

Title (en)

An apparatus for producing a mixture from liquid and powder ingredients, and kneading and extruding the mixture.

Title (de)

Apparat zum Verfertigen einer Mischung von Flüssigkeit und Pulver und zum Kneten und Extrudieren dieser Mischung.

Title (fr)

Un appareil pour la production d'un mélange d'un liquide et d'une poudre et pour pétrir et extruder le mélange.

Publication

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Application

EP 88850414 A 19881208

Priority

SE 8704949 A 19871211

Abstract (en)

An apparatus for continuously producing from liquid and powder ingredients a substantially homogenous mixture and kneading the mixture to form a compact, plastic mass, and for extruding this mass into elongated extrusions. The mixer comprises a mixer housing (1) and mutually separate liquid and powder delivery conduits (18, 19) and a mixture outlet. A wheel assembly (3, 4) is arranged for rotation in the housing (1) on a shaft (5). The liquid delivery conduit (9) opens into a cavity (7) located in the wheel assembly, whereas the powder delivery conduit (18) opens into powder spaces (10) provided in the upper part (3) of the wheel assembly. The cavity (7) communicates with the upper side of the wheel assembly via a circumferentially extending slot or gap (8) which opens out adjacent an edge (11) which extends circumferentially around the slot or gap on the peripheral side thereof. The slot has a substantially frusto-conical configuration with the apex of the cone facing downwards. Extending around the periphery of the mixer housing is a cylindrical shell (15) which is perforated with holes (16) in that part thereof which extends over the housing outlet, the axes of this shell being coaxial with the axes (5) of the mixer wheel. Blades (12) are arranged in the chordal direction in the mixer housing between the circumferentially extending edge (11) and the cylindrical shell (15). The edges (13) of the blades (12) lie immediately adjacent the inner conical surface (14) of the mixer housing and knead and tear the mixture in co-action with the surface, while the outer ends (21) of the blades lie against the inner surface (22) of the shell (15) and are operative in forcing the resultant plastic mass through holes (16) to produce elongated extrusions.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] DE 1085851 B 19600728 - BAYER AG
- [YD] EP 0163619 A2 19851204 - LEJUS MEDICAL AB [SE]
- [A] GB 1354167 A 19740605 - FOUCAULT P
- [A] US 4511321 A 19850416 - HOWARD GLENN [US]
- [A] GB 1016232 A 19660105 - JOHN FRANCIS ANTHONY MEYER
- [A] US 3045613 A 19620724 - KENNEDY EMERSON S
- [A] FR 2119797 A1 19720811 - DEGOUL MARCEL

Cited by

US6254335B1; CN104135708A; EP2609999A1; JP2013132572A; DE4209527A1; CN105664777A; US10118139B2; EP2866926A4; EP3753628A1; EP3753628B1

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