

size distribution of these powders. Design has proceeded on the laboratory vacuum sintering furnace and drawings of the component parts are ready for issue. Some work has also been done on an automatic recording balance with which to undertake corrosion (oxidation) tests.

At the Bureau of Mines Laboratory in Ottawa creep test equipment is being procured. The scheduled completion date for this equipment has been revised from June to August of this year, in accordance with latest information on parts delivery.

Negotiations are still proceeding with Deloro Smelting and Refining Company for the production of alloy samples of new high temperature materials.

Low Temperature Tests - The Winnipeg Laboratory completed cold running and starting trials of the axial flow engine sent out from England and at the end of the month the engine was ready for return shipment. Weekly Progress Reports covering this work have been supplied to England, both in cable and written form.

The centrifugal engine expected from England was received March 17. Some starting trials have been made with this engine, which confirm similar trials previously made with the hack engine.

Due to the onset of warm weather at Winnipeg, the low temperature experimental program for the winter 1944-1945 may now be regarded as concluded.

Engine Design - Alternative designs to the same specification were available for review on March 21, and an axial flow type was selected. Plans are being made to continue the design and construction of this engine, with a view to having the first prototype model completed for test running early in 1946.

S M A L L   A R M S   L I M I T E D

GENERAL PROGRESS - RIFLE NO. 4 MARK I

Total production to end of 1944	814,829
Production 1st quarter of 1945	<u>42,991</u>
Total production to date	857,820
Distribution of rifles to date is as follows:-	
Canadian account	252,417
U.K. and Mutual Aid	385,403
W.S.L. account	206,475
New Zealand	5,000
Inspection Board	339
Newfoundland	<u>50</u>
Total shipments to March 31, 1945	849,684
Total orders received to date	923,971
Total production to date	<u>857,820</u>
Balance to produce	66,151

The above noted "Balance to produce" of 66,151 includes contract #UN.7535 for 40,000 rifles No. 4 Mk.I, which was placed with Small Arms Limited during February of this year, in order to