

THIS WEEK IN METALWORK

Gas Lighting

May 19th, 2010 by [David Baird](#)

For many years Historical Arts and Casting has been manufacturing light fixtures. For the most part, these fixtures are of a historical flavor. Comprised of many intricate sculptural cast components all assembled together to create a reality that once began in an architect's imagination.



Gas Pedestal Lantern - Ohio State House, Columbus, OH

To date I have supervised the construction, wiring, and glazing of thousands of beautiful light fixtures most of which were custom designed for prominent residences and commercial buildings around the world. Each fixture is crafted of heavy cast metal components in many alloys including bronze, aluminum, or cast iron. Bronze may be chosen because of color, or perhaps the client desires a polished fixture, or maybe an antique verdigris bronze light. Aluminum is used where weight may be a factor, or for more economical pricing. Cast iron is generally used to create the look of a wrought iron fixture that fits in a setting of historical significance.

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It is not uncommon for us to duplicate existing light fixtures that match exactly in appearance. It is also common practice to restore existing light fixtures with all new finishes, glass, and wiring as well as replacing all broken or missing parts with new ones.

Recently we have seen a trend towards automated gas lamps. Many of our ornate electrical fixtures can be readily converted to natural gas. I have to admit that I mention these conversions with a little trepidation because they can be very challenging to build and set up.

For a brief explanation let me take you back in history to the late 1800's when gas light was popular.

Gas lamps were revolutionary in that they could bring bright light into your home at any hour of the day. They were affordable by many, and were relatively safe. There was, however, the occasional fire or explosion, not to mention asphyxiation due to the natural gas from time to time. These lights also required frequent cleaning and maintenance. They also needed to be hand lit with a match. All of this unpredictable "Fire" was the down side!

Open flame gas lamps have a unique ambiance that cannot be beat, and are extremely attractive on a beautiful home. It is therefore understandable why they are desirable today. Many but not all of the undesirable features have been overcome. Making them much more practical today then they were over one hundred years ago. HOWEVER, there are still a few concerns that the prospective gas lamp owner should be aware of. First, they are not very bright by comparison to electric lamping. Second, they still require some cleaning and maintenance to be reliable. And third, they can be a little finicky to adjust.



Gas Torchere - Private Residence, Palm Beach, FL



David Baird adjusting the flame.

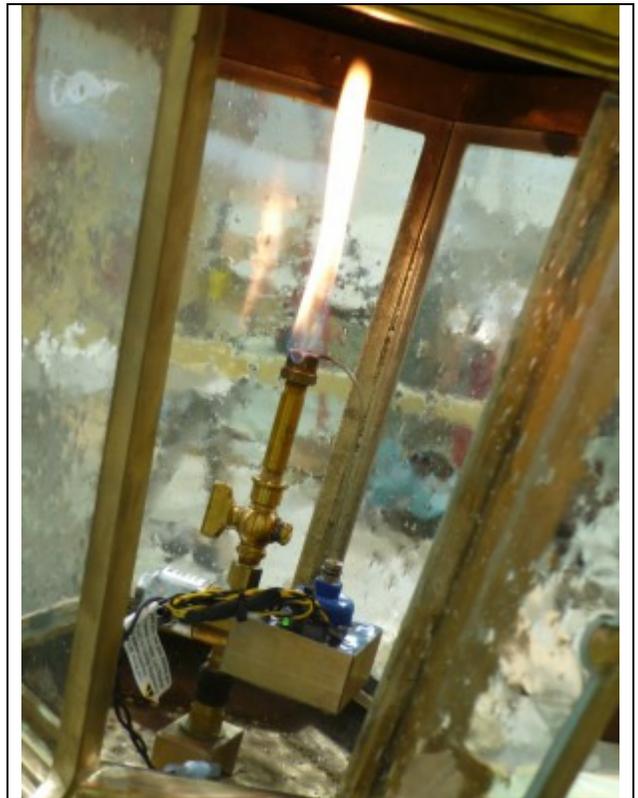
At Historical Arts and Casting, we manufacture the fixture bodies in our facility, but we buy the gas modules from an outside source, and install them into our fixtures. We have had a good working relationship with [KNIGHTRONIX](#), the inventors and manufacturers of an ingenious gas light igniter. This is the safest and most reliable unit that we have seen.

The KNIGHTLIGHTER is composed of a self contained gas solenoid, and electronic igniter, with an ion flame sensor, all in one tiny little package. It runs on 24vac and can be configured with an automatic daylight sensor. It can alternately be set up to ignite from a light switch or a Lutron automated timer system.

The KNIGHTLIGHTER will ignite a gas light in a fashion similar to a furnace igniter. It strikes an arc to light the flame. If, for some reason, the flame does not ignite, the control unit will make several more attempts before safely shutting down the system. It will also reignite a flame blown out by the wind. Once installed and set up correctly we have seen years of trouble free service. NOTE: periodic cleaning and maintenance of the fixtures is still required. I would also add that this application is not recommended for interior use. My hat's off to Arnie Knight, the inventor of this great little device.

Electric or natural gas, Light fixtures are still an important part of any man's personal castle!

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Knightronix igniter being tested in a light fixture that will be installed in a private residence in West Palm Beach, Florida.