Yes - R1 is the SQUID

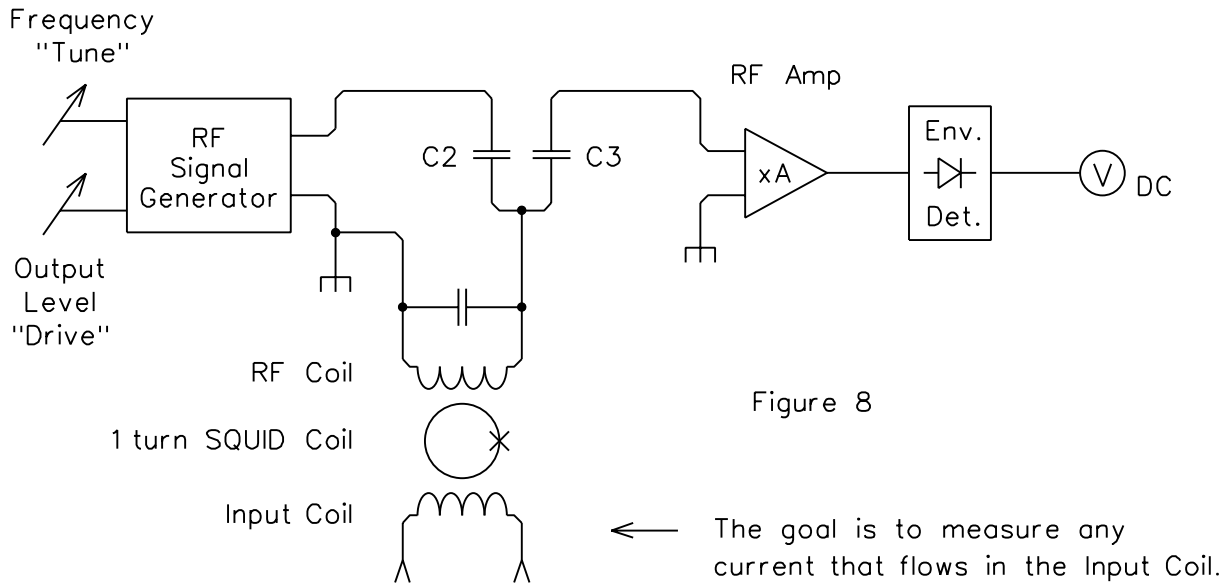

Figure 8

Figure 8 is the same as Figure 7 except that we have replaced R1 with a SQUID.

The mutual inductance between the RF Coil and the 1 turn SQUID Coil couples a small amount of the RF signal into the SQUID Coil which could cause an RF voltage to appear across the SQUID's SIS junction.

The mutual inductance between the Input Coil and the 1 turn SQUID Coil allows a user's external circuit to make slow changes (slow compared to the RF frequency) in the total amount of magnetic flux passing through the 1 turn SQUID Coil.

I believe that the SQUIDs we are usings have a mutual inductance between both the RF Coil - SQUID Coil and between the Input Coil - SQUID Coil such that a change of about 1 uAmp in either coil causes a change of 1 flux quantum in the total flux passing through the 1 turn SQUID coil.

For a 1 uAmp current to cause a flux of 1 flux quantum the mutual inductance between the coils must be about 2 nano Henry.
1 x 10E-6 Amps x 2 x 10E-9 Henry = 2 x 10E-15 Weber

In Figure 8 note that the RF Signal Generator now has a knob labeled "Drive" to control the generator's Output Level. This "Drive" knob is used to adjust the level of the RF current that is induced into the 1 turn SQUID Coil.