# ORIGINS OF THE 220 SWIFT



ABOVE: The line-up of the available commercial 22-caliber cartridges of 1935 after the introduction of the Swift. L-R: 22 Savage Hi-Power or Imp, 22 Hornet, 220 Swift. The Savage and the Hornet pre-date the Swift, of course.

**by Robert Keen**

The 220 Winchester Swift is now more than 70 years old. In 1971, when it was only about half as old, Jim Carmichel wrote an uncommonly informative article on its origins for *Handloader* magazine. Only half in jest, Carmichel wrote that "... of the half-dozen or so persons who were actually responsible for the development of the round, I have been introduced to approximately thirty-five and received correspondence from perhaps another two dozen." John Amber, editor then of *Gun Digest*, sent a letter to the editor of *Handloader* praising the article.

All who could reasonably claim to be parents of the Swift are dead now. They cannot help clarify the mystery and confusion that surround the origin of the Swift, but neither can they continue to add to it. The intriguing question raised by Carmichel's article and the focus here is: who was the first person to fire a 220 Swift? Carmichel suggested one answer, but with the perspective of an additional 36 years, a different conclusion is more likely.

The orthodox version of the origin of the Swift, found in most reloading manuals and lists of cartridges, goes something like this: Winchester introduced the cartridge in mid-1935 in their Model 54 rifle. When they brought out the Model 70 a year later, the Swift was one of the original chamberings. With a muzzle velocity of 4,000 feet-per-second (fps), higher than any other commercial cartridge, the Swift generated contention and controversy from its introduction. It was – or it was not – exceptionally accurate; a barrel-burner; an instant killer of big game; and capable of blowing-up rifles even with careful handloading.

## THE ANNOUNCEMENT OF THE SWIFT

In pursuing the who-was-first question, an obvious initial step is to examine an original notice of the Swift. *The American Rifleman*, monthly journal of the National Rifle Association, announced the cartridge with only a single paragraph in September 1935:

### W. R. A. .220 SWIFT ANNOUNCED

*The Winchester M-54 rifle in Super Speed .220-Swift caliber is ready for delivery as is the new ammunition. The muzzle velocity with 48-grain, soft-pointed bullet is 4140 f.-s. The rimmed case is virtually a strengthened revamped 6-mm Lee, but using a head to fit standard actions. The breech pressures are moderate, or no higher than those of the standard .30-'06. The dependable accuracy is 2 inches or smaller at 100 yards. The only change in the special M-54 rifle for this cartridge is a 26-inch length of barrel. The .220 Swift is at its best at 200 to 300 yards, owing to its flat trajectory and short time of flight. It is intended for all game up to, and including, deer.*

This appears to be a typical rewrite of a press release, or whatever they called a press release in 1935. Fred Ness, associate editor of the *Rifleman*, probably composed this announcement in a hurry, since he mistakenly included "Super Speed" as part of the name of the cartridge. Super Speed is a Winchester trademark applied only to ammunition. Company literature at the time always identified the cartridge as the 220 Winchester Swift.

In 1935, *American Rifleman* was the only American periodical devoted to firearms, and for a publication of its influence, this short birth announcement seems pretty insignificant. In fact, it was printed on a back page, surrounded by a description of a leather dressing for rifle slings. In the 21st century, manufacturers orchestrate the introduction of a new cartridge so that choirs of gun writers begin to sing its praises on cue in four-part harmony. In 1935, Winchester made no effort to follow-up this bare announcement with an advertising campaign in the magazine. For months before and after the announcement, the Winchester ads in the Rifleman only extolled their rimfire match ammunition and the Model 52 target rifle. Ads by Griffin & Howe and by Sedgley did mention the Swift as an available chambering for custom rifles, but Winchester apparently thought Rifleman readers were exclusively target-shooters. The company, however, did support the Swift with advertising in hunting and outdoors magazines.

Based on the announcement in the *American Rifleman*, the who-was-first question is answered with "a factory




**A part of the early advertising campaign for the 220 Winchester Swift, this ad appeared in the May 1936 issue of *Sports Afield*.**

technician" as the logical conclusion. This is a reasonable response, if one strictly defines the Swift as a rimmed revamp of the 6mm Lee Navy case. As Carmichel pointed out, the path to the introduction of the Winchester Swift certainly went through the Winchester-Western ballistic labs and then on to the marketplace. However, there was a good bit of traffic on that path, including some divergences evident today in the existence of numbers of rifles chambered and marked for the "220 Wotkyns Original Swift," a very different cartridge from the 220 Winchester Swift.

