

# .475 MONSTER

For close work on dangerous game, the .475 may just be the perfect revolver.

By Ross Seyfried

## THE 'OU

**D**uring the last several years, I have had various opportunities to shoot and study what might be best called super-magnum handguns. Magnum is a term I detest, but it is such a standard part of our shooting vocabulary that it is hard to avoid. In the beginning there was the .357 Magnum, followed by the .44 and .41 Mags. They are fine

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rounds, but all are too light (with the possible exception of very heavy bullets in the .44) to reliably do a good job of taking animals larger than deer.

My first real experience with meaningful handgun horsepower was with .45 Colts, using bullets over 300 grains. It and its modern counterpart the .454 Casull (when properly loaded with heavy bullets) cast a cloud of insignificance over all other handgun cartridges in the big game fields. To date, I have taken nearly 100 head of big game (most previously wounded by rifles) with my .45 Colts and the big 330-360-grain bullets. Included in this list is almost every size and shape of beast, topped by Cape buffalo. I am continually amazed at the game-stopping ability of this combination, but I suppose I shouldn't be due to the ballistic similarity to the big black powder rifle cartridges.

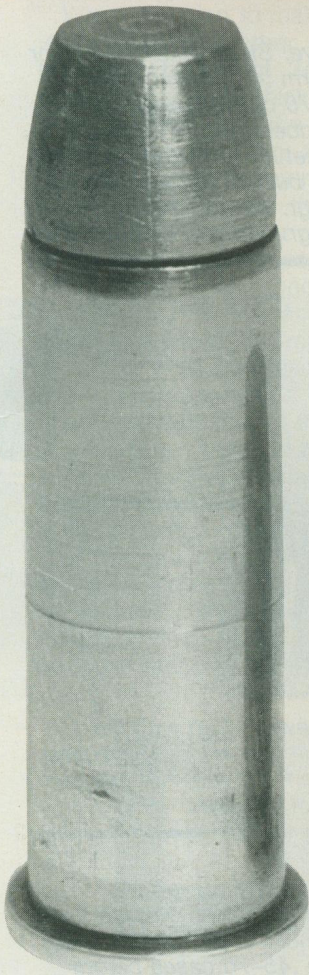
I liked the .45 bore so much that I followed it with the .500 Linebaugh. This was the .348 Winchester case cut to 1.4 inches, throwing .512-inch bullets up to 470 grains. Housed in a specially modified Ruger Bisley, this big .500 became the heavy hitter of the revolver world. (See *Guns & Ammo*, August 1986.) As great as the .500 is, we felt that it was lacking something. I think my best impression of the .500 is that it is just a little sluggish. The case volume may be just



While recoil of the big .475 Linebaugh is definitely a bit stout, the Ruger Bisley grip design helps a great deal by making the recoil more of an upward roll than a straight back slap to the hand. High profile sights on .475 are an asset.

# MAGNUM...

## TER-LIMIT' HANDGUN



Using colored ice to demonstrate the tremendous striking energy of the new .475, the author touches off a round at the frozen mass. The result is a spectacular display of shattered ice crystals exploding into the air. The 440-grain LBT flat point bullet is traveling at upwards of 1,400 fps, which translates into over 2,000 pounds of muzzle energy.



a touch small when compared to the bore diameter. While we were and are tickled senseless with the .500, it seemed possible that we had gone just a bit too far. John Linebaugh suggested a bore halfway between the .45s and the .50s, spawning the .475 Linebaugh.

John's idea was to create a big .41 Magnum, and that's just what he did... and then some. The large-frame Ruger Bisleys worked so perfectly for the .500 that this revolver was the obvious choice for the .475. (NOTE: These revolvers are custom modifications of the Ruger revolvers. This work is neither approved nor encouraged by Sturm, Ruger & Co. The modifications immediately void any Ruger warranty. Sturm, Ruger & Co. is not liable in any way for

the use or abuse of these modified revolvers.) The Ruger Bisley grip does a grand job of handling the monumental recoil that the huge cartridges dish out. Also, the sheer size of the frame adapts itself to the long, oversize, 5-shot cylinders needed to house the cartridges. The .475 round gave us one immediate advantage over the .500. The .45-70 cases that are used to form the .475s are almost .050 inch smaller in diameter than the .348s that make up the .500s. This smaller case diameter translates into thicker cylinder walls, allowing the .475 to safely use a higher working pressure than the .500. The first .475s were fitted with 5½ and 8-inch hand-cut Krieger barrels. The barrels were made for .475 Nitro Express rifles, and the fine

