One Shot at a Time

Riflemen who carry single-shots declare their willingness to bet a hunt on one pull of the trigger.

By Wayne van Zwoll
B&C Professional Member
Photos courtesy of Author

Mr. Patterson was fortunate. "Slowly he advanced along the path.… I let him approach to within about fifteen yards of me, and then covered him with my rifle. The moment I moved to do this, he caught sight of me…. I pulled the trigger, and to my horror heard the dull snap…."

Lyman's delightfully trim Ideal Model dropping-block rifle (here a .38-55) mirrors a "baby Sharps." Chiappa produced this Ideal Model for Lyman—a fine example of a high-quality Italian reproduction.

The animal that day was among the most infamous of beasts, a man-eating lion that, with another, stopped construction of East Africa's Tsavo railroad a century ago. The pair killed many workers, braving camps at night to snatch men from their fires. The terror stopped only when Colonel J.H. Patterson caught up with them after an epic, often heart-stopping effort that inspired the film, *Ghosts in the Darkness*.

The misfire unnerved Patterson. "I forgot to fire the left barrel, and lowered the rifle … with the intention of reloading…." But there wasn't time. The lion could easily have killed his antagonist. Instead, it bounded off.

Two shots, two locks, two chances, instantly. So goes the rationale still, among hunters who favor double rifles for dangerous game. Others argue that the magazine capacity of the repeater trumps a quick right-and-left. The reliability of modern ammunition has contributed to the popularity of bolt-action rifles where doubles once ruled. The cost of a best-quality double—still less than that of a red Maserati—makes the choice easy for most of us.

Then there are hunters who settle for one shot only.

A pivoting block

Before there were cartridges, almost all rifles were single-shots. Muzzleloaders gave way slowly to breech-loading rifles in the middle 1800s. Thirty years before coolies gathered at Mombasa to lay rails, Remington, America's biggest gunmaker at the time, bought the N.P. Ames Company. The deal included the services of Welsh designer William Jenks, whose breech-loading carbine seemed destined for military issue. Alas, in a 1,500-round test, a nipple broke just shy of the finish, and the rifle was disqualified. After sulking in France, Jenks returned at the government's behest, altering his carbine for cardboard cartridges coated with tallow and beeswax. A year later William Jenks fell from a hay wagon on his farm and died.

Lite Remington, 70 years old as Stonewall Jackson's brigade routed the Union Army at Bull Run in 1861, took ill shortly thereafter and did not recover. The firm carried on under sons Philo, Samuel, and Eliphalet III. But at war's end in 1865, workers in Ilion sat glumly by silent, heavily-mortgaged tooling. To court sportsmen, Remington rushed Joseph Rider's improvements on the Geiger split-breech rifle. By 1866 Rider had corrected the remaining flaws, and Remington announced its Rolling Block Rifle.

The Ruger No. 1 at top has been rebarreled to 7mm WSM. The lever rifle is a Winchester 71 rebored to .450 Alaskan. The 71 was discontinued in 1957, nine years before the No. 1's debut.

Simple but clever in design, the Rolling Block had a rotating breech-block that sealed a cartridge in the chamber. To load, you thumbed the hammer to full cock, then retracted the breech-block. Inserting a cartridge, you pushed the block forward. Block and hammer interlocked at the instant of firing. Almost foolproof, the breeching was so quick to load, a practiced shooter could send 20 rounds a minute! It was strong, too. Once, a Rolling Block was loaded with 40 balls and 750 grains of powder, the charge filling 36 inches of its 40-inch barrel. Upon firing, "nothing extraordinary occurred."

The rifle proved itself in 1866 when 30 cowboys led by Nelson Story herded 3,000 cattle through Wyoming. With Rolling Blocks they'd bought at Fort Leavenworth, the men repulsed an Indian attack near Fort Laramie. Forbidden to go beyond Fort Kearney, Story waited two weeks. Then, on October 22, he quietly moved his herd north. Sioux, led by Red Cloud and Crazy Horse, swooped from the hills. The cowboys fired with deadly effect, their barrels becoming so hot they had to cool them with water from their canteens. The Sioux anticipated a pause in the volleys, but none came. After retreating, they stopped to look back and discovered the Remingtons also had great reach! Twice more on the drive, Story and his cowboys blunted Indian attacks. They reached Montana with the loss of only one man.

