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ON THE COVER

The Browning-designed Model 1885 Winchester was the first American rifle designed to accommodate truly high-powered cartridges. The 95 was extremely popular with sportsmen and when production ceased in 1931, more than 425,000 had been manufactured. Last year, Browning marketed a limited issue of replica 95s chambered in .30-06. Two versions were offered: Standard and High Grade. Both sold out. The rifle on the cover was one of the last High Grade models left and had already been sold when it was photographed. Photo by Randy Swedlund.

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One Hundred Issues of Rifle

A Beginning

This issue completes the first hundred of Rifle magazine.

You may correctly infer from that statement that we intend to produce at least another hundred. The enthusiastic reception by you, our readers and advertisers, has mandated that we continue to maintain the excellence which has been established since the first issue of January 1969.

Words cannot express our appreciation for your support, so we'll let our deeds speak. We will make every effort to make upcoming issues as good as possible; our goal is for "more and better!"

You will notice changes from time to time, and we hope you will see them as improvements. We may explore new aspects of the shooting sports, but we do not intend to digress from the general direction we have already taken. As always, we'll allow your interests to guide us.

One Hundred is only the beginning!

The Magazine for Shooters

by

Wolfe Publishing Company, Inc.

JULY-AUGUST 1985
ONE OF THE MOST famous — if not the most famous — .22 caliber repeating rifles, and today a classic, was the Winchester Model 1890. The story of this grand little rifle substantiates the many claims for excellence accorded it both during and subsequent to its 42 years of production.

It all came about because the Model 1873 — the first Winchester in .22 rimfire caliber — proved less popular than had been hoped. That rifle, designed for centerfire cartridges, was probably felt to be too large and clumsy to suit the tiny rimfire cartridges. Then too, competition was being offered by Colt's "Lightning" pump repeater. The Winchester Repeating Arms Company, therefore, commissioned that great gun designer John Browning to develop a new repeating rifle especially for .22 rimfire cartridges.

Browning's inventiveness resulted in patent No. 385238 being issued on June 26, 1888, for a slide action repeating rifle with a solid frame, casehardened receiver, exposed hammer and tubular magazine. Accepted and placed in production by Winchester, the Model 1890 (as it would be called), was first announced in November of that year, and offered for sale in December 1890.

Initial chamberings were .22 Short and .22 Long rimfire, with the original announcement stipulating that only 24-inch octagonal barrels would be furnished. Straight-grip stocks and plain triggers were also standard. Set triggers were not available, it was said, even on special order.

It must not be thought from this that Winchester was oblivious to possible changes or improvements in the Model 1890. Within two years — in December 1892, according to company records — a takedown version was introduced in response to popular demand. Shortly thereafter, the solid frame was discontinued, by which time around 15,500 Model 1890s had been produced.

Still another change took place in August 1901: blued receivers replaced casehardened as standard. A "Fancy Sporting Rifle" version was also offered, the exact date of which is unknown to me, featuring a pistol-grip stock with checkering, but retaining the round slide handle with its characteristic circular grooves. The cost of this fancy rifle was nearly twice that of the standard Sporting Rifle. Its weight was 6 pounds versus the Standard's 5¾ pounds.

While the catalogs stated that only rifle-type buttstocks with curved steel buttplates were available, Madis has reported in his most excellent treatise, The Winchester Book, that a few specially ordered Model 1890 rifles were fitted with checkered slide handles and/or shotgun-style buttplates. It is said that set triggers were actually tried, but few rifles so equipped got out to the public. None of my Winchester publications listed those options so they must be regarded as rarities. Reading the old announcements, it is quite apparent that special features were not encouraged for this model, although engraving could be ordered.

Actually, there were three separate issues or versions of the Model 1890 Winchester. As we have already seen, the first or initial issue featured solid frames with casehardened receivers. Additionally, their locking lugs, entering recesses milled into the inner sides of the frame, were visible only from the top.

The second issue retained the interior locking lugs, but were of takedown style. That series included some 311,000 rifles. The change to a blued receiver took place part way through this second issue.

