(No Model.)

L. C. & U. G. GILLETT.

MECHANICAL MOVEMENT.

No. 553,581. Patented Jan. 28, 1896.

Fig. 1.

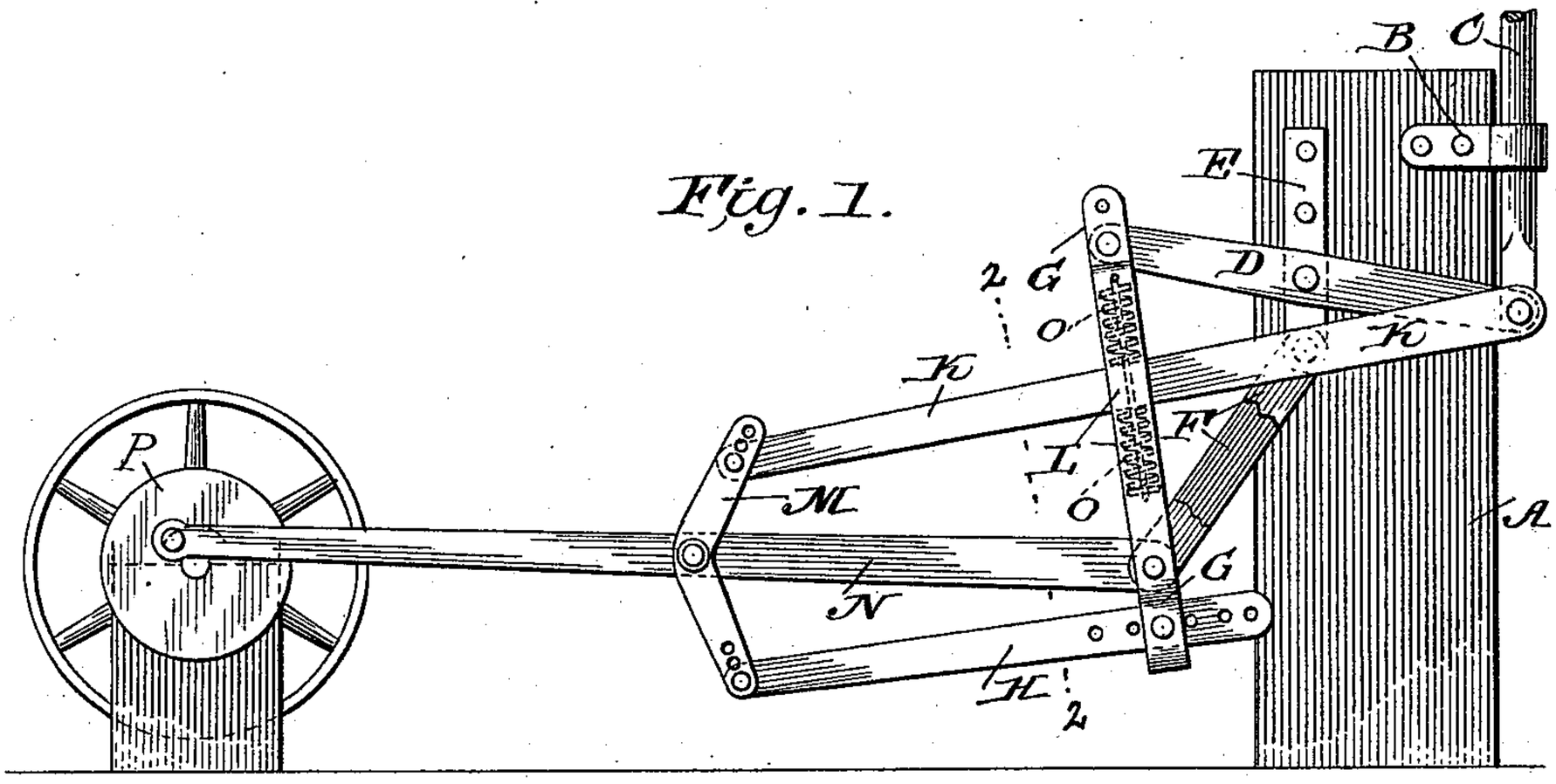
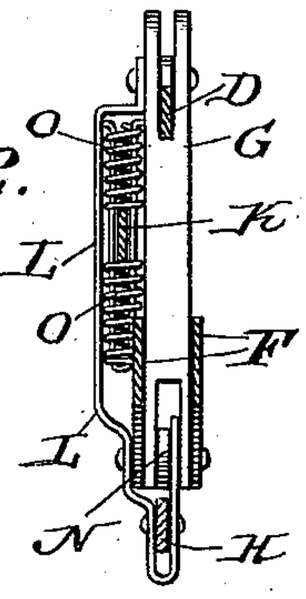


Fig. 2.



