

How to Get the Best From YOUR KEROSENE RANGE

By

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General Directions

Any kerosene range will do its best work and be long "lived" only if it is kept clean and properly adjusted. Manufacturer's directions which come with the stove should be read and carefully followed. So, keep them in an easy-to-reach place.

Use your kerosene range in a well ventilated room.

Use wicks or lighting rings and other parts that are made for your stove, because all parts must fit together properly in order to work right. Don't attempt to repair a leak when there is a lighted flame. Don't permit oil and refuse to collect under the burners or elsewhere about the range.

Place your stove so that it will not be affected by drafts. Don't place it so that fuel tank is near hot stove, radiator, hot air register, or in the sun, because heat will make air in the tank expand and cause oil to overflow.

See that the stove is level. This is especially important for the wickless stove and those with asbestos rings. If a carpenter's level is not available to check this, place a pan partly filled with water on the cooking top of the stove. If water line is equal distance all around from top of pan, the stove is standing level.

Fill the fuel tank before it goes dry. Using the stove without oil causes wicks to burn out quickly.

Use a good grade of kerosene. Don't use a "doped" one, because gasoline is more highly explosive than kerosene, and because chemicals may ruin the metal parts.

Some Troubles and What to Do About Them

Dirt and water are carried into the feed line with the oil and so may clog the line, or prevent oil from traveling up to the wick. This may cause the flame to go out or sputter, and perhaps prevent the burner from lighting at all. To prevent such trouble, it is necessary to clean out the line several times a year. To do this, remove the oil reservoir, tilt the stove slightly by putting something under the end which is opposite the reservoir. Unscrew the thumb nut on the end of the feed line. Don't force this nut. If necessary, use oil to loosen it.

Run a soft wire back and forth in the pipe to help dislodge scale and dirt, but be sure the wire is longer than the pipe. *Don't put a cloth or brush into the pipe.* Now let the kerosene drain into a bucket. Tilt the stove to remove all kerosene and dirt. Flush clean kerosene through the pipe until it comes clear. *Don't use water for flushing.*

This oil that is drained from the line and that which is flushed through cannot be used in the stove because of the dirt and water in it. Replace the cap on the end of the feed line.

If it is necessary to remove burners from the feed line for cleaning them, work carefully with packing nuts and lead washers so as not to damage them.

When the paint on the stove body and frame has worn off, prevent rusting by thoroughly cleaning the exposed surface, and rubbing the smooth surface occasionally with a bit of oil.

If parts of the stove are finished in porcelain enamel, do not wipe with a wet cloth when the surface is hot, because cracking and crazing will result. Use warm soapsuds, but let the enamel cool off before starting the job. Any spills of fruits and vegetables or milk should be wiped up immediately or they will roughen the enamel.

Mica, the material used in the "windows" of some stoves, may be cleaned by wiping with vinegar. Broken mica should be replaced by buying a new strip. It is not necessary to buy a new "window" or "door."

If a stove is not to be used for a season it should be thoroughly cleaned, the feed pipe drained, and metal parts that are likely to rust should be rubbed with oil or unsalted fat. Store the stove in a dry place.

Some Pointers on Top-of-Stove Cooking

After food has come to a boil, turn down flame so the food is just kept boiling. Use a covered utensil, whenever possible. Use small amounts of water for cooking foods. With short chimney and wickless stoves, turn off fuel a few minutes before food is done, for the burner stays hot a while.

Some Pointers on Baking

Uneven baking may happen because the stove is not level.

Pre-heat oven to bring it to desired temperature. Use oven thermometer or heat indicator. Don't bake cookies in deep sided pans; use a metal sheet or turn pan upside down and bake cookies on bottom. Pan or cookie sheet should not be so large as to occupy an entire shelf, as this will prevent circulation of heat.

Don't use bright or shiny utensils for baking. Dark or dull ones absorb heat better. Sometimes a heavy asbestos board placed on top of the oven will help prevent that "burned on bottom, too pale on top" look.

When placing utensils on more than one shelf do not place one directly above the other. Stagger them. Leave some room for heat circulation.

RANGE WITH LONG CHIMNEY BURNER

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The wicks on a well cared for range of this kind will last almost a year, but for best results must be cleaned each day they are in use. If there is no wick cleaner, remove chimney, flame spreader, and collar upon which chimney rests. Turn wick level with top of brass wick tube, wipe with a soft cloth or paper napkin to remove char. Use scissors on wick for no other purpose than cutting off loose threads. If food has boiled over on wick, remove from wick tube and boil in clear water. If it is not possible to remove wick from the tube without force, the wick tube will have to be taken off the line and boiled to loosen the wick. Wipe off any oil or char from the wick tubes.

