

(No Model.)

J. W. PORTIS.

## MECHANICAL MOVEMENT.

No. 311,362.

Patented Jan. 27, 1885.

Fig. 1.

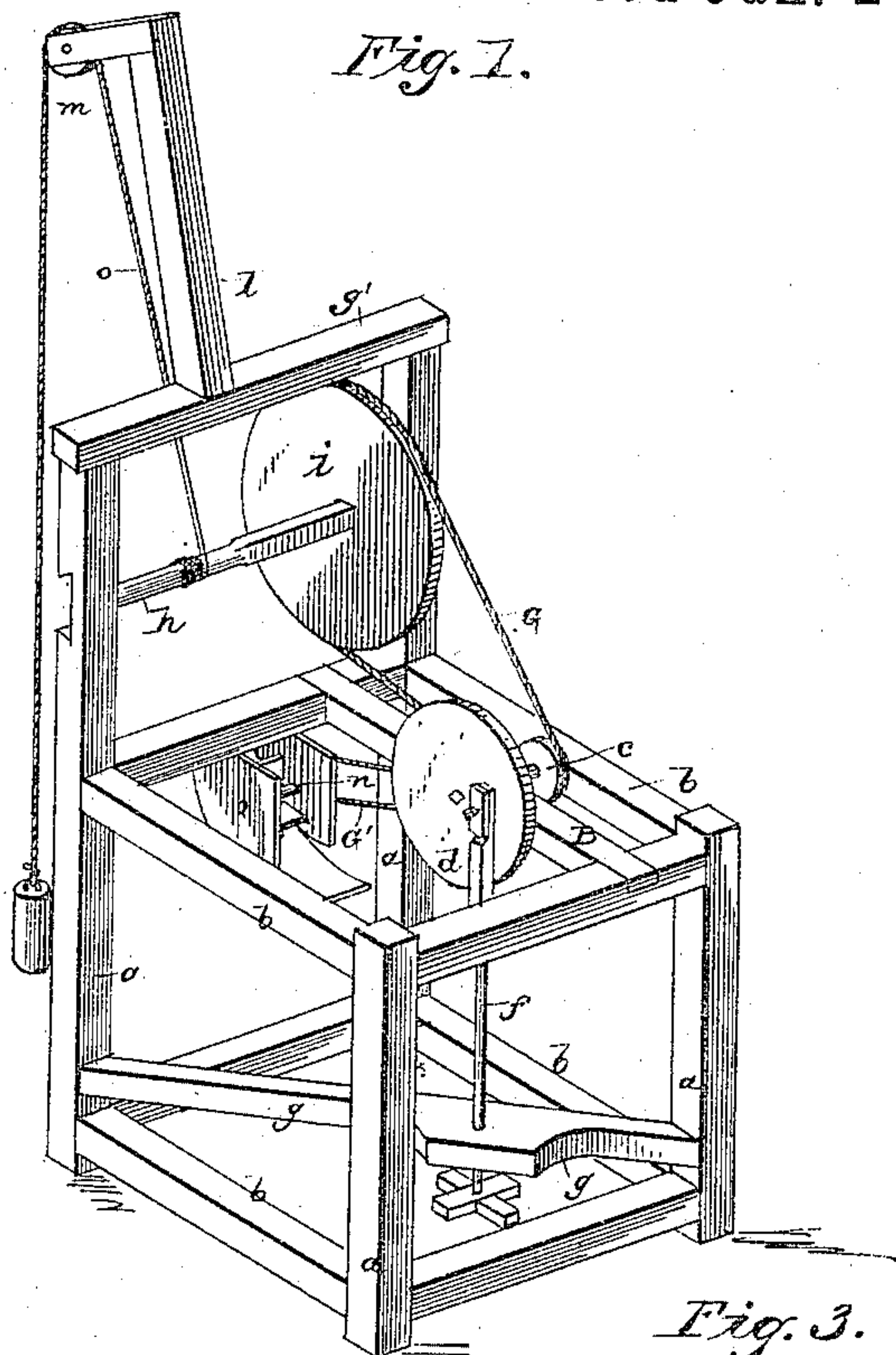