After the Civil War, the Rolling Block gained favor among European heads of state who enjoyed hunting. Prussia was the exception. There, amid great pomp, a cartridge failed. The man, who would soon become Kaiser Wilhelm I, rode off in a huff.

By 1870, the Remington Arms plant covered 15 acres. Monthly payroll reached $140,000, a huge sum when a restaurant dinner cost 25 cents. Production peaked at 1,530 rifles a day. Though the Rolling Block faced competition from Winchester's lever-action 1873 (in .44-40), the Remington offered more power, better accuracy. In 1873, George Custer reported, after a hunt: "With your rifle I killed far more game than any other single party… at longer range." In 1876 at the Little Big Horn, Custer's doomed troops carried Springfields; the Sioux used rifles by Sharps, Winchester, and Remington.

Remington's Rolling Block ably served buffalo hunters who raked in as much as $10,000 a year selling hides for up to $50 each. "Brazos" Bob McRae claimed 54 buffalo with as many shots at one stand with a .44-90 Remington and a Malcolm scope! In his memoirs, market hunter Frank Mayer praised the .44-90 as well.

The accuracy and reach of Rolling Blocks showed famously in long-range competition. In 1874 Remington's L.L. Hepburn began work on a rifle patterned after those used by the Irish in their recent win at Wimbledon. The Irish had challenged "any American team" through an ad in the *New York Herald*. Each team would comprise six men, shooting three rounds at 800, 900, and 1,000 yards, 15 shots per round. A newly formed National Rifle Association, with the cities of New York and Brooklyn, each put up $5,000 to build a range for the match on Long Island's Creed's Farm, provided by the State of New York.

Remington unveiled its new target rifle, a .44-90 launching 550-grain conical bullets, in March of 1874. In September a favored Irish team firing muzzleloaders lost to the Americans and their Remington and Sharps breechloaders. The score: 934 to 931, with one Irish crossfire. Matches in 1875 and 1876 were won more decisively by the U.S. team, with Remington's "Creedmoor" rifles posting the highest scores.

Off-shore military sales accounted for most of Rolling Block production. Thousands were bored to .43 Egyptian and .43 Spanish. In 1878 such rifles listed for $16.50, a Sporting model for $30. Hunters flocked to both. By then, more than 900,000 Rolling Blocks had already been shipped! Bottleneck rounds like the 7x57 Mauser would usher the Rolling Block into the smokeless era.

