

WHAT TO DO—

If Stove Burns With Yellow Flame—

Cause: Insufficient time given to generation.

Remedy: Allow preheater flame to burn for a greater length of time.

Cause: Enlarged opening in gas tip.

Remedy: Put in new gas tip.

Cause: Needle on end of valve stem bent.

Remedy: Remove valve stem (see paragraph 8) and straighten needle.

Cause: Gasoline in burner casting.

Remedy: Close generator valve and open drain nipple beneath burner casting to remove gasoline. Then, close drain nipple and proceed with preheating generator.

If Preheater Will Not Light—

Cause: Generator tip clogged.

Remedy: Open and close preheater valve several times, thus working needle cleaner through tip.

If Stove Does Not Light at All, or Flame Is Weak—

Cause: No fuel or lack of air pressure.

Remedy: See that tank contains clean gasoline, then pump to 20 lbs. pressure.

Cause: Dirty burner caps.

Remedy: Draw a piece of tin or thin knife blade through slots in burner caps.

Cause: Gas tip stopped up.

Remedy: Close fuel valve, then open and close generator valve several times, thus working needle cleaner through tip.

Cause: Generator tube may be stopped up by dirt or carbon.

Remedy: Exchange used generator for reconditioned generator at Coleman dealer store, or clean generator tube as directed in Paragraph 8.

If Gasoline Leaks—

At generator, preheater, or fuel valve—tighten pack nut *just enough* to stop leak.

Through generator—close tank fuel valve.

At gas tip—tighten gas tip.

At tank—send in to nearest branch of Coleman Lamp and Stove Company.

If Pump Does Not Work—

Cause: Air cannot be forced into tank.

Remedy: Push plunger into pump barrel as far as possible, then turn handle one full turn to left to open air valve.

Cause: Plunger leather may be dry.

Remedy: Remove plunger and soften leather with a few drops of oil.

Cause: Leather worn out.

Remedy: Put in new leather.

If water or dirt gets mixed with gasoline remove filler plug to let out air pressure. Use the Coleman Siphon or Suction Pump to remove dirty gasoline. After all the gasoline containing water or dirt has been siphoned out, fill tank with clean fuel, replace filler plug, pump up required amount of air pressure for operation and proceed with lighting of stove as per directions. For further instructions about cleaning tank, see Paragraph 10 inside.

How a Coleman Stove Makes Its Own Gas

THIS STOVE makes its own gas from any good grade of gasoline. There is nothing new about gas vaporized from gasoline. For a quarter of a century The Coleman Lamp and Stove Company has manufactured lighting, heating and cooking appliances which make their own gas.

The method is simple and interesting. The fuel is contained in an air-tight, heavy gauge tank. It is forced by air pressure through the vaporizing tube which is kept at a high temperature by the flame from the master burner. It is in this heated vaporizing tube (called generator) that the gasoline is converted into gas.

This gas, still under pressure, passes on through the generator gas tip which has a very small orifice. This orifice permits the escape of only enough vapor to form the correct mixture with the air in the mixing chamber. This mixture is the burning gas for the stove. It enters the chamber in the burner casting and passes upward through the burner slots where, when lighted, it burns with an extremely hot, clean, blue flame.

In fact, you are burning practically the same substance in your Coleman Stove as you are in a natural gas stove. The natural gas is formed from Hydro-Carbon compounds in the earth. Vaporized gasoline is a manufactured Hydro-Carbon compound giving a hot, clean flame with no odor.

SAVE THESE DIRECTIONS

for the Operation of

**Coleman
AIR-O-GAS**

Range Model

No. 322

Four Things You Should Do

Here is a stove that is built to last for years and all we ask is that you please see that it gets just an even chance to give you good service.

So study this direction sheet carefully, even though the Stove has been demonstrated to you, because faulty and careless operation causes many difficulties. And *be sure* to do these four things:

1st Before you fill Tank, see that Generator and Fuel Valves are closed tight.

