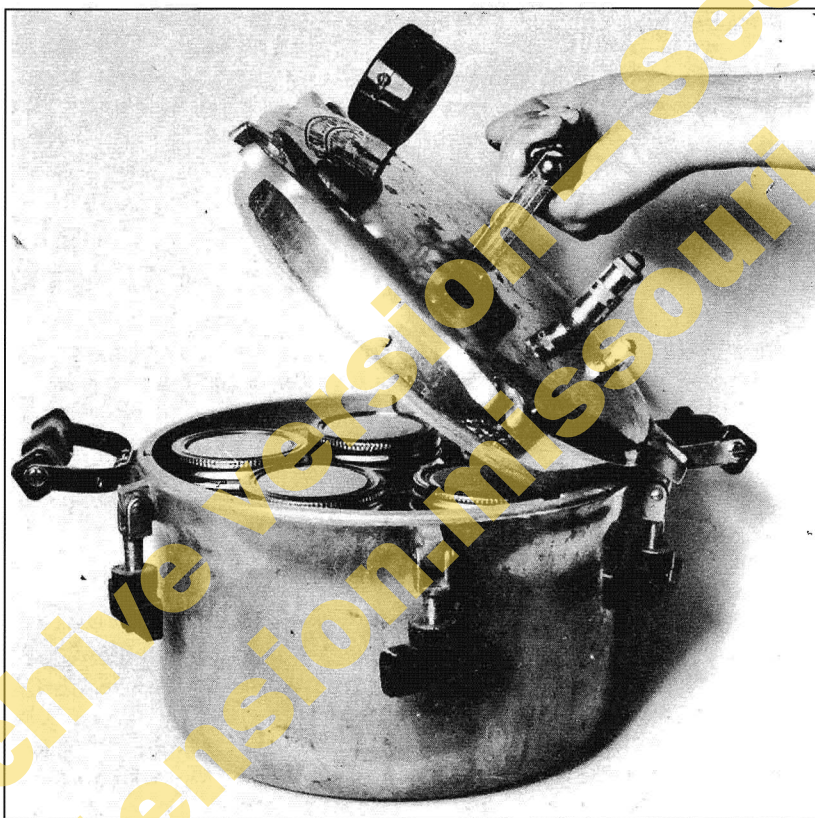


## Care and Use of a Pressure Cooker

FLORA L. CARL AND LETHA K. JOPLING



*The pressure cooker is the easiest, quickest, and safest container for processing non-acid foods as vegetables and meats.*

A pressure cooker is a scientific piece of apparatus and the directions given for its use must be followed explicitly if it is to be a safe piece of equipment for home use. In using and caring for a pressure

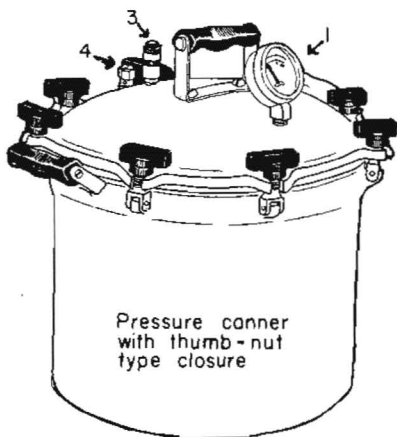
cooker, follow the instructions sent by the manufacturer with the pressure cooker. With any make of pressure cooker, the following precautions should be observed when using the cooker for canning.

