

## Home Makers~

This present edition of the *Ball Blue Book* brings to you the most approved methods and directions for Home Canning and Preserving.

The best of our former recipes, like old friends, have been retained and many delightful new ones have been added.

It is with sincere good wishes for your success in Home Canning and Preserving that we publish this revised edition of the *Ball Blue Book*.

BALL BROTHERS COMPANY
Muncie, Indiana



# BALL BROTHERS COMPANY RADIO PROGRAM - "CANNING TIME"



JUNE 22ND TO OCTOBER 4TH 1931
STANDARD TIME OF THE CITY NAMED - - ALL DAY TIME HOURS

STATIONS		MON.	TUES.	WED.	THURS.	FRI.
WORCESTER	WORC			11:15		11:15
SCHENECTADY	WGY				12:15	12:15
CINCINNATI	WLW	8:15		8:15		
ATLANTA	WSB			8:45		8:45
CHICAGO	WLS		1:00			1:00
ST. Louis	KWK	11:15			11:15	
ST. PAUL	KSTP	12:30		12:30		
Торека	WIBW			11:15		11:15
FORT WORTH	WBAP	9;45			9:45	
DENVER	КОА	11:30		1;00		
SALT LAKE	KSL			7:00		7:00
SPOKANE	KHQ			10:00		1 0:00
SEATTLE	KJR		10:15		10:15	
PORTLAND	KGW		9:45			9:45
SAN FRANCISCO	КРО		10:15			1 0:15
LOS ANGELES	KNX	11:00		11:00		



# Ball Blue Book of Canning and Preserving Recipes

Published by EDUCATIONAL DEPARTMENT

BALL BROTHERS COMPANY, Muncie, Indiana

They shall rise up and call her blessed—this woman, who—loving and thoughtful of future joy and health—secures the goodness of Nature at her best, and cans against the barren sameness of the Winter months.

Well does she look to the ways of her household.





## FOREWORD

HE housekeeper of today has a bigger responsibility than her predecessor of a generation or two ago. Upon her shoulders rests the burden of keeping her family in good health through the right choice and preparation of food. In past years she was content to furnish quantities of dishes of delightful flavor and to see her family eat their fill. If illness came she sent for the doctor and did her part by devoted nursing.

Today the housewife must maintain not only the reputation of being a good cook, but she must also take the responsibility of selecting food which will provide proper materials for the growth of the children and promote the health of each member of her family. Doctors and health specialists tell us that the tired feeling, the so-called "spring fever" at the end of winter, is often due to lack of fruits and vegetables in the winter diet. Our newer knowledge of nutrition has caused us to realize more clearly the body's need for iron, phosphorus, lime, cellulose and vitamines. These essential substances are probably more generally distributed in fruits and vegetables than in any other class of food.

Home Canning is the best means of providing a sufficient supply of these foods during the winter months in localities where fruit and vegetable markets are not easily accessible or the price of fresh products is prohibitive to the family income. The summer vegetable garden can be easily transformed into a "winter garden" by planting for a surplus of vegetables to be canned for the months when the garden does not produce. For those who do not have gardens and orchards the farmers' road-side stands and home markets afford excellent opportunity to buy fresh fruit and vegetables, in season, at surprisingly low cost. Canning "in season" saves money, labor, time and energy "out of season."

Home Canning has been simplified and made much easier since the introduction of Cold-Pack (Jar-Cooked) and Oven Methods of canning. By careful planning and by following the instructions given in each individual recipe as well as a thorough reading of pages 22 to 25 you can, with minimum effort, have on your pantry shelves a generous supply of delicious home canned fruits, vegetables, meats, fruit juices, preserves and pickles in sufficient variety to insure well-balanced, steaming hot, home cooked meals at a few moments' notice.

Better health, better work, better sleep, better play can result only from having wholesome, simple, well-balanced meals, with at least one vegetable and one fruit for each member of the family for each day on the bousekeeping calendar.





SUCCESSFUL Home Canning depends largely upon the efficiency and type of the equipment used. Canning equipment need not be elaborate or expensive. It should be easy to handle, not too heavy, of convenient size and serviceable.

Types of Canners

The type of Canner used depends upon the product to be canned. A large preserving kettle can be used for preserves, conserves, marmalades and jams since these require cooking in an open kettle. For fruits, vegetables and meats, which are canned by the Cold-Pack (Jar-Cooked) method in which the product is cooked inside of the jar, another type of Canner is necessary.

Hot-Water Bath

This may consist of any container which can be fitted with a suitable rack for holding jars and which allows for a free circulation of boiling water under and around the jars. It should be equipped with a tight-fitting lid and the container should be deep enough to permit one inch of water to cover the jars. A tin lard-pail or wash-boiler can be easily converted into a Water-Bath Canner. The Commercial Water-Bath Canner is fitted with a wire rack, equipped with handles for lifting the jars in and out of boiling water. It is inexpensive and serviceable.

In a Hot-Water Bath Canner the product is processed at boiling temperature (212° F.)

#### Steam Cooker

While the Steam Cooker or "Steamer" is primarily intended for cooking purposes, it can be economically and readily used for fruit canning

and preserving.

It is equipped with a tank in which boiling water generates steam which circulates throughout the Cooker. The temperature of the Steamer may never reach that of boiling water—212° F. Therefore, the time of processing, as given in the Hot-Water Bath time tables should be increased in accordance with directions issued by the manufacturer of the Cooker when the Steamer is

used for canning. Fruits and tomatoes, which do not require long-period cooking and temperatures above boiling point can be successfully canned in the Steam Cooker. The Steam Cooker requires only one burner and contains shelves for holding jars. It is thus economical of both space and fuel.



Partly Sealed Ideal Jar (Lower Clamp Up)

#### Steam Pressure Cooker

The Steam Pressure Cooker consists of an iron or aluminum container equipped with a tight-fitting lid fastened into position with bolts or lugs. It is further equipped with a pressure gauge for determining the steam pressure inside of the cooker and indicating the corresponding temperature. It also contains a safety valve, steam pet-cock and rack for holding jars.

The Steam Pressure Cooker is constructed to obtain and hold temperatures above boiling point (212° F.) thus reducing the time for processing. It is especially adapted for canning non-acid vegetables and meats.

Explicit directions for using the Steam Pressure Cooker for canning should be supplied with the cooker at the time of purchase.

#### Small Canning Equipment

Results can be made more certain and the work greatly lessened by having at hand an ample supply of the smaller less-expensive canning equipment.

For efficient canning, sharp knives are necessary.

A stainless steel or silver knife is best for

paring fruit.

A long-handled spoon makes stirring easier. A flat wooden spatula or paddle helps in packing. A fine-mesh wire basket simplifies the blanching process.

A jar-lifter helps to prevent burns.

A wide-mouthed funnel and ladle will save time and product when filling jars.

A quart measure, small measuring cups, scales, a confectioner's thermometer and bowls of various sizes help to obtain a perfect product.

Enamel or aluminum utensils are preferable.

## Rubber Jar Rings

Success in keeping products canned in Glass Jars depends greatly upon the Jar Ring.

The purpose of the Jar Ring is to make an airtight seal between the lid and the jar. It also serves as a cushion and filler between the lid and sealingedge of the jar.



Fully Sealed Ideal Jar (Lower Clamp Down)

Can for economy and health

A Jar Ring of good quality is necessary for canning products which require long periods of processing at boiling or higher temperatures. It should fit snugly to the neck of the jar throughout the entire processing period and fully seal the lid to the jar. A ring of inferior quality will "blow out" between the top of the jar and cover. This requires removal of the lid and placing on a new jar ring, which means not only doubling the price of the rubber, but offers an opportunity for spoilage, as air enters the jar while the old ring is being replaced by a new one. A good Jar Ring should be pliable; it should not break or crack. A Jar Ring, to be of correct thickness, should measure 1/12 of an inch. Two rings placed on a jar, because of the added thickness, does not insure a perfect seal on either the Ball Mason or Ideal jar.

Old jar rings should not be used for canning. To insure a perfect seal always use NEW, CLEAN, RELIABLE Rubber Rings.

BALL "Perfect Seal" Rings are of the best

quality and fully meet the necessary requirements for ALL KINDS of canning. They are packed with all Ball Jars.

#### Glass Jars

Recent inventions and improved methods in the manufacture of Glass Jars now make it possible for the Home-maker to select the jar she likes best from a variety of sizes, shapes and types, all of which are designed and tested to meet her

special needs for Home Canning.

BALL Fruit Jars are made in both round and square shape and in two colors, green glass and white or (flint) glass. Color does not indicate the strength of the glass jar; color is merely a matter of choice. Flint glass is preferable for some products when canning for sale or for exhibit purposes. Green cucumber pickles, peas, green beans and greens show to better advan-tage when canned in green glass jars. Green jars are more widely used than flint jars, due to the theory that green glass protects and preserves the delicate color of various fruits.

The size of the family should determine the

size of the jar.

Half-pint jars are recommended for jams, conserves, preserves and marmalades, in place of jelly glasses which are not designed to insure an airtight seal.

#### The Ball "Perfect Mason" Jar

The Mason Jar, which is best known to the average home canner is made in both green and flint glass and in round and square shape. It is equipped with a screw cap or lid. The lid is made of metal, preferably zinc, containing a porcelain liner, which fits into the top of cap. In this way the product inside of the jar does not come in contact with the metal part of the cap.

#### Partly Sealing Mason Jars

To partly seal a Mason Jar for processing, adjust the rubber (wet) and screw down the cap until it catches hold of the rubber ring, but do not fully seal. When the jar is removed from the canner, complete the seal by screwing down the lid as tight as possible and invert the jar for a few minutes to test for leaks.

## Opening Mason Jars

There are several easy, correct ways to open a Mason Jar.

Invert the jar and place it in a pan containing enough warm water to cover the cap and allow it to remain there from five to ten minutes. This will soften jar ring which can be removed then without difficulty. In this way lid is not injured.

A dull knife blade may also be used to open the lid by inserting the blade under the rubber, between the rubber and glass shoulder of the jar. Prying open the cap by inserting a sharppointed instrument or knife blade between the rubber and the cap injures the zinc cap. This is too often the unnecessary cause of spoilage, as air can easily enter through the small openings in the dented lid.

Pull the rubber from between the lid and shoulder of the jar with the fingers or a pair of pliers, allowing air to enter thus opening the jar.

"Ball Ideal" and "Eclipse" Glass-Top Jars The Glass-top Jar or Clamp-top Jar is made entirely of glass, with exception of the wire bail or clamp, which fastens the glass lid into position. Glass-top Jars are made in both green and flint glass and in round and square shape.

Partly Sealing Ball "Ideal" and "Eclipse" Jars When partly sealing the Glass-top Jar before processing, adjust a wet rubber ring and lid and pull the upper clamp over the glass lid until it snaps into position. The lower clamp should remain up during the processing.

## Completing the Seal

As soon as the jar is removed from the canner complete seal by pulling down the lower clamp. The same methods apply to opening Glass-top Jars as specified for Mason Jars.

Tightening Wires of "Ideal" and "Eclipse" Jars

After continued use the upper wire clamps on these Jars may need to be

To do this slip upper wire (the one that goes over Lid of Jar) out of wire loops. Grasp wire as shown in illustration, bend center of wire down slightly

so it will hold Glass Lid more tightly. If in making this bend the ends of the wire are separated too far apart bend them towards each other so they may be sprung to place in the loops.



Read important rules



FRUITS, with their delicious flavor, their rich color, acid contents and their seasonal distribution, offer a greater variety of uses than any product which we can or preserve.

Jellies, jams, marmalades and fruit juices, as well as the plain canned fruit, with syrup just sweet enough to suit the family taste, add a pleasing variety to the

monotony of the winter diet.

From these, delicious fruit cocktails can be made which make such an appetizing course with which to start a dinner or luncheon. These fruits may also be used for various desserts such as pies, puddings, ices, ice creams and gelatines. With such additions a simple meal is made most complete and satisfying.

Apples (Cold-Pack)

The late fall and winter varieties are best for canning as they are more tart and retain their flavor better than do the sweet varieties.

Select firm, sound, tart varieties, slightly under-ripe. Wash, pare and core; cut into quarters, or leave whole as desired; drop immediately into a salt bath made in proportion of 1 tablespoon salt to 1 quart water to prevent discoloring; blanch (boil) for 1 minute to shrink; pack tight into hot BALL Jars, fill with hot, thin syrup, made with 1 part sugar to 1 part water, partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.

Apples (Open-Kettle)

Wash, peel, quarter and core the apples. Drop the quarters into thin boiling syrup made with 1 part sugar to 1 part water and boil until tender. Add the grated yellow rind of 1 lemon for each 2 quarts of apples. Boil the apples a few minutes longer. Pack into hot BALL Jars, fill to overflowing with boiling syrup and seal at once.

Apple Sauce (Open-Kettle)

Wash, pare, core and remove specks or discolored portions. Cut into small pieces to prevent sticking and cook until apples are tender; sweeten if desired. Pack into hot BALL Jars and seal

Canned Baked Apple Wash and cor

at once.

Wash and core sound, tart, baking apples. Fill the cavities with sugar to which a little

Have syrup boiling before filling jars cinnamon has been added. Place in a baking dish containing a little water. Bake in a hot oven until tender. Pack quickly into hot BALL Jars and cover with a hot, medium thick syrup made with 1 part sugar to 1 part water. Fully seal.

## Apricots (Cold-Pack)

Apricots are generally canned with skins on. Clean by wiping with damp cloth. Halve and pit; blanch ½ minute; pack closely into hot BALL Jars; fill with hot, thin syrup, made with 1 part sugar to 1 part water. Partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.

Apricots (Open-Kettle)
(Same as Peaches)

#### BERRIES

Blackberries Blueberries Dewberries Elderberries Huckleberries Loganberries Mulberries Raspberries Berries contain more air in proportion, than large fruits and vegetables. For this reason, in Cold-Pack canning, berries when heated, will rise to the top of the jar, while syrup, being heavier, remains at the bottom. This can be remedied

somewhat by packing closely in hot jars, being careful not to mash the berries. Rising of berries to the top of jar does not affect the keeping qualities and the jar should not be opened to refill.



## Berries (Cold-Pack)

Wash and stem; pack closely in hot BALL Jars; fill with hot, medium thin syrup made with 3 parts sugar to 2 parts water; partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.

## Berries (Open-Kettle)

Wash and pick over carefully. Use ½ to 1 cup of sugar to a quart of berries. Put sugar and fruit in a preserving kettle and let it heat, shaking occasionally to prevent burning. Boil for 5 minutes. Fill hot BALL Jars to overflowing and seal immediately.

#### Strawberries

The Strawberry is the most delicately colored of all berries. A very high temperature or an extra long period of rapid boiling tends to destroy the coloring matter, making it advisable to process only in a Hot-Water Bath with the water boiling gently. Because the strawberry contains so much air it rises to the top of the jar when canned by the Cold-Pack method. This does not affect keeping qualities.

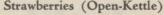
## Strawberries (Cold-Pack)

Select firm, large berries, wash and stem, pack firmly as possible without crushing, into hot BALL Jars, fill with a medium thin syrup, made with 3 parts sugar to 2 parts water. Partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.

#### Artificial "Sun Canned" Strawberries

To prevent strawberries from rising to the top of the jar, select large, firm berries, wash and stem, place in a shallow pan to avoid crushing, cover with a hot, medium thin syrup, made with 3 parts sugar to 2 parts water, boil gently (simmer) from 5 to 8 minutes, and let stand in kettle from 6 to 12 hours. During this time the berries will become saturated with the syrup and will

not rise to the top of the jar. Pack into hot BALL Jars, partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.



To each quart of berries add 1 cup of sugar and 2 tablespoons of water. Boil gently for 15 minutes. Let stand in kettle overnight; bring to boil; pack while hot, into clean, hot BALL Jars. Seal immediately. Berries will not rise to top in this method.

## Cherries (Cold-Pack)

Cherries may be canned whole or pitted. For sour cherries, make a heavy syrup, using 2 parts sugar to 1 part water; for sweet cherries, use a medium thin syrup made with 1 part sugar to 1 part water.

Wash, stem and pack cold into hot BALL Jars; fill with hot syrup, partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal at once.

## Cherries (Open-Kettle)

Wash and seed the cherries, place them in a preserving kettle with enough sugar to sweeten them (but without water). Heat slowly until the boiling point is almost reached. Fill hot BALL Jars to overflowing and seal immediately.

## Currants (Same as Berries)

## Figs (Cold-Pack)

Figs for canning should be sound and firm. Sprinkle 1 cup of soda over 6 quarts of figs and add 4 quarts of boiling water. Allow figs to remain in soda bath for 5 minutes. Drain and rinse thoroughly. Place the figs into 2 quarts of medium thick syrup made with 3 parts sugar to 2 parts water and boil gently for 1 hour. Pack the figs carefully into hot BALL Jars and fill with syrup. Partly seal and process for 20 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

## Figs (Fresh) (Open-Kettle)

Use figs slightly under-ripe. Slit them on one side and soak in mild salt brine for 3 or 4 hours. Then wash thoroughly in cold water. Make a syrup of 1 pound of sugar and a pint of water to each pound of fruit. Place syrup in a kettle and when boiling, drop in figs and cook until done. Fill hot BALL Jars to overflowing and seal at once.

## Fruit Macedoine (Cold-Pack)

A combination of light colored fruits makes an attractive pack and it is a convenient product to have at hand, since it is ready to serve as fruit cocktail, salad or dessert. For fancy packs the fruit may be packed in alternate layers, or arranged in other attractive designs.

Pleasing combinations:

1. Green gage plums, pears, white grapes.

Peaches, pears, blue plums.
 Pineapples, kumquats, figs.

Pack cold into hot BALL Jars; cover with medium thick syrup made with 3 parts sugar to 2 parts water; partly seal

> Insure success in canning Read pages 24 and 25



and process for 20 minutes in a Hot-Water Bath, Seal immediately.

#### Gooseberries (Cold-Pack)

Wash the berries, pack into hot BALL Jars, cover with a medium thick syrup made with 3 parts sugar to 2 parts water. Partly seal and process 20 minutes in a Hot-Water Bath. Remove from canner and seal at once.

## Gooseberries (Open-Kettle)

Wash berries. Use same recipe as for Canned Cherries, page 6.

#### Grapes (Cold-Pack)

Wash and stem, using only sound, firm grapes. Pack tight without crushing, into hot BALL Jars, fill with medium thick syrup made with 3 parts sugar to 2 parts water. Partly seal and process for 20 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

## Grapes (Open-Kettle)

Wash, stem and put in preserving kettle with thick syrup made with 2 parts sugar to 1 part water. Let come to boil. Fill hot BALL Jars to overflowing and seal at once.

## Peaches (Cold-Pack)

Select peaches which are ripe but not soft. Those which are over-ripe may be used for jam or peach butter. Blanch (scald) quickly to loosen skins; cold dip for 1 minute, remove skins and pack (halves or whole), without crushing, into hot BALL Jars. Fill with medium thick syrup made with 3 parts sugar to 2 parts water, partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal immediately.

#### Peaches (Open-Kettle)

Because of their rich flavor, peaches canned by the Open-Kettle method are preferred by some home makers to peaches canned by the Cold-Pack method.

Make a heavy syrup using 3 cups of sugar to 1 cup of water. Let the syrup come to a boil, then drop in the peaches, which have been peeled and halved, cook until very tender. Pack carefully, cut side down, into hot BALL Jars. Fill jars to overflowing with boiling syrup and seal immediately. If the peaches are weighed, a pound of sugar may be allowed for each pound of fruit. If not convenient to weigh the fruit you can start with a small amount of syrup, and if not enough add more sugar and water in the same proportion, 3 to 1, to that already in the kettle. If this makes a heavier preserve than wanted, use a medium thin syrup of, say 3 cups of sugar to 2 cups of water. If any syrup is left, can the remaining peach syrup, to be used for pudding, sauces, gelatine, jellies and other winter-time desserts.

#### Pears

It also makes a delicious ice cream.

Pears should be canned when slightly under-ripe. The flavor and quality are much improved, as well as the appearance of the product, since no surplus texture is found floating in the syrup or settling to the bottom

The rich, juicy Bartlett pear is always desirable for canning but some of the late, rather flavorless varieties when canned in a thin syrup, make a pleasing breakfast fruit or luncheon dessert.

## Pears (Cold-Pack)

Pare, halve or quarter pears; drop immediately into a cold salt-water bath made in proportion of 1 tablespoon salt to 1 quart water, to keep them from discoloring. Boil gently from 4 to 8 minutes in a syrup made with 3 parts sugar to 2 parts water, pack hot into BALL Jars, cover with syrup in which pears were boiled. Partly seal and process for 20 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

## Pears (Open-Kettle)

Proceed the same as with peaches, only use a lighter syrup, 2 cups of sugar to 1 cup of water, for pears are usually less tart than peaches. If stems of pears are in good condition they should be left on, as they add to the appearance of the product.

## Pineapple (Cold-Pack)

Although the pineapple is not a native fruit in most parts of this country, there are times in the year when it sells for such a reasonable price that the housewife is justified in buying it for canning purposes.

it for canning purposes.

Peel the pineapple and remove the eyes.
When the flesh is firm cut into small cubes or remove the core and slice. If the texture is too soft, shred from the core, using a silver fork rather than a knife. Pack cold into hot BALL Jars, fill with a thin syrup made with 1 part sugar to 1 part water. Partly seal and process for 30 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

## Pineapple (Open-Kettle)

Prepare Pineapple same as for cold-pack canning. Make a thin syrup using 1 part sugar to 1 part water. Drop the prepared fruit into the boiling syrup, boil gently until pineapple is clear (about 25 minutes). Pack into hot BALL Jars. Fill to overflowing with boiling syrup and seal immediately.



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## Plums (Cold-Pack)

Plums for canning should not be too ripe. Wash and prick the skins with a fork to prevent them from bursting. Pack tight without crushing, and cover with boiling syrup. Use a heavy syrup made with 2 parts sugar to 1 part water for tart plums and a medium thin syrup made with 1 part sugar to 1 part water for the sweet varieties. Partly seal and process in a Hot-Water Bath for 20 minutes. Remove from canner and seal at once.

## Plums (Open-Kettle)

Make a syrup out of a pint of sugar and a pint of water for each quart of plums. Wash the plums, prick with a fork to prevent bursting, and drop them whole into the boiling syrup. Cook until soft. Pack in hot BALL Jars. Fill to overflowing with the boiling syrup, and seal immediately.

## Quinces (Cold-Pack)

Peel, quarter and core the quinces. Blanch (boil) for 1½ minutes to shrink. Pack in hot BALL Jars. Fill jar with hot medium syrup using 3 parts sugar to 2 parts water. Process for 20 minutes. Remove from canner and seal immediately.

## Quinces (Open-Kettle)

Quinces should be well ripened for canning. Wipe with a damp cloth to remove the "fuzz." Peel and cut into pieces of convenient size, boil gently in a thin syrup made with 1 part sugar to 1 part water until fruit is tender. Pack the fruit into hot BALL Jars so that the proportion of syrup to fruit is greater than for pears or peaches. Seal immediately.

#### Rhubarb

Rhubarb, or what is commonly known in some localities as pie-plant, is one of nature's first and best spring tonics. It contains valuable mineral elements and should form a substantial part of the family diet all year round. It is not a fruit but the acid stem of a hardy perennial. Several cuttings may be had in one season but the first cuttings are by far the finest, as the stalks are more tender and juicy and richest in color and flavor. The strawberry variety makes an attractive pack. Rhubarb canned by the Cold-Pack method can be used in many pleasing ways.

## Rhubarb (Cold-Pack)

For practical canning, cut the stalks when they are between one-half to three-fourths of an inch in diameter. Wash and cut into 1-inch lengths, being careful not to "string" in cutting. Blanch for 1 minute, plunge into cold water or place

under cold running water for a few seconds only. Pack firmly into hot BALL Jars, cover with a medium thin syrup made with 3 parts sugar to 2 parts water, partly seal and process for 16 minutes in a Hot-Water Bath. Remove from canner and seal at once.

## Rhubarb (Cold-Water Method)

Because rhubarb contains so much acid it can be canned, if handled carefully, by what is known as the Cold-Water Method. Rhubarb canned by this method is used chiefly for pie fillings.

Wash thoroughly and cut into pieces of convenient size, pack into jar, fill jar to overflowing with pure, cold water, fully seal and store in a cool, dry place.

#### Canned Baked Rhubarb

Wash rhubarb and cut stalks, without removing the skin, into ½-inch lengths. Add 1 cup sugar to each quart of rhubarb. Bake in a covered baking dish until stalks are tender. Pack while hot into clean, hot BALL Jars and seal at once.

## Rhubarb (Open-Kettle)

Wash and cut the rhubarb into one-inch lengths. Make thin syrup using one cup sugar to two cups water. Drop in rhubarb and boil slowly until tender. Pack in hot BALL Jars, fill to overflowing with boiling syrup and seal immediately.

