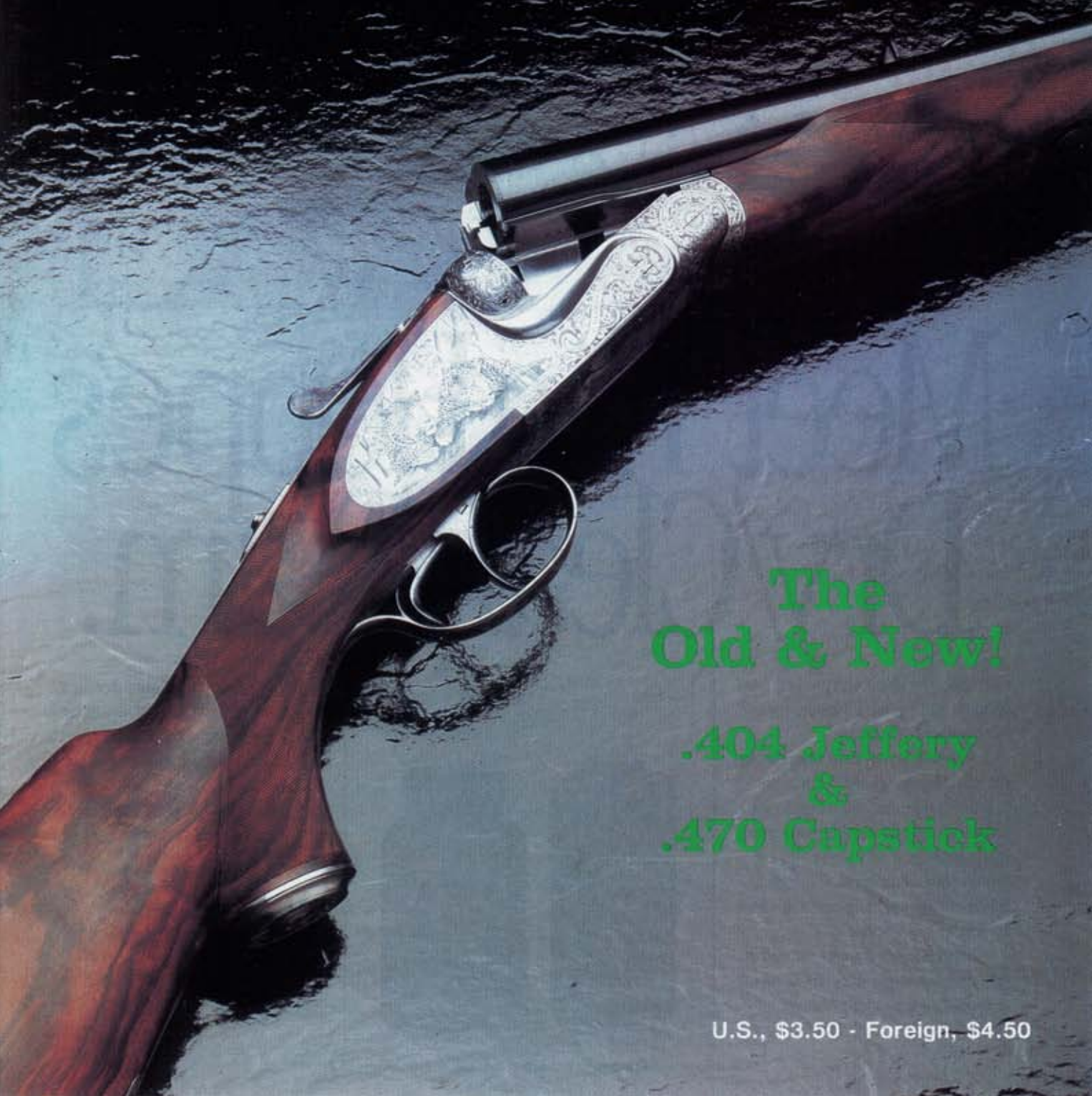


July-August 1991

Number 136

RIFLE

The Sporting Firearms Journal



The
Old & New!

