

SHOOTING



The .264 Winchester, Winchester's latest in their family of three new magnums, stands at left, foreground, alongside the .338 and the .458 African. Behind are rounds which came either before or after, the 6.5 x 68, .30 Belted Newton, 7 mm. Belted Newton, and Gibson's 6.5 magnum, all from the .264's family tree

From Antelope to Elephant . . .



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Charles Newton, during the smokeless powder era the idea of deliberately planning a family of related cartridges is seldom practiced.

In the last decade we've had two such instances of

FIRST IT WAS a chicken in every pot, then two cars in every garage—now it's three cartridges in every family. Family of cartridges, that is. Every gun lover knows that any new cartridge has behind it a family tree of developmental ideas and that usually said "new" cartridge branches off into a whole clan of wildcats. The .30-06 is one obvious example. But save for the efforts of

planned parenthood from Winchester-Western however. For a time, I expected Remington to follow a similar plan, that of developing from one basic case a group of cartridges all to the same overall length. The Winchester-Western .243-308-358 rimless trio for medium length actions was born first. Latest to be completed—and this family had more advance notice, both deliberate and unintended, than Queen Elizabeth's new son—is the trio of which the .458 magnum was first-born, followed by the .338 and now by the .264 Magnum, a triumvirate suited for standard length actions and intended to handle everything from elephant to antelope.

No reason why they shouldn't do just that. With the .458 in its proper sphere, which is to say on African or

Asian beasts like elephant, rhino, buffalo, I've had considerable experience. A rifle chambering the .458 has in my dainty paws clobbered a couple of elephant, rhino, and assorted buff. I've been sitting in the front row when others handling .458's have dumped five black bulls and three other elephant. The front row was so close on the next-to-last pachyderm that your correspondent was nearly splattered. Paul Leyman's .458 stopped a charge from a pig-headed old cow, the biggest package of female bad temper I've ever seen, at seven paces. And stopped it cold.

Many professional African hunters are peddling off their double .577's and .465's and .470's, switching to a four-shot bolt rifle that is cheaper to buy and easier to repair, uses ammunition that is plentiful because ambitious Yank safarists forever bring over a hundred rounds and shoot up only ten, ammo that is modern, completely non-corrosive, and kills as well or better than any of the English banana-sized rounds. The .458 kills especially well with the superb solid—I've got a box full chopped out of various hardskins and hardheads, so little deformed they could probably be reloaded and blasted into an unfortunate elephant all over again.

But however successful the .458 is on African rhino or Indian gaur, it has no place on North American game. Its bluff-nosed slugs and 3200 foot-second speed are meant for jungle ranges; and pitching a 510-grain bullet into a moose or bear is superfluous effort, needlessly painful to the pitcher. Winchester figured that what we might have use for over here was a "medium," something like the .375 in energies, which is to say upwards of 4000 pounds, but a little easier on the shoulder and a little

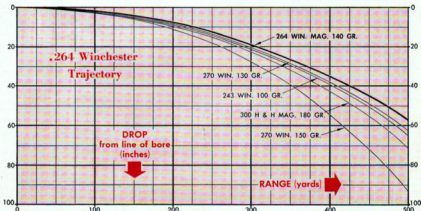
better in trajectory over mountain ranges. Something that might shade the dying .333 Jeffrey and the very lively host of ½-inch wildcats like the .333 Belted with which Don Hopkins has happily clobbered everything from sheep to muscular bear on this side of the oceans, all the heavier antelope and lion overseas. An eland, for example, is an inoffensive critter, hardly as rambunctious as a grizzly, but he may weigh close to a ton so it isn't fair to pot him with a pipsqueak. Conversely, it isn't necessary to cannon-ize a leopard or tiger with a .458 any more than it is a polar bear.

Out of all this came the .338 Alaskan, as Winchester calls it. This throws bullets .005 fatter than the regular .333's for no known reason, and throws them amply fast—200-grain soft-nosed spitzers at 3050 and 250-grain Silvertips at 2750—for efficiency at range. At 200 yards the heavier Silvertip hits with over a ton and a quarter of energy, right up there with the 300-grain bullet from the .375. The beautifully contoured 275-grain Speer bullet can be handloaded to do even better at range, since big charges of 4831 or H570 give it over 2600 ft. seconds at the muzzle, 2300 at the furlong mark.