2nd Be sure generator tube is thoroughly heated before you open generator valve (paragraph 3, inside) The flame should be blue. If it is yellow the generator tube has not been sufficiently heated (paragraph 4, inside).

3rd When turning out stove: (1) close tank fuel valve firmly by hand, (2) close generator valve, but not too tight. The generator valve is primarily a regulating valve.

4th Use a good grade of fresh, clean, colorless gasoline. Be sure fuel can and funnel are kept clean. Clean tank occasionally. (See paragraph 10, inside.)

The Coleman Lamp & Stove Co.

Formerly The Coleman Lamp Company

General Offices: WICHITA, KANSAS

Branches: PHILADELPHIA, CHICAGO, LOS ANGELES
Factories: WICHITA, CHICAGO and TORONTO, CANADA

LIST OF PARTS AND PRICES FOR COLEMAN AIR-O-GAS RANGE NO. 322

MASTER BURNER PARTS

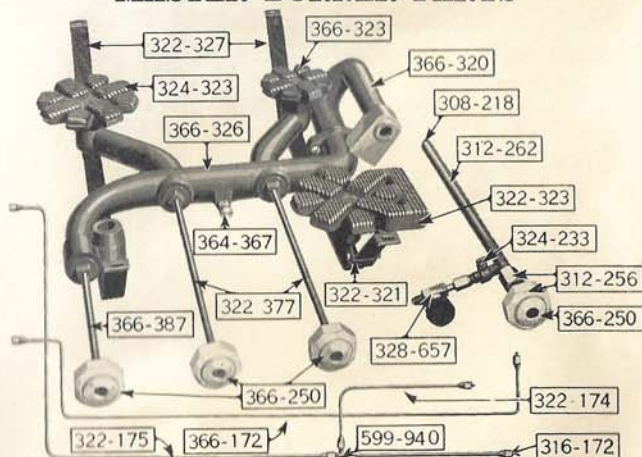


Fig. 6

Retail Price

308-218 Gas Tip (for Master Generator—marked A4).....	.12
308-238 Needle and Tube for Master Generator.....2 for	.09
312-262 Master Generator (Tip marked A4).....	2.40
316-172 Fuel Line (Tee to oven Generator).....	.36
322-174 Fuel Line (Tee to Master Generator).....	.30
322-175 Fuel Line (Tank to Tee).....	.48
322-321 Locating Stop for Master Burner Cap.....	.15
322-323 Master Burner Cap.....	1.35
322-327 Bracket for Master Burner.....	.54
322-377 Auxiliary Valve Stem Complete (Long).....	.84
324-233 Clamp-Saddle and Bolt for Generator.....	.12
324-323 Auxiliary Burner Cap.....	1.20
328-653 Valve Stem and Nut for Generator Shut-off valve.....	.30
328-657 Generator Shut-off Valve Complete.....	.96
364-308 Drain Screw, only.....	.09
364-367 Drain plug, complete.....	.15
366-172 Fuel Line (Tank to Preheater).....	.36
366-250 Auxiliary Valve Wheel and Nut.....	.30
*366-320 Bunsen Casting.....	.90
366-323 Simmering Burner Cap.....	.60
*366-326 Manifold.....	2.25
366-387 Auxiliary Valve Stem, complete (Short).....	.84
599-940 Fuel Line Tee.....	.24

PREHEATER PARTS

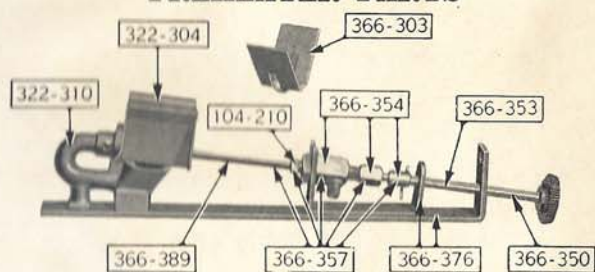


Fig. 9

Retail Price

322-304 Preheater Flame Spreader.....	.30
322-310 Preheater Blast Cup.....	.60
366-303 Heat Conductor.....	.21
366-354 Preheater Valve Body and Nipple.....	.30

