L
ast time, we briefly covered some of the key elements of the pistol shooting position and posture (USA Shooting News, Volume 18, Number 6). Today, I would like to share some thoughts regarding Pistol Grip and the Gripping. When practicing shooting as a sport, it is very important to understand the role of your grip and way of gripping, determine your requirements and then choose the type, principles, technique and the modifications needed.

The idea behind this article in not to teach you the technique how to individualize your grip but to give you some ideas why and based on what principles you may need to plan and make grip adjustments. If you do not have the technical abilities and/or the tools needed, it is better to leave the job to a qualified gunsmith or stay with the adjustments available from the stock grip.

First, let us define the terminology. Pistol Grip is a device (part of the pistol) designed to help you to hold the pistol and allow you to control the gun when aiming. Gripping is the action of holding the pistol when shooting. Following the principle, Simplify - Rationalize - Improve, let start with:

**PISTOL GRIP**

Your grip is the adaptor, the connector that makes the pistol and your body one system. Here are some of the purposes that the grip serves:
- Easy and safe operation of the pistol;
- Allows you to hold securely the gun;
- Ensures proper alignment of the system: Target - Sights - Eye;
- Ensures desired direction and effect of the recoil, gravity, physical conditions and your reaction to them;
- Makes possible to perform consistently uniform gripping;
- Gives you the ability to control the gun with great precision.

In most cases, you have a very wide range of possible modifications of the pistol grip. Before you start any corrections of the grip or the production of a grip from scratch, you have to check the requirements for the specific event published in the rulebook.

**WHAT GOALS DO YOU TRY TO ACHIEVE BY MODIFYING YOUR GRIP?**

1. First and before all, do not make any changes and/or modifications to any part of your weapon that will or may jeopardize your or other individuals’ safety. Do not modify or disable any safety feature of the gun.

2. It is best to have the line of the sights to be as parallel and as close as possible to the line Hand - Arm - Shoulders. The reason - to have the direction of the recoil aligned with the planes of maximum stability (as described in the Posture and Position article) and ensure that the support against the recoil is where the maximum support is. (Figure 1) If you shoot with an angle between the shoulder line and the arm at less than 180 degree, the direction and the area of your palm that opposes the recoil shift to the left, toward the base of your thumb instead of align with the radial aspect of the arm. This results in increased movement of the pistol inside your hand and decreased strength and ability to recover after the recoil.

3. It is beneficial to bring the centerline of the bore as low as possible in order to reduce the leverage of the recoil. Before any changes, check the Rulebook. For example, in Rapid Fire Pistol “The centerline of the bore must pass above the web (between the thumb and forefinger)” - ISSF rule 8.4.2.1. However, this requirement is not valid for Free Pistol. There are two ways to lower the barrel. One is to “sink” the pistol more into the grip. This option is usually limited by the construction of the gun. Moreover, the designers most probably have already made everything possible to achieve this. The second is to increase the grip angle. There are different theories regarding this modification. Some call for increasing the angle to the limit, so that the hand is “fixed” in one of the possible directions of movement. Other recommend “straight” grip close to the angle of Colt 1911. The idea is to have consistency of the angle for all “bullseye” events.

In my opinion, the right position is somewhat in the middle. I like the idea of increasing the angle but without going
close to the limits. (Figure 2) Keeping precise alignment of the sights into the desired aiming area is a very delicate job. Similar to the calligraphy, the precision and ease of the movements are of great importance. Take a pen, bent your hand to any limit and try to write your name. It is not easy or pretty, is it? It will be same with your ability to control the sights. Always keep in mind that you need this perfect balance between precision, control, stability, and strength.

4. Now, having this two main alignments done you need to make sure that even with eyes closed, when you lift the gun and point to the desired aiming area, you will find the sights properly aligned when you open your eyes. Succeeding in this will make it much easier to maximize the precision and control over the sights and increase the chance to execute a perfect shot.

5. If all these requirements are not complicated enough, add the need to finish the grip in a way that will ensure consistent position of the gun in the hand. The consistent posture, position and pistol holding will help you build muscle memory and develop ability for subconscious control and better focus and control of the front sight. What you need is create reference points on your grip. If you take a piece of smooth PVC pipe and try to grip it with closed eyes so that you hold it exactly the same way, in the same place and at the same orientation every time, your chances of success are nil. If you cover the pipe with a layer replicating the imprint of the palm (Figure 3), your chances for exact reproduction are 99%. The minor inconsistencies in gripping will be based on the different swelling of your hand due to variations of temperature, weather, body weight and others. This brings us to the second part of this article:

**THE GRIPPING**

The decision of how to hold the pistol should be determined by the shooting discipline, the individual specifics of the shooter, the technique and the selected strategy for the particular event.

It is a very popular association to hold the pistol as if one is “holding an egg”, firm enough so that it does not fall, but not too strong, so that it does not break. This may work for the single shot events, such as Air and Free Pistol. For the dynamic 25-m events, such as Rapid Fire, Sport, Standard and Center Fire Pistol and the “Time” and “Rapid” fire portion of the bullseye matches, you need to grip the pistol differently. The shooter has to recover the recoil kicking with 1/5 HP for .22LR or 2/3 HP for .45ACP (I am not aware of an “egg” that kicks that hard) for five consecutive shots done in a very short period of time with no option of readjusting the gripping. Steady, fix position of the pistol inside the hand is of crucial importance. To reduce the movement of the pistol inside the hand the shooter has to use more power when gripping the pistol. Just do not over squeeze, because this will bring undesirable increase of the muscle tremor. And do not forget - keep the gun align with the axes of support. (Figure 4)

Another theory teaches to hold the pistol with your thumb and middle finger, when the ring finger and the pinky are just laying on the grip. To me, it is hard to understand why we should use only two fingers if we can use four. It will be easier to overcome the leverage of the recoil if we use the ring and the little finger as well.

You can find different ideas regarding the position of the thumb as well. Do we have to extend the thumb along the left side of the pistol or have it in more aggressive, grabbing position? To answer this question we have to look again at the specifics of the event we are shooting. In the precision disciplines, where we have the ability to readjust the
way of gripping, it makes sense to have less pressure on the grip because less muscle work leads to less muscle tremor. Having the thumb extended along the gun will benefit the control of the pistol. Going back to the calligraphy example, if you need better control of any movement, and high stability, you apply less power and the fingers should be more extended and relaxed. Now, try to imagine that someone is trying quickly to pull the pen from your hand and you are trying to hold it. Your grip is suddenly tighter, the thumb is in “grabbing” position with the first phalanx flexed. You will automatically increase the tension and the power of your grip. This is exactly what you need when shooting dynamic pistol events. Of course, if you are changing the gripping, you need to change the shape of the pistol grip.

It is important to make sure that the work of the index finger on the trigger does not transfer any movement to the pistol and that most of the middle finger provides solid support to the gun. (Figure 5) Having a proper grip requires work from all fingers. The more muscles are involved in performing the grip, the less work is done by an individual muscle, which results in a more stable hold.

At the end, I would like to devote a moment to the order of actions for proper gripping. First, position the pistol in the web between the thumb and the index finger. Make sure the pistol is properly aligned with the radius (the bone of the forearm that is in line with the thumb). Second, make sure you give good support to the rear of the pistol against your palm. Third, close your fingers to fix the pistol inside your hand. Remember, the pressure of the gripping is based on the event and the need of fast recovery of the recoil. Do not over do it. I wish everyone straight shooting and good luck!

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