## SPORTSMAN 68 - 5 SHOT AUTOLOADER

A prototype of this item was shown and described by the Research and Development Department. Current design effort is directed to the following components.

## 1. Gas Operating System

The gas system has proven its capability of handling all loads from light target to junior magnum without adjustment. Bolt velocities are significantly reduced from those of the Sportsman 58. Subjective recoil tests have been in favor of this new model over the Sportsman 58, due to slightly increased gun weight and the longer time period available for recoil energy absorption in the Sportsman 68 system.

Recent work has been directed to control of lead deposits in the gas operating system. An additional sealing ring has been added to the barrel mounting ring to confine lead deposits which could otherwise build up between the rin, and the magazine tube, hampering barrel disassembly. Research and Development states that accurate placement of the "thumb nail" barrel cut, relative to the barrel gas ports, is essential to reduce gas system leading.

The use of a loose piston ring and backing ring in front of the inertia weight was guestioned by Sales from the standpoint of assembly by the shooter after takedown, and from the standpoint of possible loss of these parts in the standpoint. The Research & Development Department states that these small parts will be retained on the magazine tube during disassembly by lead which builds the magazine up in shooting.

## 2. Stock and Fore-End Design

Fore-End - The longer fore-end required by the 5-shot magazine cannot be accommodated on existing plant equipment, and it is questionable whether existing equipment can be converted. While a shorter fore-end with separate spacers could be designed, extensive changes in the gas system would be required. Moreover, the Sales Department is not willing to accept a shorter fore-end with spacers. The alternative will be new machinery to produce the desired length of fore-end. A rough estimate of machinery cost indicates \$50,000. Determination of cost is in progress.

