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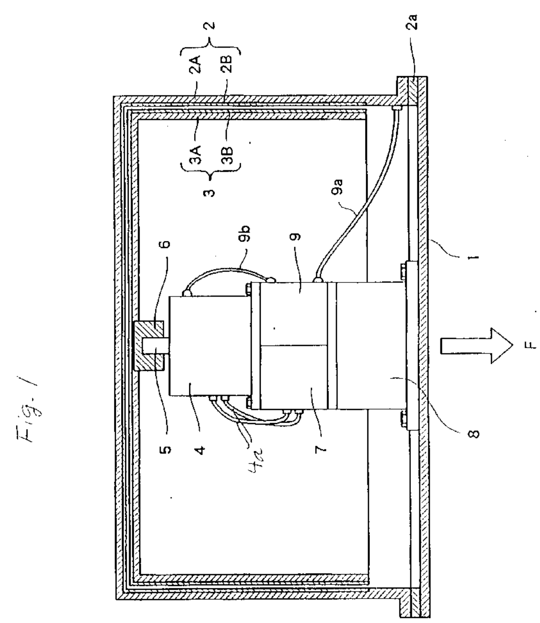
(54) Machine for acceleration in a gravitational field.

(57) A machine comprising an electrically polarized body, and means for moving the body in one direction to accelerate electrons, thereby generating an accelerating force in another direction due to an interaction between the accelerated electrons and the gravitational field.



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Field and Background of the Invention

The development of science and technology in the twentieth century has revealed that the earth is too small for the human race to survive. Population growth is far beyond predictions, and it will become almost impossible in the near future to sustain all humans and maintain the environment on the earth in a liveable condition. Therefore an improved propulsion engine to facilitate travel is needed, which does little or no harm to the environment.

Summary of the Invention

A machine constructed in accordance with the present invention comprises an electrically polarized body, and means for moving the body in one direction to accelerate electrons, thereby generating an accelerating force in another direction due to an interaction between the accelerated electrons and the gravitational field.

Brief Description of the Drawings

The invention will be better understood from the following detailed description taken in conjunction with the accompanying figures of the drawings, wherein:

Fig. 1 is a sectional view of a machine in accordance with a first embodiment of this invention;

Fig. 2 is a perspective view of a machine in accordance with a second embodiment of this invention;

Fig. 3 is a sectional view of apparatus for conducting a first experiment; and

Fig. 4 is a view of apparatus for conducting a second experiment.

Detailed Description of the Drawings

Fig. 1 shows an embodiment of this invention wherein a machine is arranged for producing thrust or acceleration in the downward direction of gravity F of the earth.

An outer cylindrical electrode 2 is mounted on a base 1 via an insulating ring 2a. A cylindrical rotor 3 is provided inside the electrode 2.

The electrode 2 comprises an outer conductor layer 2A and an inner dielectric layer 2B. The rotor 3 comprises an inner conductor layer 3A and an outer dielectric layer 3B. There is a gap between the electrode 2 and the rotor 3 so that they do not touch.

The rotor 3 is attached to an electrically conductive shaft 5 of a motor 4 through a conductive coupler 6. The motor 4 controls the revolution of the shaft 5 and the rotor 3, and a power supply 7 feeds power to the motor 4 through power lines 4a. A generator 8 is electrically connected to the power supply 7. In the event the motor 4 is an AC type and a DC generator 8 is provided, a DC-AC converter is included in the power supply 7. The generator 8 includes an electrical generator driven by, for example, a gas engine, solar power, man power, etc. The motor 4, the power supply 7, and the generator 8 are mounted on the base 1.

An electric charge supply 9 is also mounted on the base 1 and receives energy from the power supply 7 or the generator 8. The electrodes 9a and 9b of the electric charge supply 9 are electrically connected to the electrode 2 and the rotor 3 respectively. The polarity of the electric charge supply 9 is preferably reversible.

In the above embodiment, the generator 8 supplies power for the power supply 7 and the electric charge supply 9. When the electric charge supply 9 provides a positive electric charge to the electrode 2, it provides a negative electric charge to the rotor 3 through the motor 4, the shaft 5, and the coupler 6, vice versa. The electrode 9b may be connected to the shaft 5 by conductive bearings or slip rings, for example.

