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(71) Applicant: **Sammic, S.L.**
20730 Azpeitia, Guipuzcoa (ES)

(72) Inventors:
• **Aguirrezabalaga Aubizarreta, Aitor**
20730 Azpeitia Guipuzcoa (ES)
• **Gogorza Segurola, Aitor**
20730 Azpeitia Guipuzcoa (ES)
• **Hidalgo Garcia, Javier**
20700 Tolosa Guipuzcoa (ES)

(74) Representative: **Riera Blanco, Juan Carlos**
Doctor Fleming 24, 1o A
28036 Madrid (ES)

(54) **Drying-polishing machine for cutlery and the like**

(57) Drying-polishing machine for cutlery and similar objects, for use after cleaning of the cutlery, for dry and polishing the cutlery, which consists of a vibrating basin supported on a base (1) with shock absorbers (7), incorporating a vibrating motor (5) and having two entry slots (3) and (3') through which the cutlery is introduced

with a ground material derived from corncob, incorporating an upward ramp (2) in front of the filters and having an upward ramp (4), thermostats support, control thermostats, heaters and a brake which acts instantaneously.

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Description

OBJECT OF THE INVENTION

[0001] The present specification refers to an application for a Utility Model for a drying-polishing machine for cutlery and similar objects, which is designed to dry and polish cutlery and other table objects of a similar size, the cutlery being introduced through an entry slot, and the inserted objects exiting via an exit slot.

FIELD OF THE INVENTION

[0002] This invention is for use in the industry for manufacturing machines, apparatus and other similar devices that handle objects for use in the hotel and catering business.

BACKGROUND OF THE INVENTION

[0003] The applicant is aware of the existence of Invention Patents WO022865 and EP0882424, and also the Invention Patents numbers 425.784, 2028921 and 2039994, issued in Spain.

[0004] In the Invention Patents applied for in Spain, and subsequently issued, it is noted that none of them contain a central feed box.

[0005] The use of a germicidal lamp for disinfecting the material before it exits the machine is considered in Invention Patent WO 228265.

[0006] However, what is not included in the inventions obtained and known, is the existence of a drying-polishing machine for cutlery and similar objects with flexible sheets for separating the entry and exit points of the treatment chamber used specifically for polishing the cutlery, and which also has a system or means for braking.

DESCRIPTION OF THE INVENTION

[0007] The drying-polishing machine for cutlery and similar objects proposed by the invention, in its very configuration is clearly a novelty insofar as it refers to the existence of two openings providing entry points with external cover and vibrating basin slot, through which the cutlery is introduced from the top downwards. The granules used for polishing are heated and dried in the flat part of the channel conveying the granules and the cutlery is polished.

[0008] More specifically, the drying-polishing machine for cutlery and similar objects being the object of the invention is made out of a structure, chassis or frame which has means for introducing the products through the entry slot and for exiting the products through the exit slot.

[0009] The basin is moved specifically by suspending the basin over a very rigid base or case and a vibrating motor.

[0010] In order to dry the objects inside the vibrating basin, there is a drying and polishing material, this material being subjected to a heating process by means of flat resistors along the lower part of the basin on its flat surfaces, the material used being a ground or crushed derivative of corncob.

[0011] This material has properties for absorbing water and is also capable of polishing the surface of the cutlery or similar objects undergoing the treatment of the invention by means of friction.

[0012] It should be pointed out that the cutlery is immersed in the above product.

[0013] The movement of the basin generates a granulating movement similar to that used by a floating platform which ascends via a sloping ramp from the entry slot to the exit slot, and the movement is produced together with the cutlery.

[0014] The invention has a vibrating basin resting on a rigid support or casing with wheels, and this basin rests on the springs or anti-vibrating devices, to insulate the transmission of vibration to the ground, and has a vibrating motor attached which produces a vibrating movement and spinning power and movement, producing the friction of the drying granules against the surface of the cutlery, and an ascending movement via the ramps or channels.

[0015] The invention is made entirely of stainless steel, and the sloping ramps and flat channel are made watertight by soldering all the joints of the metal plates.

[0016] On the upwards slopes, some metal sheets are screwed together with a series of grooves or perforations, the sheets being covered with a plastic material to prevent the cutlery or similar objects from rubbing with stainless steel grooving, and these perforations and the covering help the upward conveyance of the cutlery.

[0017] These ramps are covered in a material which does not damage the cutlery and can also be removed.

[0018] All the inside bowl, ramps included, is normally lined with a similar material or polyurethane to help improve the upward conveyance of the material, stopping it from sliding, but as the cutlery moves along with the appropriate friction, it gets worn and the bowl must obviously be re-covered or replaced, the ability to replace the worn area thus being made possible by configuring a spare and reducing the maintenance costs.

[0019] The invention has a fully automatic electric brake which generates the switch from high (1500 RPM) to 0 (0 RPM) in 1 second, and thus the jump is not substantial, avoiding brisk movements at the end.

[0020] The invention thus has an electric brake for instantaneously stopping the vibrating basin, allowing switching from the critical frequency in a negligible amount of time.

DESCRIPTION OF THE DRAWINGS

[0021] To complement the description given and to help provide a better understanding of the characteris-

tics of the invention, a separate sheet with drawings is attached to these specifications which show, in an illustrative and non-limitative way, the following:

Figure number 1. - Shows a perspective view of the slot through which the cutlery drops, the invention being configured for a drying-polishing machine for cutlery and similar objects. 5

jects, according to claim 1, **characterized in that** it has a brake which acts instantaneously.

