cc: G.M. Calhoun D.E. Miller J.W. Miller K.R. Chadwick C.H. Morse W.E. Leek

Ilion, New York May 15, 1957

H. J. HACKMAN

MODEL 40X FIRE CONTROL

Some time ago it was recommended that we adopt a chrome plated sear and connector combination for the fire controls in the Model 40%. This was after extensive testing and research aimed at eliminating variations in trigger pull which had become rather frequent in the form of customer complaints and from Sales. We quote the following summary report from C.H. Morse, which will supplement the previous recommendations:

"Prod. Research has established a good chrome plate on these parts, Sears and Connectors. In addition they have set up a rubber grinding process we have been agitating for. (Model Shop trial run some time ago.) The combination of these two run for 60,000 cycles with close corroboration to previous test results. Very good.

"Testing is under way and planned to establish the 'range' of plating defects that we can tolerate and maintain a good function. Further testing is planned to verify the general belief that the connector need not be plated. Since the coefficient of friction is the same for chrome on steel as for chrome on chrome, there is little reason to doubt that this may be realistic."

You will note there is good chance that we will be able to accomplish the same results by chrome plating the sear only, and that C.H. Morse will follow through on this experimental work and advise us of results.

SMA:T

S. M. Alvis, Manager Ilion Research Division