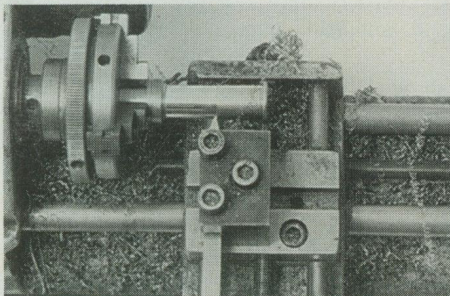
hand-cut, hand-lapped match barrels performed beautifully with our heavy lead bullets. My personal .475 has a 5½-inch barrel with an integral front barrel band. This band adds additional muzzle weight, some slight aid in keeping the front sight out of my forehead with the heaviest loads. The band also has an abrupt rear shoulder that supports the front of the ejector rod housing. This added support helps keep the housing in place, adding a recoil shoulder that helps share the sheer load on the screw that holds the housing on the barrel. The finished 5½-inch-barrelled revolver weighs 48 ounces—a tidy package that fits in a belt holster, with horsepower unknown before.

We added two other modifications to

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the gun that helped complete the package. First, Linebaugh used a threaded set screw to lock the base pin into the barrel. I haven't had trouble with base pins jumping out of their spring-loaded latch, even with heavy .45 Colt or .500 loads in the fine Ruger revolvers, but this added touch creates some margin for error. Remember, these heavyweights aren't designed for rabbit hunting. There is a good possibility that any one of these guns could end up as the last line between some guide and long teeth.

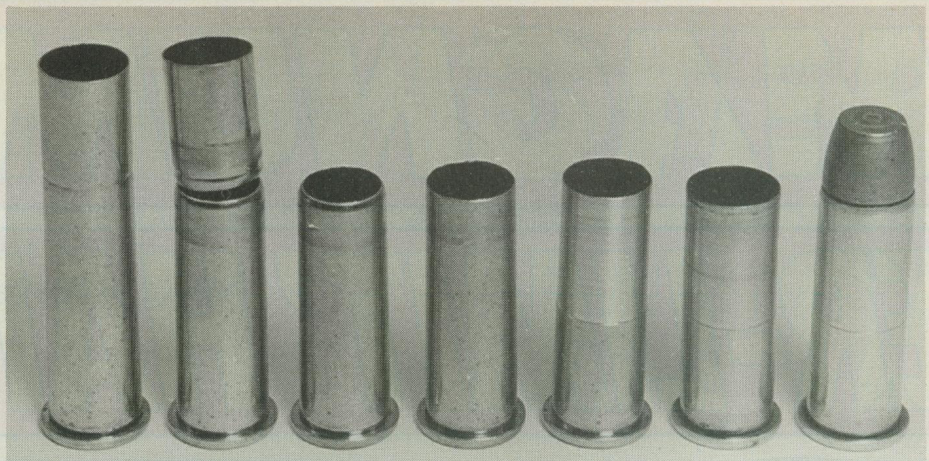
Another modification that adds both reliability and shootability is to replace the main hammer spring with a special "extra power" spring made by Wolff Gunsprings. The normal Ruger spring has a rating of just over 20 pounds. I like a 28-pound Wolff spring. This spring adds several desirable qualities to the



Use of a lathe to "neck turn" already trimmed .475 cases to fit in tight chambers results in fine custom brass.



After lathe turning, a tubing micrometer is used to check case wall thickness. Here, .25mm or .010" is ideal for .475.

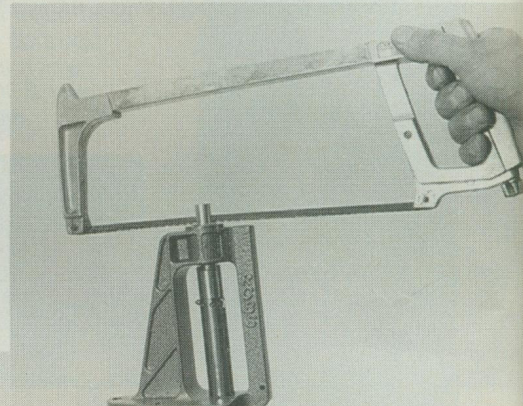


Above: Steps taken by author to form .475 ammo from .45-70 cases. Larger chambers and RCBS form die set make this easier. Left: .475 bullets: 320-gr. LBT, 340-gr. LBT, 370-gr. LBT, 400-gr. NEI and 440-gr. LBT.

