

Oct. 13, 1953

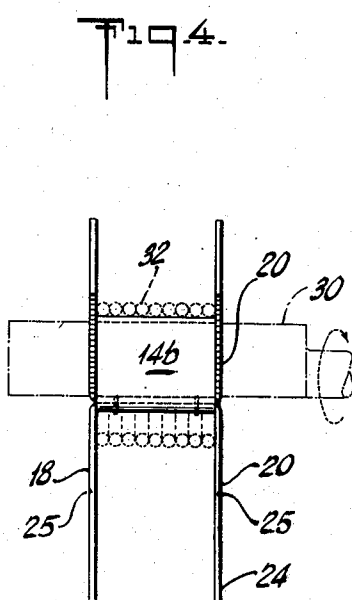
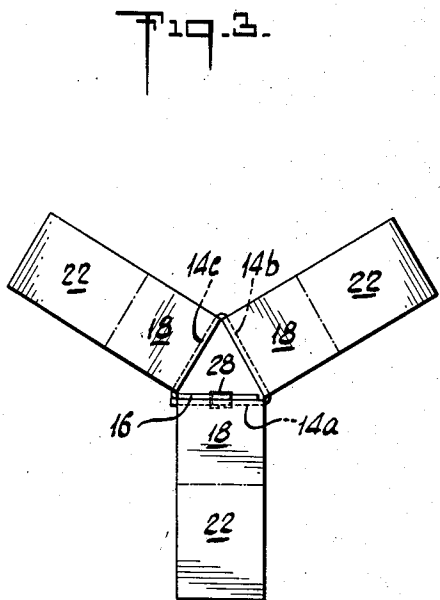
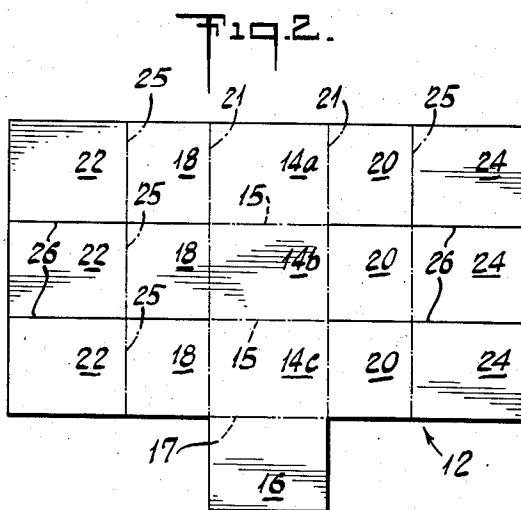
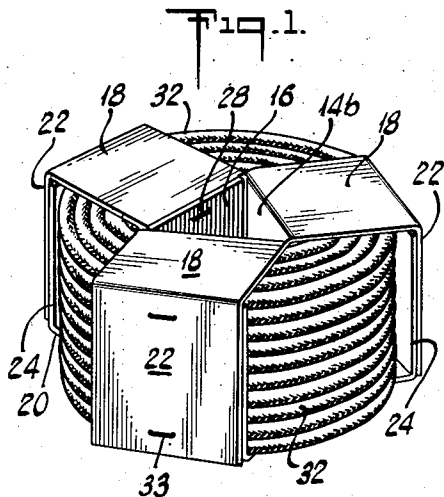
E. H. LEWIS

2,655,262

CONTAINER FOR COILABLE MATERIAL

Filed Nov. 4, 1948

2 Sheets-Sheet 1



INVENTOR
ERNEST H. LEWIS.
BY
Samuel Stearns
ATTORNEY

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E. H. LEWIS

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2 Sheets-Sheet 2

Fig. 5.

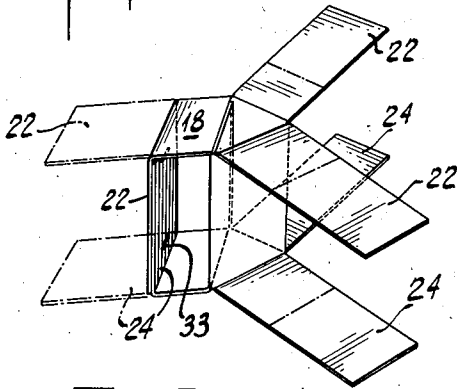


Fig. 6.

