May 13, 1941. O. W. WENTZ 2,241,834

CONTAINER

Filed April 19, 1934 5 Sheets-Sheet 1

FIG. 1

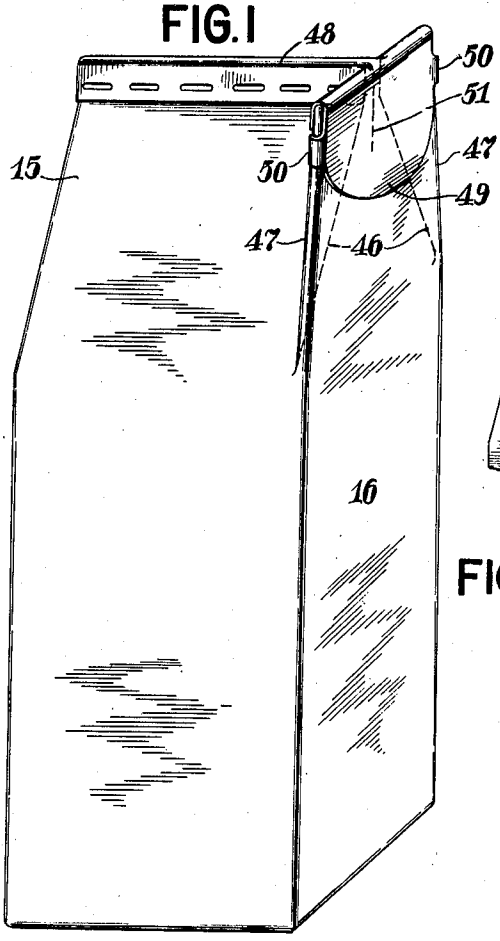


FIG. 2

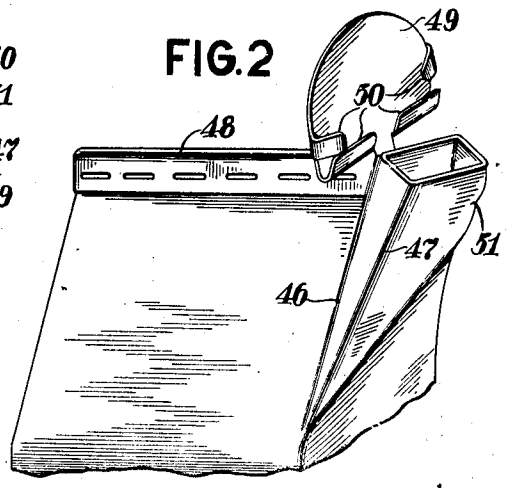


FIG. 3

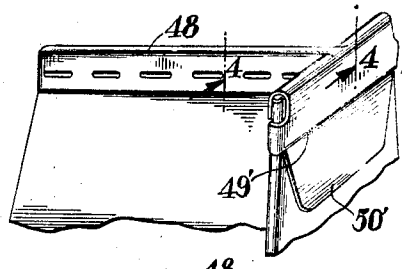
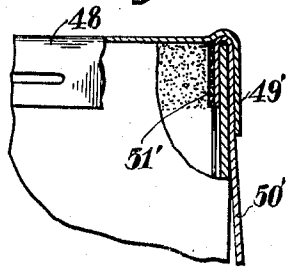


FIG. 4



INVENTOR
Oscar W. Wentz
BY Darby & Darby
ATTORNEYS.

May 13, 1941. O. W. WENTZ 2,241,834

CONTAINER

Filed April 19, 1934 5 Sheets-Sheet 2

FIG.5

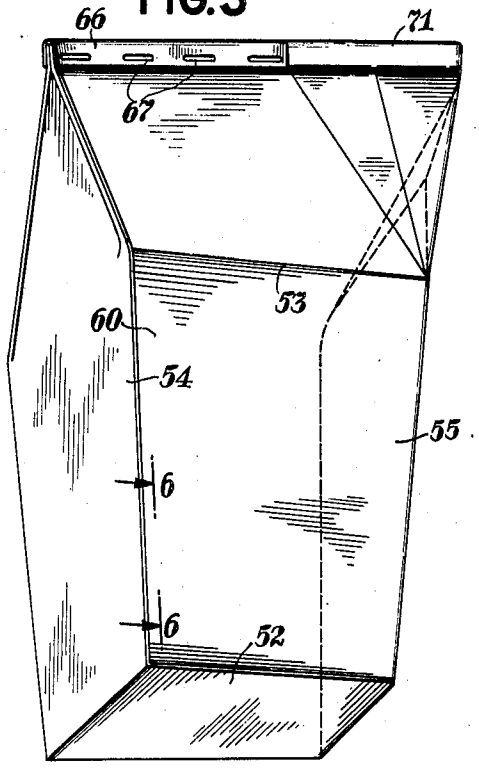
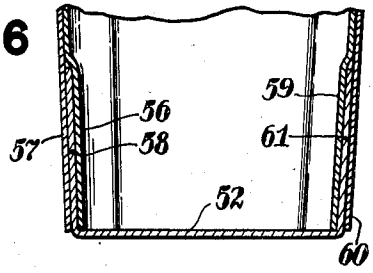


FIG.6



INVENTOR
Oscar W. Wentz
BY Darby & Darby
ATTORNEYS

May 13, 1941. O. W. WENTZ 2,241,834

CONTAINER

Filed April 19, 1934 5 Sheets-Sheet 3

FIG.15.