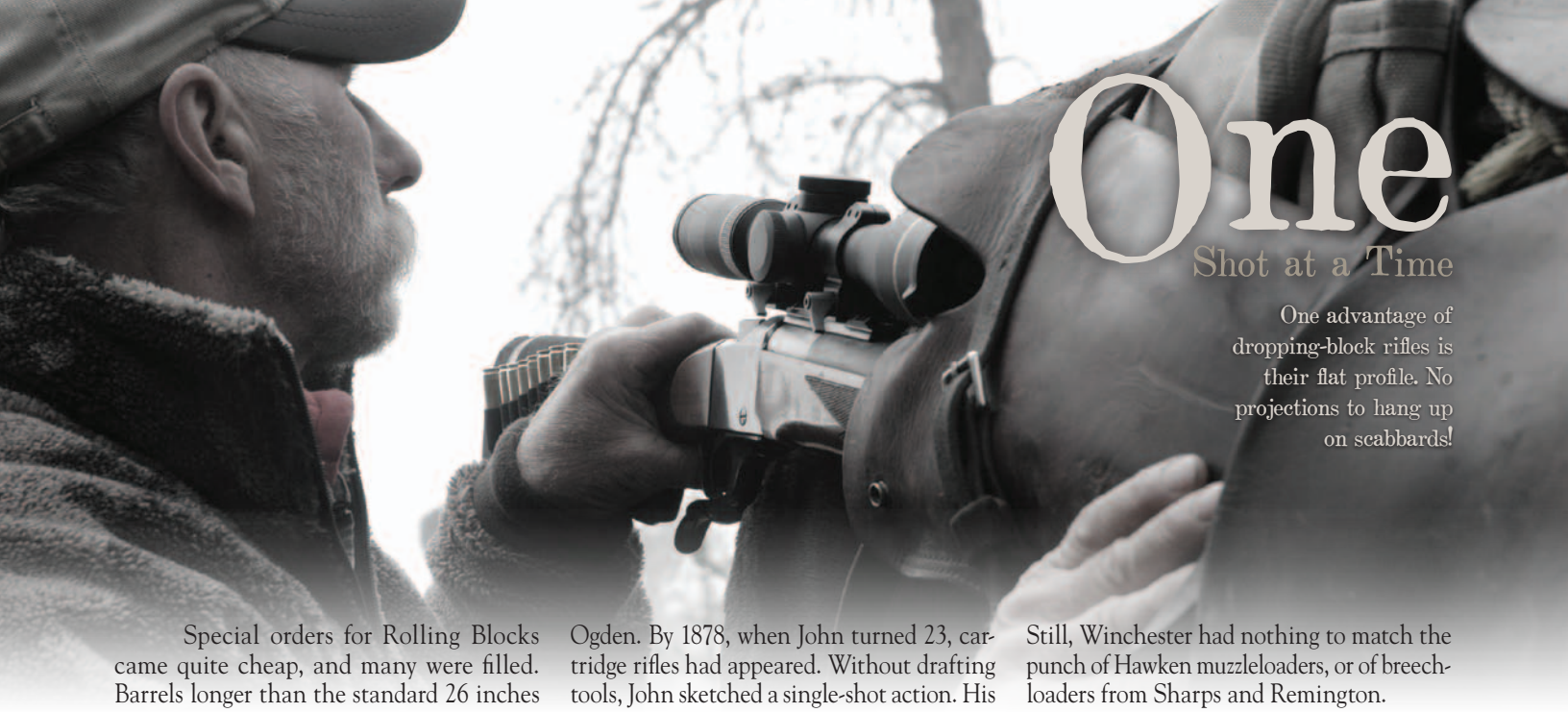
One Shot at a Time

Before cartridges, almost all rifles gave shooters one chance only. And reloading was a glacial effort.

The Gun That Won The West

The 1873 Springfield (not the Colt or the Winchester of that model year), was truly "the gun that won the West." It came from the 58-caliber 1865 muzzleloader of the Civil War. Erskine S. Allin, chief mechanic at Springfield Armory, designed a breech-loading conversion with a hinged breech-block fitted to the milled-out roof of the chamber. The block held the firing pin; modifications brought the hammer onto the pin. In 1872 Allin's design earned Ordnance Board approval, but with a separate receiver and a threaded .45-70 barrel. Infantry and cavalry carried 1873 Springfields in rifle and carbine form. Its fast-opening breech helped put the skids under Indian uprisings. After firing, you drew the hammer to half-cock, letting the breech-block ("trap door") spring open. Late in its arc, the block activated the extractor, which kicked the case rearward over an ejector stud.

The 1873 Springfield proved stout enough for stiff black-powder loads of its day. Still, 70 grains of black behind a 500-grain lead bullet generated only about 25,000 psi. That's half as much as a .30-06. The trap-door mechanism is not suitable for smokeless loads. Nor is it a candidate for long black-powder cartridges. Because many trap-door rifles were issued, many were also surplused when in 1892 the .30-40 Krag-Jorgensen became the U.S. service arm. The director of civilian marksmanship once offered 1873 Springfields to NRA members for $1.25 apiece, plus shipping. *Hoo boy.*



One Shot at a Time

One advantage of dropping-block rifles is their flat profile. No projections to hang up on scabbards!

