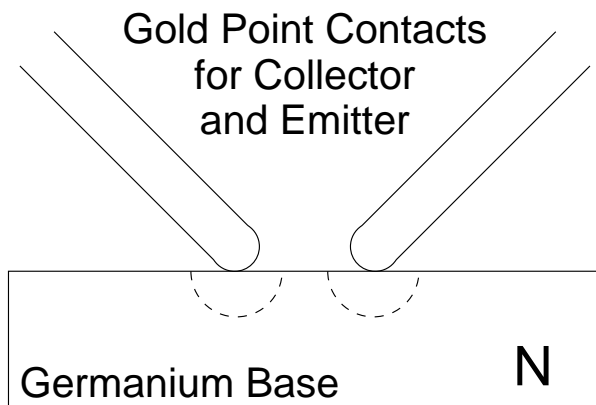
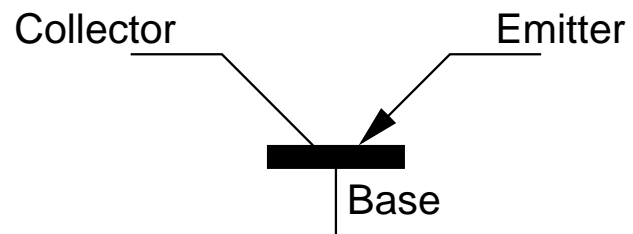
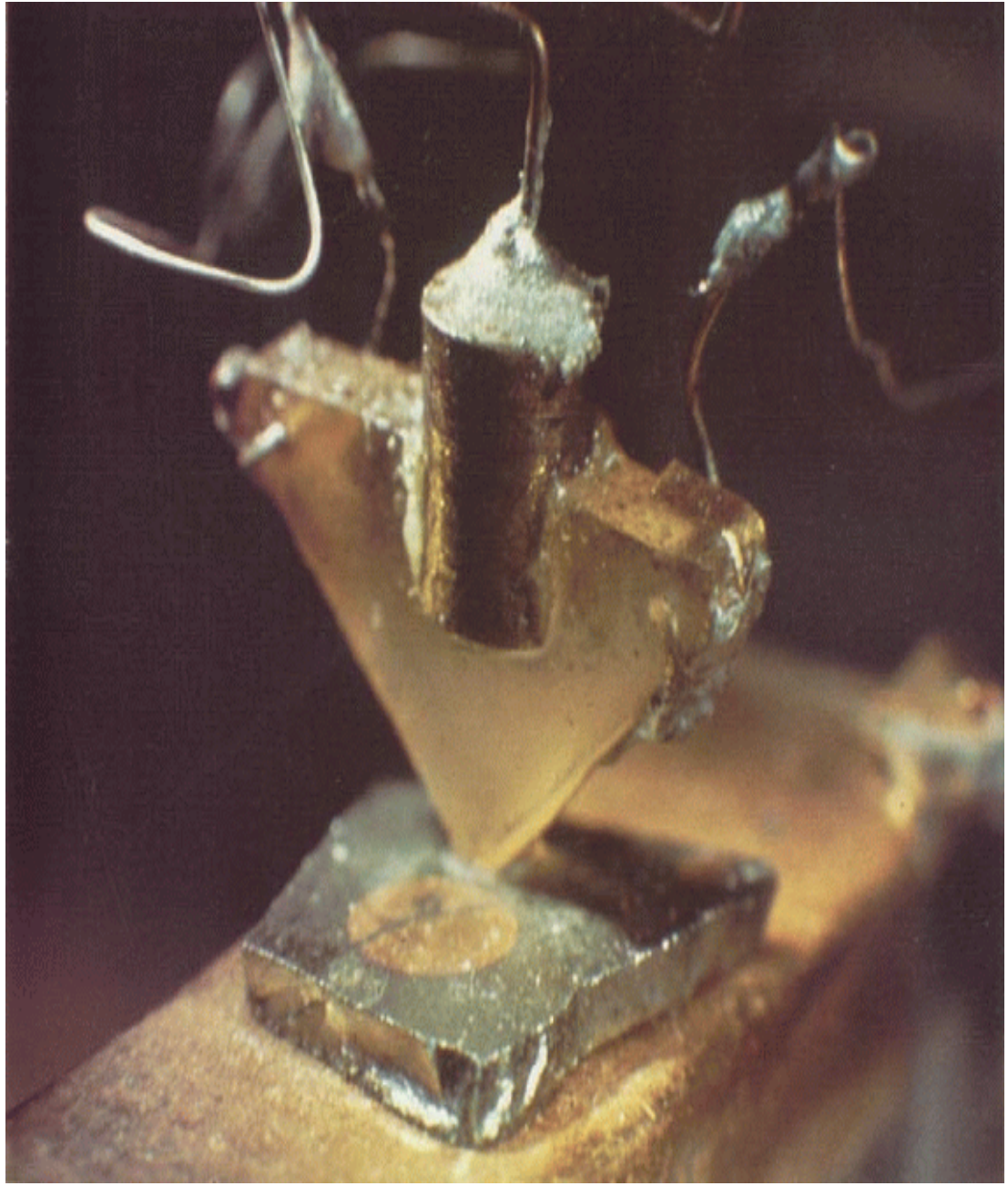