When the motor 4, supplied with the power from the power supply 7, drives the rotor 3, electric charges (charged particles) of the rotor 3 are horizontally accelerated in the gravitational field, and generate a vertical force as described herein-after in the experiments. The accelerated electrons interact with a curved space, i.e., a gravitational field, and the physical relation between the space curvature of the electrons, i.e., each electron as a curvature of the space and/or the space curvature caused by each rotating electron, and the space curvature caused by gravity, produces a force on the machine. As a result, the machine having the rotor 3 produces a vertical thrust.

The amount of the generated vertical force or thrust depends on the magnitude of the charges and/or the rotational speed. Whether the generated vertical force or thrust is directed upwardly or downwardly depends on the polarity of the electric charge generator 9 but does not depend on the direction of rotation of the rotor 3.

Fig. 2 shows another embodiment of this invention, wherein a machine comprises a larger-power machine L and a smaller-power machine S. The larger-power machine L and the smaller-power machine S are each functionally identical to the machine in Fig. 1, but differ only in the amount of power.

The smaller-power machine S is connected to the larger-power machine L in such a manner that the axis of the smaller-power machine S can be oriented to any desired direction within a range of 45 degrees around the axis of the larger-power machine L, and can be fixed in that direction. In each the larger and the smaller machines, the rotor is turned in a preset plane, its axis being perpendicular to the plane, and the electric charges established by the two electrodes are rotated in the plane, causing a force or thrust to be produced in the direction which is perpendicular to the preset plane and parallel with the axis of rotation of the charges and the rotor.

Two cylinders 10 are universally jointed to bases 11 mounted on the larger power machine L. The rod 10b of each cylinder 10 is connected to the lower part of a central shaft 12 of the smaller power machine S. A pair of support pillars 13 stand on the larger machine L. A ring 14 is mounted rotatably in a direction shown by an arrow X on the upper part of the pillars 13 through pins 15. The smaller machine S is rotatably mounted in a direction as shown by an arrow Y inside the ring 14 through pins 16. By extending or contracting the cylinder rods 10b, the axis of the shaft 12 and the machine S may be adjusted.

In the embodiment of Fig. 2, the smaller-power machine S serves for attitude stabilization, selection of the accelerating direction and/or adjustment of the accelerating power. The larger-power machine L contributes mainly to the vertical thrust.

[Experiments]

This invention is based on and substantiated by the following experiments:

(Experiment 1)

Fig. 3 shows apparatus for conducting an experiment, which was carried out to show the vertical force generated by rotating electric charges in a horizontal plane. This experiment uses a machine described below, which is called a machine for experiment in order to distinguish it from the machine shown in Fig. 1.

An outer electrode 202 is mounted on a base 201 via an insulating ring 202a. A rotor 203 is provided inside the electrode 202. The electrode 202 comprises an outer conductor layer 202A and an inner dielectric layer 202B, and the rotor 203 comprises an inner conductor layer 203A and an outer dielectric layer 203B. There is a gap between the electrode 202 and the rotor 203.

The rotor 203 is connected to the conductive shaft 205 of a motor 204 through a conductive coupler 206. The motor 204 is fixed on the base 201 which has a cylindrical projection 201a. The motor controls the revolution of the conductor shaft 205 and the rotor, and constant-current power supply 207 feeds power to the motor 204. The base 201 is placed on a plate 208 of a weighing machine 209.

An electric charge supply 210, such as a Van de Graaff generator, and a small spherical conductor 213 which does not have a charge generating function are not placed on the plate 208 of the weighing machine 209, but they are placed far from the electrode 202. The electric charge supply 210 has a spherical negative electrode 212. The minimum graduation of the weight indicator of the weighing machine 209 is 10 grams, and the distance between adjacent graduation lines is 1.5 mm.

With the power supply 207 and the charge supply 210 off, the weight of the machine for experiment was measured, and it turned out to be 1300 grams. This measurement was made several times while swinging the two wires connecting the motor 204 and the power supply 207, and no visible changes were detected. The total weight of the two wires is less than 1 gram. Therefore it can be said that the wires do not affect the results of the experiment.

