

AUTOLOADING SHOTGUN - contd.

market needs, it is believed that a new gun will be required in the next several years. It was pointed out that the Sportsman-58 was designed for a field gun and one of the first gas operated shotguns developed. While the gun had a fine acceptance because of its recoil reduction, handling and performance, the model was short-lived because the skeet shooter found that the endurance was only about 8000 rounds. The Model 1100 was then developed. The objective was to provide a gun which would withstand 50,000 rounds of skeet shooting with no major breakages and a performance rate of under 1%.

A new skeet and trap shell was developed containing faster burning powders to reduce the blooms at the muzzle and to provide better ignition at lower temperatures. The high peak forces due to the faster burning powders in this new shell cuts the life of the Model 1100 and all competitive shotguns approximately one half. The stress loads developed are greater than with the magnum load. Also, indications are that the future development of all plastic ammunition will further reduce the endurance life of the Model 1100 to about 8000 rounds. For these reasons, R & D believes that a new shotgun is needed and proposes to initiate a development program. 83

The design objectives are covered in Exhibit 3. A slide action shotgun would also be part of the development.

The new innovation in an autoloading shotgun of a break-action in front of the receiver similar to the over and under is being investigated. The feature allows for quick and efficient interchange of barrels, easier cleaning, better safety and a better extraction of a cartridge case if difficulty is experienced. In the discussion, the possibility of interchange of barrels between gauges was reviewed. Due to the difference in parts required for feeding, this probably would not be feasible.

The program for the new shotguns could be to produce the new gun for skeet and trap shooters and retain the Models 1100 and 870 in the line until such time as the need for the improved guns is required to meet competition.