.404 Jeffery
&
.470 Capstick

U.S., \$3.50 - Foreign, \$4.50



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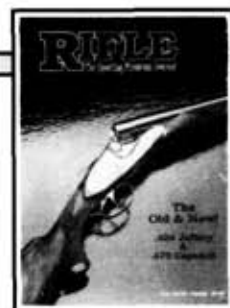
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On the cover . . . The Beretta Premium Grade 455 EELL side-by-side Express rifle is available in .375 H&H, .458 Winchester Magnum, .470 Nitro Express, .500 Nitro Express and .416 Rigby with 23.5 to 25.2-inch barrels. Photo courtesy of Beretta USA.

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.470 Capstick



Left, the .470 Capstick offers more punch than any other cartridge that is based on the .375 H&H case. Above, the A-Square Hannibal rifle is based on a modified Enfield action.

Wayne van Zwoll

“SIX HOURS IS a long time in a pole boat, but lions had been working on the buffalo near our permanent camp. We had to follow the buffalo deeper into the Okavango.” Art Alphin explained that fly camp, 2½ hours by motorboat from civilization, boasted few comforts. Here, in one of the world’s great marshes, you slept on small islands, counting every spot of solid ground an amenity.

Water in the delta averages waist-deep, according to Alphin, though levels fluctuate seasonally. Uneven terrain keeps you on guard for shoals and depressions. You can splash along in

water to your ankles, then suddenly plunge chest-deep into a hole. The buffalo like it here. Lush vegetation and few people make this soggy corner of Botswana a haven.

“We saw them about mid-morning — a handful of buffs in shallow water. One of the bulls had heavy horns.” Alphin could not see the second herd, hidden by dense vegetation on an island to the left. “Probably these groups were just splinters of a bigger bunch grazing in the shallows beyond an island in front of us. We could only see the smallest contingent, so we planned accordingly. Peter would get the first shot.”

Peter Hathaway Capstick, the well-known professional hunter and author, agreed to guide Alphin on this trip. “We were hunting for the first time with the .470 Capstick, a cartridge I’d developed after asking Peter to define the ideal round for heavy African game. It only made sense to name the product after the man who inspired it. Besides, Peter has, with his books, done more to promote African safaris than anybody else in the last 30 years.”

The buffalo were still 160 yards away when Capstick signaled that he would

fire. “That’s farther than most professional hunters recommend shooting at dangerous game,” allowed Alphin. “But Peter appeared confident, even though he had to stand. When the rifle went off the buffalo dropped instantly. Peter jacked the bolt, and as the target came back into view he fired again. The bull did not move after that.” Later, the men decided the buffalo’s reappearance may have been a slight bounce as its belly hit the water and that a follow-up round wasn’t necessary. But with buffalo you keep shooting until you’re sure.

The hunters moved in to find the bull dead, but as cameras clicked Alphin heard a splash. Just over 100 yards away, from the shore of the island to the left, another bull had hit the water and was bearing down on them. Alphin lifted his rifle, then hesitated as Capstick hissed, “Don’t shoot!”

“It puzzled me,” Art admitted later. “The alternative, it seemed, was buffalo tracks up my belly. Then Peter thrust the .470 at me. He just wanted me to use the new cartridge! It was cool thinking in a tight spot; I certainly wasn’t going to waste time arguing. My first bullet turned the buffalo, and the next one, broadside, put it down.

"Peter's shots were surgically perfect. The first, one of my A-Square Dead-Tough softpoints, went through both shoulders and the lungs, lodging under the far hide. The second, a Monolithic Solid, hit within a few inches of the first shot, again broke both shoulders, then exited. My first 500-grain solid into the chest of the charging bull ranged lengthwise, stopping just short of a rear quarter. The second passed through his lungs and kicked up dirt on the island beyond."

While field tests by definition have little scientific merit, they're useful in that they demonstrate potential. Certainly the first impressions from this cartridge bode well for its future. But even the most brilliantly-conceived cartridges can fail in the marketplace. What can the .470 Capstick claim that other big-bore rounds lack? What rifles will be chambered for it? Is it of any use to hunters who can't spend weekends in the Okavango?

