

(No Model.)

H. HENSEL.
AUTOMATIC TOY MOTOR.

No. 515,956.

Patented Mar. 6, 1894.

FIG. 1.

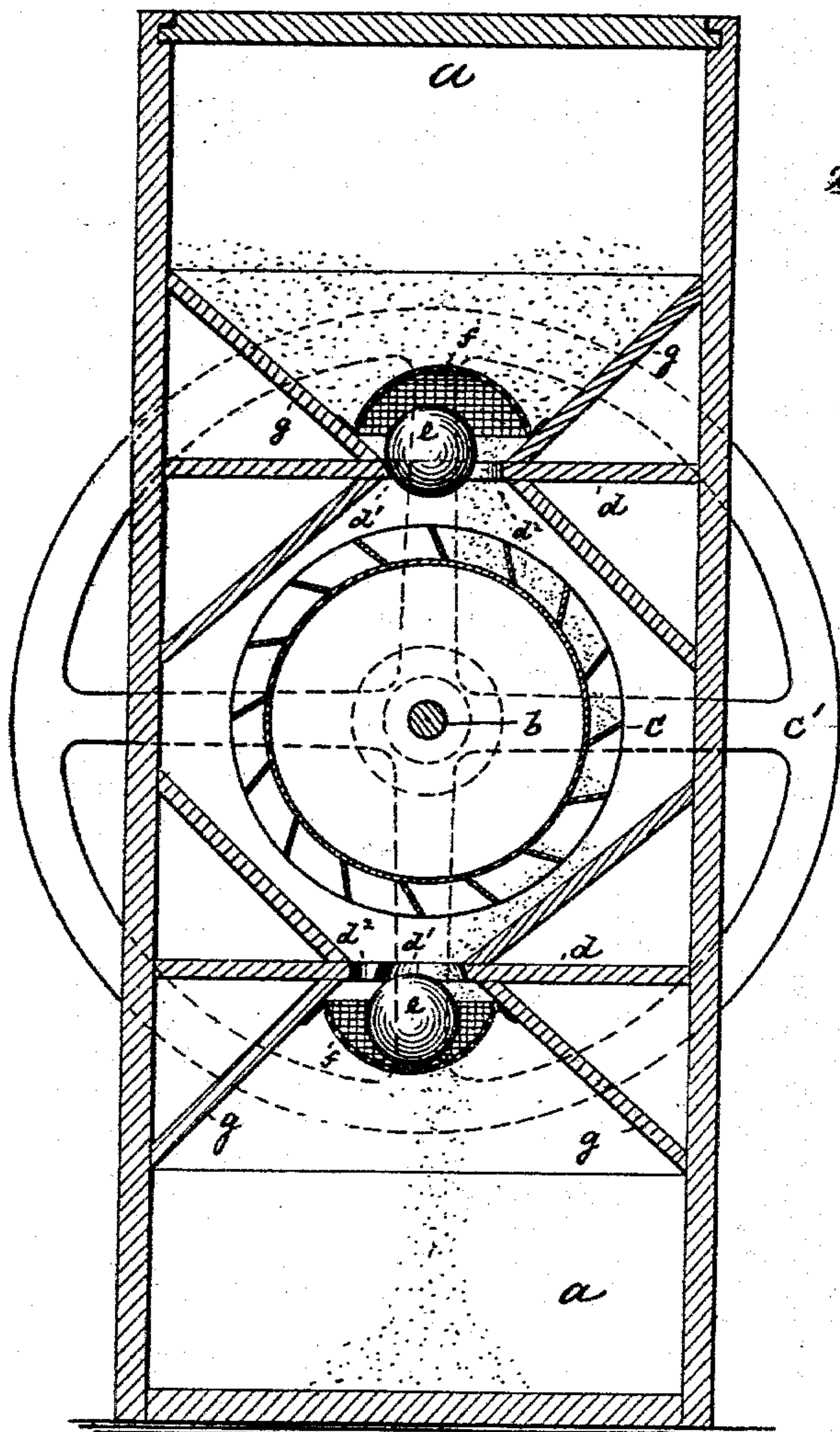


FIG. 2.