#### Mock Olives-Plain

Select plums which have just begun to ripen but which are still green. Make a brine using 1 pound salt to 1 gallon water. Heat brine and pour while hot over the washed plums and let stand for 36 hours. Pour off brine and place plums in a new brine made in same proportions and boil for 1 minute. Drain plums, pack into clean, hot BALL Jars and cover with new, hot brine. Partly seal and process in a Hot-Water Bath for 30 minutes. Remove from canner and seal immediately.

## Nectarines (Cold-Pack)

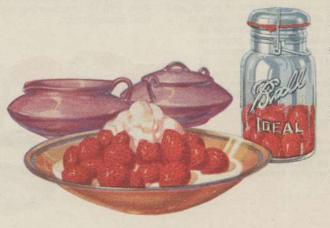
A smooth-skinned variety of peach and may be canned without peeling, the same as apricots.

Select slightly under-ripe fruit and wash carefully. Pack as tight as possible into clean, hot BALL Jars. Cover with boiling hot syrup made

in the proportions of 3 cups sugar to 2 cups water. Partly seal jars and process in Hot-Water Bath for 20 minutes. Remove from canner and seal immediately. Store in cool, dry place.

Nectarines (Open-Kettle) (Same as Peaches)

Ball Jars are economical





**MOME-MADE** Fruit Juices add a delightful touch to the winter diet and juices from such fruits as grapes, black and red currants, blackberries, raspberries, and elderberries, make delicious, wholesome drinks for hot days in summer-time.

For use in gelatin desserts, puddings, sauces, ice cream, sherbets, etc., they cannot be excelled. If canned without sugar they are ready for the last stages in jelly making.

Home Canned Fruit Juices should hold an important place in the Canning Budget. Following are directions given for making Fruit Juices from cooked and uncooked fruits including early and late varieties. Berry juices are the most popular of the early fruits and grape and apple of the later varieties.

## From Cooked Fruit (Cold-Pack)

The flavor of fruit juices is finer if pressed from cooked fruit and processed in a Hot-Water Bath at a temperature below boiling point (180°-185° F.).

Select sound, ripe fruit, crush and heat slowly to simmering point (about 185° F.). Strain through a double thickness of cheesecloth. Let stand a few hours in a cool place to allow the sediment to settle to the bottom. Carefully pour off (or siphon) the juice from the dregs. Pour juice into clean, hot BALL Jars, partly seal, as for canning, and process for 30 minutes in a Water Bath at simmering temperature (about 180° F.) a little lower than the temperature (185° F.) at which the fruit was cooked. Remove from the canner, seal immediately and store in a cool, dry place.

## From Uncooked Fruit (Cold-Pack)

Press out the juice of uncooked fruit in a ciderpress, fruit-press, or home-made press. Warm the juice in an enamel kettle to 110° F. Pour while warm, into hot, clean BALL Jars, partly seal, as for canning, and process for 30 minutes in a Water Bath with temperature at 180° F. (30° F. below boiling). Remove from the Water Bath and seal immediately. Store in a cool, dry place.

Juices from sour cherries, peaches and apples handled in this manner are less likely to "flatten in taste." Use this recipe for making Apple Cider.

Fruit Juices (Open-Kettle)

Prepare juices from uncooked or cooked fruit as di-

Read carefully pages 3 and 4 and 22 to 25 inclusive

rected under cold-pack recipes. Place the poured off juice in a preserving kettle, add 1 cup of sugar for each gallon of juice. Heat thoroughly but do not let boil. Fill hot BALL Jars to overflowing and seal immediately.

## Notes on Fruit Juices

The addition of sugar to fruit juices gives a finer flavor. One cup sugar to one gallon juice makes a desirable proportion.

Do not add sugar if juices are to be used for

making jellies.

A confectioner's thermometer for determining temperatures is an essential part of fruit juice equipment. To obtain perfect results it does not pay to "guess" at temperature. Water in canner for fruit juices should come

to within two inches of the top of the jar.

GRAPE JUICE develops a richer flavor if made from juice of cooked fruit.

## Special Recipes

Blackberry Cordial

Boil together for 15 minutes 1 quart blackberry juice, 1 pint white sugar and 1 tablespoon each of cloves, allspice, cinnamon, and nutmeg. Pour the boiling liquid into clean, hot BALL Jars and seal at once.

## Grape Juice (Cooked)

Use clean well ripened but not overripe grapes. Pick over and wash grapes. Place in kettle, barely cover with water and boil until seeds are free. Strain through cheese-



cloth bag without squeezing. Measure the juice and replace on fire and bring to boiling point. Add one-half cup sugar to each quart of juice and let the mixture boil 5 minutes. Pour into hot BALL Jars and seal immediately.

## Grape Juice (Uncooked)

Wash and stem grapes. Measure and place 1 cup grapes into clean, hot quart BALL jar. Add I cup sugar. Fill jar with boiling water and seal immediately. Invert jar for a few hours before storing. Will be ready for use in about 6 weeks.

This recipe for grape juice is easy to make

and is delicious.

## Pineapple Juice

An excellent juice for fruit drinks, ices or sauces, may be made from the cores, eyes and skins of pineapples, which are often discarded. Cover cores and skins with cold water and

cook slowly in a covered kettle for 30 to 40 minutes. Strain the mixture through a jelly-bag. Measure the juice, heat it and add 1/6 as much sugar as juice. Boil rapidly 10 minutes. Seal in clean, hot BALL Jars.

This juice may be used in equal proportions with tart apple juice for jelly; 3/4 as much sugar

as juice should be allowed.

## Pineapple Lemonade

Make a thin syrup, using 2 cups water to 1 cup sugar and boil for 10 minutes. To this add 1 pint jar of crushed pineapple and the juice of 3 lemons. Seal in clean, hot BALL Jars.

When serving, pour into ice-filled glasses and float half of a maraschino cherry or a thinly cut

slice of lemon in each glass.

#### Pomona Punch

Make a very thin syrup, using 4 cups water to 1 cup sugar and boil for 20 minutes. Add 1 quart canned apple cider, the juice of 2 lemons and 2 oranges. Seal in clean, hot BALL Jars.

Note: A thin slice of lemon in each glass adds much to its appearance when serving. Pomona Punch is also delicious frozen to frappe con-

sistency.

## Rhubarb Juice

Rhubarb juice combines well with other fruit

juices in lending tartness to jellies. It is also good for jellied desserts and pudding sauces. It may be prepared from the stalks which have become too tough to use in other ways.

Cut the rhubarb into small pieces, add just enough water to cover and simmer until soft. Strain the juice through a jelly-bag. To each quart juice add 1 cup sugar. Heat the juice un-

til the sugar is dissolved, skim and bring to boiling point. Pour into clean, hot BALL Jars and seal.

BALL BROTHERS

## Fruit Vinegars or "Shrubs"

Dissolve 2 cups sugar in 1 cup vinegar, heat to boiling, and pour over 2 quarts ripe berries strawberries, raspberries, or blackberries. Let stand I hour or more, stirring at intervals. Allow the juice to drip through a jelly bag, bring to boil, and pour into clean, hot BALL Jars and process 10 minutes in a Hot-Water Bath Canner. Remove from canner and seal.

Serve on cracked ice with an equal amount

of carbonated water.

## Strawberry Juice

Strawberry juice makes an excellent jelly when combined with three times its measure of apple juice. Small, inferior berries that are not suitable for canning or preserving may be used for juice.

Cover the berries with sufficient cold water to allow them to float. Simmer until they are soft and have begun to lose their color. Strain through a jelly-bag and drain off the juice. Measure the juice, bring to boil, and add ½ as much sugar as juice. Bring the juice again to boiling point, skim and seal in clean, hot BALL Jars.

## Fruit Egg-Nog

1 egg

2 tablespoons pineapple, currant, raspberry, or blackberry juice.

2 teaspoons cold water. 1/4 cup finely crushed ice. level teaspoon sugar.

Beat egg and mix with the water, sugar and fruit juice. Strain, mix and pour over the crushed ice.

#### Fruit Punch

1 pineapple. 1 quart raspberry juice.

quart currant juice.

3 oranges, juice. 2 quarts cold water. lemons, juice. Mix above ingredients together and sweeten to taste. Serve over cracked ice.

## Lemon Syrup

12 lemons, juice. 6 pounds sugar.

6 lemons, grated rind. 6 quarts boiling water.

Add grated rind of lemons to juice and let stand overnight. Combine boiling water with sugar and stir until sugar is dissolved and bring to boil. Cool syrup and add the strained lemon juice, squeezing as much of the oil from the grated rind as possible. Pour into clean, hot 1/2-pint BALL Jars and seal immediately. When serving, dilute with equal amount of fresh, cold water.



Waste not-Canand want not



UR APPETITE for vegetables is constantly increasing with our growing appreciation of their food values. From our newer knowledge of nutrition we have learned that the value of canned fruits and vegetables as sources of the much-needed mineral salts, iron, lime, vitamines, and other materials, is approximately equal to that of freshly cooked fruits and vegetables.

A closet of home canned vegetables is a splendid asset during the winter months. From these a nourishing soup may be quickly made or an appetizing salad can be added to an otherwise inadequate meal. A housewife who has such vegetables to be drawn from at a moment's notice need never worry over the arrival of unexpected

guests, for she is always prepared.

It is most important to have fresh, sound vegetables for canning. When care is taken to use fresh, sound products, and details as specified in the individual recipes and time tables for canning are carefully observed, vegetables can be canned successfully at home by using the cold pack (Jar Cooked) or the Oven Method.

Before starting to can vegetables read over carefully instructions on Cold Pack Method, pages 22 and 23. Always complete sealing jars as soon as processing is finished. Never open jars to refill with liquid.

#### Asparagus

Wash and grade for uniformity. Tie in bundle, cutting stalks to fit height of jar. Blanch (boil) by standing the stems in boiling water, not submerging the tips. Cover kettle and boil for 5 minutes. Pack hot into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, fill with boiling water, partly seal and process for 3 hours in a Hot-Water Bath or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Beans (Green or Wax)

Wash and remove strings, break into small pieces, blanch (boil) 5 minutes or heat to boiling with water to cover. Pack hot into clean, hot

BALL Jars, add 1 level teaspoon salt to each quart, fill with boiling water in which beans were cooked, partly seal and process for 3 hours in a Hot-Water Bath or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.



## Beans (Lima)

Carefully sort and grade for size and age. When shelling beans place the old ones into a separate lot for soup, and the young and tender ones into another assortment for extra fine pack. Blanch (boil) young beans for 5 minutes and older beans for 10 minutes. Pack quickly and loosely into clean, hot BALL Jars to within 1 inch of top, add 1 level teaspoon salt to each quart, cover with boiling water, partly seal, and process for 3 hours in a Hot-Water Bath or for 60 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Beets should be canned before they grow too

large. Small beets should be canned whole. Leave on 1 inch of the stem and all of the root while blanching. This will prevent loss of color.

Wash and blanch (boil) 15 minutes until skins loosen, and cold-dip. Slip skins. Pack into hot BALL Jars, add 1 level teaspoon salt to each

Read carefully pages 22 to 25 quart, fill with boiling water, partly seal and process for 2 hours in a Hot-Water Bath, or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Brussels Sprouts and Cabbage

Wash and blanch (boil) for 10 minutes in an open kettle. Add salt to blanching water in proportion of 1 level teaspoon salt to 1 quart water. Pack hot into clean BALL Jars, fill with blanching liquid, partly seal, and process for 1½ hours in a Hot-Water Bath, or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal at once.

#### Carrots

Sort and grade for uniform size. Wash and scrub with a stiff vegetable brush. Scrape if carrots are old. Blanch (boil) for 15 minutes. Cold-dip, or hold under running water for 1 minute. Slice or pack whole into hot BALL Jars. Add 1 level teaspoon salt to each quart, fill with boiling water, partly seal and process for 2 hours in a Hot-Water Bath or for 45 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Cauliflower

Soak cauliflower for 1 hour in a cold brine made in the proportion of 1 tablespoon salt to 1 quart water. This will remove any lurking insects and help to prevent discoloring later in the cooking process. Blanch (boil) for 3 minutes, pack quickly into hot BALL Jars, add 1 teaspoon salt to each quart, fill with hot water, partly seal and process for  $1\frac{1}{2}$  hours in a Hot-Water Bath or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal at once.

#### Corn

Select sweet-corn ears of uniform size and proper ripeness. Remove husks and silk, blanch (boil) on cob for 5 minutes. Remove, and cut corn from cob, using a sharp knife and cutting as close to cob as possible. Pack quickly into hot BALL Jars, being careful not to pack too tight as corn swells during the canning process. Add 1 level teaspoon salt to each quart and cover corn with boiling water. Partly seal and process in a Hot-Water Bath Canner for 3 hours, or in a Steam Pressure Cooker for 90 minutes at 10 pounds pressure. Remove from canner and seal immediately.



#### Corn on Cob

Remove husks and silk, blanch (boil) on cob for 5 minutes. Pack into hot BALL Jars. Add 1 level teaspoon salt to each quart and fill with boiling water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Note: When using 2-quart jars process for 4 hours in a Hot-Water Bath, or for 120 minutes in a Steam Pressure Cooker at 10 pounds. One 2-quart jar will hold 7 or 8 ears.

## Eggplant

Peel, cut into ½ to ½-inch slices. Blanch (boil) for 3 minutes, pack into hot BALL Jars, fill with boiling water and process for 2½ hours in a Hot-Water Bath, or for 60 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Do not add salt as this causes eggplant to turn dark.

## Greens (Including Spinach)

Among the wild greens which we find flourishing in our gardens and fields in spring and early summer are pepper cress, sour dock, dandelion and others. These, as well as our cultivated spinach, Swiss chard, and kale are edible and all contain valuable food elements.

Steam or heat in a covered kettle for 15 minutes or until completely wilted, using just enough water to prevent burning. Pack quickly and loosely into hot BALL Jars, add 1 level teaspoon salt to each quart, fill with boiling water, partly seal, and process for 3 hours in a Hot-Water Bath, or for 60 minutes in a Steam Pressure Cooker at 10 pounds.

## Kohlrabi and Turnips

Sort and grade for uniform size. Wash and scrub with a stiff vegetable brush. Scrape if kohlrabi and turnips are old. Blanch (boil) for 15 minutes. Cold-dip, or hold under running water for 1 minute. Slice or pack whole into hot BALL Jars. Add 1 level teaspoon salt to each quart, fill with boiling water, partly seal and process for 2 hours in a Hot-Water Bath or for 45 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Mushrooms

Not all mushrooms are edible. If the wild or uncultivated varieties are picked for table use and canning be sure that they belong to an edible variety.

Wash thoroughly, skin if necessary. Blanch for 3 minutes in boiling water or in a steamer. Pack closely, being careful not to crush, into hot BALL Jars; add 1 level teaspoon salt to each quart, fill with boiling water and process in a Hot-Water Bath for 3 hours or for 60 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

There's nothing cleaner than glass

13

#### Okra

Use young and tender pods of uniform size. Wash, remove cap without cutting into pod, and blanch (boil) for 3 minutes, cold-dip in a salt bath made in proportion of 1 tablespoon salt to 1 quart water, pack into hot BALL Jars, fill with hot water, partly seal and process in a Hot-Water Bath for 2 hours, or in a Steam Pressure Cooker for 30 minutes at 10 pounds. Remove from canner and seal immediately.

If okra is to be used for soup it should be sliced after blanching as it is hard to cut when canned.

#### Parsnips

Sort and grade for uniform size. Wash and scrub with a stiff vegetable brush. Scrape if parsnips are old. Blanch (boil) for 15 minutes. Cold-dip, or hold under running water for 1 minute. Slice or pack whole into hot BALL Jars. Add 1 level teaspoon salt to each quart, fill with boiling water, partly seal and process for 2 hours in a Hot-Water Bath or for 45 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Peas

Shell, wash and grade, placing the young and tender peas in one lot, and the older and larger peas in another. Blanch (boil) young peas for 3 minutes and older peas for 5 minutes. Pack quickly and loosely into clean, hot BALL Jars, to within 1 inch of top, add 1 level teaspoon salt to each quart, cover with boiling water, partly seal and process for 3 hours in a Hot-Water Bath, or for 60 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Note: Grading and sorting are necessary because the blanching period varies with the age and size of the pea.

Do not attempt to can peas which have begun to lose their color.

## Bell Peppers

Can the sweet bell pepper with the skin on. Remove the seed-pod. Blanch 5 minutes, flatten and pack tight in hot BALL Jars, add 1 level teaspoon salt to each quart, fill with hot water and process for 45 minutes in a Hot-Water Bath, or for 30 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Pimiento Peppers

The best sweet peppers for canning are the Spanish variety known as Pimientos. The pod is thick and fleshy, covered with a thick, tough skin which must be removed before canning.

Wash, place in pan with no water, put in moderately hot oven for 6 to 10 minutes (be careful that no discoloration takes place) or until the skin blisters and cracks. Remove from oven and slip off skins. Carefully remove the seed-pod so that the flesh of the pimiento is not broken. Flatten pimiento pack dry into hot BALL Jars, partly seal and process in a Hot-Water Bath for 45 minutes, or for 30 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal imme-

## Pumpkin

Wash, cut into slices and cook until tender. Mash and stir the pulp until smooth and pack immediately into hot BALL Jars. Partly seal and process for 3 hours in a Hot-Water Bath, or for 60 minutes in a Steam-Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

For those who are especially fond of pumpkin pie, canned pumpkin saves time and labor in the preliminary baking process.

#### Sauerkraut

Pack sauerkraut into clean, hot BALL Jars, and add no water or salt, partly seal, and process for 1 hour in a Hot-Water Bath, or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

To make sauerkraut in Jars proceed as follows: Shred the cabbage as usual, pack tightly into Ball Jars (Glass Top preferred). Add three scant teaspoons of pure salt to a quart. Fill Jars to within one inch of the top and seal. If packed well the liquid will come nearly to the top of the Jar. Will be ready for use in six weeks.

#### Succotash

Blanch (boil) corn on cob for 5 minutes. Cold-dip and cut from cob with a sharp knife. Mix corn with an equal quantity of young, tender shell beans, or lima beans, which have been blanched for 5 minutes. Pack quickly and loosely, into hot BALL Jars, add 1 teaspoon salt to each quart, fill with boiling water and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Sweet Potatoes

Sweet potatoes should be canned as soon as they are dug. This is necessary because some-times in digging the skin of the potato is bruised or broken, and if allowed to stand, these places turn dark and may start to decay. A sweet potato, which is dry and mealy when canned is desirable. Some of the best varieties for



canning are the Nancy Hall, Triumph and Southern Queen.

For canning whole, select firm, small potatoes of uniform size and color. Wash thoroughly and boil, or steam, for 15 minutes. Peel as soon as they are cool enough to handle. It is advisable not to stick potatoes with a fork, as this may cause them to discolor. Pack into hot BALL Jars. Do not add water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Tomatoes

Blanch (scald) until the skins crack, cold-dip and remove the skins, cores and all hard, green spots. Cut into halves or quarters, and pack tight into clean, hot BALL Jars, draining off the surplus juice and straining it into ½-pint BALL Jars, to be used for tomato puree, sauces or tomato-gelatin salads. Add 1 teaspoon salt to each quart, add no water, partly seal, and process for 25 minutes in a Hot-Water Bath, or for 15 minutes in a Steam Pressure Cooker at 5 pounds. Remove from canner and seal immediately.

## Tomatoes (Open-Kettle)

Blanch until skins crack, cut into pieces, add salt to taste, boil for 20 minutes, pack immediately into clean, hot BALL Jars and seal immediately.

#### Tomatoes and Corn

Blanch fresh corn on cob for 5 minutes. Cut from cob. Scald tomatoes until skins loosen, peel and core, cut into small pieces. Mix thoroughly 2 parts tomatoes to 1 part corn. Pack mixture into clean, hot BALL Jars, add 1 teaspoon salt to each quart, partly seal and process for 2 hours in a Hot-Water Bath, or for 40 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Tomato Creole Sauce (Open-Kettle)

For dressing ordinary steak or decorating plain boiled rice, besides adding a distinctive flavor, tomato creole is one of the favorite sauces.

Mix together 1 quart sliced white onions and 12 finely chopped green peppers; simmer until soft. Add about twice this bulk in tomatoes and cook together over a low fire until tender. Season to taste. Pack into clean, hot BALL Jars and seal immediately.

#### Tomato and Okra

A combination of  $\frac{1}{2}$  tomato and  $\frac{1}{2}$  okra makes an excellent soup which can be served directly from the jar, or it may serve as a base for the much renowned southern gumbo.

Cut the okra into thin slices and cook gently with the tomatoes until tender. Pack immediately into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, partly seal and process for 10 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

#### Tomato Sauce

Cook small and broken tomatoes until they are soft. Press through a sieve to remove skins, seeds and cores. Let stand a few minutes until the pulp settles, pour off the clear water, add 1 level teaspoon salt to each quart of pulp, then cook quickly until it begins to thicken. Pack immediately into clean, hot Ball Jars, partly seal and process for 25 minutes in a Hot-Water Bath, or for 10 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately. This may be used as a foundation for soups, sauces or relishes.

## Tomatoes (Whole)

Select firm, smooth, medium sized tomatoes of uniform size. Blanch (scald) until skins loosen, cold-dip, peel and remove stem end. Pack closely without crushing, into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, fill with finely strained tomato juice, partly seal and process for 22 minutes in a Hot Water Bath, or for 10 minutes in a Steam Pressure Cooker at 5 pounds. Remove from canner and seal at once.



## MEAT POULTRY FISH



ANNING of meat and poultry has become an established part of the year-round

canning program.

Butchering season brings a welcome supply of fresh meat and an ample surplus as well, to be stored by salting, smoking, drying, and canning for the months of the year when the supply of fresh meat is exhausted. Meat Canning is of special economic importance as it considerably reduces the family food bill. In butchering time and poultry culling season, prices of meat and poultry are lowest for those who sell, as well as for those who buy. The non-laying hens and surplus cockerels should have a reserved space on the pantry shelf for the coming winter to save the cost of feed. This is the best time to plan the meat canning program.

Canned meat has a special advantage over meat which has been salted, smoked or dried. It retains most of its original flavor and texture and can therefore be prepared in many different ways, thus adding a welcome variety to the regular daily diet.

## Pre-Cooked Meats and Poultry

Some housekeepers prefer to partially cook their meats, including chicken, before canning them.

If a browned appearance and flavor is desired, the meat should be quickly seared in a frying pan or in an iron kettle, or it may be roasted

before packing.

It is advisable not to cover meat with beaten egg, cornmeal and fine cracker or bread crumbs, as this delays heat penetration into the meat. Any meat juices or liquids obtained from the searing process may be poured over the meat after it has been packed into the jar. It is not essential that the jar be filled with liquid. Or the "dry pack," in which no liquid is added, may be used. Salt and pepper to taste (proportion—1 part salt to 16 part pepper) may be added to pre-cooked meats, if desired.

Bones may be retained in canning poultry as they aid in securing quicker heat penetration as well as adding to the flavor of the meat.

Do not attempt to cut time in the sterilization period for pre-cooked meats. The same amount of time is necessary for the "pre-cook" as for the "raw" pack.

General Princi-

ples and Directions

For Canning Beef, Veal, Pork, Lamb, Mutton, Poultry and Wild Game Whether meat is partly cooked or remains uncooked

Use Ball Perfect Seal rubbers

(raw) when it is packed into the jar for canning, the following general principles and directions should be observed as meat, due to its composition, offers a medium for the growth and development of some of the more active and resistant spore-forming bacteria.

These principles and directions apply to canning beef, veal, pork, lamb, mutton, poultry and wild game, including rabbit, moose, bear,

caribou, pigeons and wild birds.

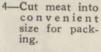
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#### Preparation

1-Bleed well and cool meat thoroughly before using. (Approximately 24 hours is required for animal heat to leave body.)

2-Do not soak meat in water. This extracts the meat juices and renders meat stringy and tough.

-Wash meat if necessary. Only clean meat and clean utensils should be used.



## Packing

1-Pack loosely into clean, hot BALL Jars. Arrange the pieces to allow for proper heat penetration. This applies to pre-cooked, as well as to raw meat.

2-Add two level teaspoons salt to each quart

(raw pack).

By adding 2 level teaspoons salt to each quart jar of raw meat, enough meat juices will be extracted during the processing (sterilization) to form sufficient liquid in the jar. It is not necessary to have the jar filled with liquid. Lack of liquid does not affect the keeping qualities of a product.

- 3-Do not add water to meat which has been packed raw. Adding water to meat when canning renders it stringy, detracts from the flavor and reduces the number of its uses to practically soup, stews and hash. Add water for soup and stew.
- 4—Pre-cooked meat may be seasoned before searing, frying or roasting.
- 5-Bones, if small, may be packed in the jar with the meat, as they add to the flavor and aid in heat penetration.