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LEONARD C. GILLETT AND ULYSSES G. GILLETT, OF BROWNSDALE, MINNESOTA.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 553,581, dated January 28, 1896.

Application filed April 11, 1895. Serial No. 545,364. (No model.)

To all whom it may concern:

Be it known that we, LEONARD C. GILLETT and ULYSSES G. GILLETT, citizens of the United States, residing at Brownsdale, in the county of Mower and State of Minnesota, have invented certain new and useful Improvements in Mechanical Movements; and we 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.

Our invention is an improved mechanical movement or motor for transmitting the power through a windmill to an engine or other form of motor.

The object of our invention is to provide a contrivance by which the reciprocating motion of the windmill-rod can be transformed into a rotary motion for driving a crank-shaft or pulley, and a further object is to provide a system of levers which will avoid all dead-centers and transmit the power in a quick, easy, and steady manner.

With these and such other objects as may appear farther on our invention consists in the peculiar construction of the various parts and their novel combination or arrangement, all of which will hereinafter be more fully described, and pointed out in the claim.

In the drawings forming a part of this specification, Figure 1 is a face view of our improved motor or engine. Fig. 2 is a sectional view on the lines 2 2 of Fig. 1.

In carrying out our invention we employ a suitable vertical support A, which may be made of wood or metal, as desired. Attached to said support is a guide B, through which works the pump-rod C, the lower end of said pump-rod being connected with the lever D, which is pivoted centrally to a cleat E, attached to the support A. Depending from this cleat E is a swinging link F, said link being made double, as shown, and between the members thereof is pivoted a lever G, the upper end of which connects with one end of lever D, while the lower end is adjustably connected with the pitman H hereinafter referred to. At the point of connection between the lever D and pump-rod C is attached a pitman K, said pitman extending through a guide L, mounted upon the side of the lever G, and at its opposite end is connected with a lever M pivoted upon the main pitman N, the opposite end of said lever M being connected with the pitman H before referred to. Above and below the pitman K and near the guide L are the coil-springs O O, the purpose of which is to assist in throwing the levers D and G and pitman K to one side or the other, and thus avoid any dead-centers. The main pitman N is connected with the lever G at the point of attachment to the swinging link F. The lever M is pivoted upon the main pitman N, and the pitman H and lever G are adjustable through the medium of a series of perforations and the locking-pin. The lever M and pitman K are also adjustable in the same manner. The main pitman N is connected with the crank-shaft P, crank-disk or pulley, and transmits the power thereto in such a manner as to revolve the same, thus transforming the reciprocating motion of the pump-rod into a rotary motion.

In operating the device by the downstroke of the rod C the end of lever D connected therewith will be forced down and the end connected with the lever G moved upward. At the same time the upper end of the lever G is thrown rearward and the lower end of the said lever is thrown forward and the pitman K is also moved slightly forward. The lower end of the lever G moving forward throws the pitman H forward also, and the lever M is caused to rock slightly upon the pitman N, but as a whole said pitman N is moved forward and with it the lever M. Upon the downstroke of the rod C the lower spring O is compressed by the pitman K, and the moment the pitman N has passed the center said spring O tends to expand and throw said pitman K upward upon the upstroke of the rod C.

The operations of the levers D, G, and M, as well as the pitmen K, H, and N, are the reverse of those above indicated when the rod C is moving upward.

Having thus described our invention, what

we claim, and desire to secure by Letters Patent, is—

In a mechanical movement, the combination with the rod C, of the lever D, link F, lever G, pitmen H, K, and N, the loop L, springs O, and lever M, and the crank shaft or disk P all arranged substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

LEONARD C. GILLETT.
ULYSSES G. GILLETT.

Witnesses:
ALEX. KERR,
IDA KERR.