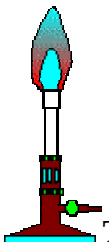
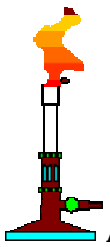
Gas burner adjustment

1. Make sure gas adjustment screw (the bottom screw at the base of the burner) is completely closed off.
2. Turn down the air adjustment barrel (the middle part or the shaft towards the base on the vertical barrel) on the burner to close off the air supply completely.
3. Open the gas adjustment screw a small amount.
4. Turn on the laboratory gas tap and light the burner. Run the match under some water then put in trash can, not the sinks or the water well.
5. Now turn the air adjustment barrel on the burner to admit air until you obtain an almost colorless flame with an inner blue cone which burns quietly. You may have to adjust the gas supply as well. A burner with a yellow flame is getting too little air; a noisy flame indicates too much air. You don't want a large flame, so adjust the appropriate parts to control your flame. The hottest point in the flame is just above the tip of the inner blue cone.

Examples



This is and example of a well-adjusted burner flame



And this is an example of poorly adjusted burner flame

After use

1. Turn off the gas supply and remove the burner from your lab setup.
2. Let cool then close off gas adjustment screw and air adjustment barrel.
3. Remove hose and place hose and burner in the cabinets at the end of the lab bench.

Reference:

1. Smith, Francis W., *"Laboratory Exercises in Chemistry"*. August, 1983
2. Pictures: http://www.fordhamprep.com/gcurran/burner.htm

Calvin Austin, Youngstown State University, August 2007