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SHOOTING TIMES

BREAKTHROUGH!

JANUARY 1992

.17 Rimfire Magnum

The Ultimate Rimfire
With Centerfire
Characteristics

- Sub MOA Groups
- 2600+ FPS
- 200-Yard Cartridge

Exclusive Report



Remington's Model 600 Vs. Model Seven

Which Bolt Rifle Rates The Best?

"Go-Anywhere" Kit Guns S&W's New .38 Special DA Revolvers



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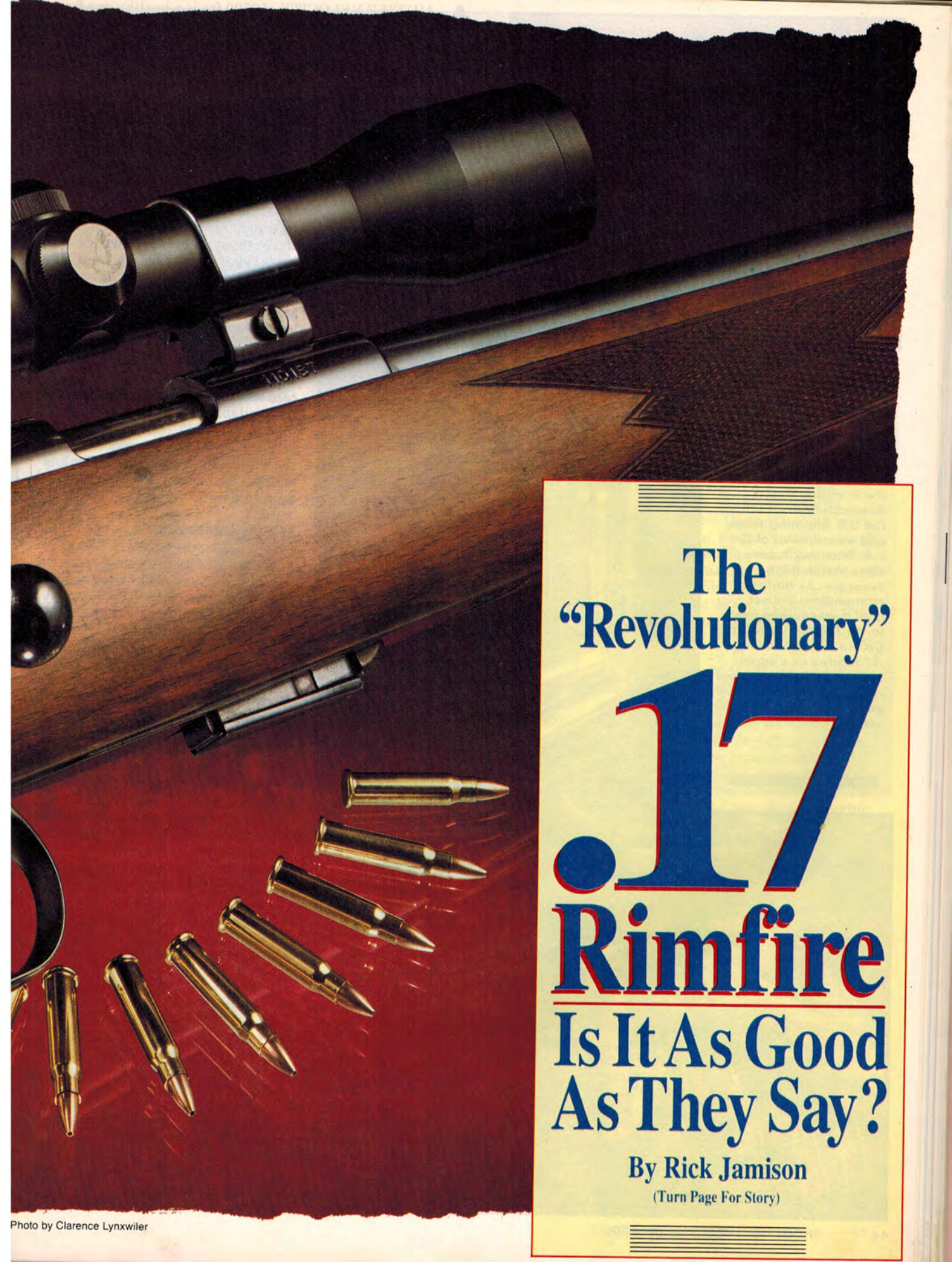
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SHOOTING TIMES/JANUA



What would you think of a rimfire cartridge that launches a .17-caliber, 20-grain boattail hollowpoint bullet at 2700 fps? What if it produces less noise and recoil than a .22 Magnum, shoots as flat as a .22 Hornet or .218 Bee, and delivers 1/2-inch, 100-yard groups? Rifle Editor Rick Jamison is impressed with this necked-down .22 Magnum, and in this exclusive report offers a first-hand view of the performance of this hot new 200-yard varmint cartridge—in the first rifles chambered for the .17 Rimfire.

*Precision Imports' Mauser Model 201
.17 Rimfire With Swarovski 4X32 Scope*



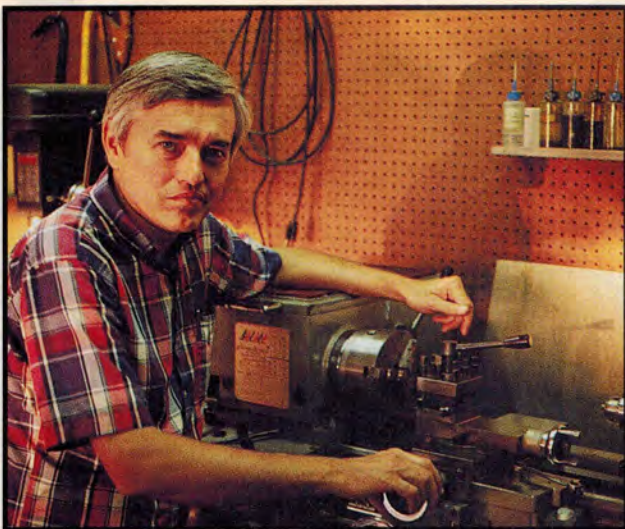
The
"Revolutionary"

17 Rimfire

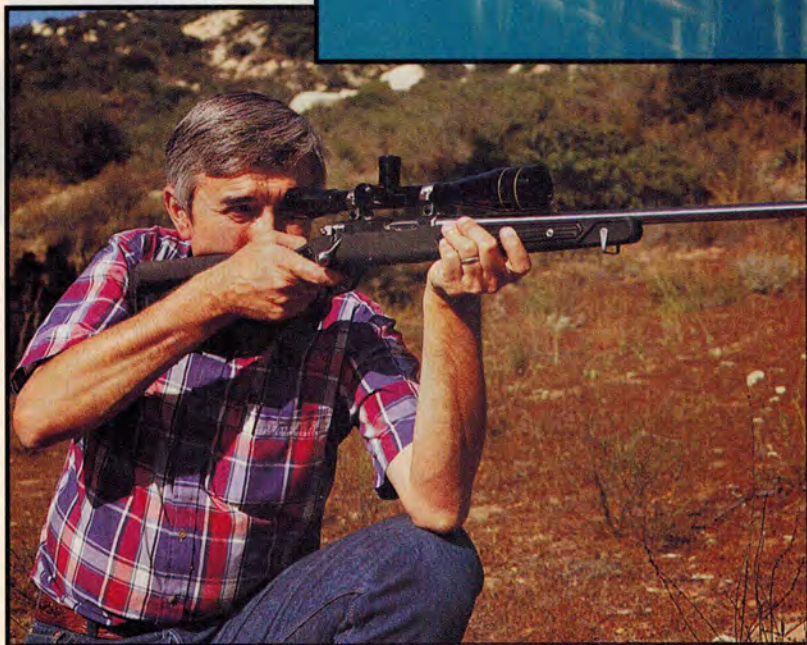
Is It As Good
As They Say?

By Rick Jamison

(Turn Page For Story)



Steve Chernicky, one of the creators of the .17 Rimfire, is a benchrest competitor. He was on the Shooting Sports Research Council for the U.S. Shooting Team, and was director of the U.S. Shooting Team's Ultra Match (high-accuracy .22 rimfire ammunition) project until it was turned over to the Federal Cartridge Co. He developed the .17 Rimfire as a super-accurate, effective, low-noise, low-ricochet-potential, 200-yard varmint cartridge.



