

Dec. 21, 1954

E. L. HANNA

2,697,424

THERAPEUTIC COLD PACK

Filed March 20, 1952

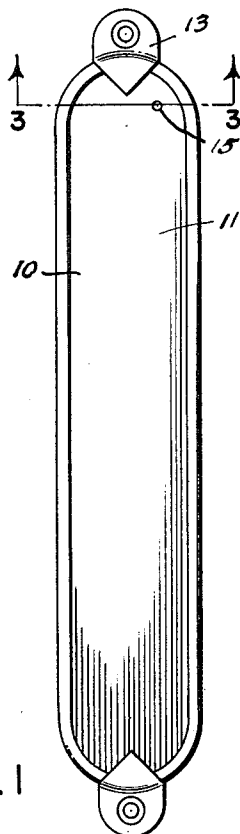


FIG. 1

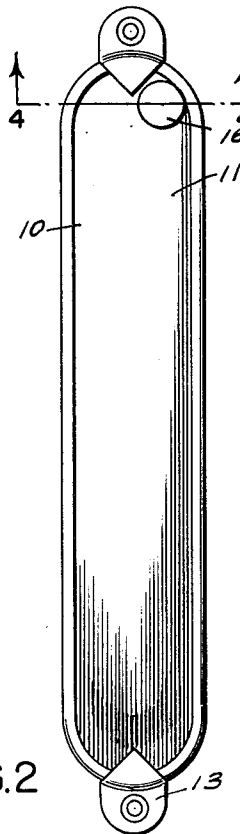


FIG. 2

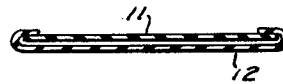


FIG. 3



FIG. 4

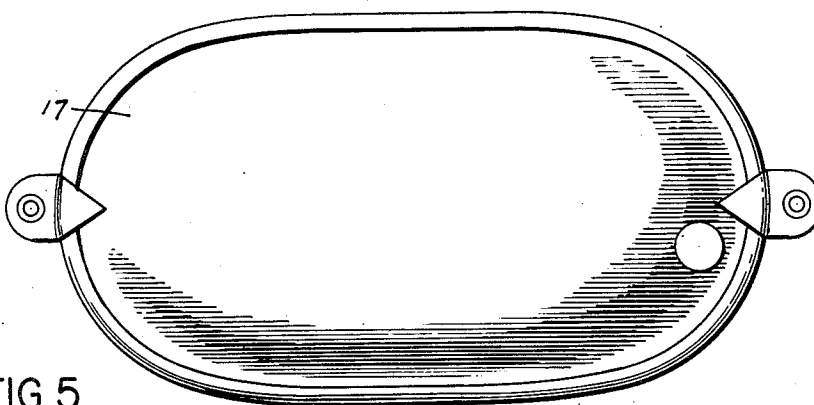


FIG. 5

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THERAPEUTIC COLD PACK

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Application March 20, 1952, Serial No. 277,705

2 Claims. (Cl. 128—403)

The invention relates to improvements in the manufacture of therapeutic devices, and has particular reference to the manufacture of cold packs containing a slurry having a low freezing temperature.

The principal object of the invention is to simplify the method of manufacture of a sealed cold pack containing a slurry which loosely freezes at low temperatures into pliable state.

Another object of the invention is to provide a sealed cold pack containing a chemical slurry of inexpensive materials.

With the above and other objects and advantageous features in view, the invention consists of a novel method of manufacture and a novel article more fully disclosed in the detailed description following, in conjunction with the accompanying drawings, and more specifically defined in the claims appended thereto.

In the drawings,

Fig. 1 is a plan view of a neck cold pack ready to be filled with chemical slurry;

Fig. 2 is a plan view similar to Fig. 1, the pack being sealed after filling;

Fig. 3 is an enlarged section on the line 3—3 of Fig. 1;

Fig. 4 is an enlarged section on the line 4—4 of Fig. 2; and

Fig. 5 is a plan view of a body type sealed cold pack.

It has been found desirable to provide a flexible sealed cold pack which is smooth surfaced and which contains a chemical slurry pliable at low temperature, whereby the cold pack may be refrigerated and then applied to any portion of the body in perfect contact with the body surface. Sealed flexible containers containing aqueous solutions of glycerine have been known, the glycerine solution being introduced through a tubular extension which is then forced into the container and sealed with a plug. This construction is expensive to manufacture and results in a local relatively hard spot which has been found undesirable for certain therapeutic uses.

I have therefore devised a simple construction of rubber sheeting which is inexpensive to manufacture and which is sealed without local relatively hard spots, the chemical for the slurry being inexpensive and readily available, and having no deleterious action on the rubber.

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Referring to the drawings, a neck type cold pack blank is shown at 10 in Fig. 1, the blank including a front wall 11, a rear wall 12 which is of slightly larger size than the front wall and has its edges bent over and sealed and cemented to the edges of the front wall, supporting eyelet tabs 13, 14 being cemented and sealed to the ends of the blank. The front wall 11 has a small opening 15 adjacent one end, through which a slurry of 10 per cent isopropyl alcohol in water by volume is introduced, the opening 15 then being closed by a rubber patch 16 of substantial size in comparison to the opening 15, which is cemented and sealed to the front wall over the opening 15.

The above construction is therefore of a simple nature and inexpensive, as sheet natural or synthetic rubber is used for the pack, the chemical for the slurry is available in large quantities and is inexpensive, and the sealing after filling is readily accomplished. The slurry will freeze into a pliable semi-solid mass at a temperature about 20° F., whereby the cold pack is readily molded to fit portions of a patient's body to which it is applied, and has large heat absorbing capacity. When warmed in use, the slurry liquifies, and the cold pack is readily refrigerated again in standard kitchen refrigerators.

The cold pack may be of any desired shape, a cold pack suitable for chest use or for wrapping around a limb being indicated at 17 in Fig. 5.

Although I have disclosed a specific embodiment of the invention and a specific method of manufacture, it is obvious that changes in the container or in the proportion of chemical in the slurry may be made to comply with different therapeutic cold pack requirements, without departing from the spirit or the scope of the invention as defined in the appended claims.

I claim:

1. A sealed cold pack having a front sheet of flexible material, a rear sheet of flexible material of slightly larger size than the front sheet, the edges of the rear sheet being folded over the edges of the front sheet and cemented to the front sheet to provide a container, and a chemical slurry in said container comprising approximately ten percent isopropyl alcohol in water by volume.

2. In the combination of claim 1, said sheets being of flexible rubber.

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