

THE S. & W.
.357 MAGNUM

The Smith & Wesson .357 Magnum

By ELMER KEITH

AS a result of the efforts of Mr. D. B. Wesson, the firm of Smith & Wesson recently brought out their most powerful revolver,—an arm designed for the heaviest possible loads in .38 or, actually, .357 caliber. This revolver is made up on their largest military frame, with barrels any length from 3½ to 8¾ inches. Target sights of different styles are supplied, and may be had in regular Patridge type, Patridge with McGivern or Call gold bead, or round rear notch with Paine, Sheard, or Marble bead front sight. The revolver can also be had with King sights, and these I consider about the best of all. The white-outlined rear sight, together with the ⅝-inch long-range front sight I designed for them, is the finest combination I have thus far used. The barrel is fitted with a full-length finely-matted rib, this latter eliminating all glare and reflection. The top of the frame is also matted, and the rear face of the rear sight base is grooved, for the same purpose. The arm carries the encased ejector housing as found on the old Triple Lock and the later .38/44 Heavy Duty and Outdoorsman revolvers. Straps and trigger are grooved to prevent slipping. The Wesson grip-adapter is standard equipment; however, two grip screws are furnished with each arm so that it may be used with or without the adapter. This adapter puts more of the weight of the gun on the second finger where it should be, instead of on the trigger finger, and is a great aid to fine shooting. In self defense or military work the full grip of the arm would be better, in that it would be much harder for an adversary to wrest the gun from one's grasp.

Note: In this article Mr. Keith mentions certain powerful handloads he has assembled, and compares them with the factory-loaded .357 Magnum cartridge. We publish the article as written by Mr. Keith for the information it contains, but we wish it understood that we do not encourage or approve of handloaders exceeding established normal pressures for handgun ammunition.
—Editor.

The cylinder is recessed for the shell-heads, as in the case of the K-22 revolver. Smith & Wesson were the pioneers in bringing out this feature in their excellent K-22 Model, and have now adopted it for the .357 Magnum. It is a very good feature, and will be appreciated particularly by handloaders, as it absolutely precludes the risk of injury to the shooter or a bystander from particles of flying brass in case the head of a shell cracks off or bursts. I once had the head of a .45 Colt black-powder cartridge to blow completely off, the escaping gas blowing the loading gate off my Colt Single Action and through my right forefinger, cutting it to the bone.

On account of the rib, the grip-adapter, and the recessed cylinder, this revolver is the heaviest of all the Smith & Wessons

for any given barrel-length. The weight with 8¾-inch barrel is 49 ounces, and with 6½-inch barrel it is 47 ounces. With 3½-inch barrel the gun weighs 44 ounces; these weights being without the adapter, which weighs 3 ounces. Distance between sights with 8¾-inch barrel is exactly 10 inches, permitting the use of this revolver in the U. S. R. A. any-revolver matches. The top of the hammer is completely checked, instead of just the tip. The sides of the hammer are grooved concentrically about the pivot point, possibly to reduce friction with the frame. The remainder of the gun is finished in typical Smith & Wesson blue. Stocks are of hard Circassian walnut of good figure, finely checkered.

The arm is chambered for the Winchester .357 Magnum cartridge, the shell of which is the same diameter as that of the .38 Special, but about ⅝-inch longer; this to prevent putting the powerful Magnum shell in lighter arms chambered for the .38 Special cartridge. I personally believe the Smith & Wesson .38/44 Heavy Duty and Outdoorsman, and the Single Action Colt revolvers, would handle this Magnum ammunition if chambered for it; however, I should not care to use much of it in any arm, regardless of weight, that did not have the cylinder base-pin locked at both ends, as I honestly believe it

A FEW OF THE 125
JACKS KILLED WITH
THE .357 MAGNUM

would soon shake the crane loose.