PRFERRED EMBODIMENT OF THE INVENTION 10

[0022] It can be seen in Figure 1, being the only drawing, how the drying-polishing machine for cutlery and similar objects is made of a structure, chassis or frame which has in its inner area a structure with shock absorbers (7), on which a stainless steel entry slot is situated (3), with upward ramps (2) or ramps configured as a channel for conveying the cutlery situated in front of the filters, and having an upward ramp (4), and direction of movement being shown in (6). 15 20

[0023] The invention incorporates a vibrating motor (5), thermostat supports, heaters and flat resistors.

[0024] The invention also has granule control thermostats used to carry out the friction action against the cutlery. 25

[0025] The basin is moved by suspending it using shock absorbers (7) on a very rigid base or case and the vibrating motor (5).

[0026] As can be seen in Figure 1, the invention has in the structure providing the drying and polishing area, an entry slot (3) and an entry slot (3') situated on the vibrating basin, and it should be noted that the granules are heated and dried in the flat area of the channel which conveys the granules and cutlery, with two flat resistors which are situated on the opposite side of the vibrating basin, positioned on a thermostat frame. 30 35

[0027] It should be pointed out that the cutlery enters via (3) and (3') and exits via (6), the invention incorporating an electric brake which acts instantaneously to avoid final brisk movements when stopping. 40

Claims

1. Drying-polishing machine for cutlery and similar objects, of the type made of a structure, chassis or frame in stainless steel, **characterized in that** it has a vibrating basin supported on a base (1) which has shock absorbers (7) and which incorporates a vibrating motor (5), with two entry slots (3) and (3') through which the cutlery or similar objects are introduced with a ground or crushed derivative of corncob, having an upward ramp (2) or channel for conveying the cutlery in front of the filters, and having an upward ramp (4), and a thermostats support, control thermostats and heaters. 45 50 55

2. Drying-polishing machine for cutlery and similar ob-

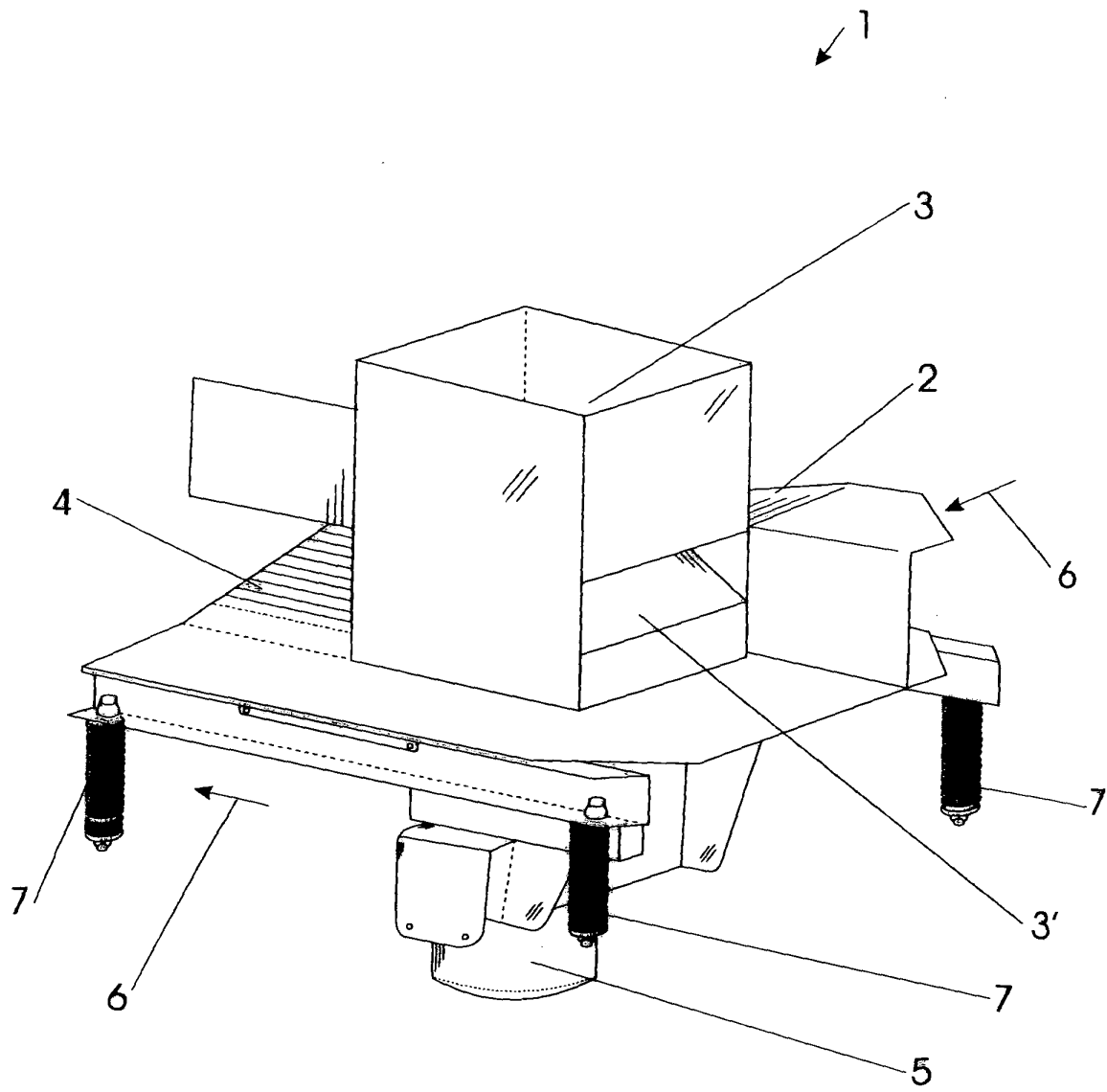


FIG. 1