

## MODEL XP-100 - INVENTIONS REPORT

2-18-63

Rib

The nylon rib is so designed that it will float on projection studs welded to the barrel. The height of the rib is approximately .005" above the height of the studs. The rib is screwed to the studs. To prevent creepage from taking place in the nylon under load the nylon would then be compressed .005, and after that point is reached the nylon would not be subjected to further load, thus eliminating creep. In the meantime, with elongated slots designed into the nylon rib, as expansion and contraction takes place the rib will not change shape nor deform, but will float on the studs.

The sights, although apparently mounted on top of the rib, rest directly on top of the studs. Therefore, in this area the nylon is not under constant load and the sighting would take place directly through the studs on the barrel.

Inertia Weight

Inertia weight was installed in the fire control mechanism to counter-balance the additional weight from the linkage which was necessary to connect the forward trigger to the fire control. This inertia weight functions only when the gun is dropped, and reduces the chances of accidental firing.

Grip

The grip of the stock is so designed that it will accommodate a left or right hand shooter. The contour is shaped so that the bottom saddle

M/XP-100 - Inventions Report

-2-

2-18-63

Grip Continued

of the grip will support the heel and lower section of the hand. Grooves at the top of the grip on both right and left sides are the same but will support both the forefinger and the thumb. This support overlaps the top of the thumb and forefinger, which allows the shooter to balance the stock by supporting it on the upper top section of this part of his hand. All of these elements are necessary for proper firing of the pistol and greatly reduces the effect of flinching.

Sights

The front sight is basically the N-66 sight. The rear sight is constructed of 3 basic parts and 4 screws. Two screws hold the base in position on the pistol, a third holds the eyepiece in position but through an elongated slot which allows for adjustment for linkage. The side screw is for elevation.

Nylon Detent Safety

The basic problem in the M/721 safety mechanism was that through usage the hardened steel <sup>ball</sup> ~~body~~ would wear a groove into the soft steel housing and reduce the spring load on the ball detent. After considerable use the safety would not function too easily. In the XP-100 the steel ball was replaced with a nylon ball. Being softer it does not wear a groove into the soft steel housing

M/XP-100 - Inventions Report

-3-

2-18-63

Nylon Detent Safety Continued

and after several thousand cycles has proved to be satisfactory and allows a constant tension of the spring over this extended usage. By the nature of nylon against metal it also provides a more silent functioning safety, which is most desirable when hunting.

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