

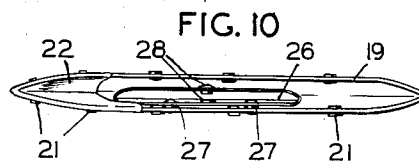
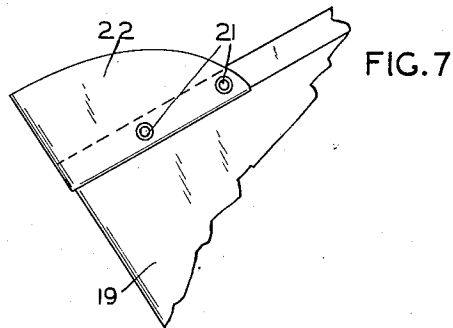
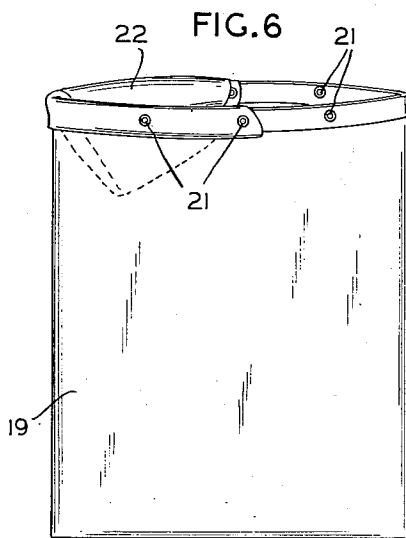
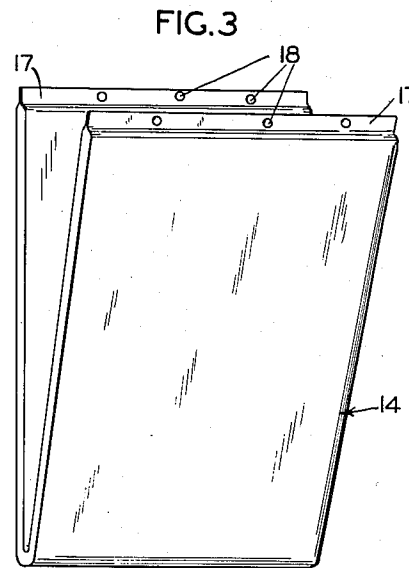
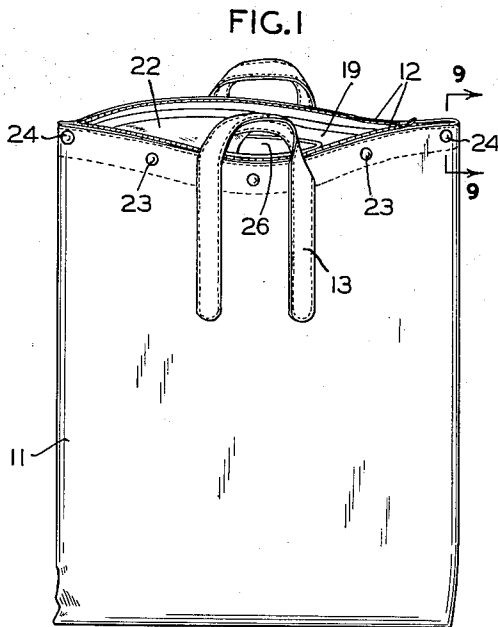
Nov. 13, 1951

G. A. SEIPP  
COLLAPSIBLE INSULATED REFRIGERATOR BAG FOR CARRYING  
ARTICLES TO BE CHILLED

2,575,191

Filed March 8, 1948

2 SHEETS—SHEET 1



INVENTOR  
GEORGE A. SEIPP  
BY *Williamson & Williamson*  
ATTORNEYS

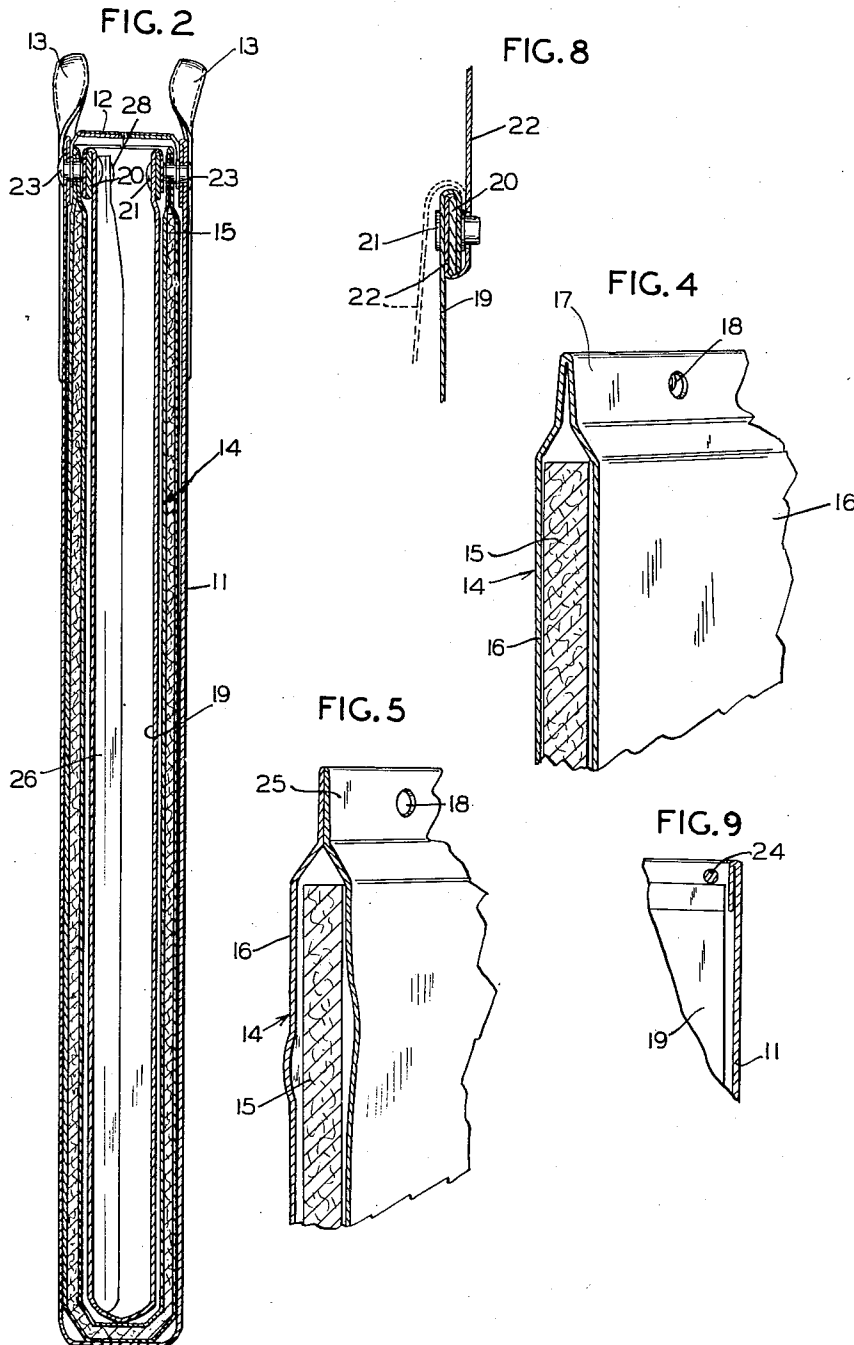
Nov. 13, 1951

G. A. SEIPP  
COLLAPSIBLE INSULATED REFRIGERATOR BAG FOR CARRYING  
ARTICLES TO BE CHILLED

2,575,191

Filed March 8, 1948

2 SHEETS—SHEET 2



INVENTOR  
GEORGE A. SEIPP  
BY *Williamson & Williamson*  
ATTORNEYS

## UNITED STATES PATENT OFFICE

2,575,191

COLLAPSIBLE INSULATED REFRIGERATOR  
BAG FOR CARRYING ARTICLES TO BE  
CHILLED

George A. Scipp, Minneapolis, Minn.

Application March 8, 1948, Serial No. 13,571

4 Claims. (Cl. 150—1)

1

This invention relates to portable refrigerators and more particularly to a flexible or collapsible bag-like refrigerator which is adapted to preserve or keep cold, articles of food and the like with the aid of ice or a similar refrigerant placed in the structure with the articles to be cooled.

It is an object of the invention to provide a flexible portable refrigerator which is made in such a way that products can be placed in it along with ordinary ice and wherein the water resulting from the melting of the ice is kept from the material insulating the walls of the refrigerator and the water furthermore can be readily emptied therefrom.