Special orders for Rolling Blocks came quite cheap, and many were filled. Barrels longer than the standard 26 inches could be had for 50 cents an inch. A single-set trigger cost $2.50. Still, Rolling Blocks with heavy target barrel, tang sight, set trigger and checkered stock—Creedmoor rifles—started at $100!

A Prodigy in Utah

Following the Civil War and a long flight from persecution with his fellow Mormons, Jonathan Browning established a tannery and a gun shop in a new Utah settlement. His son John, then seven years old, rode the horse that plodded in a circle to drive the machinery. At his mother's urging, John attended school too. When he turned 15, the schoolmaster said: "You're done. You know as much as I do."

By that time, the precocious youngster had already designed and built guns. As a 10-year-old he fashioned a flintlock from a scrapped musket barrel and a board he shaped with a hatchet. He screwed a crude pan to the board, which he wired to the barrel. He stuffed the barrel with a charge of powder and rough shot, then heated a batch of coke on the forge. "It's fire," he told brother Matt. "So we can hunt." To keep the coke burning, Matt put it in a perforated can, which he swung on a string. Presently the boys found some dusting prairie chickens. John aimed. Matt stuck a smoldering splinter through the touch-hole. John was hurled to the ground under a cloud of smoke, but the birds fared worse.

When Jonathan Browning heard the tale, he snorted, "Can't you make a better gun than that?"

Like his father, who eventually lost interest in the tannery, John spent most of his time working on guns. He was in a good place at a good time. Two rail lines had just joined at Promontory Point, 50 miles from Ogden. By 1878, when John turned 23, cartridge rifles had appeared. Without drafting tools, John sketched a single-shot action. His only "power tool" was a foot-lathe Jonathan had brought by ox-cart from Missouri, so he hand-forged the parts and filed them to dimension. Those big, simple parts and the rifle's clever design would become Browning hallmarks. John wrote to a supplier (Schoverling, Daly and Gates) in New York: "Please tell me how to patent a gun." He filed for his first patent May 12, 1879.

Soon thereafter, Jonathan Browning died, leaving John the head of two households. With brothers Matt, Ed, Sam, and George, he built a 25x50 shop on a 30-foot lot at the edge of Ogden's business district. Fortuitously, Frank Rushton, an English gunmaker touring the West, stopped by. He helped them install the machinery needed to turn the shop into a factory. Ed ran the mill. Matt made stocks. Sam and George rough-filed receivers, while John finished them. Frank assisted with barreling.

At $25, John Browning's single-shot rifle sold briskly. Just a week after opening a retail counter, the brothers had sold all the rifles they'd finished in three months! Unfortunately, burglars made off with everything of value, including the prototype of John's rifle. The Brownings struggled to recover, finishing as many as three rifles a day. John and Matt were now partners, and John had designed another dropping-block action. By 1882 he'd sketched and built a repeating rifle. Awaiting that patent, he started a second.

In 1883 Winchester salesman Andrew McAusland stumbled upon a used Browning rifle. At that time Winchester lever-actions had a huge slice of the sporting-rifle market. Not as powerful as the Rolling Block, they could deliver aimed shots with great speed and slid easily into a scabbard. Colt's chambering of the .44-40 in its 1873 revolver made Winchester's .44-40 rifle even more popular. Still, Winchester had nothing to match the punch of Hawken muzzleloaders, or of breechloaders from Sharps and Remington.

McAusland must have been impressed by the Browning's slick-running lugs in vertical rails—a lockup much like that of the Sharps. He probably also figured the rifle would sell. McAusland showed it to Winchester president Thomas G. Bennett, who left New Haven immediately on the six-day rail trip to Ogden and what was billed as the biggest gun store between Omaha and the Pacific. He found a modest shop manned by half a dozen striplings barely out of their teens. But Bennett was no fool. He asked John, "How much for your rifle?" One rifle? No, the rifle. Winchester would buy all rights.