To replace an old wick with a new one, insert new wick between wick tubes and turn to bottom by means of hand wheel. Do not force. Adjust new wick so it comes just level with top of outside wick tube. It may be necessary, in order to get the wick perfectly level, to remove wick and turn it partly around so that it fits. If it is not level, then burn it off by removing the oil tank and lighting the burner. Adjust to low flame and burn dry. When red char is completely gone, remove chimney, flame spreader, and collar, then wipe off char with soft cloth. Replace reservoir and allow wick to soak up oil about 5 minutes before relighting.

To light burner, open chimney door or tilt back chimney and turn wick up not quite half way between top of wick tubes and bottom of flame spreader. Light in several places and replace chimney.

Let burn at medium blue flame for about 3 to 5 minutes after placing cooking utensil on burner. Then flame may be turned up until there are light yellow tips all the way around the flame. A flame with only one or two yellow tips would cause smoke and soot deposit.

The wick should be wiped clean and loose threads cut off to prevent smoky flame tips.

To extinguish flame, turn hand wheel until flame goes out.

All parts of the burner must be kept clean. Perforations in the flame spreader and the bottom of the chimney must be kept open to allow free circulation of air.

Stained and gummy brass wick tubes can be cleaned by removing them from feed line, taking out the wick and then boiling the tubes in a solution of washing (sal) soda made of about one-half cup of soda to each gallon of water.

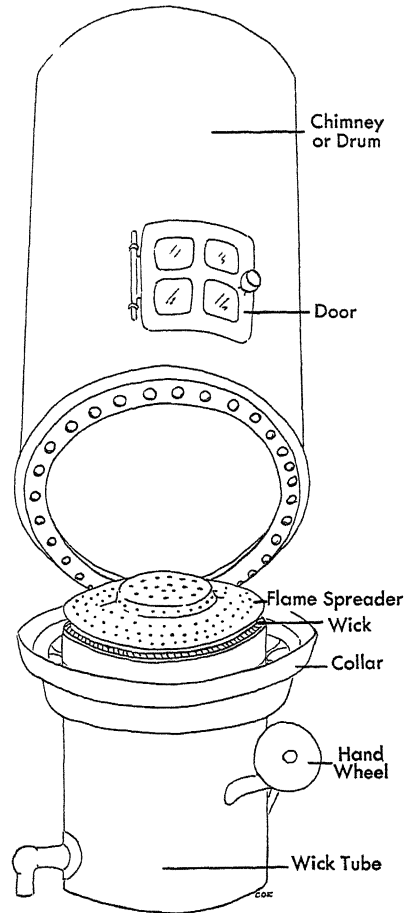


Fig. 1.—Long chimney burner.

Don't boil the lead and fabric packing units.

Before putting the wick tubes in the solution, clean out dirt from inside of wick tubes. A case knife may be run carefully inside the tubes, being careful to avoid damage to the cog wheel. Boiling in the solution will soften the gummy substance.

Polish and dry the tubes; turn upside down to drain before replacing on the line. New packing nuts will be needed, if there is a leak at the feed pipe connection.

If it is necessary to boil the burners on the stove being cleaned, leave one burner on the stove and plug the holes in the feed line where the other burners have been removed.

If food has boiled over on to the wick, clean it off. It may be necessary to boil the wick in clear water.

Troubles with Long Chimney Burner and Their Causes

¶ *Smoky Flame*

1. Dirty wick
2. Uneven wick
3. Wick is turned against flame spreader
4. Holes in flame spreader or bottom of chimney may be clogged
5. Chimney not seated snugly on collar, or rusted out
6. Flame may have been turned high before burner was well heated
7. Chimney door not completely closed or broken mica in door or "window"

¶ *Oil Collects on Wick Tubes and Drips into Drip Tray*

1. Use of poor kerosene
2. Wick turned to high flame before burner parts are well heated
3. Operating stove in a cold room
4. Holes in flame spreader or in bottom of chimney are stopped up
5. Wick or wick tubes are dirty

¶ *Flame Dies Down*

1. Water or dirt in oil
2. Clogged feed line or clogged burner elbow
3. Wick too short to reach oil
4. Empty reservoir
5. Draft

¶ *Flame Creeps Up*

1. Wick is turned against flame spreader
2. Wick turned too high when first lighted
3. Utensil of food is not over flame when flame is adjusted
4. Draft blowing on stove

¶ *Gap in the Flame, or Noise*

1. Wick turned to highest flame before burner is heated
2. Wick turned against flame spreader
3. Holes in bottom of chimney clogged
4. Dirty wick
5. Water in oil
6. Flame spreader or chimney not in right position
7. Draft on stove

¶ *Flame Is Not Very Hot*

1. Wick dirty or uneven or worn
2. Wick not turned high enough
3. Wick turned against flame spreader
4. Feed line or burner bowl clogged