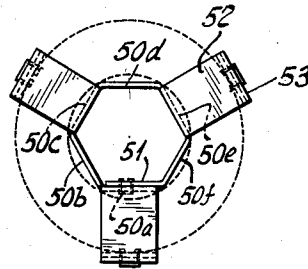


Fig. 7.

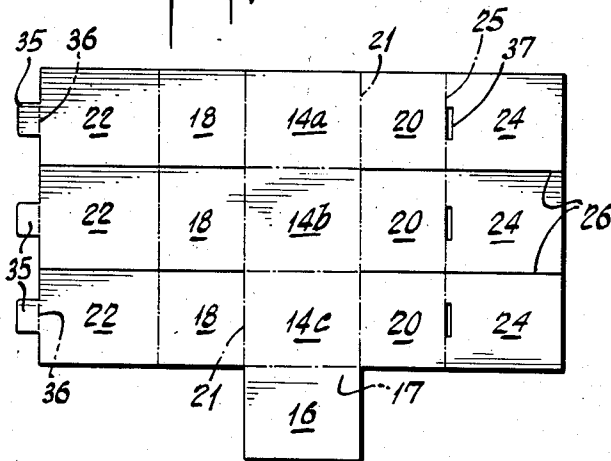


Fig. 8.

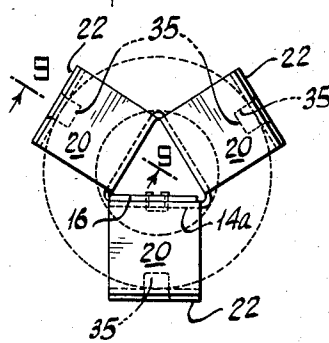


Fig. 9.

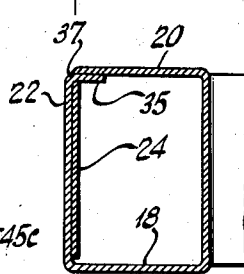


Fig. 10.

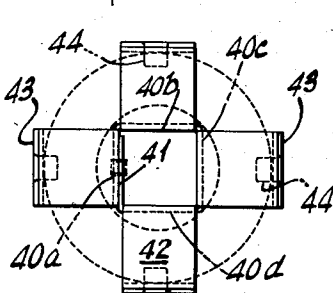
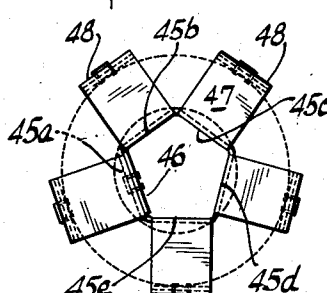


Fig. 11.



INVENTOR
ERNEST H. LEWIS
BY
Samuel Stearns
ATTORNEY

UNITED STATES PATENT OFFICE

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CONTAINER FOR COILABLE MATERIAL

Ernest H. Lewis, Beverly Hills, Calif., assignor to
The Patent and Licensing Corporation, New
York, N. Y., a corporation of Massachusetts

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This invention relates to shipping containers for rope, wire, hose and like materials which are commonly packaged in coiled or reeled form and is more particularly concerned with such containers made of corrugated or solid fiberboard, boxboard, or similar strong, lightweight, foldable sheet material.

Containers which have been proposed for coilable material such as rope, have generally involved a complicated structure, requiring, for example, the assembling of two or more independent and separately formed elements. Prior attempts to simplify the construction of the container have resulted in structures which either provide little or no protection for the packaged material or are of such a nature that the material to be packaged must be separately coiled or reeled before it can be placed in the container.

It is an object of this invention to provide a container for coilable materials which is simple in construction, is adapted for use in reeling the material to be packaged and which provides adequate protection for the packaged material.

