

(No Model.)

A. S. DIMOCK.  
Windmill.

2 Sheets—Sheet 1

No. 232,469.

Patented Sept. 21, 1880.

Fig. 2.

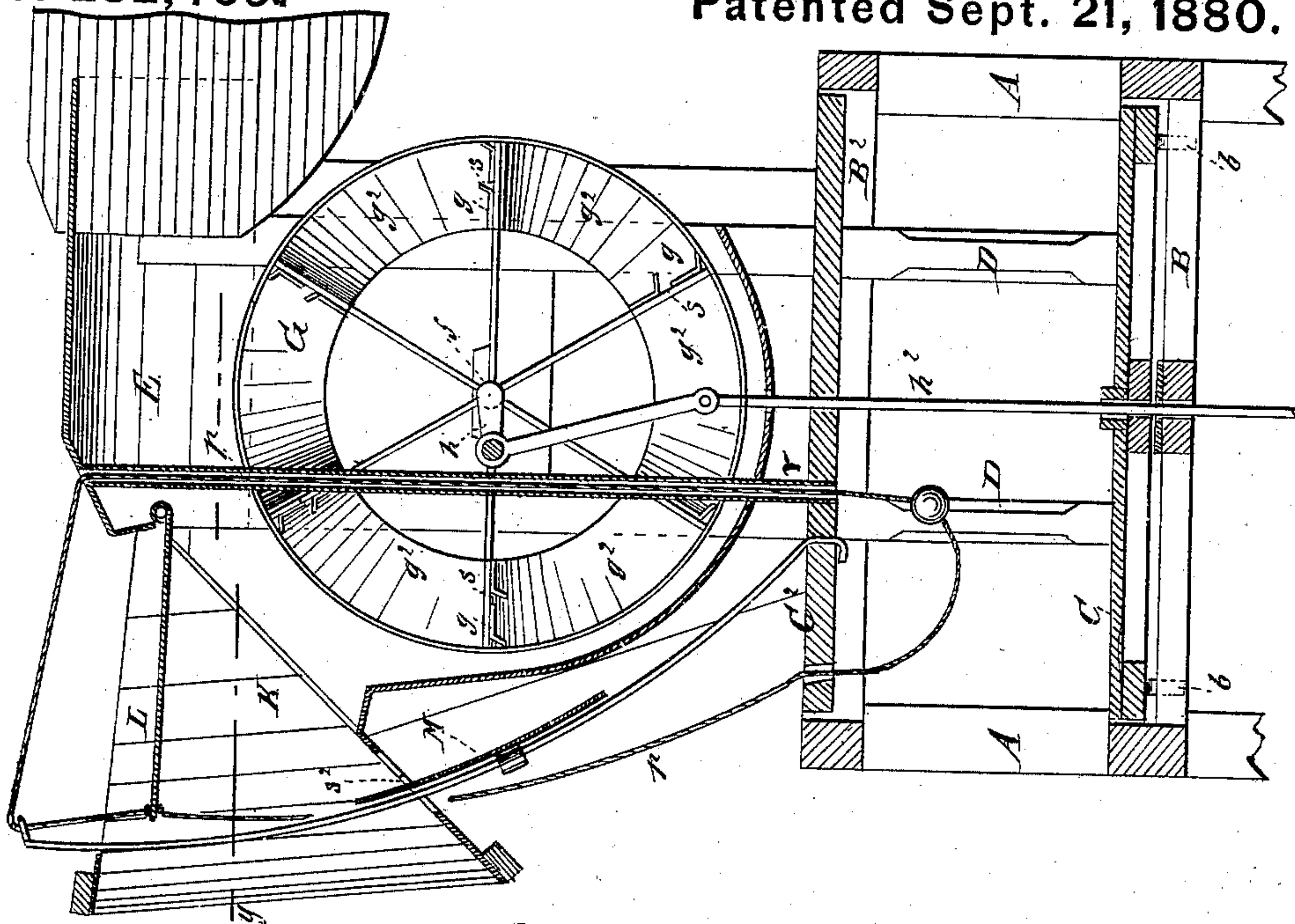
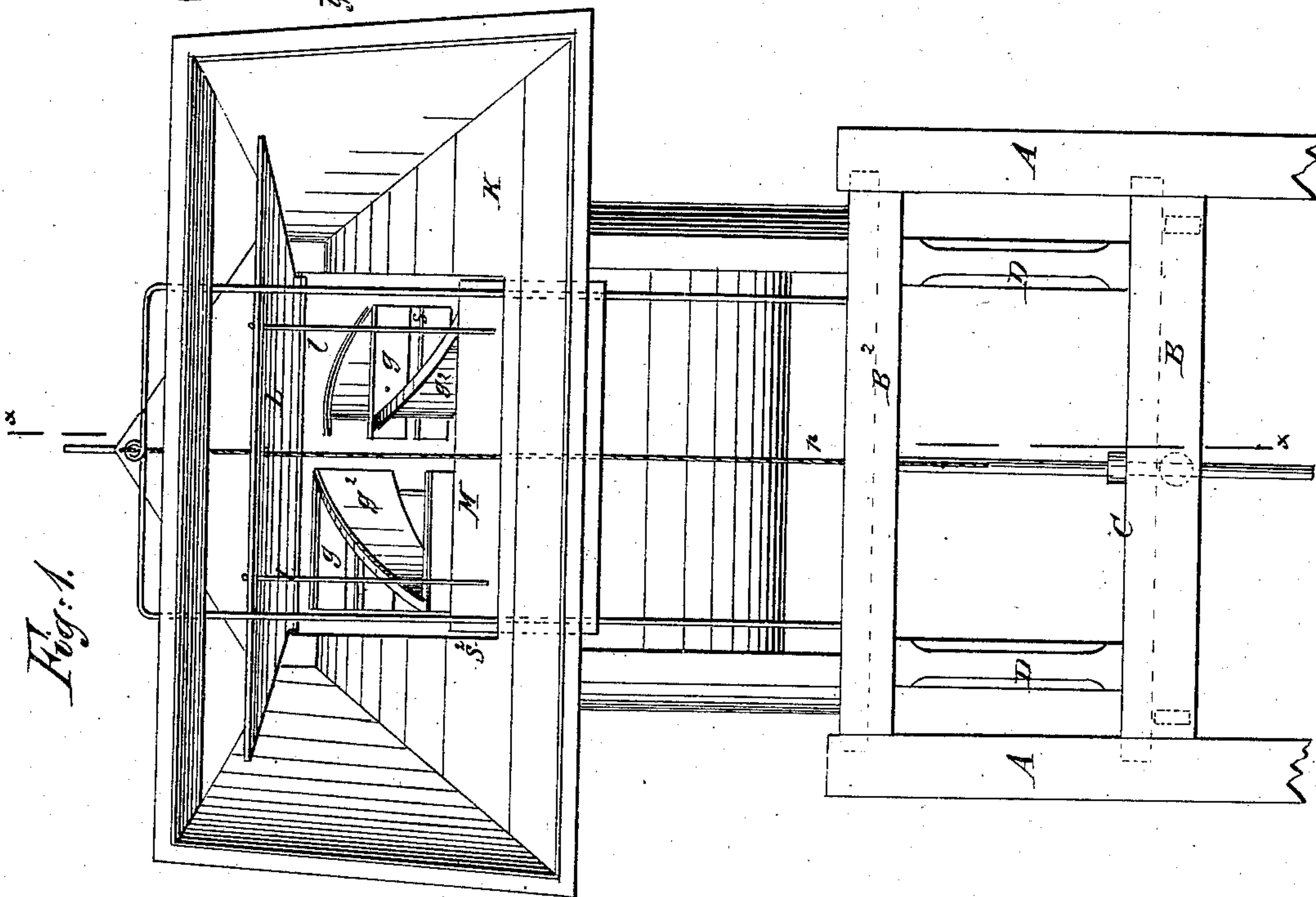


Fig. 1.



