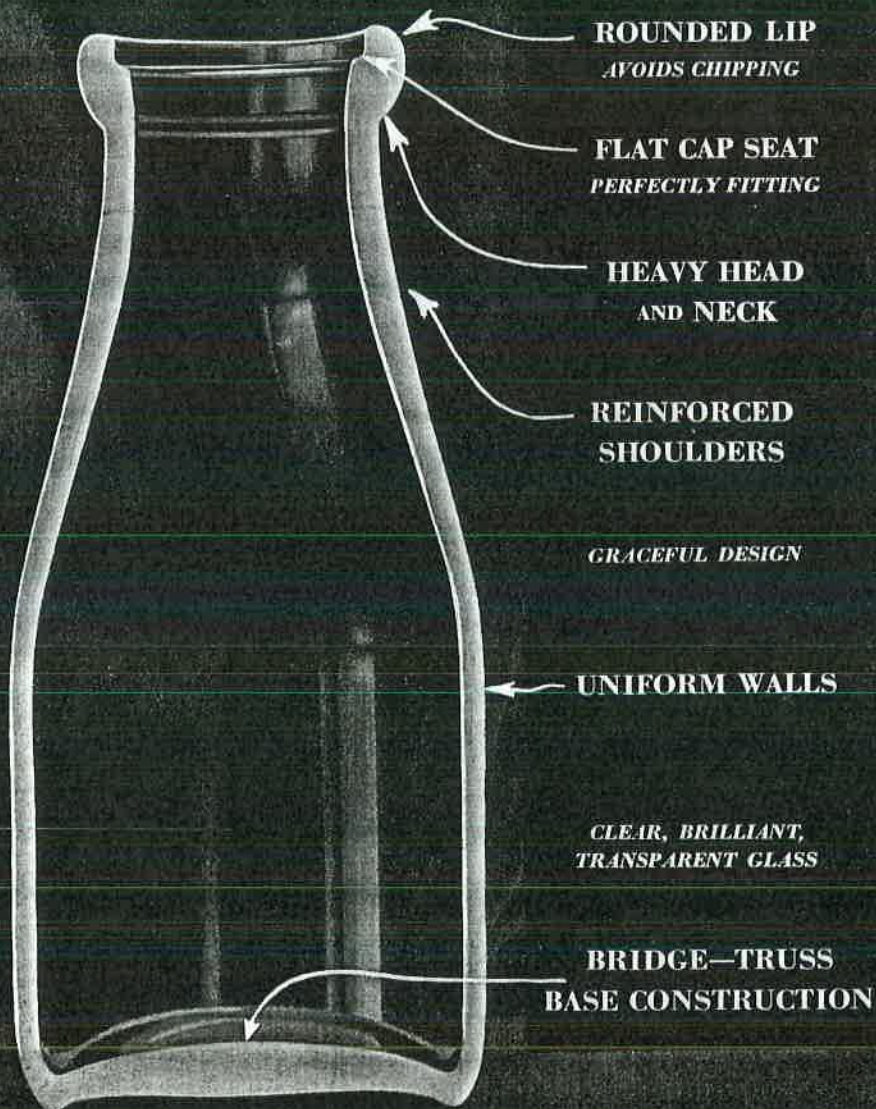


A GRAPHIC ILLUSTRATION OF STRENGTH AND CHARACTER

This sectional view of a Berney-Bond milk bottle accurately portrays the characteristics and factors which contribute to their fine appearance, exceptional strength and endurance.



Seeing is Believing

The accompanying photograph of a cross section of a Berney-Bond Milk Bottle is representative of the millions which are produced annually. It graphically portrays the structural uniformity which is responsible for their strength. It evidences the scientific distribution of glass which *armors* the parts most susceptible to breakage. Your particular attention is directed to the *reinforced* neck and to the *bridge-truss* base construction.

Even distribution, while primarily a strength factor, contributes in no small measure to the appearance of a milk bottle, adding brilliance and enhancing transparency.

Fine glass ingredients, carefully melted and accurately blown, become merchantable bottles when properly *tempered*. Even distribution lends uniformity to tempering and assists in the elimination of weak spots.

Berney-Bond Milk Bottles, because of the high quality ingredients of which they are composed—the uniformity and reinforcing of their walls—their scientific tempering—their brilliance and character—meet the exacting requirements of modern dairymen's needs as no others do. They cheerfully accept hard knocks, quick changes in temperature and downright abuse and return for more. They live long and in living are a source of unending satisfaction and much profit to the dairy industry.

Seeing is believing, and if you will keep comparative records of replacements of Berney-Bond Milk Bottles and others you have used, there will be no question in your mind as to the value of the "BB-48" insignia and the "O-I" trade mark.

Information of Value CONCERNING MILK BOTTLES

STANDARD PACKING AND SHIPPING WEIGHTS:

SIZE	PACKED TO CRATE	WEIGHT CRATED	WEIGHT BULK
Quarts	½ Gross	265 Pounds	229½ Pounds
Pints	1 Gross	165 Pounds	135 Pounds
12-Ounce	1 Gross	165 Pounds	Not Bulked
¾ Quarts	1 Gross	165 Pounds	Not Bulked
10-Ounce	1 Gross	165 Pounds	Not Bulked
½ Pints	1 Gross	105 Pounds	Not Bulked
7-Ounce	1 Gross	105 Pounds	Not Bulked
6-Ounce	1 Gross	105 Pounds	Not Bulked
¼ Pints	1 Gross	105 Pounds	Not Bulked

CHEESE JARS:

16-Ounce	1 Gross	165 Pounds	Not Bulked
12-Ounce	1 Gross	165 Pounds	Not Bulked
8-Ounce	1 Gross	105 Pounds	Not Bulked

Minimum Car Weight - 30,000 Pounds

BULK SHIPMENTS:

When Milk Bottles are shipped in bulk, cars are carefully loaded and indented paper is used between each tier. Strong bulkheads separate the ends and bracing is scientifically done so that breakage is negligible. Only carload orders can be accepted for bulk shipment and no less than half car quantity of a particular size bottle and cream top. Half-pint bottles cannot be shipped in bulk.

SERVICE:

Under ordinary conditions orders for *Plain* Bottles can be shipped within forty-eight hours from receipt of order. For orders of lettered ware, an allowance of from two to four weeks should be made after final approval of lettering and other details is had. In case of emergency, every effort will be made to better this schedule.

STOCK MOLD LETTERING:

Suitable lettering may be cut in the plate forming the circle in the front of Stock Molds. Unless otherwise specified, block style of letter (see page M 20) is used. Other types desired should be clearly specified. Trade mark or other limited lettering may be cut in the small shoulder circle. Bottom plates also may carry lettering or design suitable to the space.

QUALITY:

Only standard first quality bottles are packed for shipment. No seconds or mislettered Berney-Bond Milk Bottles are sold either direct or through any of our connections.

NON-STANDARD BOTTLES:

Some States permit bottles in sizes other than the standard Quart, Pint and Half-Pint. We can furnish the following non-standard capacity molds for the States in which they may be used: 12-Ounce, $\frac{1}{3}$ -Quart, 10-Ounce, 7-Ounce, 6-Ounce.

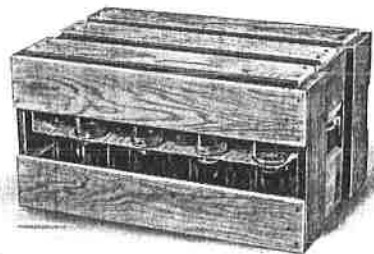
HOW TO ORDER:

Please designate the style of the bottle and also the neck design in accordance with the numbers given in this catalog (see page M 18). Presuming you would wish to order the M-10 Style Quart Bottle with Diamond Neck Design, the order would read "M-10-140."

STANDARD MILK BOTTLE SHAPES

Table of mold numbers with corresponding
former style designations.

Mold Number	Capacity	Formerly Known As
M-10	Quart	A Shape; Acme Style
M-11	Pint	AC Shape; Acme Style
M-20	Quart	Z Shape; Regal Style
M-21	Pint	Z Shape; Regal Style
M-30	Quart	H Shape
M-31	Pint	H Shape
M-40	Quart	S Shape
M-41	Pint	D Shape
M-50	Quart	M Shape; Ideal Style
M-51	Pint	T Shape; Ideal Style
M-53	½ Pint	H Shape
M-60	Quart	X Shape
M-61	Pint	X Shape
M-63	½ Pint	X Shape



PACKAGE DIVISION



**CORRUGATED PAPER
CARTONS**

WOOD CASES

CRATES



BECAUSE of the wonderful strides in packaging the fruits of industry, ours is known as the "Package Age". Nails even are cartoned, and boards and shingles wrapped, all to the end that the product be brought to the consumer in better condition or ready for more instant use.

Corrugated paper containers have made heavy inroads on wood cases during the last few years. They are less expensive, lighter in weight, and for many purposes equally or more satisfactory. There is still need and probably always will be, however, for the good old fashioned wooden case, while crates carry a large percentage of manufactured products.