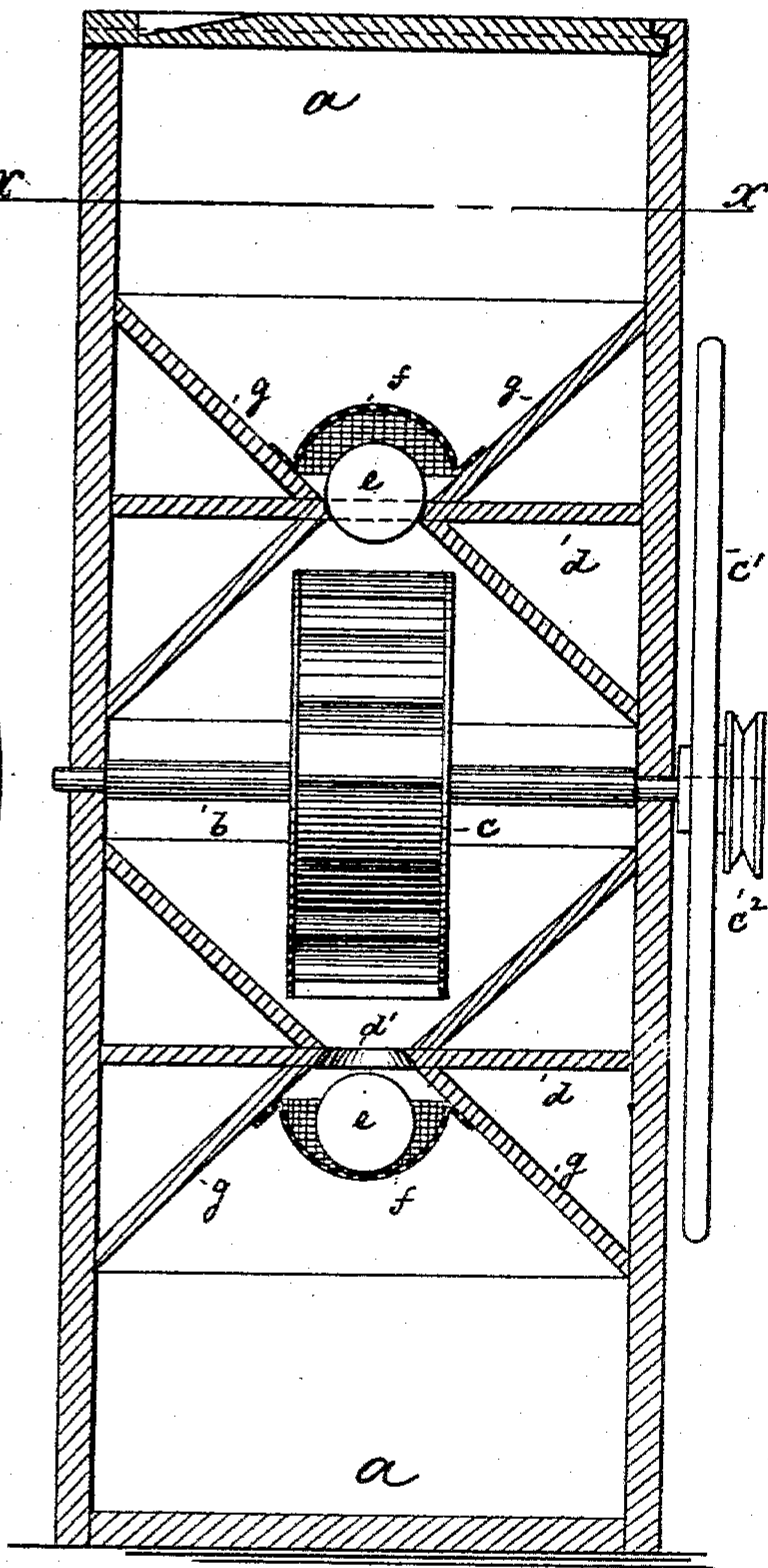
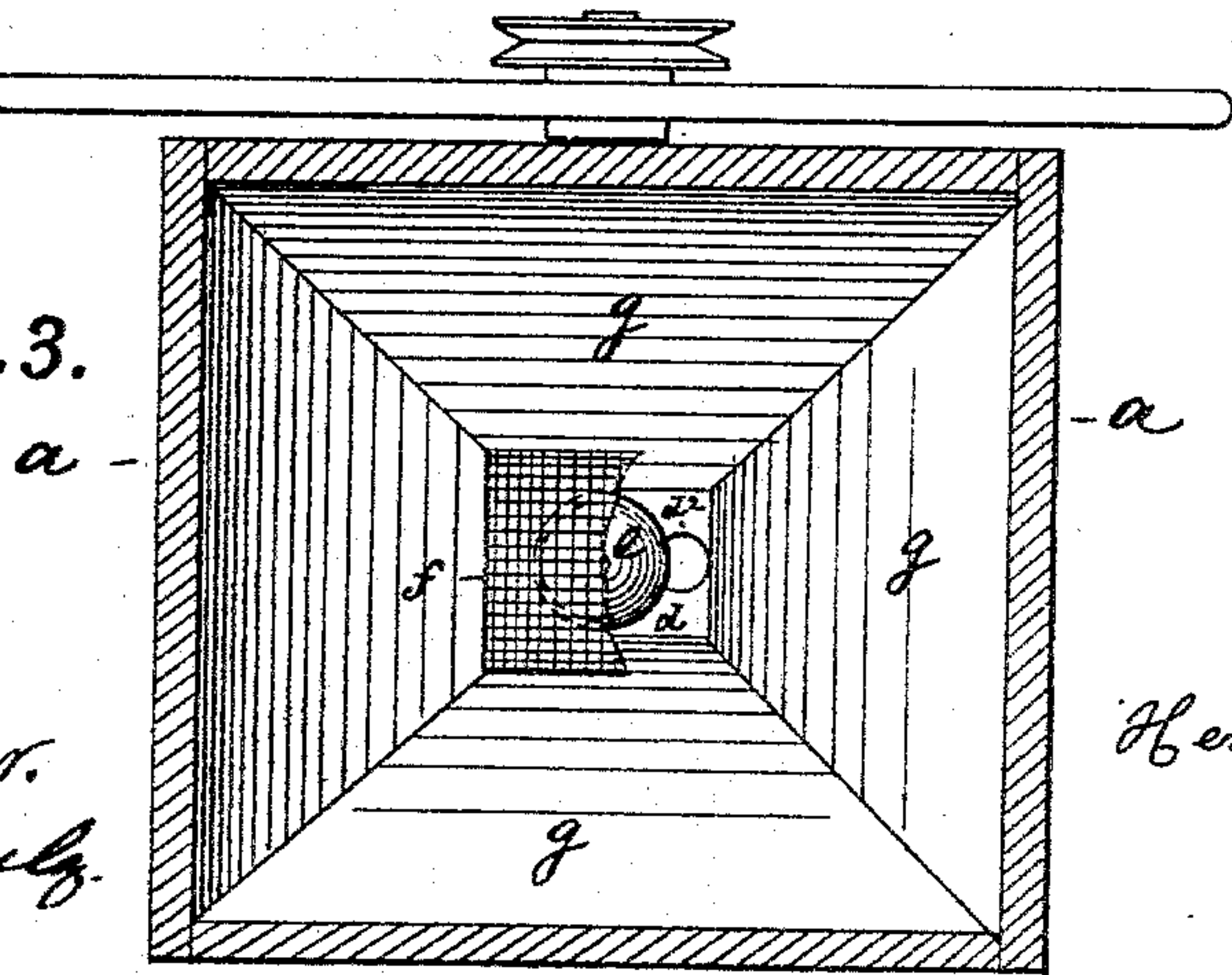