OVEN BURNER PARTS

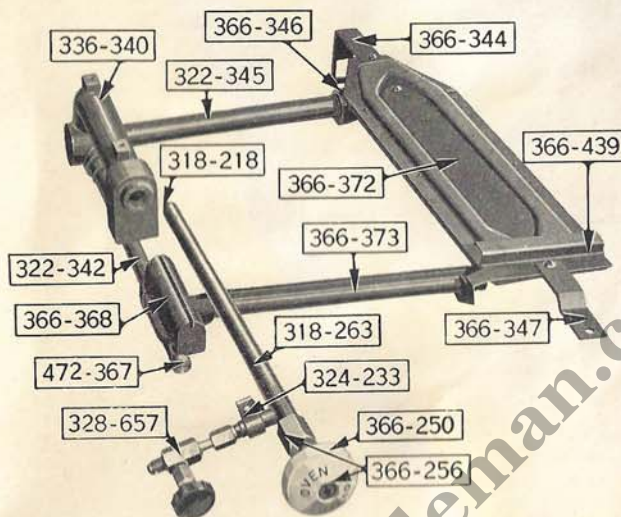


Fig. 7

Retail Price

318-218 Gas Tip for Oven Generator (Marked A0).....	.12
318-263 Oven Generator, complete (Tip Marked A0).....	2.40
322-342 Oven Subflame Nipple.....	.30
322-345 Oven Burner Tube.....	.30
*366-340 Oven Burner Bunsen (Shown as 336-340).....	.96
324-233 Clamp, Saddle and Bolt for Generator.....	.12
366-344 Oven Burner Bracket (Rear).....	.09
366-346 Oven Burner "L".....	.60
366-347 Oven Burner Bracket (Front).....	.09
*366-368 Oven Generator Subflame and Drain.....	1.05
366-372 Oven Burner.....	6.00
366-373 Oven Burner Pilot.....	.36
*366-439 Lighter Baffle.....	.15
471-238 Needle and Tube for Oven Generator.....2 for	.09
472-367 Drain Plug, Complete.....	.15

TANK AND PUMP PARTS

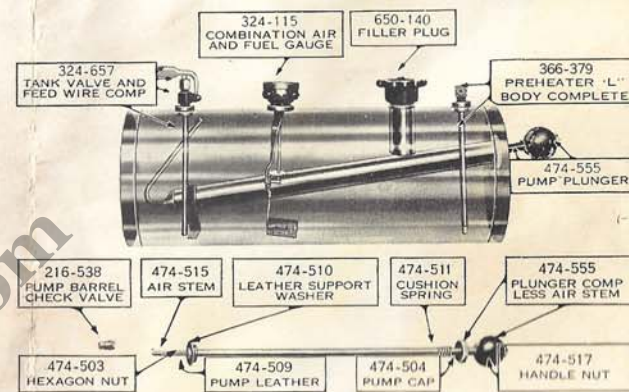


Fig. 8

Retail Price

216-538 Pump Barrel Check Valve.....	.18
310-410 Tank Bracket, each.....	.15
324-115 Combination Air and Fuel Gauge.....	.54
324-191 Tank, complete.....	10.40
324-657 Tank Valve and Feed Wire, Complete.....	1.05
362-950 Wrench.....	.15
366-379 Preheater "L" Body, complete.....	.60
474-503 Hexagon Nut.....	.03
474-509 Pump Leather.....	.15
474-504 Pump Cap.....	.15
474-510 Leather Support Washer.....	.03
474-515 Air-Stem.....	.03
474-517 Nut for Handle.....	.06
474-555 Plunger, complete (less air stem).....	1.20
599-140 Filler Plug (for use with 10 gallon tank).....	1.05
650-135 Filler Plug Core Gasket and Screw.....	.21
650-136 Filler Plug Gasket.....2 for	.09
650-140 Filler plug, complete.....	.75

