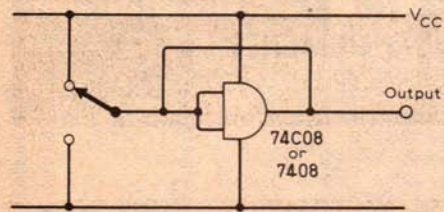


## Simple bounce-free switch



A single non-inverting gate or buffer wired as shown forms a bistable circuit, because the positive loop gain is greater than unity. Whilst the switch is

in the up position, the output will be high. When the switch leaves this position and is in transit, the output remains high because the input is still high.

When the switch first makes contact with the lower position, the output of the gate is momentarily shorted. This situation is however remedied within a few nanoseconds because the input is also taken to ground which drives the output of the gate low. Thereafter, if the switch contact bounces, the output will stay low because the input is low.

This single non-inverting gate

arrangement is simpler than the usual SR flip-flop, and the annoying pull-up resistors are eliminated.

(By P. Seligman, in "Wireless World".)