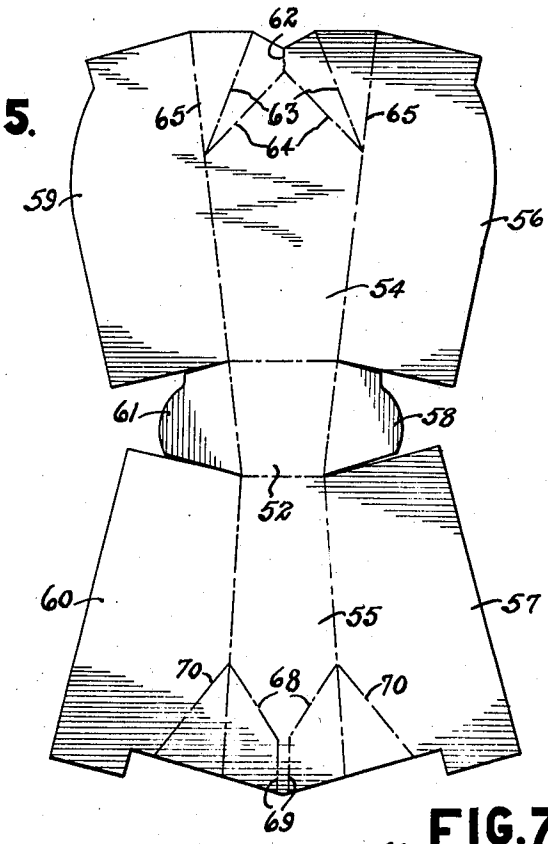


FIG.7

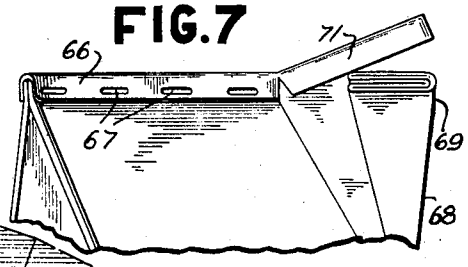
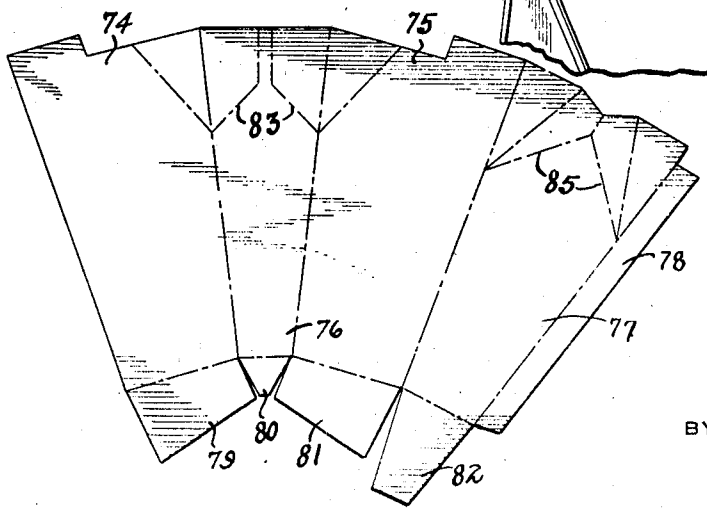


FIG.16.



INVENTOR
Oscar W. Wentz
BY Darby & Darby
ATTORNEYS.

May 13, 1941. O. W. WENTZ 2,241,834

CONTAINER

Filed April 19, 1934 5 Sheets-Sheet 4

FIG. 8.

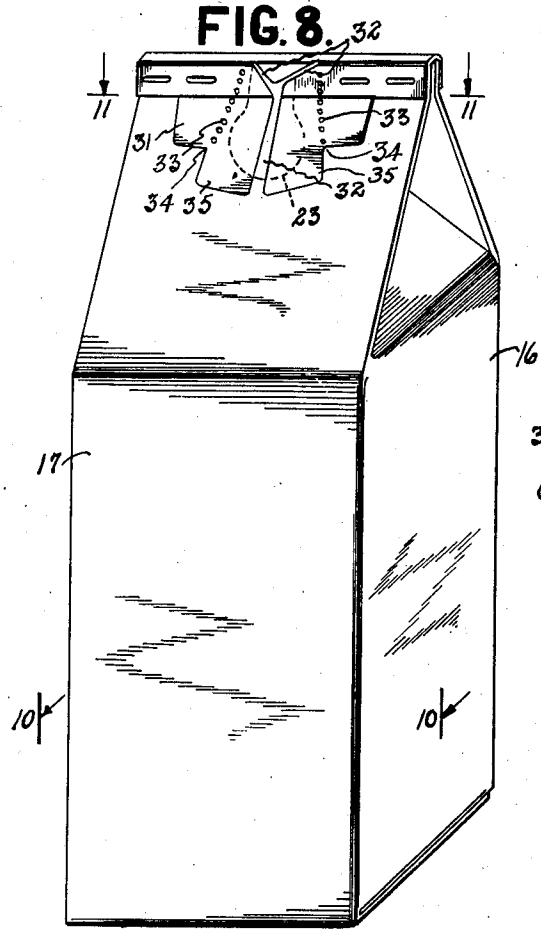


FIG. 9.

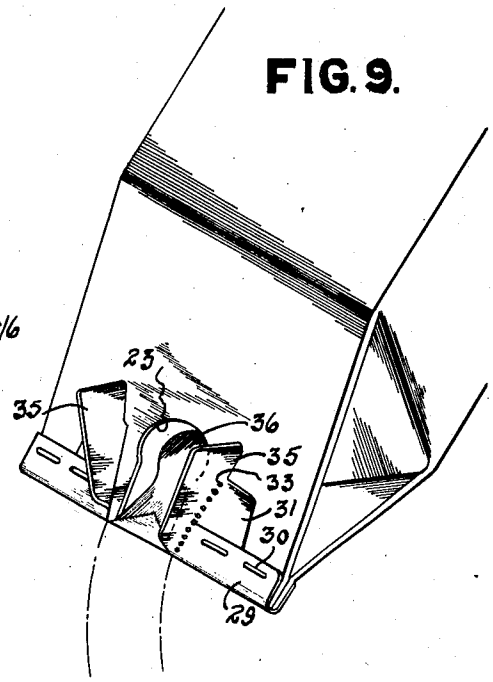


FIG. 11.