The cylinder is made from the finest heat-treated chrome-nickel steel, with all chambers given a high polish. The hammer and trigger are glass-hard, and the trig-

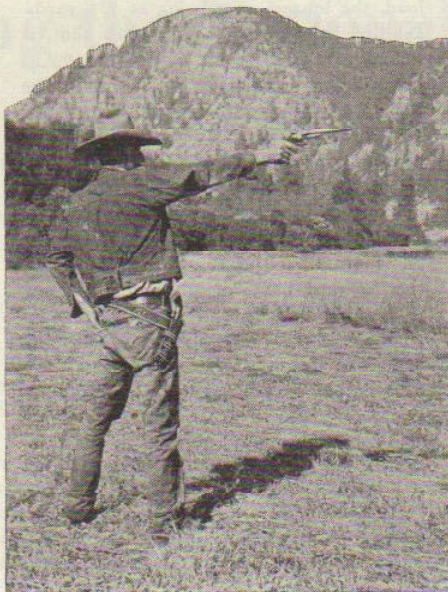


ger-pull should never change. The gun handles all .38 Special standard loads with equal accuracy as the powerful Magnum ammunition it is chambered for, and has two rear-sight blades, the lower one for the standard loads and the higher one for the Magnum cartridges; which is in agreement with the results of my tests of four years ago, when I found that any very heavy loads in either the .38 or .44 Special shot very much lower than did the standard loads.

When I wrote up the Smith & Wesson Outdoorsman for *Outdoor Life* some four years ago (the article not having as yet been published), I considered the Outdoorsman and the old Triple Lock Target Model to be the finest examples of revolver manufacture ever produced, and so expressed myself. This .357 Magnum is the first revolver produced since then that has retained all the good features of those two guns, in company with some very definite and useful improvements. All told, it is about the finest job of revolver manufacture that has come to my attention. And now let us look at this barrel-length business.

The gun sent me has the 8¾-inch barrel, and feels and looks as long as a sleigh-track. For me at least it balances about the same as a 30-inch Springfield International rifle, and is about as handy in the field. It is O. K. for deliberate two-handed offhand shooting, or rest shooting with the gun held between the knees from a sitting position, with back and head-rest, as in ammunition testing. Also, some may like this length of barrel for deliberate slow-fire target shooting; though I do not. The arm does not balance for me, the muzzle being too heavy and producing a strain on the wrist which in turn induces a tremor for a long string of shots. I like the weight to lie more in the hand, and find that I can do better shooting with one hand with a barrel not over 6½ inches, which is the length I should prefer for all-round game-shooting and long-range work with this arm. For quick-draw and aerial work I would choose a barrel-length of 5½ inches, while for a concealed gun for very fast double-action self-defense work the 3½-inch barrel would be excellent. But I for one cannot see the 8¾-inch barrel on any revolver. Carried on a belt it is so long that the end of the holster will rub and ride against the saddle skirts, and only the Berns-Martin type of speed holster will permit a quick draw with such a barrel-length.

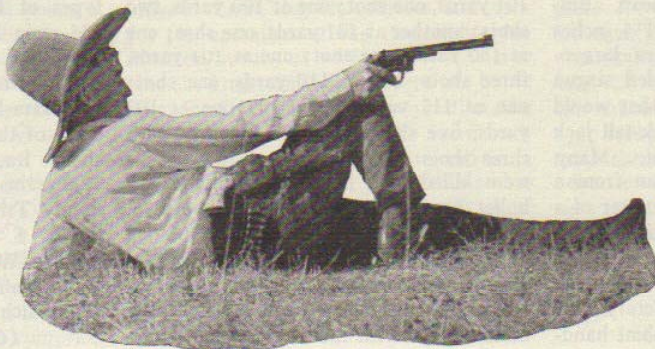
The arm sent me was one



NED GIBBS IS 6 FEET 3 INCHES TALL AND CAN HANDLE THE LONG MAGNUM, BUT HE PREFERS LESS BARREL

of the first experimental models, and of course not the equal in some respects of the present factory output. It is fitted with plain black Patridge-type target sights ¼-inch wide, which are not the best for game-shooting under all conditions. The trigger-pull on the regular output runs from 3¾ to 4 pounds, while this gun has about a 5-pound pull. And now we come to the .357 Magnum cartridge.

