

## A Philosophy of Heavy Bullet Use in Sixguns

by Jim Taylor

Over 60 years ago a cowboy from Idaho began writing about his use of heavy bullets in single action revolvers. It has taken nearly that long for the idea to become generally accepted among the shooting public and the ammunition manufacturers. And truth be told, there are many who still have not gotten the message. At least now there are some ammunition companies who regularly produce heavy-bullet loads for the big-bore sixguns.

There are four basic reasons for using heavy bullets in a revolver. I have come to these conclusions after years of use, experimentation, and listening to those who have used heavy-bullet loads around the world. These basic reason are:

- Velocity Retention - (increased energy at long ranges)
- Terminal Ballistics - (more power and penetration on the target)
- Efficient Use of the Powder Charge
- Over-all Increased Performance

Gunmakers and shooters in the muzzle-loading era correctly understood the problem that handgunners face today. Since the muzzleloader was basically limited as to velocity, the only way to increase the power level significantly was to either increase bullet weight, diameter, or both. To increase diameter meant changing to a larger caliber gun. Since buying another gun is not always practical, the simple way to increas the power potential is to use a heavier bullet. Sixguns have a limited velocity envelope. Hypersonic velocities are not practical in a revolver. If we want more power from a given sixgun we have to increase bullet weight. This is *the* only way to really increase the power of your .44 or .45. Of course there is always that pesky Law of Diminishing Returns. There comes a point where we put more and more into it and get less and less out of it. Experimentation with a number of sixguns has led me to believe that 300 gr. to 310 gr. is about ideal in the .44, and 305 to 320 gr. is about ideal in the .45. I know some will tell me they have run such and so bullet to umpteen hundred feet-per-second. And I am not saying you can't. But use the same gun and load for 20 years and tell me how it holds up. I have. And I have shot guns loose.

Many manufacturers, instead of learning from the past, have tried to come up with a "magic" bullet. A bullet that will be light enough to shoot flat and not recoil excessively. A bullet that will be heavy and strong enough to penetrate the target, yet will expand so as to cause maximum tissue disruption. Most of these efforts are geared toward getting a small-caliber bullet to act like a large caliber bullet. And it doesn't work. Expanding bullets that work well in laboratory settings do not encounter what we find in real life..... obstacles to the bullet's path. Suppose you have a whiz-bang bullet that expands in flesh to the size of quarter and gives instant stops. What if you have to shoot it through a car door to reach it's target? Now you have a problem. Or suppose you have a quartering shot going away from you on a large elk. Will your techno-slug reach up through the hindquarters and penetrate the heart and lungs? Life throws us so many variables that it is hard to plan for them all.

Bullets kill by one basic principle. They crush, tear and disrupt tissue. The same as poking a sharp stick, knife, piece of iron pipe or a plastic toothbrush handle through it. Look at what is used on large, dangerous game. Non-expanding solid bullets. The reason is this: penetration is needed! You must get that bullet deep enough to penetrate bones, rip arteries, crush tissue and tear holes in vital organs. When it comes to things that may eat you the professional hunter knows what to use. When it comes to someone who wants to destroy your family, rape you or your spouse, kill your kids, cripple or disable you, most people choose the light, non-penetrating loads available for their handguns. Why? Sometimes it is because they buy what is effectively marketed. In some cases it may be because the person has a small gun and wants it to act like a larger one. Whatever the reason, understand, it IS NOT expansion of the bullet that kills. It is putting the bullet in the proper place that does the job. I realize that the Police are limited as to what they can use by political forces beyond their control. But do not be fooled by the old "over penetration" lie. Knock a big hole in one side and a big hole out the other and if it is in the correct place, that is the end of the story. Note this also: Most shots fired by Police in the line of duty miss their intended target completely! A missed shot going off through the neighborhood surely is potentially much more lethal to bystanders than one that has gone through a bad guy's brisket and come on out the back. Why would you want to use something to defend yourself or your family that you would not try to stop Bambi with?

