Tl with an average of ± 15 psi. This corresponds to about ± 0.3 kilobar and pressures seem easily reproducible to within this range.

The oil pressures for onset and finish of the transitions were obtained by straight line extrapolation through the change of slope of the oil pressure versus resistance plot for each transition as shown for the Ba transition in Figure 23. The intersection of the extrapolated straight lines are the values given in Table 8. The Yb transitions were quite sluggish and only onset values were taken for these runs. The averages of the onset values were used to form the pressure calibration plot shown in Figure 24.

For all runs except the Hg transitions the sample consisted of a wire or strip of the metal about 10 mils by 5 mils by 1/4 inch surrounded by AgCl. The AgCl was a cylinder 0.125 inch O.D. by 0.25 inch long with a 0.025 inch hole for the sample. This assembly is shown in Figure 25. Hg could not be contained in this type sample holder and the container was constructed as shown in Figure 26 with the Hg surrounded by boron nitride. The boron nitride was 0.125 inch O.D. by 0.25 inch long in overall dimensions.

Pressure calibration for the runs made on the cubic press were furnished by Dr. H. T. Hall (36).

The effect of temperature on pressure has been