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- (71) Applicant: MAZZER LUIGI S.R.L. [IT/IT]; Via Moglianese, 113, I-30037 Gardigiano Di Scorze' (IT).
- (72) Inventor: MAZZER, Giovanni; c/o MAZZER LUIGI S.R.L., Via Moglianese, 113, I-30037 Gardigiano Di Scorze' (IT).
- (74) Agent: PIOVESANA, Paolo; Via F. Baracca, 5/a, I-30173 Venezia Mestre (IT).
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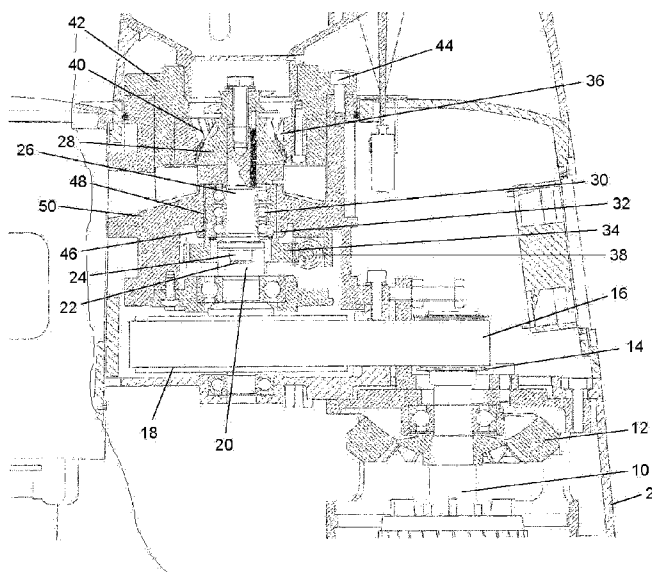
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(54) Title: COFFEE GRINDER-DISPENSER

FIG. 2



(57) Abstract: A coffee grinder-dispenser consisting of a support base containing a grinding chamber, said base housing: - an electric motor (8), to the shaft (10) of which a second shaft (26) is rotoidally constrained but axially free, for rotating the driven grinding wheel (28), - a sleeve (32) within which said second shaft (26) rotates freely but is axially restrained, said sleeve (32) having its threaded lateral surface (46) cooperating with a threaded portion (48) rigid with the base, said driven grinding wheel being axially constrained to said sleeve (32), - a fixed grinding wheel (40) facing said driven grinding wheel (28) in the interior of the grinding chamber (36), said fixed grinding wheel being fixed in a determined position to the base frame in a non removable manner, characterised by comprising means (34, 38) for axially rotating said sleeve (32).

COFFEE GRINDER-DISPENSER

The present invention relates to a coffee grinder-dispenser.

Coffee grinder-dispensers are known comprising a casing housing two opposing grinding wheels, one of which is rotated by an electric motor, while
5 the other is movable axially to the first, by the operation of a threaded ring engaging in a grinding wheel holder.

In these grinder-dispensers, continuous adjustment of the degree of grinding is achieved by the threaded coupling arrangement, which enables that grinding wheel movable axially to the motor-rotated grinding wheel to
10 undergo axial approach and withdrawal movement within a grinding chamber.

Such known grinder-dispensers present however the drawback that, following disengagement of one of the two grinding wheels for cleaning the grinding chamber, a lengthy and laborious operation is required to return the grinding wheels to their correct degree of adjustment.

15 An object of the invention is to eliminate these drawbacks by providing a grinder-dispenser which enables the cleaning of the grinding chamber to be achieved easily and comfortably without disturbing the degree of adjustment which has been previously set.

This object is attained according to the invention by a coffee grinder-
20 dispenser as described in claim 1.

The present invention is further clarified hereinafter with reference to the accompanying drawings in which:

Figure 1 is a partial longitudinal section through the grinder-dispenser according to the invention, and

25 Figure 2 shows the part indicated by dashed lines in Figure 1.

As can be seen from the figures, the grinder-dispenser according to the invention is enclosed within a base 2 supporting a bell-shaped container 4 for containing coffee beans, and a dispenser 6 for portioning the ground coffee.

