DIRECTIONS FOR THE USE OF THE CANCHESTER KEROSENE INCANDESCENT LAMPS

PRESERVE FOR FUTURE REFERENCE

While the operation and care of this lamp is very simple, we puter to give full particulars regarding its use, so as to provide for all possible tingencies.

- 1. REMOVE THE GALLERY (chimney holder) (Fig. 1) from the burner (Fig. 2), screw the burner into lamp, fill lamp with kerosene (coal oil) and allow wick to soak.
- 2. REMOVE BURNER CAP (B) (See Fig. 2), which contains the carbon-cylinder (C) by a slight turn to the left and lift it out. Soak carbon-cylinder in kerosene for two hours without removing it from burner cap. Then before replacing the burner cap, see that the carbon-cylinder is even all around with the inside top rim of the burner cap. Now replace burner cap pressing it down, turning it to the right as far as it will go and be sure that it is locked.
- 3. ALWAYS MAKE SURE THAT THE CARBON-CYLINDER (C) comes in actual contact with the wick (D). If not, the oil will not properly feed the carbon-cylinder. If by accident the wick has been pulled too far down to raise it remove burner cap (B) and carbon-cylinder, then raise wick from the top of burner by means of a hat jin or similar instrument, until level with the top of the inside burner tube (E) in which the regulator tube (F) slides. Make sure that the spreader (G) is pushed down on its supporting rod (in the center of burner) as far as possible.
- TO ADJUST MANTLE. Take mantle from mantle box, by taking hold of the metal cap. Care must be taken not to touch the mantle iself. Holding the wire frame, slip metal cap over gallery cone (H) (Fig. 1), press down gently as far as it will go and see that the cap rests firmly. Put chimney on straight, setting it down as far it will go, so as to see that the mantle is not exactly in the center of the himney. This is very important. If the mantle is not exactly in the center it can be adjusted by slightly bearing the wire frame. After the mantle has been properly adjusted, remove the chimney and light the mantle with the flame of a lighted match, burning off the paraffine (with which the mantle is coated to strengthen it for shipping). This will cause a flame about 6 inches high which will soon die down. Do not be alarmed. Then carefully put chimney on gallery. If the chimney fits a little too tight, bend the metal prongs (J) slightly outward all around until chimney fits firmly in place but not too loose.
- 5. TO LIGHT. (SEE FIG. 3.) Set the movable indicator (K) straight in line with the stationary indicator (L). Now light a match, letting it blaze up fully, and apply between the top of the carbon-cylinder and the spreader, lighting the inside of the carbon-cylinder all around. By holding the match in position shown in Fig. 3, the carbon-cylinder will light immediately. Allow it to burn about a minute until the flame has risen about four inches, then turn flame low and place the chimney holder with mantle and chimney on burner tube (A), sliding it down carefully, without jarring, as far as it will go.
- 6. TO REGULATE. After lighting, the mantle will not appear bright immediately but the gas will increase as the burner becomes hotter, and the mantle will gradually brighten to its full incandescence. The indicators (K and L) act merely as a guide. When they are in line sufficient gas should be produced to brighten the mantle in a few minutes, but as there are many grades of oil producing more or less gas you will have to sometimes set the movable indicator (K) slightly above, the stationary indicator (L), sometimes below.

NEVER PERMIT THE FLAME TO APPEAR ABOVE THE TOP OF THE MANTLE. If you have turned the flame too high, it will cause the mantle to blacken. If the mantle becomes black, turn the flame down a little allowing it to burn dimly until black spots have disappeared. Now raise the flame a trifle, so that the mantle will appear a little brighter, letting it gradually increase.

7. FOR A FINER ADJUSTMENT of the flame regulator (F) the little attachment with set screw (N) has been provided. After a fairly good light has been obtained turn the set screw until it touches the movable indicator (K). This set screw also acts as a stop to prevent anyone from turning the flame too high after once set.

If small black spots should appear on mantle one turn or two of set screw to the right should be sufficient to lower the flame and burn the black off.

