Dec. 2, 1952 J. BUCHAN 2,620,095

POWER CONTAINER WITH BELLOWS FOR EXPELLING THE POWDER THEREFROM

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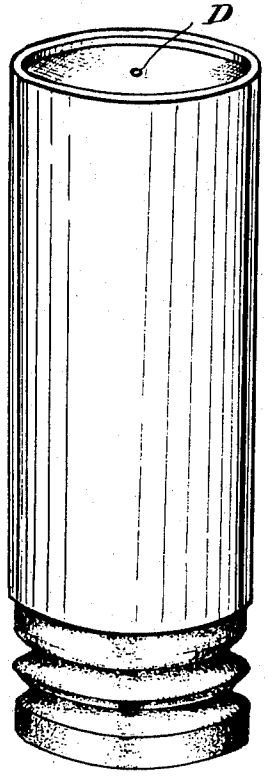


Fig. 1.

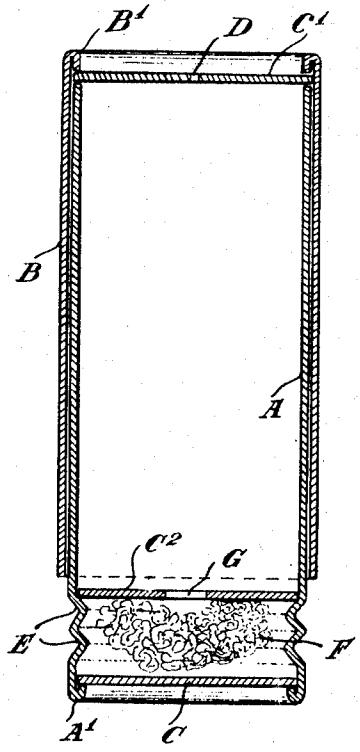


Fig. 2.

James Buchan
By Fraser, Myers & Manley
Attorneys

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2,620,095

POWDER CONTAINER WITH BELLOWS FOR EXPELLING THE POWDER THEREFROM

James Buchan, Glasgow, Scotland, assignor of two-thirds to John Alan King and John Laird & Son, Limited, a British company, both of Glasgow, Scotland

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4 Claims. (Cl. 222—193)

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This invention relates to powder distributing drums and is directed more particularly to a cardboard carton of cylindrical form constructed for use as a means of distributing powder of a comparatively fine grade.

According to the invention, a powder distributor comprises a tubular body portion and a closing cap therefor, said cap having at least one perforation therein, and said body having at the base thereof a bellows arrangement, the operation of which will eject the powder contents of the distributor through said perforation or perforations in the form of a cloud.

In order that the invention may be clearly understood and readily carried into effect, reference is directed to the accompanying drawings, wherein:

Fig. 1 is a perspective view of a powder distributor constructed in accordance with the invention.

Fig. 2 is a longitudinal section of the powder distributor.

In the embodiment of the invention disclosed, the powder distributor comprises a cylindrical body portion A closed at one end and open at the other and a cylindrical cap portion B also closed at one end and open at the other, the cap portion sliding over the body portion to provide a closed cylindrical container, the walls of the cap extending practically the full length of the body, as shown in the drawing. The closure at the ends of the body and cap are formed by rolling in a bead A^1, B^1 respectively, to engage respectively related discs C, C^1 of cardboard, the disc C^1 at the closed end of the cap having therein at least one perforation D, preferably a single fine perforation, as illustrated in Fig. 1. The base of the body A adjacent the end closure C is provided with a pair of inwardly directed adjoining peripheral grooves E of V-shape in cross-section constituting a bellows, the closure C at the end of the body forming one end of the bellows and a complementary disc C^2 of cardboard, forming the other end of the bellows, being fitted within the body. The inner disc C^2 is formed with a perforation G therein to help the bellows action.

In use, after the container has been filled and the cap placed in position, the distributor is grasped in one hand and the base of the container is moved in and out with the other hand to create a bellows action and thereby distribute the powder in a fine cloud through the orifice provided in the cap.

Between the inner disc C^2 and the other disc C a filling of cotton wool F is provided which not

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only assists in the return movement of the bellows action but serves to prevent powder being expelled at the rear of the container when the bellows is operated.

What I claim and desire to secure by Letters Patent is:

1. A powder distributor receptacle comprising a self-sustaining tubular body, a closure member at each end of the tubular body, one of said closure members having therein at least one perforation and the wall of the self-sustaining tubular body adjacent the other closure member being deformed to provide therein an inwardly directed peripheral groove which divides the self-sustaining tubular body into connected parts adapted to be axially moved toward and away from each other to provide a bellows action for the receptacle, a partition member having an opening therethrough fitted within the tubular body adjacent the peripheral groove to locate said groove between said partition and said other closure member, and a resilient mass of fibrous material in the space between said partition member and said other closure member to assist in returning said other closure member to its initial position after it has been axially moved toward the first closure member.

2. A powder distributor receptacle comprising a self-sustaining tubular body portion having a closure member at one end and being open at the other end, a self-sustaining tubular cap portion having a closure member at one end and being open at the other end, said cap portion having a telescoping fit over said body portion to provide a cylindrical container closed at both ends, the tubular wall of the cap portion extending for a major portion of the length of the tubular body portion, the closure member of the cap portion having therein at least one perforation, the tubular wall of the tubular body portion adjacent the closure member thereof being deformed to provide therein at least one inwardly directed peripheral groove which divides said tubular wall into connected parts adapted to be axially moved toward and away from each other to provide the bellows action for the receptacle.

3. A powder distributor according to claim 2 wherein the tubular wall of the body portion in adjacent spaced relation to its end closure member is deformed to provide a plurality of inwardly directed peripheral grooves.

4. A powder distributor receptacle comprising a self-sustaining tubular body portion having a closure member at one end and being open at the other end, a self-sustaining tubular cap portion

having a closure member at one end and being open at the other end, said cap portion having a telescoping fit over said body portion to provide a cylindrical container closed at both ends, the tubular wall of the cap portion extending for a major portion of the length of the tubular body portion, the closure member of the cap portion having therein at least one perforation, the tubular wall of the tubular body portion adjacent the closure member thereof being deformed to provide therein at least one inwardly directed peripheral groove which divides said tubular wall into connected parts adapted to be axially moved toward and away from each other to provide the bellows action for the receptacle, a partition member having an opening therethrough fitted within the tubular body portion adjacent the peripheral groove to locate said groove between said partition member and said end closure member of the tubular body portion, and a resilient mass of fibrous material disposed in the space between said partition member and said last-mentioned end closure member.

JAMES BUCHAN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
671,766	Johnson	Apr. 9, 1901
697,729	Lichtenstein	Apr. 15, 1902
762,300	Fulton	June 14, 1904
775,324	Albers	Nov. 22, 1904
1,366,279	Reynolds	Jan. 18, 1921
1,377,077	Irwin	May 3, 1921
1,609,674	Tefft	Dec. 7, 1926
1,715,986	Brown	June 4, 1929
1,752,956	Lex	Apr. 1, 1930
2,050,246	Colvin	Aug. 11, 1936
2,136,795	Hoffman	Nov. 15, 1938
2,315,581	Berenson	Apr. 6, 1943
2,349,875	Mandlak	May 30, 1944

FOREIGN PATENTS

Number	Country	Date
11,330	Great Britain	Aug. 5, 1915
232,631	Great Britain	Jan. 7, 1926