The credentials of the .470 come from a hunter with lots of experience shooting big animals. When Capstick told Alphin he would like to see a 500-grain solid bullet of .475-inch diameter driven 2,400 fps, he was asking for more horsepower than is available from most common factory loads today. Winchester's .458 Magnum, the blue-collar champion of elephant loads, popped up in 1956,



Art Alphin and Peter Hathaway Capstick bloodied the .470 Capstick in the Okavango swamp.

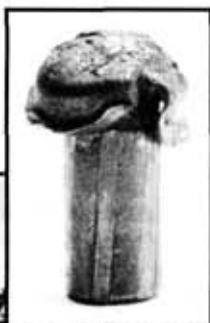
with a 500-grain solid at an advertised 2,125 fps. Recent data has whittled that claim to about 2,000. Professional hunters I've interviewed in Africa still like their .458s. Many handload them with Hornady solids and consider them "bloody good bullets."

The .470 Capstick beats the .458 in both bullet diameter and velocity. Muzzle energy for the Capstick registers 6,394 foot-pounds, compared to the .458's 5,088 foot-pounds. Both are loaded by A-Square, the .458 with a 465-grain bullet at 2,220 fps.

The new round upstages the .450 Ackley and .458 Lott, which generate 5,947 and 5,848 ft/lbs, respectively, with their 465-grain A-Square bullets. Each of these is based on the .375 H&H case, the Lott slightly shortened. Weatherby's .416 is the only 40 bore to approach the Capstick's punch, with 6,004 ft/lbs. Its muzzle velocity of 2,600 fps makes it a bit flatter shooting — at the expense of bullet weight and diameter. All the .416s (and the .423s like the .404 Jeffery and .425 Express) are best loaded with bullets weighing around 400 grains. Most professional hunters prefer a 500-grain bullet in a stopping rifle.

Traditional British double-gun rounds generate about 5,000 ft/lbs with half-inch bullets of around 500 grains, about the same snap as a .416 Remington or Rigby with lighter bullets. The .470 Nitro Express and .475 Number Two deliver a little more; the .500/465 a little less. An exceptional performer is the .500 Nitro Express, its 570-grain bullet smashing home with 5,850 ft/lbs. The .505 Gibbs and obsolete .500 Jeffery are bolt-rifle rounds, the Gibbs delivering 6,166 ft/lbs with a 525-grain bullet, the Jeffery edging that performance slightly. Few hunters have even seen double guns chambered in .577 and .600 Nitro Express, at one time the most potent of hunting cartridges. The .600's bullet started slow but weighed a whopping 900 grains.

The only modern commercially-

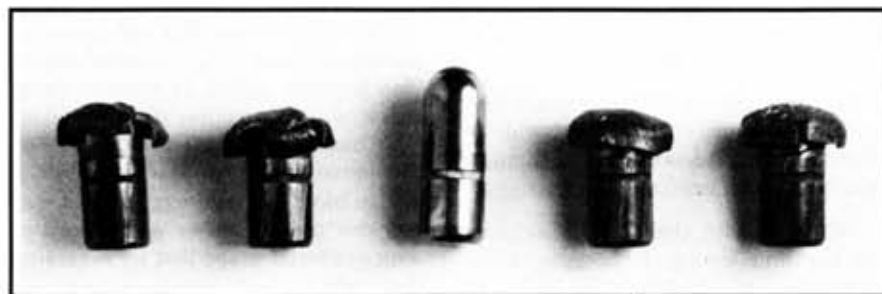
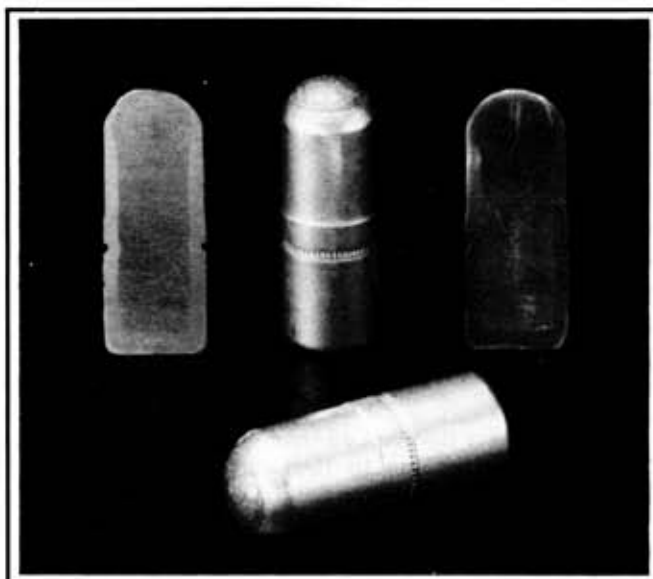