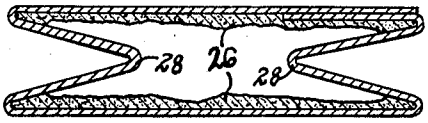


FIG. 12.

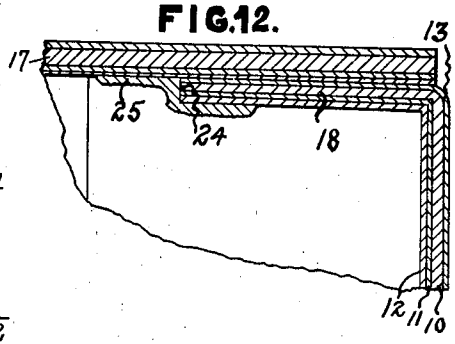
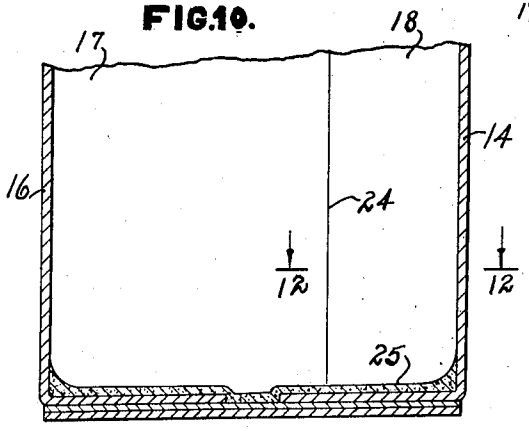


FIG. 10.



INVENTOR
Oscar W. Wentz
BY Darby & Darby
ATTORNEYS.

May 13, 1941. O. W. WENTZ 2,241,834

CONTAINER

Filed April 19, 1934 5 Sheets-Sheet 5

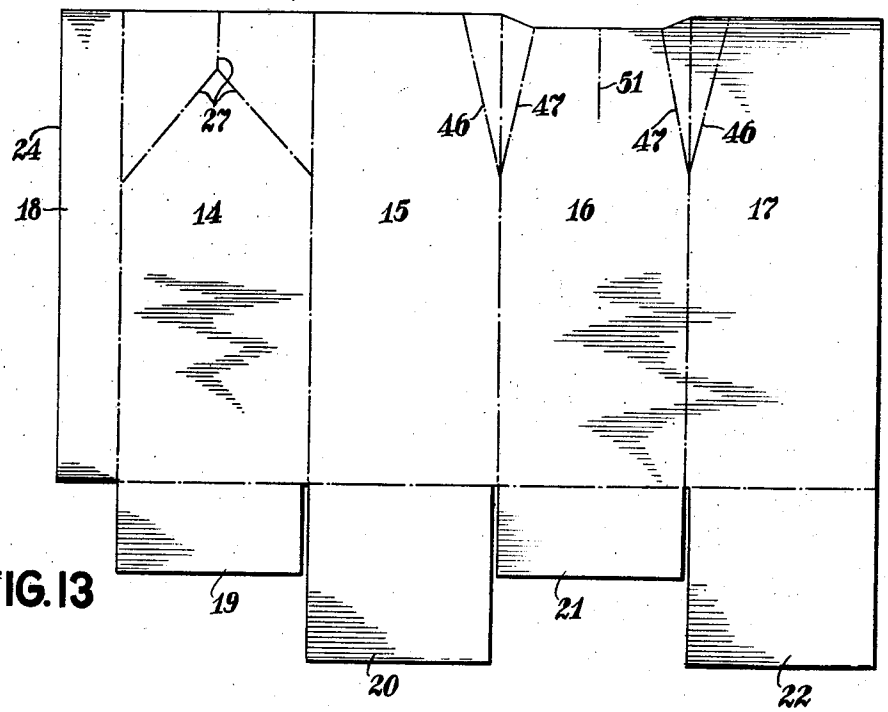


FIG. 13

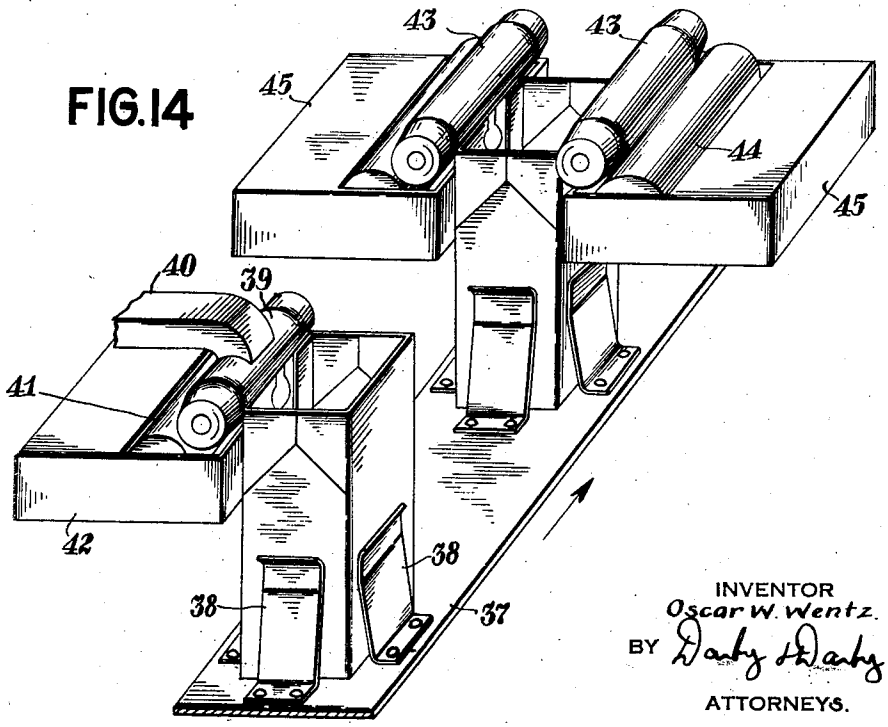


FIG. 14

INVENTOR
Oscar W. Wentz.
BY Darby & Darby
ATTORNEYS.