FRAME PARTS

Retail Price

1030 Broiler Pan.....	\$3.90
*1193W High Shelf.....	2.70
1744 Base Band.....	4.80
*1745 Oven Body O. S. End.....	7.35
*1746 Side Splasher.....	4.20
*1751 Oven Front (Main Frame).....	5.40
1754 Burner Box Bottom.....	2.10
1755 Top Guard.....	2.10
1756 Side Oven Lining L. S., complete.....	5.40
1758 Top Oven Lining.....	2.70
1759 Service Drawer Front.....	1.80
1760 Back Oven Lining.....	2.70
1761 Broiler Bottom.....	1.95
1762 Oven Bottom and Top Part, complete.....	5.40
1763	
1765W Broiler Door Panel.....	3.00
1767 Broiler Door Lining.....	1.50
1771 Service Drawer Body.....	4.50

Retail Price

1801 Oven Door Channel.....	.75
1802 Broiler Door Channel.....	.60
1804W Burner Tray.....	2.70
*1886 Oven Body Top.....	4.50
*2016 Back Splasher.....	3.90
2082 Side Lining next to Cooking Top, complete.....	5.40
2084 Oven Door Panel.....	4.20
2085 Oven Door Lining.....	2.10
2237 Burner Box Outside End.....	2.70
2238 Inner Burner Box Side.....	1.50
2476 Legs (Front).....	2.10
2476 Legs (Rear).....	1.50
5488W Handle—Oven & Broiler Doors.....	.60
*5596 Bracket.....	.45
*5684W End Shelf.....	1.50
5686 Top Grates.....	2.70
5756W Cooking Top Front Strip.....	1.50

Carefully Follow These Directions

If you will do this, you will avoid difficulties that result from incorrect operation and which are due to no fault of the stove

1. To Fill—



Fig. 1

1. See that *Fuel Valve*, the two *Shutoff Valves*, the two *Generator Valves* and *Preheater Valve* are closed. (See Figs. 3 and 4.)
2. Remove *filler plug* by unscrewing to the left. Be careful to see that composition gasket does not fall out. (See Fig. 1.)
3. Fill the tank with a good grade of clean gasoline (capacity, 1 gallon—watch fuel gauge indicator to prevent overfilling). Use a clean funnel. It is a good plan to strain the fuel through several thicknesses of finely woven cloth. Or better still, use a Coleman No. 1 Filtering Funnel (Schuyler Patent) made especially for removing impurities from gasoline. Your dealer has this funnel for sale or can get it for you.
4. Replace and tighten *filler plug* firmly by hand. Do not use wrench.

Caution—Do not fill stove near lighted lamp nor open flame. Be careful not to spill fuel. For convenience a standard safety can is recommended for filling purposes.

2. To Pump—



(USE PREHEATER—Continued from Column 1)
from the match. Please observe that the preheater is so located that its blast flame heats both generator tubes. (See paragraph 6.)

3. Allow the *preheater hot blast flame* to burn about two minutes. Then you are ready to light either the master burner or oven burner, or both. (See paragraphs 4 and 6.)

NOTE—The purpose of this new Coleman Instant-Light Preheater is to thoroughly heat the Generator Tubes so that the fuel is immediately vaporized into gas when the generator valve is opened. The proper operation of the Preheater is an important step in lighting the stove, so care should be taken to carefully follow instructions.