Peter Capstick (right) used an A-Square Dead-Tough softpoint while Art Alphin (left) shot a second buffalo with Monolithic solids.





Above, A-Square manufactures the Monolithic solid, Dead-Tough softpoint and the Lion-Load. Right, the cutaway bullets reveal the jacket thickness. Below, these Dead-Tough bullets show the moderate expansion that is required for heavy game.



loaded sporting cartridges with more sauce than the .470 Capstick are Weatherby's .460 and the .495 and .500 A-Square.

The .470 Capstick was designed for bolt guns. Its case is a full-length .375 H&H straightened out, with only the slightest body taper to a barely-perceptible reverse shoulder that gives the neck parallel sides. Alphin says that unlike the .458, which requires a crimp to hold the bullet, the .470 Capstick case provides enough neck friction to secure it. Crimping is still a good idea, however, because heavy bullets in a magazine can be jarred forward in their cases by recoil, jamming the box.

So far, factory ammunition is loaded only by A-Square. You have a choice of three bullets, all 500 grains. The Monolithic Solid should be the most popular; after all, if you're going to use something this big, it will probably be on something that will quickly mash softnose slugs. A-Square's solids have a stellar reputation for keeping their shape. Several have been recovered and reloaded to kill again, though a broad-

side buffalo will not stop one. Apparently the bronze alloy does not harm rifling.

The other two bullets are A-Square's Dead-Tough and Lion-Load softpoints. Each has a copper alloy jacket over a lead core, but the alloys differ, as does jacket thickness. In fact, says Alphin, bullet construction varies within each design, according to caliber. To make it simple, consider the Dead-Tough a heavy-game bullet with a stout jacket, the kind of bullet Alphin recovered from the far side of Peter Capstick's buffalo and found it had retained 442 of its original 500 grains of weight. It's a good bullet when you want deep penetration plus expansion. For hunting dangerous game, it's best backed by a stack of solids.

A-Square's Lion-Load is a more frangible bullet, built to come apart quickly in relatively light animals. Its diameter and weight give it an advantage over smaller bullets that would kill as easily if not as quickly. Fragmenting in the chest of a charging lion, this bullet delivers the equivalent of 1½ ounces of buckshot

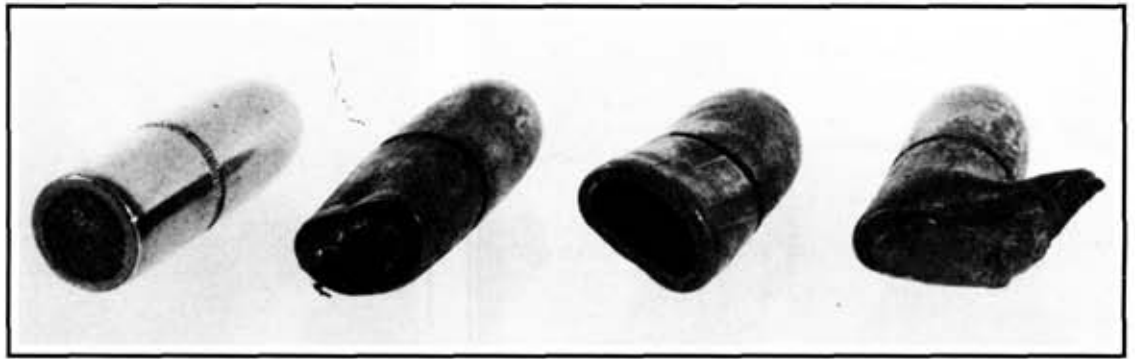
into the vitals, a great deal more violently than would a shotgun. It's a stop-right-now-and-pay-attention bullet for thin-skinned game.