It is a further object of the invention to provide a container of the character indicated which may be formed from a single blank of foldable material.

According to the invention I provide a container for coilable material from a single blank of strong flexible material which is suitably cut and creased to form, when assembled, a hollow core having arm-like extensions which are adapted to encircle or embrace the coiled material and thereby to protect it and hold it securely in place.

The core of the container is adapted to be slipped over a reeling mandrel and to receive the material to be packaged while being reeled on the core.

Other features and advantages of the invention will be apparent from the following description and from the accompanying drawings in which,

Fig. 1 is a view in perspective of an embodiment of the invention containing a coil of rope.

Fig. 2 is a plan view of the blank from which the container shown in Fig. 1 is formed.

Fig. 3 is a top elevation of the blank shown in Fig. 2, partly assembled and ready to receive the coilable material.

Fig. 4 is an end elevation showing the partly assembled blank mounted on the reeling mandrel.

Fig. 5 is a perspective view of a partly assembled blank showing the manner in which the protective flaps are assembled.

Fig. 6 is a plan view of another embodiment of the invention.

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Fig. 7 is a plan view of a blank forming another embodiment of the invention.

Fig. 8 is a plan view of the blank shown in Fig. 7 in assembled form.

Fig. 9 is a sectional view along the line 9—9 of Fig. 8.

Fig. 10 is a plan view of a modified form of the container of the invention, and

Fig. 11 is a plan view of another embodiment of the invention.

Referring to the drawings, and particularly to Fig. 2, the numeral 12 designates generally a blank which has been cut and scored or creased to permit fashioning of a container embodying my invention. The blank 12 may be formed from flat sheets of corrugated fiberboard, solid fiberboard, boxboard or other strong, lightweight, foldable sheet material.

The blank 12 comprises a body portion formed by marginal body panels 14a and 14c and an intervening panel 14b, flexibly joined along crease lines 15. A body flap 16 is flexibly joined to body panel 14c along crease line 17. Extending outwardly from the sides of the body panels are side panels 18 and 20, joined to the body panels along crease lines 21 and end flaps 22 and 24 are flexibly joined to side panels 18 and 20 along crease lines 25. Cuts 26 extend laterally from the crease lines 21 to the outer free edges of the blank.

Referring to Fig. 3, the core of my container, which is adapted to receive, during the reeling operation, the material to be packaged, is formed by bending the body portion along crease lines 15 and securing the body flap 16 to the inner surface of body panel 14c, as by staples 28 or by a suitable adhesive. To prepare the blank for use in reeling the material to be packaged, side panels 18 and 20 are bent at right angles to the body panels along crease lines 21. In this form the partly assembled container is adapted to be slipped over a reeling mandrel 30 and the rope or other coilable material 32 reeled directly around the hollow triangular core formed by body panels 14a, 14b, 14c, and flap 16.

Referring particularly to Fig. 1 and Fig. 5, when the coilable material has been reeled about the core of the container, the end flaps 22 and 24 are overlapped by bending them inwardly on crease lines 25 at right angles to the side panels 18 and 20, and the overlapped end flaps are secured to one another, as by staples 33 or suitable adhesive. When completely assembled, as shown in Fig. 1, the container of the invention holds the coiled material securely in place. The side panels and end flaps at each end of the central core thus encircle or embrace the coiled material at spaced

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intervals. This provides protection for the material during shipment and storage. It will be apparent that my container can advantageously be shipped as a single flat blank, thereby occupying a minimum of space, and may be quickly assembled for use either by hand or by suitable machinery.

The end flaps 22 and 24 may be provided with integral locking means whereby the final assembly of the container may be effected without the use of staples, adhesives or other extraneous securing means. Referring particularly to Fig. 7, the outer edges of end flaps 22 are provided with locking tabs 35 flexibly joined thereto along crease lines 36. Complementary slots 37 are provided in end flaps 24 adjacent the crease lines 25. Referring to Figs. 8 and 9, when the end flaps 22 and 24 are overlapped, locking tabs 35 slip through slots 37, thereby securely holding end flaps 22 against end flaps 24.

