

# Wiring a Layout: Part II

A NMRA Clinic presentation for:  
Three Lakes Model Railroad Club  
February 27<sup>th</sup>, 2011  
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# Wiring Part II

- We begin in Wales at Tinturn Abbey and Brass
- Compare conductivity of various materials
- Reflect on feed wires and drops
- Consider the downside of staples &
- Upside of terminal strips and order
- Double pole double throw: and Kids
- Lastly the AC transformer





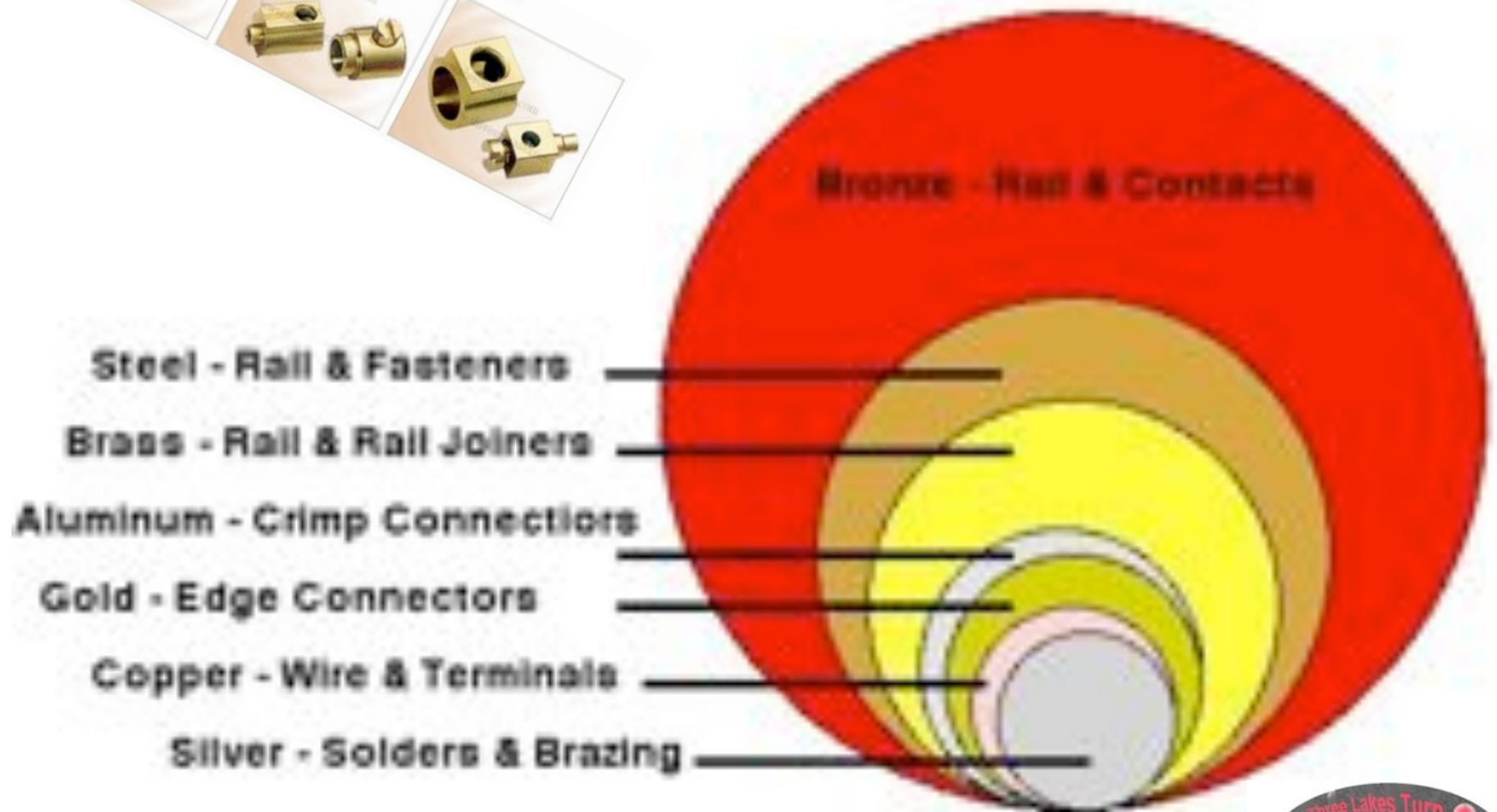