Then the power supply 207 was turned on, and fed a current of 3 A to the motor 204 in order to accelerate the rotor 203 rapidly. The result was that the reading of the weighing machine 209 fluctuated within a range of ±3 grams in the course of acceleration.

Then we turned off the supply current, waited for the rotor 203 to stop, and then set the supply current to 1 A in order to accelerate the rotor 203 gradually.

The result was that there was no visible fluctuation of weight in the course of acceleration. This means that the rotor 203 must be accelerated with a current less than 1 A in order to avoid fluctuation due to rapid acceleration.

Then the change in the weighing machine reading was checked at the top speed of the rotor 203 with the motor supplied with a current of 0.5 A. The difference between the reading at the top speed and that at rest was less than 1 gram. This difference can be considered to be caused by an interaction between the rotor rotation and the surrounding air.

Then with the rotor 203 at rest, the charge supply 210 was turned on and was brought to a place near the machine for experiment so that the spherical electrode 212 touched the outer electrode 202. After one minute, the charge supply 210 was taken away to a place far from the machine, and was turned off.

Then we started acceleration of the rotor 203 with a supplied current of 0.5A. The reading of the weighing machine 209 decreased with increase in the rotational speed of the rotor 203. At the top speed, the reading was 1289 grams, indicating a weight reduction of 11 grams. The same measurement was repeated with the rotor 203 turning in the opposite direction, and obtained the same result.

Then the positive terminal of the charge supply 210 was connected to the small spherical conductor 213, and the above measurements were repeated using this small spherical conductor 213, instead of the spherical negative electrode 212, as a source to charge the electrode 202. At the top speed, the reading of the weighing machine 209 was 1304 grams, indicating a weight increase of 4 grams. The same result was obtained when the rotor 203 was turned in the opposite direction.

Further all of the above measurements were repeated with another rotor made of dielectric material (such as polystyrene foam). The Van de Graaff generator charged electrode was touched to the rotor and then the Van de Graaff generator was turned off and removed away immediately after the rotor was electrically charged. Similar results were obtained.

From the above, one can conclude:

1. Horizontal rotation of a charged body generates a vertical force.
2. When the polarity of the charges supplied to the rotating body is reversed, the direction of the generated vertical force is also reversed.
3. The faster the body is rotated, the stronger is the generated vertical force.
4. The direction and strength of the generated vertical force do not depend on the direction of the body.

(Experiment 2)

Fig. 4 shows another system for an experiment, which was carried out to show a horizontal force generated by rotating electric charges around a tilted axis. This experiment uses the same machine M as that in experiment 1.

Two parallel steel rod rails 301 are supported at both ends by a supporting frame 302 placed on a rigid table. A sliding mount 303 with a fixed needle 303a attached thereto is movably mounted on the rails 301 through four thrust-ball-bearings 303b. This sliding mount 303 can therefore roll freely along the straight rails 301.

The cylindrical projection 201a of the machine for experiment is inserted with a tight fit in the cylindrical hole of a coupler 304, which is mounted on the sliding mount 303 at an angle of 45 degrees to the vertical.

The sliding mount 303 is pulled toward the right by a cord 305, one end of which is connected to the sliding mount 303 and the other end of which is connected to a plate 306 loaded with a weight 308.

A scale 307 of one-meter length is provided just behind the moving path of the needle 303a.

When the sliding mount 303 mounting the machine is brought to the left end of the rails 301 by hand and then is released, the sliding mount 303 is pulled by the weight 308 toward the right, and slides along the rails 301. As the sliding mount 303 moves, the reading of the scale 307, indicated by the needle 303a, changes. This process is repeated with various conditions and the time interval between the time when the reading of the scale 307 is 10 cm and that when the reading is 60 cm is measured.

First, the time interval was measured with the rotor 203 of the machine M at rest and not charged. The time of movement between 10 cm. and 60 cm. was 3.8 seconds. Second, the time interval was measured with the rotor 203 in rotation and not charged. At the top speed of rotation, the measured time interval was again 3.8 seconds.

Third, the time interval was measured with the rotor 203 rotating and charged. As the rotational speed of the rotor 203 increased, the measured time interval decreased. At the top speed of rotation, the time interval between 10 cm. and 60 cm. was 3.4 seconds.

