



US 20110010885A1

(19) **United States**(12) **Patent Application Publication**
TSENG(10) **Pub. No.: US 2011/0010885 A1**(43) **Pub. Date: Jan. 20, 2011**(54) **INTELLIGENT SENSING DEWATERER****Publication Classification**(76) Inventor: **YU-YEH TSENG**, Taichung City
(TW)(51) **Int. Cl.**
A47L 13/58

(2006.01)

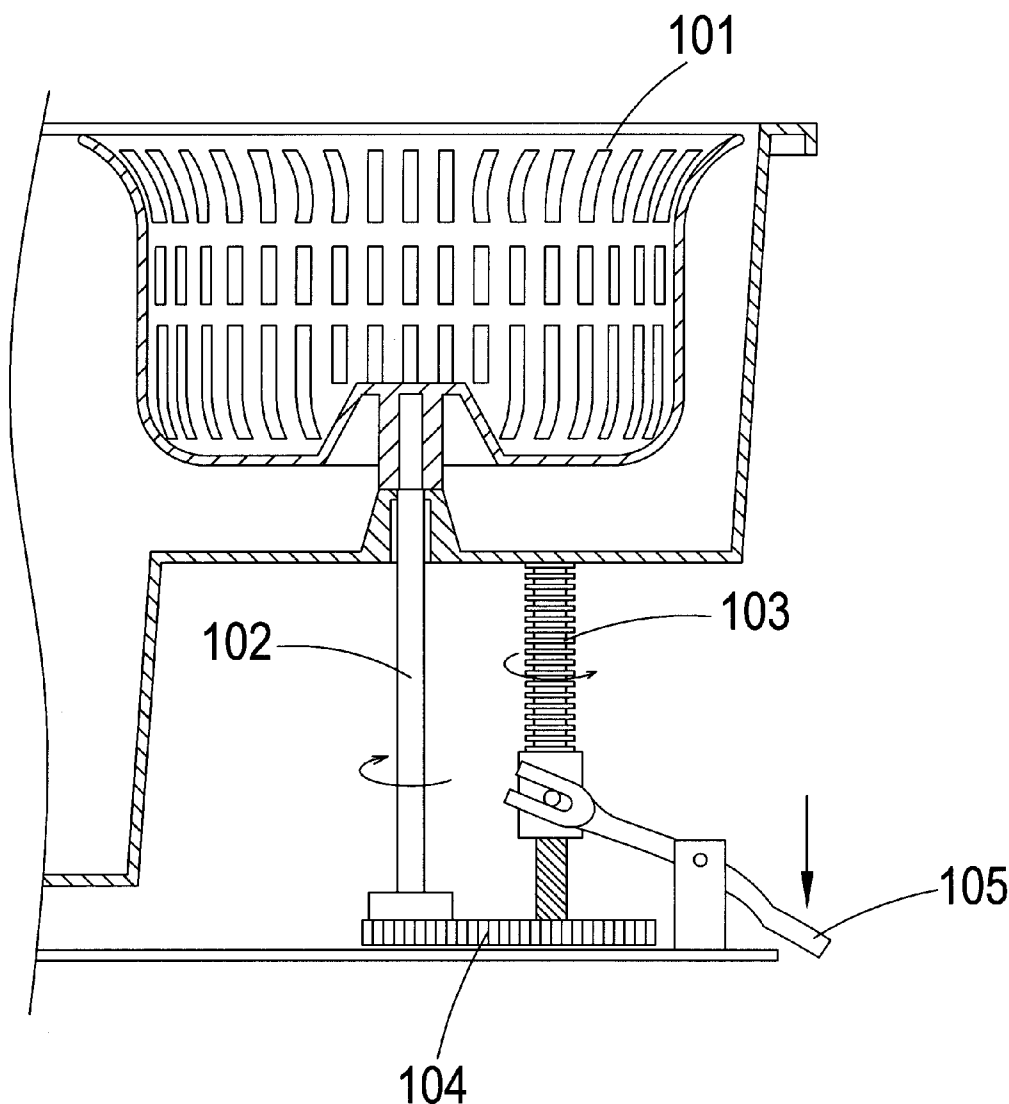
(52) **U.S. Cl.** **15/260**(57) **ABSTRACT**

Correspondence Address:

YU-YEH TSENG**235 Chung-Ho, BOX 8-24****Taipei 235 (TW)**(21) Appl. No.: **12/693,453**(22) Filed: **Jan. 26, 2010**(30) **Foreign Application Priority Data**

Jul. 14, 2009 (TW) 98212806

An intelligent sensing dewaterer includes a main body, mob, dewatering device, sensing unit, driving motor, and a control circuit. The dewaterer will dewater material by centrifugal force through spinning. The main body has a tank, lift, and pouring. The tank is divided by a reservoir and a spinning tank. The spinning tank has a spin basket for placing material for dewatering. The sensing unit is located in a center of the spinning basket to trigger the driving motor so as to spin the spin basket. The driving motor is linked to the spin basket so that the spin basket will rotate to dewater through centrifugal force. The control circuit can be enabled by the sensing unit or a switch. Therefore, the intelligent sensing dewaterer is formed by the above components.