This is the Package Age

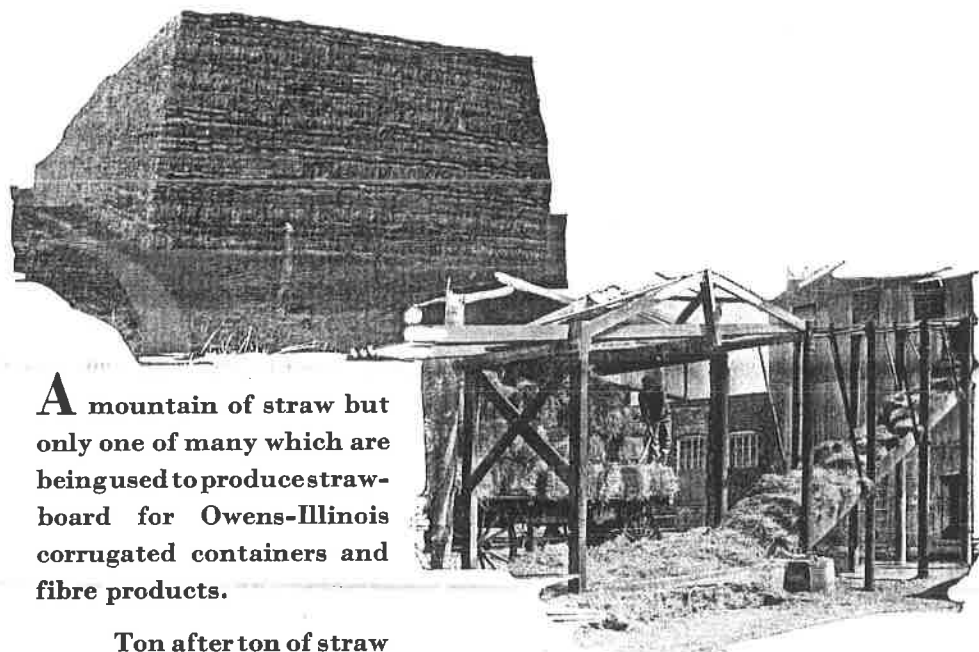
PRACTICALLY everyone has become conscious of packages and packaging and the result is more sturdy, more convenient and attractive shipping and delivery containers. A good product must be worthily packed for first, and often lasting impressions, are of the eye.

That we may be assured of the necessary packing material and have absolute control of its quality, Owens-Illinois operates corrugated units and wood box factories in connection with each of its plants. Package production is synchronized with that of glassware, resulting in an economy of storage space, a minimum of loss or abuse in delivery and a general satisfaction otherwise unobtainable.

Owens-Illinois Corrugated Plants are supplied with raw paper stock direct from our own paper mill at Carlyle, Illinois. Here, from raw straw, the great rolls of paper are produced which are later processed and assembled to make corrugated of the highest quality. A large stock of the best grades of box shooek and crate lumber including pine, cotton wood, and gum, is kept on hand at all times.

With practical knowledge of both paper and wood containers, we are enabled to produce the best package for the particular bottle or jar to be carried, assuring adequate strength, proper style and correctness of fit. Satisfaction is guaranteed.

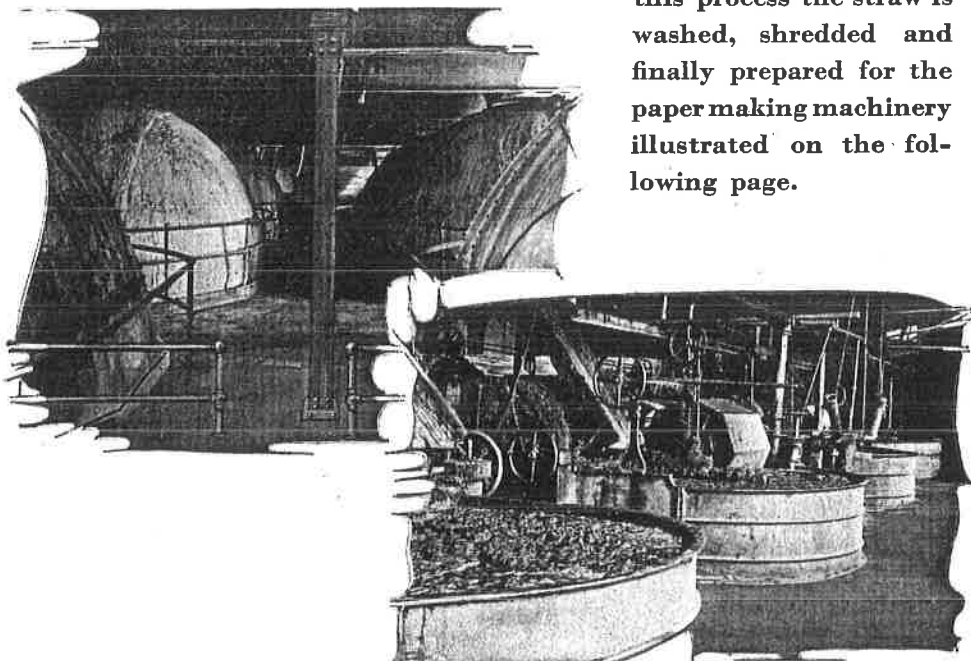
Our Package Division, in addition to caring for customers' needs in the line of glass container packages, is prepared to furnish all sorts of paper and wood cases for any purpose. Before placing your next requirement, allow us to make recommendations and quote prices.

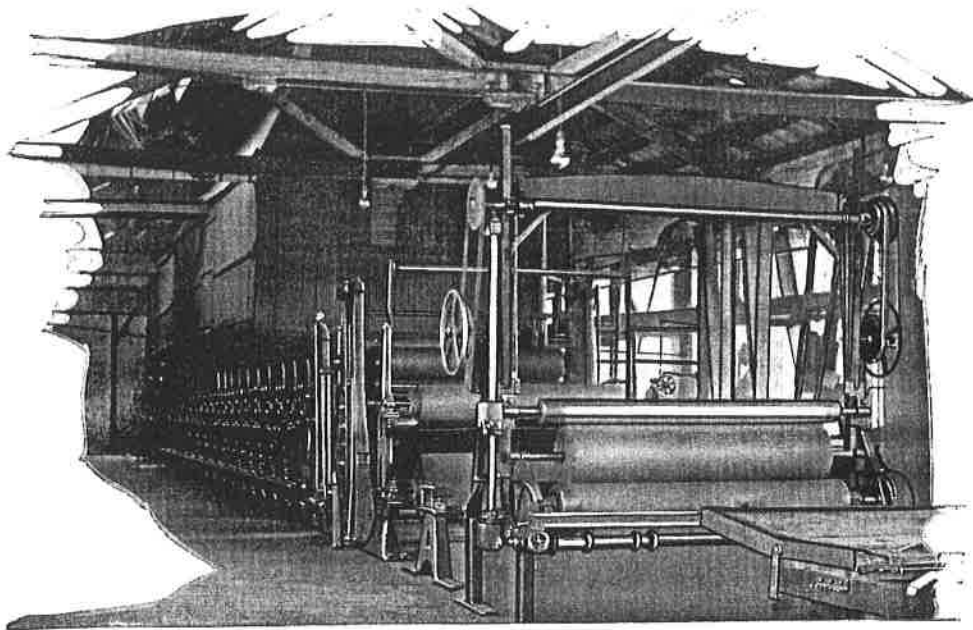


A mountain of straw but only one of many which are being used to produce strawboard for Owens-Illinois corrugated containers and fibre products.

Ton after ton of straw in baled form is opened and conveyed loose to the mill for processing. In the interest of uniformity and quality, care is exercised in selecting the straw from which our strawboard is made. Only clean wheat straw is used.

After being thoroughly steamed and cooked in the large revolving drums illustrated, the straw is delivered to the beaters. During this process the straw is washed, shredded and finally prepared for the paper making machinery illustrated on the following page.

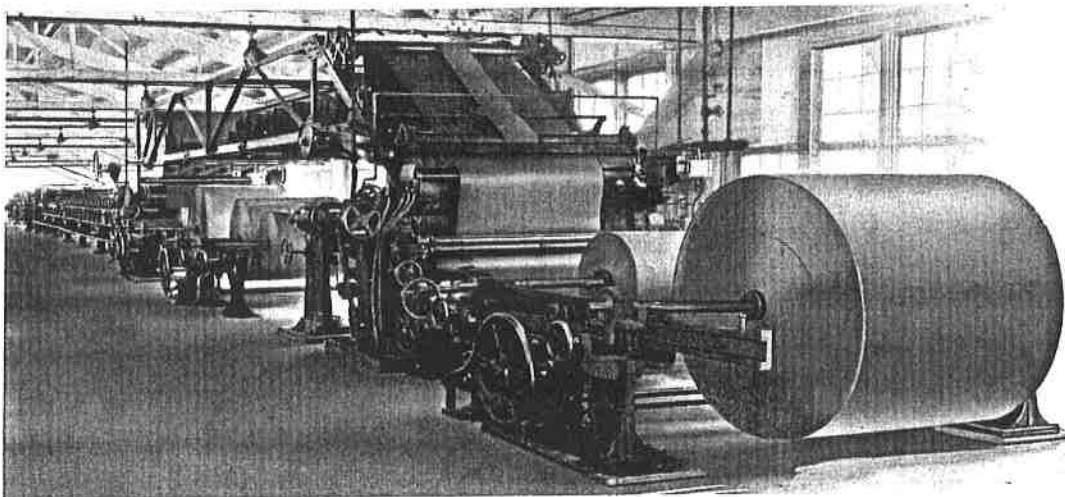




THE pulp is drawn between, under and over a series of smooth and heavy metal rolls until it has attained an even consistency. It is then dried by passing around a number of steam heated cylinders, and in drying, becomes strawboard.