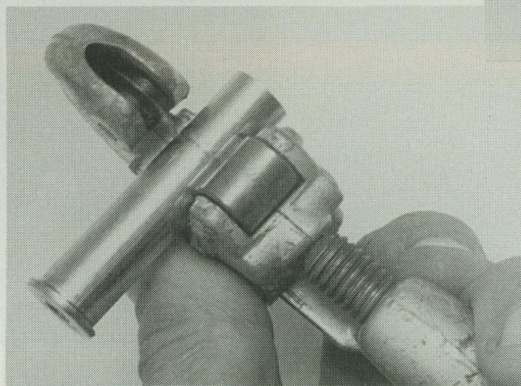
### .475 LINEBAUGH EXPECTED VELOCITIES

BULLET WEIGHT (grs)	VELOCITY (fps)
325	1,600
350	1,500
400	1,400
440	1,350

This information is a general guideline of performance to be expected from the .475 Linebaugh. Actual velocities will vary with bullet material, chamber dimensions, barrel length and loading components.



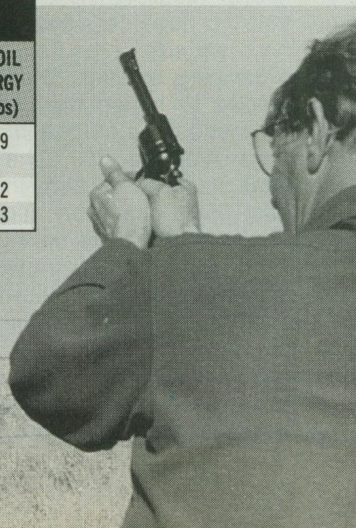
A hacksaw is used with the RCBS trim die to cut off excess brass from the .45-70 case in making .475 cases.



A tubing cutter can also be used to trim most of the excess brass from the .45-70 cases before forming the .475 cases.

### .475 LINEBAUGH RECOIL COMPARISON

CALIBER	FIREARM WEIGHT (lbs)	BULLET WEIGHT (grs)	MUZZLE VELOCITY (fps)	RECOIL ENERGY (ft-lbs)
.44 Mag	3	240	1,200	14.9
.500 Linebaugh	3	440	1,300	52
.475 Linebaugh	3	440	1,350	53.2
.475 Linebaugh	3	370	1,000	23.3



revolver. First it gives the primer a damn good whack; misfires aren't a consideration. The stronger spring eliminates most of the possibility of a soft primer flowing into the firing pin hole that would keep the cylinder from rotating to the next round. Finally, the big spring makes the hammer fall much crisper, actually shortening the locktime and making the revolver easier to hit with. In my opinion, these heavy hammer springs are a fine addition to any single-action revolver. These, together with a great variety of

.475 hitting and destroying a thick-walled concrete block. Revolver in full recoil was still very controllable.

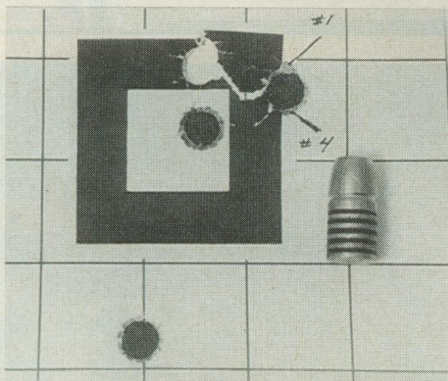
**"The large-frame Ruger Bisleys worked so perfectly for the .500 (Linebaugh) that this revolver was the obvious choice for the new .475 Linebaugh."**

fine gunsprings, are available from Wolff Gunsprings, Dept. GA, Box 232, Ardmore, PA 19003. (Please include \$1 for their catalog.)

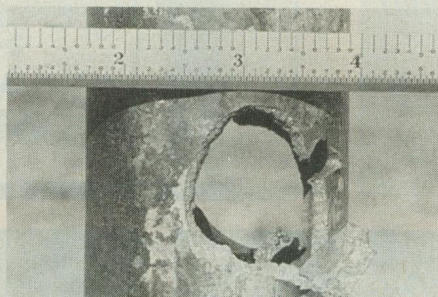
When you start to make cases for the .475, you find another advantage over the .500. The parent .348 case used in the .500 has very thick walls near the base. In addition to the necessary trimming and expanding, the .500 cases must be neck turned or reamed inside to give the correct wall thickness around the bullet. When you make the .475s from .45-70 cases, case forming can be very simple. If you specify chamber dimensions that will accept unturned cases, Linebaugh can make your revolver so that it will use cases requiring only two forming operations. RCBS makes a special forming die set that expands the .45-70 case to .475 in one stroke. The second die is a standard hacksaw/file trim die that cuts the case to the required 1.4-inch length. All that remains is to load the cases on a standard RCBS 3-die reloading set. (This simple approach works using the large chambers and Winchester .45-70 cases. I find that the walls of the excellent Federal .45-70s



Above: Author's trio of "super magnums." Top to bottom: the .500, .475, and .45 Colt Linebaugh revolvers. .475 and .500 use Ruger Bisley frames. .45 Colt is made on Seville frame. All exhibit superior finish. Left: .45 Colt, .475 Linebaugh, .500 Linebaugh.