This measurement was repeated for both rotational directions of the rotor and the same result of 3.4 seconds was obtained.

Also measured was the time interval from the starting point of the sliding mount to the point where the reading of the scale was 60 cm., and the acceleration of the sliding mount 303 was calculated. The result is that when the rotor is not charged, the horizontal accelerating force is 4.0 grams weight, and when the rotor is charged, the horizontal accelerating force is 5.6 grams weight.

From the above, one can conclude that the machine of this invention can generate not only a vertical force but also a horizontal force simply by tilting the rotational axis of the rotor.

Specifications of the experimental apparatus are as follows:

Base 201a: Made of Aluminum

Electrode 202: Made of aluminum with an inner dielectric layer, 130 mm in diameter, 5 mm thick, 7 cm high

Rotor 203: Made of aluminum with an outer dielectric layer, 127 mm in diameter, 5 mm thick, 6 cm high

Motor 4: Rated maximum number of revolutions: 50/sec

Weight of machine: 1300 grams

Weight of the sliding mount 303 including the coupler 304: 700 grams

Power supply 207: Rated maximum output voltage: 25 volts

From the foregoing it will be apparent that an improved machine has been provided. The machine generates a vertical or a horizontal acceleration or thrust, or in any desired direction. The machine is also useful for attitude stabilization of a craft. The machine generates acceleration in a direction by accelerating a polarized body in another direction, particularly one where the polarized body is a rotor that is rotatable in a gravitational field. The rotor may be oriented in a non-vertical direction, the rotor axis being variable and the rotor being electrically charged or magnetized. The rotational speed of the rotor is variable and/or reversible, and the degree of polarization is variable and/or reversible. The number of rotors may be two or more, and has at least one rotor whose axial direction is variable.

Claims

1. Apparatus for acceleration in a gravitational field, comprising an electrically polarized body, and means for moving said body in one direction, thereby generating an accelerating force in another direction.

2. Apparatus as set forth in Claim 1, in which said polarized body comprises a rotor that is rotatably placed in the gravitational field.

3. Apparatus as set forth in Claim 2, in which said rotor has an axis which is oriented to a non-vertical direction.

4. Apparatus as set forth in Claim 2, in which said rotor is electrically charged or magnetized.

5. Apparatus as set forth in Claim 2, in which the rotational speed of said rotor is variable.

6. Apparatus as set forth in Claim 2, in which the rotational direction of said rotor is reversible.

7. Apparatus as set forth in Claim 2 in which the degree of polarization of said rotor is variable.

8. Apparatus as set forth in Claim 2, in which the direction of the rotor axis is variable.

9. Apparatus as set forth in Claim 2, in which at least two rotors are provided.

10. Apparatus as set forth in Claim 9, wherein at least one of said rotors has an axial direction which is variable.

11. Apparatus as set forth in Claim 1, wherein the polarization is reversible.

12. A machine comprising an outer cylindrical electrode, an inner cylindrical electrode, means for rotating one of said electrodes relative to the other of said electrodes, and means for placing oppositely polarized charges on said inner and outer electrodes.

