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Ruger’s New Vaquero!
A Midsized Single Action
Brian Pearce

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Vihauvori N133
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7mm Remington Short Action Ultra Mag
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John Haviland

Colt New Service Revolvers
A Man’s Sixgun
Al Miller
On the cover . . .
The Ballard High Wall .45-70 is outfitted with an Axtell tang sight. The new Ruger Vaquero is available in stainless steel or blued barrel and grip frame with colored frame. Rifle photo by John Barsness. Pistol photo courtesy of Sturm, Ruger & Co., Inc.
**CORRECTING MISTAKES**

Sometimes back I was reading *Cowboy Chronicles*, the monthly newspaper that is included with my Single Action Shooting Society (SASS) membership. There was a short piece from a SASS member describing how he had developed a “spread sheet” on a computer that used cartridge weight to determine if one or more cartridges contained significantly more powder than he intended to load. The point was simply that he had used a powder measure and inadvertently dispensed more powder in some cases than prudence would allow. So he used the spread sheet to calculate the maximum weight variation – the total of case, primer, power charge and bullet – attributed to components, so he could pull the bullets on cartridges that weighed too much, assuming the excess weight was due to too much powder. The main point of his work was to avoid pulling all the bullets.

I disagreed then, and still do, with the attempt to avoid the obvious, “when in doubt, pull the bullets.” So, I wrote a letter to *Cowboy Chronicles* and outlined the proper use of loading blocks, so it is a simple matter to just look down in the cases, to visually check the powder level, before you seat the bullets.

Of course, the other problem was that the author of that piece used a progressive press, and it is a bit difficult to visually check the powder level in each case. (If you don’t have a die to check the powder level, get one.)

Quite frankly, I was more than just annoyed at the notion that someone would attempt to avoid the basic responsibility that goes along with handloading. If you make a mistake, fix it, even if it means pulling the bullets. No questions asked. In this case, all the bullets could have been pulled in the time it took to create the spread sheet, and the guy would have been back in business. Talk about dead-end busy work!

If you think about it for a moment, consider that he was willing to put his handgun, his own safety and the safety of others at risk just to avoid an hour or so pulling bullets!!

In contrast, a reader e-mailed recently to relate that he had inadvertently used CCI Small Rifle primers instead of Small Pistol primers in his .38 Special loads. He wanted to know what to do about it – a very sane question.

Two questions cropped up regarding his dilemma - are the rifle primers hot enough to raise pressures significantly with 4.3 grains of W-231 under a 158-grain cast bullet, and are the primer cups hard enough to resist the blow of the firing pin, causing hangfires or misfires?

I didn’t know the answers, so I called Allan Jones at Speer. Allan has been the driving force behind the last three Speer reloading man-
our visit. At some point, I noted the New Model Blackhawk and Vaquero were big sixguns, much too big to be chambered for a .357 Magnum or even a .45 Colt or .44 Special. He agreed, but like the big

Downsized Rugers

When Brian Pearce forwarded the feature on the New Vaquero from Ruger, I thought, oh boy, here we go again. Does this mean another level of .45 Colt loads for the midsized sixgun between the Blackhawk and Colt Single Action? At about the same time, a reader wanted to know the strength level of the Smith & Wesson Model 25 .45 Colt.

On the other hand, the reader could have called Speer (Allan Jones) himself. All ammunition and powder manufacturers have an open line – e-mail or telephone – to customers who have questions. So, if you pull a dumb stunt, don’t be embarrassed – most of us have done the same thing – or waste time procrastinating, get expert advice. The only other option is to pull the bullets and start over.

My initial reaction was “Good grief, will it never end?” but I would rather have the midsized Vaquero .45 Colt and go through the trials and tribulations of working up another set of loads than not have it.

Here’s why. Just before Bill Ruger Sr. passed on, he asked if I would come to his home for a visit. We cussed and discussed a lot of gun-related subjects and a number of not-so-gun-related issues during our visit. At some point, I noted the New Model Blackhawk and Vaquero were big sixguns, much too big to be chambered for a .357 Magnum or even a .45 Colt or .44 Special. He agreed, but like the big

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Model 77 MKII Magnum .375 H&H, he wanted them to be indestructible, hence the large frame Blackhawk and the huge MKII action that was originally built to accommodate the .416 Rigby and .458 Winchester Magnum – both of which produced a bunch more recoil than the somewhat mild, relatively speaking, .375 H&H.