The .338 seems to be one of those happily accurate cartridges. Back in experimental days the bullets were no great shakes but with recent factory ammunition it has been no trick to hold the M70 in this caliber, 9½ pounds with Balfur scope and Buehler mount, well under two inches. Nor is it a sensitive combination. Five rounds each of 200- and 250-grain factory fodder, plus five of the Speer bullet over 58 grains of 4676 powder, all hit inside a rectangle 2¼ by 1¾. Nothing finicky about that.

Decimal points aside, the .338 after one hunting season

Families of commercial cartridges seem to run in threes, like Winchester's magnum trio—the newest .264 speedball, the recent .338 and proven .458—but every cartridge family has ancestors, soon begets wildcat sons



In terms of paper ballistics, the .264 outpits all commercial rounds save perhaps the Weatherby line. Its 100-grain varmint bullet shoots flatter than the .220 Swift; the 140-grain game bullet, heaviest practical in the Winchester rifle, as shown by the graph above holds velocity better than standard game loads usually considered speedsters. Energies also stay high

is building a reputation. My spies report that the 250-grain bullet kills Alaskan brownies well, breaking off-side shoulders as evidence of slow expansion; Wyoming operative Les Bowman wrote me that on a dozen bull elk shot with his customer's .338's at from 125 to 325 yards the Silvertip bullet punched through ribs and lungs with little expansion, but the lighter bullet with the fracture lines at the tip which Winchester calls their Power-Point opened and provided elk steaks right sudden; reports from overseas are still incomplete, though both lion and tiger, neither particularly tough animals in terms of bullet resistance, have been dispatched with the caliber.

For men who can carry and shoot that much rifle—I for one am planning a Pachmayr-stocked sporter of moderately light weight with a Pendleton brake to kill the bite of near .375 recoil—the .338 is just dandy. It's a big caliber that shoots flat enough for anything on our continent, hits hard enough for most tropical game. Winchester hasn't yet come out with a 300-grain bluff-nosed bullet, isn't likely to, and apparently their plans for an all-steel solid of 250 grains weight were knocked in the head by caliber restrictions now effective in British Africa.

So what of the .264 Westerner which has now, after a few false starts, rounded off this family trio?

The ballistic numbers on the .264 are very impressive. It starts a 100-grain bullet at 3700, which, incidentally, is what my .257 Weatherby clocks for a bullet of the same weight and .007 slimmer. The 140-grain spitzer spits forth at 3200, is so efficiently shaped that it hits at 500 yards with the same energy the good old .30-30 makes at one hundred. If we except the Weatherby line of cartridges, which probably isn't 100 per cent kosher because they certainly are no longer in the wildcat category, then of the rounds commercially loaded in the U.S. the .264 Magnum looks most impressive on paper. In the varmint form it is flatter than the .220 Swift and the .243, though it's interesting to see how the 6 mm., a relative pipsqueak in that it burns only 60 per cent as much powder, stays in the ball game. With the heavier bullet it rates as punchier at extreme range than even the standard .300 H & H load with 180-grain Silvertip. For the .264, if we follow the Rule of Three and zero a scoped rifle to hit three inches high at a hundred, it's on at three hundred yards, in practical hunting shots we can forget about holding over or under to

about three-fifty, and we need only a foot of hold-over at 425. Awesome.

