BARREL MANUFACTURE

J. K. Hamil reported on strength tests which had been performed on 12 gauge Model 870 barrels produced from SAE 1010 steel by the Rockrite process. Several tests were performed, in the most severe of which 1/2 pound of lead was cast into the muzzle end of a barrel and a 12 gauge proof load fired in the barrel. The mass was moved 5 inches, and there were two bulges in the barrel but no ruptures.

Although this report was given simply for the information of the committee, it focused attention on the fact that there are several novel methods of barrel manufacture under consideration, some of which may have real economic advantage. The committee urged that this field of investigation be pursued as vigorously as possible because it appears to offer one of the best possibilities for improvement in quality and costs.

CENTER FIRE RIFLES

MODEL 721-722 MATCH RIFLE

The Sales Department reported that a program for the center fire match rifle has not yet been crystallized. Present thinking is being colored by reports that some Government agency (probably the Army) may undertake the procurement of high quality rifles for use of the United States entries in the next Olympics. The Sales Department is following this matter closely, and will submit recommendations as soon as the program is clarified.

MODEL 721

Quality Audit Test

S. M. Alvis reported that the recent annual Research and Development quality audit test on the Model 721 rifle was, so far as he could determine, the most successful function and endurance test that has ever been completed for any high power rifle.

Ten warehouse guns were fired 320 rounds each, using sixteen types of ammunition, with the best, average, and worst guns being continued to 1,000 rounds, and the average gun to 6,000 rounds. Seven guns showed no malfunctions in 320 rounds each; the eighth gave no malfunctions in 1,000 rounds. The poorest gun gave 5 malfunctions in 1,000 rounds (rate 0.50 per cent), and all of these