Some four years ago when Mr. Wesson first brought out the Outdoorsman .38/44 revolver, and Remington produced the cartridge, I tried to get Remington, Western, or Peters to load in this cartridge my 160-grain hollow-point bullet; but to no avail. I had Mr. Frank Frisbie of Philadelphia (who by the way ordered the first mold for the Keith 160-grain hollow-point bullet from Lyman) cast and send to Mr. Wesson one hundred of these bullets for test. Wesson later had Frisbie send him another lot, and Remington loaded them for his and Major Hatcher's experiments.



TESTING THE MAGNUM AT 500 YARDS

shell. Winchester does not recommend the reloading of this case, and to my notion the .38/44 case is a better one to reload.

I might mention that be-

Harold Croft of Philadelphia designed the proper-sized plug for this hollow-point mould, which brought the finished bullet to a weight of 160 grains. Mr. Wesson and Major Hatcher were both very enthusiastic over the results obtained with this Keith bullet, which later formed the basis for the experiments by Mr. Wesson and Winchester in developing the .357 Smith & Wesson Magnum cartridge. I designed the first of my bullets, in .44 Special caliber, in 1928, with a beveled crimping groove and with the forward band ahead of the crimp to help true up the cartridge in the cylinder and to cut down the length of bullet jump. I still prefer my own bullet to anything since brought out for my own use. However, when Winchester added ¼-inch to the shell-length, they changed the shape of my bullet to one having three narrow lubrication grooves instead of one large one and one crimping groove. This to furnish lubricant the full length of the bearing surface of the bullet, to prevent possible leading. The length of the case then made

it necessary to crimp over the front shoulder of the bullet, so that the final form of the .357 S. & W. Magnum bullet is more nearly a duplicate of F. C. Ness' .45 Colt Bond bullet than it is of the 160-grain Keith bullet which was used in developing it. It still retains the same sharp shoulder on the front band, and the same general nose-shape, as on my bullet and that of F. C. Ness.

The bullet weighs 158 grains, and has a very slightly-concaved base—by no means a hollow base. The powder charge, which varies with different lots of powder, is approximately 15.4 grains of Hercules No. 2400, giving a muzzle velocity of 1518 foot-seconds. The cartridge shoots through mild steel plates; and it, and my heavy handloads with the same powder, were the first two cartridges to dent the back plate of my excellent Koehler bullet-stop and target-holder. Because of its velocity and the blunt shape of its point, the bullet upsets readily in flesh. The cartridge case is very thick and heavy, and has a cone-shaped powder space, the small end of course being to the rear, which leaves a very thick wall near the head of the

fore receiving the S. & W. Magnum and ammunition, Cale Dickey and I had been experimenting with No. 2400 Hercules powder in the .38/44 and .44 Special cases, using the Keith hollow-point 160-grain .38-caliber and 235-grain Keith hollow-point .44-caliber bullets. We had worked up powder charges to 15 grains weight behind the .38-caliber bullet, and found that we had a very powerful and accurate load, and one in which the bullet expanded perfectly. In the .44 Special we went to 20 grains of powder. Later we cut the charges to 13.6 in the .38 and 18.5 in the .44 to get away from leading with the tin alloy we were using.

As the proof of all liquor is in the drinking, I decided to give both the new gun and its factory ammunition, as well as my own handloads, a thorough tryout on game before writing anything about the gun; and Dickey and I launched upon a three-day jack rabbit shoot in the Pahsimeroi Valley for the purpose of giving the works to this new arm and its load, and determining definitely if it were really a better killer on game than any other factory-loaded revolver or automatic pistol cartridge on the market. Also we wished to determine whether or not our reload with my hollow-point bullet was the equal in killing power of the Magnum cartridge; and the same with respect to our heavy handloaded 235-grain hollow-point .44 Special loads.

