

How to Use Your Pressure Canner

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In order to use pressure canners safely and with satisfaction, it is important to understand them and to keep them in good condition.

Foods can be heated to higher temperatures in the pressure canner than in ordinary utensils. The high temperatures result from cooking under pressure, which is possible because of the steam-tight cover on the canner.

The pressure canner is recommended for canning all non-acid foods, that is, meats and all vegetables except tomatoes or pickled foods. Processing under pressure is not necessary for acid foods.

The pressure gauge shows how much pressure is within the canner. The pressure gauge as well as the safety valve, must work accurately, if the canner is to be safe and if food is to be properly processed. The gauge pointer should be at zero when the canner is not in use, otherwise the gauge is not registering correctly.

Other cases of inaccurate gauges may not be so easily noticed. Four hundred and sixty-four pressure canners were tested in pressure canner clinics held in one area by the War Food Administration. Of these, 53 per cent had inaccurate gauges, and 36 per cent had safety valves that leaked. *These canners were not safe to use.*

Gauges and safety valves should be checked at least once a year, or more often, if the canner is used continuously, or if it has been subjected to damages. Gauges and safety valves may be checked and repaired by mailing the canner cover to a pressure canner manufacturer who offers such service, or to an authorized gauge testing organization. Some county Extension offices are equipped to give this type of service. Contact your home demonstration agent before arranging for service elsewhere.

The safety valve releases steam if the pressure gets too high, usually between 18 and 24 pounds. This prevents the canner from bulging and exploding. On some canners there is a safety plug that melts or opens up, in case the canner goes dry, and so releases the pressure from the canner.

The petcock is used to release the air and steam inside the canner. It is opened and closed by hand. Some canners have the safety valve and petcock combined.

The cover closure device may be one of the following types:

Thumb nuts and lugs (Fig. 1); screw band with thumb nut (Fig. 2); slide with lugs on the cover of the canner and on top at the side of the canner kettle

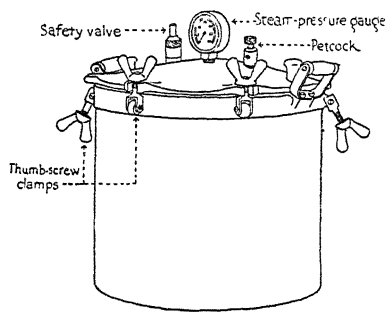


Fig. 1.—Pressure canner with thumb-nut type closure.

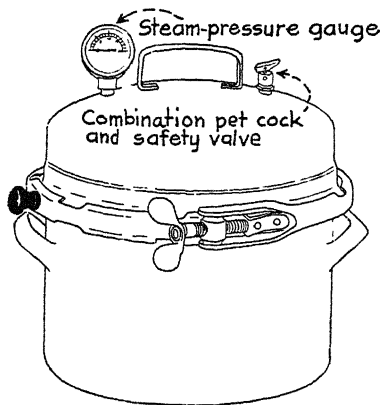


Fig. 2.—Pressure canner with screw band-lock closure.

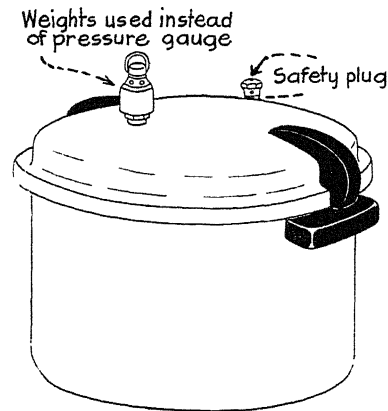


Fig. 3.—Pressure canner with slide closure with lugs.

(Fig. 3); flexible steel top; groove on canner kettle and groove on the cover in which a steel ring fits.

Gaskets for holding the steam in the pressure canner may be one of the following types:

A composition rubber gasket held in the cover; a rubber or synthetic gasket of which the outer edge fits into a retainer; on some, no gasket is used as the seal is formed by the narrow machined areas on the cover and the kettle.

The following are general directions for canning in a pressure canner. Be sure to read and follow the direction book that comes with your canner. *If your canner is new to you, you will find it to your advantage to use with water alone first.* Practice is needed in adjusting the heat to maintain *even* pressure.

Directions for Using Pressure Canner for Canning

1. Be sure the canner is in good condition. It should be clean and have no cracks. The pressure gauge, safety valve and petcock must be *known* to work correctly. All screws and bolts should be tight.
2. Pour boiling water into the canner to a depth of *2 inches*. The canner should be at room temperature before pouring hot water into it. Enough water in the canner will cushion changes in pressure and will help prevent liquid spurting out of the jar.
3. Place the filled jars on a rack in the canner as fast as they are ready. Leave space between the jars so they will not touch each other. Tin cans may be stacked, but if two layers of glass jars are put in the canner there needs to be an extra rack to separate the layers.