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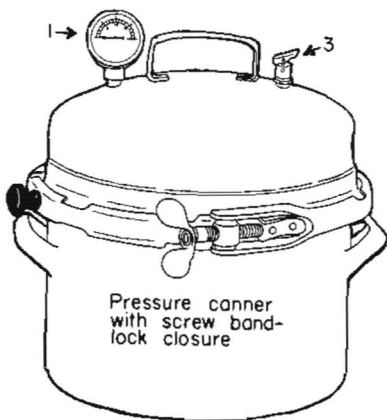
9. Keep a close watch on the pressure cooker, protect it from drafts and regulate the heat so the pressure will not vary as variation in pressure may cause the juice to be forced out of glass jars.
10. When the time is up turn off the heat or move the cooker. Do not try to hurry the cooling of the cooker by setting it on a cold surface or in cold water or by using wet cloths. If glass jars or large tin cans are used, allow the pressure cooker to cool until the gauge registers zero, then immediately open the petcock gradually. There should be no spurt of steam. (If the petcock is opened suddenly or before it reaches zero, or is allowed to stand more than 2 minutes before opening after the pressure has fallen to zero, liquid is pulled from the glass jars and the jars may even be broken.)
11. Begin opening the cooker only after the steam has finished flowing rapidly from the petcock, or damage to jars and serious personal injury may result. Never pry cover loose, if it sticks set cooker back on the stove and heat a few minutes. Be careful not to chip or nick the sealing edges.
12. In removing the cover from the pressure cooker, tilt it (lower part toward you) so the steam will go away from your face and arms. Immediately wipe the moisture from the lid and place it right side up on the table.
13. Remove jars or cans from the cooker, adjust the lids if necessary, and immediately pour the liquid from the cooker. Water left in the cooker may pit, darken or roughen the surface. Cold water poured into a hot dry cooker may cause it to crack or warp.
14. Wash, rinse, and dry the pressure cooker in warm soapy water, giving special attention to the rims of the cover and the cooker which make the sealing joint. Do not put the lid in the soapy water, as water may go up in the pressure gauge. Use a toothpick to clean the opening of the pressure gauge, the petcock, and the safety valve. Clean the safety valve and valve seat. Silver polish may be used to keep them shining clean. Leave no food or salt deposits on canner as they will pit aluminum, may impair glaze on procelain enamel and may cause tinned steel to rust.
15. Store the pressure cooker in a dry, clean place where the cover and the top of the cooker will not be dented, marred, or roughened. Smear threads of screw locks with a thin film of vaseline or any salt-free oil or fat to prevent rust. Crumple newspapers inside of kettle to absorb moisture and odors. Wrap cover in paper to keep dust out of gauge and valve openings and to protect cover edges. Invert cover on kettle. This allows some air circula-

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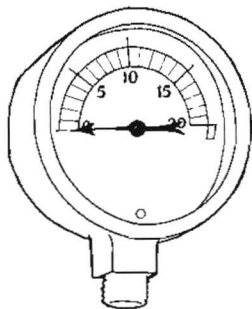
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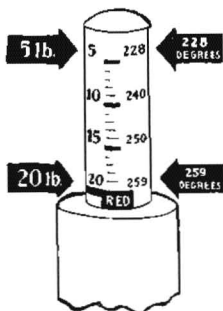
Pressure canner  
with thumb-nut  
type closure



Pressure canner  
with screw band-  
lock closure



Dial  
pressure gage.

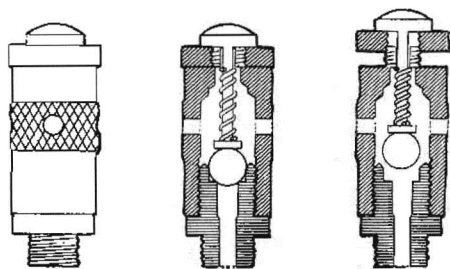


Slide  
pressure gage.

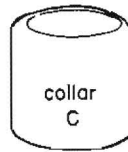
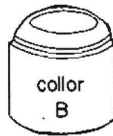
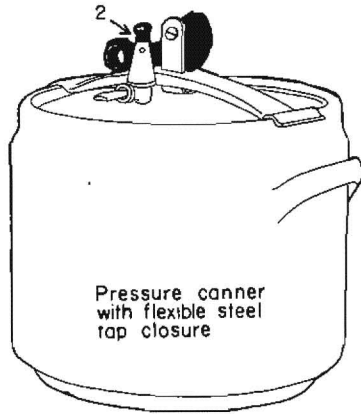
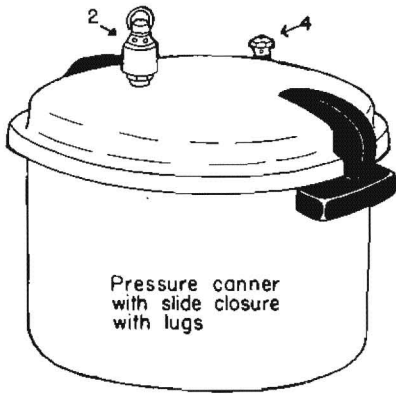
### PARTS OF CANNER