**Tintern Abbey!**

**Monmouthshire, Wales! here  
Brass was 1<sup>st</sup> smelted**





## Nominal Material Cross Section for about the same Conductivity





Tintern Abbey, Wales

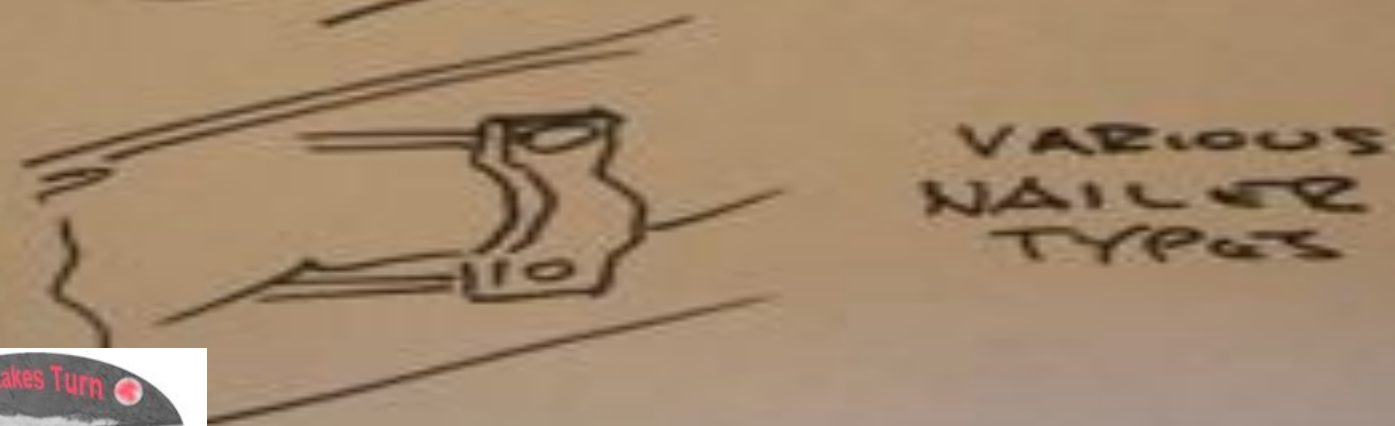


# Generally Avoid

- Various staples, staple guns for supports
- Various household wire nailer devices
- Two good reasons for avoiding:
  - Too easy to penetrate the wires
  - Shock disrupts the scenery
  - You can get away with it sometimes..