The third issue (after mid-1906), were also takedowns. They had blued receivers, the sidewalls of which had very obvious notches just behind the receiver ring, into which enlarged locking lugs, extending out each side from the front of the breech-bolt, dropped in closing. That arrangement, adopted in June of 1906, while perhaps not as attractive as the original interior lockup, made for a very strong action.

In 1907, a third chambering was added. This was the larger and much more powerful .22 WRF cartridge, a superb small game round with its heavier, flat-nosed bullet, reportedly developed specifically for this rifle. The .22 Long Rifle, completing the list of available chamberings, wasn't officially added until 1919.

Here it would be well to point out that the company repeatedly specified that the four cartridges were not interchangeable, warning that only the cartridge designated by the caliber stamp-
ing should be used. This stipulation was considered necessary to ensure proper feeding of cartridges from the magazine, as well as chambering. Rifling twist rates were also different.

Magazine capacities were 15 Shorts, 12 Longs, 11 Long Rifles, and 12 WRFs, according to the catalog. Although never having owned a Model 1890 Winchester, I can't help questioning the capacity number given for the .22 WRF, as those cartridges were considerably longer than .22 Long Rifles. Ten rounds of .22 WRFs would appear reasonable.

Standard sights were the usual coarse open type, set in dovetail slots on first-issue rifles. In later versions, the rear dovetail slot was omitted in favor of a screw attachment of the rear sight.

The sights were, of course, unsuited for fine accuracy, but the upper tang was drilled and tapped to receive a Lyman ivory bead or Beach combination sight. A Lyman ivory bead or Beach combination sight could be substituted for the Winchester issue rear sight (at extra cost), materially increasing the accuracy possible with the little rifles.

Disassembly of Model 1890 took down rifles was easily accomplished by backing-out the assembly screw and pulling it partly out, after which the barrel and a portion of the action could be withdrawn, permitting the barrel to be cleaned from the breech.

Around serial number 846,000, in 1932, manufacture of Model 1890 rifles was discontinued. That wasn't quite the end, though. An additional 3,000 rifles were assembled from parts during the remaining 1930s. Some rifles of this last group were fitted with round barrels, though not so officially listed.

The Model 1890 was succeeded by the Model 62 in 1932. The new rifle had a round barrel, so it is likely that Model 1890 round barrels came from Model 62 production, but with 1890 stampings. If my supposition is correct, those round barrels should measure 23 inches, the length of Model 62 barrels.

In their 1914 catalog, Winchester referred to the Model 1890 as, "the best light weight .22-caliber repeating rifle on the market with a sliding forearm action." No doubt that was so. It was rugged, with comparatively few parts, and withstood a great deal of use, proving to be an almost universal favorite of shooting galleries. Its action strength was legendary, and a design feature that blocked the trigger until the breech-block was closed and locked, contributed to safe operation.

All in all, the Model 1890 Winchester qualifies for inclusion in any gallery of American classic rifles.

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PARKER ACKLEY
King of Wildcatters
KENNETH S. HULME

FOR SOME, creating wildcat cartridges is a pleasant pastime. For Parker Ackley, wildcats have been a way of life. To date there are 59 cartridges bearing his name — more than one for each year of his gunsmithing career.

Parker O. (Otto) Ackley grew up on the family farm in Granville, New York. His first rifle was a Stevens Favorite, acquired when he was about six years old (around 1909). At the tender age of 12, he did his first gunsmithing job — a one-piece stock of butternut for a Stevens Crackshot. One of his boyhood heroes was outdoor writer Allyn Tedmon, and Parker read those stories and essays with great interest.

In 1923, young Ackley entered Syracuse University and was graduated four years later with a degree in mechanical engineering. Then it was back to the farm, where among other things he built and operated a 50-foot underground shooting gallery. His earliest experiences repairing firearms came from fixing the guns of his neighbors. He still owns a single shot pistol he made in 1928, which was a great favorite among the customers.

During the Depression, Ackley worked at a variety of jobs. In 1936 he opened his first gunshop in Roseburg, Oregon. His reputation as a consummate gunsmith with a solid technical background grew to the point that in 1942 he was offered the position of foreman of the Small Arms Section at the Ogden, Utah, Arsenal. The war years were spent overseeing the reconditioning and testing of civilian firearms purchased for military use. Among his co-workers were Elmer Keith (their 'feud' is another story) and Bliss Titus.