1. Dial pressure gage.
2. Weights used instead of pressure gage.
3. Combination pet cock and safety valve.
4. Safety plug.

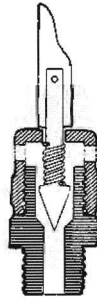
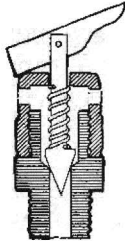
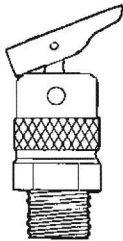
Identify the parts of your canner with the help of your manufacturer's instructions; know the job of each part; remember each part by name.



Ball-and-socket combination pet cock and safety valve: (1) Outside view; (2) cross section, closed; (3) cross section, open.



*Weights used instead of pressure gage.  
For 10 pounds pressure, use A plus B.  
For 15 pounds pressure, use A plus B  
plus C.*



*Needle-type combination pet cock and safety valve:  
(1) Outside view; (2) cross section, closed, (3) cross  
section, open.*

*Cross section of ball-  
and-socket safety valve.*

tion in the canner and protects the gauge from being knocked. A new metal pressure cooker or an aluminum or tinned cooker that has been stored may have an odor or give food a metallic taste. To remove the odor or taste put about an inch of water in the cooker and a pint or more of potato peelings and heat for 15 minutes at 15 lbs., cool, wash the cooker in hot soapy water, rinse well and dry.

#### Check the Cooker

Successful canning depends primarily on ripe, firm, fresh produce; accurate following of reliable canning instructions; and canning equipment which works efficiently. Pressure cookers need care and checking to make certain that they are in the best working condition.

1. Check to see that no steam leaks where the cover and kettle join. The high temperatures needed in pressure canning are obtained by keeping the steam within the canner to build up steam pressure. If you allow too much steam to leak out you may not be able to maintain pressure necessary for processing. In addition, you are likely to boil the canner dry which may be dangerous as well as damaging the cooker. If the lid has a removable composition gasket it may be the cause of leaking. Be sure the gasket is in the groove of the cover, and if not it may be necessary to stretch it a little and replace it in the groove.

All gaskets will need to be replaced occasionally.

2. If the cooker has a dial-face or a slide-type pressure gauge, have it checked before each canning season and oftener if in constant use or if it has received a knock. Ask your home demonstration agent for information on the testing of pressure cooker gauges.

#### Protect the Stove Top

A cooker that sits flat against the top of the stove may cause the surface of the stove to crack or craze if it is enamel, as it usually is on an electric or solid-top gas stove.

Crazing and cracking of the stove top may be avoided if the bottom of the cooker is at least  $\frac{3}{8}$  inch above the surface of the range allowing the air to circulate under the pressure cooker. Since design of heat units varies with make and type of range no general method of raising the canner may be given for all ranges and it is preferable to consult the local utility company or the home demonstration agent for suggestions.

**Caution.**—Steam under pressure is always dangerous if one does not know how to take care of it. Five important things to remember for safety when using a pressure cooker are:

1. Be sure the safety valve is kept clean, free from corrosion, and in working order. If you should forget the cooker and the pressure should run up past the danger mark, then the safety

valve would release the steam, the juice would come out of the jars, and there would be noise, but no danger.

