



CHAPMAN, INC.

"The Home Service Center".....

512 PARK DRIVE . BOSTON 18, MASS. Commonwealth 6-6623

September 15, 1965

Mr. Edward S. McCauley
30 Hyde Lane
Westport, Connecticut

Dear Ted;

I am submitting to you three ideas for your consideration and that of Remington Arms Company, free of charge--without any strings attached.

Idea 1: Increased grip size: Long ago, a biochemist friend asked me if I wanted to carve my name on the head of a pin. I replied that I couldn't. He mounted a pin on a microscope and gave me a carving tool with a $2\frac{1}{2}$ " diameter handle. I had no trouble carving my name.

He explained that the secret was in the handle size, that finger muscles operate best when extended to this extent.

Also, a larger diameter handle increases the lever arm one uses to control the horizontal rotation.

Idea 2: Pendulum weighting: Being interested in this sort of thing, I studied the muscles that control pistol waver. I found that the weakest, or most susceptible to jiggling muscles, were the ones that control rotation of the hand about an axis drawn between the elbow and wrist. This is so as all forearm muscles pull between elbow and wrist, not in rotation except by variation in longitudinal pull. By changing a weight below the grip on a rod the moment of inertia of the pistol was greatly increased and damped out wrist rotation and barrel waver.

Idea 3: Counter-weighting: This idea comes from my skiing. I use short skis which would chatter but for the fact that I put $1\frac{1}{2}$ lb. lead weights at both ends. The long lever of these weights makes the skis run like 8-footers.

Then, I once saw a movie camera rig for taking skiing pictures while skiing. It consisted of a rectangle. The two longitudinal sides rested on each shoulder. The front cross piece mounted the camera while the back cross piece mounted an equal counterweight. It was very steady.