After the war Parker spent a short time in Cimarron, New Mexico, and in 1945, the officials of Trinidad State Junior College in Colorado asked him to head up a gunsmithing program. Hundreds of would-be gunsmiths used their GI Bills to complete the courses; among the notable graduates were Paul Marquart and Bill Atkinson. At this time Ackley also operated one of the largest custom gunshops in the country, employing as many as 20 gunsmiths.

In 1951, Professor Ackley, weary of the hassles of academia, moved back to Utah, where he lives today. For many years he was a regular contributor to the gun magazines, was a member of the technical staff of Guns and Ammo, and served as the gunsmithing columnist for Shooting Times from its inaugural issue in 1960 until 1982. In 1962 and 1966 he published his classic two-volume Handbook for Shooters and Loaders.

Parker went into retirement in 1972, selling the majority of his equipment and the right to use his name to Dennis Bellm of Salt Lake City. Today Parker limits his gunsmithing to a few jobs for very special friends.

Over the years, Ackley created
wildcat cartridges in nearly every major caliber. Some of his wildcats have been unofficially duplicated by major cartridge companies, almost without change. The .223 Winchester is nearly identical to Ackley's first Improved cartridge, the .219 Ackley Improved Zipper, created in 1938 (25 years before the .223). Similarly, the .17 Remington is almost exactly the same as the .17 Ackley Magnum.

It is the Ackley Improved cartridges which will perhaps ensure Parker Ackley a place in the shooter's hall of fame. Although there are many other "Improved" cartridges, the Ackley versions are the best known and most chambered today.

An Improved cartridge isn't a conventional wildcat, in that unmodified factory rounds of the same caliber can be safely chambered and fired in an Improved chamber. Wildcats, for the most part, are case-forming and handloading propositions right from the start, and rifles chambered for them won't accept factory ammo. Improved cases are made by fireforming factory ammo, expanding the case with that initial explosion to the shape of the Improved chamber. Only at that point do they need special reloading dies to maintain the Improved shape.

An Improved cartridge has increased powder capacity and a more efficient case shape. With their increased capacity, Improved cartridges can be loaded to higher velocities than the parent round without generating dangerous pressures. The safe pressure limit is seemingly raised because the minimum-tapered Improved case grips the chamber walls differently, transferring pressure outward to the chamber walls rather than backward against the bolt or locking mechanism. The difference in case-to-chamber contact also reduces extraction problems common to cartridges such as the .220 Swift and .300 Magnum. The sharp-cornered, steepangled shoulder of the Improved case reduces the forward flow of brass and the need to trim cases as often, extending case life considerably. Although some Improved cartridges offer only marginal improvements in extraction, most give 5 to 10 percent more velocity than the parent cartridge. Over the years Ackley has applied his Improved treatment not only to factory car-
The largest group of Ackley cartridges, with 21 members, include the .24 to .28 calibers. Here are the other two members of the Belded Express clan: the .250-3000 Improved, perhaps the finest 6mm wildcat ever developed, and the .25 Belted Express. Included also is one of Ackley’s early favorites, and probably the most efficient Improved, the .250-3000 Improved (aka .250 Savage Improved). Other notables in this group are the .257 Roberts Improved with its worldwide reputation; the fastest .25 caliber, .25-06 Improved; and the smallest .270 Ackley. For 7mm fans, there is the 7mm Improved, also known as the 7x57 Improved. Some of the .24 to .28 group didn’t turn out too well. The 6mm Ackley Magnum Improved offers an excellent alternative. To impress your friends, there is the .333 Magnum Improved; not only is it a real killer, the most popular but the massive case with its sharp shoulder and minimum taper just looks mean and fast! This is the most efficient group of Ackley cartridges. The .300 Magnum Improved offers an excellent alternative. To impress your friends, there is the .333 Magnum Improved; not only is it a real killer, but the massive case with its sharp shoulder and minimum taper just looks mean and fast! This is the most efficient group of Ackley cartridges.