I am not suggesting you use a 300 gr. .44 or .45 bullet for self-defense. The recoil is too harsh to allow timely recovery between shots. But neither am I suggesting you use the super-light, high velocity stuff. Handloads are not considered proper to use for self-defense anymore, which is another whole subject. Suffice it to say that some lawyers could have a field day in court if you used a handload to defend yourself and the bad guy survived.

Lighter bullets slow down faster. Gravity and atmosphere begin to act on a bullet as soon as it leaves the barrel. A heavier bullet has more "inertia" (kinetic energy) and so retains more velocity for a longer distance than a light one. At extreme ranges a heavy bullet will have much more impact velocity than a light one which started out at a much higher velocity. It is a simple fact of physics that we just cannot get away from. Many who shoot handguns have never experimented with them at extreme ranges, say 1/4 to 1/2 mile. Most are skeptical of anyone who speaks of shooting such distances with a revolver. But those of us who have done long-range sixgunning know what they are capable of at that distance. Years ago some of us were shooting at an old cabin we later measured at just over 3/10 of a mile distant. A number of different caliber handguns were fired at it. When we drove over to check the effects on the old cabin we discovered most of our loads had shot completely through it, going in through the front walls and out the back walls. Bullets had penetrated nearly 10" of pine log after flying 3/10 of a mile. I found one of my .45 300 gr. bullets that, after coming in through the front wall, had hit an old iron bed frame and nearly gone through it! This from a load that left the barrel at 1100 fps nearly 600 yards away.

Slower-burning powders usually develop more velocity at a given pressure than fast burning powders. For example, if one should load a 30,000 CUP load of Bullseye powder with a 260 gr. bullet in the 45 Colt, the velocity is a little over 1100 fps. However, go to a slower powder such as H-110 and again develop a 30,000 CUP load with the same bullet and the velocity in the same gun will be over 1460 fps. You could say that the pressure lasts longer with the slower powder, pushing farther up the barrel. Now when you start using heavier bullets, the powders seem to work more efficiently. Using the same bullet as before, 23 grains of H-110 will shove the 260 gr. bullet to 1224 fps. The same powder charge using a 320 gr. LBT bullet will push it to 1280 fps. Same powder charge, but 60 fps increase. Of course the pressure is

higher with the heavy bullet. Velocity and pressure are tied to each other. But the powder works more efficiently with the heavy bullet. I use 2400 powder a lot in my sixguns. One complaint about 2400 is unburned powder left in the cylinder and barrel with some loads. When using heavy bullets I have not had that problem with 2400. It seems the heavier bullet makes the powder burn cleaner.

Generally heavy bullets are more accurate than lighter ones. While it may not be the weight per se I do believe that part of the reason is the length of the bullet and the amount of it that is presented to the barrel. Generally heavier bullets enter the barrel and have the nose well into the rifling before the base of the bullet clears the cylinder. Get'em into the rifling straighter and they will shoot straighter.

Heavier bullets are not affected by crosswinds nearly as much as lighter bullets either. This may be due in part to the sound barrier and the fact that sub-sonic bullets are not affected by crosswinds and bullet drift as much as supersonic bullets are. This is a well-documented effect easily demonstrated with the .22 Long Rifle using High Speed ammo vs. Standard Velocity ammo in a crosswind. I know that my most accurate long-range loads are subsonic.

For hunting and long-range shooting I recommend a heavy bullet that you can safely shoot at 1100 fps to 1200 fps out of your handgun. For self-defense loads I use a lighter bullet at a slower velocity. A 270 gr. .45 slug at 950 fps will shoot through most cars, let alone the door. The velocity is high enough to generate good energy, while not high enough to cause harsh recoil. Most loads should use medium to slow burning powders with heavy bullets. Medium powders would be powders in the range of 2400, 4227 or AA#9. Slow powders are powders like H-110, WW-296, AA#1680. There is no reason to try for extreme velocity. Since the sixgun is limited to what it can achieve velocity-wise, all that pushing the velocity up another 200 fps does is extend your point-blank hold 50 yards. It will not increase "killing power" or "knock-down" power. What we are after is a good, accurate, hard-hitting load. In the .45 (and the .44 and .41) a fairly heavy bullet at these velocities will do it.

**ELMER WAS CORRECT!**