(No Model.)

G. H. FURMAN.

MOTOR.

No. 301,979. Patented July 15, 1884.

Fig. 1.

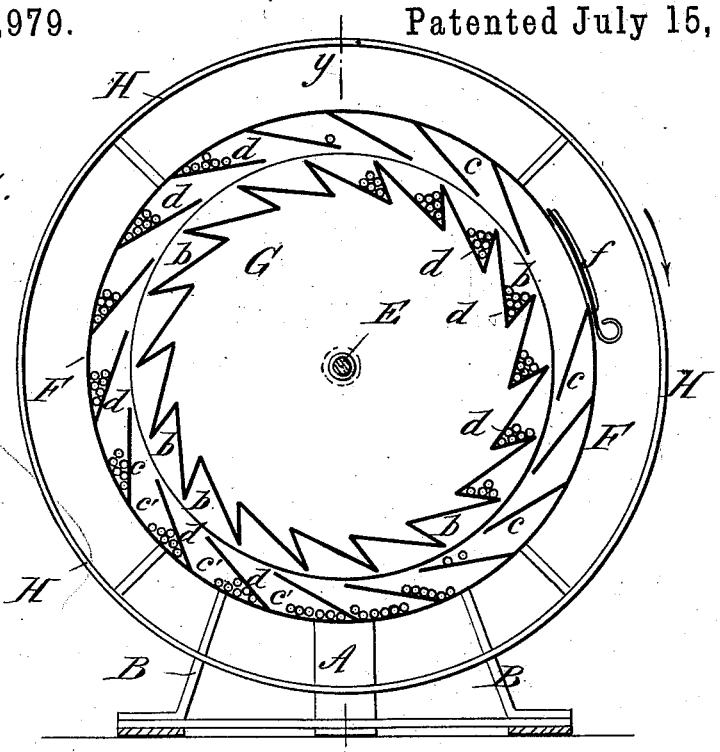
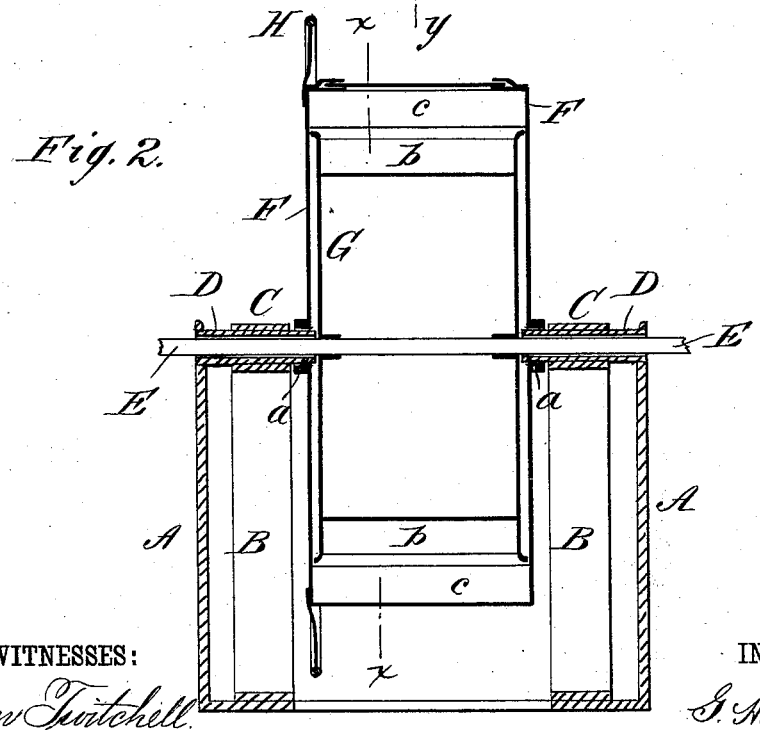


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE H. FURMAN, OF ROCHESTER, OHIO.

MOTOR.

SPECIFICATION forming part of Letters Patent No. 301,979, dated July 15, 1884.

Application filed March 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. FURMAN, of Rochester, in the county of Lorain and State of Ohio, have invented a new and Improved Motor, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional elevation of my new and improved motor, taken on the line *x x* of Fig. 2; and Fig. 2 is a transverse sectional elevation taken on the line *y y* of Fig. 1.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

Referring to the drawings, A A represent the central uprights of the frame of the machine, and B B represent two inclined uprights at both sides of the machine, which latter uprights have the sleeves C C formed upon or secured at their upper ends. Through these sleeves C C pass the sleeves D D, formed upon or attached to the uprights A A, and in these latter sleeves, D D, the main shaft E takes its bearings. The inner ends of the sleeves D D reach through the sleeves C C and form the hollow gudgeons *a a*, on which the outer cylinder or drum, F, takes its bearings.

Within the outer cylinder or drum, F, is placed the inner cylinder or drum, G, which is made fast to the shaft E. The inner cylinder or drum, G, has the inclined troughs or pockets *b b* formed around its outer surface, while the outer cylinder or drum, F, has the inclined ledges *c c* attached to its inner peripheral surface, forming pockets *c' c'*, which are inclined in the same direction as the pockets *b*.

Secured to the outer drum, F, is the rim H, by which the outer drum is revolved, and within the cylinder are placed the small round and loose weights *d*, by which the inner drum, G, and shaft E are revolved.

The action of the motor is as follows: A suitable quantity of the small weights *d* being placed in the outer drum, F, through the door *f*, the machine being at rest, they will accumulate at the lower part of the drum F in the pockets *c' c'*. Now, to run the machine a person will apply his hands to the rim H and revolve the outer drum, F, in the direction of the arrow shown in Fig. 1. This movement of the outer drum will cause the weights *d* to be carried in the pockets *c' c'* to the upper side of the drum, at which point they will roll from the pockets *c' c'* into the pockets *b b* of the inner drum, G, where their weight will cause the drum G and shaft E to revolve. As the pockets *b* of the inner drum pass below the shaft E they empty the weights into the troughs *c'* of the outer wheel, F, to be again carried above the shaft and dropped into the pockets *b*, so that the inner wheel, G, and shaft E will be revolved continuously.

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

1. The inner cylinder or drum, G, formed with the pockets *b*, in combination with the outer drum formed with the pockets *c'*, substantially as and for the purposes set forth.

2. The inner cylinder or drum, G, attached to shaft E and formed with peripheral inclined pockets, in combination with the independently-revolving surrounding cylinder or drum F, formed with inclined pockets for raising the weights *d*, substantially as and for the purposes set forth.

GEORGE H. FURMAN.

Witnesses:
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JACOB A. STRAUS.