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SUMMARY OF VOLUME II

The experimental work conducted in this program has taken the technology of the hydrostatic-extrusion process from the experimental stage to the threshold of its application in a production operation. Commercial exploitation of the process is possible without any further major experimentation and it is believed that this report gives the guidelines that will enable these steps to be taken immediately. What remains now is the complete design of production hydrostatic-extrusion equipment that will be competitive with conventional-extrusion equipment. At the time of this writing, a program is underway at Battelle-Columbus Laboratories in which such equipment is being designed. The program, "Design Study of Production Press for Ultrahigh-pressure Hydrostatic-Extrusion Equipment", is sponsored by the Metallurgical Processing Branch, Manufacturing Technology Division at Wright-Patterson Air Force Base, Ohio, on Contract No. AF 33(615)-67-C-1434.

One of the most important aspects of the aforementioned design study is the design of the high-pressure container. Section 3 of this report contains a thorough analysis of several concepts of high-pressure containers. This analysis will be drawn on heavily in the design study. Section 4 describes the development of three containers designed and constructed in this program.

Both Sections 3 and 4 are complete in themselves and each contains its own summary.