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M. CONVERSE

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COMBINATION INTRAVENOUS TUBING CONTAINER AND ARM BOARD

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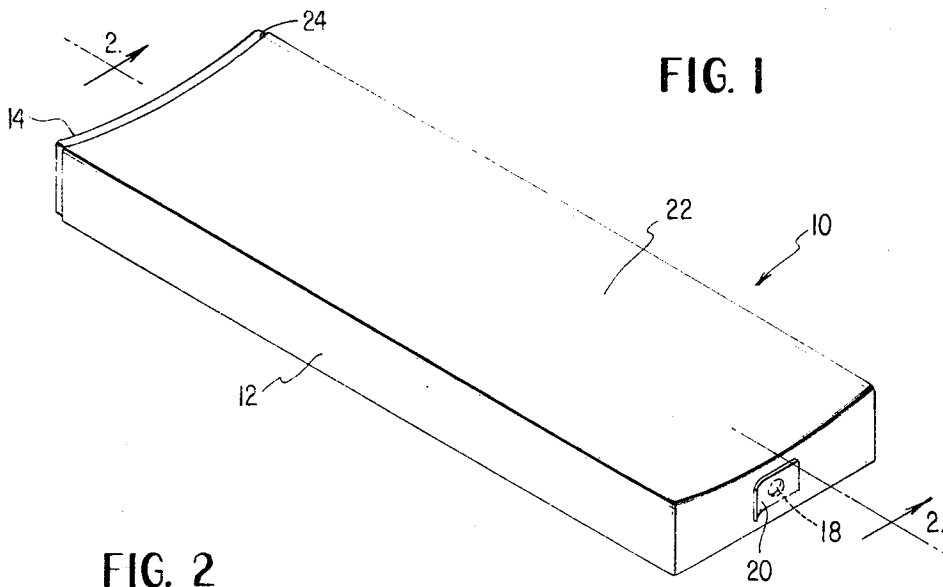


FIG. 2

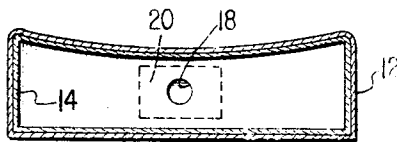
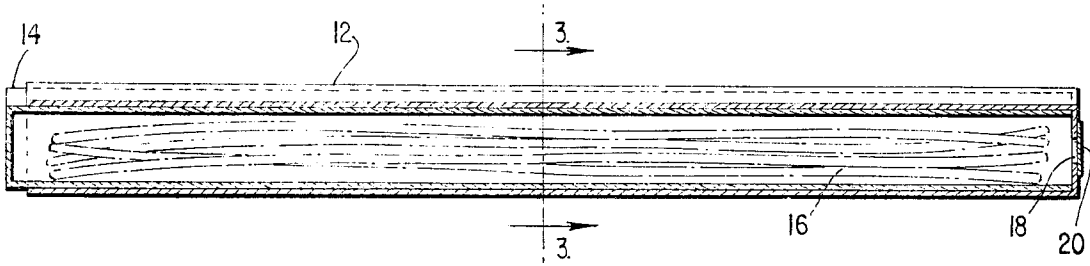
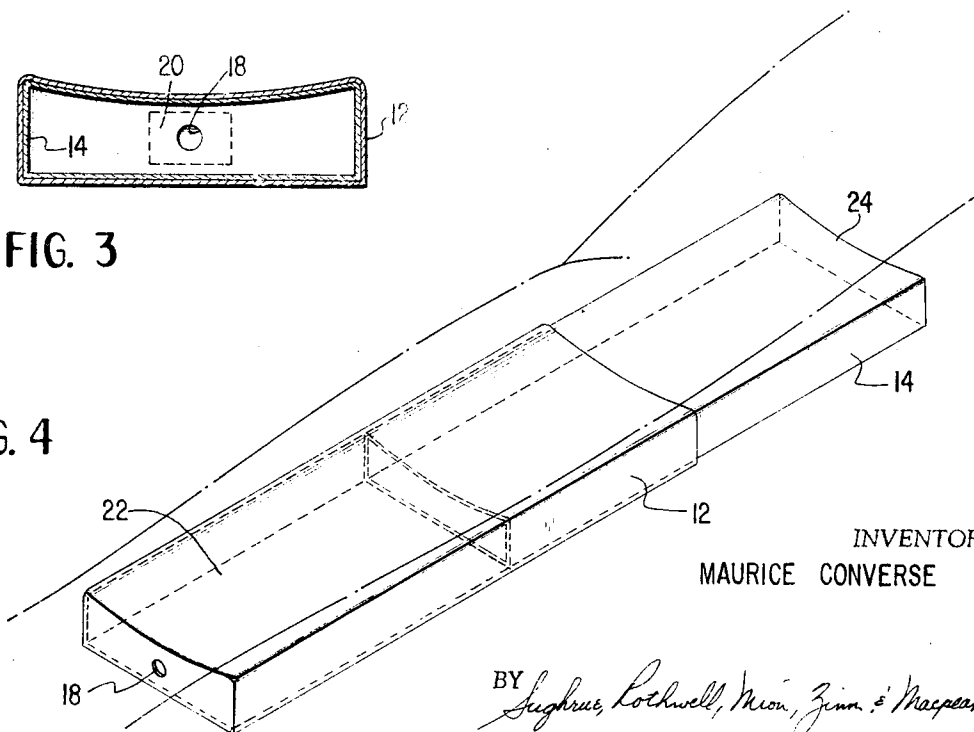