If the mantle is brighter on one side than on the other, turn the gallery around on the burner one-fourth to one-half turn. If this does not remedy it, this is probably because the mantle has not been properly centered. Never allow anyone to tamper with the lamp, as they are liable to turn the flame too high and blacken the mantle.

8. TO EXTINGUISH. Turn button (M) to the left as far as it will go. Never remove gallery and chimney to extinguish light, and never try to blow it out.

9. KEEP ALL PARTS OF THE BURNER CLEAN. Foreign matter, caused by the impurities in the oil, gradually accumulates on the top of the burner cap (B) and inside tubes and especially on the surface of the carbon-cylinder (C). If allowed to remain these accumulations will obstruct the flame, causing yellow streaks to appear, which are liable to blacken the mantle. All these accumulated particles should be carefully wiped off every two days with a soft cloth. (By turning the light down dimly you can see through the mantle whether there are any streaks in the blue flame). If the carbon-cylinder does not light instantly, this indicates that a crust has formed on its surface, closing its pores against the oil. Scrape this crust off carefully with a small knife, using care so as not to dig into or destroy the cylinder; wipe off clean and reverse so the burnt part rests on the top of the wick, or better still, put in a new cylinder. The carbon-cylinder should be replaced about every two weeks, depending largely upon the quality of oil used and care taken in its cleaning. The great advantage of the carbon-cylinder is that it insures an even flame and overcomes the daily trouble of cleaning chimneys, trimming wicks, and is cheaper than renewing wicks, as in common oil lamps.

(See Other Side)



GALLERY FIG.

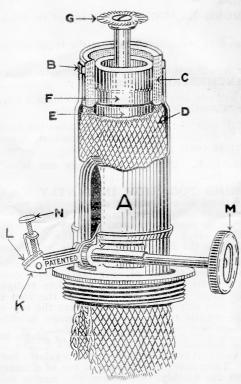


FIG 2

Showing sectional view of burner, also its simplicity and letters enumerating its parts.

Outside burner tube.

Burner cap holding carbon-cylinder.

66 C. Carbon-cylinder.

Wick. D.

Inside burner tube in E. which regulator tube slides.

F. Flame regulator.

Flame spreader.

Movable indicator.

Stationary indicator. Regulator button.

Fine adjusting screw.

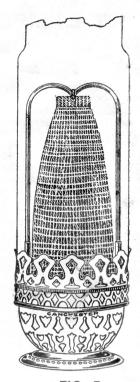
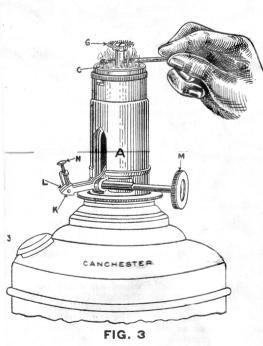


FIG. 5 Showing Gallery with Chimney and Mantle



Showing how to light and the position in which the indicator should be.

PRACTICAL HINTS

1 HOW TO USE LAMP WITHOUT MANTLE. If by accident a mantle breaks and a new one is not handy, the lamp can be used without a mantle temporarily if necessary. To do so, remove gallery and chimney, also spreader (G), and mantle support; then take the little ring (Fig. 4), provided for that purpose only, slip it over the burner tube (A) as far as it will go, light as usual, put on gallery and chimney but not spreader. Regulate flame as in an ordinary lamp. This will give you a very fair light until you obtain a new



mantle. When you get a new mantle, remove the ring from the tube (preserving it for future emergencies), and don't forget to put spreader back again. Keep these directions for future reference.