## Processing and Storing

1-Partly seal jar and process for 3 hours in a Hot-Water Bath Canner, or for 90 minutes in a Steam Pressure Cooker at 10 pounds.

Note: The same length of time for processing (sterilization) is required for pre-cooked meats as given for uncooked or raw-pack.

2-Remove from canner and seal immediately.

3-Store in a cool, dry place.

4-REHEAT all canned meats thoroughly before using.

## Special Recipes Brains

Brains should be soaked in several changes of cold water to draw out the blood. Remove the membranes. Sear or fry and sprinkle with salt and pepper. Pack into hot BALL Jars, add the fat in which the brains were fried, thinned with a little hot water. Partly seal and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Chops

Pork, veal or lamb chops may be cut to fit the jar and then packed raw (uncooked) into hot, clean BALL Jars. Add 2 level teaspoons salt to each quart. Or chops may be seared first.



Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Goulash

The cheaper cuts of meat or meat scraps may be used in making goulash. If the different ingredients of the following recipe are not at hand, a good goulash can be made by using meat, fat, onions, tomatoes, flour, salt and pepper and leaving out the other ingredients.

2 pounds meat (beef, veal or heart of pork may

be used.)

2 ounces of butter or any good fat. 2 onions (medium size) chopped fine. 1 carrot (medium size) finely sliced. stalk celery cut in small pieces.

pint tomatoes (canned or fresh tomatoes).

to 2 bay leaves. 6 whole cloves.

6 peppercorns.

blade mace. pinch thyme.

tablespoon finely chopped parsley.

Salt and pepper to taste.

Paprika to taste. A little flour.

Cut meat into small pieces, add other ingredients and heat thoroughly. Pack hot into Ball Jars; partly seal and process 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Kidneys

Split kidneys and remove inside sack; then soak kidneys in several changes of cold saltwater made in proportion of 1 level teaspoon salt to 1 quart water. Cut kidneys into slices about ¼ to ½-inch thick, sear in hot fat, sprinkle with salt and pepper and fry to a brown color. Pack kidneys while hot into clean, hot BALL Jars and add the fat in which kidneys were fried. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Pork Sausage

Form the seasoned sausage meat into small balls or cakes. If the sausage is put into casings puncture the skin to prevent bursting. Fry in grease derived from the sausage meat. Drain

off grease and pack tight as possible without breaking, into clean, hot BALL Jars. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

The seasoned sausage meat may also be formed into balls or cakes and packed raw (uncooked) into the jar. A more natural flavor is retained, but there is a decided shrinkage and waste of jar space.

#### Roast Meat

Select the piece of meat wanted for roast, trim and wipe with a damp cloth. Heat some

> Can your fruit juice in glass jars

grease in a roasting pan, put in the meat and sear quickly, turning the meat so all sides are seared to prevent the loss of the meat juice. As soon as well seared sprinkle with salt and pepper. Add boiling water to the grease in the roasting pan. Baste frequently. Turn the meat from time to time and roast until nicely browned. Cook until meat is done (it should not be red in the center) without cooking it entirely tender. Slice and pack into hot, clean BALL Jars to within \(\frac{1}{2}\)-inch from top of Jar. Add the gravy from the roasting pan. Partly seal and process in a Hot-Water Bath for 3 hours or in a Steam Pressure Cooker for 90 minutes at 10 pounds. Remove from canner and seal immediately.

#### Sweetbreads

Clean sweetbreads and soak in cold water for 2 hours, change water several times, drain well and place them into salted, boiling water for 5 minutes (1 teaspoon salt to 2 quarts water). Remove and drain thoroughly. Pack into clean, hot BALL Jars, add 2 teaspoons salt to each quart, and fill with boiling water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Tongue

The tongues (beef, veal, pork, lamb), should be cleaned, salted and lightly smoked, then boiled, skin removed, and packed into clean, hot BALL Jars, with a little soup stock or meat jelly added. They may also be cleaned thoroughly, rubbed heavily with salt and left standing with salt sprinkled over them for 8 to 10 hours. Then boil until done, remove the skin, and pack into clean, hot BALL Jars with a little of the liquid in which they were boiled (thinned with some boiling water in order not to be too salty). Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Corned Beef

Place the corned beef in a kettle and cover with cold water. Bring slowly to boiling point and

simmer for 1 hour. Remove meat and cut into pieces of convenient size. Pack meat into clean, hot BALL Jars. Heat liquid in which meat was boiled and season with bay leaves, cloves and nutmeg to suit taste. Fill jars with the seasoned liquid to which some gelatine dissolved in cold water has been added. Partly seal and process for 3 hours in a Hot-Water Bath or for 1 hour in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Poultry

Canned chicken has a delicious flavor.

No pantry shelf is complete without canned chicken ready to serve at short notice when unexpected company arrives or when it becomes necessary to prepare a meal in a hurry.

Use only sound, fresh, firm products

## Preparation

- 1-Kill at least six hours before drawing.
- 2—Remove feathers, bleed well and cool thoroughly.
- 3—Singe, wash thoroughly, or dry-clean with soda or bran.
- 4—Draw entrails.

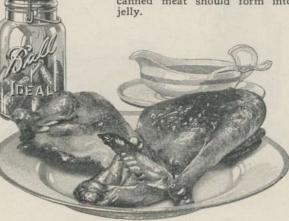
## Cutting for Packing

- 1—Cut carcass into two parts, cutting through cartilages on the other side.
- 2—Remove oil-sac at end of back; cut back in half, cutting between second and third ribs from rear.
- 3—Cut off white meat on each side of the "keel" or breast bone.
- 4—Remove heart, liver and gizzard from entrails.
- 5—Spread out the pieces on tray or cutting board, to pack quickly into clean, hot BALL Jars.

## Packing the Chicken

- 1-First place in a drumstick.
- 2-Place a thigh next to drumstick.
- 3—Place two wings next to the thigh, fitting the elbow of one wing into the other.
- 4—Place the neck portion in center of jar, with rib-end down. This acts as a support for the remaining pieces and also allows heat to quickly penetrate center of jar.
- 5-Cover the neck-piece with back.
- 6-Spread white meat on top of back.
- 7—Fit in remaining pieces completely to fill jar.
- 8—Add two level teaspoons salt to each quart jar.
- 9-Place on jar ring, partly seal jar.
- 10—Process in a Hot-Water Bath for 3 hours, or in a Steam Pressure Cooker for 90 minutes at 10 pounds.

11—Remove from canner and seal immediately.
Meat juices (liquid contents) in canned meat should form into jelly.



#### Fried Chicken

Prepare the chicken, season and fry as though for serving directly on the table. Cook until meat is about three-fourths done. Pack into hot sterilized jar. (Pour into the jar the hot grease from the frying pan.) Partly seal and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Roast Fowl

Chicken, Duck, Turkey, Goose or Guinea Fowl may be used. Prepare, season and roast as though for serving immediately. Cook until done without needing to be entirely tender. Cut meat from bones. Pack in hot sterilized Jars. Skim excess grease from gravy and pour gravy over meat in Jar. Partly seal and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Rabbit

Rabbits are delicious when canned. Use same directions as for chicken.

#### Pigeons

Dress and wash well. Can the same as chicken.

#### Fish

Fish, for canning, should be absolutely fresh. As soon as fish are caught it is well to kill them with a knife and let the blood run out. In scaling fish it is easier to remove the scales if the fish is dipped into boiling water. If skin is very tough remove skin and wash the fish clean. Remove entrails and the dark membrane that in some fish covers the abdominal cavity. For small fish the backbone may be left in. For larger fish remove the backbone and use it with what meat adheres to it, for making fish chowder.

In order to draw out all blood before canning, place the fish in brine made in the proportion of 1 level tablespoon



soft it can be hardened by soaking for 1 to 2 hours in cold brine made in proportion of ½ cup salt to 1 quart water.

Remove fish from brine, drain well and cut into pieces of convenient size for packing into jars. Pack closely to within ½ inch from top of jar, add 1 level teaspoon salt to each quart; do not add water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Salmon and Other Large Fish

Scale fish, wash, cut open, remove entrails, thoroughly wash, wipe dry and cut into pieces of convenient size for packing. Pack raw into clean, hot BALL Jars, and add 2 level teaspoons salt to each quart. Do not add water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Fried Fish

Clean fish and remove entrails. For large fish, split along the back and remove backbone. For small fish, bones may be retained. Place in a salt-water bath, using 1/2 cup salt to 1 quart water. Allow fish to remain in this brine, according to thickness of the meat, from 10 minutes to 1 hour, in order to draw out the blood and harden the meat. Drain, wash, dry, and cut into pieces which can be conveniently packed into the jars. Fry in deep fat until nicely browned. Drain well and place the pieces on coarse paper to absorb excess fat. Pack into hot, clean BALL Jars. Do not add any liquid. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Fish Roe

Use only the roe of freshly caught fish, and only such roe as is known to be good to eat. Clean the roe by removing the shreds and strings adhering to it and wash well in cold water, being careful not to break the

water, being careful not to break the roe. Soak well for about 2 hours in brine, made in the proportion of 1 level tablespoon salt to 1 quart water. Drain and pack into hot, clean BALL Jars. Partly seal and process for 4 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Clams

Use only fresh clams. If clams are muddy, wash before opening. After opening, discard all broken or discolored clams. Pack into hot, clean BALL Jars. Fill jar to within ½ inch

Store canned products in a cool, dry place

from top with hot brine made in proportion of 1 teaspoon salt to 1 quart water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Oysters

In canning oysters, be sure they are absolutely fresh, have not "soured" and contain no oysters that are spoiled. It is therefore best to open them by hand and absolutely reject oysters which have the shell partly open, as this is a sign that the oyster in this particular shell is dead and unfit for use.

Rinse oysters in cold water to be sure no pieces of shell or grit are packed with oysters into the jars. Pack oysters, with their natural liquid, into hot, clean BALL Jars and fill with boiling brine, made in the proportion of 1 teaspoon salt to 1 quart water. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Lobsters

Plunge live lobsters into rapidly boiling soda water (1/2 pound baking soda to 2 gallons water), continue boiling for 15 minutes; drain off the water, and cover again with clear boiling water, and cook for 15 minutes longer; remove from fire, drain and plunge lobsters into cold water. When the lobster is cooled enough to handle, then remove claws and tail. Split tail and remove intestine, take body from shell and remove the stomach, crack the claws and pick meat from them. Mix the meat from the claws with the meat from body and tail, add 2 level teaspoons salt to each quart, and pack into clean, hot BALL Jars. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Frog Legs

Both bull-frogs and the small green marsh frogs are edible, but the latter are more delicate, and more tender. Only the hind legs are eaten and they are generally considered to be at their best from June to October.

Cut off the legs, loosen the outer skin and turn downward and pull off. Then cut off the skin and toes. Wash the legs in cold water, to which has been added 2 tablespoons vinegar, or lemon juice, and 1 tablespoon salt for each quart of water. Drain and wipe dry. The frog legs can now be prepared in different ways. They can be fried in deep fat until nicely browned. The meat can be cut off the bones, or the bones left in. Pack into hot, clean BALL Jars. Liquid

from frying may be added if desired. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds.

Or pack frog legs, uncooked, into jars, add 2 teaspoons salt to each quart, partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Crab Meat

Place live crabs into a large kettle of rapidly boiling water. Boil quickly for 20 minutes. Remove crabs and wash them in cold water. Crack shell and pick out the meat, being careful to remove all particles of shell. Wash crab meat in a cold brine made in proportion of 1 teaspoon salt to 1 quart water. Drain and pack into clean, hot BALL Jars, partly seal and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

Note: Quick cooling is necessary in order to prevent discoloration of crab meat.

## Shrimp

Shrimp should be canned when absolutely fresh.

Place the shrimp, peeled or with shell on, as desired, into a large kettle containing boiling water into which salt, in proportion of 1 pound salt to 1 gallon water, has been added. Boil from 5 to 8 minutes. If shrimps were not peeled before boiling, sprinkle with salt when removed from boiling water in order to harden the meat so they may be peeled more easily. Pack into clean, hot BALL Jars and add 1 level teaspoon salt to each quart. Boiling water may be added if desired, or the dry-pack in which no water is added, may be used. Partly seal jars and process in a Hot-Water Bath for 3 hours or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.





SOUPS are very nourishing and should be served each day if possible. They are easy to make. They are also economical because they can be made from the tougher cuts of meat and from vegetables which may be specked (not spoiled).

Vegetable soup should be made "in season" while the home garden is producing and the prices of vegetables purchased in the home market are relatively low.

For those who butcher or pack their own meats, butchering time becomes soup canning time as well. The bones and "trimmings" are then made into a nourishing soup stock for future use.

During poultry culling season when the thrifty home-maker is canning her "culls," to save the price of winter feed, she reserves the bony parts and the chicken feet for soup stock. The feet should be used, as they contain a large per cent of gelatin, and if properly prepared by cleaning, scalding and skinning, they make a very fine base for chicken soup stock.

It is advisable to read over General Directions, pages 22 and 23, before canning any products.

## Asparagus Puree

In canning asparagus, the large tough butts may

be used for soup instead of being wasted. Cut into pieces, and cook in enough water to cover until soft enough to press through sieve. Pack into hot BALL Jars, add 1 level teaspoon salt to each quart, and 1 teaspoon grated onion, if desired. Partly seal and process for 3 hours in a Hot-Water Bath, or for 60 minutes in a Steam Pressure Cooker at 10 pounds. Remove

from canner and seal immediately.
When opened, milk may be added to make cream of asparagus soup.

#### Clam Broth

Open fresh clams and place them with their liquid in a kettle. Add enough cold water to cover clams. Add a few stalks of celery, cut fine. Boil for 10 minutes. Season with salt and pepper to taste, and add 1 level tablespoon butter for each 50 or 60 clams. Strain and pour while hot into clean, hot BALL Jars. Partly seal and process in a Hot-Water Bath for 3 hours, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Clam Chowder

24 clams, chopped fine. 2 quarts hot water.

2 medium, white onions, sliced. 2 stalks celery, finely chopped.

2 leeks, cut fine.

2 slices pork or bacon, cut into small pieces.

3 large potatoes, peeled and diced. 1 to 2 teaspoons salt (to taste).

1/8 teaspoon pepper.

3 large tomatoes, peeled and cut fine.

teaspoon thyme.teaspoon finely chopped parsley.

(Leeks, celery and tomatoes, any one or all, may be omitted if preferred.)

Heat the pork or bacon and fry the onions, celery and leek in the fat; add the liquid from the clams, water and potatoes, boil 10 minutes, add clams, tomatoes, salt, pepper and thyme (Worcestershire sauce according to taste may be added). Boil mixture 10 minutes, add the parsley and while hot pour into clean, hot BALL Jars. Partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

When serving, equal amounts of butter and flour may be creamed together and added as thickening to the heated chowder.

#### Fish Chowder

4 Bermuda, or white onions, medium size, diced.

3 potatoes, medium size, diced. pound fish, picked from bones.

level tablespoon butter.

1/8 teaspoon white pepper.
1 to 2 level teaspoons salt (to taste).

To 1 pound fish meat picked from the bones, add the above ingredients, cover with water and boil gently for 20 minutes. Pack into clean, hot BALL Jars, partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Green Pea Puree

Cook the peas 1 hour in enough water to cover, press through a sieve, pack into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, partly seal and process 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Tomato Puree

6 onions.

3 carrots.

3 stalks celery.

1 turnip.

3 sweet peppers. 1/2 peck tomatoes.

Run ingredients, except tomatoes, through a food chopper, cover with boiling water, and simmer until soft. Cut the tomatoes, do not peel, and bring to boiling point. Add the other ingredients and boil for 40 minutes, or until all parts are tender. Strain through a colander, season with salt and pepper, pour into clean, hot BALL Jars and seal at once.

## Tomato Pulp

Take any amount of tomatoes desired. Blanch until skins loosen, cold-dip, remove skins and hard cores. Cook 30 minutes, press through a sieve, pack into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, partly seal and process 45 minutes in a Hot-Water Bath, or 25 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

#### Soup Stock

Cut meat and fat from bones, crack bones and place into kettle. Add pieces of lean meat too small for other uses. Cover with cold water and simmer (not boil) for 6 hours. Seasoning, such as onion and celery leaf, may be added. Remove from fire and strain through colander. Cool and skim off all grease. Reheat and when boiling pour into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, partly seal, process for 3 hours in Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal at once.

Stock made from chicken or a combination of chicken and veal or other meats is made the

same way.

Rice or barley may be canned with the stock if desired.

## Vegetable Soup Mixture

Use vegetables which suit the family taste. An excellent mixture is made with tomatoes, corn, carrots, celery and beans.

Prepare each vegetable as for canning, blanch together vegetables which do not require peeling, for 5 minutes, pack immediately into clean, hot BALL Jars, add 1 level teaspoon salt to each quart, partly seal and process for 3 hours in a Hot-Water Bath, or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal immediately.

## Brunswick Stew (Virginia)

gallon hot water.

large, or 2 small chickens (cut up as for a stew).

pint tomatoes, chopped.

2 slices bacon. 2 large onions.

6 ears corn (cut from cob).

cup butter.

cup fine bread or cracker crumbs.

teaspoon salt. 1/2 pod red pepper.

teaspoon white pepper. Place the onions, chopped fine, tomatoes skinned and cut into small pieces, the bacon and chicken into a large soup pot. Pour on the water and let mixture simmer until tender. Remove the chicken from the liquor. When cool enough to handle cut the meat from bone, discarding tough skin and gristle. Chop fine and return to soup kettle, adding corn. Boil mixture 20 minutes, add butter, bread crumbs, salt and pepper. If mixture is too thick add an extra pint of boiling water. Pack into clean, hot BALL Jars, partly seal and process for 3 hours in a Hot-Water Bath or for 90 minutes in a Steam Pressure Cooker at 10 pounds. Remove from canner and seal.

#### Turkey Bone Soup

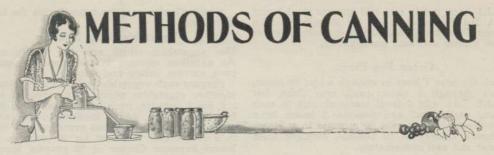
The carcass of turkey or chicken makes a

delicious and nutritious soup.

Scrape the meat from the bones. Break the bones, pack them in a kettle, cover with cold water, add a small onion, cover kettle and simmer gently for 3 hours. Strain and for each quart of stock add 1 cup cold meat. Pack into clean, hot BALL Jars, partly seal and process for 3 hours in a Hot-Water Bath or for 11/2 hours in a Steam Pressure Cooker at 10 pounds. Remove from canner, seal immediately. Season to taste when serving.



Adjusting the Jar Rings



DEFORE the invention of the glass jar and rubber jar ring, many of our food D products were preserved in the home by drying and storing. With the introduction of the glass jar and rubber ring, canning, as an applied household science, has become a well established, successful, easy and economical home practice.

Since fruits, vegetables and meats differ in composition, it has been found necessary to use different methods for canning them. Fruits, because of their high acid content, are easiest to can, and the Open-Kettle method is still used for preserves, marmalades, conserves and jams. Vegetables and meats require long-period cooking. The Cold-Pack (Jar-Cooked) method is recommended.

#### Open-Kettle Method

This method is used for fruit which is cooked in an open kettle and while boiling hot is packed into clean, hot jars.

Use sound, fresh fruit. Boil for required length of time.

Fill jar to overflowing quickly with the boiling fruit.

Fully seal the jar as soon as filled. Store in a cool, dry place.

(For amount of sugar, time for cooking, consult individual recipes and chapters on Fruits, Jams, Marmalade, and Conserves.)

#### Oven Canning

Oven Canning is endorsed as a satisfactory method for canning if directions are followed, and the proper temperatures used. A great many of the newer stoves are equipped with oven regulators. However, if your stove is not so equipped you can purchase an oven thermometer at a very small cost which will enable you to determine the temperature inside the oven.

## Cold-Pack Method (Jar-Cooked Method)

In some states the Cold-Pack method is known as the "Hot Pack" or "Jar-Cooked" method. "Jar-Cooked" is a very applicable name, because by this method the product is cooked inside of the jar and the food does not come in contact with air until the jar is opened to prepare for serving. Thus, danger from spoilage is eliminated. The greater part of the flavor and original shape is retained and most of the natural color of the product is preserved. The Cold-Pack method is used for canning fruits, ungestables and mosts. vegetables and meats.

Because it is essential that the heat reach the center of the pack as quickly as possible it is advisable to eliminate the "Cold-Dip" with most products and pack them into jars for further processing while still hot from the "pre-cook."

The COLD-PACK METHOD is therefore now being termed, by some teachers, the Hot-Pack Method. Because of common usage we are retaining the term COLD-PACK in the Ball Blue Book although our directions for COLD-PACK are practically the same as given for the new term Hot-Pack.

## General Directions for Cold-Pack (Jar-Cooked) and Oven Methods of Canning

- 1-Wash Jars, Caps and Rubbers in clean hot water. Let them stand in hot water until ready to use.
- 2—Select FIRM, SOUND, FRESH products. Reject any bruised or spoiled fruits, vegetables or meats.
- 3-Clean products well before canning.
- 4—BLANCH (pre-cook). Place product in BOILING water for time given in TIME TABLE. (Cheese-cloth or wire basket may be used for blanching.)
- 5-Place new wet Rubbers on Jars before filling.
- 6-Pack product into Jars loosely enough to allow for proper heat circulation.
- 7-Fill Jars containing vegetables to within one inch of top of Jars with water in which they were pre-cooked. If not enough available use boiling water.
- 8-Add one level teaspoon pure salt to each quart jar of vegetables.
- 9—For MEATS, bleed well and cool thoroughly before using. Pack meat uncooked (raw) or cooked, into clean hot BALL Jars.
- 10—Add two level teaspoons pure salt to each quart jar of fresh uncooked meat; add no water. Add one level teaspoon salt to each quart jar of cooked meat, if it has not been seasoned in cooking. Add the liquid or gravy in which the meat was cooked.

11-For FRUIT, pack prepared fruit into clean hot BALL Jars. Do not crush. Fill with boiling syrup to within one-half inch of top of Jar-to allow for expansion of air and to prevent boiling over. (See syrup table.)

12—Partly seal Jars as directed below: For BALL-MASON Jars, screw the cap into position until it catches the rubber ring. Do not fully tighten. For BALL-IDEAL Jars, place glass lid and rubber (wet) in position. Click the top bail into position but leave LOWER BAIL

up during canning process.

(I)

If using the Cold-Pack (Jar-Cooked) Method, proceed according to following directions:

13-After Jars are filled with product to within one inch of top, place Jars in hot water bath. Plunge Jars in the hot water quickly and cover with at least one inch of water. Process. (See time table for length of time.)

14—When time of processing is finished remove Jars from canner and complete the seal

immediately.

15-If product is to be processed in Steamer or Steam Pressure Cooker, place the Jars in the cookers as soon as filled and process length of time given in time table (pp. 47, 48 and 49). Then proceed same as paragraph 14.

(II)

If using the oven for canning, proceed according to following directions:

16—Place Jars in oven, on rack about two inches apart, to allow for heat circulation.

17-Place "drip pan" below lower rack to catch any overflow.

18-Do not place water in "drip pan."

19-When using Jars of different sizes, place quart Jars on rack below pint and half-pint

20-Process length of time and temperature specified in time table.

21-Remove Jars from oven at end of processing period and complete seal immediately.

22-Test for leaks by inverting the Jar for one or two minutes only. Allow Jars to cool in upright position.

> Canning Terms Selection of Products

Always select fresh, sound, firm products for canning. Spoiled or decayed products should

never be used.

For making jams and jellies, imperfectly shaped fruit or hard fruit may be used. Bruised or specked fruit may also be used if the bruises and specks are carefully removed and only the sound portions of the fruit are reserved for the preserving kettle.

Sorting and Grading

Fruits and vegetables should be sorted and graded for size and degree of ripeness. Uniformity in size and ripeness helps to secure a more even distribution of heat throughout the jar as well as adding greatly to the appearance of the pack.

Blanching-Pre-Cook

The Pre-Cook or Blanching process consists of heating the fruit or vegetables in steam or boiling water for a few minutes prior to packing it into the jar. The product is usually placed in a wire basket or piece of cheesecloth and is blanched for required length of time specified in Time Tables.

Blanching is recommended because it: Loosens skins of such products as peaches,

tomatoes and beets;

Shrinks product by expelling the air, making it possible to pack more of a product into

Serves as a last sanitary measure before packing. If any particles of sand or dirt should adhere to the vegetables or greens before Blanching, they may be removed in the Blanching water or Pre-Cook.

The Cold-Dip

The Cold-Dip consists of a cold-water bath into which the product is plunged immediately after blanching. Products should not remain in the Cold-Dip longer than 5 to 10 seconds.

The Cold-Dip makes it easier to handle products such as peaches, tomatoes, beets and carrots which require peeling before packing.

Packing

All products should be packed immediately

after blanching.