Fig. 1

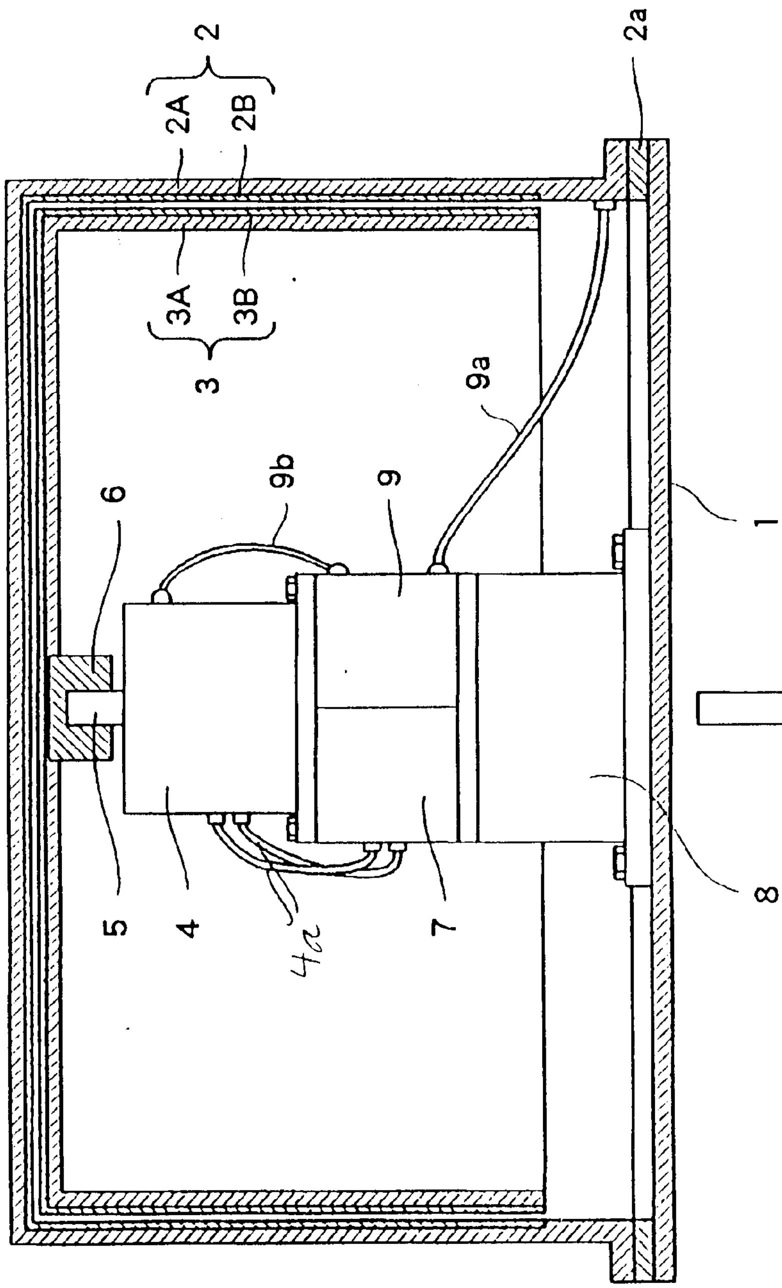


Fig. 2