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(No Model.)

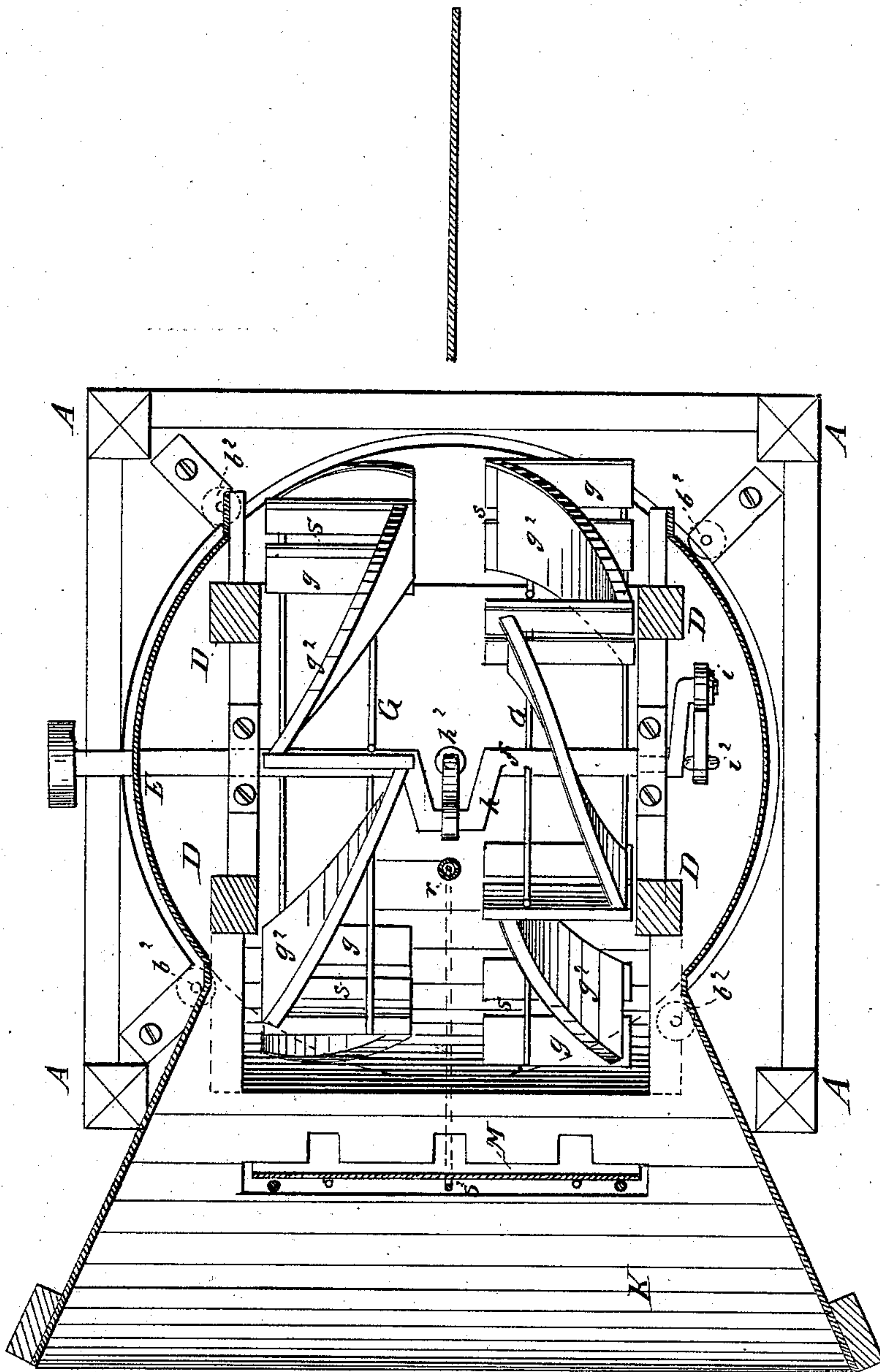
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Fig. 3.