Below is illustrated one of the very largest and latest models of corrugated paper machinery. It crimps and assembles the two or three elements which comprise single and double face corrugated paper.

Final more simple operations are cutting, scoring, printing and taping—largely a question of accuracy but all contributing to the making of a successful corrugated box. As is usually the case, a wealth of experience such as is had by Owens-Illinois paper makers, is an invaluable asset.

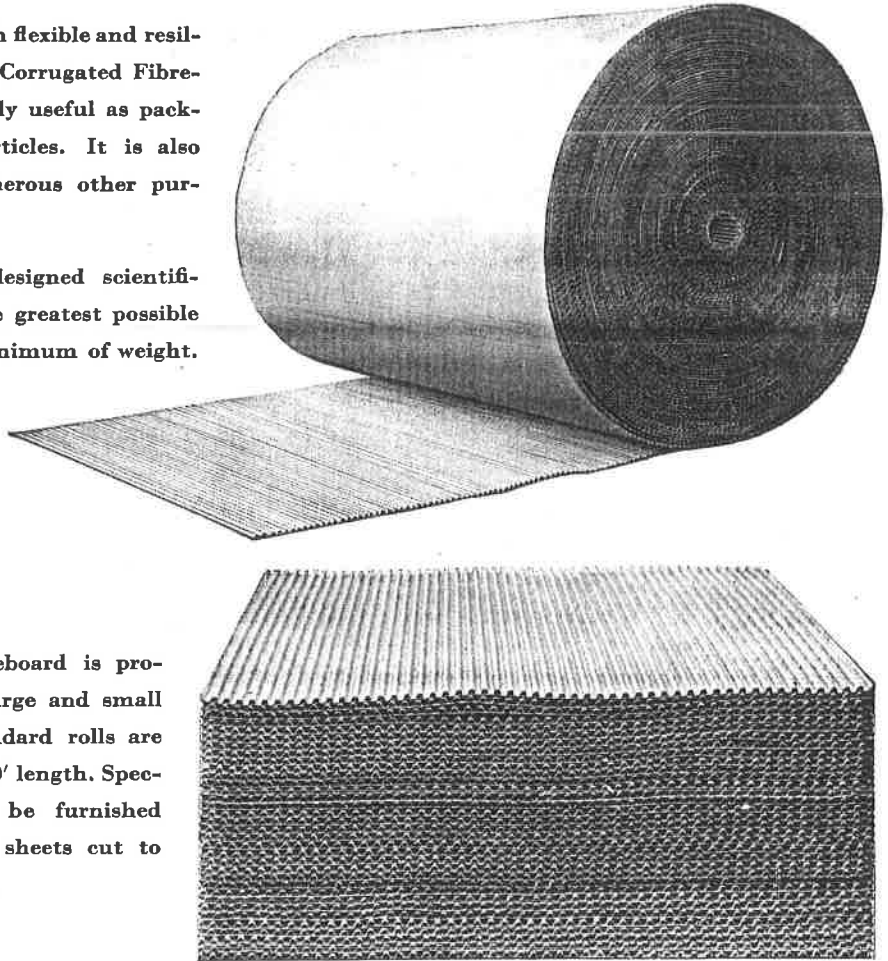


SINGLE FACED CORRUGATED ROLLS AND SHEETS

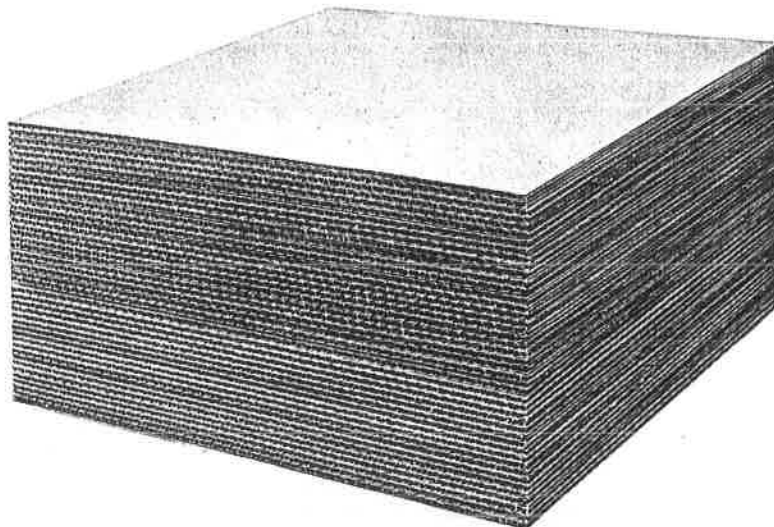
Because it is both flexible and resilient, Single Faced Corrugated Fibre-Board is particularly useful as packing for fragile articles. It is also adaptable for numerous other purposes.

The "arch" is designed scientifically to afford the greatest possible strength and a minimum of weight. The resistance which Owens-Illinois Corrugated offers to the ordinary hazards and abuse of shipping is remarkable.

Corrugated Fibreboard is produced with both large and small corrugations. Standard rolls are of 36" width and 250' length. Special size rolls can be furnished where required or sheets cut to measure.



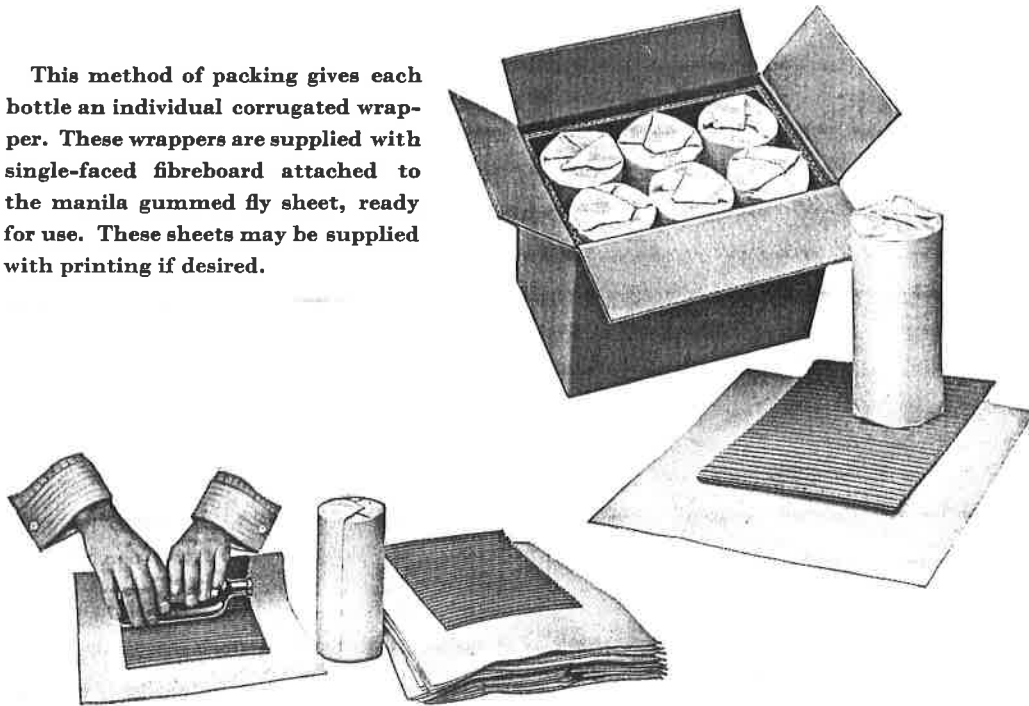
DOUBLE FACED CORRUGATED FIBREBOARD



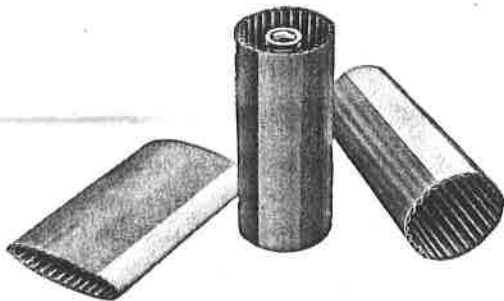
In the better grades, this double faced fibre-board is used in the manufacture of Corrugated Shipping Containers. Less expensive grades are produced as packing material for merchandise which, by reason of its fragility, requires a maximum of protection.