## AN ABORTED ANNOUNCEMENT

The Swift's introductory notice in the *Rifleman* was not quite as meager as it first appears. For several years before the September 1935 announcement, the magazine published a continual stream of notices and articles about experimental high-velocity 22 caliber cartridges. This flow peaked in May 1935 with an article by Fred Ness titled "4000 F.-S. With the Hornet Bullet." Written to announce the impending commercial introduction of the Swift, the article "caused quite a sensation among the shooters of the country", as Harvey Donaldson put it. As an announcement it was premature and misleading, but it does hold clues about who might have first fired a Swift.

Ness's title alone is significant. From its reference to Hornet bullets, readers knew that the story involved lightweight 22-caliber bullets. The title also linked the new cartridge to existing widespread interest in the 22 Hornet. About five years earlier, the Hornet had been developed and introduced by Grosvenor L. ("Grove") Wotkyns of Benicia Arsenal in California, and by Townsend Whelen, G. A. Woody, and A. L. Woodworth of Springfield Armory. Articles by Wotkyns, Whelen, and Woody in *American Rifleman* and in *Outdoor Life* generated considerable demand for custom Hornet-chambered rifles. Winchester sold 22 Hornet ammunition several months before they introduced the Hornet-chambered version of their Model 54 rifle. The mention of the Hornet in the title also may have been an allusion to the central role Wotkyns had played in its creation. Ness was to ascribe a similar part for him in the development of the Swift.

Ness's use of triple zeroes to grab attention was surely intentional. In 1915, Savage demonstrated the commercial usefulness of zeroes when they introduced their 250-3000 cartridge. In the May 1934 *Rifleman*, just a year before Ness's article, Hervey Lovell had used the entrancing triple zeros in his article "An Interesting .22-3000 Cartridge." And only five months earlier, in the December 1934 Rifleman, Ned Roberts had given an account of the 22 Niedner Magnum cartridge, which was based on a shortened 25-35 Winchester case necked to 224, and which fired 45-grain Hornet bullets at 3300 fps — not quite three-of-a-kind zeroes, but still pretty nifty with two pairs of numerals.

Aware of the probable impact of his upcoming Swift announcement, Ness had provided a teasing preview of it a month earlier in April 1935. At the end of his own note about the 22 Niedner Magnum, Ness wrote:

*The .22 Niedner Magnum is, of course, clearly out of the Hornet class. ... The next venture will be the necking down of the .250-Savage, .25-Roberts, 7-mm or even the .30-'06, although a definite limit on practical sizes will be reached, because balance in loading-density must be maintained for efficient combustion. ... However, such rifles have been tried in the past, and are still being used in experiments, and more successfully now with modern components. Before long there are certain to be interesting developments in the realm of ultra-high velocities. It happens I have such a rifle ordered since last November. Watch the next issues of* The American Rifleman.

In the May article the new development was identified, complete with photographs, as the 220 Swift. But (a really big but) the photos clearly showed a 22-250 cartridge, a very different cartridge from the 220 Winchester Swift that was announced in September four months later. The article summarized work that Wotkyns had carried out with the necked-down 250 Savage case, and noted that Wotkyns in January 1935 had released to the press a report specifically mentioning its name as the 220 Swift.

Ness's article was a scrambled assemblage of condensed and abstracted letters from Wotkyns and from John B. Sweany, Wotkyns's coworker in California. The letters related the wonderful accuracy and velocity they had obtained with the 22-250 case and with some 7x57 cases shortened to various lengths and necked to 22-caliber.

Ness used the word "factory" numerous times in describing the Swift; for example, "...the factory .220 Swift cartridge, which is now quite new, is steadily showing improvement, and as ultimately developed will probably exceed anything hitherto imagined." Ness did not actually name the factory, but he was pretty coy in offhandedly mentioning the use of "special brass" developed by Western, and the use of W.R.A. primers by "the factory." He hedged further about the final form of the Swift, writing that "there may



HUNTING & FISHING November, 1930

SHOOTING

BY GROSVENOR L. WOTKYNS

The Search for an All 'Round Rifle

PROBABLY this title is a misnomer, in so far as there is no such thing as an all 'round hunter's rifle. But the point is more particularly: What rifle would you buy if you indulged in many different kinds of hunting and were limited to only one rifle? This means that if there is an ideal rifle, it will be large enough for big game up to including deer, and small enough for small game, down to and including squirrel. Or, phrasing it a little more curiously, not too small for big game, nor too large for small game.

What then, are the possibilities as offered by the manufacturer to the sportsman? There is a range in calibres from .22 up to about .50. Somewhere in between these two extremes is .44-40—and in most parts of the country—except where long range shooting is the rule—the .44 is large enough for deer. Yet the .44 is too heavy for small game. The .44 has 751 pounds energy, and it tears a big hole. For their model 92, the Winchester people have produced a Special .44 cartridge with an energy in foot pounds at muzzle of nearly eleven hundred pounds—plenty for any kind of deer shooting up to one hundred yards. And, by the same token, too large for small game.