This tight fifty-yard group fired with 440-grain LBT bullets resulted in 4 out of 5 shots printing less than 1 inch.



A scope mount malfunction sent a 440-grain .475 bullet into this thick-walled 2-inch-pipe target stand.



Above: RCBS case forming die set for the .475 Linebaugh. From left is expander die, file trim die, extended shellholder. Left: Steps in making cases shows sequence of forming.

are thicker and will require neck turning. I didn't have any Remington .45-70s on hand to measure.)

My personal revolver is cut with tight chambers, and I admit to enjoying complicated case forming. I start with WW .45-70s, cutting them to 1.5 inches with a tubing cutter. Then I expand them with an RCBS .455-inch expander and turn them on a lathe, using a .455-inch mandrel inside the case. This "neck" turning gives me a uniform .010-inch case wall .7 inch down the case from the mouth. After turning the cases, I expand them to .475, fire-form them and trim them to final length. I am using the .455 tooling I have on hand; the same thing can be accomplished using .475-inch expanders and mandrels. Another alternative is to inside neck ream with a special die that RCBS can easily supply with their forming set.

The .475 handles an interesting and useful range of bullets. Initially the cartridge was designed to use 400-grain bullets, but I have had good success with weights from 320 to 440 grains. Two basic bullet shapes have come to the forefront in the .475. This is a standard truncated cone made by NEI and a radiused flat point made by LBT. I have a series of the LBT moulds ranging from the lightest to the heaviest weights usable in the .475. They feature multiple small lube grooves and a full-diameter nose in front of the crimp groove. The

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nose shape is like a spitzer that has been chopped off, leaving an ogive, ending in a broad, flat point. Because this is a big game cartridge, my favorite bullet is a big one. I use the LBT mould designed to throw a 440-grain weight of wheel weight metal. I cast the bullets using less dense linotype and get a 420-grain finished product. The bullets are hard and tough, with the tenacity to punch right through ton critters. This bullet is an inch long and roars out of the barrel at almost 1,400 fps. As a final bullet design, we will shorten that bullet just a little, casting a wheel weight bullet that weighs 420 grains. With this combination the bullets can be shot as they come from the mould for normal game, heat-treated for extremely heavy animals or cast with pure-lead soft noses where maximum destruction is desirable.

I compare the .475 to the .41 Mag for some obvious reasons. It is the midsized super magnum, falling dimensionally between the .45s and .500s just like the .41 fits between the .357 and .44. I confess I have never been a fan of the .41 because it just isn't enough gun to really interest me, but it has some traits that I like. If you compare it to the other revolver cartridges, the .41 is the flat-shooting hot rod. It throws much heavier bullets than the .357, and if you use bullets that weigh the same as the .44s, they are longer, giving better sectional density and trajectory. The .475 does the same thing to the other two big bores. It is just getting started with 340-grain bullets, right where the .45s are finished. When we compare it to the .500, the heaviest useful .475 bullets weigh 440 grains, whereas we found that the .500 was maxed out with 470 grains of lead. The .500 is really at its best potential with a 440-grain bullet moving at 1,250-1,300 fps. My 5½-inch-barrelled .475 easily pushes 440-grain bullets at 1,350 fps, 420 grainers nudge 1,400 fps and the 370-grain bullets are happy at 1,500 fps. Where we felt like we were pushing the .500 to make it go, all we had to do to the .475 was stand back and let it run.

Getting great ballistics and accuracy out of the .475 was easy. I don't search for the right handgun powder anymore. I think there is only one choice: Olin/Winchester 296 or Hodgdon H-110. I say one choice and list two names because they are the same powder, and in my opinion are head and shoulders ahead of anything else for full performance handgun ammunition from .32 to .500 bores. (CAUTION: Even though H-110 and WW296 are virtually identical, variations occur between lots of the same brand and between lots of 296 and 110. As always, all maximum loads should be reduced 10 percent and approached

with caution. The loads were safe in my revolver, but the .475 revolvers are custom arms and the use of these loads in any other arm is the sole responsibility of the user. Neither the author nor Guns & Ammo recommend the use of these loads in any other firearm.)