John evidently had the figure in mind. "I'll take $10,000." An enormous sum in 1883.

Bennett countered successfully at $8,000, paid a $1,000 deposit and left.

The Brownings worked overtime to build more rifles. After Bennett paid the remaining $7,000, he had to remind John to stop making what was now Winchester's product. Embarrassed, John complied. The rifle debuted as the Winchester 1885 in its model year. Browning's original design, with a high rear receiver, chambered powerful big game rounds. Stronger than the 1873 Springfield, it was slimmer than the equally stout 1874 Sharps. A "low-wall" version offered improved loading access for small cartridges.

Discontinued in 1920, the Model 1885 was later resurrected by Browning as the Japanese-built Model 78, and subsequently renamed the Model 1885. It is no longer cataloged.

A Bible for the Cause

By the time John Browning was risking his adolescence with black powder guns of pipe and wire, Christian Sharps had put his name on rifles that would beat Browning's

dropping block onto the prairie. Actually, Sharps began working on guns in the 1830s, under the severe tutelage of John Harris Hall, who patented a breech-loading rifle in 1811. When his design met with government approval eight years later, Hall moved to Harpers Ferry Arsenal in Virginia to produce rifles "interchangeable in all of their various parts." Christian Sharps stayed until at least 1837. The New Jersey native then struck out on his own. In 1848, while still in his 30s, he received a patent. The Sharps sliding breech-block, operated vertically by an under-lever that formed the trigger guard, was designed to replace the lock of the 1841 Mississippi Rifle. It accepted paper cartridges. Sharps took pride in the tight breeching, aware that a signal failing of the Hall rifle was its tendency to leak gas. Alas, the Sharps mechanism was better engineered than it was promoted. Almost broke, Christian Sharps got a $500 loan to "interest an established manufacturer."

Albert S. Nippes took a chance, contracting to build 100 to 200 Sharps rifles in his Pennsylvania shop. The two men reached agreement early in 1849, the year New York inventor Walter Hunt came up with the Volitional Repeater that would spawn Winchester's lever-action line. The 1850s brought myriad improvements in rifle design and manufacture. It proved a turbulent decade for Sharps. The Sharps Rifle Manufacturing Company was incorporated October 8, 1851, but Robbins & Lawrence would produce the rifles on contract. The largest manufacturer in the gun industry then, Robbins & Lawrence went out of business in 1856. Meanwhile, Christian Sharps had divorced himself from his company, which then took over the Robbins & Lawrence factory. Unrest between North and South spurred government interest in Sharps rifles, and a series of new mechanisms marched through the early 1860s. The Kansas border wars earned for the Sharps the nickname "Beecher's Bible," after Abolitionist preacher Henry Ward Beecher's belief in the rifle as a moral agency: "You might as well read the Bible to buffaloes as to [our opposition]; but they have a supreme respect for the logic [of] Sharps rifles."

After the war, Sharps converted many percussion guns in arsenals to accept metallic cartridges. Christian Sharps would soon die of tuberculosis, but the Sharps Rifle Manufacturing Co. kept shooters supplied with powerful dropping-block single-shots. The New Model 1869 was its first rifle in metallic chamberings: .40/50, .40/70, .44/77, .45/70, and .50/70. It preceded by only a few months the New Model 1874 Sharps and soon faded. The classic 1874 Sharps endured for 12 years after its debut late in 1870—a decade that spanned the height of the market-hunting era.

The Sharps Rifle Company's hammerless 1878 rifle did not compete well with Winchester lever-actions. German immigrant F.W. Freund tooled up in his Cheyenne, Wyoming, shop to build a conversion for Sharps that speeded feeding and extraction, but Sharps management demurred. The popularity of the Sharps among buffalo hunters was due in part to its appetite for long hulls. Indeed, Sharps produced its own big metallic cartridges: six .40s, three .44s, four .45s, three .50s. The .50 favored by buffalo hunters used 100 grains of black powder in a 2½-inch case, behind a 473-grain paper-patched bullet. But despite its potency, this round (and its siblings) did nothing for the longevity of Sharps rifles. An Indian warrior snagging a Sharps could use it only as long as the ammunition lasted. Sharps rifles were found—smashed—near bodies of hapless settlers and hunters. Winchesters and Springfields, in contrast, were treasured, as .44-40 and .45-70 ammo could be had everywhere.