The reader is beginning to see that sacrificing muzzle energy is leave doubt as to efficacy on big game; while increasing calibre or muzzle energy, is taking the arm out of the small game class. While this is [illegible]

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**Captain Wotkyns's reputation as a ballistic experimenter is well-known and appreciated. His service as shooting editor of *Hunting and Fishing* in the 1920s and early 1930s has been largely forgotten.**

be a change in factory specifications, and no one yet knows the final answer – which is to be announced later." Ness noted in closing that "the final .220 Swift cartridge as developed in the ballistic laboratory of a great arms manufacturer is certain to be an excellent cartridge."

The evident confusion and disorientation in Ness's article can be explained in part by conflicting and discordant messages that had crossed his desk in early 1935. These are significant in resolving the mystery of the Swift's development.

## A PROBABLE SWIFT CHRONOLOGY

From scattered material in *American Rifleman*, from Philip Sharpe's *Complete Guide to Handloading*, and from an article by Richard Simmons in the 1956 *Gun Digest*, there emerges a clear chronology of development of the Wotkyns Swift and the Winchester Swift. Simmons, while preparing to write his 1947 book *Wildcat Cartridges*, had corresponded extensively with Sweany and with Wotkyns before the latter's death in 1945. Sharpe wrote that he knew Wotkyns well and had hunted woodchucks with him. He called Wotkyns "The Archbishop," which was how Wotkyns signed his letters to Sharpe.

In 1929-1930, Wotkyns had been able to persuade three Army colleagues at Springfield Armory to help with developing the 22 Hornet, a cartridge he had devised specifically for use in converted 22 RF rifles. The group had successfully convinced Winchester to produce the cartridge commercially. Hornet rifles and ammunition had enjoyed noteworthy sales, even in the middle of the Great Depression.

In the early 1930s, searching for more velocity in a 22, Wotkyns began to experiment with the 250 Savage case necked to 22-caliber. He was hardly the first to do this. However, Wotkyns was the first to have real success, because he had access to a new Dupont powder, IMR 3031, before it was released for sale to the general public.

In late 1933, before he met Sweany, Wotkyns had asked Adolph Lukes, a well-known California gunsmith and tool-maker, to assemble a rifle for the 22-250 cartridge on a 1903 Springfield action. It's unclear whether Lukes used a barrel from a Springfield 22-caliber M1 or from a W.R.A. 22 Hornet, because Wotkyns reported both to Ness at different times. Using IMR 3031 powder, Wotkyns obtained significantly higher velocity and better accuracy than any previous attempts with a 22 cartridge. Wotkyns also began collaborating with Sweany to develop bullets of improved form for the cartridge.

In late 1933 or early 1934, after achieving velocities approaching 4000 fps with the 22-250, Wotkyns was sufficiently excited to report his results to the Western Cartridge Company. Perhaps because of his productive connection with the Hornet, Western asked him to send the rifle and reloads for their own testing. Wotkyns did so, indicating to Western that his name for the cartridge was "220 Swift." Phil Sharpe would later write that it was unclear whether the Swift was had been christened by Wotkyns or by Winchester-Western. However, in correspondence with Ness published in 1942, Wotkyns makes it clear that he had named the Swift before sending it to Western.

In 1934, while Western ballisticians were working with his rifle and cartridge, Wotkyns teamed with Sweany to investigate several other cartridges necked for the 22 bullet, searching for more velocity, better accuracy, and improved bullets. In late 1934, Ness learned of their work and ordered his rifle as described in the April and May 1935 issues of *The American Rifleman*.

The 1934 communications exchanged among Wotkyns, Western, and Winchester are probably lost permanently. Western reported to Wotkyns that bullets from the 22-250 actually had reached 4000 fps and had caused more damage to the steel backstops of their laboratory chronograph ranges than any other cartridge, including a variety of magnums. Western passed the rifle along to Winchester (a subsidiary of Western Cartridge after 1931), which began its own series of tests. Winchester also apparently, in late 1934, informed Wotkyns that they were going to begin soon to manufacture the cartridge and to chamber rifles for the cartridge.

In January 1935, based on his understanding of Winchester's plans, Wotkyns sent an announcement about the impending introduction of the "220 Swift" to many firearms editors and writers. The cartridge he described was a 22-250, and his communications included photographs of the cartridge and bullets. Judging from Ness's rewrite of this press release, Wotkyns provided some comparative dimensions of his 22-250 case and the 250-3000 Savage; e.g. lengths of 1.910 and 1.914 inches.

