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(12) **United States Patent**
Debolini

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(54) **DRYER, IN PARTICULAR FOR POWDERED OR GRANULAR MATERIAL**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 902 days.

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(65) **Prior Publication Data**

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(57) **ABSTRACT**

(30) **Foreign Application Priority Data**

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The dryer comprises a casing having a longitudinal axis, a mixing shaft, a circular plate that seals an opening made in one of the end walls of the casing, and a frame supporting the casing and the shaft. In the edge portion of the opening closest to the chamber a first circumferential groove is made which is formed by a first radial cavity and by a second radial cavity deeper than the first, joined by an axial portion. An annular sealing element made of a non-stick material, having a cross-section comprising at least one axial strip and one radial strip, is inserted into the first groove in such a way that the radial strip is inserted into the second cavity and the axial strip occupies the axial portion and the mouth of the first radial cavity. A first sealing ring comprising at least one core of elastomeric material is inserted into the first cavity so as to radially compress the axial strip against the plate and a second sealing ring comprising at least one core of elastomeric material is inserted into the second cavity so as axially to compress the radial strip.

(51) **Int. Cl.**

F26B 25/06 (2006.01)

(52) **U.S. Cl.** **34/242**

(58) **Field of Classification Search** **34/242,**
34/417; 277/637, 644, 645, 650, 652, 905,
277/910, 935, 944

See application file for complete search history.

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15 Claims, 6 Drawing Sheets