Products such as corn, peas and lima beans, should be packed loosely because they swell during the cooking process. Greens also should be packed loosely, since too small an amount of liquid delays heat penetration into the center of the jar. All other products shrink during the processing period and can be packed into the jar fairly tight, arranging the product, however, to allow for a free circulation of heat. In case of vegetables it is advisable to pack only a few jars at a time.

Processing

Processing consists of the final application of heat—the actual cooking of the product inside of the jar. The term "Sterilization" is used by some teachers, instead of "Processing." The necessary length of time for processing each product, either in the Hot-Water Bath or in the Steam Pressure Cooker, is given in each individual recipe and in the Canning Time Tables.

Begin counting time when the water boils vigorously or when the desired steam pressure is reached. When a Hot-Water Bath is used, cover the jars with one inch of water; process for the required length of time, then remove jars immediately from canner to prevent product from being over-cooked. Fully seal the jars; invert to test for leaks.

Be careful not to place hot jars in a cool draught or on a marble or metal-top table as

this might cause breakage.

Storage

Store jars in a cool, dry place where there is no danger from freezing or over-heating.

Labeling

A small, neat label should be placed on glass jars about one-fourth of an inch from bottom. If the products are to be marketed, it may be

advisable to wait until time of delivery to label to prevent the labels from becoming soiled.



1-BEGIN COUNTING TIME in the Hot-Water Bath only when the water has reached boiling point (212° F.). Keep the water boiling vigorously during the entire processing period.

2-PREVENT LOSS of LIQUID in Hot-Water Bath by:

Having water 1 inch over tops of jars. Keeping the water boiling vigorously over tops of the jars through entire processing period.

3-LOSS OF LIQUID in the STEAM PRESSURE COOKER can be prevented

Maintaining even temperature and pressure throughout the entire processing

Allowing the indicator on pressure gauge to return to 0° before opening pet-cock to release the remaining steam. Open pet-cock gradually.

4-NEVER OPEN JARS to refill with liquid.

Loss of liquid does not affect the keeping quality if the jar is sealed. If jar ring has "blown out" and ring must be replaced by a new one, partly seal and process the product again for the original length of time specified in the time tables for that particular product.

5-SATISFACTORY RESULTS IN CAN-NING VEGETABLES WILL BE ASSURED BY:

Using fresh, sound, firm products. Not letting product stand in hot kitchen between blanching and processing.

Working with not more than two or

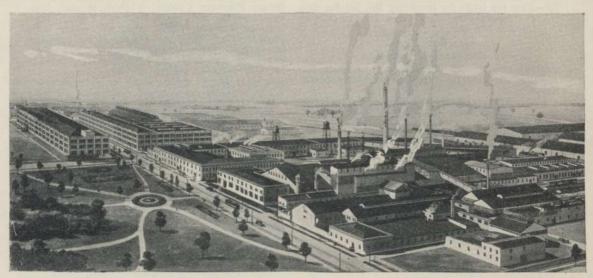
three jars at one time.

Placing in cooker as soon as packed. Processing for time specified. Complete sealing the jar as soon as taken from the cooker.

6—CORN, PEAS, and LIMA BEANS EX-PAND during the processing period. Pack loosely to within 1 inch of top of jar to allow for this expansion.

Other products SHRINK, and the jar can be filled to within 3% inch of top of jar in Cold-Pack canning. Filling the jar with product and liquid to within 3% inch of the top in Cold-Pack canning insures a quicker seal than by filling the jar to overflowing with liquid.

7-When using OPEN-KETTLE METHOD for fruits, jams, conserves, etc., fill the jars to overflowing to eliminate air space, as no sterilization process follows the sealing of the jar. Do not wipe off the top or sealing shoulder of the jar; have the sealing shoulder of the jar, the cap, and the rubber WET when the seal is made.



Main Plant and General Office, Muncie, Indiana. Other factories located at Huntington, West Virginia;

8—CLOUDINESS IN PEAS can be prevented by:

Using young, unbruised peas.

By using soft water for blanching. Hard water contains various mineral elements which may affect the color of certain vegetables (peas and beets).

- 9—THOROUGHLY RE-HEAT ALL CANNED VEGETABLES AND MEATS BEFORE USING. Discard, without tasting, any product which contains a foreign odor or is unnatural in appearance.
- 10—SUGARLESS CANNING is not economical. The addition of sugar during the cooking helps to develop the flavor of the fruit. Adding sugar at the time the fruit is used requires extra time and labor, and the quality and flavor of the fruit are not so satisfactory as when sugar has been added in the preparation of the fruit for canning. The amount to be used is very largely a matter of individual taste. The increased cost per jar of fruit because of any increase in price of sugar is very slight, only a fraction of a cent. The price of sugar should therefore not determine whether to put up fruit or not.
- 11—CANNING COMPOUNDS, or other chemical preservatives may be injurious to health. It is advisable to rely upon heat for sterilization as given in the Ball Blue Book directions and recipes. Directions and recipes for canning in the Ball Blue Book do not require the use of canning compounds.
- 12—IT IS UNWISE TO SUBJECT JARS TO SUDDEN TEMPERATURE CHANGES. In taking jars from cool basement clean them first in warm water then in boiling water. Jars should not be placed in a cool draught after filling, or upon removing from canner. By observing this precaution breakage can be avoided. Do not place hot jars directly on a marble or metal-top table, as they may break. Place cloth or paper under them.

- 13—TO OPEN JARS EASILY grasp the rubber between the fingers or with pliers and pull out sufficiently to allow for entrance of air, thus breaking the seal. Or pour warm water on cap or immerse jar in hot water. If hot water is not available, insert a knife blade under the rubber, between the rubber and the glass shoulder and hold it until the air enters the jar. Do not run the knife between the metal cap and rubber and do not pry open with a knife for either method will dent the cap rendering it unsafe for re-use.
- 14—GLASS JARS are more economical than tin cans and can be used year after year. A clean glass jar is the last word in sanitation and chemical reaction between the product and container is impossible.
- 15—STORING. It is important that jars be stored in a cool, dry place. Storage in hot and damp places causes deterioration of the rubber jar-ring, which may permit air to enter and the product to spoil.
- 16—RUBBERS. The Cold-Pack (Jar-Cooked) method requires firm, elastic rubbers; if too soft, they will "blow out" in the processing; if not sufficiently elastic they will break.

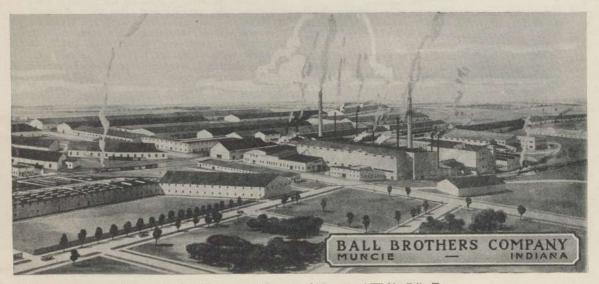
They should be of a composition which will stand boiling and not deteriorate.

They must be free from spongy and porous places that will admit air.

They must be of proper width, size and thickness.

ALWAYS USE NEW RUBBERS OF GOOD QUALITY. Much fruit spoils on account of "last year's" rubber. It is false economy to risk a Jar of fruit, together with sugar and labor, in an effort to save one rubber. The "Perfect Seal" rubbers that are packed with BALL Jars are of high quality.

17—THOROUGHLY RE-HEAT CANNED VEGETABLES AND MEATS BEFORE USING.



Noblesville, Indiana; Hillsboro, Illinois; Sapulpa and Okmulgee, Oklahoma, and Wichita Falls, Texas.



JELLY MAKING has a special place of its own on the Housekeeping Calendar. Jelly is easy to make if certain rules are followed. It can be made from the fresh fruit juices in late summer and early fall, or from canned fruit juices in wintertime.

Jelly is the product obtained by combining the juice or combination of juices of certain fruits with the right proportion of sugar and cooking the mixture until it becomes a clear, tender, spark-

ling, transparent, quivering mold.

All fruit juices do not make perfect jelly. To make a good jelly it is essential that the fruit juice

contain acid and a natural jelly-making substance called pectin, in proper proportions.

Some fruits contain proper proportions of acid and pectin to make perfect jelly. Other fruits are deficient in either pectin or acid. Juices from these fruits may be combined with fruit juices which contain sufficient pectin or acid to form a good jelly. Sugar is just as necessary as pectin and acid. Sugar is added but acid must be present in the fruit juice.

Fruits for jelly making in the order of desirability are: currant, crabapple, apple, quince, grape,

blackberry, raspberry, and plum.

## Making the Jelly

#### Preparation

Select and wash fruit. Remove hulls, stems and blossom ends. Cut hard fruits into pieces without peeling or coring.

#### Extraction of Juices

For soft fruits use just enough water to prevent them from sticking. Any water added has to be boiled out, so the less used the better. Heat gradually, mash while heating, and cook until the color begins to fade out of pulp.

For hard fruits, cook with just enough water to cover, until the fruit is tender. Do not mash if you wish to have clear jelly. Strain the juice through a wet double cheesecloth bag, or a well

sterilized salt sack.

#### Cooking

To obtain best results in jelly making, it is advisable to work with a small quantity of juice. Two quarts of juice is a sufficiently large quantity to handle at one time.

Measure juice, add sugar in proportion given in special recipes and boil rapidly for 5 minutes and stir until the sugar is dissolved. Skim when jelly is done.

Jelly Test

To test the jelly, dip a spoon into the juice, and if it sheets, and TWO DROPS hang together from the side of the spoon, the jelly is done and should be removed from the fire immediately.

If a confectioner's thermometer is used, the temperature should read 221-223 degrees. Use drop test also.

Sealing and Storing

Skim juice and pour, while hot, into clean, hot BALL Jelly Glasses. Fill the glasses full, as jelly shrinks as it cools. When jelly is cold and firm, cover with hot paraffin. A small teapot

or pitcher with a spout is handy for pouring paraffin. After paraffin is cold, cover jelly glasses with tin lids or tight paper covers.

Clear jelly can be obtained only when the juice is extracted by "dripping," without subjecting the fruit to pressure. When all the juice possible has been drained off without pressure, more may be obtained by applying pressure, and while the jelly made from this juice is not as clear, it is just as well flavored and nutritious as any.

The preceding general directions for making jelly can be used for making all jellies. For combinations of fruits and sugar proportions

consult table at end of this section.

#### Currant Jelly

Select currants that are not over-ripe, and avoid fruit gathered after a rain, as the juice is then too watery for making first class jelly. Remove all leaves and imperfect fruit, wash and drain the currants without removing the stems, mash in a porcelain preserving kettle with spoon or wooden potato masher. Heat mashed fruit slowly, stirring it frequently to prevent burning and to break up cells. When the fruit is thoroughly heated, put it into jelly bag and drain off the juice. Be careful not to press the fruit if clear jelly is desired. The draining may be hastened, however, by occasionally shaking the bag gently. After the juice is drained, measure it, and to each cup of juice add a cup of sugar. Reheat slowly and as soon as it begins to boil test for jelly (see jelly test on this page). When the "two drops hang together," remove from fire and pour into Jelly Glasses or Half Pint Jars. Any juice that is left after the draining process may be pressed or squeezed out of bag and put into another kettle with cup of sugar for each cup of juice. This will not be clear like the drip jelly but will have the same delicious flavor.

## Currant and Red Raspberry or Currant and Black Raspberry

Follow directions for Currant Jelly, using equal parts of currants and berries, with a cup of sugar for each cup of juice.

Grape Jelly

Wash the bunches thoroughly, remove the fruit from the stems, put the grapes into a preserving kettle, add a little water and boil slowly until the grapes burst open and are soft enough to drain. Drain the juice through a cheesecloth bag, measure it, and add an equal amount of sugar. Cook the sweetened juice in a porcelain kettle rapidly for about twelve minutes or until a little of the juice hardens when cooled on a saucer, skimming it frequently. For green grape jelly the fruit should be gathered just as it begins to turn color.

## Cranberry Jelly

4 cups cranberries. 2 cups sugar. 1 cup boiling water.

Wash cranberries. Place them in a preserving kettle, pour boiling water over them and boil for 20 minutes. Press thru a sieve, stir in the sugar, return to the fire and cook for 5 minutes longer or until jelly sheets from spoon. Pour into fancy molds, or individual cups, and when cold remove from molds and serve. Or pack jelly into clean, hot BALL Jars and seal immediately.

Mint Jelly

Wash mint and chop fine. To each cup of chopped mint add 1/4 cup sugar and 1/4 cup water, and let stand for several hours, or overnight. Bring to boiling point, then strain. Combine sugar and apple juice, using \(^2\struc{3}{3}\) cup sugar to 1 cup apple juice. Cook and test for jelly, and when the jellying point is obtained, add green vegetable coloring and 1 or 2 tablespoons of prepared mint juice for each quart of apple

Mint jelly is a favorite accompaniment for Roast Lamb.

## Apple or Crab Apple Jelly

Take sour fruit. Do not core or pare, merely wash, wipe, and cut out blemishes. Cut up, pour over sufficient water to cover, and simmer till soft, then drain through a cheesecloth or flannel bag, letting drip overnight. Cook down the juice, skimming well before adding sugar, 3/4 cup for each cup of juice. Simmer till sugar has dissolved, then boil, and the jelly will form

Quince Jelly

Quinces have too little acid and too much pectin to make a desirable jelly when the juice alone is used. An equal amount or twice as

much tart apple improves the flavor. Equal parts of cranberry, quince and apple juice give a jelly of rich, red color and delicious flavor.

Cut the quinces into small pieces, do not pare, but remove core and seeds, as they prevent the jelly from forming correctly. Add sufficient water to cover and cook until tender. Quinces require long cooking to become tender and to bring out their flavor and deep, rich color. Drain off juice. Use 2/3 as much sugar as fruit juice. Follow general directions for making jelly.

The pulp may be used for making conserve or butter.

Bar-Le-Duc

1 pound large currants. 3/4 pound sugar. Add sugar to currants which have been washed and stemmed and let boil slowly for 5 minutes. Pour into hot, clean BALL Jelly Glasses, cover and keep in a dry, cool place.

> Pectin Recipes Apple Pectin

Wash apples, remove blossom ends, and cut into small pieces, but do not remove skin and cores. Weigh fruit and to 1 pound of apple add juice of 1 lemon and 4 pints of cold water. Boil mixture for 45 minutes, place in flannel jelly-bag, and allow juice to drain without squeezing. Boil drained juice for 5 minutes and seal, while hot, in clean BALL Jars.

Orange Pectin ½ pound orange peel (yellow rind removed). 4 tablespoons lemon juice. 1 quart cold water.

Cut or grate yellow rind from the peel of oranges, being careful to allow as much of the white portion as possible to remain. Run white portion of peel thru a food chopper and weigh. To each ½ pound of peel add 4 tablespoons lemon juice and 1 quart cold water. Let stand for 1 or 2 hours. Add 1 quart water and slowly bring mixture to boiling point. Boil in covered kettle for 10 minutes. Let stand overnight and boil again for 15 minutes. Cool and strain juice through a wet flannel jelly-bag.

If pectin is not to be used immediately, pour into clean, hot BALL Jars, and process for 30 minutes in a Hot-Water Bath. Remove from canner and seal immediately.

Commercial Pectins

Commercially made pectins of standard quality can be purchased in practically all leading grocery and drug stores. Directions for using are usually specified on each bottle, or are supplied in additional booklet or circular form at the time of purchase.

Epsom Salts Test For Pectin Mix together 1 tablespoon cooked fruit juice, 1 teaspoon sugar and ½ teaspoon Epsom salts. Stir un-

til salts dissolve. Let stand for 20 minutes. If fruit juice contains sufficient pectin to make jelly the mixture will form into a gelatinous mass, or large, flaky particles.



The best jar is the cheapest

Jelly Table

Approximate Proportions of Sugar and Fruit Juice for Jelly (Showing Fruit-Juices and Approximate Proportions of Each Which Will Combine to Make Good Jelly)

Fruit Juice	Combine in Following Proportions	Fruit Juice cups	Sugar	Predominant Flavor	Predominant Color
Apple	**********	1	2/3	Apple	Light
Apple Blackberry	3/4 1/4	1	3/3	Blackberry	Dark
Apple Blueberry	1/2 1/2	1	3/4	Blueberry	Dark
Apple Black Raspberry	1/2 1/2	1	2/3	Black Raspberry	Dark
Apple Blueberry Rhubarb	1/3 1/3 1/3 1/3	1	2/3	Rhubarb	Dark
Apple Cherry	1/2 1/2	1	3/3	Cherry	Dark
Apple Elderberry	1½ 1½ 1½	1	1	Elderberry	Dark
Apple Peach	1/2 1/2	1	2/3	Peach	Light
Apple Pineapple	1/2 1/2	1	2/3	Pineapple	Light
Apple Quince	1/2 1/2	1	2/3	Quince	Light
Apple Quince Cranberry	1/3 1/3 1/3 1/3	1	3/4	Cranberry	Dark
Apple Rhubarb	1½ 1½ 1½	1	2/3	Rhubarb	Light
Apple Strawberry	1/2 1/2	1	3/3	Apple	Light
Blueberry		1	2/3	Blueberry	Dark
Crab-apple		1	2/3	Crab-apple	Light
Currant		1	3/4-1	Currant	Dark
Gooseberry (Green)		1	1	Gooseberry	Light
Grape (Under-ripe)		1	3/4-1	Grape	Dark

### Fruits Containing Pectin and Acid (Jelly Fruits)

Green Apple, Crab-Apple, Unripe Grapes, Blackberries, Currants, Gooseberries, Raspberries (slightly under-ripe), Cranberries, Huckleberries, Quinces, Plums.

Juices from these fruits contain sufficient

amounts of pectin and acid for making jelly.

#### Fruits Lacking Pectin

Strawberries, Peaches, Pineapples, Cherries, Rhubarb.

## Fruits Lacking Acid

Pears, Sweet Apples.

Juices from these fruits do not make good jelly when used alone.

Equal measures of currant and rhubarb juice make a jelly of excellent color, texture and flavor.

Consult above jelly table for fruit juice combinations.



FRUIT BUTTER is the product resulting from cooking fruit pulp with sugar (with or without spices) to the consistency of thick paste, suitable for spreading. Less sugar is used for butters than for jams and marmalades. Butters require slow cooking and frequent stirring to prevent burning.

## Cider Apple Butter

Use sweet cider of good quality, and apples that cook easily. Boil the cider down one-half. Wash, peel, quarter and core the apples. Then boil together rapidly equal amounts of apples and boiled-down cider. If the boiling is slow the apples at once sink to the bottom and are liable to scorch. After the first two hours, constant and vigorous stirring is necessary to prevent burning. If the butter becomes too thick before it is perfectly smooth, add a little more cider and continue the boiling and stirring. Add sugar at any time after the stirring begins if the butter is not sweet enough. Spice the butter to suit the taste and seal it in BALL Jars. Apple butter is usually considered better if not highly spiced.

## Blueberry and Apple Butter

Use tart apples. Remove stems but do not pare apples. Cook in sufficient water to cover, until parts of berries and apple pulp and ½ as much sugar as fruit. Cook the butter until it is thick and clear and seal immediately in hot, clean BALL Jars.

#### Crab-Apple Butter

Wash and cut apples into quarters, without paring or coring. Place them in a preserving kettle with just enough water to cover, and cook slow-ly until tender. Press through a colander or sieve. Measure the strained pulp. Add ½ as much sugar as pulp to the juice in which the apples were cooked. Bring to boil, add pulp and cook until mixture is thick and smooth, stirring to prevent burning. Spices may be added, if desired. Pack into clean, hot BALL Jars. Seal immediately.

## Spiced Grape Butter

Wash grapes, remove stems, separate the pulp from the skins. and let stand overnight. Heat pulp

Clean vegetables thoroughly

to boiling point and drain through a colander. Add the skins to pulp and to each 5 pints of fruit add 8 cups brown sugar and 1/2 tablespoon of cloves and 1 of cinnamon. Boil the mixture 1 hour, add 1 cup cider vinegar and continue boiling until mixture is thick. Stir constantly to prevent burning. Pack butter into clean, hot BALL Jars and seal immediately.

## Grape and Apple Butter

1 pint grape pulp. 2 cups sugar.

1 pint apple pulp.
Prepare the fruit pulp in the usual way by cooking the fruit and pressing it through a sieve. Combine the ingredients and cook mixture until it is thick (about 20 minutes). Seal in hot, clean BALL Jars.

#### Tomato and Apple Butter

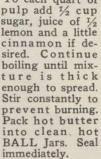
1 pint tomato pulp. 3 cups sugar.

1 pint apple pulp. 1 small stick cinnamon. 1 orange, juice and grated rind.

Combine ingredients and cook the mixture until it is thick and clear. Seal in clean, hot BALL Jars.

## Muskmelon Butter

Select ripe muskmelons. Cut in halves, remove rinds, seeds and soft parts. Place the melons in a preserving kettle with as little water as possible and boil until tender. Press through a colander and measure the pulp. To each quart of





#### Peach Butter

Peel and stone peaches. Cook in as small amount of water as possible until they are reduced to a pulp. Add ½ as much sugar as pulp and cook mixture until it is thick and clear, stirring frequently to prevent burning. Spices may be added if desired. Pack into clean, hot BALL Jars, and seal at once.

#### Pear Butter

Wash pears and without peeling boil them until they fall to pieces. Press through a colander to remove cores, seeds and stems. Measure pulp and add half as much sugar as pulp. Add spices to suit taste. Cook mixture slowly until it becomes smooth and thick, stirring frequently to prevent burning. Pack hot butter into clean, hot BALL Jars. Seal immediately.

#### Plum Butter

Cook plums in sufficient cold water to cover them. Drain and reserve the juice for jelly. Press plums through a colander, measure pulp and add ½ as much sugar as pulp. Cook mixture slowly until it is thick and clear, stirring to prevent burning. Seal in clean, hot BALL Jars.

When plums are not plentiful, apple pulp may be substituted for \( \frac{1}{3} \) the measure of plum pulp.

#### Red Haw Butter

Select well-ripened haws, remove blossom ends, wash haws and place them in a preserving kettle with enough water to cover. Cook slowly until tender. Press through a colander to remove skins, seeds and stems. Place the strained pulp in a clean preserving kettle and add enough boiled-down vinegar to make the pulp thin. Boil 20 minutes, measure pulp and add ½ teaspoon cinnamon and ½ cup sugar to each quart of pulp. Continue boiling until the pulp is the consistency of cider apple butter. Pour immediately into clean, hot BALL Jars and seal at once.

#### CONSERVE

A conserve is a mixture of several fruits and is made like jam. It may contain nuts or raisins or both, or it may be made without nuts or raisins.

#### Blueberry and Apple Conserve

1 pint blueberries, fresh or canned.
1 pint tart apple, diced. 3 cups sugar.
Juice of 1 lemon. Grated rind of ½ lemon.

Combine ingredients and cook mixture until thick and clear, stirring to prevent burning. Pour immediately into clean, hot BALL Jars and seal at once.



## Carrot, Apple and Peach Conserve

1 pint diced carrots. 1 cup peaches. 1 pint diced tart apples. Juice of 1 lemon.

3 cups sugar.

Mix ingredients and simmer until mixture is clear, stirring to prevent burning. Pack hot into clean, hot BALL Jars and seal at once.

## Cherry, Pineapple and Apple Conserve

2 quarts pitted cherries. 3 cups pineapple.
2 cups diced apples. 8 cups sugar.
½ pound blanched English walnuts.

Run the pineapple through a food chopper and mix the remaining fruit and sugar and let stand overnight. Cook until thick. Add the walnut meats, chopped fine. Pack conserve into hot, clean BALL Jars and seal at once. Nuts may be omitted, if desired.

## Sour Cherry and Currant Conserve

2 quarts pitted sour cherries.

1 to 3 quarts currants.

2 cups sugar for each pound fruit.

Wash and pick over the currants. Crush cherries and place in the bottom of a preserving kettle, Arrange fruit and sugar in alternate layers and let stand overnight. Cook mixture slowly until it thickens. Pour into clean, hot BALL Jars and seal at once.

This recipe makes a tart conserve which is

excellent to serve with meat.

#### Gooseberry Conserve

3 quarts gooseberries. 8 cups sugar.

1 pound ground pineapple.

1 pound raisins, chopped fine. 2 cups English Walnuts.

Wash gooseberries and boil them until they burst. Add sugar, ground pineapple and finely chopped raisins. Boil mixture slowly until it is thick and add 2 cups chopped English walnuts. Pack conserve into clean, hot BALL Jars and seal immediately.

#### Gooseberry Conserve (Old English Recipe)

5 pounds gooseberries (large English preferred). 8 cups sugar. 1½ pounds seedless raisins.

4 oranges—juice and chopped rind.

Mix ingredients and boil until thick (about 45 minutes). Pack hot conserve into clean, hot BALL Jars and seal immediately.

#### Grape Conserve

3 pounds seeded grapes. 6 cups sugar. 1 pound English walnuts (broken into small

pieces.

