

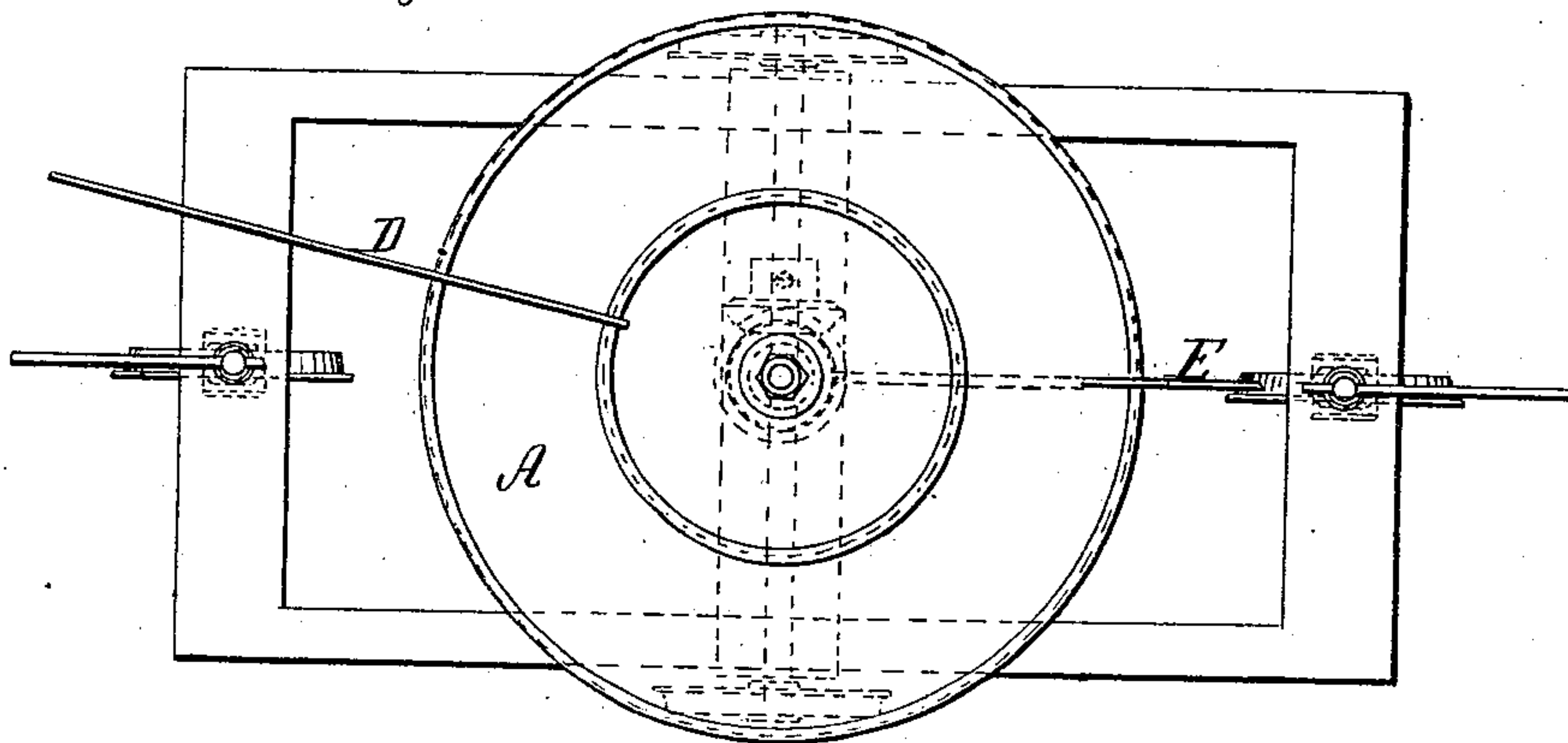
*A. Drasch,*

*Motor.*

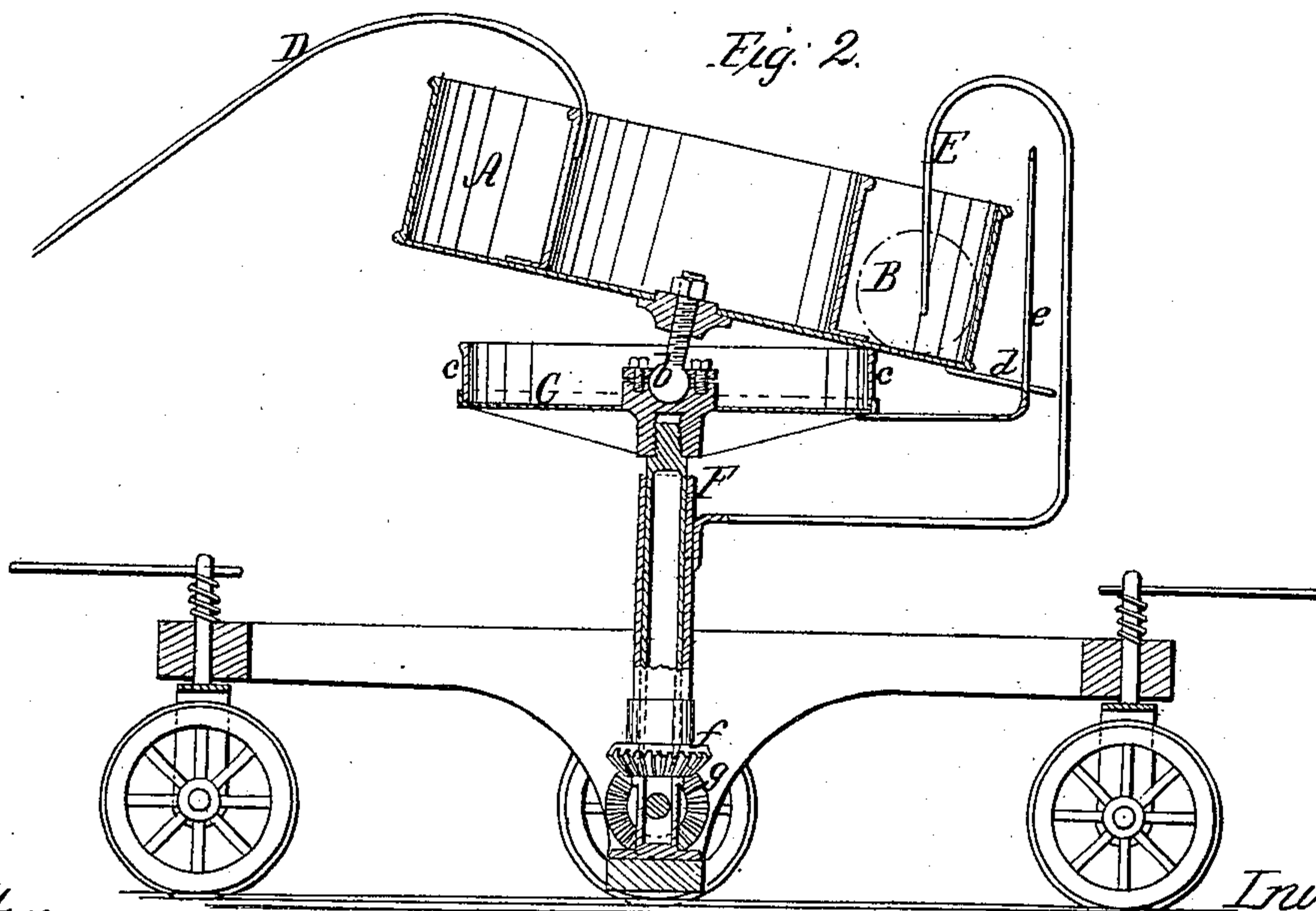
*N<sup>o</sup> 85,220.*

*Patented Dec. 22, 1868.*

*Fig. 1.*



*Fig. 2.*



*Witnesses;*  
*E. F. Hastenhuber*  
*Chas. Wahlen*

*Inventor,*  
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*Attys*

# United States Patent Office.

DOCTOR. ALOIS DRASCH, OF ST. EGIDI, AUSTRIA.