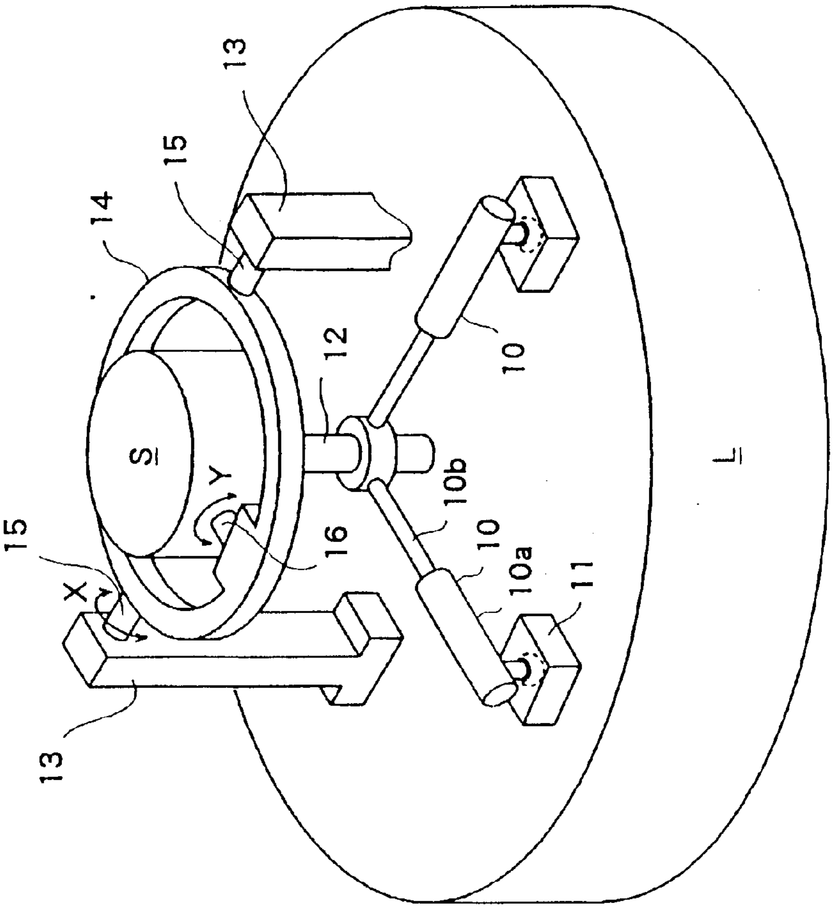
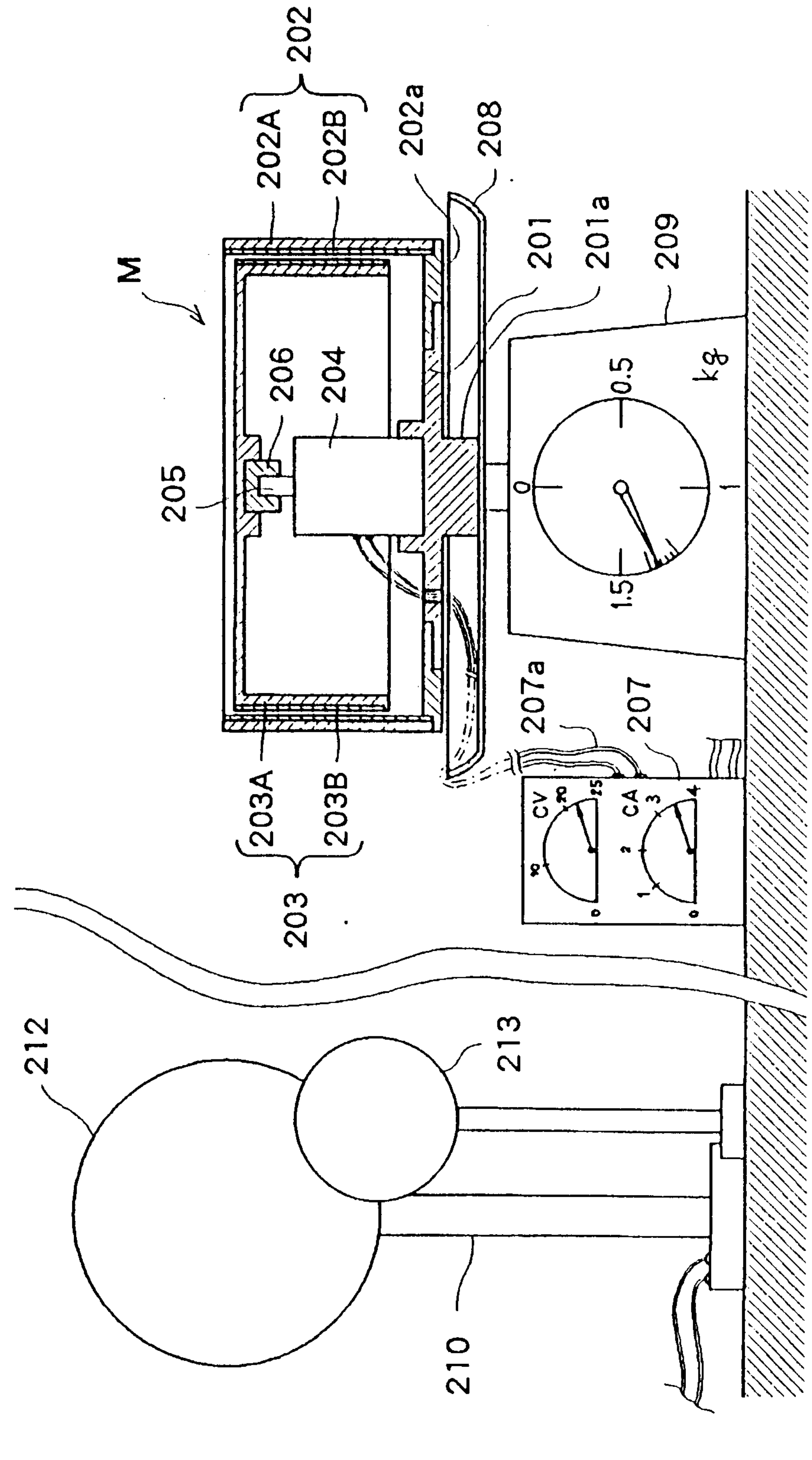