Shortly after Wotkyns's announcement had gone out, Winchester tried to put his genie back in the bottle by sending a telegram of vigorous denial to all who had received his communication. Their message stated that the cartridge that Wotkyns had described

was *not* the cartridge Winchester was going to release. Winchester asked the writers and editors to hold off publishing information about the 220 Swift until an official corporate announcement was issued, because "changes were being made." This urgent communication from Winchester may largely account for the fractured nature of the article by Ness in the May *Rifleman*.

It's not likely that Wotkyns, with his background in the protocols of military chain of command, would have sent out his announcement in January 1935 unless he had reasonable cause to think that Winchester actually intended soon to release his 22-250 creation. Winchester's abrupt and sudden annulment of his announcement greatly upset Wotkyns. Sharpe records him as being disgusted, disappointed, and "very sour on the subject," but not discouraged.

A best guess is that somebody in Winchester's management read Wotkyns's announcement and decided that Winchester's corporate image would be tarnished if a Savage case were to be used as the basis for the new cartridge. They mandated a switch to a case originated by Winchester. The photo of the necked-down Savage case that appeared with Ness's May article must have caused some heartburn in the Winchester boardroom. They were in fact justified in thinking that the picture would stick with readers, despite the photo caption warning that "further development may result in considerable change in form." This caveat was surely inserted in response to their telegram.

According to Simmons, Winchester told Wotkyns that it would be impossible to use a case from Savage or any other competitor as the basis for their high velocity 22-caliber cartridge. They also asked Wotkyns to suggest a Winchester case that might be feasible, and Wotkyns responded with the suggestion of the 6mm Lee case. The Winchester ballistics lab followed his recommendation and began working with that case. They necked the Lee case to 22-caliber with other slight dimensional changes, strengthened the web, and gave it a semi-rim to fit the common 30-06 bolt face. (Winchester had in fact made a rimmed version of the 6mm Lee case in the early 1900s. Sharpe's *Rifle in America* noted that the rimmed version was used at least in the Blake rifle.)

On April 23, 1935, according to Sharpe, Winchester adopted the final form of the 220 Swift. The date appears on the specification sheet that Winchester submitted to the Sporting Arms and Ammunition Manufacturers Institute (SAAMI). As soon as these specifications were published, Sharpe ordered from Sweany a custom rifle chambered for the cartridge. When factory 220 Winchester Swift ammunition became available later in 1935, Sharpe was able to begin using it immediately.

In the short time between Wotkyns's press announcement in January and the publication of final dimensions in April, Wotkyns and Sweany would have been unable to experiment with the Lee case and to swap results and data with the Winchester lab. About 1940, Wotkyns worked with L. E. Wilson to modify the Winchester Swift to produce the wildcat 22 Wotkyns-Wilson Arrow, which Wotkyns judged to be a significant improvement on the Winchester Swift. When Simmons asked why Winchester did not introduce the 220 Swift with the refinements, Wotkyns replied that "this revision could have been accomplished at the time of the original manufacture, but to demand it at the moment would probably have meant no 220 Swift at all, and half a loaf is better than no loaf."

Disillusioned by Winchester, Wotkyns and Sweany left further work with the 22-250 to others, particularly to Jerry Gebby and to J. Bushnell Smith, who had worked with Sweany for a while in California. The development of the cartridge as the "22 Varminter" and the "22 Wotkyns Original Swift" and its eventual commercial adoption by Remington in 1965 is well documented.

All of this history reinforces the reply of "a Winchester lab technician" as answering the question about the first person to fire a 220 Winchester Swift. However, it is probably safe to assume that a first step on the way to the Swift after Wotkyns' suggestion was a simple necking of the Lee case to 22 caliber in the Winchester lab.

If we provisionally broaden our definition of "220 Swift" to include the 22-6mm Lee stage of development, then the Swift story does not begin with Winchester in early 1935.

on harness and similar leather goods, Viscol is a dark brown, rather thin, oily liquid consisting of the synthetic gum base dis-

**W. R. A. .220 SWIFT ANNOUNCED**

The Winchester M-54 rifle Super-Speed .220-Swift caliber [illegible] ready for delivery as is the new ammunition. The muzzle velocity with 48-grain, soft-point, pointed bullet is 4140 f.-s. The rimmed case is virtually a strengthened revamped 6-mm. Lee, but using a head to fit standard actions. The breech pressures are moderate, or no higher than those of the standard .30-'06. The dependable accuracy is 2 inches or smaller at 100 yards. The only change in the special M-54 rifle for this cartridge is a 26-inch length of barrel. The .220 Swift is at its best at 200 to 300 yards, owing to its flat trajectory and short time of flight. It is intended for all game up to, and including, deer.