I pointed out that, at the time, there were at least 40,000 potential customers (cowboy action shooters who usually buy two handguns) for a downsized Blackhawk/Vaquero. Mr. Ruger acknowledged the potential market, but admitted it probably didn’t have legs, mostly because he was “out of the loop,” and the new president and board would, mostly likely, “deep six” it.
I noted that the company was just giving the business to Uberti or Colt, but it was their call, and we went on to other topics of mutual interest - including Mr. Ruger's beloved cars, boat and art work. Two weeks later, the most remarkable gun designer in the history of our country was gone.

I doubt very much that Mr. Ruger ever mentioned the downsized Blackhawk/Vaquero to anyone at the company. Nevertheless, we have it, and I'm going to buy one, if for no other reason than as a tribute to the few hours spent with Mr. Ruger. Neither am I suffering from any fanciful notion that I was the only "writer" to come up with the idea. I'm sure others prodded Sturm, Ruger & Co. as well, including Mike Venturino, John Taffin, Jim Wilson and Brian Pearce, not to ignore some 40,000 cowboy action shooters who were lugging the full-sized Vaquero around stuffed with spit-wad loads.

The other sixgun to come out of this downsized philosophy at Sturm, Ruger & Co. is the new Old Model Flattop 50th Anniversary edition. I have representative Old Models in .357 Magnum, a Turnbull .44 Special, a near-mint Old Model .45 Colt with a .45 ACP cylinder and a three-digit serial number Old Model .44 Magnum with the long grip frame and 7.5-inch barrel. They are all excellent sixguns, and if anyone cares, it's about time they were brought back.

During our visit, Mr. Ruger told me the story about how someone dug the fired .44 Remington Magnum cases out of Smith & Wesson's trash and dumped them on his desk. Without Smith & Wesson knowing about it, Ruger had a Blackhawk ready for the market almost immediately, not withstanding blowing up a couple of preproduction guns first. How I miss the days of rambunctious, pugnacious entrepreneurs who ran companies by their gut feelings and the flame in the seat of their pants. Sadly, the corporate gut (speaking of the industry collectively) nowadays often lacks the stomach for the likes of Bill Ruger.

And, I haven't forgotten. For the midsized New Vaquero .45 Colt and Smith & Wesson N-frame Model 25, maximum suggested loads are those listed in the starting loads from the Speer Reloading Manual No. 13 for the Ruger Blackhawk. The same applies for the post-World War II Colt Single Actions that are in as-new shape. For Colt reproductions, stick with the loads listed for the Colt Single Action in the Speer manual, and no, I don't approve of loads below the listed starting loads in any form. Allan Jones tells me Speer will be coming up with pressure tested loads for the RCBS .45-270-SAA design in the not-so-distant future. I suggested he might want to shoot them in a downsized New Vaquero. I'm not sure, either the phone line went dead, or he hung up on me.

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At Last, Ruger’s New A Midsized Single Action

Brian tested a Ruger New Vaquero stainless steel .45 Colt with a 4½-inch barrel. The holster rig is El Paso Saddlery’s Duke 44.
Brian Pearce

Sturm, Ruger & Co. has discontinued its popular single-action Vaquero revolvers to make way for the “New Vaquero,” which in my opinion is a distinctly improved version with some important design changes—better balance and handling qualities and improved chamber tolerances.

To help understand the significance of the changes implemented to the new sixgun, it seems appropriate to take a brief glance at the original Vaquero. Introduced in 1993, features included fixed sights, blue finish with case colored frame or all stainless steel, and it was available in .45 Colt (with optional extra cylinder in .45 ACP), .44 Magnum, .44 WCF and .357 Magnum. The grip frame was steel (rather than aluminum like the Blackhawk) and was essentially the same shape and feel as the XR3-RED and XRN3-RED designs found on Ruger Blackhaws (as well as New Model Blackhaws) since 1963. The cylinder frame had the same internal dimensions as all Super Blackhaws and New Model Blackhaws.

Regardless of caliber, all Vaqueros feature a “.44 Magnum” frame size. To date more than 700,000 have been sold, confirming just how great the demand is for a good single action. While some may think the relatively new sport of cowboy action shooting accounts for a large portion of these sales, it should be pointed out that there are around 70,000 SASS members. So the majority of Vaqueros ended up in the hands of non-competitive shooters.

