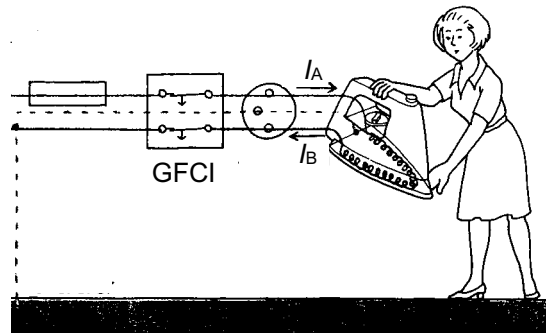


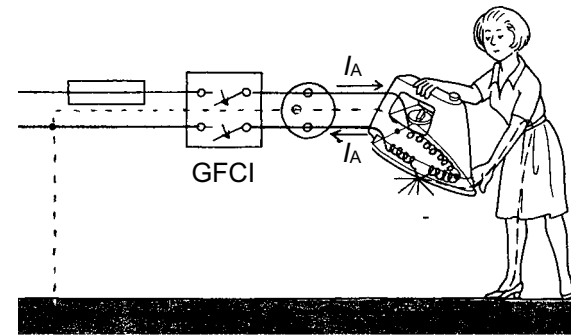
GFCI (ground fault circuit interrupter)

$$I_A = I_B$$



“Normal” operation. The current is the same in both wires.

$$I_A > I_B$$



Some of the current is “leaking” through the woman due to a defect. The GFCI (ground fault circuit interrupter) interrupts the current within 1 millisecond if the difference between the currents in the wires exceeds 5 mA.