

PRESENTATION #2COMPUTERIZED ENGRAVING AND CHECKERING

At the R & D review at the October 1967 Operations Committee Meeting, the concept of a computerized robot for checkering and engraving was presented (Exhibit 6). In the months since this, R & D has developed a prototype of a five axis machine that will engrave by numerical control. A motion picture of the machine in operation was shown to the committee. Exhibit 7 is the pattern that was engraved on a flat ground surface in 180 minutes. The machine proposed for production with one head is covered in Exhibit 8. It is possible that a second head could be added to increase the capacity. This would increase the basic machine cost.

While only flat surface engraving has been done, R & D indicated that by adding a rotation on the fixturing, curved surfaces could be engraved. Also, it is believed that the basic machine can be used to replace hand checkering Stocks and Fore Ends. The machine development would have to include the ability to engrave and checker curved surfaces.

It is recommended that a list of the components on which operations could be performed be submitted to Methods & Standards for estimated savings. It was also suggested that R & D should handle the design and construction of the proposed machine as an R & D experimental project.

N/C MODEL SHOP

Exhibit 9 covers the work now being done in the Model Shop for new model work and plant support. In addition, machine capacities are such that the specialty items could be produced during slack periods. As a possibility, the majority of the machined parts for a commemorative rifle could be produced. As a possibility, R & D had developed high spot figures for a rolling block rifle (Exhibit 10). However, it is probable that this would not be the type of rifle that would be requested. The future of this program would have to be developed by Marketing and R & D.