CHAMPION BOTTLE WRAPPER

This method of packing gives each bottle an individual corrugated wrapper. These wrappers are supplied with single-faced fibreboard attached to the manila gummed fly sheet, ready for use. These sheets may be supplied with printing if desired.



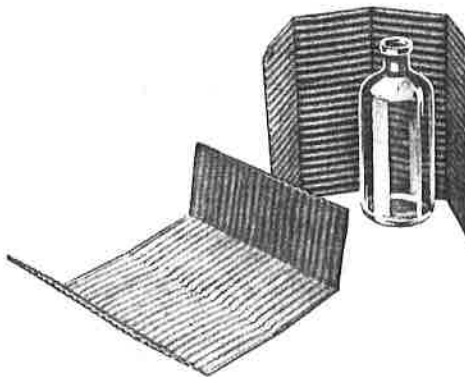
SINGLE FACED TUBES



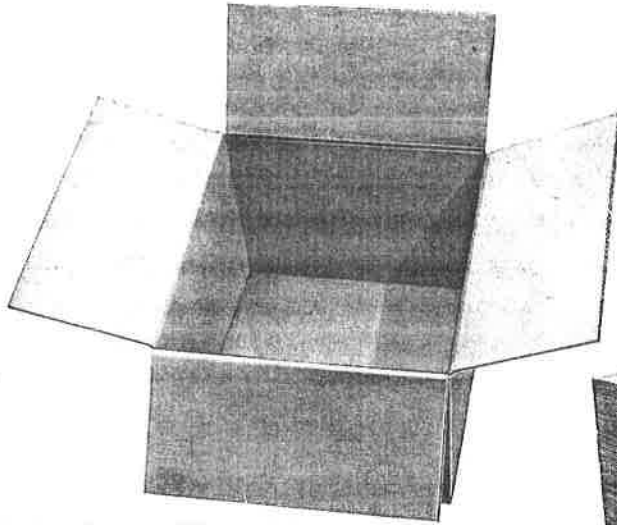
For individual bottle protection these single-faced corrugated tubes are ideal. They are furnished both with or without end pieces, and are shipped in knock-down form.

SINGLE FACED SCORED SHEETS

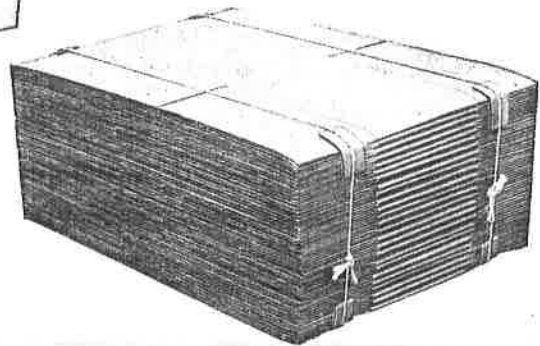
These sheets are largely used to provide bottle protection within an outer container. They are furnished both with and without end pieces, and prove an inexpensive means of serviceable packing for a variety of merchandise.



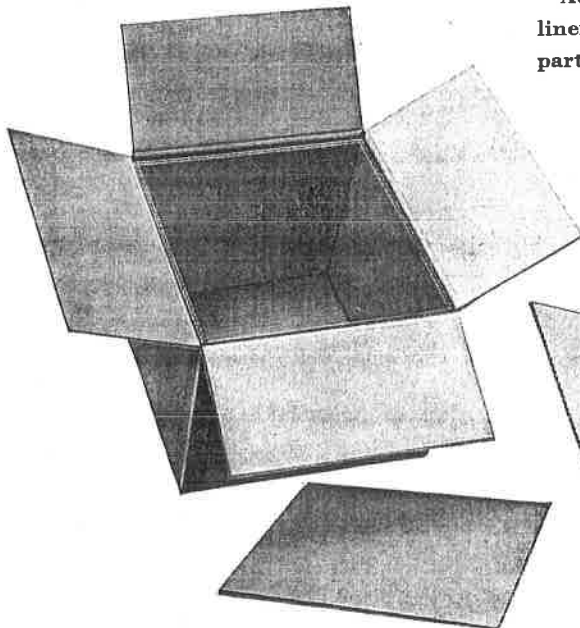
SINGLE AND DOUBLE STRENGTH SLOTTED CARTONS



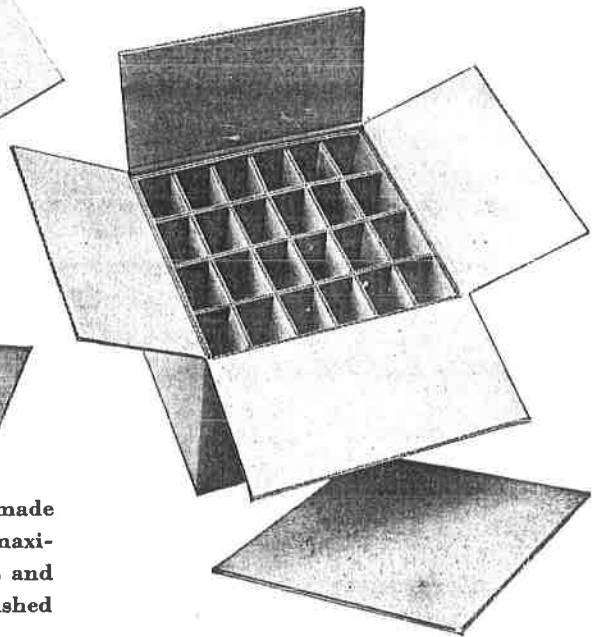
This container is designed for freight or express shipment of non-fragile commodities such as coffee, spices, dried or fresh fruits, hardware, shoes, etc. Shipped to you in collapsed form, as illustrated, only a minimum of storage space is required.



WITH LINER AND PARTITIONS

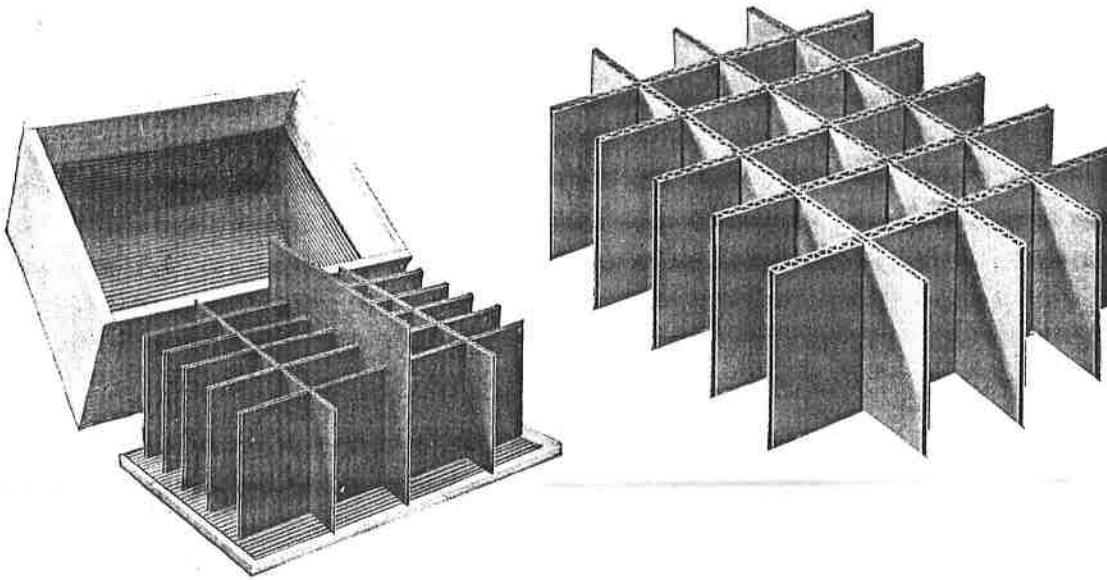


Additional strength is secured by the double faced liner with top and bottom pads. Equipped with partitions, it is ideal for shipping liquids in glass.

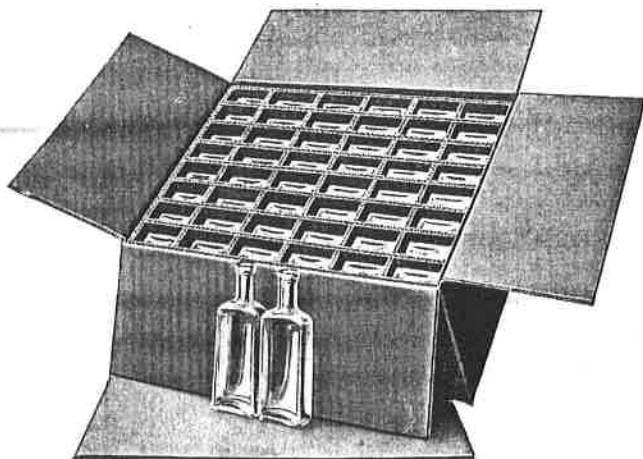


Double Strength (Double Wall) Cartons are made from double thick corrugated and afford the maximum of protection for their contents. Liners and top and bottom pads are similar to those furnished regularly for single strength cartons.

