

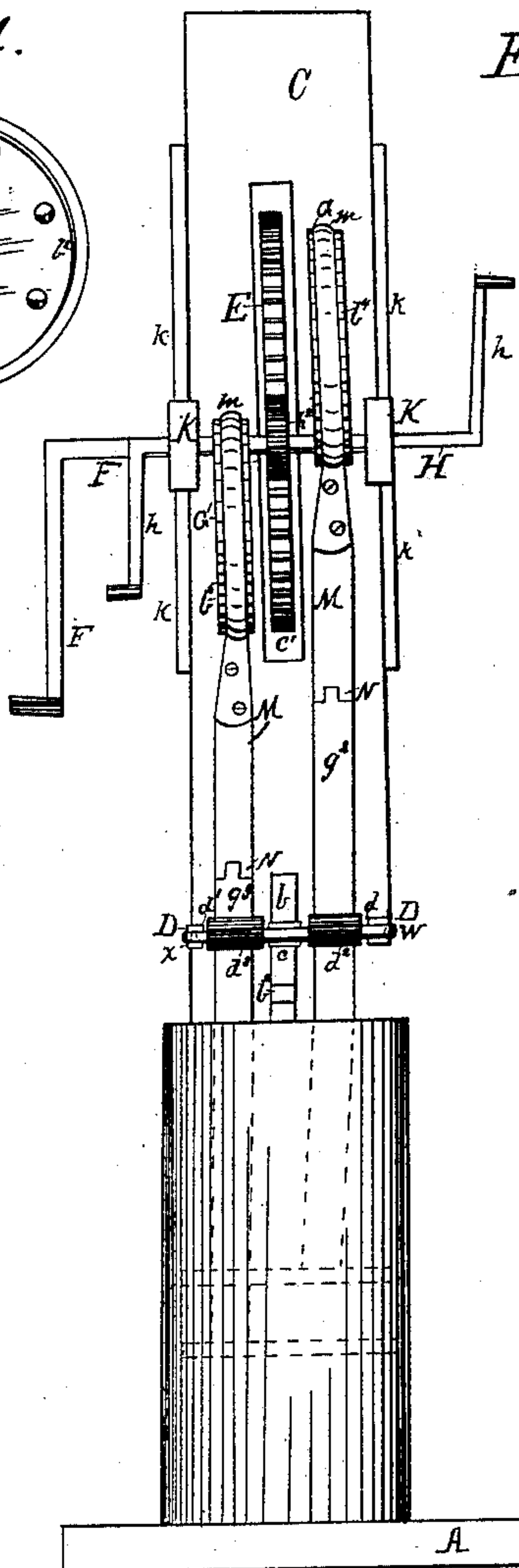
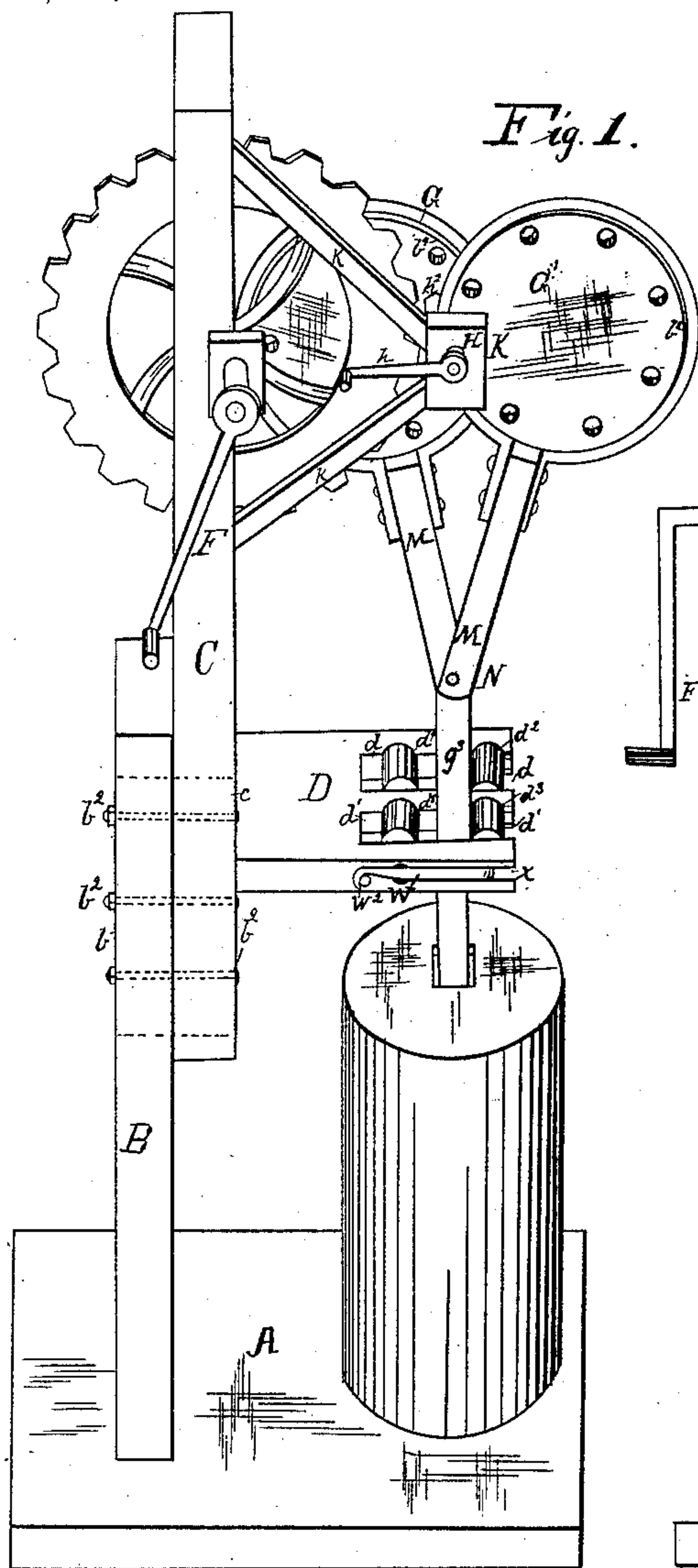
(No Model.)