The New Vaquero naturally features fixed sights and is available in all stainless steel or blued finish with case colored receiver. Barrel lengths remain the same at 4¼, 5½ and 7½ inches and initial offerings are in .357 Magnum and .45 Colt, with the sample being in the latter caliber. The frame is smaller, close to the Colt Single Action Army revolver, although still slightly larger. A Colt cylinder measures 1.650 inches in diameter and 1.610 inches in length, while the new Ruger measures 1.685 inches in diameter and the same 1.610 inches in length. (Neither is countersunk.)

The web, or thickness between chambers, runs .038 inch for the Ruger, while the Colt SAA measures .040 to .042 inch. The new Ruger outside chamber wall thickness is .080 inch while the Colt is .065 inch. (For comparison the old Vaquero cylinder measures 1.730 inches in diameter (all calibers) and 1.705 inches in length for the .45 Colt, with .063 inch between chambers and .080 inch outside cylinder walls.) The New Vaquero cylinder dimensions are similar to the Blackhawk “Flattop” .357 Magnum (produced from 1953 through 1963) and old model Blackhawk .357 (1963 through 1972), although still slightly larger (about .010 inch) in diameter.

The “.357 Magnum” frame size, as it is often referred to, was discontinued in 1972 and has been sorely missed. Because of its tidy size, it has been a popular

The New Vaquero has some design changes.

Due to the new grip frame and extended hammer spur, the New Vaquero is easy to cock and offers improved balance.
that leaves between .030 to .035 inch actual chamber wall thickness (which varied some from chamber to chamber). Considering the steels Ruger is currently using and with the above cylinder measurements, indications are that the gun is absolutely safe with loads that generate 22,000 to 24,000 psi. Certainly the gun will take even greater pressures than this, but with safety first priority, as well as longevity, I would advise against using loads that exceed that limit. Just for the record, 200 rounds were fired that were in this pressure range and were digested without a hitch.

The New Vaquero has some design changes that have improved its balance and makes loading/unloading easier. For starters, regardless if the gun is in blued finish or stainless, all parts are steel - there is no aluminum. The grip frame is identical in shape to the early Ruger Blackhawk Flattop XR3 but is .060 inch narrower and is fitted with checkered black, hard rubber stocks. The result is a feel and balance that resembles the Colt Single

Below, note the shorter frame and base pin of the New Vaquero (top) as compared with the original Vaquero (bottom).

Below, the hammer spur of the New Vaquero (left) is longer than the original Vaquero (right).
Action Army revolver, which has generally been considered a masterpiece in this department. This grip frame also has less leverage on the shooter during recoil, giving the impression that recoil is reduced. The Ruger is a bit heavier at 38 ounces (with 4½-inch barrel), while the Colt SAA .45 with 4½-inch barrel tips the scales at 36 ounces.

The Ruger hammer spur has been extended back toward the shooter and again is similar to the Colt spur. The combination of the improved grip shape and the extended hammer spur makes the New Vaquero easier to handle and better balanced than the original Vaquero, making it much easier (and faster) to cock with either thumb. If the hammer is cocked with the thumb of the shooting hand or “thumbed” with the off-hand, the spur is easier to reach and seems to give a bit more leverage to compress the mainspring, giving the impression of a lighter hammer pull.

Holding the two sixguns side by side and working the actions will instantly reveal the improved handling and balance. This is not just my opinion, as I requested more than a dozen shooters to handle them side by side, and the New Vaquero won unanimously. These two changes are something I had petitioned Sturm, Ruger & Co. for nearly a decade to implement, both in writing and verbally, and am tickled to see them in a production revolver.

In addition to having the New Model lock work (introduced in 1973), which features a transfer bar to allow the safe carry of six cartridges, the New Vaquero has an Ejector Alignment Pawl. This patent-pending feature helps align chambers with the loading trough, while loading and unloading. There is also a lock work change that allows the chamber to be rotated well past the loading trough (clockwise) then reversed to allow that chamber to be aligned for loading or unloading, a welcome improvement over conventional New Model Ruger single actions.
In the New Model design, once the chamber was rotated just past the loading trough, it couldn’t be reversed, and the cylinder had to be rotated completely around to access that chamber again. The Ejector Alignment Pawl indexes the cylinder at the location required for loading/unloading and is simply a plunger located in the rear of the frame that is activated from the cylinder ratchet – very simple, yet will undoubtedly prove reliable. A drop of light oil on the ratchet (as well as the end of the cylinder), however, smooths cylinder rotation and helps slow wear resulting in excess cylinder end-shake, as well as keeping the plunger working smoothly. Due to the Ejector Alignment Pawl, there is an additional audible click as the hammer is thumbed and the action worked.