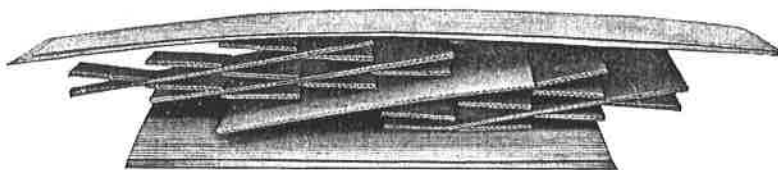
CORRUGATED PARTITION PACKING



Corrugated partition packing gives assurance of safe and satisfactory shipment of glass packed commodities. The single strength fibreboard partitions are slotted and then interlocked, giving each bottle an individual cell of uniform size. These partitions are supplied both full height, covering the bottles over-all, or shoulder high, saving weight yet affording ample protection. Illustrations show bottles furnished in reshipping case with full height partitions and the shoulder height partitioning.

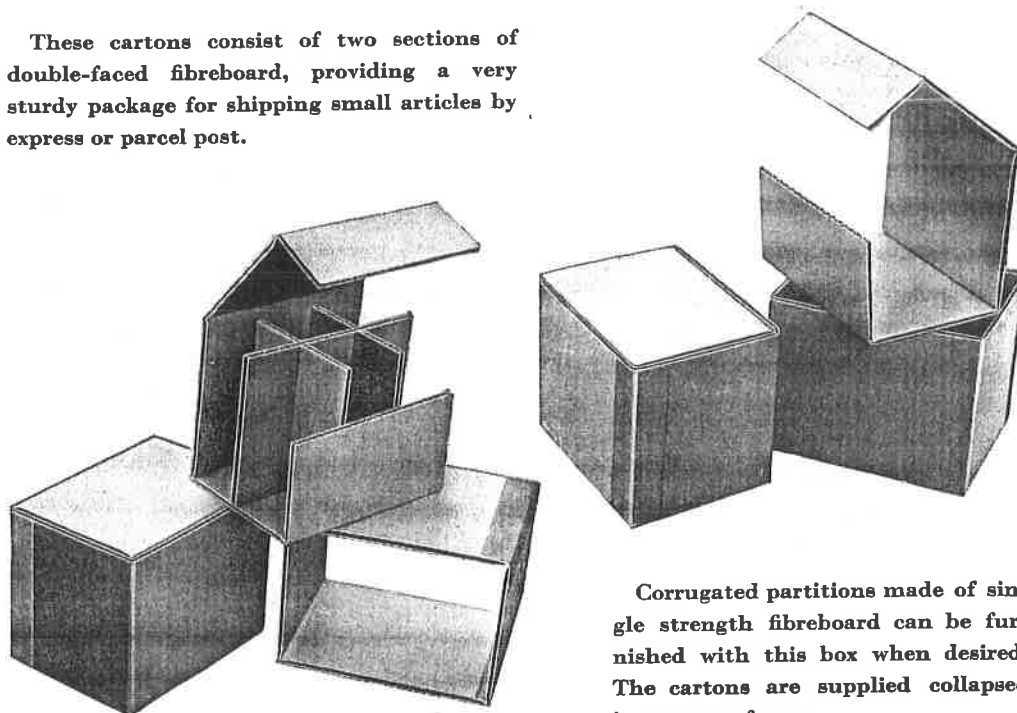


Below is shown the partitioning alone and the knock-down method of our supplying it to you.



TWO PIECE SLIDE CARTON

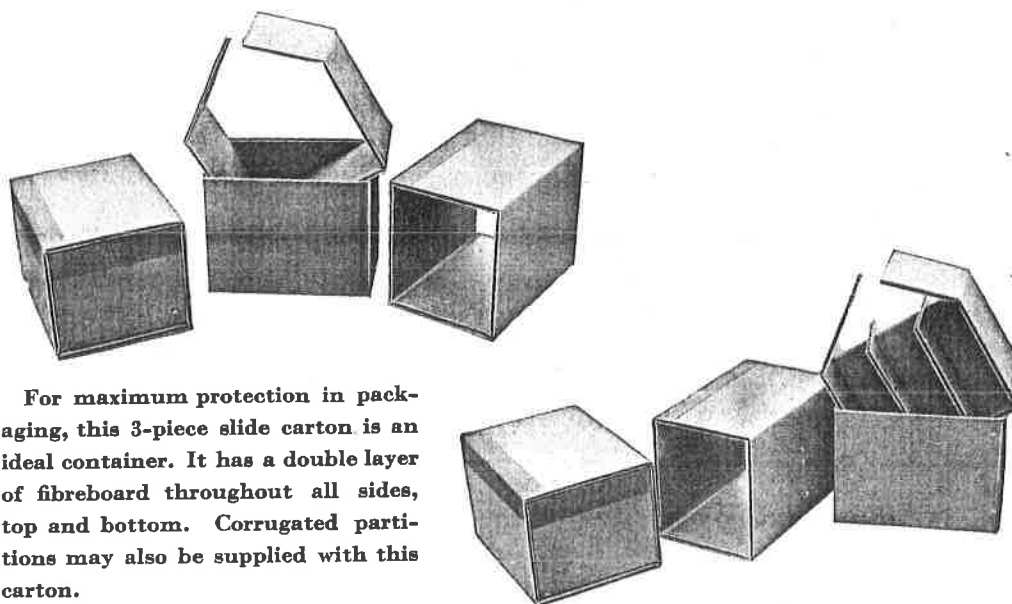
These cartons consist of two sections of double-faced fibreboard, providing a very sturdy package for shipping small articles by express or parcel post.



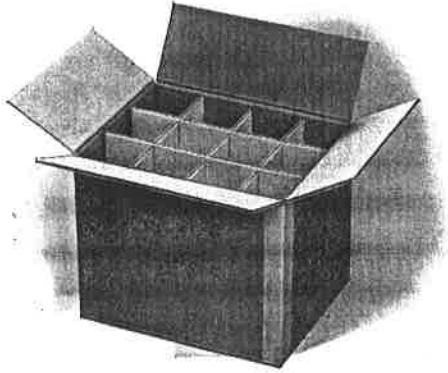
Corrugated partitions made of single strength fibreboard can be furnished with this box when desired. The cartons are supplied collapsed in compact form.

THREE PIECE SLIDE CARTON

For maximum protection in packaging, this 3-piece slide carton is an ideal container. It has a double layer of fibreboard throughout all sides, top and bottom. Corrugated partitions may also be supplied with this carton.



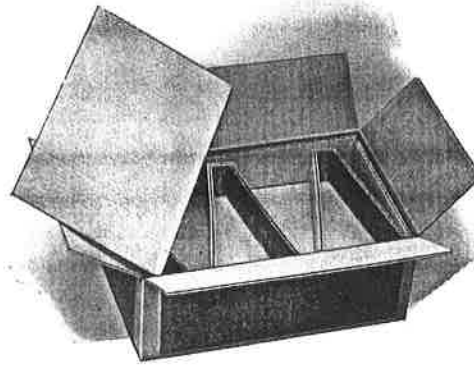
Corrugated Reshippers



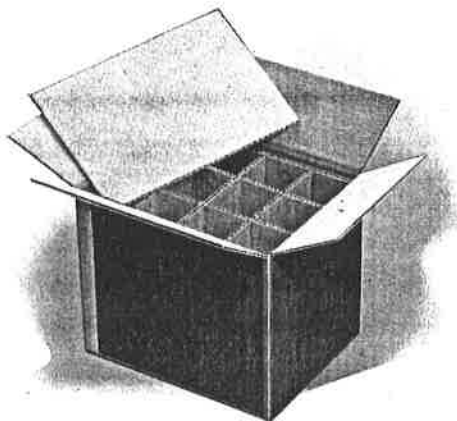
STYLE NO. 1-L

In this reshipper, the filled bottles are carried upright. It is a complete case with box body, liner, top and bottom pads and partitions, meeting consolidated freight classifications.

This is a corrugated reshipping case for filled bottles, meeting consolidated freight classification requirements. It consists of box body, liner, top and bottom and dividing pads, and scored sheet divider. One dozen bottles are packed on side, six to a tier. This package makes an ideal counter display.