**Sweany .22-4000 Ready**

J. B. Sweany, Winters, California, is ready to fit and chamber .22-caliber barrels for the new W. R. A. .220-Swift factory cartridge, and also for his own rimmed cartridge

by applying it to the leather while still barely moist. The moisture in the leather retards penetration of the oil and helps to get an even application. Dry leather will absorb Viscol very rapidly, like a blotter, but unevenly, resulting in spotty penetration.

With a clean soft rag or wad of cotton waste, apply Viscol to the flesh side of the leather with light, sweeping strokes, gradually increasing the pressure as the rag is dry. Avoid letting the oil drip or [illegible] the rag, as this will result in [illegible] penetration. When the rag is [illegible] over the grain side with [illegible] ing strokes as before it, using [illegible] necessary to avoid A good de[illegible] it is best to apply spotting the [illegible] side and have most of the oi[illegible] working o very little oil on [illegible] the grain side."

Much better result[illegible] ll be secured b going over each side of the leather lightl several times than by trying to get as muc oil as possible into the leather at one ap plication. After each application th leather should be thoroughly worked ar rolled with the hands. A good method f straps such as bridle reins and gun slin is to pull the strap vigorously back a forth over a smooth iron rod about an in in diameter. Avoid bending dry leath sharply as this may crack the grain si

Another use of Viscol which will be interest to sportsmen is for waterproof

**The brief announcement of the 220 Swift in *The American Rifleman* of September 1935.**

In fact, it begins decades earlier with a different set of experimenters. Before describing their work, however, there are some published loose ends in this account of the 1935 Winchester Swift that need tying up.

## THE 22X55

In his May 1935 article, Ness stated that in November 1934 he had sent a barrel blank and Springfield action to Sweany to be chambered for the new 22-250 cartridge. However, between November and the writing of the article (probably February or March), Ness changed his mind and asked for the rifle to be chambered for a cartridge that Sweany called the 22x55. Based on extensive experiments, Sweany had concluded it was superior to "the factory 220 Swift."

The mention of this 22x55 attracted Carmichel's attention, and in the 1971 article he speculated that the 22x55 cartridge was based on the 6mm Lee case. Using a relaxed definition of the Swift to include a 22-6mm Lee, this would make either Wotkyns or Sweany possibly the first to fire a Swift.

In support of this idea, Carmichel wrote that Sweany's letters described the 22x55 as something other than a necked-down 30-06 and 7x57 case. Further, the 6mm Lee case is 2.35 inches or 59.7mm long, while the 220 Winchester Swift is 2.205 inches or 56.0mm long; this put a cartridge of 55mm length really close to the Swift. As added circumstantial evidence, Carmichel noticed that Sweany's 22x55 loads with IMR 3031 powder and 45- and 55-grain bullets were identical with 220 Winchester Swift loads as recommended by the Speer reloading manual.

Neither Sweany nor Ness explicitly identified the parent cartridge of the 22x55. However, it was likely a 7x57 case, not the Lee case, that Sweany shortened and necked to 22 caliber. Two principal points support this.

First, in the May 1935 *Rifleman* article, Ness quotes from a Sweany letter written in late 1934 or early 1935:

*The .30-'06 case necked to .22 left a lot of powder space even with a load pretty close to the maximum. So I made a case .470 inch at the base, .420 inch at the shoulder, and with the Springfield slope of 17.5°, to hold just 45 grains of powder. 42 grains of No. 3031 seemed to do the same in this case as 45 grains in the .30-'06 case.*

Sweany clearly is describing a 30-06 case shortened and then necked to 22 caliber. Sweany's letter continues:

*Then I made a second cartridge of the 7-mm. to its exact dimensions and necked it for the .22 bullet. (The 7-mm. 'as is' can be made to hold just about 42 grains).*

Sweany's description here is of a 7x57 case with the exterior dimensions of the reformed 30-06 case above. Immediately after this quote from Sweany's letter, Ness writes:

*Though Wotkyns proved that for this work the neck-down [sic] .250 Savage case is more efficient than the necked-down .30-'06 and 7-mm. cases, I am interested in trying these larger shells and am having my rifle chambered for one of them.*