Cook grapes and sugar together as for jam. The juice of 1 orange and the peel of ½ orange, cut in small pieces, may be added for variation. Add nut meats 5 minutes before removing from the fire. Seal in clean, hot BALL Jars.

#### Peach Conserve

1 pound peach-pulp. 11/2 cups sugar.

1 lemon—juice and grated rind.

Blanch peaches in boiling water, cold-dip. Remove skins and stones. Cut into thin

Plant a vegetable garden

slices. Mix ingredients and cook until thick and clear. Pack in clean, hot BALL Jars and seal immediately.

## Peach and Apple Conserve

Use equal parts of peaches and apples (diced). If apple skins are of good color do not peel apples. Add 3/4 as much sugar as fruit. Cook mixture slowly until it is thick and clear. Seal in clean, hot BALL Jars.

## Peach and Cantaloupe Conserve

1 pint diced peaches.

1 pint diced cantaloupe.

3 cups sugar.

2 lemons, juice and grated rind.

3/4 cup English walnuts, blanched and chopped

fine.

Combine ingredients with exception of the nuts. Cook mixture until it is thick and clear, add nuts and pour into clean, hot BALL Jars. Seal at once.

## Peach and Pineapple Conserve

2 cups diced peaches.

1 cup cooked pineapple.

2½ cups sugar.

orange, juice and grated rind. 1 lemon, juice and grated rind.

Combine ingredients and cook until mixture is thick and clear, stirring to prevent burning. Pour into clean, hot BALL Jars. Seal immediately.

## Pear and Apple Conserve

1 pint diced pears.

pint diced tart apple.

1 lemon, juice and grated rind.

1 cup seedless raisins.

½ cup English walnuts. 3½ cups sugar.

Wash raisins and add to other ingredients except nut meats. Cook until mixture is thick and clear. Add nut meats 5 minutes before removing from fire. Pack in clean, hot BALL Jars, and seal at once.

A small amount of preserved ginger may be

substituted for the nuts.

## Pineapple and Apple Conserve

1 pint pineapple, diced or shredded.

1 pint diced tart apple.

1 orange, juice and grated rind.

3 cups sugar.

2/3 cup shredded cocoanut.

Cook the pineapple in water until tender. Add the apple, orange juice, and rind, and the sugar. Cook mixture until it is clear and transparent. Add cocoanut and pack conserve into clean, hot BALL Jars. Seal at once.

#### Plum Conserve

1 pound plum pulp (use Damson plums). 1 to 11/2 cups sugar.

1/2 lemon, juice and grated rind.
1/2 orange, juice and grated rind.

1 cup seeded raisins.

1/2 cup nut meats (if desired).

Wash plums, seed if desired, and weigh. Mix ingredients, except nut meats, and cook mixture until thick and clear. Add nut meats. Pack into clean, hot BALL Jars and seal immediately.

#### Damson Plum Conserve

2 pounds Damson plums.

3 cups sugar.

cup English walnuts.

lemon, juice and grated rind. pound seedless raisins.

Wash raisins. Remove seeds from the plums and weigh the fruit. Add sugar, lemon and raisins. Cook mixture until it is thick and clear. Pour boiling water over nuts and let stand for 2 minutes. Drain water from nuts, cut or chop them and add to mixture just before removing conserve from stove. Pour conserve into clean hot BALL Jars and seal at once.

## Quince, Apple and Cranberry Conserve

2 cups apple pulp.

cup quince pulp.

cup raisins.

cup cranberry pulp.

2½ cups sugar.

Mix ingredients and boil for 5 minutes then add raisins. Continue boiling until mixture is thick and clear. Pack into clean, hot BALL Jars and seal at once.

## Quince, Apple and Cranberry Conserve

2 cups quince pulp.

2 cups cranberry pulp.

2 cups apple pulp.

orange, juice and grated rind. 4 cups sugar.

3/4 cup English walnuts.

Combine ingredients, except nuts, and boil mixture rapidly until thick. Pack into clean, hot BALL Jars and seal at once.

If walnuts are used, chop them and add to mixture just before conserve is removed from

## Black Raspberry and Cherry Conserve

1 cup pitted cherries.

1 cup black raspberry pulp.

2 cups sugar.

Cook cherries in a small amount of water until skins are tender. Add raspberry pulp and sugar, and cook mixture until it is thick and clear. Pour into hot BALL Jars and seal at



## Red Raspberry and Cherry Conserve

1 cup cherries. 11/2 cups sugar. cup red raspberries.

Cook cherries in a small amount of water until skins are tender. Add raspberries and sugar and cook until mixture is thick and clear. Pack into clean, hot BALL Jars and seal at

#### Rhubarb Conserve

2 cups rhubarb, cut fine.

2 cups sugar.

1 orange, juice and grated rind. 1 lemon, juice and grated rind.

1/2 cup blanched nuts cut in small pieces. Combine ingredients, except nuts, and heat mixture until sugar is dissolved. Boil rapidly until it is thick and clear. Add nuts; pour into clean, hot BALL Jars and seal at once.

## Rhubarb and Apple Conserve

2 cups sugar.

2/3 cup water.

2 cups rhubarb, cut in small pieces.

1 cup apple, sliced.

<sup>2</sup>/<sub>3</sub> cup English walnuts, chopped. Make a syrup of sugar and water and when boiling add fruit and simmer until mixture is thick and clear. Add nuts and pack conserve into clean, hot BALL Jars and seal immediately.

#### Strawberry and Rhubarb Conserve

1 quart strawberries. 6 cups sugar.

1 quart rhubarb.

Cut rhubarb into 1/2-inch pieces, being careful not to peel. Mix together strawberries, rhubarb and sugar, and cook mixture slowly until it is thick and clear. Pour into clean, hot BALL Jars and seal at once.

#### Tomato Conserve

1 quart tomatoes, fresh or canned (drain off juice).

4 cups sugar.

1 cup seedless raisins. 1 lemon, cut in small pieces.
1/2 cup English

walnuts.

Wash raisins. Blanch, peel and core fresh tomatoes. Mix ingredients, except nuts, and cook mixture until it is thick and clear. Add nuts, chopped fine, and pour mixture into clean, hot BALL Jars, and seal at once.

## Tomato and Apple Conserve

1 pint tomato, fresh or canned (drain off juice). 1 pint apple, diced. 1 lemon, cut in small pieces. 3 cups sugar. Blanch, peel and core fresh tomatoes. Combine ingredients and cook mixture until it is thick and clear. Pour into clean, hot BALL Jars and seal at once.

## JAM

A jam is a variation of a preserve. The product is cooked to a thick mass and the proportion of sugar used is less than the amount used for preserves. For Jam use 1/2 to 3/4 pound sugar to 1 pound fruit.

Jams need constant stirring to prevent

burning.

#### Blackberry Jam

Mash berries, cook them in their own juice until thoroughly heated, then press through a sieve to remove seeds. Measure the pulp and liquid, and for every pint of pulp add 1 cup of sugar. Cook rapidly until thick, stirring to prevent burning. Pack into clean, hot BALL Jars and seal immediately.

## Blueberry and Crab-Apple Jam

Equal measures of canned blueberries and crabapples may be used, or 1/3 as much berries as crab-apples. Remove cores from crab-apples, but do not pare them. Grind in food chopper. Add just enough water to cover apples, and cook for 10 minutes. Add blueberries and sugar, using 2/3 as much sugar as fruit, by measure. Cook mixture until thick, and pack immediately into clean, hot BALL Jars and seal at once.

## Kumquat Jam

Slice kumquats. Cook until tender in just enough water to keep from burning. Measure and add equal parts of sugar with a little lemon juice. Cook mixture until thick, stirring to prevent burning. Pack hot jam into clean, hot BALL Jars. Seal immediately.

## Peach Jam

I pound peach-pulp (imperfect peaches may be

1/2 to 2/3 pound sugar.



1/4 cup peach juice or water. 1/2 in. ginger root.

1 peach pit. 1/4 teaspoon allspice.

1 teaspoon cinnamon bark.

½ teaspoon cloves.

Blanch peaches in boiling water, cold-dip and re-move skins and seeds. Mash pulp. Add sugar and spices (tied in a bag). Cook until mixture is thick and clear. Remove spice bag. Pack into clean, hot BALL Jars and seal immediately.

Pack product in clean, hot BALL Jars

Note: Spices may be omitted.

Apple pulp may be substituted for part of peach pulp. Instead of spices, juice of 1 lemon and

12 peach pits may be added.

## Plum Jam

1 pound plums (Damson plums are best).

1/2 to 2/3 pound sugar.

Wash plums and remove seeds, if desired. The flavor of the seeds is sometimes preferred. Add sugar, and cook until mixture is thick and clear (about 218°F.). Pack immediately into hot, clean BALL jars and seal at once.

## Plum Jam (Green Gage)

Wash plums, remove seeds, but not skins, and place plums in a preserving kettle containing enough water to cover bottom of kettle. Cook until soft. Measure mixture and add ½ as much sugar as mixture. Boil until thick, stirring to prevent burning. Pack while hot into clean, hot BALL Jars. Seal immediately.

## Raspberry Jam

Wash raspberries and crush them. Weigh the crushed berries and add an equal weight of sugar. Boil mixture until it is thick and clear. Long boiling should be avoided, because it makes the jam dark and strong. Pack hot into clean, hot BALL Jars and seal immediately.

## Strawberry Jam

Pick over berries and remove hulls. Weigh berries, and for every pound of fruit allow 3/4 pound of sugar. Place berries in a preserving kettle and mash fruit as it heats. Bring fruit to boiling point, stirring frequently and crushing any berries which still remain whole. Add sugar to the fruit and boil together until thick (not over 20 minutes), stirring to prevent burning. Pack into clean, hot BALL Jars and seal immediately.

## MARMALADES

Marmalades are usually made from citrous fruits, oranges being the most common fruit used, but other fruits may also be used.

#### Carrot and Orange Marmalade

6 carrots.

3 oranges.

lemon, juice and grated rind.

Dice the carrots and cook until tender, using as little water as possible. Cut oranges and the lemon into small pieces. Combine the carrot and fruit, measure and add  $\frac{2}{3}$  as much sugar as mixture. Simmer mixture until it is clear. Pack hot into clean, hot BALL Jars, and seal at once.

#### Cherry and Pineapple Marmalade

Wash, drain, seed the cherries and run them through a meat grinder. Peel and grind or shred the pineapple. Mix pineapple with

cherries using 1/4 as much pineapple as cherries. To the mixture add 2/3 as much sugar as there is fruit and juice. Cook mixture until it is clear and thick, stirring to prevent burning. Pour hot marmalade into clean, hot BALL Jars. Seal immediately.

## Fig Marmalade

This can be made from the bruised and soft figs, by mashing the fruit well. Place figs in a little water, bring to a boil, measure fruit, add same amount of sugar as fruit and cook for 1 hour, stirring to prevent burning. Pack hot marmalade into clean, hot BALL Jars and seal immediately.

## Gooseberry Marmalade

Stem and wash berries. Place berries in preserving kettle containing enough water to cover bottom. Cook slowly until berries are soft. Measure mixture and add same quantity of sugar as pulp. Boil until mixture is thick (about 20 minutes). Stir constantly to prevent burning. Pack hot marmalade into clean, hot BALL Jars and seal immediately.

#### Gooseberry and Rhubarb Marmalade

Stem, wash and mash gooseberries. Add any proportion of young rhubarb, cut into pieces, desired. Place mixture into preserving kettle containing just enough water to cover bottom of kettle. Let fruit simmer until soft. Measure mixture and add 3/4 as much sugar as mixture. Boil until mixture is thick (about 20 minutes), stirring to prevent burning. Pack hot marma-lade into clean, hot BALL Jars. Seal immediately.

## Grape Marmalade

Wash grapes and remove stems. Press pulp from the skins. Cook pulp and press through a sieve to remove seeds. Add the skins to pulp, measure mixture and allow  $\frac{2}{3}$  as much sugar as pulp. Cook mixture until skins are tender (about 20 minutes), and seal at once in clean hot BALL Jars.

#### Grapefruit Marmalade

1 pound grapefruit pulp.

1 quart water.

11/2 cups sugar.

1/4 pound grapefruit peel.

Wash fruit and remove the peel. Select 1/4 pound of peel that is free from blemishes and cut it into thin slices. Cover with water and boil for 10 minutes. Drain, cover with boiling water and repeat the process four or five times to remove the bitter flavor.

Weigh the fruit pulp and slice it. Cover with water and boil until tender. Pour into a flannel jelly-bag, press until no more juice can be obtained, and filter the juice through another clean flannel jelly-bag without pressing. To the juice add the sliced peel and sugar, and boil rapidly until mixture reaches the jellying point. Pack into clean hot BALL Jars. Seal immediately.

#### Guava Marmalade

Use well ripened or over-ripe guavas. Slice. Place with a little cold water in a kettle. Cook until soft, and press through a coarse sieve. Measure pulp and add 3/4 as much sugar as pulp. Add juice of 1 lemon to each pint of pulp. Cook mixture until thick. Pack hot marmalade into clean, hot BALL Jars. Seal immediately.

#### Orange Marmalade

12 thin-skinned oranges.
3 lemons.
1½ quarts water.
Sugar.

Wash and slice oranges as thin as possible. To each quart of sliced fruit, add 1½ quarts of water and let stand overnight. Cook it slowly until tender (2 to 2½ hours). Measure the cooked fruit and add an equal amount of sugar. Cook the mixture until it jellies from a spoon (from 30 to 60 minutes). Pour into clean, hot BALL Jars and seal at once.

#### Quince Marmalade

Cut and quarter unpeeled quinces. Put in kettle and just cover with water. Let cook until tender. Press through a sieve, measure and add 3/4 as much sugar as pulp. Cook this slowly until quite stiff, stirring frequently to avoid burning. Pack into clean, hot BALL Jars. Seal immediately.

#### Quince and Apple Marmalade

Wash quinces and remove blossom end. Cut fruit into small pieces. Place in just enough water to cover and cook until soft. Press through a sieve and combine pulp with an equal measure of tart apple pulp. Add  $^2$ <sub>3</sub> as much sugar as pulp. Cook mixture until it is thick and clear (about 25 minutes). Pack into clean, hot BALL Jars and seal immediately.

#### Black Raspberry Marmalade

Select fresh, ripe raspberries, wash them carefully, heat thoroughly and press through a colander to remove seeds. Add 3/4 as much sugar as pulp, and boil the mixture until it is thick. Stir constantly to prevent burning. Pack the marmalade into clean, hot BALL Jars. Seal immediately.

#### Red Raspberry Marmalade

Wash and drain berries, mash thoroughly, place them in a preserving kettle with as little water as possible and bring quickly to boil. Press mixture through a fine-mesh sieve to remove seeds. Measure mixture and add 3½ as much sugar as there is pulp and juice. Boil gently for 10 minutes. Pour hot marmalade into clean, hot BALL Jars. Seal immediately.

#### Red Raspberry and Currant Marmalade

4 quarts red raspberries. 1 quart red currants.

Sugar.

Wash berries and currants and place in a preserving kettle. Mash fruit thoroughly, add 34 as much sugar as fruit and boil mixture for 10 minutes or until it jells when cooled. Stir constantly to prevent burning. Pack hot marmalade into clean, hot BALL Jars. Seal immediately.

#### Rhubarb Marmalade

Cut young stalks of rhubarb into 1-inch lengths. Do not peel. Weigh rhubarb and add ¾ pound sugar to each pound rhubarb. Place rhubarb and sugar in a preserving kettle, heat slowly and boil mixture until thick and clear. Pack into clean, hot BALL Jars. Seal immediately.

#### Rhubarb and Pineapple Marmalade

3 pounds strawberry rhubarb.

4 cups sugar.

2 lemons, juice and grated rind. 1 cup pineapple, cut in pieces.

Combine ingredients and boil mixture slowly until it is thick and clear. Pack into hot BALL Jars and seal immediately.

#### Tomato Marmalade

1 quart ripe tomatoes.

1/2 cup cider vinegar.
1/3 cup sugar.

1 teaspoon salt.

1 teaspoon mixed spices.

To 1 quart ripe tomatoes, skinned and sliced, add ½ cup cider vinegar, ⅓ cup sugar, 1 teaspoon salt and 1 teaspoon mixed spices. Cook mixture slowly until it is thick, stirring to prevent burning. Pack into clean, hot BALL Jars. Seal immediately.

medium thin, boiling syrup made with 1

# PRESERVES A good preserve is one in which the fruit or pieces of fruit remain whole, tender, clear and plump, in a thick, transparent syrup. The approximate proportion of sugar to fruit in preserves is three-fourths of a pound of sugar to one pound of fruit. Apricot and Pineapple Preserves 4 quarts fresh, ripe apricots. 1 quart shredded pineapple. ½ cup almonds. 4 cups sugar. 4 cups water. Wash apricots, do not peel. Shred fresh pineapple and add to apricots. Place in a

Wash your canning troubles away part sugar to 1 part water. Cook slowly until mixture is tender (about 30 minutes). Add almonds, if desired. Pack hot into clean, hot BALL Jars. Seal immediately.

#### Blackberry Preserves

Follow the direction for preserved Strawberries (either method); see page 37.

#### **Barrier Cherries**

Wash and seed cherries, drain thoroughly in colander, place in earthen jar and cover with vinegar. Let stand 12 hours. Measure cherries and add an equal amount of sugar. Let stand for 10 days, stirring each morning. Remove cherries to clean, hot BALL Jars and seal.

These are delicious with meats or salads.

#### Maraschino Cherries

Wash, remove stems and pits from cherries. Save juice, pits and cherries. Place cherries in a shallow pan and cover with a medium thick a snahow pair and cover with a median syrup made with 3 parts sugar to 2 parts cherry juice or water. Boil gently for 10 minutes; remove from heat and let stand in a covered kettle from 6 to 12 hours. Drain off juice from cherries and pack cherries into clean, hot BALL Jars. Crush the cherry pits (using  $\frac{1}{2}$  cup crushed pits to 1 quart syrup), tie in cheesecloth and place in kettle containing syrup and bring quickly to boiling point. Remove cherry pits and fill the jars with boiling syrup. Seal at once.

Note: Maraschino is a cordial distilled from fermented cherries and flavored with bruised pits. Large and small sized bottles of Maraschino can be purchased in stores carrying "fancy groceries."

When using the Commercial Maraschino use 1 part syrup to 1 part Maraschino. Bring quickly to boiling point in covered kettle to prevent evaporation of the volatile liquor. Fill jars and seal immediately.

#### Preserved Cherries

Wash, remove stems and pits from cherries. Save the juice. Place cherries in a shallow pan and cover with a medium thick syrup made with 3 parts sugar to 2 parts cherry juice or water. Boil gently for 10 minutes; remove from heat and let stand in a covered kettle from 6 to 12 hours. Drain off the juice from cherries and pack cherries into clean, hot BALL Jars. Heat the remaining syrup and fill the jars with the boiling syrup. Seal at once.

#### Preserved Cherries with Currants

2 quarts seeded cherries.

pint stemmed currants.

5 pounds sugar.

1 quart water.

Make a thick syrup using 5 pounds sugar to 1 quart water. Add 2 quarts seeded cherries and 1 pint stemmed currants to boiling syrup. Cook mixture slowly for 30 minutes. Pack hot into clean, hot BALL Jars. Seal immediately.

#### Preserved Citron Melon

5 melons.

cups sugar.

cup water. 2 lemons.

Ginger root. Peel melons, cut into slices and boil until

tender, in a syrup made in proportion of 5 cups sugar to 1 cup water. Add the juice of 2 lemons with grated rind of 1 lemon to the boiling mixture. A little ginger root may be added if desired. Cook for 20 minutes, and pack hot into clean, hot BALL Jars. Seal immediately.

#### Preserved Crab-Apples

Select perfect, well-colored crab-apples, wash thoroughly, remove blossom ends, leaving stems and skins. Place apples in a thick, boiling syrup made in proportion of 3 parts sugar to 1 part water. Cook gently until tender (about 30 minutes). Pack hot into clean, hot BALL Jars, cover with boiling syrup and seal immediately. Crab-apple preserves are superior in color,

shape and flavor to other apple preserves.

#### Preserved Figs

Gather the figs before they are perfectly ripe. Split them on one side and soak in lime-water or mild salt brine using 1 teaspoon salt to 1 quart water, for 3 or 4 hours. Wash thoroughly in cold water. Make a medium thin syrup using 1 cup sugar to 1 cup water for each pound of fruit. Place figs in boiling syrup and cook until done. Pack into clean, hot BALL Jars. Fill with boiling syrup and seal immediately.

#### Preserved Ginger

Wash ginger roots and boil gently until tender. Soak in cold water, changing water frequently. Make a thin syrup using 2 parts sugar to 1 part water. Pour syrup over ginger roots and let stand for 5 days. Pack into clean, hot BALL Jars and fill jars with boiling syrup which has been boiled down until thick. Seal immediately. Add spices if desired.

#### Gooseberry Preserves

1 pound green gooseberries.

2½ cups sugar. Wash berries, stem, and remove blossom ends. Half cover the gooseberries with water and simmer until skins are soft. Add sugar and bring mixture quickly to boiling point and cook



Can for economy and health

until clear. Pack into clean, hot BALL Jars. Seal immediately.

#### Preserved Currants

Wash and stem currants. Place in a boiling syrup using 3 parts sugar to 1 part water. Boil gently for 15 minutes and pour immediately into clean, hot BALL Jars. Seal at once.

#### **Kumquat Preserves**

Wash kumquats. Place, halved, or whole, into boiling, thick syrup made with 3 parts sugar to 1 part water. Boil until tender. Pack into clean, hot BALL Jars. Cover with boiling syrup. Seal immediately.

#### Mixed Fruit Preserves

1 pound quinces.
1 pound sweet apples.
1 pound pears.
1 pound peaches.
2 demons.
3 lemons.
6 cups sugar.

Do not remove skins. Slice the fruit. Cook apples, pears, and quinces separately until tender. Drain off the juice from each, and add it to the sugar. Boil the mixture until it becomes a medium thick syrup. Add the fruit, juice of 2 lemons and 1 lemon sliced thin. Cook mixture until it is thick and seal at once in clean, hot BALL Jars.

#### Muskmelon Preserves

Partially green melons make delicious preserves, but they should be soaked in stronger salt-water than that used for watermelons.

Proceed same as for Watermelon Preserves, see recipe page 37.

#### Peach Preserves

1 pound peaches. 1 cup water. 1½ cups sugar.

Blanch, remove skins and cut peaches into halves. Make a thick syrup, using 2 parts sugar to 1 part water. Cook peaches in the syrup until they are clear and the syrup is thick. Pack into hot, clean BALL Jars and seal at once.

#### Pear Preserves

1 pound pears. 2 cups water.
2 cups sugar. 1 lemon, sliced thin.
The fruit may be preserved whole, in halves or in quarters.



Boil sugar and water together for 5 minutes, add pears and sliced lemon and cook until pears are clear and transparent, and the syrup is thick. Pack into clean, hot BALL Jars and seal at once.

If hard pears, such as Keifers, are used, cook them in water until tender, using the water in which they are cooked, for making the syrup.

A few cloves or a stick of cinnamon may be added for flavor.

Using pineapple juice instead of water in the syrup gives a delicious flavor.

#### Pineapple Preserves

Pare the pineapple and remove the eyes. Shred with a silver fork or cut in small pieces, discarding the core. Place pineapple in a preserving kettle and add 3/4 as much sugar as pineapple. Allow mixture to stand until a syrup is formed. Cook the mixture slowly until the pineapple becomes transparent. Transfer to hot BALL Jars, fill with boiling syrup and seal immediately.

#### Plum Preserves

6 pounds fruit. 9 cups sugar. 1 cup water.

Select small purple plums and be sure they are sound and not over-ripe. Remove stems, wash and pierce each plum with a fork. Place plums in an earthen bowl or jar, cover with sugar and add water. Cover vessel and let stand in a cool place overnight. Drain plums and boil the juice for 5 minutes. Add plums and cook for a few minutes until clear. Care should be taken not to over-cook, as the syrup thickens or jellies after standing. Pack into hot, clean BALL Jars and seal immediately.

#### Pumpkin Preserves

5 pounds pumpkin. 3 lemons. 8 cups sugar. 1 teaspoon salt.

Cut pumpkin into slices 1/4 inch thick and from 1 to 2 inches long. Place in an earthen bowl or preserving kettle, add the sugar and let stand overnight. Drain and boil the liquid until it threads. Add the pumpkin, thinly sliced lemons and salt. Cook mixture until it is thick and clear. Seal while hot, in clean, hot BALL Jars.

#### Quince and Apple Preserves

1 pound fruit, quince and sweet apple. 12/3 cups sugar. Water.