The New Vaquero base pin has no shoulder (as previous Vaqueros did) and is shorter, which combined with the shorter frame and cylinder allows the ejector rod to extend farther out the chambers, ejecting empty cases more reliably. There is a new ejector rod head that is shaped similarly to the Colt SAA revolver but smaller, and it is noticeably more comfortable for extended shooting sessions. An internal lock that is key-activated (stocks must be removed to access) will prevent the gun from functioning. For those, such as myself, who never plan to use this device, it in no way affects the function or reliability of the gun and can simply be ignored.

Information coming from Ruger indicates the New Vaquero is built on new tooling and this sample gun is fit tightly and well machined. Cylinder side-play and end-shake are held to reasonable tolerances, the forcing cone is cut smooth, and the barrel/cylinder gap measures .004 inch.

Over the years I have measured the throats of dozens of older Vaqueros and Blackhaws chambered in .45 Colt. Virtually all guns built in the last 15 years have throats that measure .448 to .450 inch, with .449 inch being most common. Combined with a groove diameter of .452 inch, accuracy was not up to its full potential until the throats were opened to .452 to .453 inch, depending on bullet size. (This is a simple job and most gunsmiths charge around $40 to $50 for the work and only require the cylinder be sent.) In measuring the throats of the New Vaquero, I found they measured .452 inch – right on the money for best accuracy.

The first load tried was Remington’s 250-grain lead bullets at an advertised 860 fps, which clustered around 3 inches low (depending on how I viewed the front sight) and 2
inches to the left at 25 yards. Several groups were fired and, as long as I did my part, grouped around 2 inches. Winchester Ammunition’s 225-grain Silvertip hollowpoint load with an advertised velocity of 920 fps grouped 5 inches low and clustered into 1 1/2 inches.

Ruger has provided a tall enough front sight, so this sixgun can easily be sighted for most individuals shooting standard .45 Colt loads driving 250/255-grain bullets in the 850- to 900-fps range. Not everyone sees sights the same, and neither do they hold (or grip) the same, therefore handguns shoot to various points of aim for different shooters. Nonetheless, I suspect this sixgun will shoot low (with standard loads) for most, and the front sight can be filed accordingly.

The New Vaquero was tried with a variety of handloads that included both jacketed and cast bullets, ranging in weight from 225 to 285 grains. Overall accuracy was good, which is probably due to the correct throat tolerances, good chamber alignment and a quality barrel. Bullets should be chosen that keep the overall cartridge length to 1.66 inches or less, or bullets may protrude out the cylinder, tying up the gun. Generally this is not a problem but should be noted, as some commercial cast bullets feature a nose length exceeding .375 inch and are intended for Ruger Blackhaws and “old” Vaqueros.

A bullet that worked particularly well in the New Vaquero comes from RCBS mould 45-270-SAA (weighs 285 grains when cast of wheelweights) and was designed
grains of Alliant Unique, it shoots pretty much to the point of aim at 50 yards and often groups close to 2 inches. Since this is the bullet and velocity I would use in this six-gun for everyday use and while kicking around in the hills, there is no need to file or make adjustments to the front sight. So loaded, I wouldn’t hesitate to hunt deer, black bear or even elk under good conditions.

For those wanting to duplicate the more than century-old, or should we say “proven,” smokeless .45 Colt factory loads containing 255-grain bullets at something between 850 to 870 fps, cast bullets from Lyman mould 454190 are a good substitute. When cast from wheelweights, it is a trifle heavier, at near 260 grains, which will prove insignificant. This bullet features a plain base, rather than a hollow base, with a nose and ogive profile that are correct. At 25 yards it easily grouped under one inch with several powders. Furthermore it offers good penetration and, in spite of having a rather small meplate, is a capable game bullet. There is no crimping groove, but it is seated to about 1.580 inches (depending on exact case length) then roll crimped over the ogive. The above bullets I cast myself and am unaware of a commercial source for them. A bullet that is of different design but can be substituted with the same powder charges is the Oregon Trail Bullet Company 250-grain RNFP (PO Box 529, Baker City OR 97814; 1-800-811-0548).

Frankly, with its New Vaquero, Ruger has given us a great gun — more than we had hoped for. Suggested retail is $583.

