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Research

A program outlining an extension of work on the control of Carbon content during sintering at 2450 degrees F. has been sent to Battelle for their comments.

Tests have been made on compacts joined during sintering utilizing planned expansion and contraction of the mating sections. These show a surprisingly high strength. Additional tests are planned to obtain quantitative results on the bond strength of several joint designs.

Tooling

Over 60,000 pieces of each of the 3 Sportsman-58 Dial-A-Matic Magazine Cap parts and over 100,000 12 Gage Barrel Guide Rings have been produced. Minor tooling troubles continue, most of these being attributable to quality of tooling. The responsibility for maintenance and replacement of tooling on production parts has been turned over to the plant.

Finishing

A lot of 5,000 triggers are being Supersheened and Nickle plated to further evaluate the sealing and corrosion of this type finish.

SPORTSMAN-58 MAGAZINE CAP

A modified design Magazine Cap incorporating a flat spring to take up part tolerance and seal gas leakage has been fabricated. The flat spring has a detent that locates in grooves in the cap to locate "L" or "H" position. Testing through 6,000 rounds shows the Cap satisfactory for gun function. However, after 100 rounds of light loads the selector is frozen by lead. After breaking loose, the cap again operates satisfactorily. A quotation on the flat surface is under 2¢ each.