5 In the base 2 a motor 8 of vertical axis is mounted, the shaft 10 of which is rigid with a cooling fan 12 and a pulley 14.

The pulley 14 is connected via a belt 16 to a driven wheel 18 of diameter greater than the diameter of the pulley 14.

10 The driven wheel 18 is rotoidably rigid with a shaft 20, the upper end of which is provided with a grooved seat 22 engaged by a corresponding head 24 of a shaft 26, which rigidly rotates the driven grinding wheel 28 positioned inside the grinding chamber 36.

The shaft 26 is guided axially by ball bearings 30 inserted into a sleeve 32 on which the driven grinding wheel 28 rests.

15 The shaft 26 rotates freely within the sleeve 32 but is axially constrained to it.

The sleeve 32 lowerly presents a gear wheel 34 with which a worm 38 cooperates.

20 The lateral surface of the sleeve 32 is provided with a thread 46 cooperating with a corresponding threaded portion 48 provided in a structure 50 rigid with the base 2.

The fixed grinding wheel 40 opposes the driven grinding wheel within the grinding chamber 36, and is connected to its grinding wheel holder 42 which is fixed to the base by screws 44.

In the operation of the grinder-dispenser according to the invention, on starting the electric motor 8, the shaft 20 is rotated via the linkage 10, 14, 16 and 18, and transmits its rotary movement to the shaft 24 which then rotates the driven grinding wheel 28.

5 To adjust the degree of grinding, the worm 38 which engages the gear wheel 36 of the sleeve 32 is rotated to cause it to rotate axially. Given the threaded coupling between the portions 46, 48, this rotation has the effect of raising and lowering the sleeve and consequently the driven grinding wheel relative to the fixed grinding wheel.

10 The adjustment of the degree of grinding is hence determined by the position of the driven grinding wheel 28, in that the fixed grinding wheel 40 is of fixed position determined by the mechanical connection with the grinding wheel holder 42 and the base 2.

 To clean the grinding chamber, the screws 44 are removed and the
15 fixed grinding wheel 40 removed without in any way varying the position of the driven grinding wheel 28 and without modifying the adjustment setting.

 On repositioning the fixed grinding wheel 40 and the relative grinding wheel holder after cleaning, the previously set adjustment is maintained.

CLAIMS

1. A coffee grinder-dispenser consisting of a support base containing a grinding chamber, said base housing:
 - an electric motor (8), to the shaft (10) of which a second shaft (26) is
 - 5 rotoidally constrained but axially free, for rotating the driven grinding wheel (28),
 - a sleeve (32) within which said second shaft (26) rotates freely but is axially restrained, said sleeve (32) having its threaded lateral surface (46) cooperating with a threaded portion (48) rigid with the base, said driven
 - 10 grinding wheel being axially constrained to said sleeve (32),
 - a fixed grinding wheel (40) facing said driven grinding wheel (28) in the interior of the grinding chamber (36), said fixed grinding wheel being fixed in a determined position to the base frame in a non removable manner, characterised by comprising means (34, 38) for axially rotating said sleeve
 - 15 (32).
2. A grinder-dispenser as claimed in claim 1, characterised in that the shaft (10) of the electric motor (8) is connected to the second shaft (26) by a pulley (14) rigid with the shaft (10) of the electric motor (8), said pulley being connected by a belt (16) to a driven wheel (18) in which said second shaft
- 20 rotoidally engages but is axially free.
3. A grinder-dispenser as claimed in claim 2, characterised in that said second shaft (26) engages rotoidally but axially freely in a slotted seat (22) provided on a third shaft (20) rigid with the driven wheel (18).

4. A grinder-dispenser as claimed in claim 1, characterised in that the means for rotating consist of a worm (38) which engages a gear wheel (34) rigid with the sleeve (32).