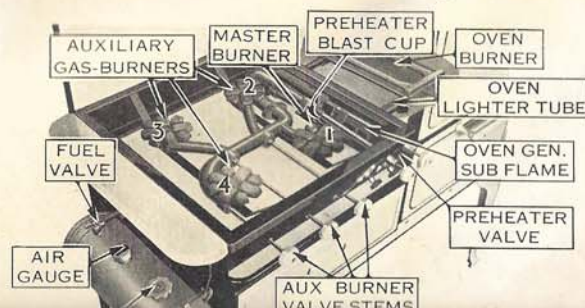
4. To Light No. 1 Master Burner—(See Fig. 4)

1. Preheat thoroughly as in Paragraph 3.
2. Now open *fuel valve* on tank wide to the left.
3. Next open *master burner shutoff valve* (Fig. 3).
4. Then open *master burner generator valve* four or five turns to left. *Master burner* will light from the *preheater*.
5. When *master burner* is lighted, be sure to close *preheater valve* by turning to right.

NOTE—If stove burns with yellow flame, the generator valve has been opened too soon and liquid fuel has accumulated in the burner casting.

REMEDY—Turn out stove by closing generator valve. Then open drain plug beneath burner casting a turn to the left to remove gasoline. After gasoline is drained out of burner casting, close drain plug and repeat the operation of heating generator tube as in Paragraph 3.

5. To Light Gas Burners Nos. 2, 3 & 4



Information for Care of Stove

8. Clean Generator—

If the *generator* should become clogged, open *generator valve* four full turns and then close. Do this several times to remove carbon from gas tip. If the generator is still clogged, clean according to the following directions:

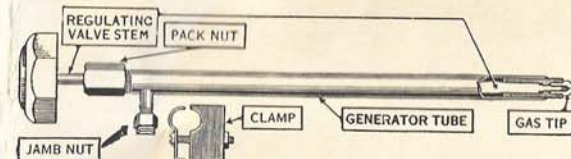


Fig. 5

First—Close fuel valve in top of tank. Disconnect jamb nut which connects shut off valve to generator. Loosen clamp which holds generator firmly to stove frame, and remove generator.

Second—Unscrew generator valve as far as possible. Then unscrew large pack nut and remove valve stem and wheel from generator tube. Then remove gas tip on opposite end of generator by unscrewing to left.

Third—Now use No. 9 size wire to remove carbon from inside of generator tube. Rinse tube in gasoline. Then scrape carbon from generator valve stem and replace valve stem in generator tube. If gas tip is stopped up or if the small hole in tip has been mutilated, replace gas tip with new one.

Fourth—Now reassemble generator and place back into position, tighten clamp and connect feed wires. Be sure jamb nuts are all made gas tight.

NOTE—If you do not care to clean the generator yourself, take it to your dealer. He will clean and recondition it for you at a nominal charge. If for any reason he can not do so, you may send it in to the nearest Branch of the Coleman Lamp and Stove



Fig. 2

1. **Caution**—Before starting to pump, be sure both *generator valves*, the two *shutoff valves*, *fuel valve*, and *preheater valve* are closed (see Figures 3 and 4.)
2. Now open *air valve* (located inside pump barrel) by turning pump handle one full turn to left. Be sure to give it at least a full turn, otherwise you can not force air into tank.
3. Pump until *air gauge* on tank reads between 17 and 22 lbs. For hotter fire, increase air pressure. Pressure may be increased while stove is lighted.
4. Close *air valve* after pumping by pushing plunger into barrel and turning pump handle to right until *air valve* is closed.

3. To Use Instant-Lite Preheater

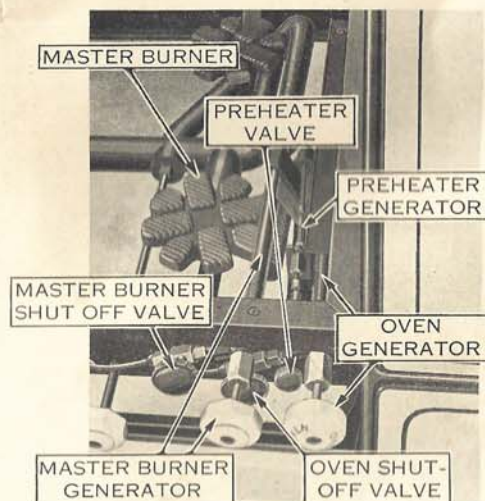


Fig. 3

1. Open *preheater valve* (see Fig. 3) several turns to the left (give it the gas).
2. Light a match and hold over *preheater blast cup*. The gas from the *preheater* will light instantly