On the first day we killed 107 jack rabbits with sixguns, at ranges averaging better than 60 yards. I shot the Magnum almost exclusively, first with the Winchester factory cartridge, and then with our handload of 13.5 grains of No. 2400 Hercules and the 160-grain Keith hollow-point bullet. In the three days I killed around 125 John rabbits with this gun alone, twenty-five of them being at ranges of from 100 to 180 yards. All shooting was done offhand, but using both hands because this long gun did not balance right for one-hand use, at least with me. I was agreeably surprised at the power and range of the factory Magnum load. It was also wonderfully accurate, and I had no trouble in hitting jacks from the first. The bullet seemed to lift them up off the ground until only the hind toes touched; then they collapsed in a limp heap. Bullet holes at exit were usually $1\frac{1}{2}$ inches in diameter, though sometimes larger. This was the first factory-loaded sixgun cartridge that I had ever used that would always kill these tough old black-tail jack rabbits cleanly with one shot. Many times I have watched them run from a few hundred yards to over a quarter of a mile after I had put a Remington .45 Colt black-powder load through them behind the shoulders. I shot around thirty of the jacks with the Magnum factory load before changing to my hollow-point hand-

load, the longest shot being at 137 yards. I killed this fellow on the sixth shot, it taking five to cure me of holding up as much front sight as I had been in the habit of doing with all factory loads. I then switched to the handloads, and found that they apparently shot to exactly the same elevation. The Keith bullets being crimped in the crimp groove, the cartridge had a slightly greater overall length than the Winchester cartridge, the forward band of my bullet coming just about to the end of the Magnum chamber. We piled up on the ground, and hung up on a wire gate, about sixty rabbits that were killed with the Magnum, to photograph for this article; and we also took pictures of another pile of John rabbits killed with the same gun. Further than that we did not go, as we soon tired of packing a lot of heavy jack rabbits in the hot sun, just to photograph them.

After shooting a few jacks with our handloaded ammunition with hollow-point bullet, we saw that this was regularly tearing holes at exit that were at least twice the size of those made by the Magnum ammunition. As far as the Jack was concerned, both loads put him out instantly, but the Keith hollow-point bullet tore three-inch holes regularly on paunch or gut shots, and two-and-a-half-inch holes on lung shots; and when the head was struck, little of it remained. I have never found a finer or more accurate long-range sixgun combination for jack rabbit shooting than this Magnum and either the factory ammunition or my own handloaded cartridges. I soon began to feel that I could hit a jack regardless of the distance, and the twenty-five long shots I put down in my notebook ran as follows: one at 137 yards, six shots; one at 123 yards, one shot; two at 145 yards, four shots; one at 145 yards, one shot; one at 175 yards, three shots; one at 150 yards, three shots; one at 175 yards, one shot; one at 132 yards, one shot; one at 130 yards, one shot; one at 148 yards (head-shot), one shot; one at 130 yards, two shots; one at 160 yards, three shots; one at 100 yards, one shot; one at 112 yards, two hits out of three shots, first shot shattering hind legs; one jack at 101 yards, one shot; one at 100 yards, two shots; another at 101 yards, one shot; one at 180 yards, one shot; one at 104 yards, three shots; one at 110 yards, one shot; one at 117 yards, one shot; one at 100 yards, five shots; two at 113 yards with three shots. The last 24 of these jacks were killed with my hollow-point Keith bullet handloads and 13.5 grains of No. 2400 Hercules, and I have never fired a more accurate bullet or load from a sixgun. The others were killed with the factory ammunition. I would have shot more rabbits with the factory load, but I

had only a limited supply of this, and wished to save some of it for long-range tests.

At one time I killed a jack at 150 yards, another at 145, and another at 175 yards, without moving out of my tracks. Young Dickey had never before used a sixgun so extensively on game, and was having the time of his life with a pair of S. A. Colts; one a .44 Special and the other a $7\frac{1}{2}$ -inch .38 Special. He killed several jacks at ranges of from 75 to 86 yards, and I killed one more at 123 yards with his .44 Special.

