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E.C. 756

Extension Circular 756

COOPERATIVE EXTENSION WORK

IN AGRICOLIURE CANACHOME ECONOMICS

U. of N. Agr. College & U. B. Dept. Of Agr. Cooperating
W. H. Brokaw, Director, Lincoln

# KEEP ON THE SAFE SIDE

OF

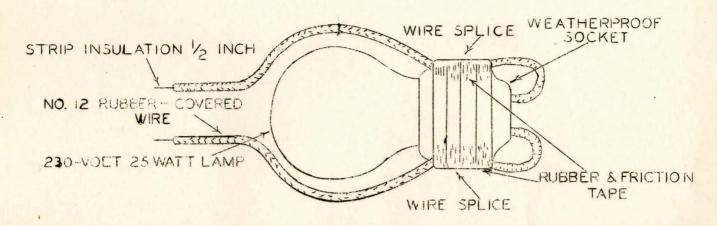
## ELECTRICITY

Prepared by

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#### KEEP ON THE SAFE SIDE OF ELECTRICITY



A TEST LAMP

Farm wiring systems supplied with electric energy from a central station (high line), may have 2-wire or 3-wire service. Where there are three wires leading in from the transformer, the user has available two voltages (usually 115 and 230 volts); while if there are only two wires leading in from the transformer, only one voltage (usually 115 volts) is available.

It is often necessary for users to determine if circuits are energized. The use of a TEST LAMP is one of the safest and nost convenient methods for making this determination. If the circuit is "live", the brightness of the lamp will indicate the voltage (115 or 230 volts). The lamp will burn bright across a 230-volt circuit; while across a 115-volt circuit, it will burn with a reddish glow. Obviously, the lamp will not light if the circuit is "open" or "dead".

Care should be taken in using the test lamp to keep the hands and fingers on the insulated parts; if possible, use only one hand. Do not use a 115-volt lamp bulb in a test lamp; it will burn out when placed across a 230-volt circuit.
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The safe and satisfactory use of electricity in the home and on the farm is dependent, for the most part, on the observation of certain known safety rules and practices.

- 1. A fallen or exposed wire should always be considered "live" until it is definitely known to be "dead."
- 2. Always remember that moisture aids the flow of electricity. A dry board is a good insulator; a wet board is not.
- Never leave electric heating appliances connected when not in use. This is a frequent cause of fires.
- 4. Never run common extension cords over steam or water pipes. The heat and moisture will break down the insulating material.
- 5. Never run cords under rugs, in door jambs or in places where they are subject to wear or injury. Where the insulation of wires has been worn or broken, a short circuit is likely to occur.
- 6. Do not attempt to repair a "hot" or "live" circuit. Always disconnect extension cords and appliances from outlets before working on them.
- 7. Do not attempt to change fuses in the dark or when the current is turned on. First open the switch ahead of the fuse. Fuses usually "blow" as a result of an overload or a defective appliance in the circuit. Be sure to remedy the trouble before replacing a fuse.
- 8. Never use fuses which have ratings higher than the current-carrying capacity of the wire and never resort to fuse substitutes. Protection against a fire hazard ceases if the fuse does not burn out when an overload or short circuit occurs.
- 9. Do not touch any wiring fixture, extension cord or appliance when standing in water or when in contact with plumbing; NEVER HANDLE ELECTRIC EQUIPMENT WITH WET HANDS.

- 10. Do not locate an outdoor radio aerial on the same side of the house as the electric service wires.

  An aerial should not cross over or under power supply lines.
- 11. A farm wiring system should not be grounded to a windmill tower, drain pipe, isolated water system or lightning rod.
- 12. Never use electric wiring or equipment for playful experimenting or practical joking.
- 13. Do not remove a plug cap from an outlet by pulling or jerking on the cord; grasp the cap itself.
- 14. If under normal working conditions, an electric shock is received from any part of an electric wiring system or from equipment, the trouble should be located and remedied at once.
- 15. The frames of all motors and appliances of 220-240 volts should be permanently and effectively grounded.
- 16. Do not use extension and drop cords where permanent wiring should be used. Cords hanging on nails hooks, etc., constitute a serious fire hazard. It is false economy and usually hazardous to install a drop light and then use double or triple sockets and extension cords.
- 17. All electric wiring should be done by approved methods, using approved materials.
- 18. Have all wiring inspected by a qualified electrical inspector.