While in the embodiments of the invention above-described, the core-forming body portion is formed by three integral body panels and an integral body flap, which, when assembled, provide a triangular core for the container, the invention includes structures having four, five, six or more body panels. Fig. 10 illustrates an embodiment of the invention having a square core formed by four body panels, 40a, 40b, 40c, and 40d, and a body flap 41, and having side panels 42 and end flaps 43. The end flaps 43 are secured by locking tabs 44. Fig. 11 illustrates an embodiment of the invention having a pentagonal core formed by body panels 45a, 45b, 45c, 45d, and 45e and a body flap 46 and having side panels 47 and end flaps 48.

A still further embodiment of my invention is illustrated in Fig. 6. In this embodiment a hexagonal core is formed by six body panels 50a, 50b, 50c, 50d, 50e, and 50f and a body flap 51 overlapping and secured to body panel 50a. It will be observed that only every other body panel is provided with side panels and end flaps. Thus body panels 50a, 50c, and 50e are provided with side panels 52 and end flaps 53 whereas body panels 50b, 50d, and 50f have free sides.

While my container is advantageously adapted to receive the material to be packaged in the course of the reeling operation, as described hereinabove, it will be apparent that it may also be used, if desired, for packaging previously coiled materials. For example, after the core of the container has been assembled and before the side panels 18 and 20 have been bent into the position shown in Fig. 4, a previously formed coil of rope, rubber hose, or the like may be readily slipped over the core. The side panels may then be bent inwardly and the end flaps 22 and 24 overlapped to embrace the coil.

It will also be apparent to those skilled in the art that various changes and modifications may be made without departing from the spirit or scope of the invention as defined in the appended claims and it is therefore intended that all matter contained in the foregoing description and in the drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A container for coilable material formed from an integral sheet of fibrous sheet material

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and comprising a hollow triangular core formed by three integral body panels, consisting of two end body panels and an intermediate body panel, and a flap integral with one of said end body panels and overlapping the other of said end body panels, side panels formed at opposite ends of each of said body panels and extending outwardly of the core in planes substantially at right angles to the axis thereof, and flaps integral with each of said side panels and lying in planes spaced from and substantially parallel to the plane of the respective body panels and of sufficient length to substantially overlap.

2. A blank or fibrous sheet material for forming a container for coilable material, said blank being scored intermediate one pair of its opposite edges along spaced lines parallel to said edges to define panels adapted to be folded into the form of a hollow core, the end panel on one edge of said blank being adapted to overlap the end panel on the opposite edge of said blank, said blank being scored at right angles to the first-named scores at opposite ends of the latter, said second-named score lines extending from one of said opposite edges to the other, said blank being formed with slits colinear with said first-named scores and extending from adjacent said second-named score lines to the other pair of opposite edges of the blank to provide extensions at opposite ends of each of said panels adapted to be folded at said second-named score lines into planes at right angles to the respective panels, each of said extensions being scored along a line parallel to said second-named score lines, the score line in each of the extensions at one end of said panels being spaced from the corresponding one of said second-named score lines a distance substantially equal to the spacing between the score line in each of the extensions at the opposite end of said panels and the other of said second-named score lines and adapted to overlap in planes spaced from and substantially parallel to the plane of said panels.

3. A container for coilable material formed from an integral sheet of fibrous sheet material and comprising a hollow polygonal core formed by at least three integral body panels, consisting of two end body panels and at least one intermediate body panel, and a flap integral with one of said end body panels and overlapping the other of said end body panels, side panels formed at opposite ends of each of at least three of said body panels and extending outwardly of the core in planes substantially at right angles to the axis thereof, and flaps integral with each of said side panels and lying in planes spaced from and substantially parallel to the plane of the respective body panels and of sufficient length to substantially overlap.

ERNEST H. LEWIS:

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