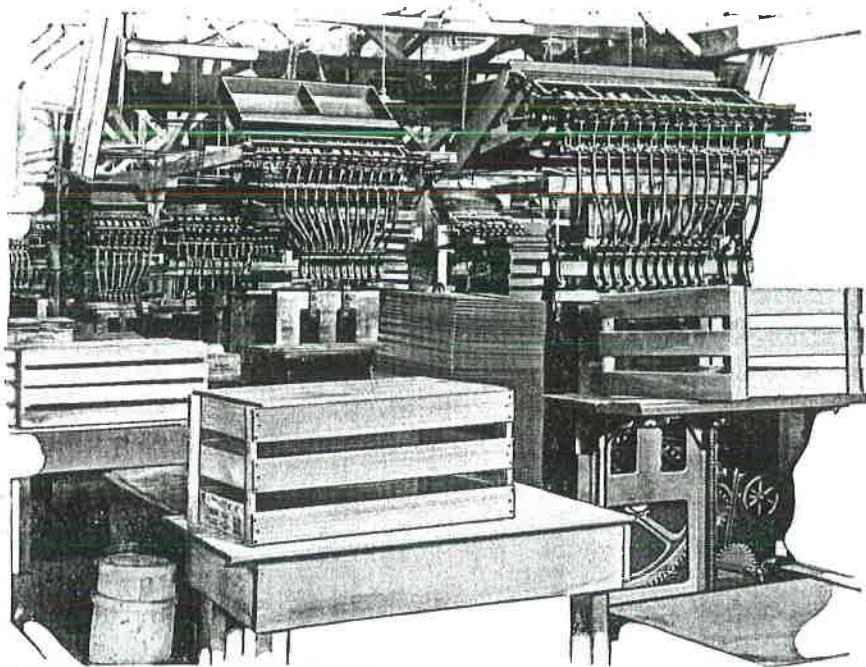


STYLE NO. 1-LL



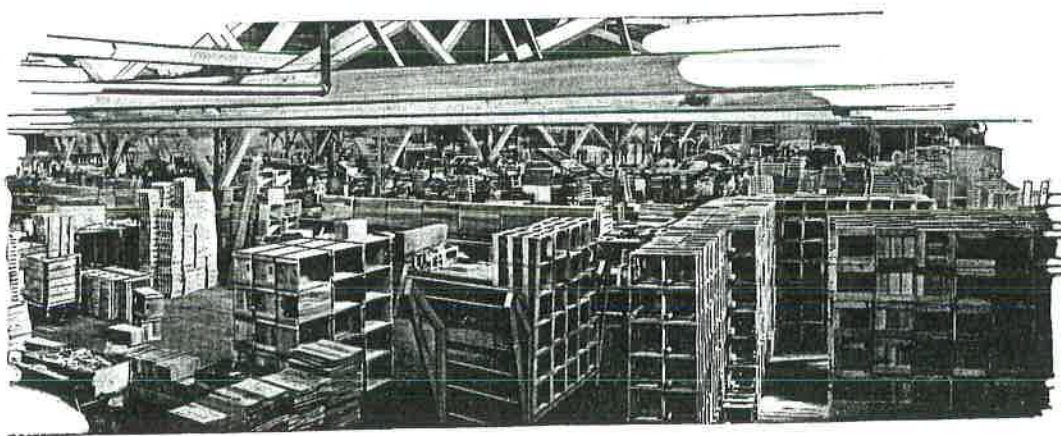
STYLE NO. 1-D

This corrugated box body with partitions is for city delivery of filled bottles. It can also be used as an empty bottle reshipper.



IN line with our established policy, the most modern of equipment is available to box makers. This battery of automatic box nailers, one of a number in constant operation, is an example. Automatic nailers not only speed up production, but do a much better job than can be accomplished by hand. They can be set to drive nails at strategic points and do so without deviation.

Below is shown groups of completed cases and crates. They give some idea of the quantity and variety which can be turned out at any of our plants.

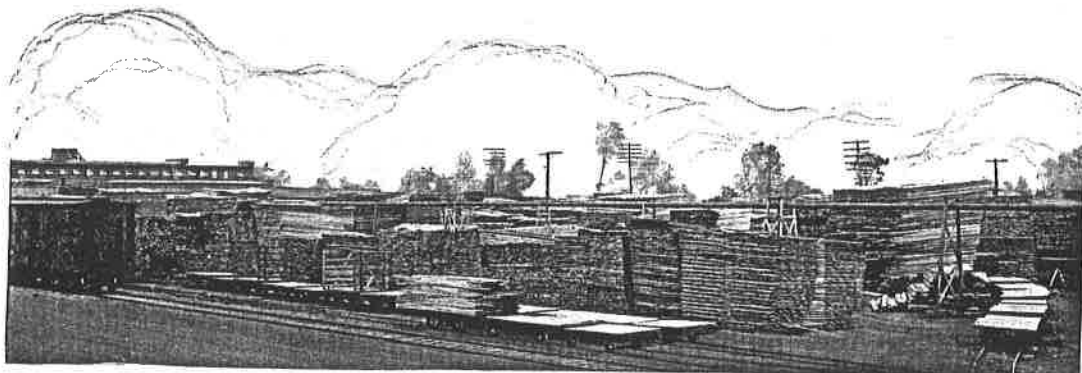


APPROXIMATELY thirty-five million feet of lumber are converted into cases and crates yearly by the box factories of the Owens-Illinois Glass Company. This gives some idea of the magnitude of our operations.

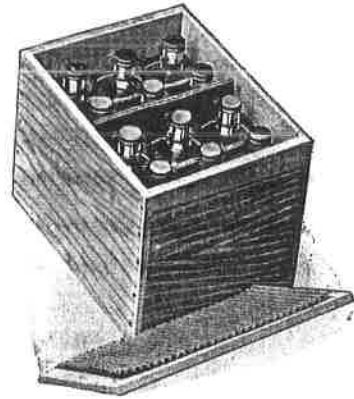
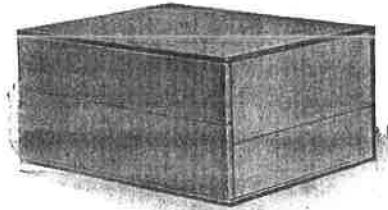
A good box maker, the same as in any other successful line of endeavor, must be an expert or specialist. He must know the characteristics of lumber and be able to distinguish them at a glance. Owens-Illinois box makers possess the experience of years so necessary to the production of the best of wooden containers for any given purpose.

Boxes can be made to be advertising mediums of considerable merit. Printing of attractive design and well applied, adds much to the appearance of the package and helps to sell the product. Owens-Illinois box makers are advertising conscious.

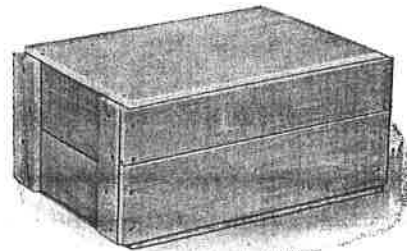
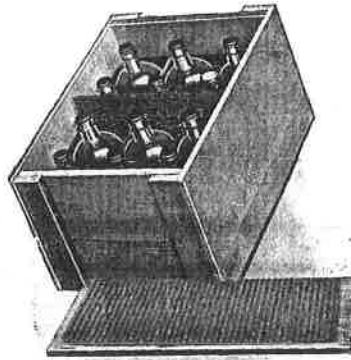
Our line of Wood Packages for Carboys is the largest and most complete on the market. On many of them we possess exclusive manufacturing rights. We excell in building cases for bottlers both for City Delivery and Shipping. Our miscellaneous range includes Lock Cornered, Nailed, Nail Cleated and other special types and styles. We welcome the opportunity of working with you on packaging problems.



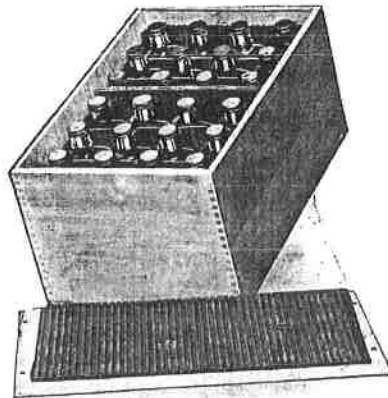
Types of Wood Packages



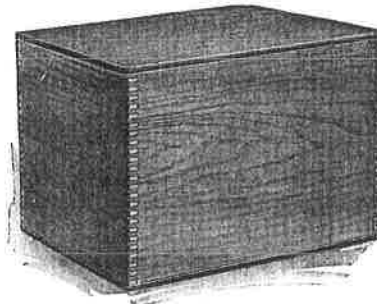
NAILED CASES



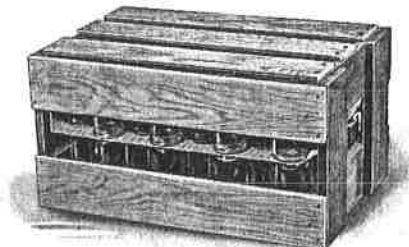
CLEATED CASES



LOCK CORNER CASES



CLEATED-NAILED
CRATE

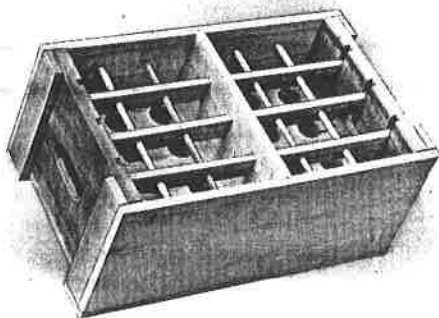


Beverage Delivery Cases

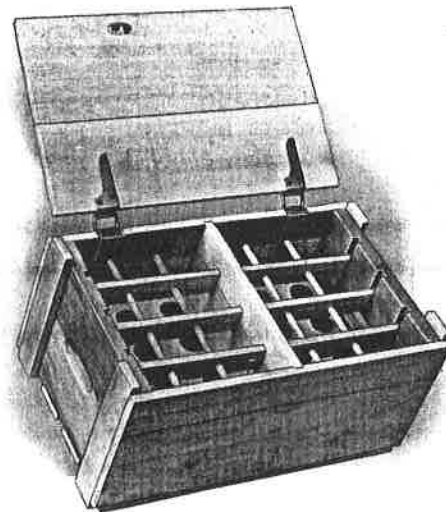
OWENS-ILLINOIS City Delivery and Shipping Cases for bottlers leave nothing to be desired from either the angle of durability or appearance. They are made from selected sound lumber and put together to stay. Unless otherwise specified, they are of 7-16-inch sides, tops and bottoms, $\frac{7}{8}$ -inch hardwood ends.