A MUZZLE VELOCITY of 2700 fps is a healthy one from any rifle cartridge, but that much speed from a rimfire round in a .22 Magnum-type rifle got my attention *fast*. The round that produces this velocity is a .22 Magnum case necked down to take a .17-caliber, 20-grain bullet. It's one of the quietest, lightest-kicking rounds I've ever fired, and I've been shooting varmint rifles for more than 35 years. It shoots flat enough and carries enough punch to take varmints out to 200 paces, and with half-inch five-shot groups at 100 yards, it's accurate enough for head-shooting small game far beyond the range of the .22 LR or .22 Magnum.

Before you get too excited, let me hasten to add that you can't rush out and buy rifle and ammo in this chambering from a major manufacturer—yet. There's no immediate commitment that it will be available commercially, though several major rifle and ammunition manufacturers are looking at the possibilities. Actually, some of them have done more than just look; I have fired experimental rifles and ammunition and one preproduction rifle. While a lot of companies seem interested in the concept, it's like the old story of which comes first, the chicken or the egg. Rifle manufacturers won't proceed without ammunition being readily available, and ammunition manufacturers aren't committing themselves to investing in production tooling without knowing there will be lots of rifles out there for people to buy ammunition for.

Who Is Interested?

Remington, the only U.S. firm that has the capability to introduce both rifles and ammunition at once, apparently isn't interested. The company has already had its go with a bottleneck rimfire cartridge in the form of the 5mm Remington Magnum introduced 22 years ago. The story of the failure of that cartridge, which was more expensive, less versatile, and only a slight ballistic improvement over the .22 Magnum, is history. But Federal, Olin (Winchester), and CCI are looking at producing the .17 Rimfire, and I know for a fact that Ruger, Mauser, U.S. Repeating Arms, Thompson/Center (in its Contender pistol and carbine), and Marlin are all considering chambering rifles for it. I'd call that pretty promising.

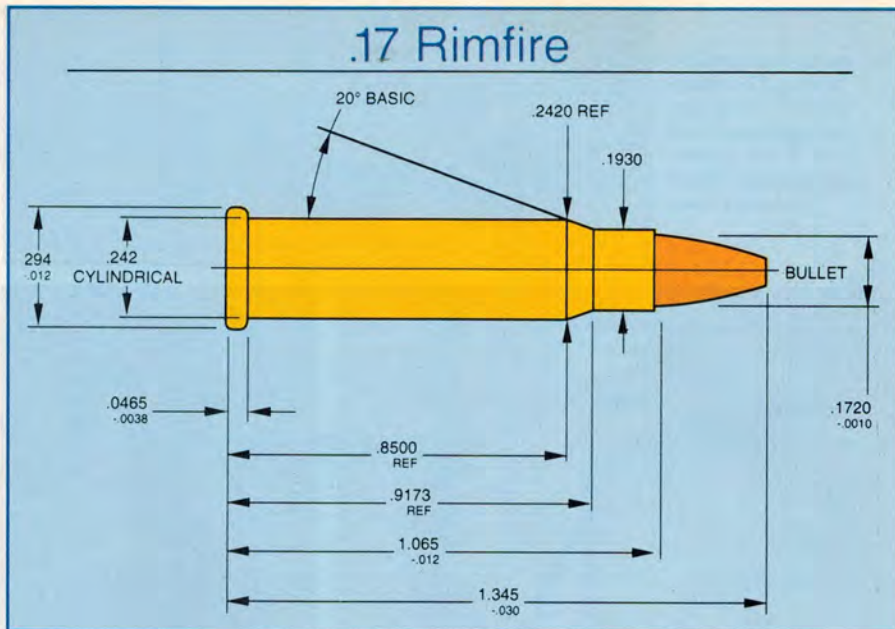
The .17 Rimfire that I've been experimenting with is far removed from the .20-caliber 5mm Remington Magnum. Before I get into a discussion of the current .17 Rimfire, however, let me briefly list a chronological background of bottleneck rimfire cartridges.

Rimfires firing bullets of a variety of diameters, from the .22 BB Cap to the .58 Miller, were popular prior to the turn of the century. As you may know, most of them used straight cases, but even bottleneck rimfires are not new. The .56-46 Spencer cartridge, introduced in 1866 and firing a 330-grain .44-caliber bullet over 45 grains of blackpowder, was a bottleneck rimfire round. It was, however, a far cry from the varmint and small-game rounds that rimfires have become today.

About 1920, A.J. Jones of Portland, Oregon, necked the standard .22 LR down to .14 caliber



The .17 rimfire's diminutive size belies its effective downrange performance.



Chernicky has made accurate, perfectly-functioning .17 Rimfire rifles from the H&K M300, Ruger M77/22 Magnum, and Marlin M25—magazines shown here.



and called the resulting wildcat the .14 Jones. In the early 1960s, Jones necked the .22 Magnum rimfire and other small cases down to .17 caliber.

The first commercial .17 Rimfire cartridge that I'm aware of was an Australian round made about 1976 by a

company called Myra in New South Wales. It was called the .17 Vixen. Exterior dimensions and case capacity were slightly smaller than the standard .22 Magnum.

In 1983, W.A. Eichelberger of King of Prussia, Pennsylvania, designed a .14-caliber rimfire magnum chambering reamer, which was ground for him by JGS of Coos Bay, Oregon. This was basically the .22 Magnum necked down to .14 caliber. It produced about 2200 fps, with a solid, leaded-copper bullet.

Terry Kopp, who owns a full-service gunsmithing shop in Lexington, Missouri, liked the 5mm Remington Magnum. When Remington discontinued ammunition for the rifle, Kopp came up with something to replace it. He began loading his version of the .17 Rimfire magnum, called the .17 KRM, in 1984.

Chernicky Goes To Work

In 1988, Steve Chernicky of San Diego, California, also began working on a .17 Magnum rimfire cartridge. He was

The .17 Vixen was an Australian try at a commercial .17 Rimfire. Failed 5mm Remington helped inspire .17 Rimfire.



unaware of previous developments, so his version is similar to Kopp's and others. It was through Chernicky that I first learned about the work people are currently doing on the .17 Rimfire.

Chernicky and Gene Harwood of St. Helens, Oregon, were hunting ground squirrels in Nevada with .22 LR rifles (which have a maximum useable range of about 100 yards). Jokingly, they decided they needed a 200-yard cartridge. Subsequently, Chernicky decided to try a necked-down .22 Magnum cartridge. Fred Wood, of Florence, Oregon, Bob Simonson of Schoolcraft, Michigan, and Chernicky did the initial die work. Wood also experimented with a .17-Rimfire cartridge with a 30-degree shoulder. Chernicky's round has a 20-degree shoulder.

Chernicky has considerable background in the shooting sports. He's been shooting benchrest competitively for about 10 years and was on the Shooting Sports Research Council for the U.S. Shooting Team. He was director of the U.S. Shooting Team's Ultra Match ammunition project (high-accuracy .22 rimfire match ammunition) until it was turned over to Federal Cartridge Co. for development and production.

It's not easy experimenting with wildcat rimfire ammunition. The reason is a lack of cases. The average individual cannot re-prime fired rimfire cases as handloaders do with centerfires. Therefore, in most instances experimenters must pull bullets, empty powder, and replace powder and bullets after case forming operations. This was Kopp's approach to load development with the .17 KRM. Kopp used existing Remington and Hornady bullets designed for the .17 Remington in his ammunition.

Neither I nor *Shooting Times*, Chernicky, or Kopp recommends the practice of reloading rimfire ammunition in any manner. Tools must be custom made for

Chernicky swages 20-grain, .17-caliber bullets using dies he designed and built. Core, jacket, and finished bullet shown here.



.17 Rimfire ammo is made from primed, necked-down .22 Magnum cases.

the process, and due to the nature of rimfire priming, the safety of such an operation is questionable. For these reasons no loading data accompanies this article. I mention the loading process here simply as part of the history of the development of the .17 Rimfire.

Unlike Kopp, Chernicky had the advantage of working with Federal Cartridge Co., and was able to obtain new primed .22 Magnum cartridge cases, which he necked down to .17 caliber.

Rather than using existing 25-grain bullets, Chernicky began making his

own, first with the Wood and Simonson dies, and then with dies he made himself. Bullet jackets were available in .17 caliber, and he experimented with a variety of weights, finally determining that 20 grains is optimum.

Chernicky made boat-tail bullets, not for the ballistic advantage (there's virtually none out to 200 yards), but for the ease of bulletseating without mouth expanding the newly formed cases.

.17 Rimfire Rifles Used

Kopp and Chernicky have used a vari-

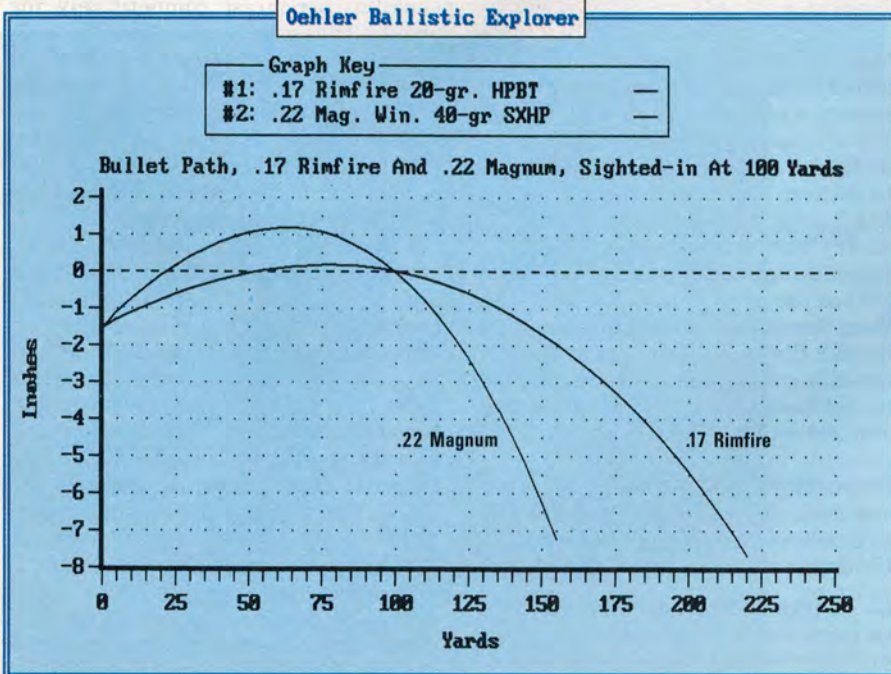
.17 Rimfire lacks bore fouling problems of .17 Remington centerfire.

A 20-grain .17-caliber bullet is dwarfed by a 180-grain .30 caliber.

ety of rifles for the .17 Rimfire cartridge, and all of them are rebarreled, basic .22 Magnum rifles. Kopp's includes the Ruger Model 77/22 Magnum bolt action and a Marlin Model 39 lever action.

Chernicky's rifles chambered for the .17 Rimfire include a Remington Model 40XR bolt-action single shot, an H&K Model 300 semiauto, a Ruger Model 77/22 bolt action, and a Marlin Model 25M bolt action.

Standing the Kopp and Chernicky car-



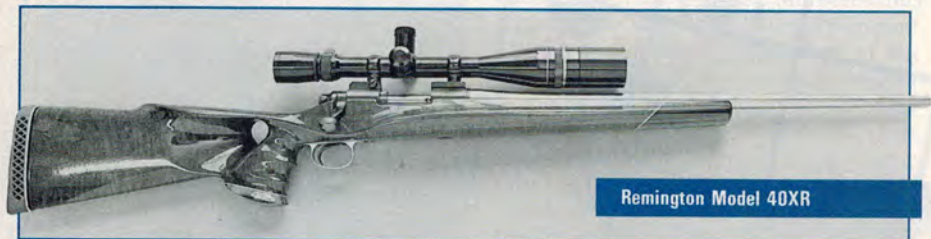
"Everyone who has seen it, including Jim Carmichel of *Outdoor Life*, Grits Gresham of *Sports Afield*, and George Martin of the NRA, is enthused about it. It's a super varmint gun in the rimfire category. It will appeal to the varmint hunter who doesn't want to tear up pelts. It's also ideal for turkey hunting in areas where rifles are allowed.

