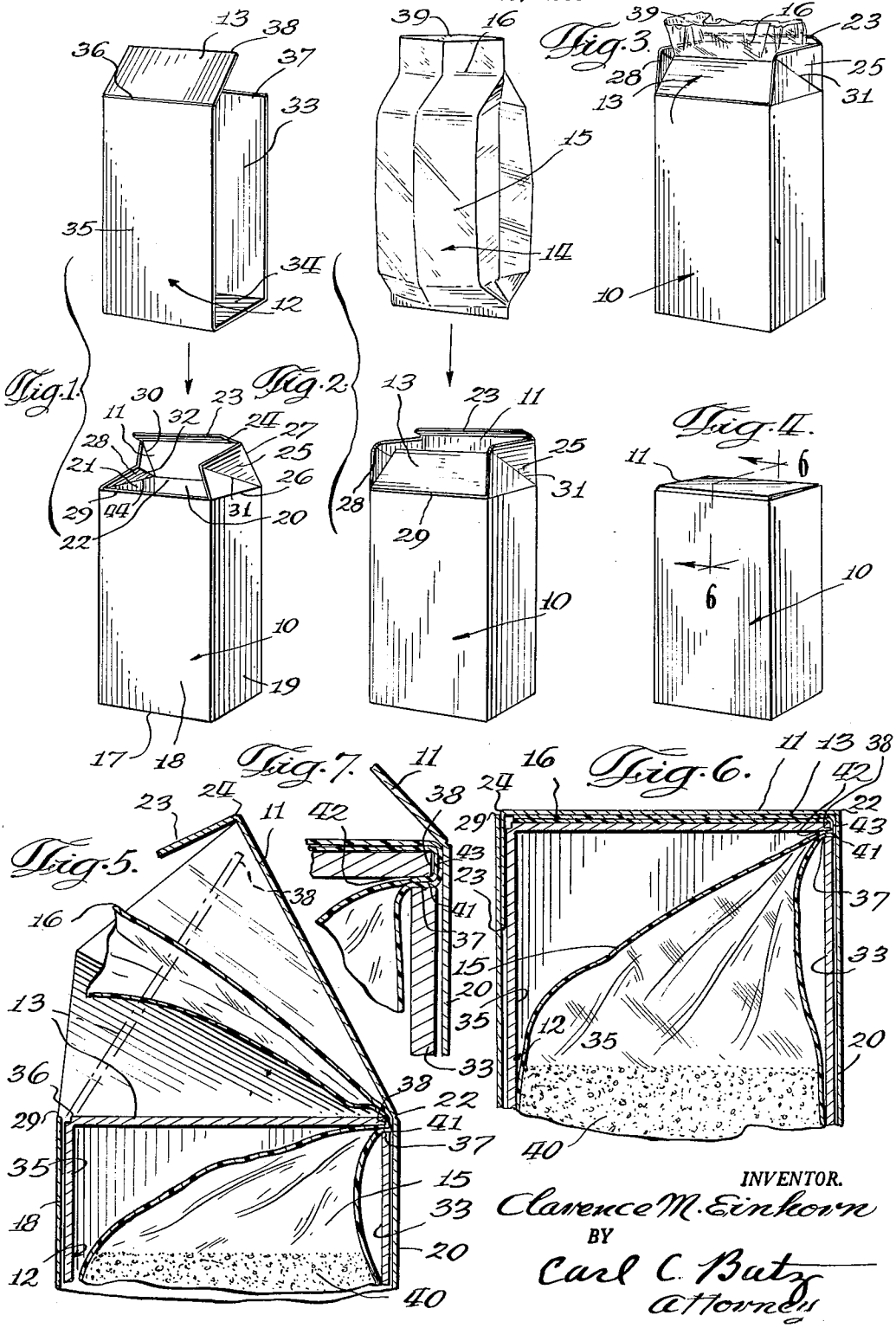
Aug. 28, 1962 C. M. EINHORN 3,051,367

CONTAINER

Filed Oct. 13, 1960




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United States Patent Office 3,051,367 Patented Aug. 28, 1962



3,051,367

# CONTAINER

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Filed Oct. 13, 1960, Ser. No. 62,202
3 Claims. (Cl. 229—14)

This invention relates to improved containers.

It is an object of this invention to provide an improved container constructed so that it is reclosed in substantially the same way as it was originally closed. It is another object of this invention to provide an improved container which may be opened without injuring any of the component parts of the container. It is also an object of this invention to provide a container with increased strength so the containers may be stacked upon each other. Another object is to reduce bulging of the front and back of the container. It is still another object to fortify the corners of the container. It is a further object of this invention to provide a container which will prevent powdered or granular materials, enclosed within the container, from sifting therefrom when the container is being subjected to vibrations. It is still another object of this invention to provide a container which is moisture-proof so that hygroscopic material, enclosed within the container, will not contact moist air. It is also an object to prevent the escape of moisture from moist material enclosed within the container. It is a further object to prevent the escape of odors from material enclosed within the container. It is a still further object of this invention to provide a container which may be closed by one operator without the necessity of additional expensive equipment. Further objects and purposes of this invention will become obvious as the specification proceeds.