FIG. 3

FIG. 4



INVENTOR
MAURICE CONVERSE

BY *Lughrue, Lockwell, Mion, Zimm & Macpeak*
ATTORNEYS

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COMBINATION INTRAVENOUS TUBING

CONTAINER AND ARM BOARD

Maurice Converse, 1311 Briarhill Drive,

Akron, Ohio 44313

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4 Claims

ABSTRACT OF THE DISCLOSURE

A hollow container which doubles as a package for containing intravenous tubing and as an arm board for use with the intravenous tubing.

BACKGROUND OF THE INVENTION

At present, commercially obtainable arm boards are available but have the drawback that their sole purpose and use is just for an arm board. The board is usually provided with sponge rubber padding and/or washable covers but may be simply a plain board. These arm boards are minimally satisfactory but are seldom readily available for use when it is necessary to give an intravenous solution to a patient. They are never kept with the new supply of intravenous tubing and are frequently misplaced or lost. Such a reusable arm board has to be sent for from storage thereby wasting the valuable time of the doctors and nurses and such a delay may even prove dangerous to the welfare of the patient. These reusable arm boards can transmit infections, are not adjustable and frequently are relatively expensive.

In the past many physicians have frequently used a new full box of intravenous tubing as a temporary and sometimes permanent (on the order of several days) splint. A full box of intravenous tubing is necessary since an empty box in which the intravenous tubing ordinarily comes would be too weak to serve the purpose of an arm board. Thus in effect it is necessary to utilize two sets of intravenous tubings for a single intravenous feeding.

The combination intravenous tubing container and arm board of the present invention overcomes all of the above-mentioned disadvantages by storing all the necessary equipment for intravenous feeding in a single compact inexpensive package. In accordance with the present invention, an arm board is readily available when you remove the tubing from the container. There is no need to initiate a time-consuming search for an arm board which is used solely for an arm board and there is no need to improvise by using a brand new, unused package of intravenous tubing as a makeshift arm board. When the intravenous tubing is removed from the container, the container may be reassembled and adjusted to the desired length so that it may be secured to the arm of a child or an adult with equal ease. The material from which the container or package is constructed is sufficiently rigid to provide the necessary stiffness for use as an arm board and inexpensive enough so that the container-arm board may be disposed of after a single use.

SUMMARY OF THE INVENTION

The present invention is directed to a combination intravenous tubing container and arm board comprising a first hollow substantially rectilinear box member open at one end and a second hollow substantially rectilinear box member open at one end telescopically and slideably mounted within said first box member, each of said box members having one surface thereof provided with a concave depression therein complementary to each other.

Other features of the invention will be pointed out in the following description and claims and illustrated in the

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accompanying drawings, which disclosed by way of example, the principles of the invention and the best mode which has been contemplated of applying these principles.