Patented May 13, 1941 2,241,834

UNITED STATES PATENT OFFICE

2,241,834

CONTAINER

Oscar W. Wentz, Long Island City, N. Y.

Application April 19, 1934, Serial No. 721,272

14 Claims. (Cl. 229—17)

The invention herein disclosed involves containers preferably air tight, which are shaped up from foldable material and particularly adapted to the packaging of liquids or fine granular substances.

An object of the invention is to produce an oil or moistureproof material having for its base paper, paste-board or other cellulosic fibre stock adaptable for folding into containers for liquids and the like. Many attempts have heretofore been made to produce oil-proof paper containers, but the results have been unsatisfactory because of the tendency of the oil-proofing materials to dry out and chip or crack off with the passage of time. Such containers have been formed usually of ordinary paper stock, and then subjected to oil-proofing treatment because of the difficulty of handling the material in flat sheets after treatment.

In accordance with this invention continuous strips or flat sheets, prior to being shaped into containers, may be given the oil-proofing treatment without interfering with the flexibility, pliability, or plasticity of the coating, and will not crack or chip off when ther material is bent, folded or creased.

A still further object of the invention is to produce an inexpensive foldable, oil-proof container especially suitable for packaging lubricating oils and other liquids.

Another important feature of the invention is the construction of the container so that it may be effectively sealed so as to withstand rough handling without leakage or damage, and is further of suitable form for packing, shipping and handling.

A still further and important feature of the container is the provision of effective closing and sealing means of such form as to make the contents of the container readily available, and from which they may be easily poured through a small opening provided, into for example, the crank case of an automobile. Furthermore, the sealing means is so constructed that when the contents of the package are discharged any attempt to refill or reuse the container with an inferior grade of material will at once be apparent to the prospective customer.

The construction of the container is of such a nature that the important manufacturing operations thereon may be effected at one point and the containers shipped partially assembled and flat to the filling point. At the filling point they are readily completely assembled by simple equipment, filled and sealed. This permits of considerable saving of shipping space in delivering the containers from the point of manufacture to the point of use.

Furthermore, in accordance with the principles of this invention containers may be formed with tapered side walls. Such containers may be completely assembled at the point of manufacture, except for the sealing thereof, and then nested in large numbers so that they may be conveniently shipped to the point of filling, thereby requiring a minimum of shipping space. In accordance with this invention it is preferable, in one type of container, to provide a taper from one side towards the other by making the sides of the blank of unequal width. This provides a convenient discharge spout on the narrower side.

These and many other objects as will be apparent from the following description, are secured by means of this invention.

This invention resides substantially in the combination, construction, arrangement and relative location of parts, all as will be described in full detail below in connection with the attached drawings and pointed out in the appended claims.

In the drawings,

Fig. 1 is a perspective view of one form of container in accordance with the invention;

Fig. 2 is a perspective view of this container with the sealing means removed;

Fig. 3 is a perspective view of a modification;

Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of another modified form of container;

Fig. 6 is a cross sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is a fragmentary perspective view showing the top portion of the container of Fig. 5 with a part of the sealing means displaced;

Fig. 8 is a perspective view of still another form of container in accordance with this invention;

Fig. 9 is a perspective view of this container when unsealed;

Fig. 10 is a vertical section along the line 10—10 of Fig. 8;

Fig. 11 is a horizontal sectional view through the top of the container of Fig. 8, for example, showing the walls partially spread apart;

Fig. 12 is a cross sectional view taken on the line 12—12 of Fig. 10;

Fig. 13 is a plan view of a blank from which the container of Fig. 1, for example, may be formed;

Fig. 14 is a diagrammatic view in perspective of apparatus illustrating the several operations in the processing of the container;

Fig. 15 is a plan view of a modified form of blank from which the container of Fig. 5 may be formed;

Fig. 16 is a plan view of a modified form of blank from which the same container may be formed.

The preferred form of container illustrated in Figs. 1, 2, 12 and 13 will now be described. This container may be of rectangular or other suitable cross-section and constructed of a number of different materials determined by the use to which it is to be put. Where fluids such as oil or semi-fluid substances containing oil or grease are to be packaged, the material of the container may have as its base a sheet 10 (see Fig. 12) formed of papers, pasteboard, or other cellulosic material treated with one or more oil-proof substances. For example, a coating 11 may be employed applied directly to the base sheet, and composed essentially of an oil-resistant water-soluble adhesive substance such as gum, glue, gelatin, or the like. Such materials, however, may not be separately employed alone since coatings formed therefrom dry out and become brittle, and therefore subject to chipping and cracking when the base sheet is scored, cut and creased to form the container. It is desirable, therefore, to add to the coating base glycerin in sufficient quantity to maintain the coating in a flexible and pliable condition. The coating may be kept pliable for long periods of time by adding a sufficient quantity of glycerin or other suitable plasticising agent. The pliability of the coating is important since in the normal handling of such containers they are often subjected to rough usage with the result that the coating if dry and brittle would be chipped off, exposing the base sheet to the action of the contents and introducing undesirable foreign materials into the contents.

