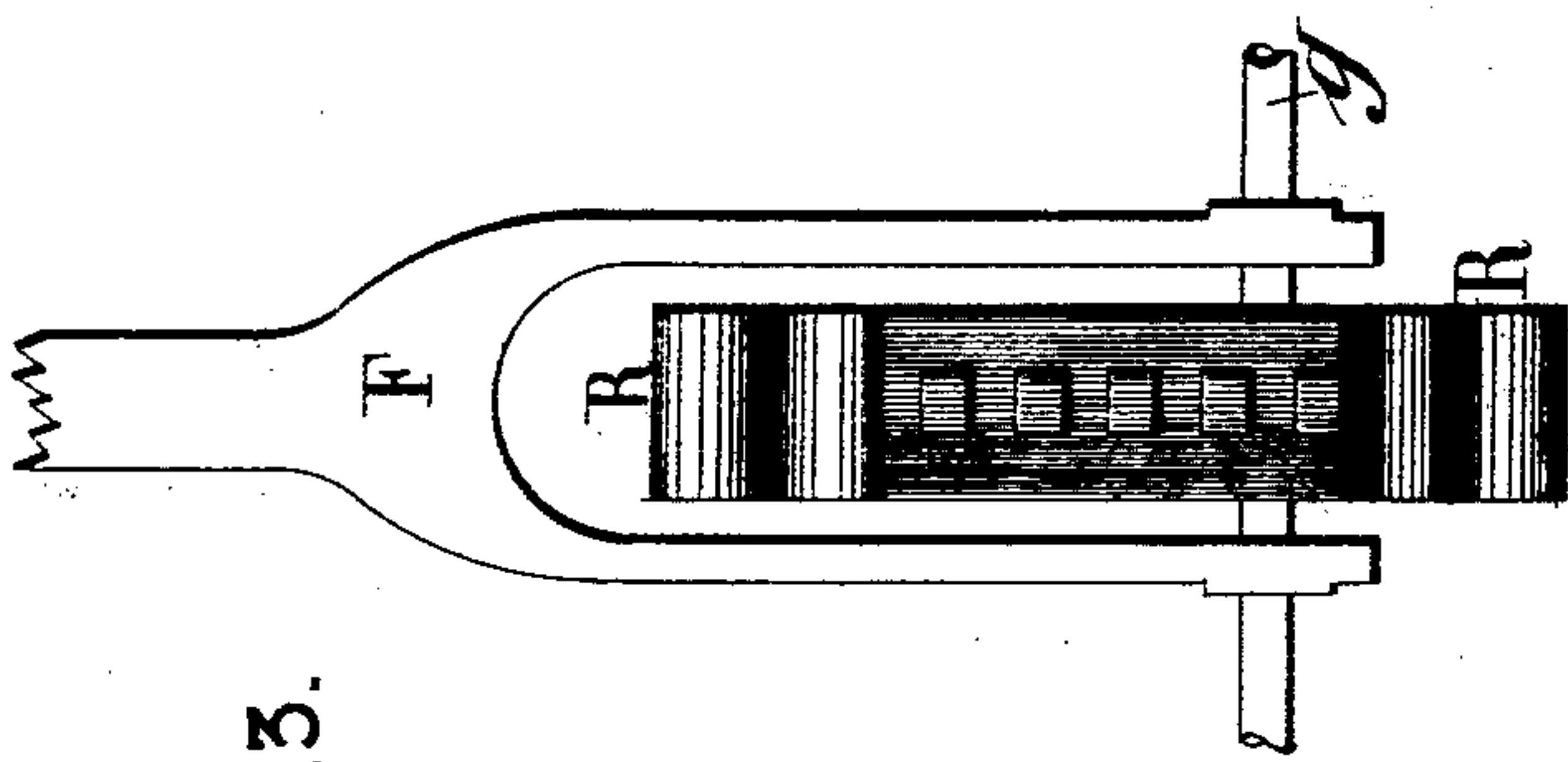


FIG. 3.