¶ *Wicks Are Used Up Quickly*

1. Wick turned against flame spreader
2. No kerosene in reservoir
3. Stove not level, so wick at high end gets little oil
4. Clogged feed pipe or burner elbow

¶ *Hard to Insert New Wicks*

1. Dirt in wick tube
2. Wick not turned around to such a position that ratchet wheel can take hold of wick carrier

¶ *Flame Crackles*

1. Water in wick tubes

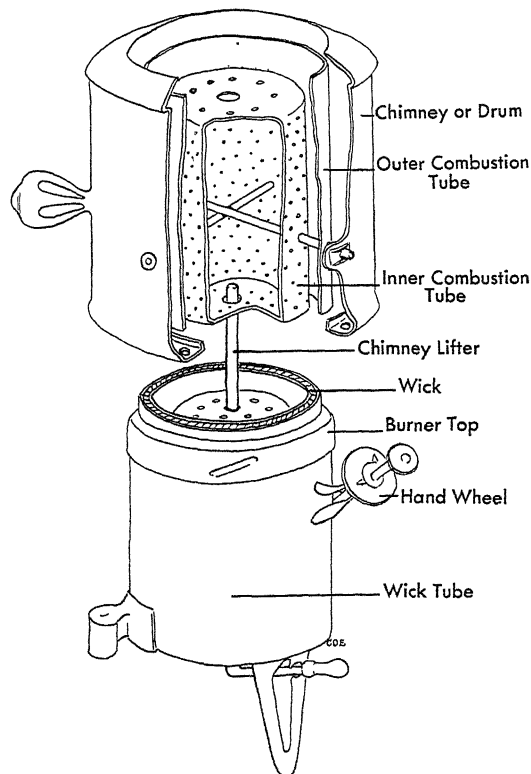
RANGE WITH SHORT CHIMNEY BURNER

Combustion tubes often bulge and crack because food or liquid gets on them when they're extremely hot. The holes in the combustion tubes and in the bottom of the chimney must be kept open, or bulging tubes may result. If inner combustion tube has bulged or cracked, replace it. You do not need to replace the whole burner. A brush may be used to clean the soot and char from these, or, if badly soiled, it may be necessary to boil them.

WICK TYPE. The brass wick tubes may be cleaned by removing the wick and boiling (see "Long Chimney Burners"). Wipe char from wicks every few days. When inserting a new wick, adjust it with the automatic wick stop if provided. It is necessary to reset the wick occasionally as it burns off.

To light the wick in the short chimney type, raise the chimney so that the wick is exposed. Turn up the wick and light it in several places, then lower the chimney. Be sure the chimney rests firmly and evenly on the burner. It will take 3 to 5 minutes for the flame to attain its full height (above the top of the combustion tubes and grate). When the flame gets to its full height then adjust it as desired.

To put out the flame turn down wick slowly as far as it will go. The flame keeps burning for a few minutes after this. *Raise chimney as soon as flame has*



Short Chimney Burner with Wick

gone out, and leave it up until burner is used again. If chimney rests on burner, the combustion tubes become coated with oil and then, when the burner is relighted, the burner will smoke until this is burned off.

If food or water boils over onto the lighted burner the flame will flare up. To prevent this, use a cooking pan that has a bottom wider than the top of the chimney and set the pan squarely over the burner.

Troubles with Short Chimney Wick Burner and Their Causes

¶ *Smoky Flame*

1. Dirty combustion tubes
2. Holes in bottom of chimney stopped up
3. Chimney not resting evenly on wick tube so that it may need turning a little
4. Wick turned too high
5. Uneven wick

¶ *Flame Dies Down*

1. Wick tubes are clogged
2. Feed line or burner elbow clogged
3. Water in kerosene
4. No kerosene in reservoir
5. Wicks too worn

¶ *Flame Is Not Very Hot*

1. Dirty wick
2. Wick not set properly
3. Wick too worn

¶ *Wicks Are Used Up Quickly*

1. Wick turned against flame spreader
2. No kerosene in reservoir
3. Stove not level, so wick at high end gets little oil
4. Clogged feed pipe or burner elbow

¶ *Hard to Insert New Wicks*

1. Dirt in wick tube
2. Wick not turned around to such a position that ratchet wheel can take hold of wick carrier

¶ *Irritating Gas Given Off*

1. Inner combustion tube bulged or cracked

ASBESTOS RING TYPE. Each week remove the asbestos ring and scrape off any carbon that may be on it. Rings need to be renewed about every 4 to 6 weeks. While the ring is out, clean out the burner bowl. Use a darning needle or something of the kind to dislodge anything from the inlet tube. Move the control lever slowly back and forth to make sure that the kerosene runs freely in and out of the bowl.