I started load development with 370-grain LBT bullets, using John Linebaugh's suggested starting loads of 29 grains of H-110. The velocity was an impressive 1,285 fps. A maximum load of 33 grains yielded 1,495 fps velocity. Loading the 440-grain bullets, I worked up from 27 grains of 296 with a velocity of 1,280 fps to 29 grains to get a velocity of 1,357 fps, using Federal #155 magnum large pistol primers in all loads. These were the most powerful handgun cartridges I had ever fired, and the most I ever want to fire. Recoil is fast and heavy, suited only to the most seasoned handgunners. I do load the 370-grain bullet to 1,000 fps using 25 grains of 296. This makes a very pleasant load to shoot. So that we don't lose perspective, this "reduced" load will in all probability break both shoulders on an elk and shoot lengthwise through any deer ever created!

The .475 is quite accurate when compared to revolvers of almost any power level. I had my gun rigged with a special test fixture. This was a steel block that held a 10X Burris handgun scope on the barrel. The largest 5-shot benchrest group I fired was six inches at 50 yards, using all five chambers. Five shots occasionally grouped as small as one inch using the big LBT 440-grain bullets, and all shooting averaged about three inches at 50 yards.

Penetration tests ranged from great to downright spectacular. Using a heat-treated wheel weight 440-grain LBT bullet, I punched a hole in 53 inches of wet newspaper! Only the great .500 is able to stand that pace. The interesting part of these penetration tests was the spectacular performance of the new LBT bullet shape. By coincidence the shape of these bullets is almost identical to the shape used by Trophy Bonded bullets on their famous "Sledge Hammer" solids. These solids are designed for use in heavy-caliber rifles, with their design criteria being *straight, unyielding penetration* through the heaviest animals on earth. The radiused flat point shape has a way of going straight through, without tumbling, better than any other bullet design I have seen. In my tests, this big LBT bullet would chop a 1-inch-diameter hole through over four feet of wet paper.

In comparison, I tested my 345-grain "bone-cracker" .45 Colt load. This is a semi-pointed bullet/load that has proven itself on big game. I have hit Cape buffalo on the shoulder and recovered the bullets under the skin on the far side. Sunny Braaton of Alaska has punched them completely through both moose

and grizzly bear. The same ammunition that took the bear, moose and buffalo stopped almost a foot short of the .475 in the same paper on the same day! These results are partly due to the superior bullet design staying point forward, whereas the semi-pointed .45 bullets usually turn sideways to some degree. This awesome performance is also a result of the sheer horsepower pushing the long .475 bullet.

As you read this, many of you will wonder if you want a .475, and, at the same time, after all of this mumbo jumbo you will wonder what is the best handgun cartridge for big game. You might be surprised to learn that for general hunting and hunters I don't think it is either the .475 or .500. Except under extraordinary circumstances the .45 Colt/Linebaugh or the .454 or .45 Colt Casulls are the best bet. They have taken everything from elephant on down, and have more than adequate punch for anything smaller than moose. The .45s are easier to hit with and feed due to their lower recoil and factory cases. It's only when the critters get big and mean and the conditions get tough that the giants come into their own. The .475 is a little easier to feed than the .500 and is ballistically superior. The .500 has that quality of bullet diameter that you can't ignore when the going is tough. Using the 440-grain bullet weight, both the .475 and .500 cartridges produce a Taylor Knock Out Value of about 40... or over half of the punch delivered by a factory .458 Winchester and more than double that of a .44 Magnum. If I were guiding bear hunters or hunting heavy game with a handgun, I think the .475 is where it starts and stops. In fact, I think my experimentation with heavy handgun cartridges is about over. My .45s will handle anything ordinary... and then some, the .500 is waiting for whatever, and if this grand .475 Linebaugh can't do it, I don't want the job done with anything less than my .416 Rigby.

Like their .500 counterparts, the .475 revolvers are one-of-a-kind, custom wildcats. My loads are perfectly safe in my hands in my revolver. The author is not liable for the use of any other loads or .475 revolvers. If you buy a .475 Linebaugh, you will be supplied with complete loading details for that revolver. The safe loading and use become your responsibility. The cost of converting your Ruger is approximately \$700. If you are interested in more details, send a stamped, self-addressed envelope to John Linebaugh, Dept. GA, Box 1263, Cody, WY 82414. Loading dies are available on a custom, special-order basis from RCBS, Dept. GA, Box 1919, Oro Dam Blvd., Oroville, CA 95965. Bullet moulds for the .475 are available from LBT, Dept. GA, Box 357, Cornville, AZ 86325, and Northeast Industrial, Dept. GA, Box 249, Canyon City, OR 97820. ☼