While you might not buy a .470 Capstick for lions or zebra, having bullets that adapt your heavy-game rifle to other quarry is a good idea. On my last African hunt I made my shortest shot with a scope-sighted rifle and my longest with irons; I killed a fine bushbuck with a .375, but used a .30 Magnum on eland. In other words, you often can't know just what you'll find when you enter the bush. A heavy rifle should always have a solid or two wallowing in its magazine, but the appropriate softnose can make a big gun more effective on certain game.

One of the best things about the .470 Capstick is its case diameter. If you own a .416 Rigby or .460 Weatherby you know how those big-bellied cases cut magazine capacity. They limit your choice of actions as well, and can require special handloading equipment. This new .470 will snuggle into any action that accepts an 8mm Remington or .300 Weatherby, and you'll use the same shellholder.

What rifles are available? A-Square, naturally. Alphin is not bashful in promoting them.

"I got into the business of building rifles and loading ammunition because I wanted something better than I could find." That was in 1974. For the next five years Alphin considered the problems he would face, but also the rewards, and opened A-Square's doors



Conventional solids may bend or become distorted at impact with heavy bone.

in 1979. This year the plant was moved from Madison, Indiana to Bedford, Kentucky. There are now nine full-time employees, and the business is thriving. "Production has increased every year since 1985," says Alphin. "This year we should triple 1990's output."

Except for rifle actions and raw materials, all A-Square products are manufactured in-house. The .470 Capstick is one of several "group III" cartridges — long belted magnums on the .375 head. It's available now in the Hannibal rifle, Alphin's much-modified pattern 14 Enfield. The other gun from A-Square grows out of a left-hand Remington 700. It's called the Caesar and is offered in group I (.30-06-size), group II (short magnums) and group III chamberings. Group IV rounds — the .416 Rigby, .460 Weatherby and various A-Square cartridges — don't fit well in the Remington action.

When Alphin and Capstick doubled on their buffaloes, they were using an A-Square Hannibal. It's the only one now made for the .470 Capstick,

though U.S. Repeating Arms has announced a Model 70 in that chambering from their custom shop. USRAC is backed up with orders for new Super Grade Model 70s, so won't commit to delivery schedules for the .470. I've handled the prototype and suspect many shooters will consider this rifle worth its price of \$2,125.

While the Model 70 has a great following, A-Square rifles are not widely known. Alphin describes their manufacture as an exercise in care.

"We start with the Enfield because it's big and strong. It accepts, with relatively little modification, the biggest commercial sporting cartridges. We don't use Eddystones, not because they're weak or brittle, but because some writers have said they are. We want people to have the utmost confidence in our rifles.

"We magnaflux each action and check its hardness. A-Square receivers register 41 to 46 on the Rockwell scale; bolts are 45 to 49. We install an adjustable trigger and a new magazine