4. After the canner is loaded, adjust the cover and fasten tightly. If there are several thumb nuts, fasten those opposite each other moderately tight, then go back over the whole set and tighten each pair.
5. Be sure to leave the petcock open for 7 to 10 minutes after steam escapes in a steady stream through the petcock. This will drive the air out of the canner.
6. Close the petcock. Bring the pressure to the desired point, and process at correct pressure and for the number of minutes given in your time table. The desired pressure will be reached within about 10 minutes.
7. *Keep the pressure steady* to prevent loss of liquid from the jars.
8. At the end of the processing period, take the canner off the heat. Allow the gauge indicator to drop *gradually* to zero. Let the gauge pointer stand at zero for only a few seconds before opening the petcock. If a canner is allowed to stand for any length of time *after zero is reached*, a vacuum is formed which makes opening very difficult and often causes the gauge to register incorrectly thereafter. If tin cans are used, the *petcock* may be opened immediately after the processing time is finished in order to bring the gauge quickly to zero. However, in the case of glass jars, if the petcock is opened even gradually while there is still pressure in the canner, the quick change in pressure may cause the jars to break or to lose liquid.
9. When no more steam escapes from the petcock, loosen the closure device and remove the canner cover. Be careful to tilt the cover with its *top* toward you to throw the steam *away* from your face. Place the cover right side up on the work counter.
10. Remove jars or cans from canner. Be sure to lift the glass jars straight up and out of the canner. Avoid tipping the jars, as tipping may cause some of the liquid to spurt out.
11. Seal immediately all glass jars if they have not previously been tightened. Tin cans may be put in cold water for quick cooling. Glass jars of hot food must be kept out of a draft.

Some General Suggestions for Use and Care of Your Pressure Canner

1. Wash the canner with mild soap and hot water after each use while the canner is still hot. Rinse and dry thoroughly. If a cleansing powder is needed, use only a non-scratchy one, such as whiting. Water, soap, or food particles left on the surface of an aluminum canner may cause pitting and discoloring of the aluminum. If there is a rubber gasket be sure it is free from fats and grease which may damage the rubber.
2. On the canner that does not have a rubber gasket, be sure to keep the rim of both canner and cover clean and smooth. This helps to keep the cover from sticking and also prevents steam leakage. Polish these surfaces with whiting and machine or mineral oil. Do not use a coarse steel wool on the metal gasket area. Wash and rinse. If cast aluminum canner kettles have pitted be sure to wash any foreign material out of the pits and check the

degree of pitting. Deep pits may have weakened the kettle walls so it is no longer safe to use.

3. Wipe the rim of the canner and the rim of the cover each time you put the cover on, in order to insure a perfect seal. If steam leaks at the closure joint of a metal-to-metal gasket, rub the surfaces with vaseline or mineral oil. A canner that lets steam escape will require more than the usual amount of water at the start. If the cover tends to stick, rub the edges with a bit of talc or cornstarch. *Do not use flour.* It would form a paste with steam. *Never use oil where there is rubber.*
4. Clean and dry the safety valve thoroughly after each use. Check with the manufacturer's directions for the procedure for cleaning the valve on your canner. If ball and spring are removable take them out of the safety valve seat and clean with oil and whiting. Be careful to re-assemble canner parts completely and correctly. A serious accident may result, if the safety valve fails to open.
5. When using a canner that has a tinned steel or enamel kettle, be sure no flame touches that part of the canner kettle above the water line, because the heat of the flame might cause the tin to melt or the enamel to craze or crack.
6. Be sure the cover is set correctly on the canner kettle. If there are arrows to show proper placing of the cover, match them up before closing.
7. Let out the air from inside of the canner by leaving the petcock open for 7 to 10 minutes after the steam shoots out. If the air is not all out, the proper processing temperature will not be reached.
8. Reduce the heat under the canner just before the desired pressure is reached to keep from going beyond that pressure.
9. When placing the canner cover on the work counter, place the cover right side up so as to avoid damaging parts.
10. Store the canner in a dry place. Slip the cover into a cloth bag or wrap in heavy paper. *Never turn the cover upside down because* a condensation might take place and the pressure gauge or safety valve may rust. Dirt may also collect in the gauge and cause it to register incorrectly. Store the cover where it will receive no hard knocks.
11. Replace worn or damaged canner parts with parts that have been made for your particular canner by the manufacturer.
12. Clean the bottom of cooker on the outside as well as on the inside, so you can inspect for possible deep pits or cracks.
13. Keep screws on handles tight, and bails in good repair.
14. If any part, such as gauge or safety valve, needs to be removed for repair or replacement, first *use a penetrating oil around the part* to prevent injury to threads. Then be sure to use proper size wrench to avoid extra strain on these parts. If threads have been stripped, have the hole reamed out to the next size and threaded for a bushing in which the gauge or safety valve can be used.