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# UNITED STATES PATENT OFFICE.

ALBERT S. DIMOCK, OF HUTCHINSON, KANSAS.

## WINDMILL.

SPECIFICATION forming part of Letters Patent No. 232,469, dated September 21, 1880.

Application filed March 5, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT SHEPARD DIMOCK, of Hutchinson, in the county of Reno and State of Kansas, have invented a new and useful Improvement in Windmills, of which the following is a specification.

My invention relates to that class of windmills in which the wheel is inclosed in a cowl.

In the accompanying drawings, Figure 1 represents a front view of an apparatus embodying my improvements. Fig. 2 is a vertical section taken in the line  $xx$  of Fig. 1. Fig. 3 is a horizontal section taken in the line  $yy$  of Fig. 2.

Similar letters of reference indicate corresponding parts.

The working parts of the apparatus are supported by a frame-work consisting of four posts, A, and two platforms, B B<sup>2</sup>. The posts A are planted in the ground, and the lower platform, B, rests on or near the surface, while the upper platform, B<sup>2</sup>, is near the tops of the posts.

C C<sup>2</sup> represent two turn-tables, one above the other, connected with each other by posts D. These two turn-tables work respectively in the lower and upper platforms, B B<sup>2</sup>, the lower turn-table resting on friction-rollers  $b$  in the lower platform, and the upper one being surrounded by friction-rollers  $b^2$  in its seat in the upper platform.

On the posts that pass through the upper turn-table rests the cowl E, that can be elevated to any desired height, within which is a frame-work in which are bearings for a horizontal shaft,  $f$ . To this shaft are attached two wind-wheels, G G, the sails of which are alternately axial and diagonal with relation to the axis of the shaft  $f$ , the axial sails being designated by the letter  $g$ , and the diagonal ones by  $g^2$ . These sails have their edges beveled or flared toward the wind, in order to hold the wind as long as possible, and the axial sails  $g$  are provided with slots  $s$ , for the passage of the back wind in their reverse movement.

The shaft  $f$  carries between the wheels G G a crank,  $h$ , for the connection of a pump-rod,  $h^2$ , on one end, a crank,  $i$ , for the connection of

a churn-dasher rod,  $i^2$ , and on the other end a pulley for connection with a corn-sheller, grindstone, or other rotary apparatus.

At the front end of the cowl E is a funnel, K, which concentrates the wind and enables it to exert greater force on the sails than would ordinarily result.

The upper side of the funnel is hinged to the cowl and forms a door, L, which is connected by rods  $l$  with a gate, M, arranged to slide in a slot,  $s^2$ , in the lower side of the funnel. An endless band or cord,  $p$ , passes from the door L and through a tube,  $r$ , and is weighted so as to keep the door L and gate M balanced and allow them to work automatically.

The door L and the gate M are worked as follows: The door is elevated by drawing on a cord or rope until it is above the top of the wheel, when the gate will be in its ordinary working position. When the wind increases both the door and gate are raised so as to shut off the wind from the wheel, and as the wind abates both are lowered to regulate the speed of the wheel by the escape of a portion of the air through the funnel.

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

1. In a windmill, the combination, with the cowl E, of the funnel K, having a hinged door, L, and gate M, sliding in funnel-slot  $s^2$ , and connected by rods  $l$  with said door, to operate as and for the purpose described.

2. The weighted endless cord  $p$ , passing through a tube,  $r$ , in combination with a hinged door, L, forming the upper side of a funnel, K, in a windmill, as and for the purpose specified.

3. The wind-wheels G G, provided with the axial sails  $g$  and diagonal sails  $g^2$ , having their edges flared or beveled, and having the sails  $g$  slotted, as shown and described, for the purpose specified.

ALBERT SHEPARD DIMOCK.

Witnesses:

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CHARLES A. STEVENS.