The general popularity of .22 and .23 calibers is reflected in 13 separate Ackley cartridges in those calibers. Along with the first Improved, this group includes the first Ackley wildcat (228 Ackley Magnum), created in 1938 with a barrel made during his apprenticeship to barrelemaker Ben Hawkins. Other early cartridges were the .22 Hi-Power Improved and the .230 Ackley Short. The .230 was created to circumvent legislation in certain states which prohibited .22 centerfires for deer hunting. Two of the four Ackley Belted Express series are found here: the .224 and .228 Belted Express, based on .30-06 brass necked down and fitted with hand-swaged belts. At one time (before Ackley’s own experiments), it was felt that belted cases could withstand higher pressures than either conventional rimless or rimmed cases. Other popular cartridges in this group are the .22-250 Improved and the .220 Swift Improved, although the latter doesn’t improve much except extraction and reduced brass flow.

One of the world’s most popular wildcats is the .30-06 Improved. Its popularity stems not only from the wide variety of rifles chambered for the workhorse original, which can be easily and inexpensively rechambered for the Ackley Improved, but the Improved version also gives significant velocity increases and greater flexibility to experimentally-minded handloaders. The 30-30 Improved is another surprisingly good cartridge, especially for lever guns, where its minimum taper allows hotter handloads with easy extraction. For those with a .300 Magnum gathering dust because of a shot-out bore or chamber, the .35 Ackley Magnum Improved offers an excellent alternative. To impress your friends, there is the .333 Magnum Improved; not only is it a real killer, but the massive case with its sharp shoulder and minimum taper just looks mean and fast! This is the most efficient group of Ackley cartridges. Only the .300 Magnum Improved turned out poorly, but then so did everyone else’s attempts to improve the parent cartridge.

Then there are the Ackley cartridges for the serious big game hunter – the kind who take an annual African safari the way most of us go out for deer. This group of cartridges can be counted on to drop any animal in the world. The .40-348
Two ‘06-based wildcats: the .35 Whelen, on the left, and right, the .375 Whelen Improved.

Ackley produces over two tons of muzzle energy! The 300-grain bullet with 66 grains of 3031 powder travels at around 2,440 fps, while the 400-grain bullet has been clocked at over 2,100 fps! If you are going after elephant, don't forget the .450 Ackley Magnum. This number has been known to penetrate both shoulders of a big bull tusker with a 500-grain Barnes bullet, producing one-shot kills. Most English elephant guns can't compete with the power of this dragon slayer. The .470 Ackley Magnum is one of the world's largest wildcats, although Parker says it isn't as versatile as his .450 Magnum.

For over half a century, Parker Ackley has been researching, refining, designing and building cartridges and rifles not for his own amusement, but to improve shooting for everyone. His contributions in the areas of cartridge design, rifling techniques and other fields of firearms science have earned him an important place in the history of American firearms development. His attention to detail, technical competence, and reputation for getting his facts straight before sounding off on a subject have been of tremendous service to us all. Somewhere along the way, Ackley possibly had a hand in the design and creation of your favorite cartridge/rifle. His influence may have been direct — through his books, articles or gunsmithing — or indirect, through his correspondence and friendship with people like Roy Weatherby, Vernon Speer, Bruce Hodgdon and other manufacturers. For past, present and future influence on American rifles and riflemen, we thank you Parker.

The Ackley Cartridges

Sub-Caliber
.17 Bee — .17 caliber and .17 Carbine necked to .17
.17 Hornet — one of the best balanced .17s
.17 Bee — case capacity almost ideal for .17 caliber
.17 Magnum — .22 Remington Magnum necked to .17 caliber; 4,000-4,700 fps!

