

on the bell, and this feature became an appearance of excellence among musicians.

We achieve this appearance in our rotary swaging of barrels and then remove the surface by grinding. The idea of providing a super-grade barrel with this aesthetic effect was weekly presented to the operations committee several years ago. This lacked technical support of what might be desirable mechanical improvements in accuracy. Certainly the aesthetics of something special was there. Since then the fine custom Manlicher rifles display their product with this appearance. I believe the surface condition if left might indeed support improved accuracy performance along with a desirable appearance and certainly would be obtainable at no extra expense.

#### PROPOSED IDEAS FOR FUTURE DEVELOPMENT.

Several ideas were suggested in my Sept. 81 report that would improve the performance of the match shooter in his quest for perfection in accuracy and these are repeated in this report.

Recoilless principles used in fine match-grade air rifles, (nullifying recoil caused by movement of the compression piston.)

} Recoil  
Reduction

Movement of a large mass prior to release of a bullet or pellet tends to throw the shooter's aim off target before exit of the projectile. This problem exists in such open-bolt centerfire rifles as the BAR, M3 and Thompson Sub machine guns and others. To nullify this unwanted problem in match grade air rifles four approaches have been taken as follows: