The maxima in calcium and rubidium (as well as in strontium and ytterbium) may represent overlap with the first set of levels of predominantly *d* character. In this case the behavior of the resistance beyond the maximum may still be anomalous. Further work is planned to explore this point.

In Table II are summarized the fixed points established in this work (including also the 90-kb transition noted by Bridgman[3] and Bundy[5]). The values listed for the sharp transitions represent the pressure of onset of the transition. This appeared always as a very sharp point. ($\frac{1}{4}$ to $\frac{1}{2}$ of the transition could be completed in 5 kb beyond the point indicated in Table II.)

The main differences between the present apparatus and normal Bridgman anvils are; the use of smaller flat size, the use of support on the taper, and a greater degree of work hardening, which is made possible by the other changes.

The small center flat makes it possible to use smaller blocks of Carboloy (allowing greater Carboloy uniformity) and also a smaller press. On the other hand, the smaller flat size increases markedly the difficulty of loading.

The method of calibration is subject to criticism and possible error due to the gross extrapolation. However, the results are presented in a form such that it should be easy for future workers to translate our results in terms of their pressure scales. It should be pointed out that the extrapolations and calibration were quite consistent from run to run, and the iron transition checks shock wave work.

TABLE II. Calibration points.

| Elements | Pressure (kb) | Character of change | |
|---|---|---|---|
| Bismuth | 90 | Sharp drop in resistance | 250–300% |
| Iron | 133 | Sharp rise in resistance | 366% |
| Barium | 144 | Sharp rise in resistance | 42% |
| Lead | 161 | Sharp rise in resistance | 23.2% |
| Rubidium | 193 | Sharp rise in resistance | 147% |
| | 425 | Maximum in resistance | |
| Calcium | 375 | Maximum in resistance | |

The pressures are undoubtedly not truly hydrostatic, so that the fractional changes of resistance may not be quantitative. The "fixed points" should, however, be quite accurate, and it appears to the authors that any pressure calibrations in the higher range will be determined by fixed points.

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