"The rimfire market is very strong; it's ripe for a new cartridge that will do what this does. The key to everything is ammunition. We are ready to go with it, but we need factory ammunition. I would like to see 2650 fps for a 20-grain bullet in factory ammo."

Dick Cantu,
 Precision Imports (Mauser)



Ruger Model 77/22 Magnum



Remington Model 40XR



H&K Model 300

To turn these .22 Magnum rifles into .17 Rimfires, Chernicky merely replaced barrels.

tridges side by side reveals only minor differences, primarily in shoulder angle. As mentioned, Kopp's cartridge was intended to replace the 5mm Remington Magnum. This .20-caliber round utilized a 38-grain bullet at about 2100 fps. The

various Kopp .17 Rimfire loads with 25-grain bullets I fired produced 2100 to 2400 fps from Kopp's converted Marlin lever gun with its 20½-inch barrel.

Chernicky's approach was entirely different. He was looking for something



.17 Rimfire is capable of 1/2 MOA accuracy.

to outperform the 5mm Remington Magnum, not duplicate it. He wanted optimum performance in a rimfire round for shooting ground squirrels and prairie dogs. Indeed, Chernicky's loads, which (Continued on Page 74)

WHAT THE MANUFACTURERS ARE SAYING...

Mike Bussard, Sturm, Ruger & Co.

"The proposed .17 Rimfire Magnum cartridge bridges the gap between rimfire and centerfire ammunition performance. The range, accuracy, and knockdown power of the .22 Long Rifle and .22 Magnum cartridges are limited. The .17 Rimfire Magnum cartridge will outclass either. The .17 will have a higher muzzle velocity and a flatter trajectory. This means a greater effective range. At the same time, .17 Rimfire Magnum ammunition will be far less expensive than centerfire ammo.

"This new cartridge far exceeds the performance of the old 5mm Remington Magnum, without the necessity of costly, specially made rifles. It will be easy to make rifles for the new round by putting a .17-caliber barrel on a basic .22 Magnum action. This will not take a lot of expensive new tooling, and that will help keep costs down for the shooter.

"The round is effective and practical for small game and pests. It's terrific for the hide hunter who doesn't want to put big holes in pelts. It's great for populated areas because it doesn't make much noise, and the light .17 caliber rimfire bullets will not ricochet like .22 rimfire bullets.

"Perhaps most important, the .17 Rimfire puts the fun back into rimfire

shooting. Ruger stands ready to make rifles in this caliber."

Jim Smith, Thompson/Center Arms

"I think it's ideally suited to a varmint handgun because of its minimal recoil and minimal noise. The rimfire powders it uses leave a minimal amount of residue in the barrel so that you don't have the cleaning problem that you do with a centerfire .17. I think the other plus is that using the rimfire-type powders, you're going to burn the powder completely within a T/C Super 14 barrel so that it's efficient in a handgun-length barrel.

"If the ammunition is offered commercially we'll chamber it in the Super 14 barrel and also in the Contender Carbine. I see it as a super little suburban varmint, due to the low noise level. I think this cartridge has a great future as long as ammunition is commercially available."

Nick Maravell, U.S. Repeating Arms Co.

"We had the Model 94/22 Magnum in the 1992 catalog as also being available in the .17 Rimfire Magnum and we've taken it out due to the lack of factory ammo. Federal was going to make it but they've put it on the back burner."

Mike Jordan, Olin-Winchester Ammunition

"We're looking at it as we look at any new product and we'll give it a fair assessment and then decide whether to go with it."

Bob Behn, Marlin Firearms

"Sounds interesting to us and we'll certainly entertain the idea of chambering for it. First we have to do some testing with production ammunition. So far, that has not been available."

Mike Larsen, Federal Cartridge Co.

"The possibility of producing the cartridge is being reviewed and studied at this time. Right now, priority is being placed on producing the Ultra Match .22 rimfire ammunition for the U.S. Shooting Team. We want to have this ammunition ready for the shooting portion of the 1992 Olympics in Barcelona, Spain, next August."

Allen Jones, CCI (Blount)

"CCI is looking at the .17 Rimfire Magnum and evaluating the base of guns that might be produced. We're also considering the time we've committed to other projects and we don't plan to take any action or make any decision on the .17 for at least six months."