Letters Patent No. 85,220, dated December 22, 1868.

## ROTATING BALL-MOTOR.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, DOCTOR ALOIS DRASCH, of St. Egidi, in the Empire of Austria, have invented a new and improved Rotating Ball-Motor; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a plan or top view of this invention.

Figure 2 is a longitudinal vertical section thereof. Similar letters indicate corresponding parts.

This invention consists in the arrangement of an annular tilting tray, which forms the orbit for a revolving ball, in combination with a supporting-platform, and with a lever, which extends into the tray, and connects with a shaft, to which motion is to be imparted, in such a manner that, by continually changing the position of the tray, the ball is caused to rotate therein without interruption, and, by the action of the rotating ball on the lever, the desired motion is imparted to the shaft, which connects with the working-machines or mechanism to be driven.

A represents a tray, which forms an annular path or orbit for the ball B. This tray is made of sheet-metal, or any other suitable material, and its diameter is about four times that of the ball B.

It is supported in its centre by a rod, *a*, which connects, by a ball-and-socket joint, *b*, with a platform, C, so that said tray can be readily tilted in any desired direction.

From the edge of the platform C, rises a circular rim, *c*, which prevents the tray from being tilted any lower than desirable.

The position of the tray is governed by a hand-lever, D, which enables the operator to continually tilt said tray in advance of the rotating ball, so that said ball is kept rolling on a continually-changing inclined plane, and, as the ball progresses in its orbit, it bears on a lever, E, which extends from the shaft F into the tray, as shown in the drawing.

The tray is guided in its tilting motion by an arm, *d*, which is firmly attached to its circumference, and catches in a loop, *e*, secured to the edge of the platform C.

The shaft F is intended to transmit the motion, im-

parted to it by the action of the ball B, to the working-machines, or to a mechanism of any desired construction.

In the drawing, my motor is shown as applied for propelling a railroad-car or vehicle, and, in this case, the shaft F bears a bevel-wheel, *f*, which gears into a similar bevel-wheel, *g*, mounted on the axle of the car or vehicle, so that the rotary motion imparted to the shaft F will be transmitted to the axle of the car or vehicle, and the desired motion of said car or vehicle will be effected.

It is obvious, however, that my rotary ball-motor is applicable for the purpose of driving machinery of any kind, and it is particularly valuable in localities where the erection of a steam-engine or other motor would be difficult or impracticable.

I am aware that an inclined disk and rolling weight have been so connected with a driving-shaft, that a rotary motion is communicated to said shaft by the oscillation of the disk; but as this forms no part of my invention, I do not claim it.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the tilting disk A, rolling ball B, lever E, tubular shaft F, concentric rim *c*, and its support, when the rolling ball is entirely disconnected, and actuates the lever E simply by pressure, as it rolls, as herein described.

2. In a rotating ball-motor, the bent lever E, rigidly secured to the tubular shaft F, and actuated by contact with the freely-rolling ball, as it traverses its path on the tilting platform, as herein set forth.

3. The free-rolling ball B, tubular shaft F, and rigid bent arm E, in combination with the tilting platform A, as and for the purpose herein set forth.

4. The application to the tilting platform of a rigid arm *d*, moving in a vertical guide *e*, attached to the supporting-circle C, as and for the purpose herein set forth.

The above specification of my invention signed by me, this 12th day of October, 1868.

DOCTOR ALOIS DRASCH.

Witnesses:

HENRY GRUBER,  
FRANZ HUMPEL.