Cook quinces until tender in about 4 times their measure of water. Pare sweet apples and cut them into medium thick slices and cook in a small amount of water until tender. Drain off the juice from both apples and quinces, add sugar to the juice and boil mixture for 5 minutes. Add fruit and boil mixture until it is thick and clear. Pack immediately into hot BALL Jars and seal at once.

#### Raspberry Preserves

Mix thoroughly equal parts of raspberries and sugar. Cook slowly and stir until mixture boils. Boil gently for 6 minutes and pour into clean, hot BALL Jars and seal at once.

#### Rhubarb Preserves

1 quart rhubarb, cut in small pieces.

3 cups sugar. 1 cup water.

Boil sugar and water together until the syrup becomes brittle when dropped into cold water. Drop rhubarb into the boiling syrup and cook mixture until it is thick and clear. Pour into clean, hot BALL Jars and seal at once.

#### Rhubarb and Fig Preserves

3½ quarts rhubarb.8 cups sugar.1 pint chopped figs.

1 lemon.

Cut rhubarb into small pieces, add sugar and let mixture stand overnight. In the morning boil until thick and add 1 pint of chopped figs and the juice and rind of 1 lemon. Cook rapidly until mixture is thick and clear. Pack while hot, into clean, hot BALL Jars. Seal immediately.

#### Strawberry Preserves

Mix equal measures of strawberries and sugar, and stir mixture until it boils. Boil gently for 6 minutes, pour into clean, hot BALL Jars and seal at once.

#### Strawberry Preserves

Use firm, ripe strawberries. Take two quarts (do not increase quantity) and scald them, leaving them in the boiling water 2 minutes, then drain. Add four cups of sugar and boil two minutes, counting the time after the entire contents of the pan is bubbling. Remove from fire and after bubbling has stopped add two more cups of sugar and boil for five minutes. Count time as specified, after which pour into shallow pans so the preserves will not stand over one and one-half to two inches deep in the pan. Let stand over night, next morning pack the cold preserves in sterilized BALL Jars and seal with Caps and Rubbers in the usual way. This method of scalding keeps the berries plump and retains the color.

#### Strawberry Preserves

4 pounds berries. 6 cups sugar.

Select ripe, sound berries, wash and hull. Add the sugar to the strawberries and heat gently until sugar dissolves and juice is drawn from the berries.

Cook rapidly until the fruit is plump and transparent and the syrup is thick. Pack carefully in clean, hot BALL Jars and seal immediately. All berries except blackberries may be made into preserves by this method.

#### Tomato Preserves

5 pounds ripe tomatoes.

8 cups sugar.

2 lemons.

Scald and peel tomatoes. Place in a crock or enameled bowl, add sugar and let stand over night. Drain off the juice and boil it rapidly until it threads. Add the tomatoes and lemons sliced thin, and cook until the mixture is thick and clear. Pack into clean, hot BALL Jars and seal immediately.

The preserves should be a rich, red color.

#### Watermelon Preserves

1 watermelon. Sugar. Alum (dissolved). Spices. 2 lemons.

Peel and cut into slices the rind of one water-melon, soak slices in a weak salt solution (1 tablespoon salt to 1 quart water) overnight. Drain off the water and parboil the watermelon rind for a few minutes in water containing a pinch of dissolved alum. Drain the slices again. Make a heavy syrup using 3 parts sugar to 1 part water, add 2 aemons, sliced thin, and add whatever spices are desired. Place watermelon in the boiling syrup and boil slowly until tender. Pack into clean, hot BALL Jars. Seal immediately.

#### Crab-Apple Honey

Wash crab-apples, remove cores and any defective spots, but do not pare. Cut apples into small pieces or run through a food chopper. Place apples, which have been cut into small pieces, or run through a food chopper, in a preserving kettle with water to cover. Boil for 10 minutes. Measure the pulp and add 3/4 as much sugar as pulp. Cook the mixture until it is clear, and has a jelly-like consistency. Seal in clean, hot BALL Jars.

#### Carrot Honey

1 pint grated raw carrot. 2 lemons, juice.
1 lemon, grated rind. 2 cups sugar.

Mix ingredients well, heat slowly and simmer the mixture until it is thick and clear. Pack into clean, hot BALL Jars and seal at once. Serve with cold meat.





PICKLES used in moderation as a relish, play an important part in the dietary, because they stimulate the flow of saliva and gastric juices, thus aiding digestion. Success in "making pickles" is determined largely by the kind of vinegar used. Best results will be secured if a high grade cider vinegar diluted one half—with water is used.

SWEET PICKLES may be made from many fruits, fresh, canned or dried, as well as from a few vegetables. Green or slightly under-ripe fruits and vegetables make firmer, crisper pickles than those which have fully matured. A spicy syrup is used as the foundation for any variety.

SPICES should be bought fresh for each year's pickling. A mixture of spices commonly known as "pickling spice" may be obtained loose or in packages, or they may be blended at home. They should include whole cloves, peppercorns, stick cinnamon, mace, tiny red peppers, mustard seed, all-spice, bay leaves and root ginger. Spices are usually tied in a square of cheesecloth and cooked with the pickles.

## SWEET PICKLES

Sweet Apple Pickles

2 quarts vinegar 3 quarts light brown sugar. 1/4 ounce of cinnamon bark.

1 tablespoon of whole cloves. 1 peck of ripe sweet apples.

Put vinegar, sugar, and bag containing spices in a kettle and bring to a boil, skim, and then drop in the apples, which have been peeled and cut into quarters or halves. Let the apples cook until they begin to look transparent. Lift them out with a flat spoon, put into hot BALL Jars, fill jars to overflowing with the hot syrup and seal. If there is too much syrup it may be used for a few more apples, or it may be boiled down before pouring over the fruit.

#### Apple Chutney

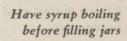
2 quarts apples. 1 quart brown sugar.

2 quarts cider vinegar. 2 pounds seeded raisins.

1 small onion.

Wash, peel, and core the apples. Cook them with the brown sugar and vinegar until they are smooth. When the mixture is thick, place it in a crock and add the raisins chopped fine, the opin an ounce arch of white and black

the onion, an ounce each of white and black mustard seed, two ounces of ground ginger, one tablespoon of salt, and two or three red peppers chopped fine. Mix the ingredients thoroughly, heat them, and let them stand over night. In the morning place the chutney in BALL Jars and seal them. Apple Chutney may be used as a catsup.



39

#### Spiced Apples

2 quarts water. 10 cups sugar.

2 oranges.

2 pounds seeded raisins. 2 teaspoons cinnamon.

11/2 teaspoons ground cloves. 3 quarts chopped apples.

Wash, peel, quarter and core apples and chop them fine. Make a syrup by boiling together for 15 minutes 2 quarts water and 10 cups sugar. Add rind and pulp of 2 oranges, 2 pounds seeded raisins, chopped fine, 2 teaspoons cinnamon and 1½ teaspoons ground cloves. While this mixture is boiling add 3 quarts chopped apples. Boil for 15 minutes and pack boiling hot, into clean, hot BALL Jars and seal immediately.

#### Pickled Barberries

Soak nice, large bunches of barberries in salt and water for 3 hours. Remove from the water and pour scalding vinegar over them. Spice them if preferred. Place in BALL Jars and cover with hot vinegar. These will keep their color and are handsome for garnish.

#### **Pickled Beets**

Cook small beets until tender. Cold-dip and slip skins. Cover with spiced vinegar (see Pickling Syrup) and simmer for 15 minutes. Seal in clean, hot BALL Jars.

Golden wax beans, stems of Swiss chard, or small carrots may be pickled in the same way.

#### Spiced Blueberries

5 pounds blueberries.

6 cups sugar.

2 cups weak vinegar. 1 tablespoon cinnamon. 1 tablespoon cloves. 1 tablespoon allspice.

Tie spices in cheesecloth. Boil sugar, spices and vinegar together for 10 minutes. Add berries which have been washed and well drained and simmer for 10 minutes. Seal in hot, clean BALL Jars.

If cooked too long the berries will have a

shriveled appearance.

#### Cantaloupe Pickles

Select under-ripe cantaloupe. Cut into sections and remove rind. Soak for 3 hours in salt solution (4 tablespoons salt to 1 quart water). Drain off brine and add the welldrained rind to a pickling syrup made from the following ingredients:

4 cups water. 4 cups sugar.

1 cup vinegar. 1 tablespoon cinnamon.

1 tablespoon allspice. 1 tablespoon cloves.

Boil the rind rapidly in this syrup for 10 minutes. Let stand overnight. Drain the syrup from cantaloupe and boil until it coats a spoon. Add cantaloupe and cook until clear (about 1 hour). Seal immediately in clean, hot BALL Jars.

#### **Sweet Pickled Carrots**

2 cups vinegar.

1 cup sugar.

2 tablespoons mixed spices.

Carrots.

Select young and even-sized carrots, boil until tender and pack into clean, hot BALL Jars. Fill the jars with hot pickling syrup made by boiling together for 5 minutes 2 cups vine-gar, 1 cup sugar and 2 tablespoons mixed spices. Seal jars at once.

#### Cherry Relish

Remove pits from cherries. Drain cherries and cover with vinegar solution made in proportion of 3/4 cup vinegar to 1 quart water. Let stand for 6 hours, drain cherries, measure them and add an equal measure of sugar. Let cherries stand overnight. Seal in clean, hot BALL Jars.
The vinegar solution, which has been drained

off, may be used in making various kinds of

sweet pickles.

#### Pickled Crab-Apples

Choose firm crap-apples of uniform size. Do not pare but remove blossom ends. Make a spiced syrup in the following proportions:

1 quart vinegar. cups sugar.

tablespoon cinnamon.

tablespoon cloves. 1 tablespoon allspice.

1 tablespoon mace.

Spices may be tied in a bag. Cook syrup until it coats a spoon, add the apples and heat them slowly to avoid bursting. Simmer them until tender. Pack into clean, hot BALL Jars, cover with syrup and seal at once.

#### Cucumber Sweet Pickles (Ripe)

8 large ripe cucumbers. 1/8 pound stick cinnamon. 1 ounce whole cloves. 6 cups sugar. 11/2 pints vinegar.



Pare cucumbers, quarter, and remove seeds, and cut the quarters into medium-sized pieces. Blanch for 1 minute in salted water (2 tablespoons salt to 1 quart water), drain and simmer in clear water until tender but firm. Drain well. Tie spices in a bag and boil them with the vinegar and sugar for 5 minutes. Pour mixture over the cucumbers. Cover jar and let stand overnight. Drain off syrup, boil for 10 minutes and pour over the cucumbers again. Flavor is improved if this process is repeated several times. Pack the pickles into clean, hot BALL Jars and seal.

#### Spiced Currants

6 cups sugar. 2 cups vinegar. 3 quarts currants. 1 pound seeded raisins. 1 teaspoon salt. 1/2 teaspoon cloves.
1/2 teaspoon allspice.

½ teaspoon nutmeg.

Make a syrup of 6 cups sugar and 2 cups vinegar. Add 3 quarts currants and 1 pound seeded raisins, chopped fine. Boil mixture 30 minutes, add salt and cloves, allspice and nutmeg. Pour the spiced currants into hot, clean BALL Jars and seal at once. If BALL Jelly Glasses are used, cover them

with melted paraffin.

#### Pickled Figs

Make a strong soda solution with boiling water and pour this over just enough figs to cover the bottom of a preserving kettle. Let them remain in this solution five minutes and then drain them thoroughly. Take one quart of vinegar to three pounds of sugar and when dissolved add the figs and cook slowly for one hour. Seal in BALL Jars. If you have some syrup left, more figs may be cooked in it. A spice has filled with whole closes cinnamen. spice bag filled with whole cloves, cinnamon and allspice may be boiled with the vinegar syrup if desired. Some persons, instead of using a soda solution, prefer to soak in rather weak salt water for about six hours, rinse, and then boil as above.

#### Gooseberry Relish

1 quart gooseberries. 1 cup sugar. 2 tablespoons vinegar. Allspice to suit taste. Cinnamon to suit taste. Cloves to suit taste.

Stem and wash the gooseberries, add sugar, and boil 20 minutes. Add 2 tablespoons vinegar and season with allspice, cinnamon, and cloves to suit the taste. Pack while hot, into clean, hot BALL Jars and seal at once.

#### Gooseberry Chutney

1 quart of nearly ripe gooseberries. 3/4 pound raisins.

3 small onions.

1 cup brown sugar. 2 tablespoons mustard (mix this in a little vinegar).

2 tablespoons ginger.

1 tablespoon salt. 2 pints vinegar.

A little turmeric.

Chop the onion, cook all ingredients together until smooth and thick, and seal in Hot BALL

#### Pickled Grapes

Select bunches of grapes of uniform size and ripeness. They should not be over-ripe. Wash, and without removing the grapes from stems, pack the bunches closely into clean BALL Jars, being careful not to crush the fruit. Make a syrup in the proportion of 11/2 cups white sugar to 1 cup white vinegar and boil for 5 minutes. Fill jar with hot syrup and seal.

Purple, white, and red grapes may be pickled in this way. They keep their shape and color and are excellent to serve as a relish or garnish.

#### Grape Ketchup

4 pounds grapes. 1 pound tart apples. 4 cups white sugar. 11/2 cups vinegar.

teaspoon salt.
tablespoons cinnamon.

2 teaspoons allspice. 2 teaspoons cloves.

Wash grapes and remove from stems. Place in a pan, do not add any water, steam them until soft. Cook apples until tender. Press the fruit through a sieve, add remaining ingredients and simmer the mixture for 20 minutes. Seal in clean, hot BALL Jars.

The spices should be whole and tied in a cheesecloth while cooking and be removed before the ketchup is sealed. Ground spices may be used but they give the product a darker

color.

#### Spiced Grapes

7 pounds grapes. 8 cups sugar. 2 cups vinegar. 1 nutmeg, grated.

1/2 tablespoon ground cinnamon.

teaspoon ground cloves. Wash, and slip skins from grapes. Place in preserving kettle and simmer until soft. Press pulp through a fine sieve to remove seeds. Add to pulp the grape skins, sugar, vinegar, nutmeg. cinnamon and cloves. Simmer mixture for 1 hour. Pack while hot into clean, hot BALL Jars and seal immediately.

#### Pickled Peaches

Make a syrup of two quarts of best cider vinegar and 3 quarts granulated sugar. Place this in a kettle with a spice bag containing one tablespoon of whole cloves and one-quarter pound of stick cinnamon. Pare and halve the peaches, leaving in an occasional stone for flavor. Cook the peaches in the syrup until tender, then place in BALL Jars. Fill jars with the vinegar syrup, and seal. The peaches may be left whole if preferred.

#### Peach Chutney

4 quarts peaches.

5 cups vinegar.

1/2 cup chopped onion.

1/2 cup sugar.
4 pound raisins.

1/4 pound white mustard seed. 2 ounces scraped ginger root.

1 ounce red peppers. 1 ounce garlic.

Peel peaches and remove stones. Add 2 cups vinegar to each 4 quarts peaches and cook until soft. Add another cup of vinegar, ½ cup chopped onion, ½ cup sugar, ¾ pound raisins, ¼ pound white mustard seed, 2 ounces scraped ginger root, 1 ounce red peppers and 1 ounce garlic. Mix ingredients well and add 2 cups vinegar. Boil mixture 15 minutes. Pack into clean, hot BALL Jars and seal at once.

Peach chutney may be used as ketchup.

#### Pimento Sweet Pickles

24 bright-red sweet peppers.
1 tablespoon whole cloves.

1 blade mace.

3 inches stick cinnamon.

tablespoon allspice.
 small piece root ginger.

1 tablespoon whole mustard seed.

4 cups vinegar.

7 cups granulated sugar.

Wash peppers, remove seeds and white connecting fibre and allow them to soak overnight in cold brine made in proportion 1 tablespoon salt to 1 quart water. Drain and chop peppers. Heat together the spices, tied in cheesecloth, the vinegar, and sugar. Add the peppers, simmer ½ hour and strain. Pack peppers into clean, hot BALL Jars. Boil down the pickle syrup until thick and pour over peppers until jar is filled. Seal immediately.

This pickle forms a delightful addition to plain salads, salad dressings and jellied meat

or chicken.

#### Pickled Pears

These may be made the same as Sweet Apple Pickles.

#### Ginger Pears

12 pears.

8 cups granulated sugar.

4 lemons—juice.

2 lemons—grated yellow rind. 2 ounces preserved ginger (cut fine).

4 cups water.

Wash, peel and cut pears into small pieces. Mix remaining ingredients together and bring to boil. Add pears and boil slowly until mixture is thick. Pack into hot, clean BALL Jars and seal immediately.



4 quarts plums. 1 tablespoon cloves. 2 cups vinegar. 1 tablespoon cinnamon.

6 cups sugar. 1 teaspoon allspice.

Wash and dry plums. Place them in a stone jar or bowl. Boil vinegar, sugar and spices together for 10 minutes and pour over plums. Cover and let stand overnight. Drain off the liquid and bring to boil, add to plums and cook until plums are clear but not broken. Pack in clean, hot BALL Jars, fill with pickling syrup and seal immediately.

The plums should retain their color and should be firm and plump in appearance.

#### Spiced Green Tomatoes

5 pounds small, green tomatoes or larger tomatoes sliced medium thick.

6 cups white sugar.

2 cups vinegar.

1 tablespoon stick cinnamon.

1 teaspoon whole cloves.

1 teaspoon whole allspice.
1 tablespoon white mustard seed.

Wash tomatoes but do not peel. If small tomatoes are used prick them slightly. Combine sugar, vinegar and spices; bring mixture to the boiling point and pour it over the tomatoes. Let stand for 6 hours, or overnight. Drain off liquid and cook it until it coats a spoon. Add tomatoes and cook until clear. Seal in clean, hot BALL Jars.

Green plum, pear or peach tomatoes are good for this pickle, but large green tomatoes may be sliced and used.

#### Pickled Watermelon Rind

Soak 2 pounds watermelon rind overnight in salt-water (3 tablespoons salt to 1 quart water). Drain off brine and cook watermelon rind in clear water until tender. Add rind to hot pickling solution (see recipe—Pickling Syrup) and boil rapidly until rind is clear. Pack into clean, hot BALL Jars and seal immediately.

#### Pickled Walnuts

Pick young walnuts while they are soft enough

to be pierced with a needle. Soak them in a strong brine for three days, drain them, soak them in cold water for six hours, drain them and place them in a stone crock. To a gallon of vinegar add a cupful of sugar, two table-spoonfuls each of whole peppers and



Don't use rubbers twice

cloves, a tablespoon of allspice, and eight blades of mace; boil the mixture for ten minutes, pour it over the walnuts while it is scalding hot, and let them stand for three days. Then drain off the vinegar, put the nuts into BALL Jars, bring the vinegar to a boil, pour it over the nuts, seal the jars, and store them in a cool place. The nuts must stand at least six weeks before they are ready for use.

#### SOUR PICKLES AND RELISHES

All commercial vinegar should be diluted 1/3 to 1/2 with fresh water before using on Pickles.

#### Beet Relish

1 quart beets, diced.

1 medium-sized white onion.

2 red peppers.

2 teaspoons salt.

1/2 cup grated horseradish.

2 cups vinegar. 3/4 cup sugar.

Cook beets until tender, cold-dip and slip skins. Cut or chop beets, onions and peppers. Combine ingredients and cook mixture until it is clear. Seal in clean, hot BALL Jars.

#### Cabbage Relish

1 quart cabbage, chopped.

quart green tomatoes, chopped.

cup red pepper, chopped.

cup green pepper, chopped. pint white onion, chopped.

cup sugar.

4 cups vinegar.

5 tablespoons white mustard seed.

1 tablespoon celery seed.

2 teaspoon turmeric.

Salt.

Soak cabbage and tomatoes separately over-night in salt water (4 tablespoons salt to 1 quart water). Drain off brine and add the other ingredients. Let stand for 2 hours. Simmer the mixture until it is clear and seal in clean, hot BALL Jars.

#### Carrot Ketchup

1 quart carrots, ground.

1 cup celery, chopped fine.

1 large red pepper or 1 green pepper chopped

1 medium-sized white onion, chopped fine.

2 cups vinegar. 1/2 cup sugar.

2 teaspoons salt.

1/2 teaspoon paprika.



Cook carrots until tender. Chop celery, pepper and onion very fine. Combine ingredients and cook mixture until it is clear. Seal immediately in clear not BALL Jars.

BALL BROTHERS

#### Cauliflower-Cucumber Mustard Pickles

2 cauliflowers.

2 quarts green tomatoes.

6 green peppers.

1 quart very small onions.

24 small cucumbers.

31/2 quarts vinegar. 1 cup sugar.

1/4 pound mustard. 1/2 ounce turmeric.

3/4 cup flour.

Break cauliflower into small pieces, chop tomatoes and green peppers and add the onions and cucumbers without cutting. Cover with brine (using 1 cup salt to 1 quart water) and let stand overnight. Scald mixture and drain thoroughly. Heat vinegar with the sugar and add mustard, turmeric and flour which have been blended to a smooth paste with a little vinegar. Cook for 20 minutes, stirring constantly, add prepared vegetables and when cool place in clean BALL Jars and seal immediately.

The amount of mustard may be increased

or decreased, to suit taste.

#### Celery Relish (1)

1 quart celery, chopped.

1 cup white onion, chopped.

2 large red peppers. 2 large green peppers.

1 teaspoon salt.

2 cups vinegar.

1/2 cup sugar.

1 teaspoon mustard.

Large, coarse stalks of celery may be used for celery relish. Chop the celery and onion. Cook them separately in salted water (2 teaspoons salt to each quart water) until tender. Drain them and add chopped peppers from which the seeds have been removed. Add other ingredients and cook the mixture until tender. Seal immediately in clean, hot BALL Jars.

#### Celery Relish (2)

2 quarts celery, chopped.

2 quarts cabbage, chopped.

1 cup onion, chopped.

1/2 cup salt.

4 cups vinegar.

2 tablespoons white mustard seed.

2 teaspoons celery seed.

1/2 teaspoon clove extract or 12 whole cloves.

1/2 teaspoon cinnamon extract or spice.

1/4 teaspoon red pepper.

1 cup sugar.

8 bay leaves.

Mix vegetables together, add salt and let stand 20 minutes. Add spices, add sugar to vinegar and boil 5 minutes. Drain vegetables and add to hot vinegar. Pack into clean, hot BALL Jars and seal immedi-

Celery leaves may be used to advantage

in this recipe.

#### Cherry Olives

Fill a clean BALL Jar with large sweet cherries, leaving stems and pack fruit as closely as possible. Mix together 1 tablespoon salt and 1 cup cold vinegar for each quart and pour mix-ture into the jar of cherries. Fill the jar with cold water. Seal as usual. Allow cherries to stand for at least 2 weeks before using. These cherries are not heated, and make a firm salt pickle to be used with meats.

#### Chili Sauce

12 large tomatoes, chopped.

2 medium-sized onions, chopped fine.

3 green peppers, chopped fine.

2 tablespoons salt.

3 cups vinegar.

tablespoon mustard. teaspoon cinnamon.

1 teaspoon nutmeg. 2 tablespoons sugar.

Blanch, cold-dip, peel and quarter tomatoes. Chop onions and pepper. Combine ingredients and cook mixture until it is thick. Seal immediately in clean, hot BALL Jars.

#### Chow-Chow

2 quarts green tomatoes.

12 small cucumbers.

4 green peppers 1 small head cabbage.

6 onions.

quart string beans.

cup salt.

gallon vinegar.

tablespoon celery seed.

tablespoon mustard.

tablespoon allspice.

tablespoon pepper.

1 tablespoon cloves.

Chop together tomatoes, cucumbers, peppers, cabbage, onions and string beans. Let the mixture stand in a covered enamel pan overnight. Place mixture in a pan with alternate layers of salt, using 1 cup salt, reserving enough salt for top layer. Let mixture stand 12 hours then drain. To 1 gallon vinegar add 1 tablespoon each of celery seed, mustard, allspice, pepper and cloves; heat to boiling point, add vegetables and cook mixture until tender. Pack the chow-chow into clean, hot BALL Jars and seal at once.

#### Chutney

24 ripe tomatoes, medium size.

6 onions, medium size.

3 red peppers.

3 green peppers.

12 tart apples

1 pound seedless raisins.

cup celery, cut fine.

2 quarts vinegar.

3 cups sugar.

Salt.

Chop vegetables first and then the apples. Cut celery. Combine ingredients and cook chutney until it is thick and clear. Pour immediately into clean, hot BALL Jars, and seal immediately.