Coatings of this nature which are permanently pliable are characterized by their sticky or tacky condition which is a result of the fact that the coating is not dry. Naturally a sticky or tacky condition interferes with the shipment and handling of the base sheets from which the containers are formed. This difficulty must be eliminated without interfering with the ability of the coating to withstand moisture, oil, grease and the like. For this reason a second coating 12 is overlaid on the coating 11. The coating 12 may be of various compositions, and should preferably not chip off when dry, although it will not be serious if such coating should crack after drying. The important characteristic of the coating 12 is that it must not be sticky or tacky after it has dried. For this purpose a mixture of casein and glycerin is effective. Such a coating may crack after it is dry, but does not chip off. The cracks are not objectionable inasmuch as the liquid contents after passing through the crack will be repelled by the coating 11. A casein or glycerin coating will not be affected by oil and other liquids, and when dry will not interfere with the stacking of the sheets since they will not stick together.

While it is not desired to restrict the disclosure to specific coating compositions or proportions of the ingredients therein, it has been found that the following mixtures may be employed with success as the oil-proof coating 11:

	Per cent
Glue	25
Sugar	15
Glycerin	50
Gelatin	30
Molasses	15
Glycerin	55

The addition of any one of a number of well known preservation substances to the composition will prevent it from turning moldy. It is not always necessary to employ as much as 50% glycerin, although such a percentage insures against a dry and brittle coating over long periods of time. Other mixtures of hygroscopic, oil-proof substances may be employed with the addition of the necessary amount of softening or plasticising agent to prevent undue drying.

The coating 12 which protects the oil-proof coating during shipment and handling may be successfully prepared from the following ingredients:

	Per cent
Clay	30
Casein	45
Glycerin	25
Gelatin	30
Kaolin	50
Glycerin	20

Compositions from these ingredients will form a flexible oil-resistant coating which is not tacky when dry and will not chip off. The addition of the kaolin to the composition acts as a filler, but too much of this should not be added.

These coatings are prepared by dissolving the ingredients in an amount of water which will impart the desired viscosity to the mixture. The coating should not be too heavy or thick as long as the more important requirement that the entire surface be well covered is met. The presence of any pin holes in the coating 11 is not serious since the outer coating 12 will cover them. To reduce the possibility of pin holes the coating 11 may be applied by building up several thin layers, if this precaution is desirable.

The base sheet may also be provided with a further coating to protect it against moisture, heat or cold. The third coating may be applied to either or both faces of the base sheet. This coating is indicated at 13 in Fig. 12 to protect the outer surface of the container. When applied to the inner surface it may be the first coating to be applied to the base sheet, or it may be applied over the coatings 11 and 12, depending upon the uses to which the container is to be put.

Suitable substances for this purpose are lacquer or mixtures of latex and fish glue or other suitable and well known moisture-resistant sizing substances. A further suitable coating for this purpose comprises a mixture of 80% latex and 20% fish glue. Sodium silicate may also be employed.

A continuous strip or sheets of oil-proof board prepared as indicated above may be cut in accordance with any well known practice to produce blanks adapted to be formed into the containers of the desired shape and configuration. One form of blank is illustrated in Fig. 13, composed of the four sections 14, 15, 16 and 17 defined by suitable folding lines which may be scored into the material to facilitate creasing thereof if desired. The blank illustrated in Fig. 13 provides the container of Fig. 1, except for

slight variations in the scoring and the shape of the top, as will be described below. It is generally of the same form as the blank required for the container of Fig. 8. The outer edge of section 14 is provided with an integral flap 18 which is to receive an adhesive for attaching it to the inner face of the adjacent free edge of section 17 when the container is folded to shape. The coating substances employed in the formation of the container will not interfere with the action of the adhesive, but will as a matter of fact, assist in its action. The bottom of the container is formed by the overlapping of the extensions 19, 20, 21 and 22 of the sections 14, 15, 16 and 17 respectively. The over-laying of these extensions, as indicated in Fig. 10, will provide a bottom of triple thickness insuring a strong rugged structure.

The top edge of section 17 is provided near its center, as indicated in Figs. 8 and 9 by the dotted outline 23, with a flap which is impressed in the sheet. This outline is not indicated in Fig. 13 since this tab is not employed in the construction of Fig. 1. The sheet is not entirely cut through on the outline 23, but is weakened in accordance with well known practice, so that when pressure is applied thereto it may be readily punched in to provide a discharge opening. The outline 23 may be perforated if desired, in accordance with well known practice, to permit of this use.

When the blank is properly folded the edge 24 of flap 18 will be unprotected and will be exposed to the contents of the container. Since this is undesirable this edge is protected by the coating 25 (see Fig. 12) which may be of the composition of coating 11. The coating 25 should be of such consistency that when applied it will naturally form a thicker layer. The addition of kaolin will have this effect. By way of example, the coating may be made of a mixture of two parts of kaolin, four parts of gum, and four parts of glycerin in water. This coating is applied in such quantity as to permit a layer of it to spread over the entire bottom of the container as illustrated in Fig. 10. The coating 25 on the bottom of the container will protect the free edges of the flaps 19, 20, 21 and 22, and will furthermore impart additional strength to the bottom of the container. Likewise, this sealing coating may extend over the top 23 to prevent any possibility of the oil or other liquid in the container from attacking the paper base.

When the container is formed as described, it may then be filled with oil or any other substance which is to be dispensed therein. It is then necessary to seal the container. As a variation it may be desirable to prepare the upper end of the container for sealing before it is filled. A suitable glue or sealing substance is applied as indicated in Fig. 11 at 26, to the upper edges of the sides 15 and 17. The sealing substance may be of the same composition as the coating 11, although here again it is preferably less fluid, which is accomplished by the use of a smaller quantity of water. If desired, a latex and glue solution, or any other suitable, thick, pasty adhesive may be employed. By way of example, a mixture of four parts of 60% latex solution and one part of fish glue will be suitable.