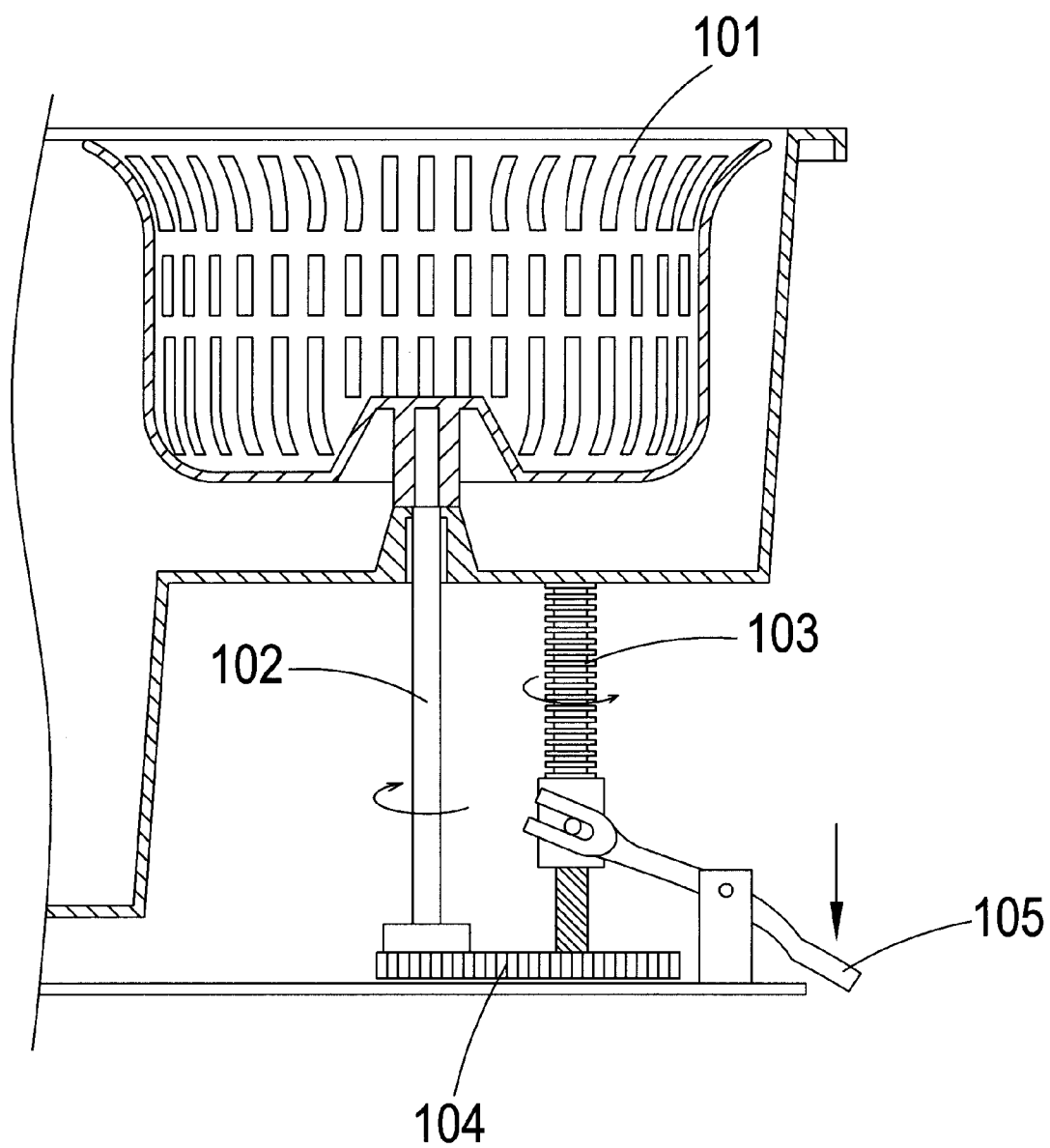


Fig. 1

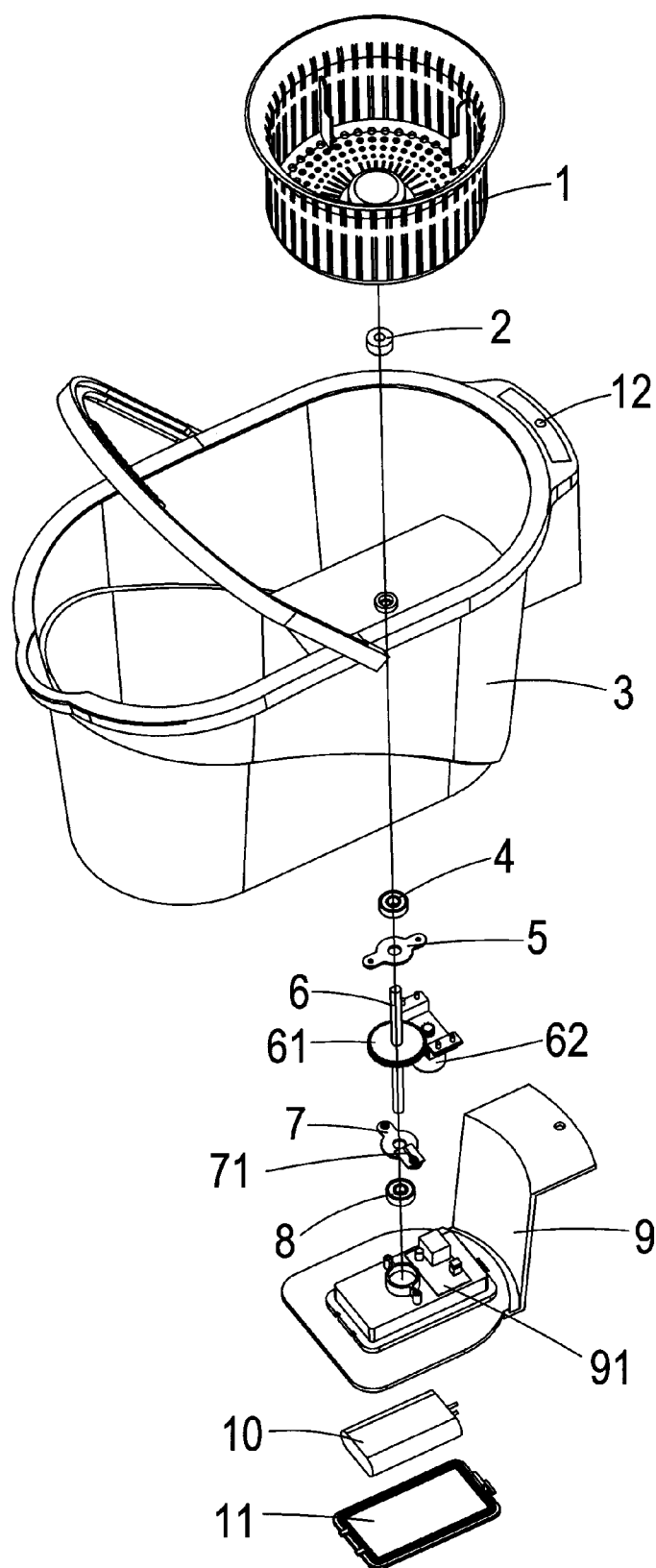


Fig. 2

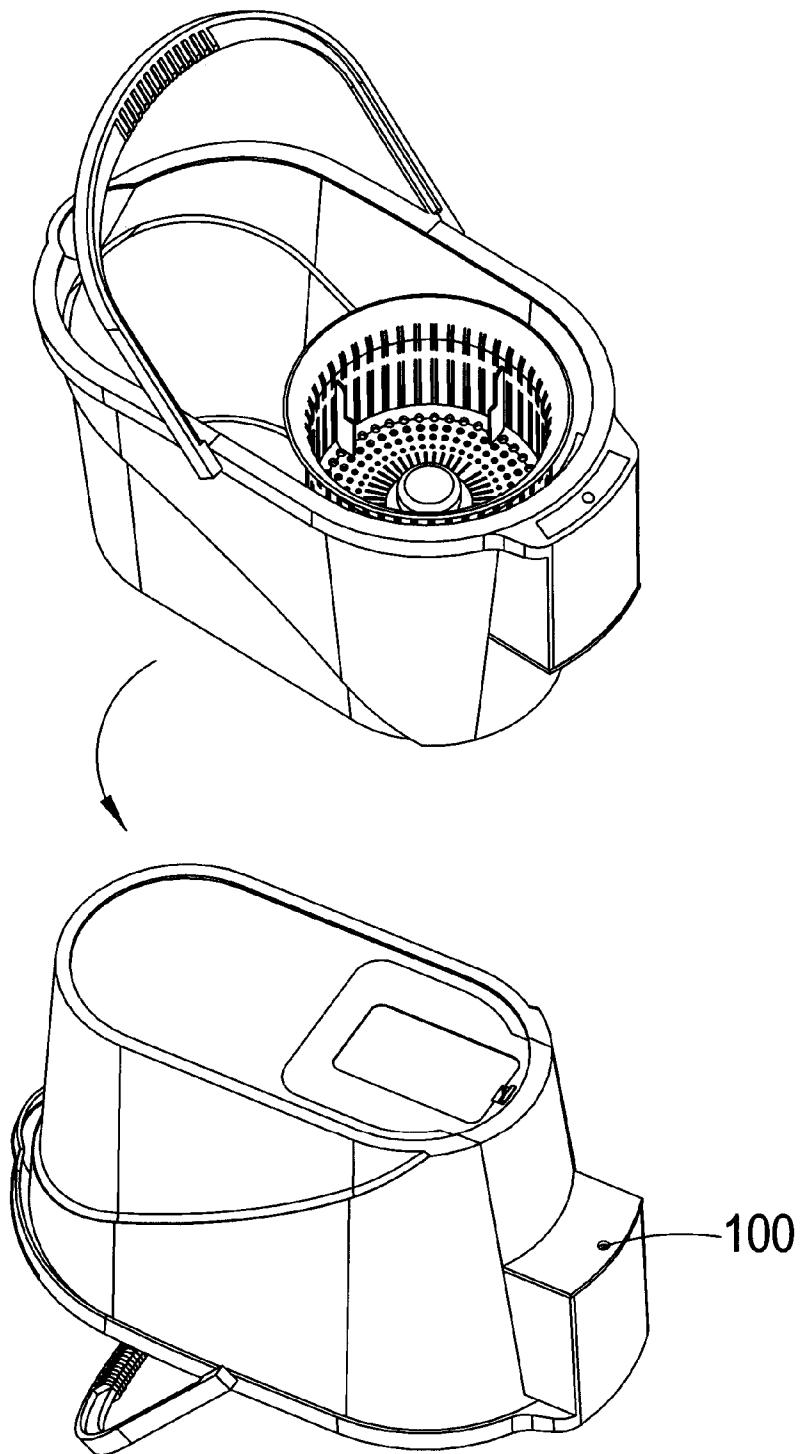


Fig. 3

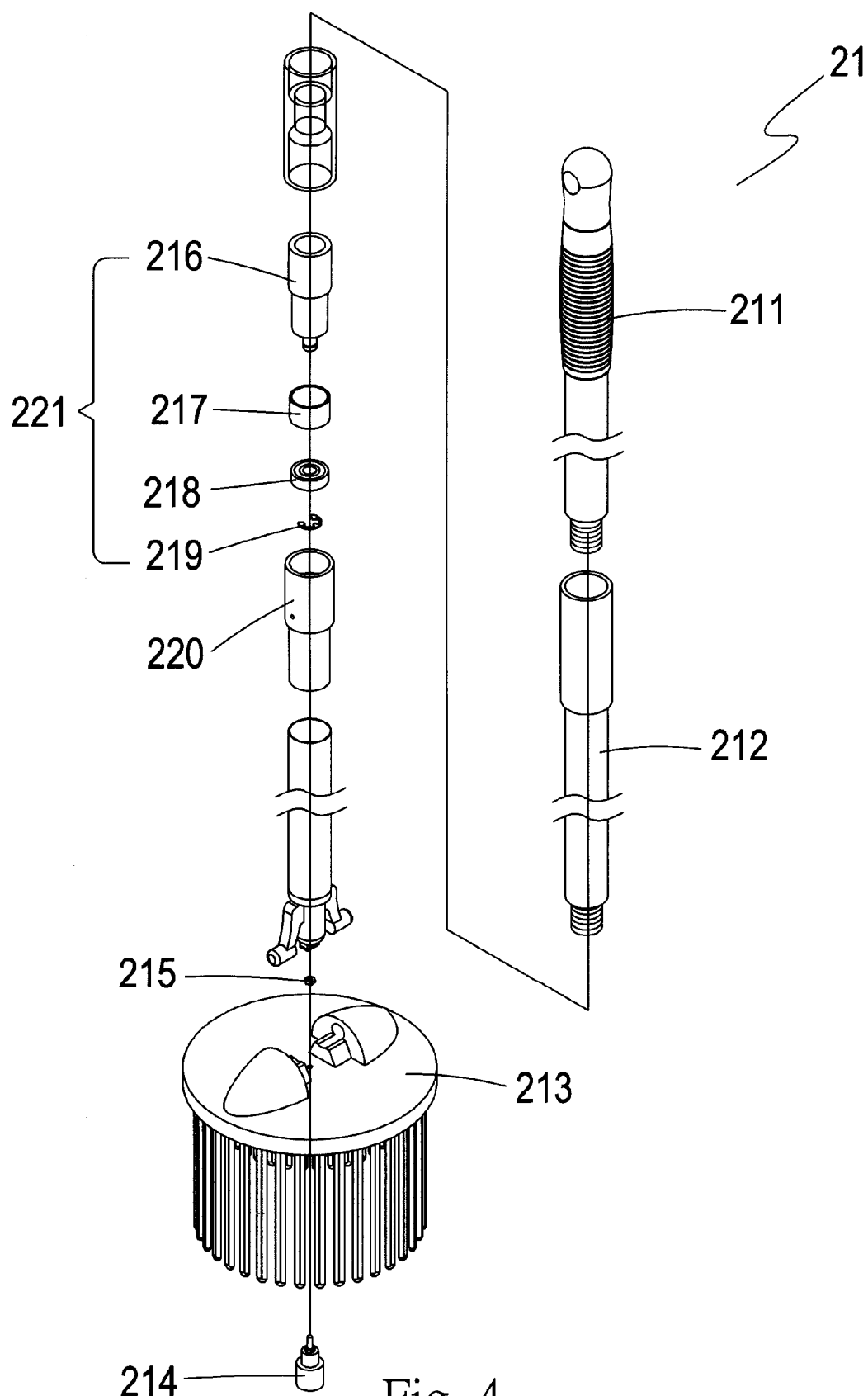


Fig. 4

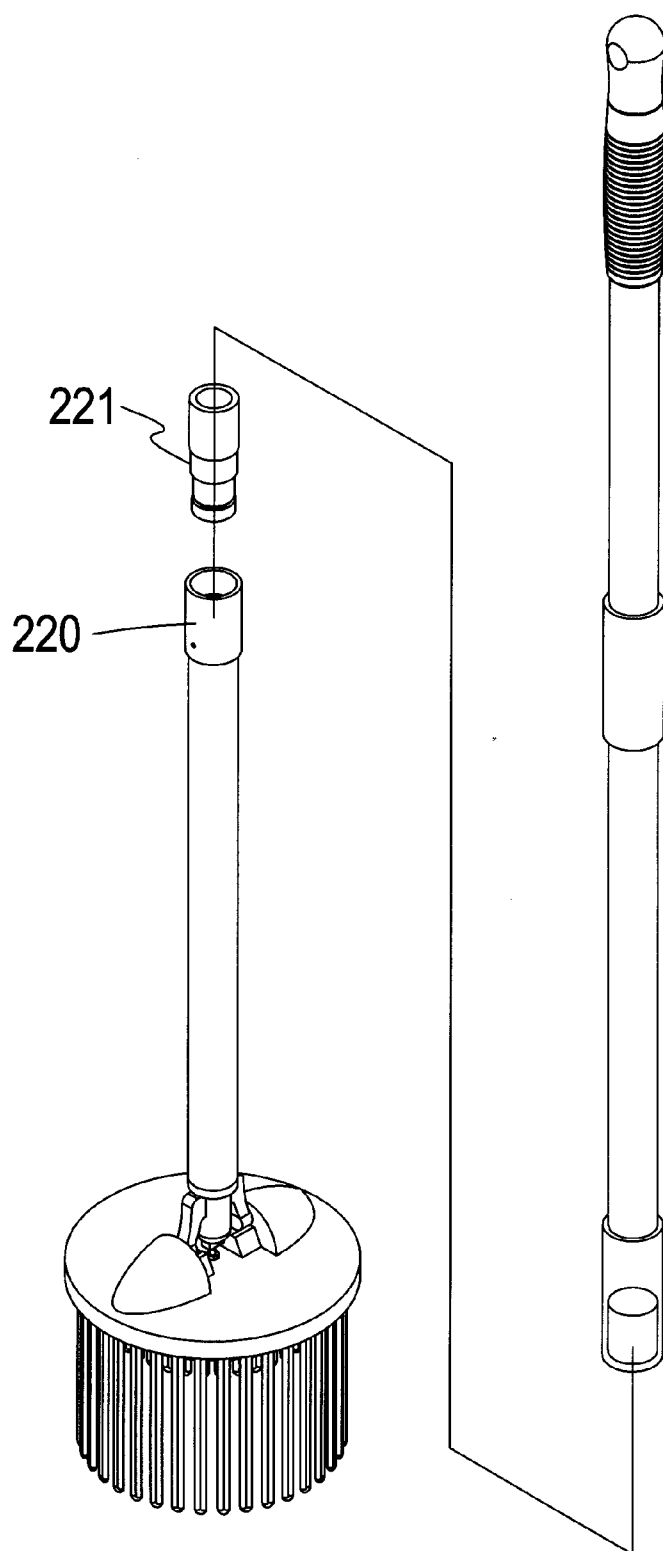


Fig. 5

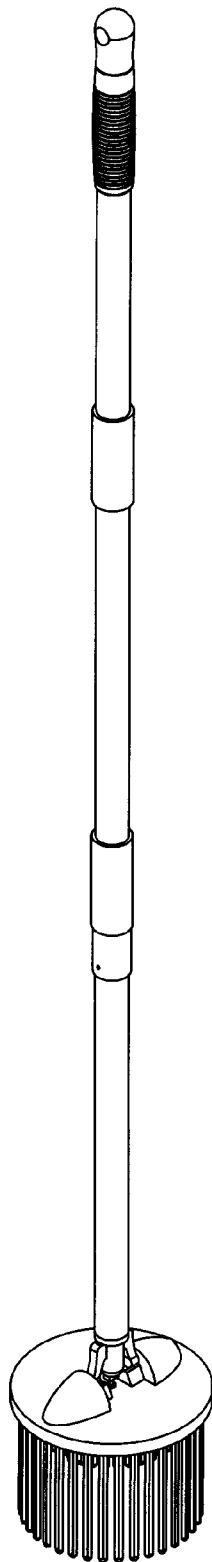