2. Enough water in the cooker to prevent its boiling dry before the processing time is up is a major safety measure.
3. When the cooker is being used never put the lid on without fastening it securely.
4. Always make sure that the petcock is open when the cover is placed on the cooker.
5. Be sure that the petcock is open before beginning to unfasten the cover. Under no circumstances should one begin to unfasten the lid before the pressure is down and most of the steam is out.

#### Using a Pressure Cooker for Cooking

The flavor of a food cooked in a pressure cooker is not the same as when that food is cooked in an oven or in an ordinary kettle with a lid. This is due to the fact that the food is cooked at a high temperature by steam and without air. A pressure cooker is used for the cooking of less tender cuts of meat, of cereals, of dried beans, of brown bread, and of other products which require long time cooking. Green vegetables and other foods that require a short cooking period are rarely ever cooked in a pressure cooker. However, many housewives, during the hot summer months like to put all the different dishes for a meal into one kettle over one burner and get it done quickly.

If a number of foods are cooked in a pressure cooker at the same

time, the odor and flavor of one does not affect the others unless some of the condensed moisture on the lid drops into the food. The moisture condenses on the inside of the cooker as the cooker cools.

When cooking food in the pressure cooker, put 1 to 2 inches of water in the bottom of the cooker, and place the food in pans on the rack of the cooker. In preparing meat stock, soups, stews, and in cooking large pieces of meat, dried vegetables or dried fruits, the food may be cooked directly on the bottom of the cooker. All the flavor from the food is kept in the cooker, so a little seasoning goes a long way. Less water is used when cooking in a pressure cooker than in an open kettle as little water is lost while the food is cooking. Potatoes, carrots, beets, and green beans require no water. When cooking cereals in the pressure cooker, bring them to a boil in one of the inset pans or in another pan, and then set it on the rack in the cooker. Use about  $\frac{1}{3}$  less water in the cereals when cooking them in the pressure cooker. Refresh all dried fruits or vegetables before starting to cook them in the pressure cooker as this will reduce the time needed for cooking them.

Puddings, brown bread and fruit cake may be steamed in small cans or cooked in other pans in the cooker. It is desirable to cook them for 15 minutes with the petcock open to give them a chance to rise, then close the petcock and finish cooking at from 5 to 10 pounds pressure. This prevents their being too moist or heavy.



Meat should be browned before it is put in the cooker or after it is taken out. If it is browned in the bottom of the cooker, there is some danger of burning it before the lid is adjusted and the petcock closed. If there is no evaporation there will be no burning. In cooking roasts or large pieces of meat, 10 minutes per pound is usually allowed with a pressure of 15 pounds. When cooking an entire meal of meats, vegetables, and dessert in the cooker, put the food that requires the longest time to cook on the rack, put the pan with the next longest cooking food in next, and the quickest food in the top pan.

The time for cooking a food will vary with the maturity and quality of the product to be cooked and the length of time it takes to get the pressure up. The suggestions that come with the pressure cooker should be helpful. The cooking time begins when the pressure gauge reaches the required pressure. The high temperature of pressure cooking makes the time even more important to watch and follow than when cooking by other methods. After the cooking time is completed the cooker should be

taken from the heat and allowed to cool so as to release the pressure very gradually. Too sudden release of steam will draw the juice from the food, especially is this important with meats. The petcock should be slowly opened as soon as the pressure is zero. When cooking potatoes, rice and other cereal alone in the cooker, open the petcock immediately after the cooking is completed, so the product will be mealier and dry. Never attempt to loosen the lid until the pressure is down. The gauge should show zero and the petcock be opened wide before loosening the lid.

The following are four suggested complete meals prepared at the same time in the pressure cooker. Cook at 10 lbs. pressure.

Lamb chops, potatoes, green peas or carrots, steamed apples..10 min.

Steamed salmon with egg sauce, rice, stuffed tomatoes, dried apricots .....10 min.

Swiss steak, fresh lima beans, potatoes, apple-tapioca pudding.15 min.

Ham in milk, scalloped potatoes, green beans, peach cobbler..20 min.

**Caution.—Enamel pressure canners, as the wartime models, should not be used for cooking.**

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING  
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