b.) Replace the 7404 Hex Inverter chip with a 74S04 Schottky TTL Hex Inverter. What is the new oscillation frequency? Does it differ from that obtained with previously with the use of the 7404 type chip? If so, explain the origin of the difference in oscillation frequencies.

c.) For a more stable oscillator, such as for use in a microprocessor as a clock, a quartz crystal can be used. Here again, use the (non-Schottky) SN7404 Hex Inverter IC. Build, and then measure the oscillation frequency of the circuit shown below in Fig. 15. Note that the third inverter is simply used as a buffer, in order to isolate the output from the actual clock circuit.
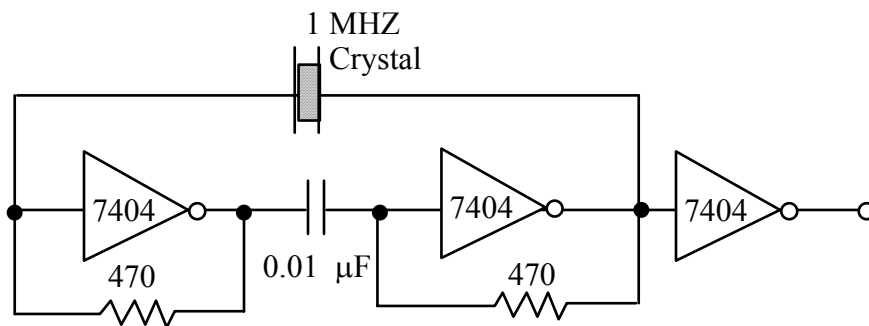

Fig. 15 IC-Based Oscillator Circuit Using 1 MHz Quartz Crystal.