#### Can all your surplus

#### Pickled Cucumbers

Scrub two hundred cucumbers with a small brush, put them into a stone jar or bowl, and cover them with scalding hot brine strong enough to float an egg. Let the pickles stand overnight in the brine. In the morning rinse and drain them. Wash thoroughly several BALL Jars and place in the bottom of each a slice of red pepper, a slice of green pepper, and a little horseradish washed, scraped and cut into pieces. Pack the jars full of the cucumbers and on top of each scatter a few cloves, black mustard seed and white mustard seed. Add a lump of alum (size of a quarter) or one-half teaspoonful, if powdered, and a half pint of brown sugar to a gallon of the best cider vinegar and bring it to a boiling heat. Alum is added to make cucumbers crisp, and may be omitted if desired. Fill the jars to overflowing with the boiling vinegar and seal them at once. Sugar may be omitted if a very sour pickle is preferred. It is well to go over the jars a second time before they are sealed and refill them to overflowing. Pickles preserved in this way keep for years. The commercial vinegar at the present time is apt to be treated with acid and if used clear will "eat up" the cucumbers. It is therefore wise to dilute all vinegar, not home-made, with onethird to one-half boiling water.

#### Cucumber Oil Pickles

Slice fifteen-three to four-inch cucumbers thin without paring them, place them in a large jar with alternate layers of salt, and let them stand overnight. In the morning rinse them, place in a bowl and pour over them a mixture of a fourth of a teaspoonful of pulverized alum dissolved in a little vinegar, a cupful of olive oil, a quarter of a pound of whole black mustard seed, an eighth of a pound of white mustard seed, and one and a half teaspoonfuls of celery seed. The alum is added to make the cucumbers crisp. It may be omitted if desired. Mix thoroughly. Place the mixture in BALL Jars and fill them to overflowing with cold vinegar, which has been boiled and diluted with one-third water. Slice a few onions, place them in ice water for three hours, add a few slices to the top of each jar, and seal the jars. Larger cucumbers may be used by decreasing the number proportionately.



#### Cucumber Mustard Pickles (Semf-Gurken)

8 large ripe cucumbers.

4 cups vinegar. 2 cups sugar.

2 tablespoons mustard seed.1 tablespoon mixed whole spice.

Peel cucumbers, remove seeds and cut into long strips. Salt lightly and let stand 24 hours. Drain well. Mix vinegar, sugar, mustard seed and spice and pour over the cucumbers. Cook until soft. Pack into clean, hot BALL Jars and seal at once.

#### Cucumber Ketchup

1 quart ripe cucumbers, large.

1 cup white onions.

2 green peppers, medium-sized.

2 cups vinegar. 1 cup sugar.

2 tablespoons white mustard seed.

Salt.

Cayenne pepper.

Pare cucumbers, cut into quarters and remove seeds. Chop cucumbers, onion and peppers or put through a food chopper. Add a small amount of water to prevent sticking and boil mixture until cucumbers are tender. Add sugar and seasoning to vinegar, and heat. Add mixture and cook until it is thick and clear. Seal immediately in clean, hot BALL Jars.

#### Ripe Cucumber Rings

Select large yellow cucumbers. Pare them and cut into slices ½ inch thick. Soak overnight in salt-water (¼ cup salt to 1 quart water). Drain and cook in clear water for 20 minutes. Drain again and cover with a pickling syrup. (See recipe.) Cook until clear and seal immediately in hot, clean BALL Jars.

#### Spiced Cucumbers

12 ripe cucumbers.

1½ cups sugar.

2 cups vinegar.

1 teaspoon salt.

1 tablespoon cloves, whole. 1 tablespoon allspice, whole.

2 tablespoons cinnamon bark. 1 tablespoon white mustard seed.

Cut cucumbers into slices 1 inch thick or in lengthwise strips. Place in a bowl and sprinkle with ½ cup salt. Let stand overnight. Drain and wash in cold water. Mix the sugar, vinegar and spices and boil for 5 minutes. Add cucumbers



and cook mixture slowly until tender. When done the cucumbers should be clear in appearance, and the liquid should be the consistency of a medium thick syrup. Pack into clean, hot BALL Jars and seal immediately.

#### **Emergency Pickles**

1 pint carrots, cooked and cut into strips.

1 green pepper.

1 red pepper or 2 pimentos, chopped. 3 medium-sized onions, sliced.

1 cup cooked string beans.

2/3 cup sugar. 1 cup vinegar.

1½ teaspoon paprika.
1½ teaspoon salt.

¼ teaspoon turmeric.
Combine ingredients and cook slowly until
mixture is clear. Seal in clean, hot BALL Jars.

#### Horseradish

Carefully scrape horseradish roots and cover them with cold water to prevent discoloration. Drain roots and grind in food chopper. Fill clean pint BALL Jars  $\frac{2}{3}$  full with ground horseradish. Add 1 teaspoon salt and fill jar with white vinegar, and seal. Cider vinegar makes product dark in color.

#### Mixed Pickles

1 quart small cucumbers.

1 pint pickling onions.

1 pint small carrots, or large carrots, quartered.

2 red peppers, seeds removed.

1 pint celery, cut in 2-inch lengths. 4 tablespoons white mustard seed.

1 cup sugar.

4 cups cider vinegar.

4 tablespoons salt.

Soak onions and cucumbers separately for 24 hours, in a brine made in the proportion of 1 cup salt to 1 gallon water. Remove from brine, soak in cold water for 2 hours and drain. Add spices, sugar and vinegar and let stand overnight in a covered vessel. Drain off vinegar, heat it, add vegetables and allow mixture to simmer for 15 minutes. Seal immediately in clean, hot BALL Jars.

#### Winter Dill Pickles

Make a brine by adding half a cup of salt to each four quarts of water; in this soak a hundred medium-sized cucumbers over night. In the morning drain and wipe dry and pack tightly in layers in Ball Jars between cherry leaves and dill. Add small piece of red pepper and a piece of alum the size of a bean to each Jar. Fill the Jars with cold brine made as follows—Boil together ten quarts water, one quart vinegar and two cups of salt. Let this brine stand over night. A cup of mustard seed and cup of horseradish shaved fine may be added to the brine.

#### Mixed Mustard Pickles

1 pint small cucumbers.

1 pint large cucumbers, sliced.

1 pint pickling onions.

1 cup string beans, cut diagonally in 1-inch pieces.

1 pint cauliflower, cut into small pieces.

3 red peppers, chopped.

3 green peppers, chopped.

cup small carrots, or sliced carrots.

pint small, green tomatoes, cut in halves or quarters.

Select cucumbers not longer than 2 inches. Soak all the vegetables in brine (1 cup salt to 1 gallon water) overnight. Drain and soak them in clear water 3 hours. Cover the vegetables with vinegar and water, using for the mixture equal amounts of vinegar and water. Let stand in vinegar for 1 hour and then heat to simmering point. Make a dressing of the following ingredients:

1/4 cup white sugar. 4 tablespoons flour.

4 tablespoons powdered mustard.

1/2 tablespoon turmeric.

1 teaspoon celery salt. teaspoon celery salt.

6 cups vinegar.

Mix dry ingredients and add hot vinegar slowly, stirring to make a smooth paste. Cook mixture in a double boiler until the sauce thickens. Drain vegetables. Pour mustard dressing over them while they are hot, and simmer for 5 minutes. Pack pickles into hot, clean BALL Jars, and seal immediately.

#### Mincemeat

2 pounds lean beef.

pound chopped suet.

4 pounds tart apples.

6 cups sugar.

3 pounds currants.

2 pounds raisins. nutmeg.

½ teaspoon ground mace. 2 oranges.

2 lemons.

1/2 pound citron. tablespoon salt.

Stew beef in as little water as possible until quite tender; cool and chop into fine pieces. Add beef suet, chopped fine, and apples pared, cored and chopped, sugar, currants, raisins, spices, orange and lemon juice, grated rind of the oranges and of 1 lemon, chopped citron and salt. Mix thoroughly and cook I hour. Pack in clean BALL Jars. Seal jars and store in a cool place.

#### **Mock Mincemeat**

3 pounds green tomatoes.

3 pounds apples, chopped.

2 pounds raisins, chopped.

8 cups brown sugar. 2 tablespoons salt.

1 cup suet.

cup vinegar.

2 tablespoons cinnamon.

2 teaspoons cloves.

nutmeg.

Orange peel, if desired.

Chop the tomatoes and drain. Measure juice and add equal amount of water to pulp. Scald mixture and drain off the liquid. Repeat twice this process of adding fresh water, scalding and draining. To the mixture add chopped apples, sugar, raisins, salt, and suet, and cook until clear. Add remaining ingredients and cook mixture until thick. Pack immediately into clean, hot BALL Jars and seal at once.

#### Pickled Nasturtiums

Pick the green seeds (after the flower has dropped off) with stems about one and one-half inches long, lay them in moderately salted cold water for forty-eight hours. Then lay them in fresh cold water twenty-four hours, drain, pack in BALL Jars and cover with boiling vinegar. Seal and stand away at least four weeks before you use them. These may be used as a substitute for capers.

#### Pickled Onions

Pour boiling brine made strong enough to hold up an egg over the small button onions, let them stand twenty-four hours, then drain, and cover with hot vinegar spiced to taste.

#### Pepper Relish

12 red peppers.

12 green peppers.

12 onions.

2 cups vinegar.

2 cups sugar.

3 tablespoons salt.

Chop peppers and onions. Cover with boiling water and let stand for 5 minutes, and drain. Add vinegar, sugar and salt and boil mixture 5 minutes. Pour into clean, hot BALL Jars and seal immediately.

#### Pepper Mangoes

1 doz. red peppers.

doz. green peppers.

2 heads cabbage.

1 teaspoon ground cloves.

teaspoon ground allspice. 4 tablespoons mustard seed.

tablespoons salt.

Cut the tops from one dozen red and one dozen green peppers. Remove the seeds and save the tops. Stand the peppers upright in a pan, put a teaspoonful of salt in each one, cover with cold water, and soak 24 hours. Drain. Cut two large heads of cabbage on a cabbage cutter, add to this one teaspoonful of ground cloves, one tea-



spoonful of ground allspice, four tablespoonfuls of whole mustard and two tablespoonfuls of salt; mix thoroughly. Stuff the peppers with this mixture. Put on the tops and tie tilghtly. Stand them upright in hot jars, and cover with cold vinegar. Put half red and half green peppers in each jar.

Piccalilli

1 peck green tomatoes. 8 large onions. 1 head cabbage. 1 cup salt.

3 peppers, red or green.

Chop and mix together tomatoes, cabbage, onions and peppers. Add salt and let stand overnight. Drain and add the following ingre-

2 quarts vinegar. 2 cups brown sugar.

1/2 pound mustard seed. 2 tablespoons cinnamon.

2 tablespoons ground black pepper.

tablespoon cloves. tablespoon allspice. 2 tablespoons ginger.

1/4 teaspoon cayenne pepper.

Place the cloves, allspice, and ginger in a bag. Boil the mixture for 30 minutes, stir frequently, and pour into clean, hot BALL Jars. Seal immediately. Tomato Mangoes

Select smooth, medium-sized green tomatoes. Cut from the top or stem end a piece sufficiently large to allow the removal of the seeds without breaking the tomato. Stand them upright in a tub or pan with each top by the side of its corresponding tomato, and finish precisely the same as Pepper Mangoes. The flavor of tomato mangoes is improved by placing here and there in the jar a pepper mango.

#### Green Tomato Pickles

1 peck of green tomatoes, sliced. 11/2 ounces of black pepper. 1 ounce of whole allspice. 1/4 pound ground mustard. 1 dozen onions, sliced. 1 ounce of whole cloves.

1 ounce of mustard seed. Put a layer of tomatoes, then a layer of onions, then a sprinkling of salt, then another layer of tomatoes, and so on; let stand over-night. Next morning, drain off all the liquor, put them in a porcelain-lined kettle with all the other ingredients, cover with vinegar, and SIMMER gently fifteen minuts. Put away in glass jars.

2 teaspoons ground mustard.

1 tablespoon whole allspice.

1 tablespoon cloves.

1 tablespoon cinnamon.

1 teaspoon paprika.

Cook tomatoes, peppers and onions together without adding water. Press mixture through strainer, and measure pulp. To pulp (4 quarts) add the salt, sugar and spices. Place whole spices in a bag during the cooking and remove bag before pouring the ketchup into jars. Ground spices, except paprika, will darken ketchup. Long, slow cooking also gives a dark color. Cook ingredients together, except vinegar, rapidly for 1 hour, add vinegar and cook mix-ture until it is thick. Seal in clean, hot BALL Jars. It should be bright-red in color.

BALL BROTHERS

#### Cider Vinegar

Select ripe, sound apples, wash thoroughly and extract juice in a clean cider-press. Place juice in a large receptacle and allow to stand for a few days. Then drain, leaving sediment in bottom undisturbed. Wash out barrels or kegs in which it is to be placed as thoroughly as possible with boiling water. Fill them 3/4 full with the juice. Leave bung out but place in a loose plug of cotton to prevent dirt from falling in. For each five gallons in barrel add one cake compressed yeast dissolved in lukewarm water. Keep bar-rels at a temperature of from 75 to 85° F. if possible. As soon as the alcoholic fermentation ceases (which will take several months), drain out clear liquid, rinse barrels and put the clear liquid back again, filling the barrels 3/4 full. Add from 2 to 4 quarts vinegar containing more or less "mother" for each 5 gallons liquid. Store barrels in as warm a place as possible until vinegar is made; this usually requires from 6 to 12 months. Then fill barrels full and bung them tight.

#### Honey Vinegar

Mix together 1 quart of strained honey and 8 quarts warm water. Allow mixture to stand in a warm place until fermentation ceases. Seal in clean BALL Jars.

The resulting vinegar is white and of excellent quality.

#### Spiced Vinegar

1 quart vinegar.

2 cups sugar.

1 tablespoon cinnamon.

1 teaspoon allspice.

1 tablespoon white mustard seed.

1 teaspoon cloves.

1 teaspoon salt.

Mix ingredients, bring to boil and pour over pickles.

### Tomato Ketchup

1/2 peck tomatoes.

3 red peppers.

2 medium-sized onions, cut fine.

2 tablespoons salt. 1/3 cup sugar.

2 cups vinegar.

2 teaspoons celery salt.

> Can all your surplus

#### Canning Time Table for Standard Fruits

Product	Method of Treatment before Canning	Hot-Water Bath 212° F. (minutes)	Oven 275° F. (minutes)	Syrup
Apples	Wash—pare—core—cut into pieces—place in salt bath—boil 1 minute—pack—cover with boiling syrup.	20	35	Thin
Apricots	Wipe with damp cloth—do not peel—halve and pit—blanch—pack—cover with boiling syrup.	20	35	Thin
Berries Blackberries Blueberries Dewberries Elderberries Huckleberries Loganberries Mulberries Raspberries	Wash — stem — pack in jars — cover with boiling syrup.	20	35	Medium
Cherries	Wash—stem—pit—pack—cover with boiling syrup	20	30	Medium
Currants	Wash — stem — pack in jars — cover with boiling syrup	20	30	Medium
Figs	Wash — place in soda bath — drain — rinse —cover with boiling syrup	20		Medium
Gooseberries	Same as other berries.	20	30	Thick
Grapes	Same as berries.	20	30	Medium
Peaches	Select firm, ripe peaches — blanch—cold-dip—peel — pack — cover with boiling syrup.	20	35	Medium
Pears	Select slightly under-ripe pears — pare — quarter — place in cold salt bath — boil in syrup — pack — cover with boiling syrup.	20	35	Thin
Pineapple	Peel — remove eyes — cut, slice or shred — pack cold — cover with boiling syrup.	30	45	Thin
Plums	Wash — prick skins — pack cold — cover with boiling syrup.	20	45	Medium
Rhubarb	Wash—cut into small pieces—blanch—cold-dip—pack—cover with boiling syrup.	16	30	Medium
Strawberries	Wash—stem—pack—cover with syrup—let remain in syrup several hours—re-heat—fill jars—seal.	20	35	Medium
Orange Pectin	Consult recipe.	30	7500	
Fruit Juices	Crush fruit — heat slowly — strain — pour into jars.	30 (180° F.)		

#### Syrup Table

Syrup	Proportions Sugar and Water	Directions
Thin Syrup	1 part sugar to 1 part water	Boil sugar and water together until sugar is dissolved.
Medium Syrup	3 parts sugar to 2 parts water	Fruit juice may be used in place of water.
Thick Syrup	2 parts sugar to 1 part water	

#### Notes on Time Tables for Fruits

These time periods are based on the use of QUART GLASS Jars. Use same time for pint and half-pint jars. For half-gallon jars add 20% to time as above specified.

If Steam Pressure Cooker is used for fruits, process 10 minutes at 5 pounds pressure. TEM-PERATURES higher than boiling (212° F.) tend to injure the delicate color and texture of most fruits.

For altitudes above 1000 feet increase the time for processing (sterilization) 20% for each additional 1000 feet.

Cover jars with 1 inch of water in Hot-Water

Bath.

Begin counting time for processing when water reaches boiling temperature (212° F.). Fill jar with BOILING syrup to within 1/4 to 1/2 inch of top.

#### Canning Time Table for Standard Vegetables

(Consult Individual Recipe for Unusual Vegetables and Combinations)

Product	Method of Treatment before Canning	Hot-Water Bath (212° F.) (minutes)	Steam Pressure Cooker 10 pounds (minutes)	Oven (275° F.) Hours
Asparagus	Wash — tie in bundles — keep tips above water — boil 5 minutes — pack.	180	40	3
Beans — Green or Wax	Wash — string — boil 5 minutes — pack.	180	40	21/2
Beans — Lima	Shell — grade — boil 5 to 10 minutes — pack loosely.	180	60	3
Beets	Wash — retain 1 inch stems — boil 15 min- utes — cold-dip — slip skins — pack.	120	40	21/2
Brussels Sprouts Cabbage	Wash — boil 10 minutes — pack.	90	40	21/2
Cauliflower	Soak in cold brine — boil 3 minutes — pack.	90	40	21/2
Carrots	Wash—boil 15 minutes—cold dip—skin—pack.	120	45	21/2
Corn (on Cob)	Boil on cob 5 minutes — pack.	180	90	3
Corn	Boil on cob 5 minutes — cut from cob — loosely pack.	180	90	3
Corn and Lima Beans (Succotash)	Boil each product 5 minutes — combine corn and beans — loosely pack.	180	90	3
Eggplant	Peel — cut into ¼ to ½-inch slices — boil (blanch) 3 minutes — pack — do not add salt.	150	60	3
Greens (Including Spinach)	Steam in covered vessel for 15 minutes or until wilted — use smallest possible amount of water — loosely pack.	180	60	3
Kohlrabi and Turnips	Wash — boil 15 minutes — cold dip — pack.	120	45	21/2
Mushrooms	Wash — skin if necessary — boil 3 minutes — pack.	180	60	3
Okra	Wash — Boil 3 minutes — cold-dip (salt bath) —pack.	120	30	21/2
Parsnips	Wash—scrub—boil 15 minutes—cold dip—pack.	120	45	21/2
Peas	Shell — grade — boil 3 to 5 minutes — loosely pack.	180	60	3
Peppers, Bell	Wash—remove seed-pod—boil 5 minutes—flatten—pack.	45	30	21/2
Peppers, Pimento	Wash — place in moderately hot oven until skins blister or crack — slip skins — remove seed-pod — pack dry.	45	30	21/2
Pumpkin	Wash — cut into pieces — cook until tender — mash — pack.	180	60	3
Sauerkraut	Pack — add no water or salt.	60	40	21/2
Squash	Wash — cut into pieces — cook until tender — mash — pack.	180	60	3
Sweet Potato	Wash — boil or steam 15 minutes — peel — pack.	180	90	3
Tomato	Scald and peel — pack whole or cut into pieces —pack.	25	15 at 5 pounds	3/4

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Canning Time Table for Meats, Poultry, Fish

Product	Method of Treatment before Canning	Hot-Water Bath 212° F. One-Period (hours)	Pressure Cooker	Oven 275° F Hours
Meats Lamb Veal Beef Pork	Bleed well — thoroughly cool — pre-cook or pack raw — include small bones — process.	3	11/2	31/2
Poultry Chicken Duck Turkey	Bleed well — thoroughly cool — pre-cook or pack raw — include small bones — process.	3	1½	3½
Wild Game Deer Rabbit Wild Birds Grouse Duck Pheasant, etc.	Bleed well — thoroughly cool — soak in brine 30 minutes — pre-cook or pack raw — process.	3	1½	31/2
Fish Fresh Water Salt Water	Use only fresh fish — bleed well — soak in brine — pre-cook or pack raw — process. (For shell fish see individual recipes.)	3	1½	3½
	Canning Time Table for Soup	s		
Asparagus Puree	Use tough ends — boil until soft — press through sieve — add seasoning — pack hot — process.	3	1	3
Clam Broth	Use fresh clams — boil 10 minutes — add seasoning — pack hot — process.	3	11/2	3
Clam Chowder	Boil mixture 10 minutes — pack hot — process.	3	11/2	3
Fish Chowder	Boil mixture 20 minutes — pack hot — process.	3	11/2	3
Green Pea Puree	Boil peas 1 hour — press through sieve — add salt — pack hot — process.	3	11/2	3
Soup Stock	Cover meat with cold water — simmer 6 hours — add seasoning — cool — re-heat — pack hot — process.	3	1½	3
Vegetable Soup Mixture	Blanch vegetables — pack hot — add salt — process.	3	11/2	3
Tomato Pulp	Blanch tomatoes — cook 30 minutes — pack hot — add salt — process.	45 (minutes)	25 (minutes)	3/4

Notes on Time Tables for Meats and Vegetables

Time periods are based on the use of QUART GLASS Jars. For pint and half-pint jars, five minutes may be deducted for products requiring sterilization periods of one hour or longer. For half-gallon jars add 20% to time as above specified.

Pack vegetables as hot as possible.

Add 1 level teaspoon salt to 1 quart vegetables unless otherwise specified.

Brine used for canning vegetables is made of 21/2 ounces salt to 1 gallon water, or 1 level teaspoon salt for each quart of vegetables.

Add 2 level teaspoons salt to 1 quart meat. Add 1 tablespoon sugar, if desired, to corn and peas.

For vegetables which are especially difficult to can, 1 tablespoon vinegar or 1 tablespoon lemon juice may be added to each quart.

Place jar in Canner immediately after packing. In HOT-WATER BATH, cover jars with 1 inch water. Begin counting time for Processing when water begins to BOIL (212° F.) vigor-

Process for REQUIRED length of time. (See Time Table.)

For altitudes above 1000 feet increase the time for PROCESSING (Sterilization) 20% for each additional 1000 feet.

Reject any product which, upon opening, looks suspicious, or contains any "flat sour," or unnatural odors. Do not taste.

Thoroughly RE-HEAT all canned Vegetables and Meats before using.

Directions for Canning, as given in the Ball Blue Book, do not require the use of canning compounds, chemicals or preserving powders.
BALL BLUE BOOK recipes call for

LEVEL measurements

Ball Blue Book COLD-PACK METHOD is practically the same as the advocated Hot-Pack Method.

#### Approximate Yield of Vegetables-From 50-foot Row

Product	Amount	Product	Amount
Asparagus	40 pounds	Dandelions	1-2 bushels
Beans		Lettuce	25.77.59.78.00.03875
String	½ bushel	Leaf	50 plants
Lima	1/2 bushel (not shelled)	Head	30 plants
Beets		Onions	1-2 bushels
For beet tops	½ bushel	Parsnips	1 bushel
For baby beets	1/4 bushel	Peas	1 bushel
For storing	1 bushel	Potatoes	1 bushel
Cabbage	60-70 pounds	Rhubarb	30-50 pounds
Carrots	1 bushel	Rutabagas	1-11/2 bushels
Cauliflower	10-15 heads	Spinach	1 bushel
Celery	100 plants	New Zealand	1-2 bushels
Chard	25-50 pounds	Squash	
Corn		Hubbard	10-30 pounds
Golden Bantam	6 dozen	Summer	20 pounds
Country Gentleman	6 dozen	Tomatoes	2-3 bushels

#### Approximate Amount of Fruits and Vegetables

Fresh Product	Canned in Quart Jar	Fresh Product	Canned in Quart Jar
1½ quart plums 1½ quart blackberries 1½ quart red raspberries 1½ quart cherries 2 quarts strawberries 1½ quart tomatoes 2 quarts peas (in pods) 3 pounds spinach 2 pounds chard	1 1 1 1 1 1 1 1	2 pounds string beans 2 pounds lima beans, shelled 30 to 40 small beets 30 to 40 small carrots 8 small ears sweet-corn 1 bushel apples 1 bushel peaches 1 bushel pears	1 1 1 1 1 20 18 30

#### Practical Uses for Fruit Jars

#### Home Purposes

Home canning of fruits, vegetables, soups, meats, sea-food and wild game.

Packing and storage of jams, conserves, preserves, marmalades, pickles, syrups, honey and fruit juices.

For storage of salted and brined products. For storage of salt, sugar, spices, starches, flours, cereals, coffee, tea, bread crumbs, nuts,

Packing lard, butter, salad-dressing and chocolate.

As a container for carrying beverages for school lunches, etc.

For cider, vinegar and all beverages. Cream whipper. Clothes sprinkler. Packing and storage of cheese.

Storage of dried fruits, dried vegetables, dried meats, sea-food and wild game.