A. J. SUMMERS.

MOTIVE POWER.

No. 358,086.

Patented Feb. 22, 1887.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## MOTIVE POWER.

SPECIFICATION forming part of Letters Patent No. 358,086, dated February 22, 1887.

Application filed June 26, 1886. Serial No. 206,299. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW J. SUMMERS, a citizen of the United States, residing at Archie, in the county of Cass and State of Missouri, have invented certain new and useful Improvements in Motive Powers; 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 invention relates to improvements in motive powers, the object of which is to provide a cheap, simple, durable, and convenient device for running churns, washing-machines, grindstones, &c., or a churn and washing-machine at the same time. These objects I attain by means of the device illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view in elevation of the device. Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

A is a platform of any desired size and shape, for supporting the churn or other device operated by the motive power, hereinafter more fully described, and upon which the post B is secured.

B is a post of any desired height, and is provided with a long slot, *b*, for receiving the bolts *b*<sup>2</sup>, which may be of any desired number, and are for clamping the upright C to post B at any desired height.

Upright C is provided with a long slot, *c*, for the purpose of receiving bolts *b*<sup>2</sup>, and has attached to it, by any suitable means, an arm, D. Said arm is preferably provided with slots *d d'*. Said slots are for the purpose of receiving the piston or dasher rods *g*<sup>2</sup> *g*<sup>3</sup>. Said slots are provided with rollers *d*<sup>2</sup> *d*<sup>3</sup> and *d*<sup>4</sup> *d*<sup>5</sup>, between which the rods *g*<sup>2</sup> and *g*<sup>3</sup> operate. Rollers *d*<sup>2</sup> and *d*<sup>3</sup> are placed upon a rod, W, which is hinged to the side of arm D, and is adapted to swing around, so that the piston or dasher rods may be removed from the slots *d d'* by swinging them out when desired, and so that the rollers on rod W will enter the slots *d d'* when desired to hold the piston or dasher rods in place. Upright C is also provided with a long slot, *c'*, which is for the purpose of allowing cog-wheel E to work freely. Said wheel has suitable bearings secured to upright C, through which its axle passes. Said axle is provided with a winch, F. Winch F is for

turning wheel E when desired. Attached to the upright C is a frame, K, by means of braces *k*. Attached to said braces *k*, at or near their center, are suitable bearings for shaft H. Said shaft H is provided at each end with a suitable winch, *h*, for attaching a washing-machine or other device when desired. To the middle of shaft H is attached a suitable pinion, *h*<sup>2</sup>, which engages drive-wheel E.

Attached each side of pinion *h*<sup>2</sup>, and upon the shaft H, are two eccentrics, G G'. Around these eccentrics are formed grooves *b*<sup>4</sup> *b*<sup>5</sup>. In these grooves work the bands or loops of the arms M. Said arms M are attached to piston or dasher rods *g*<sup>2</sup> *g*<sup>3</sup> by means of hinged joints N. The end of arm D is provided with a horizontal slot, *x*, for receiving rod W, which is held in place by a hook, *w*<sup>2</sup>.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a platform, A, post B, provided with a slot, *b*, an upright, C, provided with a slot, *c*, bolts *b*<sup>2</sup>, an arm, D, having slots *d d'*, provided with rollers, said upright C also provided with a slot, *c'*, and suitable bearings, *c*<sup>2</sup>, for drive-wheel E, said drive-wheel E, a suitable winch, F, for turning the same, a frame, K, attached to upright C by means of braces *k*, said braces *k* being provided with suitable bearings for shaft H, a shaft, H, provided with a suitable crank, *h*, on each end, a pinion, *h*<sup>2</sup>, engaging wheel E, eccentrics G G', said eccentrics provided with grooves *b*<sup>4</sup> *b*<sup>5</sup>, and arms M, provided with loops to work in grooves *b*<sup>4</sup> *b*<sup>5</sup>, said arms M attached to piston-rods *g*<sup>2</sup> *g*<sup>3</sup> by means of hinged joints N, substantially as and for the purpose set forth.

2. The combination of a platform, A, post B, having a slot, *b*, upright C, having slots *c* *c'*, and arm D, provided with slots and rollers, a drive-wheel, E, having a winch, F, frame K, provided with bearings for shaft H, a shaft, H, provided with cranks *h*, pinion *h*<sup>2</sup>, eccentrics G G', and arms M, provided with loops *m*, said arms being hinged to piston-rods *g*<sup>2</sup> *g*<sup>3</sup> by means of joints N, all arranged substantially as set forth.

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

ANDREW J. SUMMERS.

Witnesses:

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J. H. ETTER.