Printing can be had in either one or two colors on both sides and ends. Ordinarily regular block type is used, but we can furnish plates for special design or utilize those which customers already possess.

Where Painted and Printed Soda Cases are desired, the box parts before assembly are dipped in a good quality of lead and oil paint, dried and printed. This feature not only adds to the attractiveness of the finished case, but measurably prolongs its life.



STYLE NO. 1

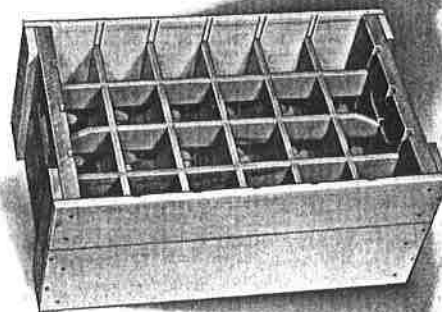


STYLE NO. 1½

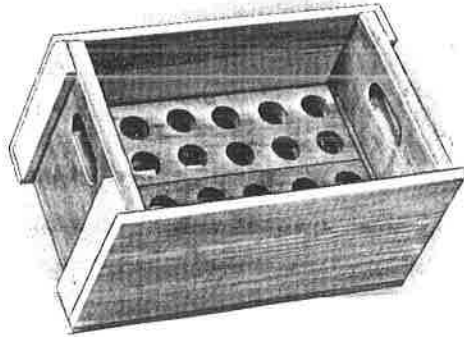
A perforated bottom case with Safety Rack for carrying bottles neck down. This case is also furnished with increased height to carry filled bottles neck up, resting on the perforated bottom. After emptying, the bottle is returned to the case neck down for draining. No. 1½ is same with cover top, lock and hinge.

STYLE NO. 2

This is a Perforated Bottom Case with partitions, carrying bottles neck down.

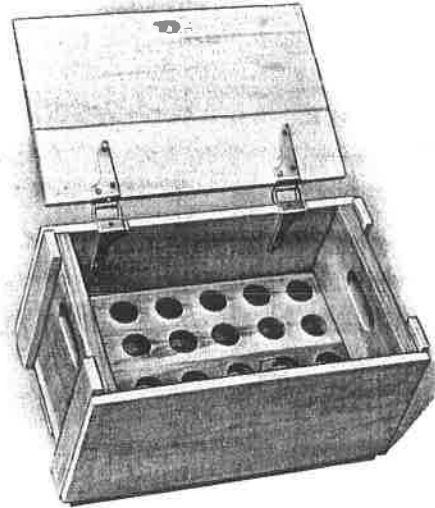


Beverage Delivery Cases

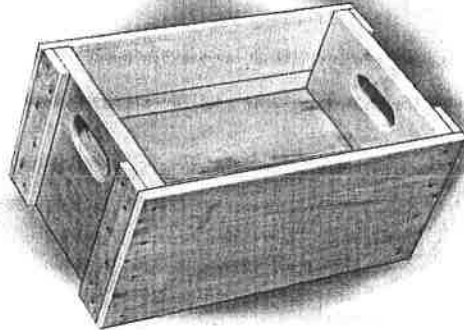


STYLE NO. 3

This is a regular Perforated Bottom Case without racks or partitions, for carrying bottles neck down. Style No. 3½ is same equipped with cover, complete with lock and hinge.

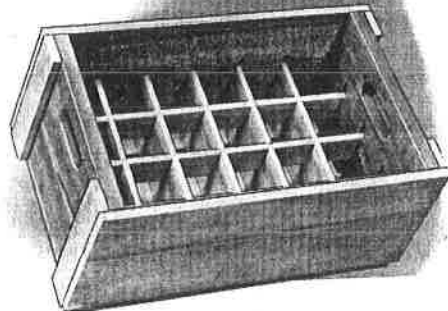


STYLE NO. 3½



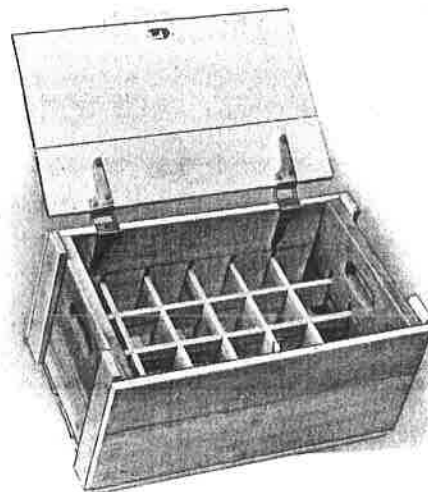
STYLE NO. 4

A solid Raised Bottom Case without racks, carrying bottles neck up, furnished either over-all height or so the necks of the bottles extend above the case.



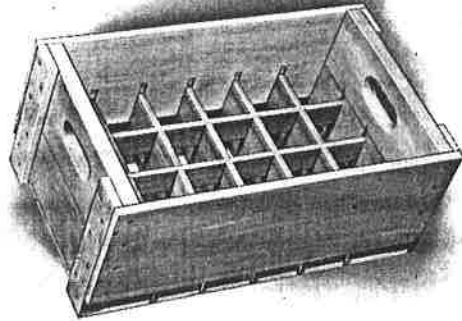
STYLE NO. 5

A partitioned case, carrying bottles neck up, for half pints to gallons. This case is frequently furnished with just six cells, each cell holding four half pints. No. 5½ is the same with cover top, lock and hinge.



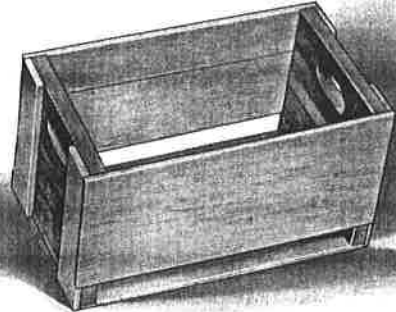
STYLE NO. 5½

Beverage Delivery Cases



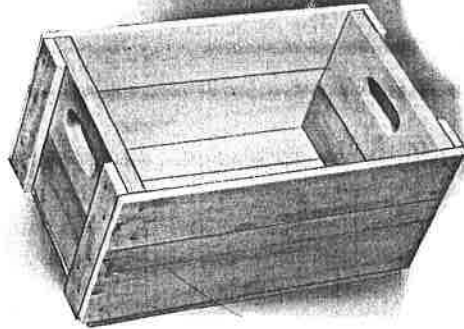
STYLE NO. 7

This is a partitioned case for carrying bottles neck up. The sides are left open at the bottom to facilitate cleaning.



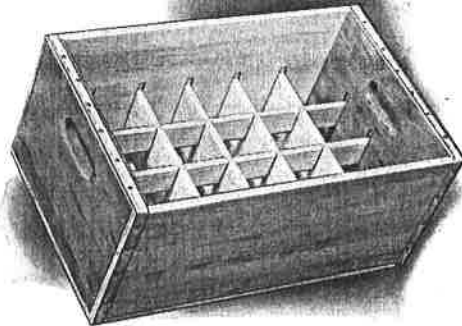
STYLE NO. 8

A full depth case without rack or partitions carrying the bottle neck up. The sides are left open at the bottom to facilitate cleaning. It is also supplied bound with iron strips, instead of cleats.



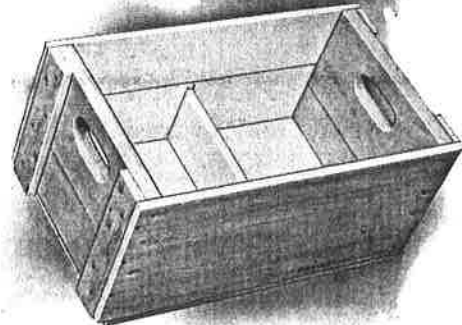
STYLE NO. 9

This is a solid wood case with no partitions or rack, carrying the bottles neck up. Also furnished bound with iron strips.