The sides 14 and 16 may be secured along the lines 27, as indicated in Fig. 13. It is to be understood that both of the sides 14 and 16 of Fig. 8 are scored in forming the container of Fig. 8. The top of the container may then be folded as clearly shown in Figs. 8, 9 and 11. When the upper ends of the sides 14 and 16 are squeezed together the adhesive coating 26 will contact all of the exposed spaces between the various walls, thereby completely sealing the container. The result is that the opening, which might otherwise be produced between the ends 28 of the infolded sides will be sealed by an excess of the adhesive which will accumulate between these edges.

Referring now more particularly to Figs. 1 and 2, it will be noted that the upper end of the side 16 instead of being folded inwardly as shown in Fig. 8, is folded so as to be substantially flat. To accomplish this the front wall 15 and the corresponding back wall 17 are provided with the score lines 46 (see Fig. 13), while the top of the side 16 may be similarly scored as indicated at 47 to provide a slight taper to the edges of this portion. This permits the top to be folded as indicated in Fig. 1. By varying the inclination of the score lines 46 and 47 the width of the upper end of side 16 may be varied and its inclination from the vertical may also be varied. By tapering the edges 47 slightly inwardly in the manner shown the wall 16 may be made substantially vertical throughout its length. The container is sealed by the adhesive 26 which is applied in the manner previously described. The generally T-shaped clamp 48 is then applied over the top of the container, and is secured in any one of a number of well known ways such as for example by means of indentations or apertures as shown. The head of the clip is provided with a downwardly extending apron 49, which may be grasped to open the container when lifted to the position shown in Fig. 2. The T-shaped clamp 48, being unitary or of one piece throughout, thus permits the cross or head portion, using the part 49 as a finger piece, to remain attached to the container through that portion of the T-shaped member that connects its two parts together, that portion being bendable from the position of Fig. 1 to the position of Fig. 2. This flap is normally secured to the extension 47 by means of tabs 50 which are bent therearound as clearly indicated. By pulling upwardly on the flap 49 the tabs will be bent outwardly and the spout 47 may then be opened merely by pressing on the edges thereof. The contents of the container may then be readily poured therefrom into small openings such as into the crank case of an automobile for example. To facilitate the formation of the spout the score line 51 is provided near the center of the side. It is of course apparent that both sides of the container may be given the form illustrated in Fig. 1 and the metal clip will then be of substantially H-shape.

In some cases the sealing composition applied to the edges of the spout may interfere with the proper opening thereof. To prevent this a strip of suitable material may be inserted in the spout opening as it is being sealed, and this strip may then be readily withdrawn when the head of the clip is thrown back in the manner indicated. This strip may be formed of metal and replace the apron 49 of the clip, as shown in Fig. 3. The clip itself terminates along the edge 49' and a separate metal insert 50' is provided to replace the apron 49. The insert 50' may then have an extension 51' adapted to fit into the spout, as shown in Fig. 4. When it is desired to open this form of container the head of the clip is simply thrown back by lifting the tab 50' of the insert.

The manner of sealing and clipping the top of the container of Figs. 8 and 9 will now be de-

scribed in detail. The container is sealed and closed as previously described, and the metal clip 29 is secured over the sealed edge by crimping or the indentations 30. One side of the clip is provided with an extension 31 having therein a Y-shaped slit 32 above the outline 23. Perforations or score lines 33 are provided from the free edges of the branches of the Y-slit to the corners 34. By this arrangement the wings or flaps 35 may be readily bent back into the position indicated in Fig. 9 to expose the push-out tab 36 defined by the dotted line 23. A slight pressure against the tab 36 will force it inwardly, providing a discharge opening. As shown in Fig. 9, the wings 35 serve as guide walls or form a channel to confine the contents of the container in a limited stream as they are poured therefrom. If desired the downward extension 31 may be provided with a trough construction so arranged that it can be swung upwardly as a single unit along a scored line or weakened section along the upper edge of the clip. By this arrangement a convenient pouring extension for pouring beyond the end of the container would be provided.

During the operation of pouring the oil or other liquid from the container, some of it flowing over the outer surface of the section 17 will contact with the free edge of the opening from which the tab has been pressed. This will quickly stain the base sheet thereby frustrating any attempts to use the container again.

Furthermore, any attempt to flatten out the bent wings 35 will cause them to snap off because of their weakening by the perforations 33 or the scoring if that is used. This construction therefore provides an effective package which protects the original manufacturer from reuse, as well as the customer from having an inferior product foisted upon him while believing it to be of a higher quality and of different origin.

One of the many various ways of processing the container will now be described in connection with Fig. 14, in which is illustrated one method of applying the protective coating 25 and the sealing substance 26. After the containers are folded and secured by the adhesive as previously explained, they are placed upon a continuously moving conveyor band 37 and held in proper spaced relation thereon by means of spring clips 38. The movement of the conveyor first presents the containers for contact with a roller 39 having tapered ends, as shown, and positioned to contact the upper side edge 17 of the container. The adhesive composition which is contained in the tray 42 is moved up by the roller 41, which continuously revolves in the composition into contact with the roller 39, which revolves in contact therewith. The edge of the container scrapes the adhesive from the roller 39 and is permitted to run down the edge 24 and over the outline 23.