(Continued in next column)

1. After *master burner* is lighted as in Paragraph 4, open *master burner valve* wide enough so that there is an extra supply of gas to produce a strong flame in the first or *master burner*.
2. Then, to light any of the auxiliary burners, open *auxiliary valve* on burner you wish to use and light with a match, just like city gas.
3. Make sure *auxiliary valves* are closed when not in use. Valves close by turning to right; open by turning to left.

6. To Start Oven Burner

(Preheat thoroughly as in Paragraph 3.)

1. See that tank *fuel valve* and *oven shutoff valve* are open—but that *oven generator valve* is closed. (See Fig. 3).
2. Heat *oven generator* by following the same instructions as given in Paragraph 3. The Instant-Lite Preheater heats both the *master* and *oven generators* at the same time. That is, you can light both the *master burner* and *oven burner* at the same time from one generation. But if only the *master burner* is in use, then it is necessary to preheat the *oven generator* before you can light the *oven burner*, or vice versa.
3. When the *oven generator* is thoroughly heated, open *oven generator valve* by turning to left and light *oven burner* with a match. The flame from the preheater cup will light the *subflame burner* and *pilot*. If for any reason the *subflame burner* does not light automatically from the preheater cup, light it with a match. When burners are lighted be sure to close *preheater valve*.

NOTE—If subflame burner produces a yellow flame, the oven generator valve has been opened too soon and liquid fuel has accumulated in the burner casting.

REMEDY—Turn out stove by closing generator valve. Then open drain plug beneath subflame burner casting a turn to the left to remove gasoline. After gasoline is drained out of burner casting, close drain plug and repeat the operation of heating oven generator tube.

7. To Turn Off Burners

To turn off burners, simply reverse the lighting process as follows:

1. To turn off *oven burner*, close firmly *oven shutoff valve* located just below *oven generator*. Then close *oven generator valve*, but not too tight.
2. To turn off *master burner*, close firmly *master burner shutoff valve* located just below *master burner generator*. Then close *master burner generator valve*, but not too tight. The generator valves are primarily regulating valves.
3. **NOTE**—The *fuel valve* on the tank need not be closed, except when changing generators. The *shutoff valves* effectively control the flow of fuel to the generators and **SHOULD ALWAYS BE CLOSED** when burners are not in use.

rupted service.

9. To Replace Preheater Generator—

(See Fig. 9)

If preheater becomes stopped up, open preheater valve four full turns, then close again. Do this several times, thus working needle cleaner through tip.

If tip is still stopped up, it will be necessary to replace generator tube (366-389). Complete instructions for changing preheater generator are furnished with each new generator tube.

10. Clean Tank—

If you get bad or dirty gasoline in your tank, use Coleman siphon or suction pump to draw off dirty fuel. If suction pump or siphon is not available, disconnect fuel lines from tank, loosen tank brackets, remove tank and take it outdoors. Remove fuel valve and filler plug cap, pour out contents, put in some clean gasoline, rinse and pour out. Repeat two or three times until tank is thoroughly cleaned.

NOTICE—All Coleman Stoves are regularly equipped with one-gallon fuel tanks. Many users, however, prefer an extra capacity fuel container which can be hooked up with their stoves and thus do away with frequent refilling of the small standard one-gallon tank.

Where a larger sized, outside fuel tank is desired, simply order a 10-gallon Coleman fuel tank and pump, No. 652A, price \$16.20. This will also include feed wire, inside cut-off wall valve, and special filler plug. You can make this hookup in a few minutes. You will then have a very convenient extra fuel supply always under control and outside where filling and handling is reduced to a minimum.