STYLE NO. 10

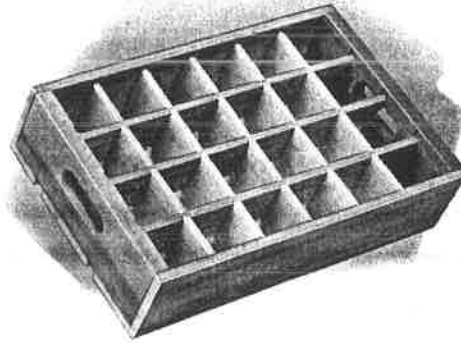
A partitioned full depth crate, bound with iron strips, carrying the bottles neck up.



STYLE NO. 11

This case is full depth with a single half height partition in the center. The bottles are carried neck up.

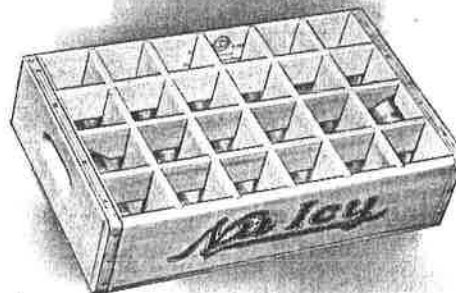
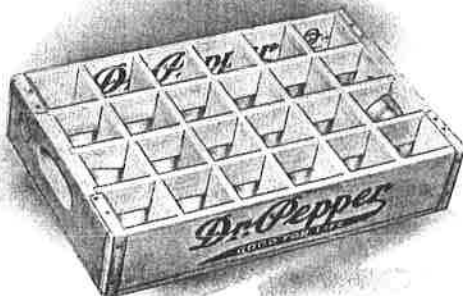
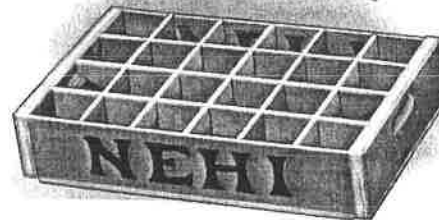
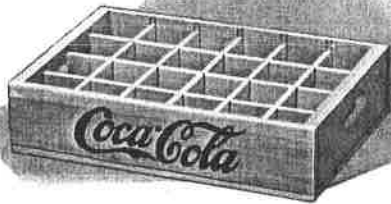
Beverage Delivery Cases



STYLE NO. 6

This is a half depth case with partitions for carrying bottles neck up. It is used extensively as a standard city delivery case and is suitable for half-pints, pints, quarts and siphons.

Below are illustrated some of the half depth partitioned cases with private lettering. Cases may be printed in one or two colors on both sides and ends if desired. Regular block type or trade mark designs may be used. Names can be printed on the inside, protected by the partitions, thus prohibiting original identity destruction. Increased strength may be had by cleating the case with rolled iron edge bands.



CLOSURE DIVISION

●

METAL AND MOLDED CAPS FOR GLASS CONTAINERS

●

The success of a modern Sales package largely depends upon the closure. In recognition of this fact Owens-Illinois manufactures nearly all types of seals. Metal Continuous Thread caps at low cost. Caseal and Gripseal design double shell metal caps. Quikseal, the improved lug cap. Knife opening—and closing—screw caps with the convenience of easier opening supplied by leverage of knife inserted in slot on top of the cap. The new sealing and resealing TIP OFF closure for bottles containing distilled spirits. Molded plastic closures in black or matching colors. Our closures are designed, engineered and manufactured with these ideals—to provide—(1) efficient, easy application, (2) satisfactory sealing and protection for your product and, (3) ready removal and convenient resealing in the hands of consumers.

You can depend upon Owens-Illinois for Complete Packaging Service—which includes the correct type of cap and liner for your product and container.



PHOTO OF PLANT NO. 61, TOLEDO, OHIO

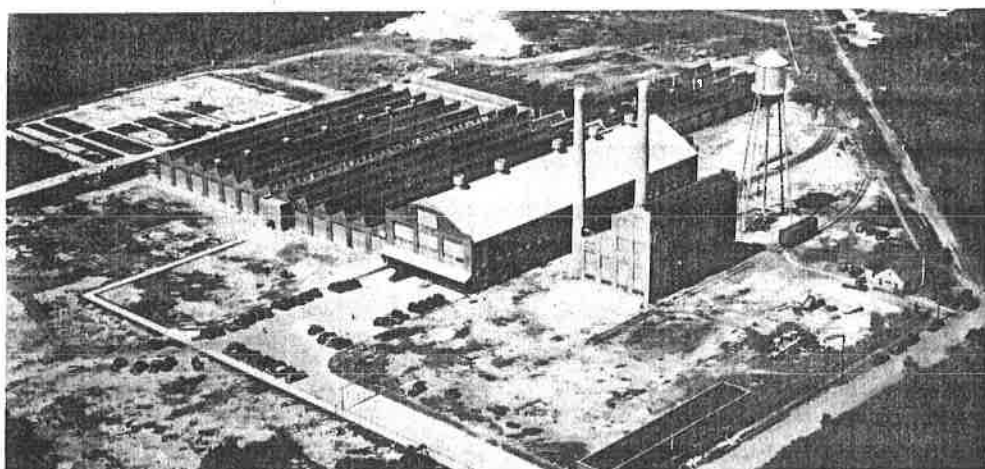
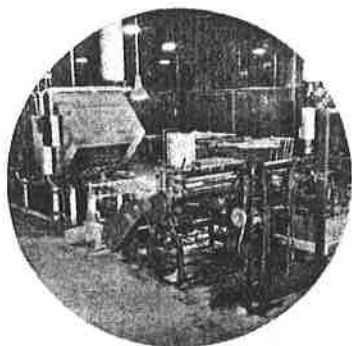
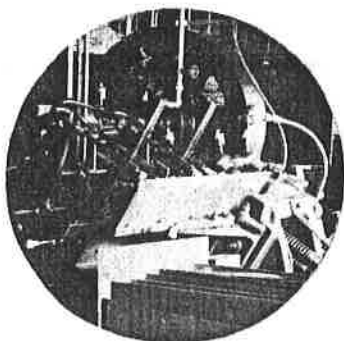


PHOTO OF PLANT NO. 68, GLASSBORO, N. J.

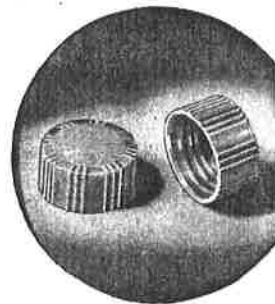
Owens-Illinois closures are produced in two completely modern plants— at Toledo, Ohio and Glassboro, New Jersey. Both are staffed by men with many years of experience in the art of closures manufacture, having been engaged in the business since 1919. Skilled craftsmen operating the most up-to-date production equipment assure highest quality product. Seals of all types are manufactured in both plants, thereby assuring year round, reliable service for all users of Owens-Illinois metal and molded caps.



METAL DECORATION is designed and completed in our own plants. Careful study is made of all raw materials used. Pigments, lacquers and varnishes are specified for the requirements peculiar to metal cap lithography. Rigid quality control extends through the entire process of applying individualistic designs and color combinations to decorated metal caps.

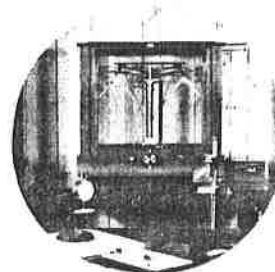


AUTOMATIC PRESSES stamp out metal cap shells from the prepared sheets of ductile metal. Precision dies accurately fabricate the cap, form perfectly matched threads and cut and insert correct size liner.



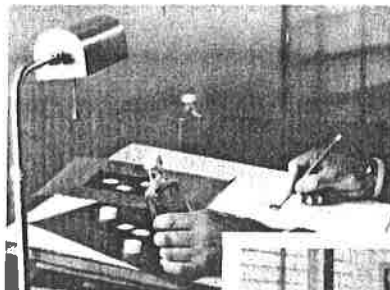
MOLDED CAPS are manufactured by an exclusive Owens-Illinois process producing plastic caps of unequalled quality engineered to correct weight and uniform strength. Our customers are invited to see their up-to-date cap molding units.

INSPECTION of all caps is in the hands of people trained for this work. Routine inspection is checked by Specifications Department personnel, using gauges and other devices which measure dimensions in thousandths of an inch. Such care assures correct fit and satisfactory sealing.

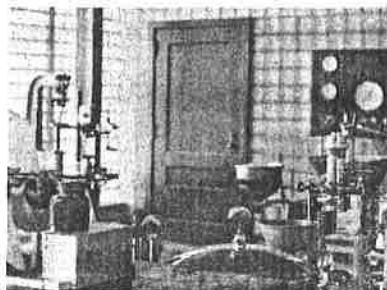


CAP LINERS are constantly under study and test. The Control Laboratory determines the type liner to provide the safest seal for each of the many products packaged in glass.

DESIGN AND RESEARCH are important parts of Owens-Illinois' Closure service. In addition to the activity of the Closure Control Laboratories which specialize in the study of seals and lining materials, all the facilities of our well-known Packaging Research



Division are available to users of Owens-Illinois closures. The staff of this Division studies Containers - Closures and Cartons, which combine to provide a Complete Packaging Service.



C10-2