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Gusack et al.

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- (54) **APPARATUS AND METHOD FOR PRESSING POWDERS**
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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 0 days.**

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(57) **ABSTRACT**

The present invention provides a method and apparatus for providing zero-defect pressed articles with minimal, remote operator intervention. The apparatus includes a programmable logic controller, controlling a powder feeder portion having a dump bucket which is weighed by an electronic scale. Desired weights of powder in the dump bucket are dumped to a first location and conveyed to the press. Non-desired weights of powder in the dump bucket are dumped to a second location and may be recycled. The invention provides for precise weighing of powder and avoids waste of powder in the event of improper powder dispensing and provides for complete automatic logging of production and testing data, and rejection of defective articles, avoiding the need to manually test each produced article. This method and apparatus are particularly useful in the pressing of energetic materials into pellets or casings, where manual operations are restricted for safety reasons.

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- (52) U.S. Cl. **264/37.29; 264/40.4; 264/109; 425/140; 425/148; 425/352; 425/447; 425/260; 425/405.1**
- (58) Field of Search **264/40.4, 109, 264/122, 37.29, 37.1, 102; 425/78, 140, 148, 352, 354, 355, 406, 447, 449, 162, 256, 260, 405.1**

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38 Claims, 8 Drawing Sheets