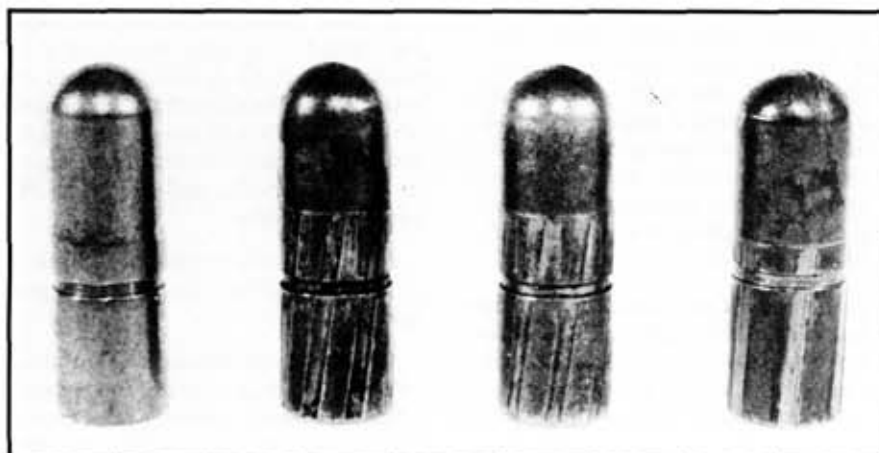
box of plate steel. The box is dovetailed and welded to the bottom of the receiver. We replace springs in the firing mechanism, true and lap the bolt face and lugs, then machine the receiver to accept scope bases. Many of our customers want iron sights as well, and we outfit some rifles with bases for barrel-mounted, long-eye-relief scopes. One popular option is a set of three bases, with the center (front receiver ring) base a dovetail. The front base on the barrel and the rear one on the bridge have windage screws. That way you can mount either a standard or long-eye-relief scope just by reversing the rings.

"Our barrel blanks come from several sources, but we chamber them here. Chambers must come within .001 inch of coaxial alignment with the bore. They're sized to fall in the bottom third of SAAMI tolerances. In other words, they're smaller than average and more uniform, rifle to rifle. We don't call them 'minimum' chambers because they aren't. On the hunt a tight fit can bring bigger problems, complete with horns, tusks or teeth."

The .470 Capstick has .006 inch of taper to its ghost or reverse shoulder. To check ease of extraction, Alphin removed the extractor from an A-Square rifle, fired a round, opened the bolt and tapped the rifle butt on the ground. The case fell out.

"Clymer builds reamers for this round, and Richard Beebe of Redding offers .470 Capstick dies," Alphin points out. "We think our rifles and ammunition are the best you can get, but I can't blame shooters for wanting to do things themselves. That's how I started this business."

The first impressions of shooters when they see an A-Square rifle are that it's awfully bulky and it must kick



Most recovered Monolithic solids bear only the rifling engraving as proof that they have been fired. A-Square Monolithic solids are available in .284-inch (7mm), .323-inch (8mm), .366-inch (9mm), as well as larger diameters from .375 to .577-inch.

hard. Alphin explains that the generous proportions help absorb recoil so the gun won't kick so hard. He does not recommend muzzle brakes. "A brake helps with the sharp jab of something like a .300 Weatherby," he says. "It's not as effective with a big-bore gun. Besides, it can boost muzzle blast to 160 decibels; that's well beyond the 130 known to cause permanent ear damage."

Some features of the A-Square stock are common sense on any bolt rifle: a straight, well-rounded comb, open grip, clean profile. Other points are company-specific and meet mixed reactions from hunters. Alphin claims the narrow grip, set well back from the trigger, keeps your knuckles from the trigger guard on recoil. The grip tapers into the comb nose and saddle so that on recoil your hand arrests the wide forward part of the grip. Likewise, the forend is a real hand-filler, so recoil is well distributed. I found the forend OK, if a little bulky, but thought the pistol grip too narrow for my hand and too vertical on its face for quick gun handling. I have meaty palms and would like a place to rest the base of my right thumb. There's no fluting worth mentioning. Combined with the narrow, vertical grip, the thick flat stock under the comb nose makes me feel like I'm trying to grab a 2x6 without wrapping my thumb around it.

The comb is thick but thoughtfully designed so that my eye, at least, lines up with the sights. Lots of comb helps spread recoil. If there's any difference between drop at comb and drop at heel it's hard to see. The ventilated recoil pad is as big as you would expect (and want) and tastefully shaped. Alphin does not use a drop box magazine because the proportions of his stock permit reasonable capacities without it. Read that seven '06 rounds, plus one up the spout.

I'm pleased to see flush-mounted swivel bases instead of the barrel-band swivels common on big-bore guns. The forend is long enough and the base far enough forward that the swivel should not cut into your hand. I shoot with a tight sling quite often, and I don't like to be pulling on the barrel. It does affect impact.