Fig. 6

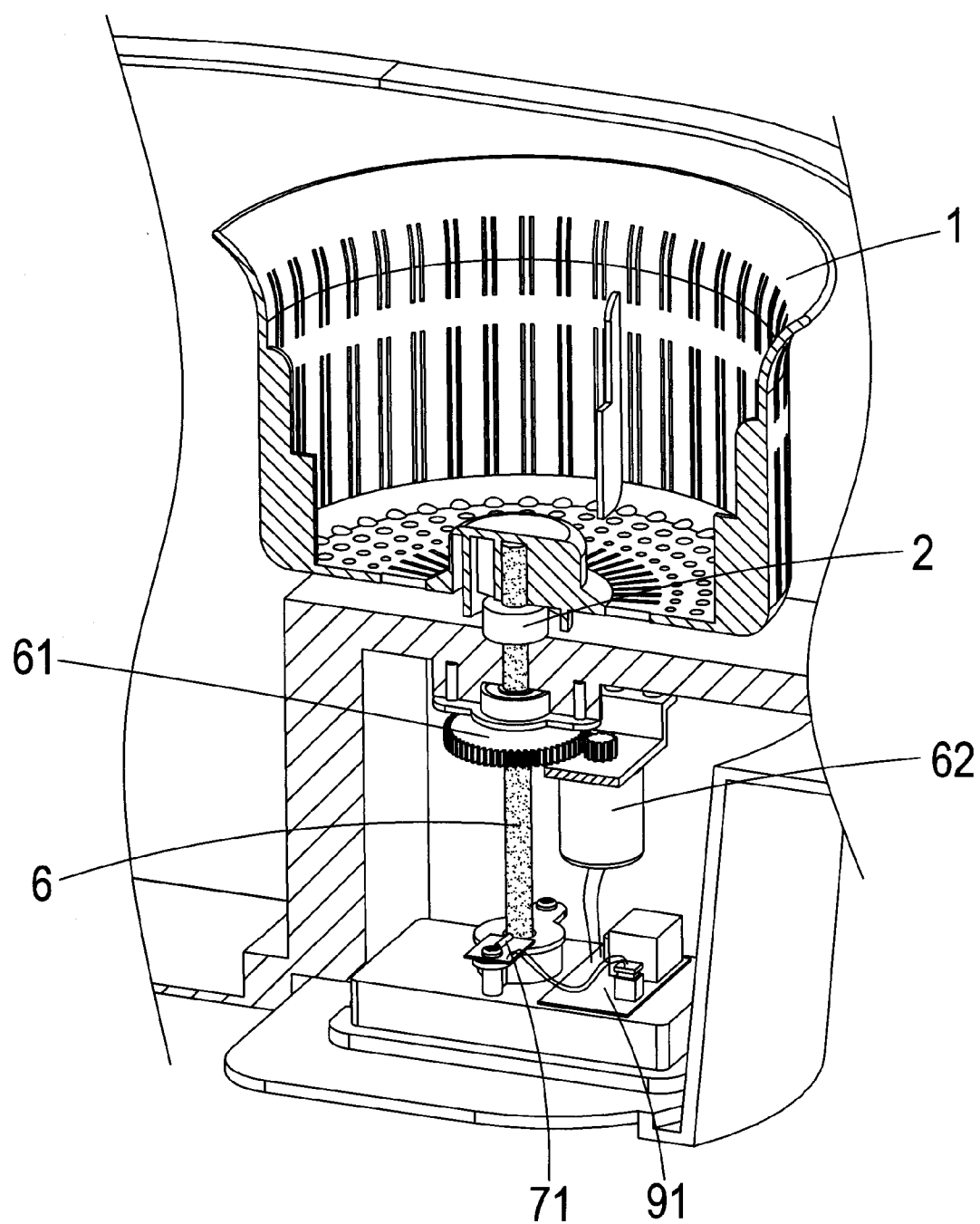


Fig. 7

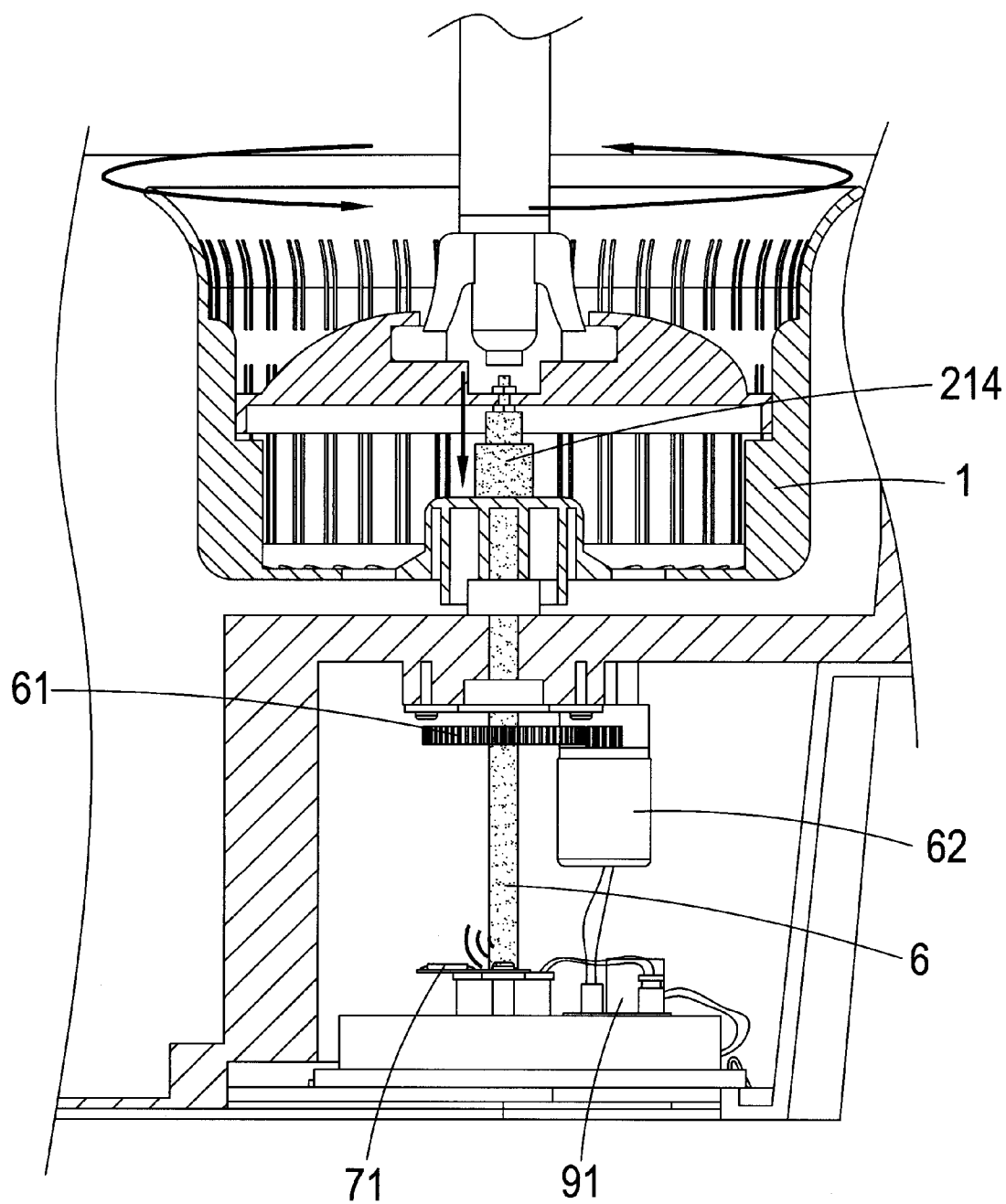


Fig. 8

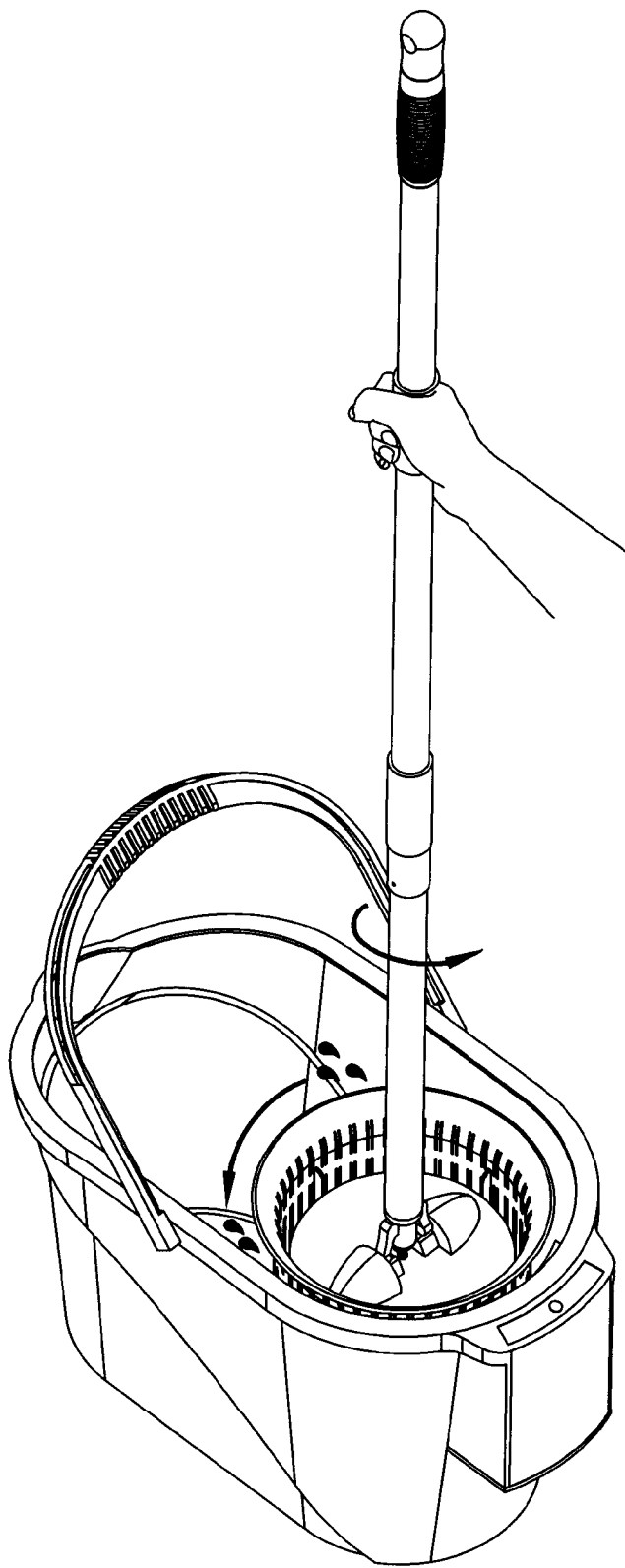


Fig. 9

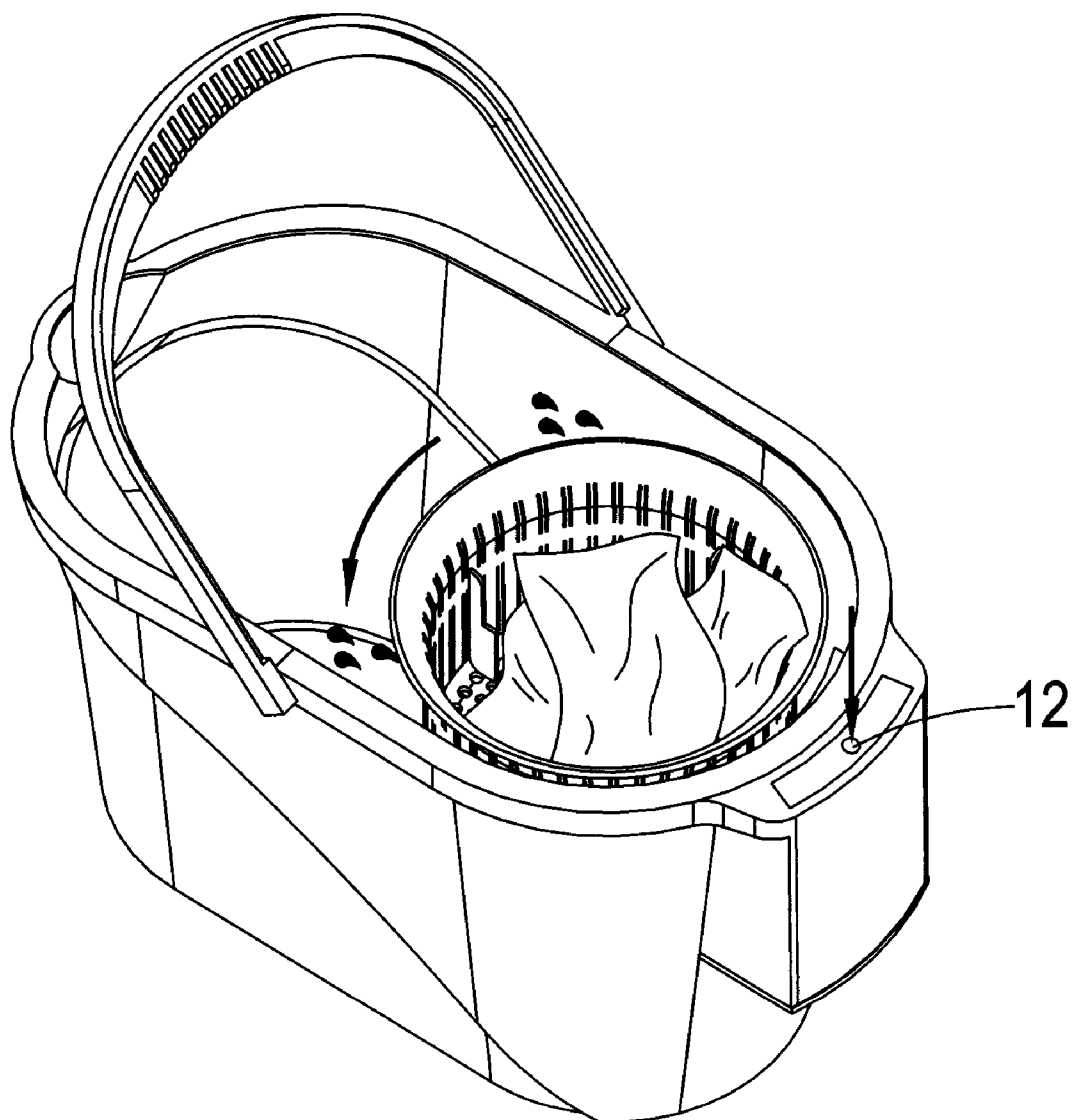


Fig. 10

INTELLIGENT SENSING DEWATERER

FIELD OF THE INVENTION

[0001] The present invention relates to a dewaterer, and particular to an intelligent sensing dewaterer controlled by a sensing unit or a switch. The intelligent sensing dewaterer capable of dewatering through a centrifugal force has a mob, dewatering device, driving motor, and control circuit.

DESCRIPTION OF THE PRIOR ART

[0002] Prior dewaterers on the market are using gear to rotate dewatering device through treading by feet. With reference to FIG. 1, the prior dewaterer has a spin basket 101 linked to an axle 102. The axle 102 has a gear 104 in a bottom end thereof. The gear 104 is an interface between a threaded rod and the axle 102. A step portion 105 for treading by user is linked to the threaded rod 103. The threaded rod 103 will rotate through the step portion 105 is treaded. The gear 104 driven by the threaded rod 103 will rotate the axle 102 as well as the spin basket so as to activate the dewatering device.

[0003] The prior dewaterer has the following disadvantages.

[0004] 1. The operation of treading by user's foot could cause hazards to pregnant women and elders.

[0005] 2. The rough structure could cause injure to user's foot.