.22 and .23 Calibers
.22 Jet Improved — Ackley version created from a .17-357 that didn't work
.222 Remington Magnum Improved — same as Kilbourn .222 Remington Improved, but larger case
.219 Zipper Improved — between Wasp and Swift; 55-year forerunner of .225 Winchester
.219-300 Improved — almost equals Wasp; alternative to .219 Zipper Improved
.22-250 Improved — two versions (shoulder angle differences); uses Swift loads
.220 Swift Improved — only real advantage is easier extraction
.22 Hi-Power Improved — one of the first Improved cartridges; best .22 for heavy bullets
.224 Belted Express — difficult to make; ballistics similar to .22-250
.228 Belted Express — designed for those who felt belted cases were stronger
.228 Ackley Krag — similar to .228 Belted Express, but rimmed case for single-shots
.228 Ackley Magnum — one of the oldest Ackley wildcats; overbore capacity
.230 Ackley Short — very early wildcat; .250-3000 necked to .23 caliber
.230 Ackley — designed to circumvent anti-.22 caliber legislation; flat shooting

.24 to .28 Calibers
.243 Improved — nearly identical to Mashburn version; duplicates .244 ballistics
.6mm Belted Express — .228 Belted Express with 6mm bullet; one of the finest 6mm wildcats
.6mm Ackley Krag — specially adapted for single-shot actions
.6mm Krag Improved — the high velocity version of the 6mm Ackley Krag
.6mm Ackley Magnum — overbore capacity, inefficient, expensive; not recommended
.244 Remington Improved — not much improved over standard .244 cartridge
.25 Belted Express — fourth member of the Belted Express experiment
.25-35 Improved — surprisingly efficient, equals .250-3000 or .257 Roberts
.250-3000 Improved — one of the best Improved cartridges; 10 percent or more increase in velocity
.257 Roberts Improved — great worldwide popularity
.25 Short Krag — for high velocity in Krag actions; nearly equals .257 Roberts
.25 Krag Improved — reasonably efficient, easy to make; use .257 Improved loads
.25-06 Improved — highest velocity .25 caliber; short barrel life, but popular
.25 Ackley Magnum — .300 Magnum necked to .25; badly overbore capacity, inefficient
.270-257 Improved — more efficient than factory overbore .270 Winchester
.270 Winchester Improved — not recommended; factory case already overbore
.270 Ackley Magnum — smallest case .270 Magnum wildcat; too velocity/short barrel life
.7x57 Improved — one of the better Improved cartridges; aka .7mm Improved
.7mm-06 Improved — 5 percent increase over standard .7mm-06; good for heavier bullets
.7mm Ackley Magnum — overbore: average shooter finds .7mm Improved more versatile
.280 Remington Improved — more efficient than standard .280

.30 to .35 Calibers
.30-30 Improved — surprisingly good; hot loads for lever guns, easy to handle
.30-40 Improved — one of the best Improved; not popular due to lack of actions
.30-06 Improved — one of the few Improved wildcats ever; good for handloaders
.30 Short Magnum No. 1 — very satisfactory; one of the shortest .30 Magnum wildcats
.30 Short Magnum No. 2 — longer than No. 1; overbore but not particularly hard on barrels
.30-348 Improved — relatively efficient long range .30 caliber; be careful in Model 71s
.300 Magnum Improved — more faults than good points; same as .300 Weatherby
.8mm-06 Improved — 5 percent or so better velocity than standard 8mm-06
.333 Short Magnum — the No. 2 Short Magnum necked to .333 caliber
.333 Magnum Improved — 300 Ackley Magnum necked to .333, case size impressive
.348 Improved — for Model 71 fans; no more excessive body taper, reduces bolt thrust
.35 Whelen Improved — 5 percent or so better velocity than standard .35 Whelen
.35-348 Improved — .348 necked to .35; should be best .348 Improved-based wildcat
.35 Ackley Magnum — maximum capacity for .35 caliber, for standard actions, heavy bullets
.35 Ackley Magnum Improved — best use is for shot-out 300 Magnum rebores

Dragon Slayers
.375 Magnum Improved — same as .300 Magnum Improved except .35 caliber; for African game
.375 Whelen Improved — the .35 Whelen necked up to .375
.40-348 — .348 improved necked to .40 caliber; for big game; muzzle energy 2 tons +
.450-348 Improved — oldest big-bore Improved, .458 ballistics, use in lever guns
.450 Ackley Magnum — one of most powerful cartridges in the U.S.; full penetration on elephant
.475 Ackley Magnum — one of the largest wildcats; not as versatile as .450 Ackley