In the drawings:

FIG. 1 is perspective view of the combination intravenous tubing container and arm board in the closed position;

FIG. 2 is a sectional view along the line 2—2 of FIG. 1 with the intravenous tubing shown in phantom lines;

FIG. 3 is a sectional view along the line 3—3 of FIG. 2 with the tubing omitted; and

FIG. 4 is a perspective view of the container in partially extended position for use as an arm board with an arm shown in phantom lines.

Turning now to a detailed description of the drawings, a combination intravenous tubing container and arm board is generally designated by the numeral 10 in FIG. 1. The container is comprised of a first hollow, substantially rectangular box member 12 and a second hollow, substantially rectangular box member 14 telescopically slideable within the box member 12. Each box member 12 and 14 is provided with one open end whereby when the two box members are disposed in fully telescoped relation they will define a closed receptacle or package for intravenous tubing 16 shown in phantom lines in FIG. 2. The two box members 12 and 14 may be constructed of plastic, cardboard or any other suitable material which will provide a substantially semi-rigid container.

The external dimensions of the inside box 14 are only slightly smaller than the internal dimensions of the outside box 12 to provide a very close sliding fit therebetween. Due to this very close sliding fit it is necessary to provide a hole 18 in the end of the outside box 12 to enable the trapped air to escape when the box 14 is being inserted into the box 12. Once the box 14 is fully inserted within the box 12 as shown in FIGS. 1 and 2, the hole 18 is sealed by means of a tape 20 which may be provided with a suitable adhesive to secure the tape to the box. One end of the tape 20 may be left free of adhesive to facilitate grasping the tape when it is desired to remove the tape from the hole 18. When it is desired to open the box to remove the tubing therein, the tape 20 may be peeled off the box 12 to open the hole 18 and thereby break the suction forces which would tend to maintain the boxes 12 and 14 in their telescoped position.

Other suitable forms of vent means may be provided such as a hole formed in one of the sides of the inner box 14 adjacent the closed end. Thus the hole will remain uncovered for substantially the entire length of the insertion stroke before being closed off by the outer box 12.

Once the tubing has been removed from the boxes the empty box 14 may be reinserted in the empty box 12 and telescopically adjusted to provide the desired over-all length needed when the box combination will be used as an arm board. When the desired length is reached, the two boxes 12 and 14 may be secured in their proper assembled position by means of adhesive tape (not shown). The upper surface 22 of the box 12 and the upper surface 24 of the box 14 are provided with a concave depression so that when the box combination is utilized as an arm board the concave depression will be adapted to the curvature of the arm. The arm board may then be secured to the patient's arm by any suitable means such as adhesive tape, tie cords or the like. Gauze or other suitable padding could be disposed between the arm board and the patient's arm to prevent undue pressure or irritation.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

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What is claimed is:

1. A combination intravenous tubing container and arm board comprising a first hollow, substantially rectangular box member open at one end and a second hollow, substantially rectangular box member open at one end slidably and telescopically disposed within said first box member, each of said box members having one surface provided with a concave depression therein extending longitudinally of said box member with the concave surface of said first box member being complementary to the concave surface of said second box member and vent means in one of said box members in communication with the interior of said box member to facilitate relative sliding movement between said box members.

2. A combination intravenous tubing container and arm board as set forth in claim 1 further comprising vent closure means detachably secured to said one box for closing said vent means.

3. A combination intravenous tubing container and arm board as set forth in claim 1 wherein said first and second

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box members are constructed of relatively stiff semi-rigid material.

4. A combination intravenous tubing container and arm board as set forth in claim 3 wherein said material is plastic.

References Cited

UNITED STATES PATENTS

1,685,765	9/1928	Mangan.	
2,420,031	5/1947	Cohn.	
2,566,018	8/1951	Collignon	128—87
2,953,131	9/1960	Bird	128—215
3,003,625	10/1961	Anderson	128—87 XR
3,242,923	3/1966	Jacoby	128—133

15 RICHARD A. GAUDET, Primary Examiner

M. F. MAJESTIC, Assistant Examiner

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20 128—215; 206—63.2