A-Square guns are built to withstand recoil as well as dampen it for the shooter. Actions and stocks are serialized together to ensure the best fit. Two

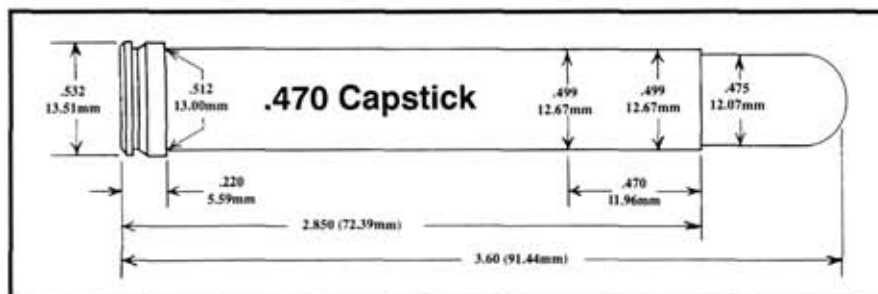
transverse steel pins bracket the magazine well, and a second recoil lug protrudes from the underside of the barrel. Steel-reinforced fiberglass goes into the action well and barrel channel after the gun is finished, for a full-length, skin-tight bedding job. Hardened steel guard screws enable you to cinch the action firmly into the stock, and be assured it will stay there. Elliptical guard screw holes prevent split stocks.

A-Square's huge rifles do not, to my mind, seem appropriate for standard and short-magnum cartridges. Their bulk is better justified by big-bore, full-length magnums like the .470 Capstick and by cartridges with head sizes bigger than that of the .375 H&H. As African rifles go, however, they're reasonably priced: \$1,860 for the Hannibal — with a choice of caliber, barrel

length and length of pull. Weight of A-Square rifles varies from about 9 pounds to nearly 12.

Given the recent popularity of belted .416s, the .470 Capstick may get a following. It's not the thing I would use to keep the neighbor's dog out of my garden (though the urge to use such measures can be strong), and it isn't the least expensive big-bore to shoot. It is a thoughtfully designed and a consummately efficient big-bore round that mates nicely with long-action bolt guns with common magnum bolt faces. A-Square ammunition ensures that it will tot up an impressive score afield.

Whether you choose an A-Square rifle or wait for one of the new Model 70s, the name .470 Capstick, and that big hole in the muzzle, will certainly impress the boys at the range. ●



Big Bore Ballistics

cartridge	bullet (grains)	muzzle velocity (fps)	muzzle energy (ft/lbs)	trajectory (inches)		
				100 yards	200 yards	300 yards
.375 H&H	300	2,550	4,331	+2.6	0	-11.1
.378 Weatherby	300	2,900	5,602	+1.8	0	-8.3
.450/400	400	2,150	4,105	+4.3	0	-15.9
.416 Taylor	400	2,350	4,905	+3.1	0	-13.0
.416 Remington	400	2,380	5,031	+3.0	0	-12.6
.416 Ribby	400	2,400	5,115	+3.0	0	-12.3
.416 Weatherby	400	2,600	6,004	+2.4	0	-10.0
.404 Jeffery	400	2,150	4,105	+4.0	0	-15.8
.425 Express	400	2,400	5,115	+3.0	0	-12.4
.458 Winchester	465	2,220	5,088	+3.6	0	-14.7
.450 No. 2	465	2,190	4,952	+4.0	0	-15.4
.458 Lott	465	2,380	5,848	+3.0	0	-12.5
.450 Ackley	465	2,400	5,947	+2.9	0	-12.2
.460 Weatherby	500	2,580	7,389	+2.5	0	-10.4
.500/465 Nitro Express	480	2,150	4,926	+4.4	0	-16.3
.470 Nitro Express	500	2,150	5,132	+4.4	0	-16.5
.470 Capstick	500	2,400	6,394	+2.9	0	-11.9
.475 No. 2	500	2,200	5,373	+4.1	0	-15.8
.505 Gibbs	525	2,300	6,166	+3.7	0	-14.5
.500 Nitro Express 3 inch	570	2,150	5,850	+4.3	0	-16.0
.495 A-Square	570	2,350	6,989	+3.1	0	-13.0
.500 A-Square	600	2,470	8,127	+3.8	0	-11.4
.577 Nitro Express	750	2,050	6,998	+5.0	0	-19.3

PRODUCT & SERVICE NEWS

A number of new sights have been introduced for 1991 by Emerging Technologies, Inc.