[0006] 3. Long term use could cause skin peeling to user's hand for the improper design of the handle of the mob.

[0007] Therefore, to solve the above disadvantages is the object of the inventor of the present invention.

SUMMARY OF THE PRESENT INVENTION

[0008] To solve the disadvantages of the prior art, the inventor provide an intelligent sensing dewaterer having a mob, spin basket, reservoir, sensing unit, driving motor, and a control circuit.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a cross section view showing a prior dewaterer.

[0010] FIG. 2 is an exploded view of the present invention.

[0011] FIG. 3 is a top view and a bottom view of the present invention.

[0012] FIG. 4 is an exploded view showing a mob of the present invention.

[0013] FIG. 5 is another exploded view showing the mob of the present invention.

[0014] FIG. 6 is a schematic view showing the mob of the present invention.

[0015] FIG. 7 is a cross section view of the present invention.

[0016] FIG. 8 is a schematic view showing an operation of the present invention.

[0017] FIG. 9 is a schematic view showing the present invention triggered by a mob.

[0018] FIG. 10 is a schematic view showing the present invention turned on by a switch.

DETAILED DESCRIPTION OF THE INVENTION

[0019] In order that those skilled in the art can further understand the present invention, a description will be pro-

vided in the following in details. However, these descriptions and the appended drawings are only used to cause those skilled in the art to understand the objects, features, and characteristics of the present invention, but not to be used to confine the scope and spirit of the present invention defined in the appended claims.

[0020] Referring to FIGS. 2 and 7, an intelligent sensing dewaterer includes following components.

[0021] A spin basket 1 has a waterproof washer 2 on a bottom side thereof.

[0022] A main body 3 receiving the spin basket 1 and a driving motor 62 has a switch 12.

[0023] A bearing 4 is arranged between an axle 6 and the spin basket 1, and a retaining sheet 5 is arranged below the bearing 4.

[0024] The axle 6 has a gear 61 linking to the driving motor 62.

[0025] A bearing 8 is arranged to a bottom base 9, and a retaining sheet 7 is arranged upon the bearing 8. A reed switch 71 is arranged to the retaining sheet 7.

[0026] The bottom base 9 has a control circuit 91 and a chargeable battery 10. The chargeable battery 10 has a cover 11.

[0027] Referring to FIG. 3, a power plug 100 for charging is arranged to a bottom surface of the dewaterer.

[0028] Referring to FIGS. 4 and 5, a mob of the present invention includes the following components.

[0029] A mob body 21 has a handle 211, separate rod body 212, bearing set 221, bearing base 220, mob head 213, and a sensing unit 214. The bearing set 221 includes a bearing axle 216, retaining ring 217, bearing 218, C ring 219, and a bearing seat 220. The sensing unit 214 on the mob head 213 is fixed by a nut 215. The assembling of above components is illustrated in FIG. 6.

[0030] Referring to FIG. 8, the mob head is put into the spin basket 1 with the sensing unit 214 pointing at the receiving unit (axle) 6. The reed switch 71 triggered by the receiving unit (axle) 6 will enable the control circuit 91 to turn on the driving motor 62. The spin basket 1 will start spinning by the linking of the gear 61 of the axle 6 to the driving motor 62. If the sensing unit 214 is an infrared rays device, a receiver is arranged to the control circuit. The receiver is capable of receiving the sensing unit 214 to enable the control circuit and the driving motor as well.

[0031] Referring to FIG. 9, a mob is spinning in the spinning basket. Referring to FIG. 10, an object without the sensing unit can also be spun by the switch 12.

[0032] The present invention includes the following advantages.

[0033] 1. It is easy and convenient without treading by feet.

[0034] 2. It can be used for other materials excluding the mob.

[0035] 3. The bearing of the mob can separate the handle from spinning so as to prevent human's hand being hurt while spinning.

[0036] 4. It is applicable for users with wider age range.

[0037] The present invention is thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.

What is claimed is:

1. An intelligent sensing dewaterer comprising:
a mob having a sensing unit on a mob head thereof;
the sensing unit for triggering the dewaterer;
a spin basket for receiving materials for dewatering having
an axle for sensing the sensing unit of the mob;
a control circuit enabled by the sensing unit to drive a
driving motor thereof;
a chargeable battery supplying power to the dewaterer;
a retaining component fixed to the axle.
2. The intelligent sensing dewaterer comprising:
a switch for turning on a control circuit to drive a driving
motor;
a spin basket for receiving materials for dewatering;
a control circuit to drive a driving motor thereof;
a chargeable battery supplying power to the dewaterer;
a retaining component fixed to the axle.
3. The intelligent sensing dewaterer as claimed in claim 1,
wherein the mob has a bearing to separate an upper handle
and a lower portion spinning with the spin basket for dewatering.
4. The intelligent sensing dewaterer as claimed in claim 1,
wherein the sensing unit is a magnet; while the sensing unit

approaching the axle, a magnetic field is generated by the axle; a reed switch arranged to the control circuit will be turned on by the magnetic field so as to enable the control circuit and the driving motor.

5. The intelligent sensing dewaterer as claimed in claim 1, wherein the sensing unit is an infrared rays device and a receiver is arranged to the control circuit; the receiver will sense the sensing unit to enable the control circuit and the driving motor as well.

6. The intelligent sensing dewaterer as claimed in claim 1, wherein the retaining component is a bearing.

7. An intelligent sensing dewaterer comprising:
a mob having a sensing unit on a mob head thereof;
a sensing unit for triggering the dewaterer;
a spin basket for receiving materials for dewatering having
an axle for sensing the sensing unit of the mob;
a control circuit enabled by the sensing unit to drive a
driving motor thereof;
a chargeable battery supplying power to the dewaterer;
a retaining component fixed to the axle; and
a switch for turning on the control circuit to drive the
driving motor.

* * * * *