It was found that unless a small "protective sheath" made of lava was placed around the thermocouple wire, it would invariably break off right in the gasket area. As the gaskets were being formed by the flow of the lava tetrahedron under pressure, the thermocouple wires would be pinched apart. With these protective sheaths in place, the anvils would clamp down on these sheaths and consequently hold the thermocouple wire in place while the lava flowed around it to form the gasket. The size of these sheaths is not extremely critical. They should be .104" thick, about 3/16" wide, and 5/16" long for the large press, and .080" thick, 3/16" wide, and 3/8" long for the small press.

The above method has proven very dependable. Figure 3 shows an assembled tetrahedron with these protective sheaths around the thermocouple wires. In all cases, the thermocouple wires were run through a reference junction of zero degrees centigrade and all recording was made on a strip-chart recorder.



A. Before run



B. After run

Fig. 3. -- Assembled sample holder (tetrahedron).

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