

PRESENTATION #3CASELESS AMMUNITION

Bridgeport R & D has developed a caseless rifle round for the 5.56mm. It may not be the final version. However, in order to keep abreast of this development work and to help as much as possible with the firearms problems, Ilion has initiated work to develop a military rifle to fire the experimental round.

The CETME, a Spanish version of a German design incorporating a delayed blow-back type action, is being modified.

Although these first steps have been taken, it does not mean that the direction will remain constant. Percussion ignition has given excessive firing pin erosion in all work done to date. Reports from other laboratories indicate this is a universal problem. Although improvement is expected through use of different materials, it is also thought that better ignition systems can be developed.

At the present time, it is thought that the immediate future of this caseless round is in military application.

MODEL 742-760 IMPROVEMENTS

The advent of the Browning autoloading rifle increases the need for development work to improve accuracy, durability and function of the Model 742 and 760.

Several ideas have been generated to improve accuracy and durability. These are being investigated. They involve the Barrel Extension and Barrel-Receiver joint as well as the gas system (Exhibit 11).

Although some improvement in function can be made by already known methods such as Teflon coating, further improvement will need to come from detailed analysis of malfunctions and alterations to attempt to reduce them. At the same time, an attempt is being made to strengthen the action for higher pressure cartridges.