A lot of fireside ballisticians are going to jump up at this point and say, "Ah-hah! That shows you what sectional density will do!" Could be, chums, but in performance-over-range the index figure we get by dividing the weight of a bullet in pounds by the square of its diameter in inches is only part of the story. Pure sectional density for the 100-grain 6.5 or .264 pill is .205, roughly the same as that of the very stubby and inefficient 180-grain .35 caliber deer bullet. In making up the proper index, to wit the ballistic coefficient, factors like point shape, configuration, become really important. If Winchester had decided to round the point on that 140-grain projectile, for example, as they almost did to answer certain problems of twist (the .264 barrels are cut one turn in 9 inches, should not spin 160 grain bullets enough), it wouldn't look so hot at 500 yards, believe you me. As is, however, with a ballistic coefficient of approximately .480, this is one of the most efficient bullets we have. It loses speed so slowly that a ten-mile cross wind drifts it only some 20 inches at 500 yards.

Next question: who cares about 500 yards, or shoots at that range? Nobody does, much, but when we have flat trajectory and high energy over such a distance, then it's easier to hit at any yardage and you hit harder. Translated into practical terms, high speed and fine bullet shape mean that with the 140-.264, assuming you are ass enough to whang at a buck antelope sprinting under full steam at 500 yards you'd need about a third less lead than with the 180-grain .30-06. Or, zero both rifles at 300 yards, which is too far to zero an '06 but let's assume it for the sake of argument, and on that 500-yard antelope you'll have only a bit more than twenty inches of added bullet drop to fret about with the .264 hotshot, but over four feet to guess at with the '06. Since an antelope's chest is skinny, maybe two inches more than a foot deep, which caliber presents the easier long-range hitting problem? And the .264 will hit almost 25% harder in terms of kinetic energy.

However, chums, you don't get all this for free. The .264 is a magnum, will sell at magnum ammo costs. It burns a lot of powder. The 140-grain bullet is factory-loaded with a special coarse ball powder, strongly compressed to squeeze in 76 grains; the varmint-weight bullet sits over 69.7 grains of a finer ball propellant. Ball powder is less erosive than any

we now burn and Winchester is using the same "stainless" steel in these barrels as on their .220 Swift—but even so those tubes can't last forever, nothing like as long, if you do a lot of range firing, as with the .243 or that '06 we've been using as an example. The imposing speed figures are based on 26-inch barrels. To duplicate them from the 22- or 24-inch tubes that today's hunter wants to lug up a mountain to whap a sheep with will be rough, probably impossible.

The Winchester-Western people didn't get the performance for free, either. When the cat was let out of the bag on .264 ballistics—and it was the wrong cat since the figures then called for a 140-grain at 3250, data the red-W ballisticians merely hoped to get—the heat was on them. At one stage, when the production people were having troubles cold-drawing brass with belted heads to the crystalline structure and strength that .264 and .338 pressures made desirable, there was thought of switching to a rimless or Newton type of case. Why? To put the muscle inside the brass. There it would do more good than out in the belt, that belt which adds far less to cartridge strength than most gunbugs realize. But the sales people couldn't see that step, the H & H type of case head somehow being symbolic of "magnum." Eventually belted brass was developed with extra weight inside.

There were problems of bullet design, too. The 100-grain light-weight brought little grief since it's a conventional shape with the cannelure left off to improve accuracy. The 140 was something else again. It had to have a long point to give those super figures at long range. That meant twist and jacketing problems which weren't easy to solve, believe me. The bullet was smartly made two-diameter, miking .264 or groove diameter behind the cannelure for a shank length of .360 inches, then only .257-8 or bore diameter ahead of the seating groove. Why? To relieve pressures by lessening barrel bearing. Remember the hot velocities recorded with the Modern Gun Shop two-diameter .270 bullets about ten years back?

Accuracy with the Model 70 test rifle furnished (weight 8 pounds 14 ounces with Leupold mount and 6X Bushnell scope) has been fairly good to extra good. First groups weren't much, until I took out the fore-end screw and tossed it into the brush. Then the rifle began to percolate. Five-shot clusters with the varmint bullet averaged 1.240 inches; ten shot strings opened this just beyond two.

The 140-grain bullet was amazingly steady between 1 $\frac{1}{2}$ and 1 $\frac{3}{4}$, averaged 1.5 and a few thousandths. Mann barrel groups fired by Winchester are excellently tight, way under two inches. Very satisfactory.