WIRE SUPPORTS  
TO AVOID  
OR USE WITH  
CAUTION



*[Handwritten signature]*  
1/2011



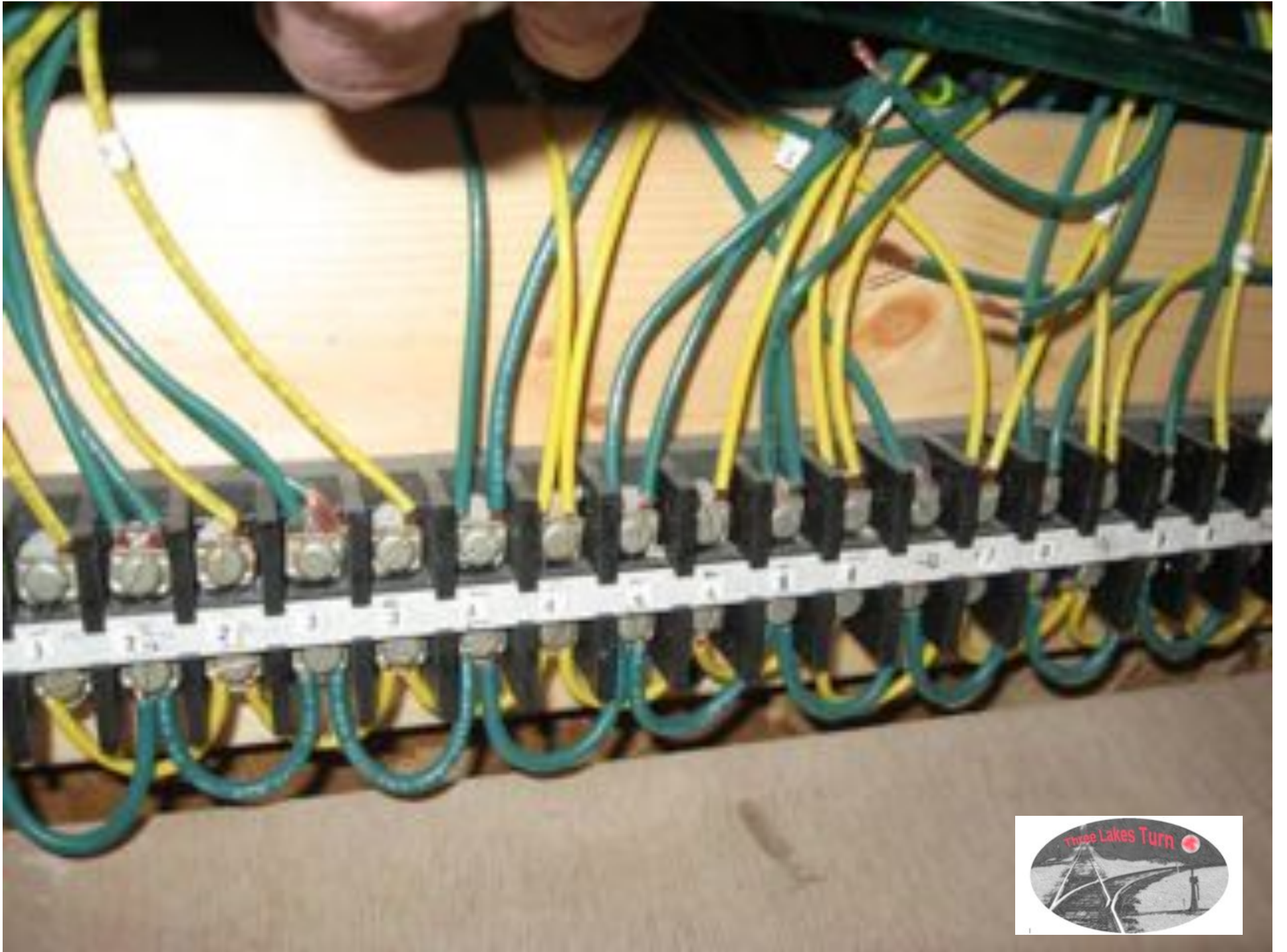


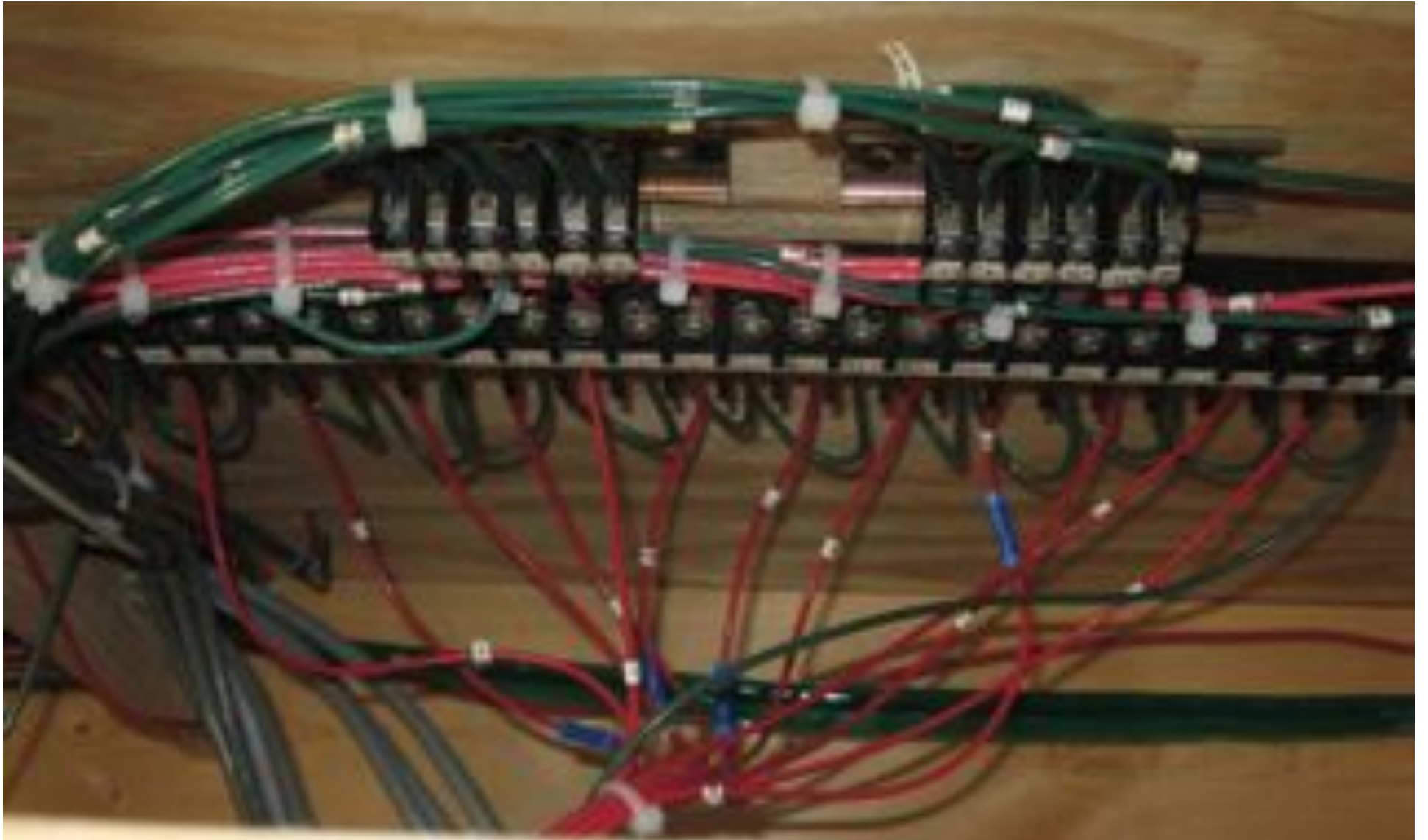


# Terminal Barrier Strips

- Larger Terminal Blocks for Power Wiring
- Smaller Terminal Blocks for turnouts
- Mark your wires with numbers / letters to
- Match your layout drawings
- Use crimp connectors (& solder small wires)









# Double Pole, Double Throw

- Good for buck: get good contact ratings
- Can do two things simultaneously
- Need to be able to visualize ..
- Source (American Scientific in Milwaukee)  
or say Chester's (Kenosha)



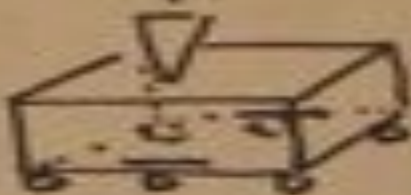