On distant paper, Sharps target rifles gave good account. You could own a Long-Range Model 1877 Rifle for $100. A custom-built, 22-pound 1874 match rifle in .44-90, with factory-installed scope and spirit level, sold for $118. Despite its hallowed

reputation, the 1874 had a few flaws: Its extractor was weak, and cartridges could be inserted ahead of it. Also, the heavy hammer fell in a long sweep. Generous lock time punished shooters who couldn't follow through from unsteady positions. Subsequent Sharps rifles offered improvements, though the firing pin didn't retract until the action began to open. Still, the biggest market obstacle for the Sharps rifle (and its competitors) was the rush to repeaters. Demand for 1,000-yard match rifles was tiny. Sharps had designed its hunting rifles for deliberate shooting at heavy game. It failed to see early enough the swing to lightweight, versatile repeating rifles. Prairies emptied by commercial hunters brought the firm to its knees in 1880. By the middle of that decade, so many bison had been killed that human scavengers would glean three million tons of bones from the fly-blown plains.

A rifle justly named!

Perhaps only Bill Ruger could fashion a rifle that looks as good as the company's No. 1 and sells at retail for the cost of a mid-grade bolt-action. While affordable hinged-breech rifles have always been available, the dropping-block No. 1 is surely the defining single-shot for 20th-century hunters. Introduced in 1966 (for $265!), it has appeared in several configurations, many chamberings. It's still as fetching as ever, though the fine walnut that distinguished early Rugers seldom shows up now.

The rifle that inspired the No. 1 was designed by John Farquharson of Daldhu, Scotland, in 1872. He sold part interest to Bristol gunmaker George Gibbs, who manufactured it until the patent expired in 1889. Though fewer than 1,000 Gibbs Farquharsons left the shop before the last was delivered in 1910, the mechanism found its way into other rifles too. Auguste Francotte of Herstal, Belgium copied it. So did British maker W.J. Jeffery & Co, as early as 1895. In 1904 Jeffery announced an oversize version for the .600 Nitro Express. Farquharson actions built after the Gibbs era bore a "PD" stamp, to show the design had become public domain. You'll have to hock your first-born to snag an original well-kept Farquharson now. Ruger's No. 1, however, remains within reach of ordinary shooters like me… .

Deep in Idaho's wilderness, we'd seen no elk for most of a week. When we spied the herd, with a fine bull, Ken pressed his No. 1 on me. "Take this. You might need it." A long sprint down the mountain put me within 400 steps of the elk, and I bellied a few yards closer. The herd was on the move, heading to cover through a cemetery of charred lodgepoles. Reluctantly, I swapped my iron-sighted lever rifle for Ken's Ruger. I slinged up, flopped prone, and sent a 140-grain Nosler AccuBond through the bull's ribs. Pulling another round from the butt sleeve, I followed quickly with a second aimed shot.

Compared to bolt-action rifles, short-coupled dropping-blocks deliver about 4 inches more barrel for a given overall length. That means a higher level of ballistic performance in a rifle that's still nimble in thickets. The 26-inch barrel of Ken's rifle gave the stiff charge of Vihtavuori powder plenty of bore to accelerate the bullet. Yet the rifle was nimble in hand, and it hung conveniently low from my shoulder. A 22-inch barrel, as on Ruger's Light Sporter ("A" suffix), puts the rifle in league with lever-action saddle guns. Lively and quick-pointing, it has fine balance. As on the Medium Sporter ("S" with 26-inch barrel), the A wears a stylish Alex Henry forend. Mine in 6.5 Creedmoor sends Hornady 129-grain SST and 140-grain A-Max bullets over Oehler sky screens at 2,910 and 2,603 fps. The same ammo from the 24-inch barrel of a bolt gun clocks 2,939 and 2,647—just 30 fps faster.