The New Vaquero was tried with a variety of handloads.
Tipton Gun Vise and Cleaning Rod

There must be few shooters alive, in the United States at least, who aren’t familiar with MidwayUSA of Columbia, Missouri, the large mail-order company specializing in shooting, reloading, gunsmithing, hunting and outdoor products. Fewer, however, may have made the connection between MidwayUSA and Battenfeld Technologies, Inc., Midway’s sister company. While Midway sells products, Battenfeld manufactures, or has manufactured, a number of products such as barrels, stocks, gunsmithing tools and supplies, reloading tools, shooting aids and gun cleaning supplies. These Battenfeld products are offered under a variety of brands such as Adams & Bennet replacement rifle barrels, Frankford Arsenal reloading tools and Tipton gun cleaning supplies. In all there are nine trademarked or copywrited brands.

In recent months, I’ve been spending quite a bit of time with a couple of the Tipton products: the Tipton Gun Vise and the Tipton Deluxe Carbon Fiber Cleaning Rod.

When we think of devices to hold firearms, particularly rifles, in place for cleaning or minor gunsmithing, we are forced to think in terms of vises that hold the guns securely and cradles that support the guns, usually with the muzzle lowered for cleaning, but not securely. The Tipton Gun Vise is just that, a vise. Shooters with some time in the sport will immediately see the resemblance between the Tipton Gun Vise and the older Decker Gun Vise. The Decker has been around for quite awhile. It was made of wood, oak I believe, with those areas that came in contact with the rifle covered in padded leather. It was quite attractive and priced accordingly. I say “was” to all this because recently Sinclair International, the bench rest and high power specialists of Fort Wayne, Indiana, purchased the rights to the Decker vise and now offer it as the Sinclair/Decker Rifle Vise. It has been around for quite awhile. It was made of wood, oak I believe, with those areas that came in contact with the rifle covered in padded leather. It was quite attractive and priced accordingly. I say “was” to all this because recently Sinclair International, the bench rest and high power specialists of Fort Wayne, Indiana, purchased the rights to the Decker vise and now offer it as the Sinclair/Decker Rifle Vise. It has been changed slightly, now with a polyethylene base and oak trim. It’s still handsome and fairly pricey.

The Tipton Gun Vise is made of a heavy-duty polymer with some steel parts where necessary. It sacrifices the beauty, and much of the price, of the others but adds a few worthwhile features the others don’t have. It is 32 inches long, 7½ inches wide and 9½ inches tall at its highest point. It weighs approximately 7 pounds. The predominate color is gray with the contact positions a softer synthetic material of a burgundy color. Metal parts are chromed and two knobbled handles are black.

The front raised portion of the
tool has a multicontoured V to hold barrel and foreends of varying widths. Approximately midway is a rest that usually contacts a rifle stock behind the pistol grip. Farther back is the vise. It consists of one padded rectangular fixed surface and one round, padded, movable “jaw” that threads in and out. Range of movement is about 1/2 to 2 1/2 inches. At the back is a lever that activates a cam that, in turn, moves a pivot arm to which the vise jaw is attached. When the tool is properly adjusted, it allows for the quick and repeatable capture and release of the gun stock. It’s really quite a desirable feature and one not found on other gun vises.

The other features unique to the Tipton vise are a series of recesses moulded into the base to hold gun parts, oil and solvent bottles, etc. Four are round with flat bottoms, two are round with curved bottoms (perfect for screws, etc.) and one, about 3x10 inches, for the bolt. Each end is notched on one side to hold a cleaning rod when not in use. These are all nice touches and, again, not found on other models. Four rubber feet are attached to the bottom and help retard movement.

I’ve used the Tipton Gun Vise for cleaning, scope mounting and minor gunsmithing on several guns. It lends itself best to bolt-action rifles, perhaps, but I’ve also worked on lever actions and shotguns. Cleaning is really facilitated, with the vise holding the stock securely. The same is true for minor gunsmithing such as installing scope bases.

Weaknesses, such as they are, and this is true of all such tools, include the difficulty in dealing with stocks having a cheek piece. The movable jaw pivots, but it is a bit of a nuisance. Also, if I had my druthers, there would be more adjustments, particularly in the center rest and vise area. Still, once accustomed to using a gun vise, I suspect you, as I, will wonder how we ever did without it.