1947 Point Contact Transistor



Each contact creates a metal/semiconductor (Schottky) diode
Depletion regions are shown for zero bias voltage.



1958 First Integrated Circuit

1 Transistor

1 Capacitor

3 Resistors

Hand soldered interconnect

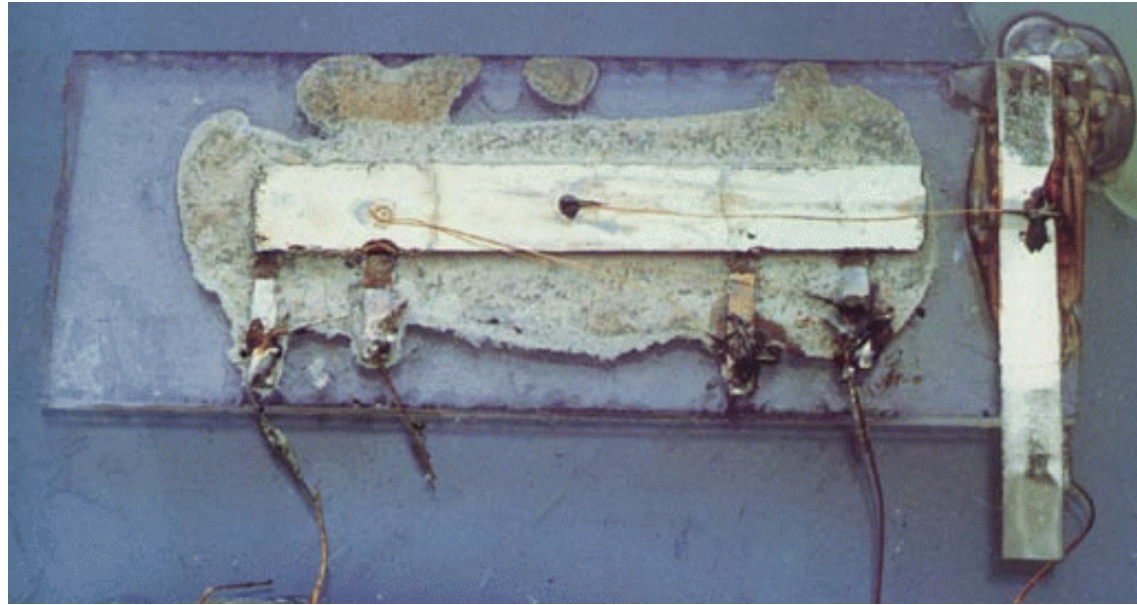
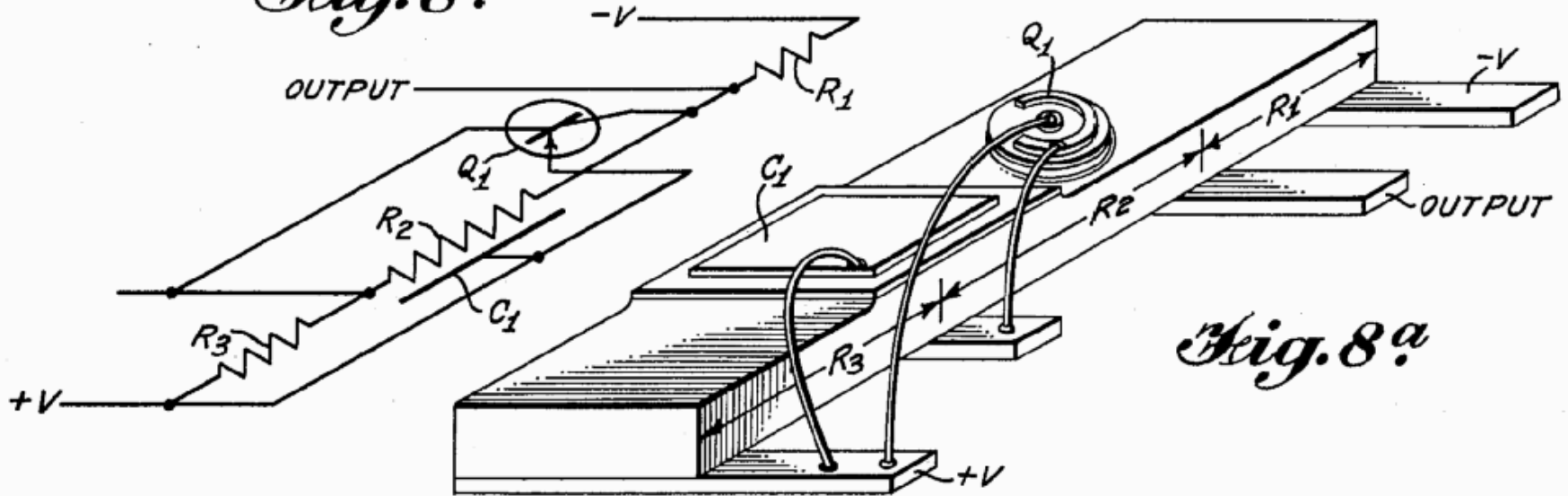
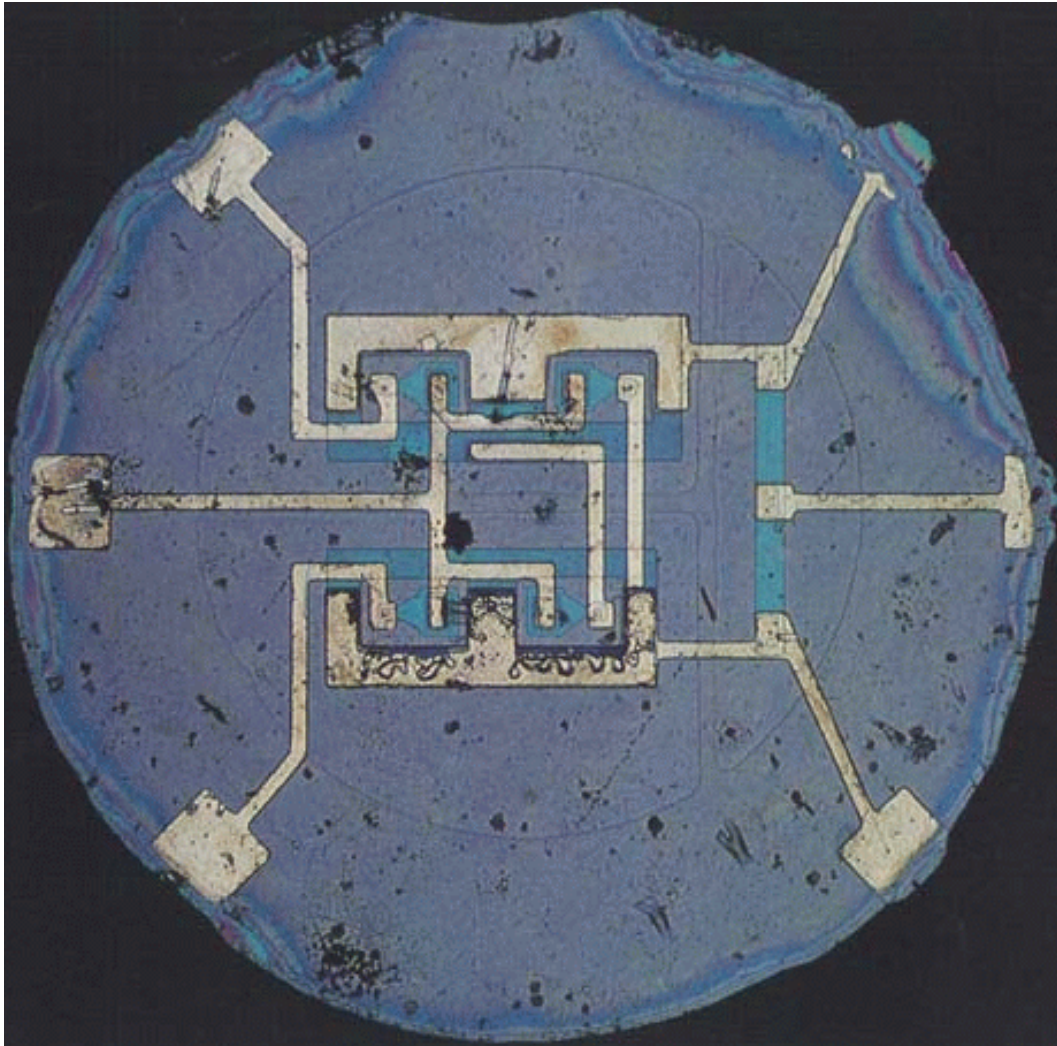
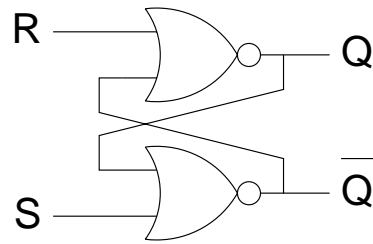