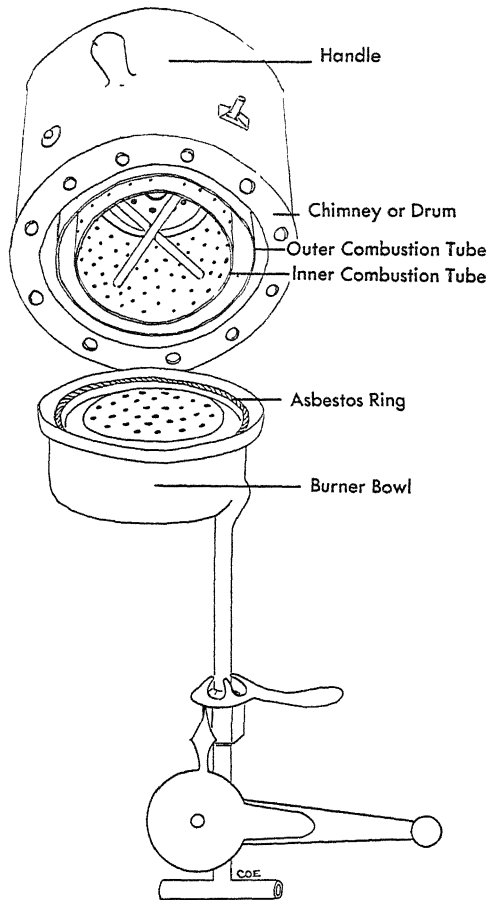
If the burner bowl is very difficult to clean, it may be necessary to remove it from the feed line (see Long Chimney Burner, page 3) and wash out. This is not possible on all makes. Boil in *clear* water if necessary. Before replacing the burner bowl, be sure it is perfectly dry.

If flame is blown out, do not light immediately, as it may be hazardous. If food boils over into the burner and puts out the flame, you may not be able to relight. In which case, let the burner cool enough to handle, remove the chimney and brush out any dirt. Remove the lighting ring and clean it or replace with a new one after cleaning the bowl.

To light the burners on this type of stove turn the pointer to the "On" position. Tip chimney back and when the kindler is moist with oil light in several places then let drum down again, making sure it is in position. A new unused ring may require several minutes to soak up oil, but clean used ones may take only about half a minute. If the ring is hard or badly soiled with gummy substances, it will not light easily.

If ring is not lighted as soon as it is soaked with oil, the oil may travel up on combustion tubes and give off an odor. Turn the pointer to upright position and adjust gradually to desired flame. To get a hot flame, it may be necessary to leave burner at the "light" position if the lighting ring is old, but you'll have a yellow sooty flame in this position with that good ring. To put out flame, turn handle to "Off."

Be sure that all pointers are at "Out" position when burner is not in use or there may be a smoky flame when burner is lighted again. The lighting ring will usually continue to burn about 5 minutes after turning off the fuel.



Short Chimney Asbestos Ring Burner

Troubles with Short Chimney Asbestos Ring Burner and Their Causes

¶ *Smoky or Smelly Flame*

1. Oil left in bowl when ring was not lighted.
2. Burner left at "light" position when cooking. Too high
3. Stove not level
4. Dirty combustion tubes
5. Bulged or cracked combustion tubes

¶ *Flame Flares Up*

1. Amount of fuel increased in bowl too suddenly
2. Water or food spilled onto burner
3. Draft

¶ *Flame Is Not Very Hot*

1. Clogged bowl, or feed line
2. Worn or hard lighting ring
3. Stove not level

¶ *Hard to Put in New Lighting Ring or Take out Old One*

1. Clogged burner bowl
2. Rusted metal holder of asbestos lighting ring
3. Hasn't been changed often enough

¶ *Burner at Opposite End from Tank Will Not Go Out*

1. Stove not level

¶ *Burners Hard to Light*

1. Are not getting enough oil
2. Asbestos ring needs replacing
3. Water in ring or in line

¶ *Irritating Gas Given Off*

1. Inner combustion tube bulged or cracked

RANGE WITH WICKLESS BURNERS

This stove and its burners must be level in order to operate at all satisfactorily. The various burner parts must be kept clean.

Troubles with Wickless Burner Range and Their Causes'

¶ *Smoky Flame*

1. Dirt in the line
2. Dirt in the burner
3. Too much oil turned on at first
4. Flame allowed to go above grates

¶ *Flame Is Not Very Hot*

1. Dirt or water in the line
2. Clogged burner
3. Stove not level

¶ *Burner Hard to Light*

1. Not enough priming of burner
2. Dirty burner

¶ *Flame Climbs Up Too Rapidly*

1. Too much oil turned into burner at first.