The second Tipton product is the Deluxe Carbon Fiber Cleaning Rod. As have most shooters, I’ve accumulated a number of cleaning rods for handguns, rifles and shotguns in varying sizes for different calibers or gauges. Among them are aluminum, wood, fiberglass, brass and steel, coated and uncoated, jointed and one-piece rods. Some I have simply because I’m loath to throw anything away; others I’ve come to cherish because they do the job properly and well. For most rifle cleaning, I’ve come to prefer one-piece, uncoated, stainless steel models with handles that actually allow the rod to turn as the patch or brush is being pulled or pushed down the bore. Whenever possible, I use a bore guide. I have to admit, though, I may have found a new favorite.
The Deluxe Carbon Fiber rod itself is, well, carbon fiber. The tip is brass, threaded to accept 8x32 accessories. The other end is also brass where it attaches to a steel handle. A grippable section of a burgundy-colored polymer is mounted to the handle via two sets of ball bearings. The handle extends beyond the gripping surface about .5 inch and can be tapped with a mallet if it becomes necessary to apply force to dislodge a recalcitrant patch or other obstruction.

The rods are available in two diameters and three lengths: .22 to .26 and .27 to .45 calibers in 26-, 40- and 44-inch rod lengths. The rod I received for testing is the smaller, listed in the MidwayUSA and Battalion catalogs as for .22 to .26 caliber but carried a tag asserting its range as “.22 through .27 cal.” It has a 40-inch rod length. Overall length is 47¼ inches. Diameter of the rod is .210 inch. A comparable stainless rod on hand measures .200 inch. Without applying extreme pressure, both rods seem to flex about the same.

The attributes that make carbon fiber a natural for a cleaning rod are that it does not take a set if flexed excessively, instead returning to its original condition. It is hard enough to not pick up grit from cleaning materials or barrel residue, yet soft enough not to wear the steel barrel upon accidental contact. A bore guide is still a wise precaution, however, to protect the barrel and prevent cleaning residue from entering the action. The handle on this rod turns as smoothly as any I’ve used and the handle extension beyond the gripping surface is appreciated as I’ve broken more than one plastic-handled wonder over the years just tapping with the heel of my hand.

Nits to pick are few and far between. For my personal needs in cleaning barrels that run from 20 to 26 inches, regardless of action type, I would prefer a rod length of 36 inches. On the tip end of the rod is a rubberlike sleeve that serves to center the tip as it is drawn back through the barrel. It is soft and prevents any nicks as the tip enters the muzzle. A good idea, but I found the sleeve sometimes moves as it becomes wet with solvent. If it slips over the tip, it can create a diameter too large to enter the barrel and must be pushed back in place. A little Super Glue, judiciously applied, seems to solve the problem.

Despite my carping, this may be the best rod I’ve used. When cleaning chores arise, it and the gun vise will see a lot of use. – R.H. VanDenburg, Jr.
burning and non-corrosive, Pinnacle is designed to deliver higher velocities than conventional black powder does. “It’s accurate,” GOEX says, “with standard deviations similar to authentic black powder.”

Pinnacle is available in FFg- and FFFg-equivalent burning rates. It’s said to be a “low-pressure replacement for other replica black powder propellants providing a similar profile for muzzleloading.” The company claims Pinnacle resists moisture and remains stable over protracted periods of time.

GOEX has been manufacturing black powder for more than 90 years. For more information, contact: GOEX, Inc., Dept. HL, PO Box 659, Doyline LA 71023-0659; or visit www.goexpowder.com online.

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Regular-cut 7828 powder is not capable of producing the following velocities:

<table>
<thead>
<tr>
<th>bullet (grains)</th>
<th>charge (grains)</th>
<th>velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.26-06 Remington</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>59.7c</td>
<td>3,485</td>
</tr>
<tr>
<td>90</td>
<td>59.5c</td>
<td>3,375</td>
</tr>
<tr>
<td>.243 Winchester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>48.0c</td>
<td>3,130</td>
</tr>
<tr>
<td>100</td>
<td>46.0c</td>
<td>3,010</td>
</tr>
</tbody>
</table>

For more information, contact IMR Smokeless Powders, Dept. HL, PO Box 2932, Shawnee Mission KS 66201; or visit online at: www.imrpowder.com.

PINNACLE – REPLICA BLACK POWDER FROM GOEX

Muzzleloading fans now have yet another black-powder alternative to choose from. GOEX, Inc. has just introduced Pinnacle, which the company calls, “A new ‘bore-friendly’ smokeless replica black powder that looks like black powder, loads like black powder and can be used like black powder in all black powder firearms.”

While I haven’t had a chance to use the new powder yet, it looks promising. Described as clean-

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