

Regal Home Inspections, LLC

Find of the Week 2/9/2019

This week's find of the week is a wiring relic from nearly 100 years ago. The first version of residential electrical wiring was called, "Knob and Tube". It was individual conductors that were run through a home. The "Knob" part (Figure 1) was the porcelain device (About the size of a shot glass) that held wires when the wires were run along side of a joist. The, "Tube" part (Figure 2) was a porcelain tube that was slid into a hole cut into a joist or rafter when the wires were running perpendicular to structural elements like a joist.



Figure 1 - Knob



Figure 2 - Tube

Some of the issues of KnT wiring is that the wire's insulation is often very brittle and cracks or gaps may exist exposing energized wires. Additionally, some knob and tube wiring was installed with lights and fixtures wired, "In series" as it's called. The best way to explain what, "in series" means is the example of the old Christmas lights. When one bulb went out, all of the lights went out. As compared to lights being wired in parallel where one light can go out but all the others stay on.

Perhaps the most important factor when knob and tube wiring is found in a home is that I've been told that insurance companies don't want to provide homeowner's insurance for a home with knob and tube wiring. It's an added risk (Due to the age of the wiring) and the fact that it is obsolete. Insurance companies prefer to minimize the risk when insuring a house and the presence of knob and tube, at least in the eyes of some insurance companies, apparently increases the risk.



The photo above is the knob and tube wiring seen below the floor of the 2nd floor of this home and above the ceiling of the 1st floor below. This particular house had active knob and tube in the basement, in the living areas (1st and 2nd floor areas) and in the attic. From a home inspection report writing perspective, the client (buyer) was notified of the presence of the knob and tube, told of some of the issues as mentioned in this piece and urged to have a licensed electrician replace all knob and tube wiring and upgrade to 21st century wiring.