As an alternative the adhesive may be fed to the roller 39 by means of a spout 40. If desired the apparatus can be constructed to provide inward and outward movement of the roller 39 and the associated devices, so that it will contact the upper edge 17 of the container only when the edge 24 and the outline 23 are in position to receive the sealing substance. Similarly the roller may be provided with a spiral surface of a pitch synchronized with the movement of the conveyor.

Further travel of the conveyor band presents the container to a pair of rollers 43 for applying the sealing substance 26 to the upper edges 15 and 17. Here again the substance is applied to the rollers 43 through their contact with the rollers 44 revolving in a bath of the adhesive substance within the trays 45. Of course, any suitable means not shown may be employed for imparting rotation to the rollers.

Other operations can also be performed while the container is on the conveyor band 37. For example, at later stations in the movement of the band the containers can be filled with oil or the like, or preferably can be filled at a station intermediate the two stations where the adhesive substances are applied. Still further on in the advance of the band devices not disclosed can be provided for closing the container and applying the clips.

Another modification of the container of this invention is illustrated in Figs. 5, 6, 7, 15 and 16. In this form the containers may be easily nested. It is thus formed at the point of manufacture complete with the exception of sealing. In this case the bottom 52 is of less area than the cross-section along the line 53. For convenience in handling in use after the container is filled and sealed, the side 54 is formed larger than the opposite side 55. This causes the container to not only taper outwardly from the bottom towards the top, but also inwardly from the side 54 towards the side 55. This construction provides a better pouring spout and permits a number of the containers to be conveniently mounted in a circular carrier.

One form of blank from which this modification may be constructed is illustrated in Fig. 15. The blank comprises a single piece of material in which the bottom 52 and the sides 54 and 55 are in longitudinal alignment, and are properly scored for ease in folding into the finished shape and dimensions. One of the larger walls is formed by the section 56 extending transversely from one edge of the side 54, and is reinforced by a similar flap 59 formed as a transverse extension at one edge of the side 54. The lower end of one wall of the container is further strengthened by an extension 58 of one of the edges of the bottom 52.

When the container is folded the flap 58 is preferably secured between the flaps 56 and 57 in the manner shown in Fig. 6. In a similar manner the opposite wall of the container is formed by the flaps 59, 60 and 61. The upper end of the side 54 may be formed in the same way as indicated in Fig. 8. It is preferable, however, to form this side so that it will be flush with the edge throughout its length. This is accomplished by means of the score lines 62, 63 and 64 arranged as shown in Fig. 15, in addition to the score lines 65. In forming the side the score lines 63 are forced inwardly while the edges 62, 64 and 65 remain flush with the wall 54. The upper ends of the long side walls 59—61—60 and 56—58—57 are then capable of being squeezed together preferably after applying an adhesive as at 26 in Figure 11, preferably to bring the upper edge portions together along substantially a straight line.

Preferably, however, a convenient spout is formed at one end of this straight line closure and this may be accomplished along that end thereof adjacent the side wall 55 (Figure 15). Thus, I may provide score lines 68—68, 69—69 and 70—70, as shown in Figure 15, and, in folding into the relationship shown in Figure 5, the score lines 68—69, which may coincide, if desired, form a generally vertical edge at the upper right-hand end of the structure of Figure 5, be-

ing perhaps somewhat inwardly as well as downwardly inclined, while the generally triangular panels (Figure 15) subtended between the score lines 70—68—69 merge from that downwardly and inwardly inclined edge 69—69 into the planes of the upper ends of the side walls that are squeezed together, as above noted, and at their free edges these panels form a continuation of the earlier above-mentioned straight line closure.

Suitable clip means is preferably employed to hold the juxtaposed parts of this straight-line closure against separation and in Figure 5 such a clip or clamping means is indicated at 66—71 and it preferably has two portions, portion 66 acting to hold together the edges of the side walls and portion 71 acting to hold together the edge portions of the above-mentioned triangular panels, portion 66 being, if desired, more securely held in place by means of indentations or apertures 67, as shown in Figure 5.

Two portions are preferably provided in such a clip or clamping means to permit release of the spout-forming portion of the closure without having to release the rest of it and suitable means are provided for releasably securing the clip portion 71 in place. Thus, and of course, the clips 66 and 77 may be formed of a single piece of material with provision made for separately bending back the portion 71, thus to release the upper edges of the spout which may be spread apart for pouring purposes. Or, the clip means 66 and 71 may be made in two separate pieces.

But with the above described preferred form of construction of the clamp 66—71, where these two parts are formed of a single piece of material, the junction between the two, as is better shown in Figure 7, is bendable just like the junction between the two parts of the T-shaped clamp of Figs. 1–4, and hence the clip portion 71 may be forced out of clamping position, to release the spout-forming portions of the upper end of the container, and the parts 71 may remain connected to the more securely clamped clip 66, again as indicated in Fig. 7, just as the two parts of the T-shaped clamp of Fig. 2 remain connected together.

Fig. 16 illustrates a different form of blank from which the container of Fig. 5 may be formed. This blank approximates in form that of Fig. 13, but is formed so as to produce the double tapered effect explained above. This container comprises the main side sections 74 and 75 and the narrow and broad ends 76 and 77 respectively. A flap 78 is formed as an extension of the end 77 and may be adhesively joined to the side 74 in the assembly of the blank. The bottom is formed in the usual way by the interlocking of the flaps 79, 80, 81 and 82. This arrangement provides a very strong bottom construction. The upper edge is scored along the lines 83 and 85 to permit folding and closing the top of the container as previously explained in describing the construction of Fig. 5. A variation may consist of forming the upper edge of the blank so that there is a gradual upward inclination toward the pouring spout which facilitates pouring.

The various forms of the invention illustrated in this case amply illustrate the adaptability of the basic principles of construction of the invention by means of which a large number of forms of useful containers may be secured. In view of the disclosure itself, it is apparent that the nature of the invention is such that those skilled in the art, with the aid of this disclosure, may make many modifications without departure from the scope of the invention.