For storing lemons—(pack raw, cover with cold water and seal).

#### Educational Purposes

Storage, exhibit and classification of all kinds of seeds and grains.

Preserving plant exhibits.

For soil exhibits, classifications of soils for laboratory work.

For storage of laboratory cultures, studies and

For chemical, zoological and technical exhibits to be used at county, state and national exhi-

bitions.

For educational exhibits showing samples of industrial exhibits, such as wool, linen, silk, cotton—showing development from the raw material to the finished product.

For stone and jewel exhibits.

#### Industrial Purposes

For use as containers in exhibiting samples of groceries—cereals, coffees, teas, vegetables and nuts in grocery stores, jobbing houses and wholesale departments.

For exhibition of nails, tacks, staples, screws, nuts, bolts and many other small articles in hardware stores.

As drinking fountains for poultry.

Handy containers for measuring oil for automobiles in gasoline filling stations.

Hand sprayer for garden. Covers for growing plants.

## A Word for Ball Jars

THE SELECTION of the right jar for canning and preserving is of prime importance. Too often the quality of the jar has been taken for granted-just as too little attention has been given to the rubbers and caps. Success in canning is a question of small details, and a perfect jar is as essential to good results as the selection of ingredients and the method of procedure.

BALL Jars are the scientific development of many years devoted to experimenting and practice. The vast resources of the BALL institution have been constantly devoted to the perfecting of the Jars that bear its name.

BALL Jars are products of uniform quality.

That name—blown in the glass—carries assurance to thousands of thrifty housewives that their labor shall not be wasted because of faulty Jars. Always select BALL Jars for successful canning and preserving.

#### Ball Jars are the Only Fruit Jars Made by the Owens Process

The "Owens Process" consists in drawing into the forming molds by suction the exact quantity of glass necessary to make the Jar, this glass being evenly distributed on all sides; then blowing into shape, forming one homogeneous structure. In the old process the neck as well as the sealing shoulder is pressed, while the body of the Jar is blown. This makes two natures of glass which is difficult to anneal, often resulting in Jars twisting off at the neck when screwing

on the Caps.

The Owens Process makes possible an absolutely smooth and perfect shoulder for the

Rubber Ring, insuring a positive, air-tight seal.

The inside finish of the Jar is perfectly smooth, has no sharp offsets to catch any parti-cles of food while being emptied, making it easier to wash, therefore more sanitary.

Ball Owens Process Jars may be readily identified by the even distribution of glass, the smoothness of the finish around the neck, the freedom from blisters, clearness of glass and the strong double shoulder which was originated by the new Ball Process.

This double shoulder has been imitated in appearance, but being made in a different manner does not have the same strength as the

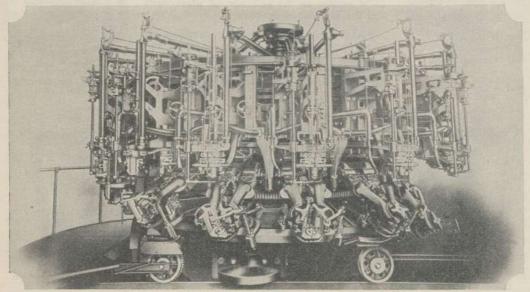
double shoulder in the BALL Jars.

The Ball Company owns the exclusive right to manufacture fruit jars on the Owens machine.

In the BALL factories every part of the Jar is made complete, the metal cap, the porcelain lining of the cap, the wire trimmings for "IDEAL" Jars, the paper and the paper boxes in which the goods are packed. Even the zinc metal for the porcelain-lined caps and BALL Improved screw-bands is rolled in the BALL rolling mills from superior raw material, producing more pliable metal, expressly adapted for the requirements of a Fruit Jar.

Machinery for making all these various things is also designed and built in the BALL works.

All of this insures that the jars and trimmings being made under one management will be more perfect fitting than could be expected where the glass is produced by one maker, and the metal, or some other parts by other makers, neither being able to know just what is neces-sary to make his product fit the product of the other.



Here is shown one of the wonderful Owens automatic machines, used in the manufacture of all sizes of Perfect Mason and Ideal Jars, turning them out at an average rate of 60 jars per minute.

# The Famous "Ball" Line of Fruit Jars, Fruit Jar Caps, Glass Lids, Jelly Glasses and Rubbers

FOR fifty years housewives the world over have depended very largely on BALL Fruit Jars and their accessories to preserve foods of every description. As a result, from a very limited production at first, at the present time more than three-fourths

of all fruit jars sold are branded "Ball."

The principle reason for such wide-spread preference is the distinctive feature of all BALL Jars—an absolutely smooth and perfect shoulder for the rubber ring insuring positive air-tight seal. This feature, so essential to perfect food preservation, is due to the patented Owens Process of manufacture, exclusive right to which we own for the manufacture of fruit jars.

On pages 24 and 25 is a view of the Muncie, Indiana plant where general offices are located. This central plant serves a very large territory, but in order to facilitate prompt movement other factories are located at Huntington, West Virginia; Noblesville, Indiana; Hillsboro, Illinois; Sapulpa, Oklahoma; Okmulgee, Oklahoma; and

Wichita Falls, Texas.



Ball "Perfect Mason" Fruit Jars ONE-DOZ. CASES Half Pts., Pts., Qts., and Half Gals.

The Best Known and Most Popular Fruit Jars Produced

# Ball "Owens Process" "Perfect Mason" and "Ideal" Fruit Jars. Caps and Jellies

The selection of the right jar for canning and preserving is of prime importance. Too often the quality of the jar has been taken for granted—just as too little attention has been given to the Rubbers and Caps.

Success in canning is a question of small details, and a perfect Jar is as essential to good results as the selection of ingredients and the method of procedure.

BALL Jars are the scientific development of many years devoted to experimenting and practice. The vast resources of the Ball Institution have been constantly devoted to the perfecting of the Jars that bear its name.



Ball "Ideal" Fruit Jars ONE-DOZ. CASES Half Pts., Pts., Qts., and Half Gals.



BALL TALL ROUND BOT-TOM JELLY GLASSES With Tin Caps



BALL JELLY MOULDS
With Tin Caps
Moulds the jelly in attractive shape that will not topple over after the first spoonful is taken.



BALL TUMBLER SHAPE JELLY GLASSES With Tin Caps

All Jelly Glasses Made in 1/3 and 1/2 Pint Sizes



Made in Pint, Quart and Half-Gallon sizes.

Ball Genuine Zinc

Porcelain-Lined Caps Fit all sizes and makes of standard Mason Jars.

Ball Genuine Zinc

Porcelain-Lined Caps for Special Wide Mouth Jars Use same style Caps as for Mason Jars but larger size. Packed in 6 dozen cases.

## Ball "Wide Mouth" Jars

Especially adapted for canning whole, large Fruits and Vegetables, large pieces of Meats and Chicken.

Permits contents to come out of Jar without tearing or breaking.

BALL "Special" Wide Mouth Mason Jars— Large Mouth—Opening as wide as any—wider than many—has the same reliable features as the regular Mason Jar. Fitted with Genuine Zinc P/L Caps and Rubbers.

Ball "Eclipse" Wide Mouth Jars—A Jar that will be a delight to use. Same style and fastening as the "Ideal" but with as large an opening as Special Wide Mouth Masons.



Made in Pint, Quart and Half-Gallon sizes.

# Ball "Perfect Seal" and "National" Red Rubbers

Modern methods of canning makes the question of Rubbers of most vital importance. They must be firm and elastic. They must be free from spongy and porous places that will admit air. They must be of proper width, size and thickness.

Ball Red Rubbers embody all these features. They are guaranteed to be equal in quality to any Fruit Jar Rubber on the market.

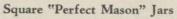


Extra Glass Lids Extra Glass Lids for Ideal Jars—Fit all sizes.

Extra Glass Lids for Eclipse Jars—Fit all sizes Eclipse Jars. Same style as the Ideal Lids but larger in size.



Ball "Perfect Seal" Red Rubbers One or Two-Lip 9/32 Flange, 12-cut Size and quality recommended by U. S. Department of Agriculture.



Identical in every way with the standard Mason Jar except the body is square instead of round. Uses the same Caps and Rubbers as the Round Mason.

#### Square "Ideal" Jars

The same style Jar as the Round "Ideal" except the shape of the body. Uses the same wire fastenings, glass lids, and rubbers as the Round Ideal.

> Ball "Perfect Seal" Red Rubbers Packed with All Ball Jars



Made in Pint, Quart and Half-Gallon Sizes



Made in Pint, Quart and Half-Gallon Sizes

# Index

rage	rage	rage
ACIDS IN FRUITS 5, 26, 28	CANNING, Canning Compounds 25	CONSERVES (Continued)
ALTITUDE CHANGES 47, 49	Cloudiness in Peas25	Grape30
	Counting Time24	Peach30
APPLES, Baked	Covering Jars24	Peach and Apple31
Canned	Equipment 3 Expansion of Vegetables24	Peach and Cantaloupe31
Chutney	Expansion of Vegetables24	Peach and Pineapple31
Cider	Important Rules24-25	Pear and Apple31
Jelly27-28	Labeling Jars	Pineapple and Apple31
Pectin	Loss of Liquid24	Plum
Sauce 5	Methods and Directions 22-25	Quince, Apple and Cranberry. 31
Spiced	Opening Jars	Raspberry and Cherry31-32 Rhubarb
Sweet Pickled38	Reheating Products25 Shrinkage of Vegetables24	Rhubarb and Apple32
and Blueberry Butter29	Sorting and Grading23	Rhubarb and Strawberry32
and Blueberry Conserve30	Storing	Tomato32
and Carrot and Peach Conserve.30	Sugarless Canning25	Tomato and Apple32
and Cherry and Pineapple	Tables and Notes 47-48-49	CORN, Canned12, 48
Conserve30	Temperature Changes	with Tomatoes14
and Grape Butter29	CANNING TERMS23	
and Peach Conserve31 and Pear Conserve31	Selection of Products, Selecting	COVERING JARS24, 47
and Pineapple Conserve31	and Grading, Blanching - Pre-	CRAB APPLE, Butter29
and Quince and Cranberry	Cook, Cold-Dip, Packing, Proc-	Honey
Conserve	essing, Storage, Labeling.	Jelly
and Quince Marmalade34	CANTALOUPE, Pickles39	Pickled
and Quince Preserves36	and Peach Conserve31	and Blueberry Jam32
and Rhubarb Conserve32	CARE OF FRUIT TREES—	
and Tomato Butter29	Inside Back Cover	CRAB MEAT, Canned19
and Tomato Conserve32		CRANBERRY, Jelly27-28
APRICOTS, Canned	CARIBOU15	and Apple and Quince Conserve. 31
and Pineapple Preserves34	CARROTS, Canned12, 48	CUCUMBERS, Catsup44
ASPARAGUS, Canned11, 48	Catsup42	and Cauliflower Mustard Pickles. 42
Puree20	Honey	Pickles
DATE 1100 01 01 01 00 00	Sweet Pickled	Pickles, Mustard44
BALL JARS3-4, 25, 50-51-52-53	and Orange Marmalade33	Pickles, Oil43
BARBERRIES, Pickled39		Pickles, Sweet39
BARRIER CHERRIES35 BEANS, Green, Wax and Lima,	CATSUP, Carrot42	Rings
Canned11, 48	Cucumber	
	Tomato	CURRANTS, Bar Le Duc27
BEAR		Canned
BEEF, Canned	CAULIFLOWER, Canned12, 48 and Cucumber Mustard Pickles. 42	Jelly
Corned		Spiced
BEETS, Canned	CELERY, Relish42	with Red or Black Raspberry 27
Pickled	CHERRIES, Barrier35	and Cherry Conserve30
Relish	Canned 6, 47	and Cherry Preserve35
BERRIES, Canned 5 6, 47	Jelly28	and Raspberry Marmalade 34
Vinegars or Shrubs10	Maraschino35	
BLACKBERRIES, Canned5, 47	Olives	DEFINITIONS,
Cordial, Juice 9	Relish39	Canning Terms22-25
Jam32	and Current Conserve30	DEWBERRIES, Canned5, 47
Jelly	and Current Preserves35	DILL PICKLES44
Preserves	and Pineapple and Apple	DUCK18
Vinegar or Shrub10	Conserve	Door
BLANCHING23	and Pineapple Marmalade 33	EGG-NOG, Fruit10
BLUEBERRIES, Canned 5, 47	and Raspberry Conserve31-32	EGGPLANT, Canned12, 48
Jelly28	CHICKEN, Cutting	
Spiced	Fried	ELDERBERRIES, Canned5, 47
and Apple Conserve30	Packing	EXPANSION OF VEGETABLES.24
and Crab Apple Jam32	Preparation	FIGS, Canned
BRAINS, Canned16	Roast	Marmalade
BRINES49	Time Table49	Pickled
BROTH, Clam20	CHILI SAUCE43	Preserved35
BRUNSWICK STEW (Virginia).21	CHOPS, Canned16	Preserved
BRUNSWICK SIEW (Virginia).21	CHOW-CHOW43	FISH, Canning
BRUSSELS SPROUTS,	CHUTNEY	Chowder20
Canned12, 48	Apple	Clams
BUTTERS Apple 29	Gooseberry40	Crab Meat19
BUTTERS, Apple	Peach41	Fried
Crab Apple	CITRON MELON PRESERVES.35	Frog Legs19
Grape Spiced29		Lobsters
Grape and Apple29	CLAMS, Canned	Oysters
Muskmelon29	Chowder20	Roe
Peach30		Salmon
Pear30	COLD DIP23	Shrimp
Plum	COLD PACK METHOD22	
Red Haw	COMPOUNDS, Canning25	FOREWORD 2
Tomato and Apple29		FOWL, Chicken
CARRACE Conned	CONSERVES— Blueberry and Apple30	Duck
CABBAGE, Canned	Carrot, Apple and Peach30	Goose
	Cherry and Currant30	Guinea Fowl18
CORNED, Beef17	Cherry, Pineapple and Apple30	Turkey18
CANNERS, Types of 3	Gooseberry30	FROG LEGS, Canned19

Page	Page	Page
FRUITS, Approximate Yields50	JELLIES (Continued)	MINCEMEAT45
	Crab Apple	Mock
Canning5-10, 29-49		MOCK
Egg-Nog	Cranberry27	MOCK OLIVES, Canned 8
Juices9-10, 47	Currant26	MOOSE
Macedoine	Currant with Red or Black	
Punch	Raspberry27	MULBERRIES, Canned5, 47
Time Table	General Directions26	MUSHROOMS, Canned12, 48
Vinegars or Shrubs10	Grape27	MUSKMELON, Butter29
FRUIT JARS, Practical Uses50	Mint27	Preserves
FRUIT TREES, Care of	Pectins	
Inside Back Cover	Quince	MUTTON15
Inside Data Cover	Test	
GAME, Bear15	JUICES-Fruit9-10, 47	NASTURTIUMS, Pickled45
Canning	Blackberry Cordial 9	NECTARINES, Canned8, 47
Caribou	General Directions 9	
Moose	Grape Juice9-10	OKRA, Canned
Rabbit	Pineapple	with Tomatoes14
Time Table49	Rhubarb10	
	Strawberry10	OLIVES, MOCK, Canned 8
GARDENER, Fruit and Vegetable		Cherry43
Inside Back Cover	KALE, Canned12, 48	ONIONS, Pickled45
GINGER PEARS41		OPENING JARS4, 24-25
GINGER PRESERVES35	KETCHUP, see Catsup.	
	KIDNEYS, Canned	OPEN KETTLE METHOD22, 24
GLASS JARS3-4, 25, 50-51-52-53	KOHLRABI, Canned12, 48	ORANGE Marmalade34
GOOSE18		and Carrot Marmalade33
GOOSEBERRIES, Canned7, 47	KUMQUAT, Jam32	Pectin
Chutney40	Preserves	OVEN CANNING22-23
Conserve30		
Jelly28	LABELING JARS23	OYSTERS, Canned18
Marmalade33	LAMB15	
Preserves		PACKING
Relich 40	LEMON, Syrup10	Meats, Game, Poultry, Chicken.
Relish40 and Rhubarb Marmalade33	LEMONS, Storing50	PARSNIPS, Canned
	LIQUID, Loss of24	
GOULASH, Canned16		PEACHES, Canned
GRAPEFRUIT, Marmalade33	LOBSTERS, Canned19	Jelly
GRAPES, Butter	LOGANBERRIES, Canned5, 47	Butter
Canned		Jam32
Catsup	MACEDOINE, Fruit 6	Preserves
Conserve	MANGOES, Pepper45	Pickled40
Jelly	Tomato	Chutney
Juice	MARASCHINO, Cherries35	and Carrot and Apple Conserve. 30
Marmalade		and Apple Conserve31
Pickled40	MARMALADES	and Cantaloupe Conserve 31
Spiced40	Carrot and Orange33	and Pineapple Conserve31
and Apple Butter29	Cherry and Pineapple33	PEARS, Canned
GREENS, Canned, Spinach, Chard,	Fig33	Butter30
Kale and others12, 48	Gooseberry	Preserves
GUAVA, Marmalade34	Gooseberry and Rhubarb33 Grape33	Pickled41
GUINEA FOWL18	Grapefruit	Ginger41
	Guava34	and Apple Conserve31
HELPFUL HINTS for Gardeners	Orange	PEAS, Canned
Inside Back Cover	Quince	Green Pea Puree
HOME MAKERS. Inside Front Cover	Quince and Apple34	
	Black Raspberry34	PECTIN, Apple27
HONEY, Carrot37	Red Raspberry34	Commercial
Crab Apple37	Red Raspberry and Currant34	Commercial
Vinegar46	Rhubarb34	PEPPERS, Bell Canned13, 48
HORSERADISH44	Rhubarb and Pineapple34	Pimento, Canned
HOT PACK METHOD22, 49	Tomato34	Relish45
HOT WATER BATH 3, 24, 49	MASON JARS4, 25, 50-51-52-53	Mangoes
HUCKLEBERRIES, Canned5, 47		PICCALILLI46
HUCKLEBERRIES, Canned5, 47	MEATS, Canning 15-16-17-18-19, 49	PICKLES38-46
IDDAT TABS	General Directions15-16-17	Apples Sweet
IDEAL JARS 4	Beef	Barberries39
IMPORTANT RULES24-25		Beets
INSTRUCTIONS, CANNING	Chops	Cantaloupe39
	Goulash	Carrot39
	Kidney16	Chili Sauce43
JAM, Blueberry and Crab Apple32	Lamb	Chow-Chow43
Kumquat32	Mutton	Crab Apple
Peach	Pork	Cucumbers43
Plum	Roast Meat16	Cucumbers
Raspberry33	Sausage Pork	Oil43
Blackberry32	Sweetbreads	Mustard44
Strawberry	Time Table49	Rings
JAR RINGS3-4, 25	Tongue	Cucumber Sweet
JARS, Capacity, Uses50	Veal15-16	Dill
Opening4, 25	MELONS, Citron Preserves35	Emergency44
Sealing 4	Cantaloupe and Peach Conserve. 31	Fig40
Sizes52-53	Muskmelon Butter	Grape
JELLIES	Muskmelon Preserves36	Mived
Apple	Watermelon Preserves37	Mixed
Bar Le Duc	Watermelon Pickled Rind41	Nasturtiums
Combinations	Cantaloupe Pickles39	Onions 4
Commercial Pectin27	METHODS OF CANNING22-25	Peach4

Page Page Page			
PICKLES (Continued)	RASPBERRIES, Canned5-6, 47	SWEET POTATOES, Canned, 13, 48	
Pear41	Vinegars or Shrubs10		
Piccalilli	Jelly	SWISS CHARD, Canned12	
Pimento41	Jam33	SYRUP, Lemon10	
Sour42-46	Marmalade34	SYRUP, Pickling38	
Sweet	Preserves	SYRUP TABLE47	
Walnuts41 Watermelon Rind41	and Currant Jelly27 and Cherry Conserve31-32	TARIES 47 49 40	
PICKLING SYRUP38	and Currant Marmalade34	TABLES47-48-49	
PIMENTO, Canned	RED HAW BUTTER30	TEMPERATURE CHANGES25	
Sweet Pickles41	REHEATING	TIGHTENING IDEAL AND ECLIPSE WIRES 4	
PINEAPPLE, Canned	Canned Vegetables and		
Juice	Meat	TIME TABLE, Fruits47 Syrup47	
Lemonade10	REASONS FOR CANNING 2	Vegetables48	
Jelly28	RELISH39-40, 42, 45	Meats, Poultry, Fish49	
Preserves	Cherry	Soups49	
and Cherry and Apple Conserve.30 and Peach Conserve	Beet42	TOMATOES, Canned14, 48	
and Apple Conserve31	Cabbage	and Corn14	
and Cherry Marmalade 33	Gooseberry40	Creole Sauce	
and Apricot Preserves34	Pepper45	Sauce14	
and Rhubarb Marmalade34	RHUBARB, Canned	Puree	
PLUMS, Canned	Baked 8	Pulp21	
Conserves	Juice10	Conserve32	
Jam33	Jelly	and Apple Conserve32 Marmalade34	
Mock Olives 8	Marmalade34	Preserves	
Preserves	Preserves	and Apple Butter29	
Spiced41	and Apple Conserve32	Spiced Green41	
PORK15-16-17, 49	and Fig Preserves37	Mangoes	
POULTRY15-16-17-18	and Gooseberry Marmalade33 and Pineapple Marmalade34	Catsup46	
General Directions15-16-17, 49	and Strawberry Conserve32	TONGUE, Canned17	
Canning Chicken15, 17-18 Chicken Cutting and Packing17	ROAST MEAT, Canned16	TURKEY18	
Duck	RUBBER Jar Rings3-4, 25	TURKEY BONE SOUP21	
Fried Chicken18	Att and and an annigority traction is no		
Goose	SALMON, Canned18	TURNIPS, Canned12, 48	
Guinea Fowl	SAUCE, Tomato14	USES FOR FRUIT JARS50	
Pigeon	Tomato Creole14		
Time Table49	SAUERKRAUT, Canned13, 48	VEAL15	
Turkey	SAUSAGE PORK, Canned16	VEGETABLES11-12-13-14, 48 Approximate Yields50	
PRESERVES34-35-36-37	SEA FOOD18-19, 49	Approximate Yields50	
Apricot and Pineapple34	SEALING AND STORING 4, 24-25	Asparagus	
Blackberry35 Barrier Cherries35	SHRIMP, Canned19	Beets	
Maraschino Cherries	SHRUBS, Fruit	Bell Peppers	
Cherries35	SOUPS, Canning20-21	Brussels Sprouts12	
Cherries with Currants35	Asparagus Puree20	Cabbage	
Citron Melon35 Crab Apples35	Brunswick Stew21 Clam Broth20	Cauliflower12	
Currants	Clam Chowder20	Corn	
Figs35	Fish Chowder	Eggplant	
Ginger35	Green Pea Puree21	Kale12	
Gooseberries35	Stock	Kohlrabi12	
Kumquat	Tomato Puree	Mushrooms	
Muskmelon	Tomato Pulp	Okra	
Peach	Turkey Bone	Parsnips	
Pear	Vegetable Soup21	Pimiento	
Pineapple	SPICED, Apples39	Pumpkin	
Pumpkin	Blueberries	Sauerkraut	
Ouince and Apple36	Grapes40	Spinach	
Raspberry36	Plums41	Squash	
Rhubarb	Green Tomatoes41	Succotash13	
Strawberry37	Cucumbers	Sweet Potatoes	
Tomato		Swiss Chard	
Watermelon37	SPINACH, Canned12, 48	Tomatoes14	
PROCESSING23	SQUASH, Canned	Turnips	
PUMPKIN, Canned	STEAM COOKER 3	VEGETABLE SOUP MIXTURE.21	
Preserves	STEAM PRESSURE COOKER.3, 47	VEGETABLES, Care of	
PUNCH, Pomona10	STORING23	Inside Back Cover	
Fruit	STRAWBERRIES, Canned6, 47	VINEGAR, Fruit	
PUREES20-21	Vinegars or Shrubs10 Juice10	Cider46	
CHARLES A CONTRACTOR	Juice	Honey46	
QUINCES, Canned	Jam33	Spiced46	
Jelly	Preserves	WALNUTS, Pickled41	
and Apple and Cranberry		WATERMELON, Preserves37	
Conserve31	SUCCOTASH, Canned	Pickled Rind41	
and Apple Marmalade 34	SUGAR AND SUGARLESS	WHEN TO CAN 2	
and Apple Preserves36	CANNING	YIELD OF VEGETABLES.	
RABBIT, Canned18	SWEETBREADS, Canned17	TABLE50	

# HELPFUL HINTS

for the

# FRUIT and VEGETABLE GARDENER

Just What to Do and How, in the Care and Training of Fruit Trees and Small Fruits, will be mailed to you free of charge at your request.

Educational Department
BALL BROTHERS COMPANY
Muncie, Indiana