As it is short, so too the No. 1 receiver is flat. No projecting bolt knob. The rifle slides easily into cases and scabbards. That trim breech takes rimmed and rimless and belted cases, .22 Hornet to .416 Rigby. An adjustable extractor lets you choose ejection or a gently raised case.

I've found B (standard rifle, no longer listed) and V (varmint) No. 1s most consistently accurate. Many have delivered thumb-print groups. Barrel heft gives them an edge over the lighter A version. While slender barrels can be accurate, they're more easily influenced by sling tension on barrel-mounted swivel studs. A taut sling affects barrel vibration during bullet passage. Even a forend-mounted stud can transfer such stresses, however. The forend hanger on Ruger's No. 1B and V does not isolate the barrel from pressures applied by sling or bipod. Forend modifications to mitigate these pressures came early. Some shooters installed an externally adjustable set-screw. I looked for a less visible fix for my No. 1B in .300 Winchester. At 200 yards, groups from sandbags were centered 9 inches above groups shot from prone with a sling! A rubber washer at the rear of the hanger, with a brass shim at the forend tip, shrank that difference to an acceptable 4 inches. A No. 1 International, with full-stocked 20-inch barrel in .303 British, accompanied me last fall to the Dakotas. Sneaking through the tall grass on a bedded buck the last day, I was dismayed when the deer bolted into a draw. Already on my belly, I snugged the sling and trained the rifle on the opposite slope. In seconds, the animal galloped into view, headed for the ridge. Because I seldom fire at moving game, this buck would have been safe, had he not stopped.

The next week, late on another hunt, my partner and I spotted a fine whitetail. "Three hundred," he hissed. I shook my head. The .303 would kill deer that far, but 300 was beyond my comfort zone. We flanked in a long sweep, hoping the buck wouldn't vanish in the labyrinth of prairie creases. When again I eased my binocular above the grass, we'd closed to 220 steps. Steadying the Ruger, I crushed the trigger.

Initial reports on No. 1 accuracy varied. One of my first rifles performed poorly on paper. "Won't do better than 3 inches," I whined to a colleague. We were competitive shooters, used to accurate rifles.

"What about the throat?" Rich asked. So I seated a 175-grain bullet as far out as possible, the base barely gripped by the case mouth, and chambered the round. Upon extraction, it showed no rifling marks. The throat was exceedingly long.

A more recent 7x57 Light Sporter does not share this affliction. But truly, that first No. 1 shot well enough. Long ago, prowling Oregon's high basins, I rousted a big buck. That slim rifle aimed itself as the mule deer bounded downslope. A 140-grain Partition tumbled him. The next year, I took a long poke at a buck quartering away. My bullet struck low and too far back. The deer ran off; I followed. Rounding the mountain at timberline, I stopped on a rockslide to listen. Scree tinkled. I looked up to see the buck dash across a chute. The Ruger flew to my cheek; the shot echoed as the deer vanished behind a chimney. As I dropped another round into the breech, a rock rolled. Then the buck hurtled into space, its heart shattered.

I've come to believe ever more firmly in the value of an accurate first shot. The first opportunity is almost always the best. As a hunting guide, I noticed that hunters who filled their magazines to capacity were typically not as careful to make the first shot lethal. Having only one cartridge is powerful incentive!

Not long ago I visited Ruger's factory to speak with the craftsmen assembling No. 1s. "Each rifle requires hand fitting," said a spectacled fellow timing the close of the lever. He deftly adjusted the metal until the action cycled silkily, but with snappy precision. His colleague was fitting buttstocks, trimming the walnut on its many mating surfaces so tang and action walls would show no gaps, while heavy recoil would cause no splits. Watching these craftsmen, I wondered how Ruger could ever have sold a No. 1 for $265. And why I hadn't bought more. ■