Another object of the invention is to provide a portable refrigerator including an insulated bag-like shell and a removable refrigerating and storage chamber, which, by reason of its removability, greatly facilitates its cleaning.

A further object of the invention is to provide improved means for insulating the outer bag-like shell.

Another object of the invention is to provide a structure wherein the insulation and the inner liner can be readily removed and wherein they are advantageously removably secured in the outer shell.

Still another object of the invention is to provide a water-pouring spout in combination with the refrigerator which can be placed in an inoperative position within the shell where it will take up little storage space and where it can be swung to an operative position extending from the mouth of the shell and wherein suitable closure means for the mouth is so arranged that pouring of water from the shell can be accomplished while retaining pieces of ice and other articles against falling from the refrigerator through the mouth of said shell.

The above and other objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same parts throughout the views, and, in which:

Figure 1 is a perspective view of an embodiment of the invention showing the mouth portion nearly completely open.

Figure 2 is an enlarged vertical sectional view through the device;

Figure 3 is a perspective view of the insulating unit;

Figure 4 is a fragmentary sectional perspective view of a form of the heat insulating unit;

Figure 5 is a similar view of a modified form of heat insulating unit;

Figure 6 is a perspective view of the liner unit;

Figure 7 is a fragmentary detail of the liner with the pouring spout in its operative position;

Figure 8 is a fragmentary sectional view show-

2

ing the manner of securing the pouring spout in position;

Fig. 9 is a fragmentary vertical sectional view taken parallel to the sides of the embodiment shown in Fig. 1 and through the upper right hand corner thereof.

Figure 10 is a top view of the liner and a smaller storage receptacle held therein.

The device includes an outer shell 11 which preferably is formed from a waterproof plastic material. It has a closed bottom and an open upper portion or mouth which can be closed by a slide fastener unit generally indicated at 12. A pair of handle straps 13 are sewn or otherwise suitably secured to the shell 11 as clearly shown in Figures 1 and 2.

Removably received within the shell 11 is an insulating member indicated generally at 14. In Figures 2 and 4 it is shown to be a panel 15 of a fibrous heat insulating substance which is enclosed in a flexible flattened tube 16, preferably of a waterproof plastic. As shown in Figures 2 and 3 the liner member 14 is folded upon itself so that its two ends lie just within the upper mouth portion of the shell 11. Across each end edge 17 of the plastic insulation cover 16 is a series of apertures 18.

Inside of or between the folds of the insulating member 14 is a liner bag 19 which is preferably formed of a flexible waterproof plastic. Its upper edge defines an open mouth as shown best in Figures 2 and 6. Said upper edge is bent outwardly and upon itself and over a relatively stiff yet somewhat flexible plastic strip 20. Extending through this turned over edge of the liner 19 and through the strip 20 is a male snap fastener element 21 which is so constructed that it will clamp the upper edge of the liner 19 and the strip 20 firmly together.

In Figures 6, 7 and 8 there is shown a pouring spout 22 of a flexible plastic material. This spout or flap extends down the outside of the strip 20 and thence upwardly along the inner side of said strip and between the strip and the liner 19. It is apertured as shown in Figure 8 so that the separable fastener element 21 will extend through it. The flap can be swung from the dotted line to the full line position of Figure 8 which correspond respectively to the positions of the spout 22 in Figures 6 and 7.

The outer shell 11 is provided along either upper edge portion adjacent the open mouth thereof with inwardly facing female separable fastener elements 23. The fastener elements 21 on the liner are adapted to snap onto the elements 23 at opposite sides of the bag so that the removable insulating member 14 and the liner 19 can be readily removed from the outer shell 11 when desired. This permits all parts of the article to be readily cleaned.

In Figure 9 there is shown a detail of an upper portion of the structure (the insulating member not being shown for purposes of clarity). Across adjacent portions of the outer shell 11 is a small rivet 24. As shown in Figure 9, this rivet overlies a portion of the upper edge of the liner 19 to assist the snap fasteners in holding the liner in position within the shell. Furthermore, when the insulating member 14 and the liner are inserted in the shell, the rivet 24 serves as a positioning means which will hold the liner and insulator in approximately the position they should be in when the snap fasteners are connected. In Figure 5 there is shown a modified arrangement of the insulating member 14. The ends 25 of the tubular plastic covering 16 are heat sealed for a substantial width so that the openings 18 will not permit moisture to enter the covering 16 and thereby dampen the insulating fiber 15.