FIGURE 1 of the drawings is a perspective view of the first stage of assembly of the container. FIGURE 2 is a perspective view of the second stage of assembly of the container. FIGURE 3 is a perspective view of the following stage of assembly. FIGURE 4 is a perspective view of the container in the closed position. FIGURE 5 is a broken section view of the side of the container. FIGURE 6 is a broken section view along line 6—6 of FIGURE 4. FIGURE 7 is an enlarged broken side section view of the top rear corner of the container.

Generally, this invention is an improved container which comprises an outer container 10; a liner 12, liner 12 being positioned interior to outer container 10; and a flexible container 14 having a lower portion 15 and an upper portion 16, lower portion 15 being positioned interior to outer container 10 and liner 12, and upper portion 16 being positioned between liner 12 and outer container 10.

Outer container 10 comprises generally a base 17, front side 18, first side 19, rear side 20, second side 21, and cover 11. Cover 11 is hingeably attached to rear side 20 along scored line 22 and is adapted to rotate from the open position to a closed position. Tuck 23 is hingeably attached to cover 11 along scored line 24 and is adapted to be positioned substantially normal to cover 11 when the container is closed. First flap 25 is attached to first side 19 along scored line 26 and to cover 11 along scored line 27. Second flap 28 is attached to second side 21 along scored line 44, to cover 11 along scored line 30. First flap 25 is scored along line 31 and second flap 28 is scored along line 32 so that as cover 11 is rotated to the closed position, side flaps 25 and 28 will naturally fold under cover 11. It should be mentioned here that other conventional types of flaps could be used. For example, side flaps used on many types of containers are attached only to the sides and not to the cover. However, the flaps illustrated in the drawings are preferred since they facilitate



the closing of cover 11, they strengthen cover 11, and they also eliminate a raw edge on cover 11.

Outer container 10 may be constructed of any material conventionally used for containers of this type. It is preferred that a cardboard or paper board type of material be used. However, the type of material used is not intended to be a limitation of the scope of this invention.

Liner 12, as illustrated in the drawings, comprises generally a rear wall 33, a bottom 34, a front wall 35, and a top 13. Top 13 is hingeably attached to front wall 35 along scored line 36 and is adapted to rotate from an open position to a closed position. The dimensions of liner 12 should preferably be such that it will fit snugly, not loosely or tightly, within outer container 10. Top 13 of liner 12 should be adapted to rest on the upper edge 37 of rear wall 33. It is preferred that the distance between scored line 22 and scored line 24 of outer container 10 be approximately equal to the distance between front wall 35 and rear edge 38 of top 13. The embodiment of liner 12 illustrated in the drawings shows that there are openings only on two sides. However, it is to be understood that liner 12 could be closed on all four sides without departing from the spirit and scope of this invention.

Liner 12 may also be constructed of any relatively rigid material, such as fiber board, paper board, or cardboard. However, it is preferred that liner 12 be constructed of a corrugated material. The material used is not intended to be a limitation of the scope of this invention.

Flexible container 14 comprises generally a lower portion 15 and an upper portion 16. Lower portion 15 is that part of the flexible container 14 which is completely enclosed by liner 12 and outer container 10. Upper portion 16 is generally the remainder of the flexible container 14. Flexible container 14 has an opening 39 in the upper portion. Dimensionally, flexible container 14 is designed so that when filled with contents 40, lower portion 15 should contact the bottom 34 and walls 33 and 35 of liner 12, and first side 19 and a second side 21 of outer container 10. When liner 12 has four sides, flexible container 14 will contact all four sides. The height of flexible container 14 should be such that after the closure is made, upper portion 16 of flexible container 14 is positioned between top 13 of liner 12 and cover 11 of outer container 10.

Flexible container 12 may be constructed of any flexible material, such as paper, foil or plastic, but in order to fulfill all the objects as previously set out, it is preferred that the material be moisture proof. Moisture proof polyethylene film has been found to be particularly satisfactory.

