**Example 2:** Accept all sequences with balanced

parenthesis.

$$( ( ) ( ( ) ( ) ( ) ( )$$

To check the sequences you need to build a device with memory: a **Stack**.

Put a plate on the stack if you see a left paren $($ and take a plate off the stack if you see a right paren $)$.

If there are no plates left on the stack at the end of scanning the sequence, then sequence is ok.