In Figures 2 and 10 the inner bag or liner 19 is shown with a smaller storage bag 26 therein. This is secured adjacent the upper portion of the open topped liner 19 by means of snap fasteners 27 the elements of which are secured respectively to the smaller bag 26 and opposed portions of the liner 19, as is obvious from Fig. 10 and the smaller bag 26 can itself be closed by a snap or separable fastener 28.

From the foregoing it will be seen that I have provided a readily portable refrigerator which is flexible to a flat compact position when not in use and which is readily adaptable for storing and cooling foods and packaged drinks, the foods being placed in the liner 19 along with pieces of ice or the foods alone can be placed in the liner 19 and the ice placed in the smaller inner bag 26 or vice versa. The slide fastener on the outer shell 11 effectively closes the structure so that leakage of heat thereinto is effectively prevented. When articles are placed in the device it will cause the side wall to bulge or round out and the vertical edges of the insulating member 14 will abut, thereby making securing of these adjacent edges unnecessary. When ice in the container or liner 19 has melted, the outer shell can be opened and the spout 22 swung outwardly to the position of Figure 7. In this position the spout extends through the mouth of the shell 11. The slide fastener 12 can then be partially closed until it reaches the edge of the spout 22. Thereupon water can be poured outwardly through the spout while at the same time the shell mouth opening is so restricted that articles within the liner will not fall out of the refrigerator.

If the insulating fiber 15 is of an absorbent material it is efficiently protected by its covering 16, and the accumulation of moisture between the outer wall of the liner 19 and the inner wall of the shell 11 is prevented by reason of the water-proof character of said liner 19.

The device is light in weight yet is sufficiently insulated so that articles can be kept cold for a considerable period of time. The refrigerator is not nearly so bulky as a cabinet type portable box and it has less inherent weight than a cabinet type construction. When it is not in use it can be stored conveniently in a very small space.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of my invention.

What I claim is:

1. A flexible heat insulated container comprising a bag-like shell having a water proof inner storage compartment, said shell having a mouth, a slide fastener adapted to close said mouth, a flap connected with said shell adjacent its mouth and foldable from a position within said shell to a position extending outwardly of said mouth, said flap extending along only a portion of the edge of said mouth, and said slide fastener, when said flap is extended outwardly of said mouth, being shiftable to close that portion of said mouth not occupied by said outwardly extending flap.

2. A flexible heat insulated container having in combination an outer bag shell, a sealed water-proof envelope removably connected at its end portions with said outer shell, a sheet of heat insulating material completely encased by said envelope, and a removable liner disposed at the inner side of said envelope but separable therefrom, said liner having attaching means adjacent its top portion for connecting the same with the top portion of said shell, the opposing side walls of the liner extending along the inner side walls of said envelope in contiguous planes therewith, and said liner being open across a major part of its top portion to permit large pieces of ice and food products to be inserted within its interior.

3. A collapsible heat insulated bag adapted to contain articles of food, said bag having a flexible outer shell open at its upper end and provided with means for closing the same, a flexible heat insulating material at the inner side of the outer shell, and a water-proof flexible liner within the outer shell at the inner side of said heat insulating material, the liner corresponding in shape substantially to the general shape of the outer shell of the bag and being open at its upper end, and said liner being connected at its upper marginal portion with the upper marginal portion of the outer shell at the inner side thereof and having opposed side walls normally lying in contiguous planes with each other and with the side walls of the outer shell when the bag is not in use, the bag being foldable into small compass.

4. A collapsible heat insulated bag of the construction defined in claim 3 and in which the flexible heat insulating material is connected at the upper marginal part thereof with the upper marginal portion of the outer shell.

GEORGE A. SEIPP.

#### REFERENCES CITED

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

#### UNITED STATES PATENTS

Number	Name	Date
172,039	Lazarevitch	Jan. 11, 1876
747,025	White	Dec. 15, 1903
785,638	Scratchfield	Mar. 21, 1905
1,643,816	Lidenberg	Sept. 27, 1927
1,762,527	Robinson	June 10, 1930
2,289,254	Eagles	July 7, 1942

#### FOREIGN PATENTS

Number	Country	Date
469,567	France	May 25, 1914
461,856	Germany	July 3, 1928
304,979	Great Britain	Jan. 31, 1929