# D.P.D.T.

← PUSH TO LEFT



CONTACTS  
CLOSE  
ON RIGHT

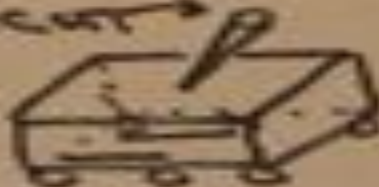
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STRAIGHT UP  
OFF

PUSH TO RIGHT →

CONTACTS  
CLOSE  
ON RIGHT



*Handwritten signature*  
1/2011











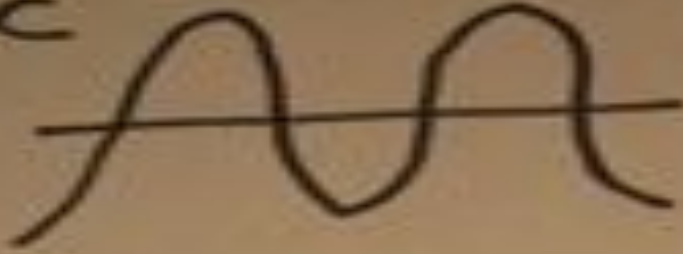


# AC Transformers

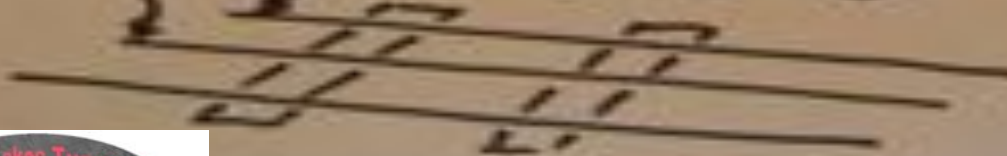
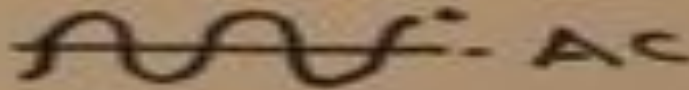
- Vary from the simple to complex
- Marx, Lionel and MTH show evolution
- Range typical 6 to 18 VAC
- Characteristics include:
  - Polarity plugs today
  - Circuit Breakers today
  - Need fast CB or Fuse for DCS



AC



COMBO  
TRANSFORMER  
& THROTTLE



*Release*  
1/2011













