



From the good, old days, the Wilkinson-Webley and S&W Triple Lock were used by the British. Both revolvers had lanyard rings related to their service use.

Friendly cartridges and grand revolvers.

Webleys and Triple Locks

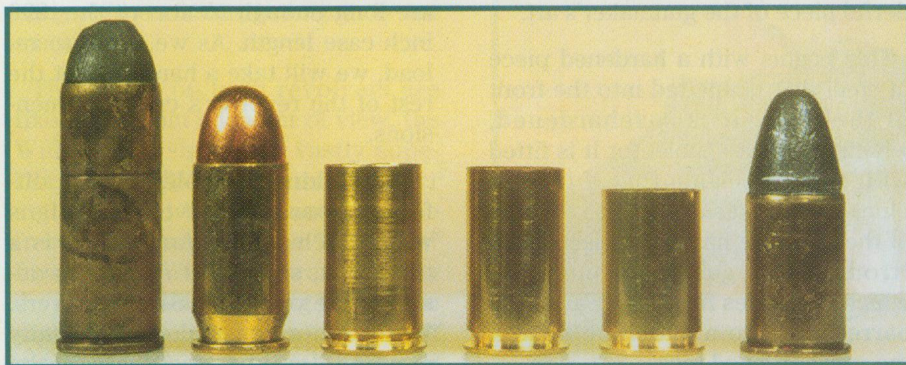
Ross Seyfried

Sometimes, if we want to really understand a subject, it is a good idea to look beyond what we consider normal. In this case we define *normal* as the .45 Colt and .45 ACP and the guns that house them. *Beyond* we find cartridges that evolved at similar times and with similar purposes as our American rounds, but in Great Britain. It is just possible that we may be looking at the ancestors of our own cartridges. Certainly when we look at the .455 and .476 cartridges, we see long-term success, extending from the earliest black-powder centerfires right into World War II.

Along with them we find considerable confusion, mild, wonderful performance and some of the finest revolvers of all time. The entire subject requires books, so here we will limit ourselves to the family of three cartridges and two classic revolvers. Of course, when we are finished we will know how to make shells and enjoy the full potential of these treasures from the past.

The cartridges are all more or less the same, while being slightly different. These are: the .455 Webley, .455/.476 Webley, .455 Mark II and the .455 Colt. What makes these cartridges so confusing is that they are so much the same. In some cases they are identical; others have slight variations. I believe it is safe to begin by saying that the case head itself is the same for all the rounds.

Below, the .45 Colt and .45 ACP are shown on the left, followed by the .455 Colt (.89 inch), .455/.476 (.87 inch) and .455 Mark II Cordite (.77 inch). Almost everything about the cartridges is the same, except the case length, and most revolvers could use all three lengths. Right, a modified NEI mould for .45 Express rifles worked perfectly in the revolvers when sized .456 inch.



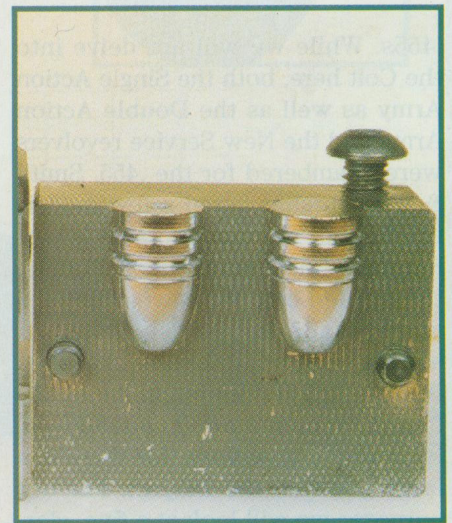
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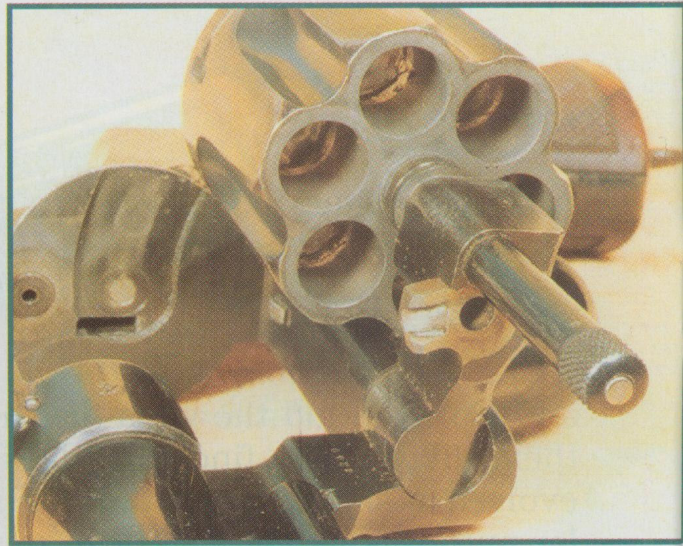
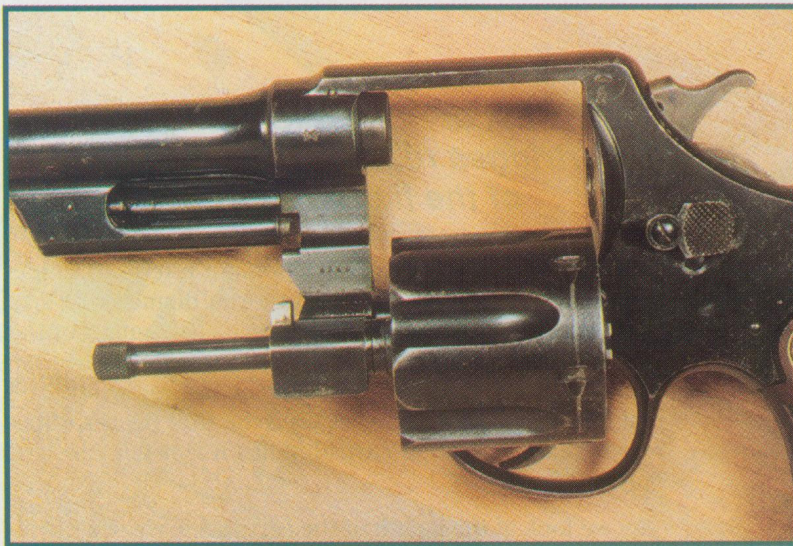
Let's use the .45 Colt case as a point of reference. It has a base diameter of .480 inch and a rim diameter of .512 inch with a rim *thickness* of .060 inch. The length of the Colt is 1.285 inches. Our family of cartridges has a base diameter of .480 inch with a .535-inch rim diameter. The real functional difference between the Colt head and the rest is that the British cartridge has a rim thickness of only .035 inch.

