that the stresses are still highest at the wafer center, and that the axial variations are small. The applied force-displacement and stress distribution results for Armco iron are shown in Figure 11 and 12, respectively. The inability to replace the actual stress-strain curve of Armco iron with a linear equation prohibits the extension of agreement between experiments and analysis beyond a 15 per cent radial deformation. The earlier comments made on stress distributions applies also to Figure 12.

The tangential strain occurring at the center surface of the containing ring has been documented against the applied force required for the compression of a confined 303 stainless steel wafer, and the results are shown with the analytical data in Figure 13. The excellent agreement shown here is especially encouraging in view of the magnitude of the applied load (one million pounds). The experimental results do not pass through the origin since a certain minimum initial clearance must exist between the wafer and ring to provide for assembly. The analytical curve also starts above the origin since it was assumed that the wafer material is rigid until the onset of plastic straining. If the initial clearance and the elastic deformation of the wafer are the same, the two results should be compatible at the start. The stress distributions occurring across the top and mid-meridian surfaces of confined 303 stainless steel wafer, subjected to a load corresponding to a 1.2 per cent increase in initial radius, are shown