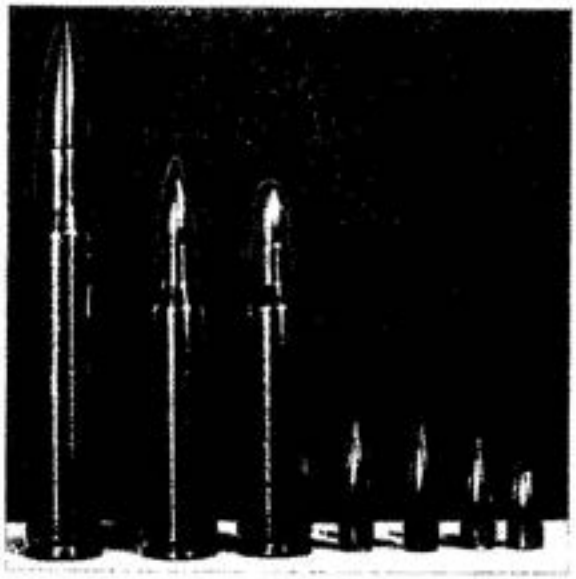
It is evident that Ness wanted a cartridge that Sweany described as being formed from the 30-06 or 7x57 cases. In the next paragraph, Ness identified the cartridge he ordered as the 22x55.

Second, in the next issue of *American Rifleman*, June 1935, Ness included a brief report entitled "That .22-Sweany Job." A couple of paragraphs and a table in this report bear on the origin of the 22x55:

*In the early experiments [Sweany] used I.M.R. powder No. 3031 in the .250-Savage case with Hornet bullets...*

*After he had experimented with larger cases reshaped from the .30-'06 and 7-mm. caliber, his data showed an average group size under 1-1/2 inches at 100 yards ... He made and used more than a dozen different cases and chambers in these experiments, and these experimental cartridges varied in body length, shoulder diameter and in taper greater and less than the same parts of the straight 7-mm. which was also necked down and tried. In case length, powder capacity and load, some of these different cartridges varied as follows: (based on No. 3031 Powder and W.R.A. 45-grain bullets.)*

From this paragraph and table it is clear that Sweany experimentally made



**Recreation with modern components of Wotkyns's sensation-generating photograph in *The American Rifleman*. L-R: 30-06 M2 ball military round, 22-250 with 50-grain Sierra BlitzKing, 22-250 with Sierra's 45-grain Hornet bullet, three Nosler Ballistic Tip bullets of 55, 50, and 40 grains, and a Sierra 45-grain Hornet bullet.**

30-06 and 7x57 cases in several conformations. The listed 60mm and 62mm cases were undoubtedly formed from 30-06. The 22x55mm case on the last line of the table may have been formed from either, but it seems certain that the case was not the 6mm Lee Navy. Phil Sharpe photographed fourteen of these different experimental cases from the Wotkyns and Sweany trials that attempted to improve on the 22-250.

## DONALDSON'S 1934 220 SWIFT

A second loose end is Harvey Donaldson's claim that he owned and shot a 220 Winchester Swift rifle in 1934 or perhaps earlier. If this date is correct, it effectively subverts the Swift chronology proposed above. His report about his 220 Winchester Swift appeared in the November 1969

| .22 Sweany Experimental Loads | | | |
|---|---|---|---|
| Length | Capacity | Max. Load | Drop |
| 48.5 mm | 38 grs. | 36 grs. | 2-3/4" |
| 60.0 mm | 45 grs. | 42 grs. | 3/4" |
| 62.0 mm | 42 grs. | 40 grs. | 2" |
| 55.0 mm | 43 grs. | 39 grs. | 1-3/8" |




Another 1930s ad for the 220 Swift, with an early box of 220 Swift ammunition by Western.

issue of *Handloader* magazine:

*A year or two before any .220 Swift rifle was available, and while only a few pilot rifles had been made, Col. Whelen got in touch with Edwin Pugsley, the V-P of Winchester, and suggested that a rifle be sent to me for testing from a bench and in chuck shooting. Very soon this rifle came along, made up on the Model 54 action - for this was before the days of the Model 70. Winchester later gave me this rifle, which I still use in hunting. Whelen said I was the first one outside of the factory to use the new rifle ...*

An accompanying photograph shows a target with a typewritten label: "This five shot group at 100 yards was fired recently, by H. A. Donaldson, with a .220 Win. Swift M/54 rifle that he got from the Winchester Co., in 1934."

Whelen's statement about Donaldson as the first user outside of the factory is almost certainly correct. Whelen undoubtedly was aware that Winchester was working actively with high-velocity cartridges, that they had invited German high-velocity guru Hermann Gerlich to New Haven for consultation in 1934, and that Wotkyns's 22-250 was being tested at Western and at Winchester. Whelen also knew that Donaldson would be interested in the cartridge and could test it intelligently.