There would often be a dozen rabbits within range at one time, and though they were very nervous and often on the move, some would always stop. We killed about the same number on each of the three days. I tried a few handloads with the same powder charge and a 152-grain Keith bullet with larger hollow point developed by Croft and Learned, but could not do as well with it over 100 yards as with the regular 160-grain bullet. It did not seem to tear any larger holes, either. The handload with 160-grain bullet proved very much more destructive on such game than the factory Magnum cartridge, but on larger game, where extreme penetration was needed, the factory load or my hollow-base 160-grain bullet would be better than a hollow-point bullet. I killed one small "half-pint" jack—which was what we called the young ones—running at 20 yards, clipped his head off with the Magnum load; and another with my handload at 40 yards, running, with a body shot.

By this time I had definitely decided that the Magnum .357 gun and load was a better killer than any other factory load I had ever used, regardless of caliber, and we next decided to test the .44 Special hollow-point loads, as well as some 235-grain hollow-base bullets, at high velocity. We could not see much difference between the Magnum .357 load and the hollow-base 235-grain Keith .44 Special load except slightly larger holes for the .44 on lung shots, while on paunch shots the .357 seemed to tear the larger holes, the velocity of the Magnum being higher than that of the .44 Special. In the hollow-point handloads we had two types of Keith bullets, one the regular 235-grain hollow-point, and the other a 210-grain having a very large hollow point. Croft and Learned had developed the extra-large plug for this mould, the point of the bullet being only a very thin shell. Both types were loaded ahead of 18.5 grains of No. 2400, and I used them in my Triple Lock Target $6\frac{1}{2}$ " and in a $7\frac{1}{2}$ " S. A. Colt target gun with King sights. We used the standard type of hollow-point first, and found that it tore very much larger holes at all times than

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the title of *Whitetailed Deer*. And the worst of it is, I'm still at it.

"At one time or another I have contributed articles to *Recreation, Field & Stream, Outdoor Life*, and a very little bit to *The Saturday Evening Post*. I might add that I contributed a lot more to other magazines that weren't published, and came home to roost."

COPPER JACKETS AND METAL FOULING

Editor, AMERICAN RIFLEMAN,
Dear Sir:

I have noticed in THE RIFLEMAN accounts of the .220 Swift and of the .22-4000, made by necking-down the 7-mm., in which it was stated that at the velocity of these cartridges gilding-metal jackets must be used for the bullets, as pure copper jackets foul the barrel badly.

A few years ago a friend and I were shooting jackrabbits two or three nights a week on the desert, and my friend used a Springfield rifle and 1918 war-time ammunition which gave metal fouling in his barrel. After some argument I had him clean the barrel thoroughly and oil it several times with Fiendoil; and thereafter the rifle was swabbed with Fiendoil on a brush each time it was used, and there was no more metal fouling.

As yet I do not own a .22-4000, but I have a .257 Remington Roberts, and I decided to develop some high-speed loads with the 60-grain bullet. According to formula, 45.6 grains of No. 3031 du Pont should give this bullet 4000 feet velocity, so I tried this load and found the pressures low, and increased it to 46 grains. While this load has not been chronographed and may not reach 4000 feet velocity, it must be fairly close to that. Before using these loads I oiled the barrel well with Fiendoil, as I was using bullets with jackets of pure copper tubing, which I know to be a fact as I made the bullets myself; and I have fired many rounds of this load and have had no metal fouling whatever from these bullets with pure copper jackets.

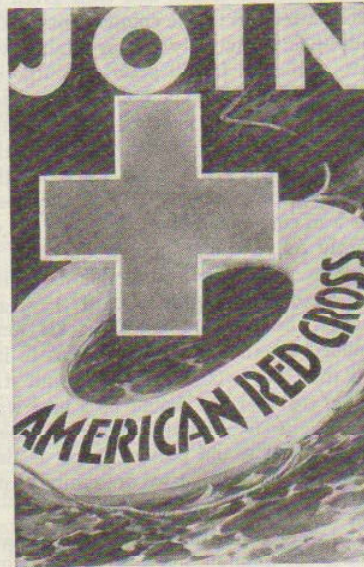
While this may not be effective in the .220 Swift and the .22-4000, I thought that perhaps some of your readers owning these rifles might like to give it a trial.