- 2. USE GOOD OIL. The better the oil, the better the light. The small additional cost of oil should not be considered as an expense; good oil is cheapest in the end. If good oil cannot be obtained a small piece of camphor crystal about the size of a cube of sugar placed in oil fount will purify and assist in obtaining better results.
- 3. WHEN USING A LAMP FOR THE FIRST TIME, or on renewing a carbon-cylinder it is well to omit the mantle, put on the gallery and chimney and let flame burn without mantle for a few minutes to see that it produces a nice blue flame. If flame shows yellow streaks wipe off projecting fibres on carbon-cylinder which cause them.
- 4. NEVER LET LAMP RUN DRY; otherwise, carbon-cylinder will burn out too quickly. If lamp is used not more than three hours an evening, fill every four or five days. Impurities in oils will interfere with obtaining best results, as all kerosene contains more or less foreign matter and water, therefore the oil in the lamp fount should be poured out and refilled with fresh oil about once a month.
- 5. NEVER SET A LAMP DOWN HARD, FOR THE JAR IS APT TO BREAK MANTLE. Always see that the lamp is set or hangs straight.
- 6. NEVER PLACE YOUR LAMP IN A STRONG DRAUGHT, for it is apt to smoke and blacken the mantle.
- 7. USE "CANCHESTER" MANTLES only, as they are adapted to meet the requirements of our burner, and will last the longest.
- 8. NEVER USE A BROKEN CHIMNEY, for it will not only cause the lamp to smoke, but it is also liable to break the mantle. Use "CANCHESTER" Chimneys only.
- 9. NEVER USE A BROKEN MANTLE, as it will not only be impossible to obtain a good light, but it may cause the chimney to break. Use "CANCHESTER" Mantles only.
- 10. THE SPREADER (G) is subjected to the full heat of the flame, which makes the teeth of the spreader brittle. If any of the teeth should be broken off or bent by accident, necessitating a new spreader, we can supply a new one at 10 cents postpaid.
- 11. GALLERIES ARE NOT INTERCHANGEABLE. Users of more than one burner should not change galleries from one burner to another.
- 12. WHEN LIGHTING LAMP AND TURNING TOO HIGH INSTANTLY it will flicker, the same as a common kerosene lamp. If there is a humming or a buzzing sound, this indicates that there is too much air and not sufficient gas. After burning a while the gas will increase and the sound should stop. If, however, it should continue, it may be that the mantle is too large in diameter, permitting too much air to enter, but after the lamp has burned a few hours the mantle will shape itself towards the flame, and the noise will cease.
- 13. IF YOU HAVE ALLOWED THE BURNER TO SMOKE and blacken the mantle, the soot can easily be removed, providing there is at least ½-inch of open mesh above cone (H) not blackened. To do so extinguish the light and let the burner cool off; then re-light the lamp, allowing it to burn dimly, turning up the flame little by little until all the soot is burned off. In stubborn cases, a very small pinch of fine salt slowly sprinkled into the top of the chimney with the light turned low, will help the mantle to clear up much more quickly.
- 14. IF YOU HAVE PERMITTED THE MANTLE TO BLACKEN clear down to the bottom the lamp will smoke and the burner will get hot, but there is absolutely no danger, as the light will extinguish itself in a little while; however, it is better to turn the regulator button to the left as far as it will go without forcing. Then cover the opening in top of chimney with a saucer or small book and the light will go out quickly. Of course, the mantle will now be useless and the carbon-cylinder will be burned out, so both must be renewed. The wick then has to be raised a little so that it will come in contact with the carbon-cylinder. If the top of the wick has also become charred, it will probably be better to renew the wick.
- 15. TO RENEW WICK. Remove the burner cap (B) (See Fig. 2), and remove the old wick by pulling downward, but be careful not to strain the burner. The wick space is diwick by pulling downward, but be careful not to strain the burner. The wick space is divided into two sections by two wick supports which can readily be seen after the wick and carbon-cylinder have been removed, by holding the burner up to the light and looking through it. Insert the linen ends of the wick through top of burner each in its proper section. Then pull the wick through slowly and evenly from the bottom until top of wick is even all around with the top of the inside burner tube (E) in which the regulator tube (F) slides. Use wicks stamped "CANCHESTER."

New wicks will be mailed postpaid to any part of United States and Canada on receipt of 10

Carbon-cylinders furnished for 3 cents each postpaid.

Mantles for 30 cents each. Add 3 cents for postage.

It is advisable to buy a few extra mantles, chimneys and carbon-cylinders, so that you may have them on hand.

(See Other Side)

CANCHESTER LIGHT COMPANY

200-208 N. STATE STREET

CHICAGO, ILL., U. S. A.