Recoil is much more bark than bite, of course. All told, if a man can't hit a sheep or a muley or an antelope with one of these .264's, he just can't hit a sheep, muley, or antelope.

The 6.5 magnum won't be a re-loader's darling, however, not as I see it. The short neck (about .292 inches) makes it easy to seat bullets behind the point of sure holding, as for example the 129-grain Hornady if pushed in any shorter than 3.25 overall length. More to the point it will be tough, with any powders we can buy in cans, to duplicate factory figures. Speer has in Handbook #3 included full .264 data based on a 24-inch custom barreling and re-worked Remington .300 H & H brass. Their figures for 140-grain bullets ran a conservative 2795 to 3029 f.p.s. before they felt pressures became severe. Hodgdon's H-570 and 4831 looked like the best powders. With the new factory brass I was foolish enough to guesstimate that since Speer had fired 66 grains of 4831 with their heaviest bullet and could use 69 with the 120-grain I could shoot 66.5 grains with the 125-grain Nosler. So I could, if I wanted primers to leak, case belts to spread from .530 to .536 with corresponding body expansion, and if I wanted to pound the bolt open after every shot! This is like pounding your noggin against a wall—you feel good only when you quit. Actually, 65-4831 was still on the stiff side with either the 125 Nosler or Hornady's 129-grain spire point. Obviously the present Western-made brass is a lot thicker, smaller in capacity by several grains of powder, than the wildcat cases which Speer earlier used and presently published loads should be scaled down accordingly. I have no doubt but what Speer will be out with up-dated data, using factory brass, by the time this hits print. Later we'll have here a follow-up on .264 reloads since there are over a dozen good bullets available in the caliber.

The .264 and .338 cases have already been wildcatted up and down the scale. Fred Huntington has in the last year played with a series using .338 brass, what he calls the .270, 7 mm. and .30 belted Newtons. The results aren't surprising. They give a max-pressure potential over 3100 for 150-grain bullets and 3300 for 130-grain in the .270 version, 3150

for 160 grains of projectile in the 7 mm. type, 3100 or so with 180-grain bullets of .30 caliber. Actually the new trio of commercials were wild-catted long before they ever appeared. Ackley had a .45 Magnum which accepts the .458 perfectly. If you get out your specs it will be obvious that these new Winchester case types are actually the .30 Newton and .35 Newton necked down and with a belt added. Back in the early 1950's Chet Paulson of Tacoma, to keep some old .30 Newton rifles going, cut a belt groove in their chambers so they could be used with revamped .300 H & H brass. Chet also cooked up a long series of wildcats, dead ringers for the new Winchester cases, ranging in caliber from .270 to .375 with assorted way-station sizes. I don't think Paulson ever made a 6.5 version of the belted Newton but Gipson had one only a few grains smaller, and the Germans even before the last war had the 6.5 x 68, a rimless super-whizzer of the same case capacity as the .264 West-erner. It's pretty tough to create a completely new cartridge, friends, whether you're an individual or an arms plant, and any individuals who "create" new wildcats based on the .264 and .338 cases are only dreaming the newness of their proud creations.

In this elephant-to-antelope trio the .458 is a proven quantity, the .338 soon will be—but we'll all be waiting for next fall's dope on game performance of the hot .264.

Modernizing Old 99

Two rifles in our sporting arsenal will go on forever, will probably be made as long as there are whitetail deer—the Model 1894 Winchester lever gun and the Model 1899 from Savage. The 99 has had changes in barrel length and stock shape, has seen cartridges like the .303 go, new ones like the .243, .308 and .358 come; but its basic action hasn't changed since Arthur Savage's day. At least it hadn't until now, as rifle No. 1,000,000 comes off the line.

The one feature needed was a faster safety, one on the tang where a southpaw or a frozen-fingered deer hunter could get it off before his buck disappeared over the hill.

But the Model 99 rifle, in five calibers and in the high comb DL and 6½-pound F versions, now has a tang safety, far faster than the old catch behind the trigger. No give-away click, either. With it, a revamped sear set-up to give the 99 a crisper trigger, more easily adjustable pull weight.