In his 1971 article, Carmichel noted that "several .220 Swift rifles were in the hands of shooters before the .220 rifle was formally announced." He describes Winchester's willingness then to chamber rifles for new cartridges before official release to the public. It is quite likely that Donaldson tried out a Model 54 in 220 Winchester Swift before its official announcement in August 1935.

The problem is with the 1934 date that Donaldson attached to Winchester's delivery of his rifle. Some well established dates make a 1934 shipment unlikely. These include (A) the January 1935 date of Wotkyns's premature announcement and Winchester's immediate follow-up, hold-the-presses telegram; (B) Winchester's subsequent request to Wotkyns for a recommendation of a usable Winchester case; and (C) the April 1935 date of finalization of specifications. A delivery date to Donaldson of May 1935 is believable. Winchester conceivably might have produced some Swift rifles and ammunition before writing final SAAMI specifications, making plausible the delivery of one to Donaldson in February or March 1935. When he wrote in 1969 about the 1934 delivery of his rifle, Donaldson was 86 and his wife had died the previous week. If his memory was off by only four months after a lapse of about 35 years, this amounts to an error of less than one percent, which is very respectable under the circumstances.

Wolfe Publishing Company reissued Donaldson's *Handloader* articles along with other correspondence in a 1980 compilation titled *Yours Truly, Harvey Donaldson*. In a 1967 letter, Donaldson wrote (page 66), "I had a Swift sent to me by Mr. Pugsley of Winchester some two years before they were available, for testing purposes..." The correctness of this claim would depend on Donaldson's definition of "available." Winchester first announced the availability of Swift rifles and ammunition in August 1935; it is impossible for Donaldson to have possessed a Winchester Swift rifle two years before that, in August 1933. Perhaps Donaldson meant "readily available in local gun shops."

There also exists confusion about the photo of Donaldson's target with the 1934 label. In the next issue of *Handloader*, January 1970, Donaldson wrote "In a recent letter of mine to the *Handloader* there was shown a recent five-shot 100-yard group from my first .220 Swift, received 35 years ago from Winchester." But just a few paragraphs later Donaldson described his purchase of one of the last pre-64 Winchester Model 70s in 220 Swift, and wrote, "This is the new Swift rifle that made the tiny group of five shots, a print of which was shown in one of my recent letters to the *Handloader*."

Only one illustration was ever published of a five-shot 220 Swift group by Donaldson. Whether Donaldson used his first or his last Swift rifle to make that printed group can not now be determined. Oddly, in the *Yours Truly* collection the sentence about using the new Swift rifle in making the published group was deleted from the reprinted letter of January 1970. The original copies of Donaldson's *Handloader* letters have been lost, so it is impossible to determine whether the deleted sentence was actually written by Donaldson or had been inserted by an editor. Because the editors of the book

and magazine are deceased, the confusion will necessarily remain unresolved.

## AN UNCLEAR NOTE BY LANDIS

A third loose end is a confusing statement that appears in Charles Landis's 1947 book, *Twenty-Two Caliber Varmint Rifles*. Landis writes on p.184-185:

*About the year 1934 the author of this work was deluged with a mass of targets, groups, and a number of manuscripts and suggestions on a .22-250 cartridge by the then Capt. Grosvenor Wotkyns, writing from California. Grove, as he was known to his friends, passed away in the spring of 1945.*

*The author visited Captain Wotkyns in his office and at his home and was a guest in his quarters while Grove was stationed at Frankford Arsenal, Bridesburg, Pa., and lived on the arsenal grounds. This was probably about 1925-1928. Wotkyns was quite anxious to have this cartridge put out commercially, at that time, but unfortunately for everyone concerned, including the shooting public, and especially the .22 rifle cranks of the varmint hunting type, it came along at a time when manufacturers were beginning to reduce the number of cartridges rather than to increase them or add better ones.*

The problem here is ambiguity of Landis's phrase, "at that time." It may refer to the 1925-28 dates of the previous sentence, or it may refer to the 1934 date with which Landis introduced the subject of Wotkyns's work on the 22-250. The first possibility is favored for grammatical proximity; the second for its agreement with known history of Wotkyns's work with the 22-250 and his efforts to have it adopted by Winchester-Western.

The clear implication of the first possibility is that Wotkyns had worked with the 22-250 in the mid-1920s in Philadelphia, and that his results were sufficiently rewarding for him to think the cartridge would interest a major arms company. Fred Zeglin not unreasonably accepted this interpretation in his 2005 book, *Wildcat Cartridges*. However, the known chronology of Wotkyns's efforts with the cartridge makes it doubtful that Wotkyns worked with a 22-250 in the 1920s.