FIG. 3.



Witnesses:
John Becker.
Wm. Schulz.

Inventor:
Hermann Hensel
by his attorneys
Roeder & Briesen

UNITED STATES PATENT OFFICE.

HERMANN HENSEL, OF JERSEY CITY, NEW JERSEY.

AUTOMATIC TOY MOTOR.

SPECIFICATION forming part of Letters Patent No. 515,956, dated March 6, 1894.

Application filed December 26, 1893. Serial No. 494,629. (No model.)

To all whom it may concern:

Be it known that I, HERMANN HENSEL, of Jersey City, Hudson county, New Jersey, have invented an Improved Automatic Toy Motor, of which the following is a specification.

This invention relates to a toy motor which is of simple construction and which operates automatically, upon being reversed.

In the accompanying drawings: Figure 1 is a vertical longitudinal central section of my improved motor. Fig. 2 is a similar section at right angles to Fig. 1, and Fig. 3 a horizontal section on line x, x , Fig. 2.

The letter a , represents an elongated case adapted to stand on either end. Through the center of the case a , extends a shaft b , on which is keyed a central overshoot wheel c . The shaft b , carries also outside of the case, a fly wheel c' , and a pulley c^2 , by which the motion is transmitted to a rope that drives any suitable toy or other light object. Within the case a , the arrangement is the same above and below the wheel. This arrangement consists of the partition d , having a central circular opening d' , which forms the seat for a ball valve e . At one side, the opening d' , communicates with a smaller opening d^2 , which however is not closed by the ball valve, but remains permanently open. The ball valve e has a limited vertical play, it being confined by a circular perforated guard or screen f , attached to the hopper g , or to the partition d .

The apparatus is permanently filled with sand or a similar substance, which will drop from the upper compartment, through the upper screen f , and smaller perforation d^2 , upon the wheel c , to revolve the same. At the bottom, the sand will be discharged through the larger perforation d' , and lower screen f , into

the lower compartment. As soon as the upper compartment is empty, the case a , is reversed, when the operation will be resumed and the wheel will continue to revolve.

It will be seen, that by reversing the case, the upper valve will be closed, while the lower valve will be opened. Thus the inlet opening is always smaller than the discharge opening, which is necessary for the proper operation of the parts. In my toy motor, the action of the valves is entirely automatic and all sliding gates that must be manipulated when the case is reversed, are dispensed with. After the case is once filled, it will have power forever, and as there are no outwardly projecting handles, there need be no openings, through which the sand would be liable to escape.

What I claim is—

1. The combination of a reversible case with an inclosed overshoot wheel, perforated partitions at both sides of the wheel and ball valves for partially closing said perforations, substantially as specified.

2. The combination of a reversible case with an inclosed overshoot wheel, partitions having communicating perforations d' , d^2 , and ball valves for closing the perforations d' , substantially as specified.

3. The combination of a reversible case with an inclosed overshoot wheel, perforated partitions at both sides of the wheel, ball valves for partially closing said perforations and perforated guards that inclose the ball valves, substantially as specified.

HERMANN HENSEL.

Witnesses:

F. v. BRIESEN,
JOHN E. M. BECKER.