The LA5 Laseraim sight is perhaps the world's smallest and compact laser sight measuring less than two inches long with a .75 inch diameter. The LA5 was designed for use on handguns, shotguns and bows and has a range of 300 yards. It projects a two-inch dot at 100 yards.

The LA5 Magnum Laseraim sight is effective up to 1,000 yards. It is 2.75 inches long, .75 inch in diameter and should mount on most guns, bows and scopes. It projects a one-inch dot at 100 yards.

The LA6 and LA6 Magnum Laseraim sights are designed for shotgun use. The LA6 is 1.9 inches long, mounts directly on a shotgun's magazine and projects a two-inch red dot at 100 yards. The LA6 Magnum is 2.75 inches long with a .75 inch diameter. It projects a one-inch dot at 100 yards. Range for the LA6 and LA6 Magnum is 300 yards and 1,000 yards, respectively.



The Illusion D.O.T. (Direct on Target) sight is designed for use in sunlight and uses one-inch scope rings. The D.O.T. includes a battery extender tube, polarizing filter and eyepiece accessory.

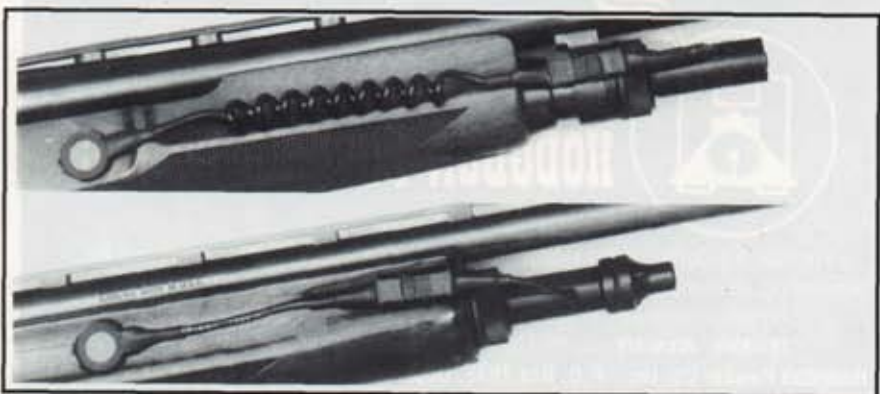
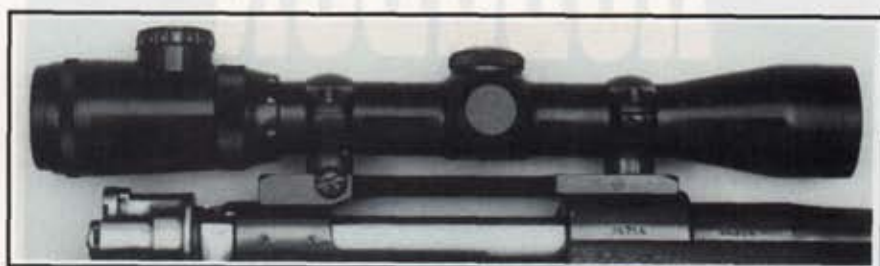
The sight is 5.1 inches long and weighs only 3.9 ounces.

The LA5, LA5 Magnum and Illusion D.O.T. are available in black or satin finish.

Finally, there are three new electronic fiber optic Powerdot scopes for

use in bright or dim light. The scopes are available in 2x7x32, 3x9x40 and a 4x12x56 Magnum.

For further information on any of these products, write **Emerging Technologies, Inc.**, PO Box 581, Little Rock AR 72203.



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