

[54] **LOW DENSITY COFFEE ROASTING PROCESS**

3,262,217 7/1966 Brown et al. .... 34/57 A  
3,595,668 7/1971 Nutting et al. .... 426/467

[75] Inventors: **Merton H. Hubbard, Hillsborough;**  
**Robert R. Phipps, San Francisco;**  
**Richard L. Thompson, Walnut Creek,**  
all of Calif.

**FOREIGN PATENT DOCUMENTS**

814756 6/1959 United Kingdom ..... 426/466

[73] Assignee: **Hills Bros. Coffee, Inc., San Francisco, Calif.**

*Primary Examiner*—Kenneth M. Schor  
*Attorney, Agent, or Firm*—Flehr, Hohbach, Test,  
Albritton & Herbert

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[57] **ABSTRACT**

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A coffee roasting process for forming roasted coffee in which the green coffee beans are dry roasted by passage in a fluidized bed through a two-stage roaster. In the first stage, the beans are heated by a roasting gas for partial roasting and expansion of their cellular structure. Then, in the second zone, the beans are contacted with an independent roasting gas stream at a temperature of 515° F.– 545° F. to stabilize the open structure of the beans and to provide the desired dark brown color without burning. The second gas is supplied at a lower velocity and higher temperature than the first gas. The roasted coffee bean product is of low density while providing high yield of soluble solids.

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99/474; 426/466

[58] Field of Search ..... 426/466, 467, 595, 594,  
426/486, 450, 455; 34/10, 57 A, 57 B, 57 C;  
99/477, 474

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

2,212,120 8/1940 Kreale et al. .... 426/467  
2,307,710 1/1943 Polin et al. .... 426/466  
2,581,148 1/1952 Scull et al. .... 426/466  
3,122,439 2/1964 MacAllister et al. .... 426/467  
3,229,377 1/1966 Hoyt ..... 34/57 A

**7 Claims, 3 Drawing Figures**