Fig. 8^b



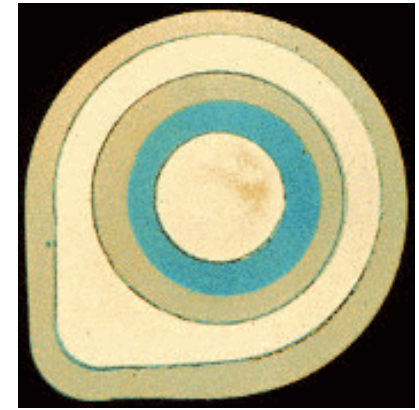
1961 First Commercial ICs

Fairchild Bipolar RTL RS Flip-Flop

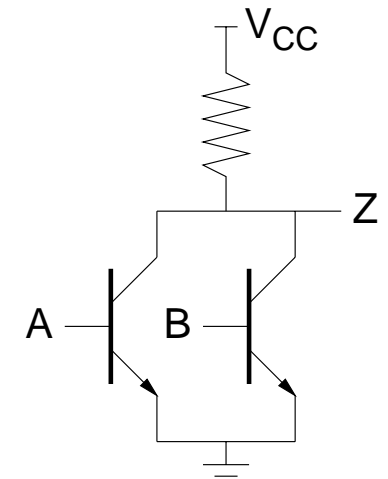


Using

- Planar Bipolar Transistors



- Back to back PN junctions to provide isolation
- Integrated interconnect
- Resistor Transistor Logic



RTL NOR gate