Since writing the above I have built a .22-4000 rifle, using a .30-'06 Springfield action. The jackets I use on my bullets are made from old-style low-speed .22 short copper cases made by U. S. Cartridge Co., and with the barrel treated with Fiendoil for twenty-four hours before firing, and then wiped dry, forty shots were fired and no lumpy metal fouling appeared; nor did the accuracy fall off in the least. The bullets deposited the characteristic copper wash, but that was all.—
W. F. VICKERY.

"BARKING" SQUIRRELS

By E. G. ROGERS

FIRST, find a squirrel. I can remember when that was the easiest part of the job. Then induce him to ascend a tree and assume a prone position on a good-sized limb. Next, find a suitable place for a "rest" position where the squirrel and the bark on the limb are plainly visible. Third, select an aiming point on the bark located so that the bullet will pass through the bark at approximately .257 inch below the surface and directly under the angle of the squirrel's jaw. Fourth, aim and fire. If



your calculations have been correct, the squirrel will leave the limb and reach the ground in either a comatose or completely defunct condition, and with the skin unbroken. The permissible vertical deviation will vary as the diameter of the bullet, and the limit of lateral error will be the distance between the squirrel's eye and his ear.

From what I read, I believe a large number of the small-bore artists could perform this stunt successfully if equipped with a proper rifle, but the .22 l. r. won't do it. A .32-20 or similar cartridge will do it sometimes. Most of my success at barking was with a .38-40; but the best combination I ever saw for it was a muzzle-loader of about .40 caliber, as nearly as I can remember, and a white-haired old fellow whom I used to follow around the woods for the delightful privilege of carrying the game.

My boyhood days saw about the last of the backwoods rifleman on my home range. The shotgun had already become the "farmer's gun," and to our discredit be it said, most of us boys took to using those things on squirrels. Then came the .22's, .32's, and .25's in rim fire, and none of them were any good for barking.

My old '73 Model .38-40 brought me a lot of undeserved reputation because it was the only rifle in the crowd that had sufficient power for barking. Then came .30 calibers and smokeless powder, and short-range loads that were splendid for squirrel-shooting, but too weak for the old stunt. I think that a cast bullet of 150 grains or upwards would work, but have never tried it.

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the .357 Magnum and the 160-grain .38 hollow-point load. In fact it about cut the Johnnies in two. Some we shot purposely in the chest or high in the rump, and in each case the other end of the rabbit was blown to ribbons, and in some cases vanished except for strips of hide with feet attached. It proved conclusively that this was a much more powerful load and more destructive to game than any type of .38-caliber load, including the .357 Magnum and my hollow-point load. The load also proved to be very flat and extremely accurate at any range, and I noticed but little difference between it and the Magnum load at long range, except that the latter shot a trifle flatter.

We had tried the Croft-Learned version of my bullet, but soon found that apparently it did not shoot as accurately at long range as the heavier hollow-point. Under 100 yards, however, it shot steadily, and produced the worst wounds I have ever seen from a sixgun. The bullet simply blew up, and would tear out the offside of the jack each time. On chest shots the bullet blew up to such an extent that it made several holes at exit, and simply converted the Johnny into hash. It should be a wonderful bullet for use on alley cats in settled communities where no ricochets are wanted. On larger game I would not care for it, as it would blow up too soon. And it was definitely not as accurate as the heavier hollow-point bullet.

No. 2400 is the best powder I have ever used for Magnum sixgun loads, and gives very high velocities with much less pressure than does No. 80. However, it seems to work well only in such heavy loads, and will not burn cleanly in lighter charges. In the .45 Auto Rim it did not reach a clean-burning stage before it developed the limit in chamber pressure, as shown by expansion of fired cases. I do not know the pressure developed by the factory Magnum load or any of my handloads, but I consider these loads safe in the above-mentioned heavy Smith & Wesson and the Single Action Colt. The Factory Magnum cartridge is loaded to higher pressure and nearer to the limit