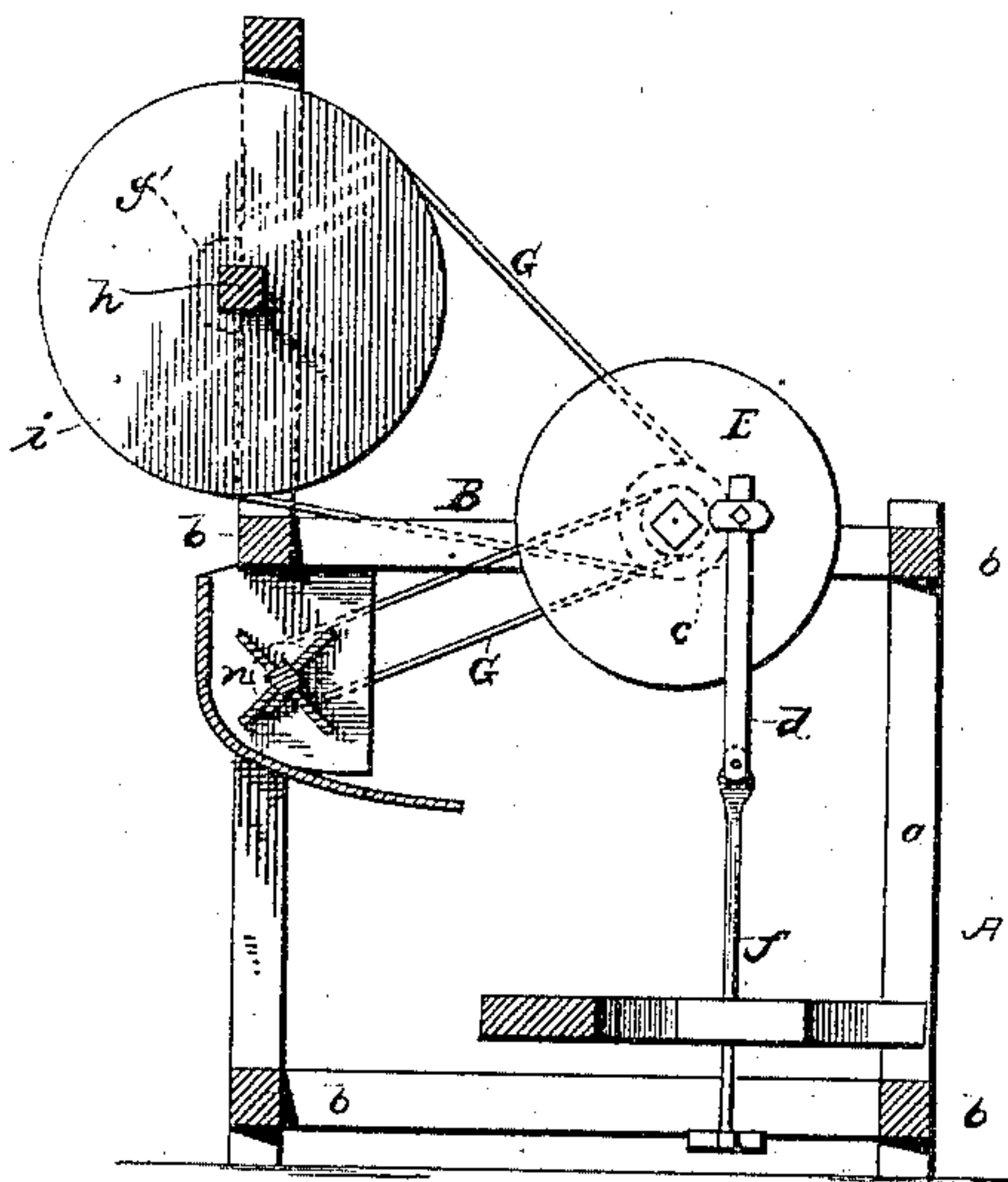
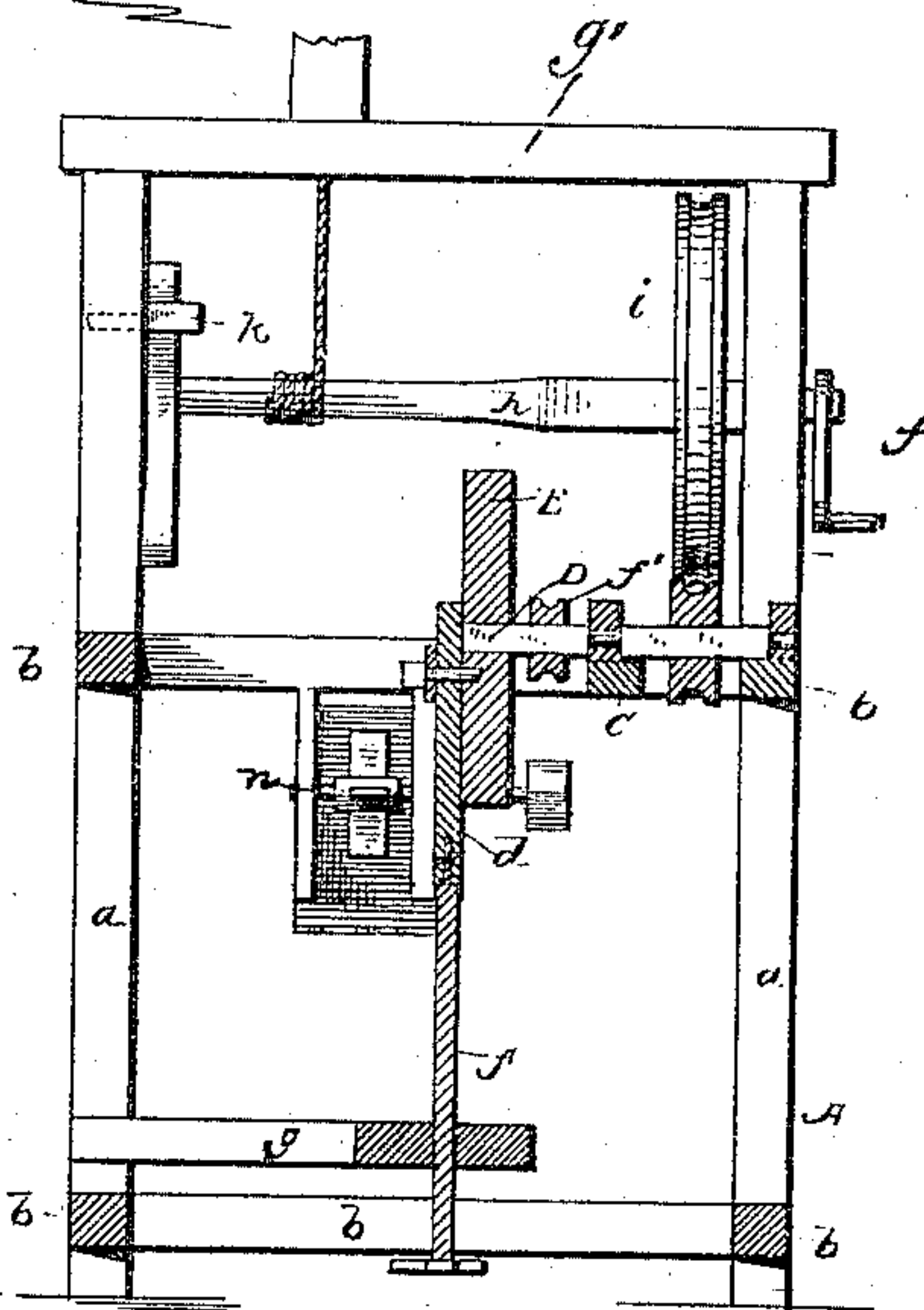