What I seek to secure by United States Letters Patent is—

1. A container comprising side walls formed of a paper stock pinched together at their upper ends to form a closure, and a clip for securing the pinched ends of said walls together, said clip having a portion normally concealing a discharge opening, said portion being bendable to expose said opening and to provide means for directing a fluid as it is poured through said opening.

2. A container comprising side walls formed of a paper stock pinched together at their upper ends to form a closure, a clip for securing the pinched ends of said walls together, said clip having a portion normally concealing a discharge opening, and means beneath said portion for sealing said opening, said portion being bendable to expose said opening and to provide means for directing a fluid as it is poured through said opening.

3. A container comprising a foldable blank folded and secured to form an enclosure, portions of said blank being pinched together to close said container, and clamping clip means tightly clamped to said pinched portions and clamping them together in sealing relationship, a portion of said clip means integral therewith and normally concealing a discharge opening and being readily bendable relative to the rest of said clip means to expose said discharge opening but held assembled to said container by its bendable connection to the rest of said clip means.

4. A container comprising a blank folded and secured to form a bottom and side walls, the upper ends of said walls being pinched together to form a T-shaped closure, and clip means for securing the ends of said walls together, said means having a portion over the head of said T-shaped closure readily shiftable to provide a pouring outlet, said outlet being constructed and arranged to form a spout.

5. A container comprising a blank folded and secured to form a bottom and a plurality of flat side walls, the upper ends of said walls being pinched together to form a closure, sealing means between the abutting faces of said walls, and clip means for securing the abutting faces of said walls together, a portion of said clip means being readily movable to provide a pouring spout.

6. A container comprising a foldable blank folded to provide a bottom and side walls for the container, the side walls tapering outwardly from the bottom toward the top to permit nesting of similar containers, the upper ends of the walls being pinched together to form a closure extending in the direction from the plane of one side wall toward the plane of the opposed side wall, with a portion of said closure adjacent one of said planes shaped to provide a spout, and a clip over the abutting edges to hold them together, that one of said two opposed side walls adjacent to which said spout is formed being narrower than the other, thereby giving said container a tapering cross-section to provide a secure gripping thereof by the fingers of the hand in effecting pouring of the contents through said spout after the latter is released by said clip and the container tilted.

7. A container comprising a foldable blank folded to provide a bottom and side walls for the container, the side walls tapering outwardly from the bottom toward the top to permit nesting of

similar containers, one wall being narrower than the wall opposite it so as to produce a taper from one wall toward the other, the upper ends of the walls being pinched together to form a closure, and a clip over the abutting edges to hold them together.

8. A container comprising side walls formed of a paper stock cut and folded adjacent their upper ends to provide a plurality of pairs of opposed portions that are by the folding brought together to form a closure, sheet metal clamping means holding said plurality of opposed portions against separation and clamping them together in sealing relation and thereby to maintain said closure, that portion of said clamping means that is related to one pair of said opposed wall portions being readily bendable relative to the rest of said clamping means to expose a discharge opening but held assembled to said container by its bendable connection with the rest of said clamping means.

9. A container comprising a body portion and having a top part scored to outline a plurality of panels for folding to close the container and including two opposed substantially quadrangular panels bendable to bring their upper end portions substantially together, thereby to give said top part a triangular cross-section, and including a triangular panel and panels connecting it to the adjacent lateral ends of said quadrangular panels and having their upper end portions folded into contact with parts of the upper ends of said quadrangular panels, and additional panels connecting the other adjacent side ends of said quadrangular panels and folded into closing position at their upper ends, and clamping means of sheet material of U-shaped cross-section shaped to take over the upper ends of said folded panels and to clamp and hold said upper ends together and in sealing relation to close the container, a portion of said clamping means normally concealing a discharge opening and having a relatively easily bendable connection with the remainder of said clamping means whereby said portion may be readily bent to expose said discharge opening but remain assembled to said container by its said bendable connection.

10. A container construction as claimed in claim 9 in which said discharge opening is bounded by the upper ends of certain of said folded triangular panels and when exposed by said bendable portion of said clamping means may be enlarged by unfolding the triangular panels thereof to form also a discharge spout.

11. A container construction as claimed in claim 9 in which said discharge opening is formed adjacent the end portion of one of said quadrangular panels and the portion of said clamping means that is bendable to expose said opening has its said bendable connection formed along a line such that, when being bent, said portion forms a guide for directing a liquid as it is poured through said opening.

12. A container construction as claimed in claim 9 in which said additional panels are shaped and folded so that their contacting upper end portions form a substantially straight line extension of the line along which said opposed quadrangular panels are closed together and form the discharge opening which is concealed by said portion of said clamping means, the bending of which exposes said discharge opening which, because of said additional panels, may be opened to form a discharge spout.

13. A container construction as claimed in claim 9 in which said additional panels are shaped and folded so that their contacting upper end portions form an extension at an angle to the substantially straight line along which said opposed quadrangular panels are closed together and form the discharge opening which is concealed by said portion of said clamping means, said portion extending at a substantially similar angle to the remainder of said clamping means.

14. A container formed of a paper stock and having portions folded to form a closure for the container, with sheet metal means for holding the folded portions in container-closing position, said sheet metal means having a readily bendable portion normally overlying or concealing a discharge means formed in the paper stock of the container, said discharge means being exposed upon bending said bendable portion of said sheet metal means, said discharge means comprising a portion of the paper stock of the container scored in the outline of a discharge opening and separable from the paper stock of the container along the line of scoring, upon bending said bendable portion of said sheet metal means, the latter limiting spread of fluid poured through said opening.

OSCAR W. WENTZ.