Fig. 3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CA
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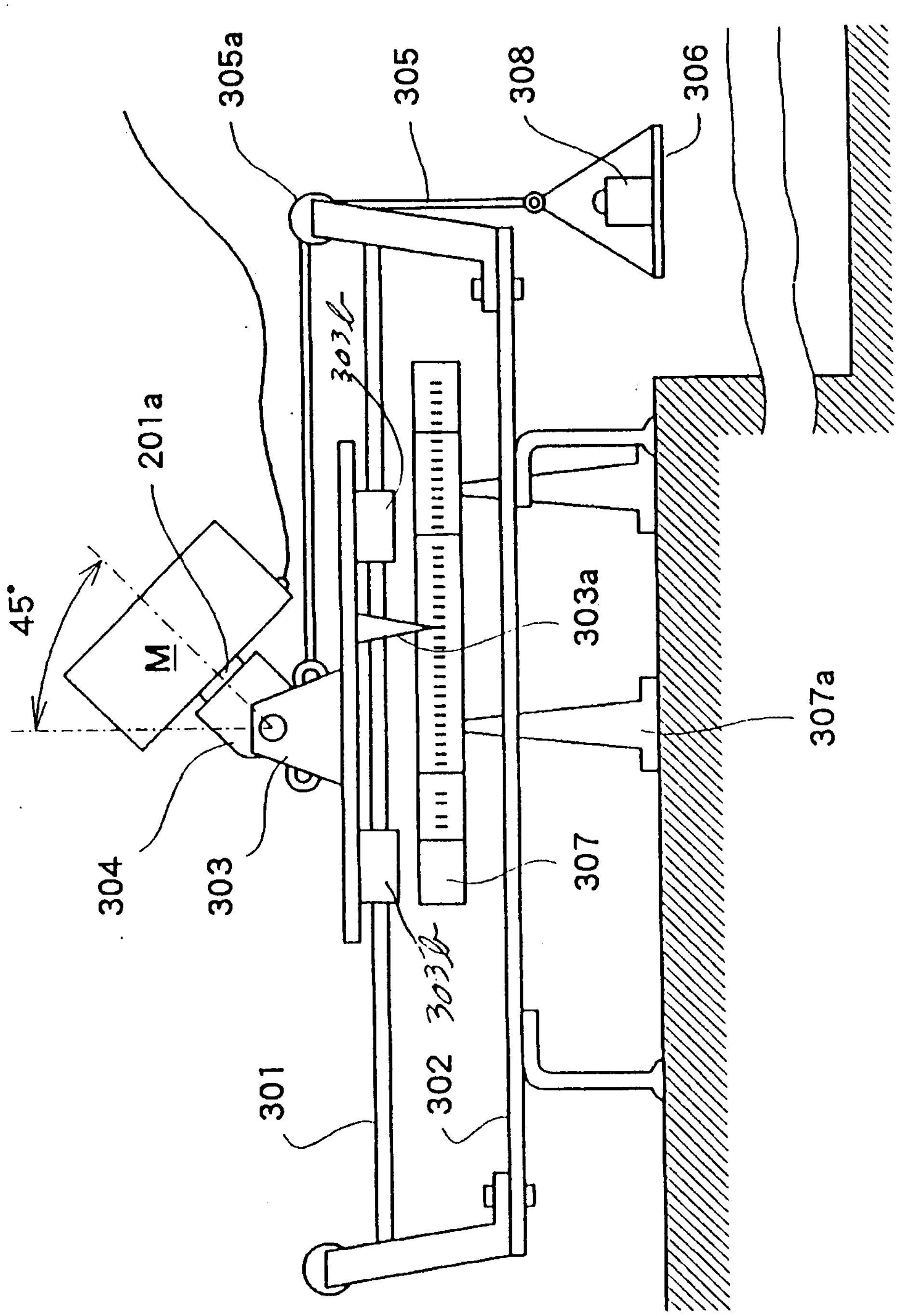
213
210

Fig. 4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