Landis probably inserted the remark about his visits in the 1920s in order to establish the credibility of his personal knowledge of Wotkyns's work, and "at that time" refers to Wotkyns's activity in 1934. Some points supporting this conclusion:

(A) Landis clearly indicates (pp. 36, 184) that Wotkyns credited Sweany with the development of the 22-250. Wotkyns did not begin to work with Sweany until late 1933 or early 1934. It is unlikely that Wotkyns would have given Sweany as much credit had Wotkyns been working with the 22-250 in the mid-1920s.

(B) Even if Wotkyns had worked with the 22-250 in the mid-1920s, his results would have been as disappointing as those of other experimenters. Only when IMR-3031 powder became available in the 1930s did the cartridge began to show its potential. Sweany and Wotkyns had a head start over other experimenters with the cartridge because Wotkyns had pre-commercial access to the powder.

(C) In addition to lack of suitable powders, lack of usable bullets would have prevented useful work on the 22-250 in the mid-1920s. Appropriate 224-caliber bullets for high velocity simply did not exist then. Wotkyns, Whelen, and others have described their problems in finding bullets for use with the Hornet in the early 1930s. Had Wotkyns actually worked with the 22-250 in the 1920s, obtaining satisfactory bullets for the Hornet in 1930 would have been easy. Instead, serious work with the high velocities of the 22-250 and the Winchester Swift had to wait until answers to bullet problems had been partially found with the Hornet. These difficulties with bullets explain in part why Ness used the term "Hornet bullet" in the title of his April 1935 article about experiments of Sweany and Wotkyns. It also explains why Ness included descriptions of their efforts in designing bullets.

Wotkyns may have been thinking of working with the necked down 250-3000 case in the mid-20s; he almost surely was not thinking seriously of commercialization. The commercial success of the Hornet probably encouraged Wotkyns to submit his 22-250 rifle and cartridge to Winchester-Western, and was likewise what prompted the corporation to consider seriously his claims for the cartridge.

## SO WHO DID FIRST SHOOT A SWIFT?

Considering the Swift as a cartridge specified by Winchester in April 1935, the first Swift shooter must have been a Winchester lab technician, with Harvey Donaldson perhaps the first outside of the lab. For a cartridge with the name "220 Swift," Wotkyns would have been the first using his rifle built by Lukes. However, if we use the relaxed Swift definition of a 22 bullet in a necked-down 6mm Lee Navy (236) case, the answer becomes more interesting, and involves a couple of ballistic pioneers who worked a century ago.

Charles Newton, the "Father of High Velocity," is a front-rank contender for the first shooter of a 22-6mm cartridge. *American Rifleman* of January 1942 describes some early correspondence between A. O. Niedner and Ned Roberts. In a letter to Roberts dated November 21, 1910, Niedner wrote that he had just finished making for Newton a 22-caliber chambering tool for the 6mm Lee Navy case. In the March 1913 issue of *Outdoor Life*, Newton himself wrote:

Immediately following the submission of this cartridge *[the 22 Savage Hi-Power]* the writer, deciding to go the limit in producing a high-power .22, used first the 6mm. Navy shell necked down ...

A photograph of one of Newton's experimental 22-6mm Lee cartridges appears in Simmons's book *Wildcat Cartridges*.

While it's fitting and just that Newton be in contention as the initial shooter of the 22-6mm "Swift," antedating him was an undoubtedly even more appropriate individual, Dr. Franklin W. Mann. In the December 1935 *American Rifleman*, C. G. Williams wrote the following:

*It was on January 21, 1907, that Dr. F. W. Mann wrote that he was going to purchase a .236 (6-mm.) Winchester rifle and test out that shell for accuracy with various weights of bullets, and then neck down the .236-Navy shell to take .226 bullets for a new high-*



Fourteen cases from experimental work by Sweany and Wotkyns in 1934. Photo is from Sharpe's book, *Complete Guide to Handloading*.

*velocity .22 caliber rifle. But it was not until October 1908 that the Doctor obtained his .22 barrel for the action. In a letter written on December 27, 1908, he stated that at 3000 f-s. the primers were blown out of the pockets and the shells stretched so that they could not be reloaded. The velocity was computed from tests on the revolving-disc chronograph that the Doctor made.*

The conclusion is that sometime in late 1908, Dr. Mann became the first person to shoot a Swift, in its guise of a 22-6mm Lee. Although the experience was less than a happy one, it does establish just and good cause for celebrating the Swift's 100th birthday in early December of 2008.

## AN ANNOTATED BIBLIOGRAPHY

Here is a chronological list of the principal sources used for this article. Interested individuals may consult them to determine whether the author's interpretations are rational. Literature of the Swift is extensive and frequently contains capsule histories, some notably erroneous; such accounts are not cited here.


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