Fig. 2.



*Fig. 3.*



*WITNESSES*

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 311,362, dated January 27, 1885.

Application filed October 29, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. PORTIS, a citizen of the United States, residing at Calhouns, in the parish of Ouachita and State of Louisiana, have invented a new and useful Mechanical Power, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to mechanical powers; and it has for its object to provide a power which shall be simple in its construction, effective in its operation, strong and durable, and one that shall be cheap to manufacture.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a mechanical power constructed in accordance with my invention. Fig. 2 is a transverse vertical section of the same, and Fig. 3 is a section through the crank-wheel.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents the supporting-frame, consisting of the four corner vertical uprights, *a*, connected at their upper and lower ends by cross or tie beams *b*.

B represents a cross-beam, which is secured at its ends to two of the beams *b*.

D represents a shaft, which has bearing in the beam C and in one of the beams *b*. Upon this shaft, between the beams *b* C, is mounted a pulley, *c*, while upon the inner end of the said shaft is mounted a crank-wheel, E, having a crank-pin a short distance from its center. Pivoted to this crank-pin is an arm or pitman, *d*, which is pivoted at its lower end to the upper end of a churn-dasher, *f*, which works in an opening formed in a cross-strip, *g*, secured to two of the vertical uprights *a*.

Upon the shaft D, between the crank-wheel E and the strip or beam B, is rigidly mounted a pulley, *f*'.

At one end of the frame the vertical uprights *a* are extended, and are connected at their upper ends, as shown, by a cross-strip, *g*'.

Upon the outer sides of the extended uprights are provided brackets *g*, in which is mounted a shaft, *h*, carrying a band-wheel, *i*. One end of the shaft is extended beyond the side of the frame, and is provided with a han-

dle or crank, *j*. Near the other end of the shaft, upon the inner side of the vertical upright, is provided a pivoted brake, which is held against backward movement by means of a stop, *k*.

Extending upwardly from the strip *g*' is an arm, *l*, having a cross-arm at its upper end, said cross-arm carrying a pulley or roller, *m*.

Upon the under side of one of the uprights *b* are provided two downwardly-extending strips having holes or openings, in which is mounted a shaft, *n*, having a series of radial wings, which, when said shaft is revolved, serve as a fan.

G G' represent belts or bands, the belt G connecting the band-wheel *i* and the pulley *c*, while the belt or band G' connects the pulley *f*' with a pulley on the end of the shaft *n*.

Securely attached to the shaft *h* is a cord, *o*, which passes up to and over the pulley or roller *m*, said cord having a weight attached to its end.

The operation is as follows: The cord *o* is wound upon the shaft *h*, which brings the weight on the end of said cord to the top of the vertical arm. Upon the shaft being allowed to turn, motion will be imparted to the dasher through the medium of the pulleys and crank-wheel, and the fan *l* will be set in motion.

The speed may be regulated at will by operating the pivoted brake, which, when pressed close against the shaft *h*, slows the same.

From the above description it will be seen that a mechanical power constructed in accordance with my invention is simple in its construction, effective in its operation, and strong and durable.

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

1. In a mechanical power, the combination, with a suitable supporting-frame, of a shaft carrying a crank-wheel, a pitman connected with said crank-wheel and with a dasher, pulleys on said shaft, a shaft mounted in extended uprights of the frame, a cord connected therewith, and a weight attached to said cord, said cord and weight being supported above the frame by an arm carrying a roller, substantially as set forth.

2. The combination, with a suitable frame, of a shaft mounted therein, a crank-wheel on

said shaft, a pitman connected with said crank-wheel, a dasher pivoted to said pitman, a fan mounted upon the under side of one of the cross-beams, extended uprights, a shaft journaled  
5 on said uprights, a vertical arm, a roller at the upper end of said arm, a weight attached to a cord connecting the said shaft and roller, a brake, and band-wheels and pulleys connected by belts or bands for imparting motion to the  
10 dasher and fan, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES W. PORTIS.

Witnesses:

JOHN H. MILLING,  
J. W. CLARY.