Now that the component parts of the container have been described, the co-action of these parts and the advantages derived therefrom will be explained. Referring to FIGURE 1, liner 12 is inserted into outer container 10 so that scored line 36 of liner 12 is adjacent to upper edge 29 of front side 18 of outer container 10. Liner 12 could be inserted so that scored line 36 would be adjacent to scored line 22 without departing from the spirit and scope of the invention. However, for ease of assembly, the embodiment illustrated is preferred. Referring to FIGURE 2, flexible container 14 is inserted into liner 12 as shown. For ease of assembly, it is preferred that flexible container 14 be positioned within liner 12 and then both be positioned within outer container 10 at the same time. Referring to FIGURE 3, the container is now ready to receive contents 40. For some contents, flexible container 14 could conceivably first be filled and then inserted into liner 12 and outer container 10, but it is preferred that for most applications, flexible container 14 be filled after being positioned within liner 12 and outer container 10. After the desired quantity of contents 40 has been placed in flexible con-

tainer **14**, top **13** of liner **12** is closed by rotating in the direction shown by the arrow in FIGURE 3. Referring to FIGURE 5, top **13** is shown in dotted lines prior to being rotated, and is shown in section lines after being rotated in the closed position. The initial closure of flexible container **14** is accomplished by squeezing, crushing or compressing the top part **41** of upper portion **16** between upper edge **37** and lower surface **42** of liner **12**. After top **13** is closed, cover **11** of outer container **10** is rotated downward, and flaps **25** and **28** of outer container **10** fold inwardly. Tuck **23** is inserted between front wall **35** of liner **12** and front side **18** of outer container **10**. Because of the dimensions of cover **11** of outer container **10** and top **13** of liner **12**, the second seal of flexible container **14** is accomplished by squeezing bottom part **43** of upper portion **16** between rear edge **38** of top **13** of liner **12** and rear side **20** of outer container **10**. The remainder of the upper portion **16** is positioned between cover **11** of outer container **10** and top **13** of liner **12**. FIGURE 6 illustrates the internal appearance of the closed container and FIGURE 4 illustrates the external appearance of the closed container.

It should be readily apparent that the container of this invention has many advantages. For example, the consumer may open the container, use a portion, then reclose or reseal the container and still retain as good a seal as the original seal. No glue or heat seal is required to seal this container, which eliminates the necessity of additional expensive equipment. Also, since the container may be opened without injuring any of the component parts, the package will retain an attractive appearance rather than have an unsightly appearance due to tearing or ripping of the package. The liner **12** serves a dual function in that it not only gives added strength to the container, but it also co-operates with outer container **10** in effecting a seal on the flexible container **14**. The result of this invention is an attractive, sturdy, moisture-proof, sift-proof, easily opened and easily reclosed container. This container is particularly effective for packaging chemical and organic fertilizers, but it is also effective for packaging sugar, salt, etc. Also, non-granular materials, for example crackers, may readily be packaged in my improved container. The package may be used for packaging any number of commodities.

It is to be understood that this invention is not to be limited to the specific embodiments depicted in the drawings and specification; rather, it is intended that all equivalents obvious to those skilled in the art be included within the scope of this invention.

Now that my invention has been described, what I claim is:

1. A container comprising an outer container having a front side, a rear side and a cover rotatably attached to the said rear side; a liner having a front wall, a rear wall, one of said walls having an upper edge, and a top rotatably attached to one of said walls, said top having a lower surface and an edge, and said liner being positioned interior to said outer container so that said front wall is positioned adjacent to said front side; and a flexible container having a lower portion with a top part and an upper portion with a bottom part, said lower portion being positioned interior to said outer container and said liner, the top part of said lower portion being tightly positioned between said lower surface and said upper edge, and said upper portion being positioned between said cover and said top and the bottom part of said upper portion being tightly positioned between one of said sides and the edge of said top.



2. A container comprising an outer container having a front side, a rear side, and a cover rotatably attached to said rear side, said cover having a tuck; a liner having a front wall, a rear wall, one of said walls having an upper edge, and a top rotatably attached to one of said walls, said top having a lower surface and an edge and said liner being positioned interior to said outer container so that said front wall is positioned adjacent to said front side; and a flexible container having a lower portion with a top part and an upper portion with a bottom part, said lower portion being positioned interior to said outer container and said liner, the top part of said lower portion being tightly positioned between said lower surface and said upper edge, said upper portion being positioned between said top and said cover, and the bottom part of said upper portion being tightly positioned between one of said sides and the edge of said top, and said tuck being positioned between said front side and said front wall whereby the bottom part of said upper part is maintained tightly between the edge of said top and one of said sides.

3. A container comprising an outer container having a front side and a rear side; a liner having a front wall, a rear wall having an upper edge and a top rotatably attached to said front wall, said top having a lower surface and a rear edge, and said liner being positioned interior to said outer container so that said front wall is positioned adjacent to said front side; and a flexible container having a lower portion with a top part and an upper portion with a bottom part; the top part of said lower portion being tightly positioned between said lower surface and said upper edge and the bottom part of said upper portion being tightly positioned between said rear edge and said rear side.

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