

Miles Stair's Wick Shoppe

Quality & Service Since 1997

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INSTALLING WICKS IN P&A ROYAL BURNERS

The Plume & Atwood "Royal" burner was introduced in 1890 and continued to be sold into the 1950's and 1960's. Many "Royal" burners were sold to other lamp manufacturers (including drop-in fonts in GWTW lamps) such as Fostoria, Consolidated, Trenton Lamp, American Lamp & Brass, etc. Many of the burners and drop-in fonts were not marked as being Royal burners made by P&A and quite a few of those burners made for others had their brand name on the flame spreader. P&A marketed Royal lamps under the trade names "Royal Electric," "Naugatuck," "Magnet," "Colonial," "Plumwood" as well as P&A branding, using various shapes of named, marked flame spreaders.

Early (1890 - 1892) Royal burners used a wick-rod-lift rod system, burners made from 1893 until 1897 had a wick lift ratchet system mounted on the font with long "fingers" with claws at the end to secure the wick, and burners made from 1898 until the early 1960's used a wick sleeve and the wick knob was mounted on the burner.



1893 - 1897



1897 - 1960's

One unique distinction of the #2 Royal burners is they used a thick wick - not the standard Rayo wick. Exact measurements of the draft tube and outer wick tube varied over the 70 year span of production, but on average the draft tube was 1.40" OD and the outer wick tube 1.80" ID. By comparison, a typical Rayo had a draft tube of 1.43" and an outer wick tube of 1.600" ID. The reason for the thick wick was to have more capillary fibers in the top of the wick surface, thus a lower wick height when burning would produce the same amount of light as a Rayo or Miller with their wick raised higher.

When installing a new wick in a #2 Royal burner the draft tube **MUST** be clean and polished because roughness not only inhibits wick movement, it effectively increases the draft tube diameter.



INSTALLING WICKS IN EARLY P&A ROYAL BURNERS

A new wick must be fitted inside the “fingers” and under the connecting loop which is attached to the wick raiser. The wick “fingers” are held in place by the outer wick tube when the burner is in place. No. 1 size Royal burner shown at far right.



INSTALLING WICKS IN LATER VERSION P&A ROYAL BURNERS

The wick sleeve from 1897 and up Royal burners is shown at right when removed from the burner. The wick must fit inside the wick sleeve without any wrinkles or folds. The wick is then carefully pulled down by the wick tails over the center draft tube. It often helps to invert the burner and use the center draft tube to smooth out the wick and eliminate folds.



WICK HEIGHT FOR INSTALLATION

Center draft lamp wicks are installed so the wick retracts about $\frac{1}{2}$ " below the top of the wick tubes **WHEN FULLY LOWERED** to reliably extinguish the flame when the wick is lowered. When the wick is fully raised a considerable amount of wick which can be exposed - up to $1 \frac{1}{2}$ " of wick - **DO NOT LIGHT IT THAT WAY!** Only $\frac{1}{4}$ " of wick is raised (exposed) when burning the lamp so there is a considerable amount of wick available for use so that the wick need not be raised until it has been burned for quite some time.

BEFORE THE FIRST LIGHTING - LEVELING THE WICK

The new wick must be level on top to avoid flame spikes. You simply cannot trim the wicks perfectly even with scissors. Set the lowest section of the wick $\frac{1}{16}$ " higher than the wick tubes. Put a couple of eyedroppers full of kerosene or alcohol on the top of the wick, put in the flame spreader, light the wick and put on the chimney. After the kerosene burns off the cotton wick itself will burn down level with the wick tubes. Rub the charred wick down with a finger, cloth or stick in a circular motion around the wick tube to get the charred wick even. Be consistent; rub the same direction (clockwise or counter-clockwise) every time. This may need to be repeated several times on thick lamp wicks.