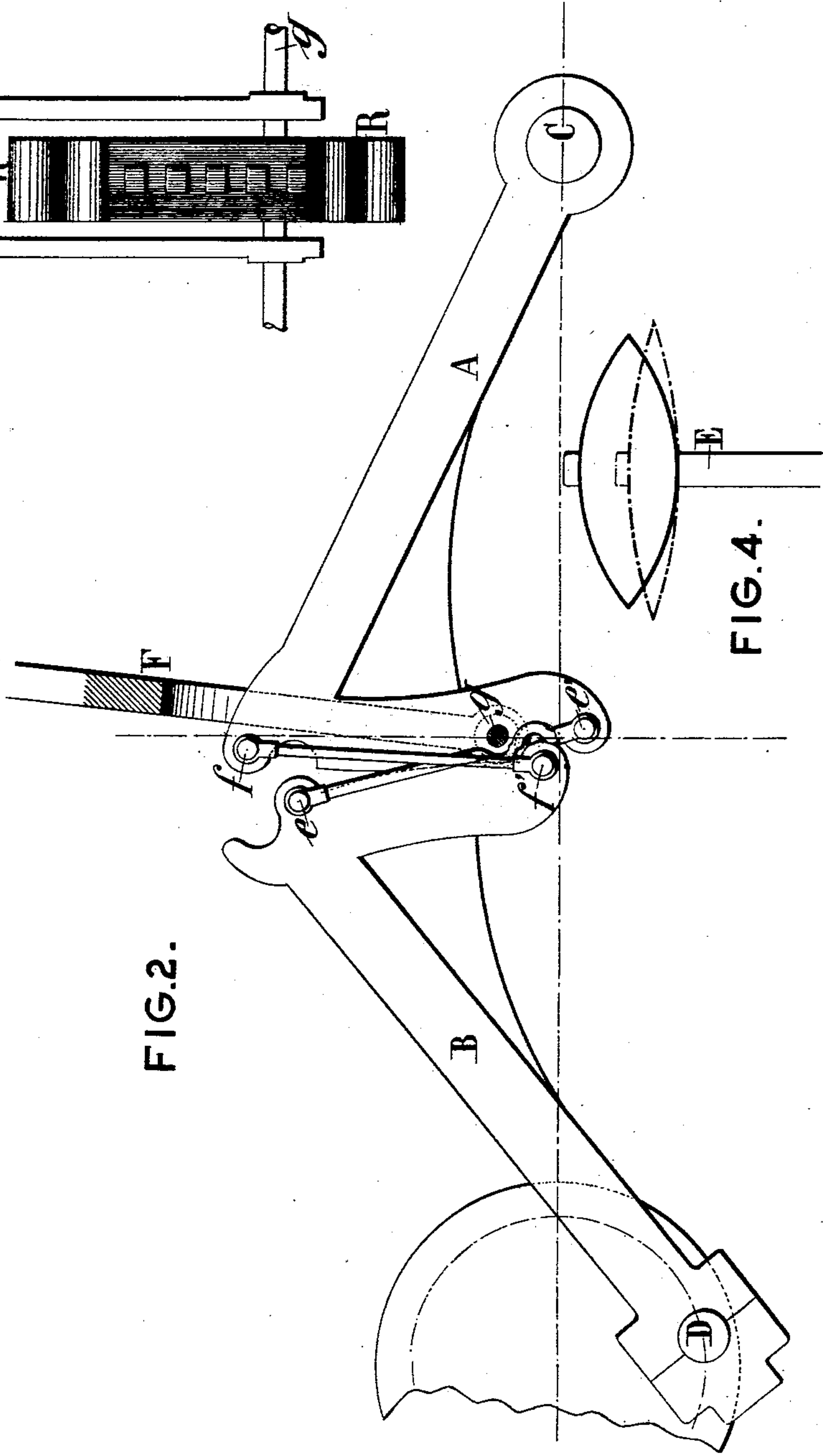


FIG. 2.

FIG. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

ADOLPHE MARIE CHARLES FREDERIC AUBERT, OF ST. ETIENNE-DE-MONTLUC, FRANCE.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 541,257, dated June 18, 1895.

Application filed January 24, 1895. Serial No. 536,014. (No model.) Patented in France August 27, 1894, No. 240,914.

To all whom it may concern:

Be it known that I, ADOLPHE MARIE CHARLES FREDERIC AUBERT, a citizen of the French Republic, residing at St. Etienne-de-Montluc, in the Department of Loire-Inférieure and Republic of France, have invented a certain new and useful Mechanical Movement, (for which I have received a patent in France, dated August 27, 1894, No. 240,914;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object a novel arrangement of levers, by means of which the progressive increase of power obtained by the mutual reaction of two levers suitably connected together, so that the angle between them is gradually increased, is utilized for the transmission of motive power.

In the accompanying drawings, which are in illustration of my invention, Figures 1 and 2 represent two similar arrangements of my improved system of levers, Fig. 1 showing the curved faces which work against each other provided with teeth, while Fig. 2 shows these curved faces simply in contact with each other. Fig. 3 is a detail end view of one of the levers connected to the pitman of a steam-engine or other motive power. (Not shown.) Fig. 4 shows an arrangement of spring, the object of which is hereinafter explained.

The first lever A is connected to the second lever B which is of nearly similar form, in such manner that the oscillating movement which the motor communicates to the lever A is converted into a movement of rotation at the other end of the lever B which works upon a crank pin D, with a gradual increase of the power transmitted. The fixed axis C turns in a bearing rigidly fixed to or formed upon the frame of the machine, or directly to the support of the main shaft.

The two faces of the levers, which work against each other, have the form of sectors, and are connected together by crossed connecting links jointed to them, as shown. The rolling surfaces R, Fig. 3, of the sectors may be provided with teeth gearing together, as illustrated in Fig. 1.

In the drawings, the point at which the motive force is applied is supposed to be at *g*,

by means of two pins fixed at the two sides and jointed to a forked pitman F connected to the piston rod.

The point at which the power is applied may, however, be situated at any other convenient point, for example, at *f*.

In order to prevent the levers from jamming at the lower end of their stroke—that is to say, when their centers are in line with each other—a spring E may be arranged at this point, or other equivalent mechanical device may be used to raise the dead weight of the gear.

It will be seen that, by means of the mechanism described, a constant force applied at the point *g*, will communicate a gradually increasing force to the crank; or inversely, if the power be represented by a gradually decreasing fraction, the force which overcomes the resistance of the main shaft will remain practically constant, this gradual increase of effective force depending upon the increase of the angle made between the two levers, and consequently, being capable of being regulated as desired to suit different circumstances.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The levers A and B having sectors on their inner ends turning against each other, in combination with a pair of crossed links connecting them and a pitman and crank-pin to which the outer ends of the said levers are respectively attached, for the transmission of power from the said pitman to the said crank substantially as set forth.

2. The levers A and B having toothed intermeshing sectors on their proximate ends, in combination with a pair of crossed links connecting them and a pitman F and crank pin D which are attached to the ends of the said levers respectively substantially as set forth.

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

ADOLPHE MARIE CHARLES FREDERIC AUBERT.

Witnesses:

EMILE KANTER,

EUGÈNE BOUVART.