FIG. 1

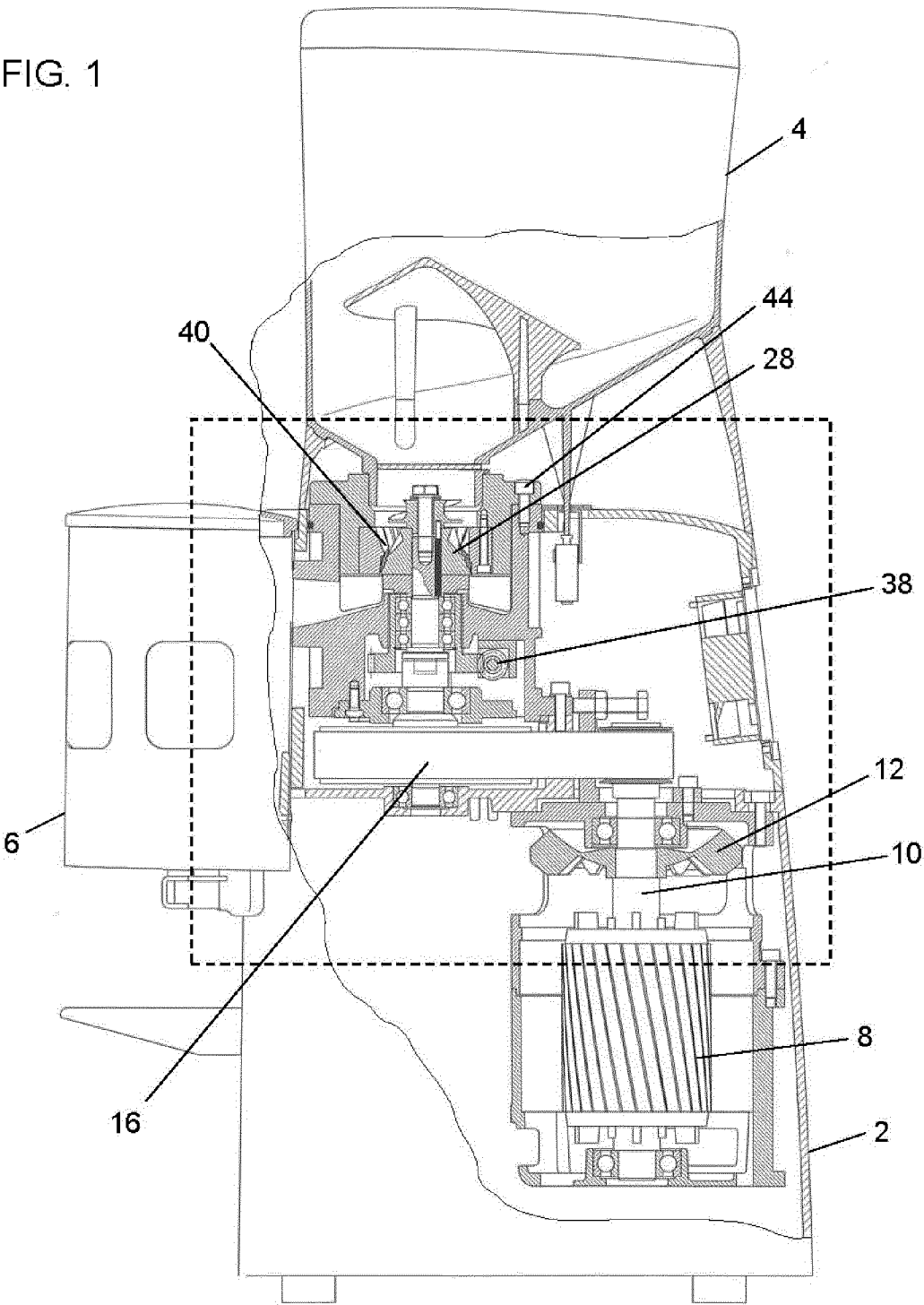
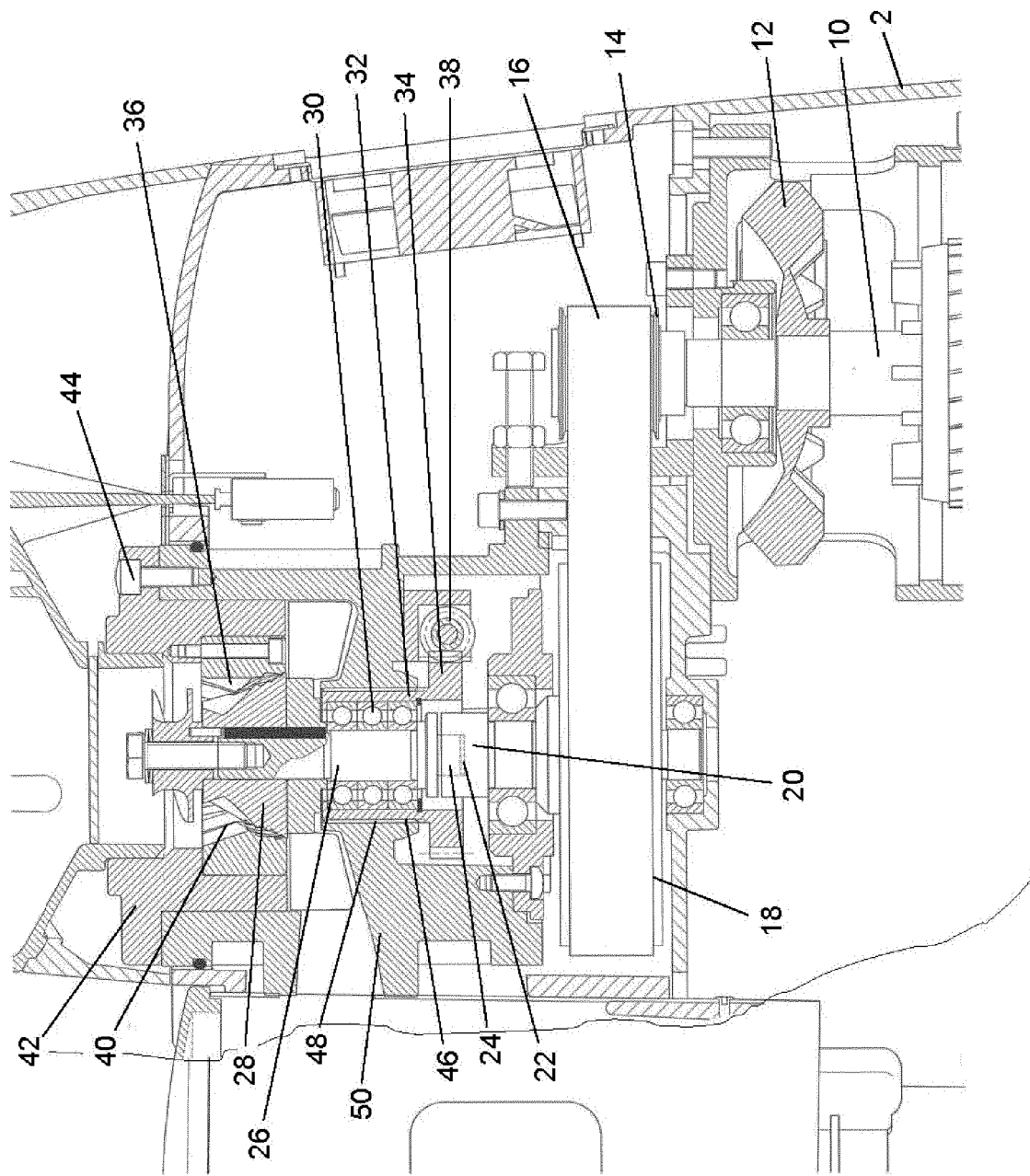


FIG. 2



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2014/063186

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47J42/08
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A47J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2011/067116 A1 (MAZZER LUIGI S R L [IT]; MAZZER GIOVANNI [IT]) 9 June 2011 (2011-06-09) the whole document -----	1-4
A	EP 2 050 377 A1 (ELDOM ROTHRIST AG [CH]) 22 April 2009 (2009-04-22) the whole document -----	1-4
A	GB 14690 A A.D. 1911 (POLACK JULIUS [DE]) 9 May 1912 (1912-05-09) the whole document -----	1-4



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Acerbis, Giorgio

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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