As we look at the length of the cartridges, we see the dimension that makes them different from each other. The shortest is the .455 Webley Mark II at .770 inch, followed by the .476 and the original black-powder .455 at .870 inch, with the longest case called the .455 Colt often measuring .890 inch. There we have it, the three cartridges are the same with varying lengths and, as you will see, some slightly different bullet measurements.

The oldest round is the .476, .455 Mark I black powder, or .455/.476, which seems to be the same cartridge. This is a black-powder round, originally loaded with 18 grains of black and a 265-grain hollowbase bullet. The one really obscure difference that makes a .455 become a .476 is the use of a slightly heeled bullet with a .470 inch diameter driving band outside the case mouth, while the .455 versions used .456-inch bullets. The "new" Mark II, .455 Cordite, used the shortened .770-inch case to obtain better ignition and claimed better accuracy from the modern powder. The .455 Colt cartridge seems to be a North American commercial version of the original .455 loaded with smokeless and often using a slightly longer (.885- to .890-inch) case. Probably the most significant difference of this version is added velocity. The "Colt" loading often went 60 fps faster than the original black-powder load and almost 160 fps faster than the British Mark II Cordite.

With all that, the real differences are perhaps as clear as mud. To simplify, almost all versions of the .455 or





The Smith & Wesson New Century was also known as the Triple Lock. Note the heat-treated "triple" lock inlaid into the crane.

.476 will accept the same ammunition but will not, as has been suggested, accept the .45 Colt – unless the revolvers have been modified. Having said that the handguns will *use* the same ammunition does not mean they will be at their best with it. I found old revolver ammunition, or even new revolver ammunition for old cartridges, is usually deplorable. No, not in terms of power, but accuracy. Have any of you used factory .45 Colt lead bullet ammunition that offered anything to brag about? I doubt it. As we move forward to the reloading phase, we will find ways to put the performance of the past to shame.

The list of revolvers that use the cartridges reads like a who's-who of the handgun world. The very familiar Colt and Smith & Wesson, as well as the British "Webley" group of revolvers, all were chambered for the

If there is an outstanding feature of the Webley style revolver it is the magnificently smooth action.

.455s. While we will not delve into the Colt here, both the Single Action Army as well as the Double Action Army and the New Service revolvers were chambered for the .455. Smith & Wesson chambered a few models in .455, but the most notable is perhaps the finest revolver of all time, the Triple Lock. We have a fine example made for British/Canadian service to study. Of course, the most widely used revolvers can be classified as Webley. I won't pretend to illustrate the variations, for there is a large book on the subject. For our purposes we will look at a fine, clas-

sic black-powder revolver retailed by Wilkinson. The basic design of this piece is known as the Wilkinson-Webley.

For those not familiar with the Smith & Wesson Triple Locks, they are large frame, double-action hand-ejectors. Most have fixed sights. The basic design of the revolver is very similar to the modern versions we all know. However, the flawless execution, hand fitting, polishing and overall beauty of these fine prewar revolvers separate them by many miles from current production. Also, the "Triple Lock" feature is a wonder in itself.

As the name implies, the revolver has three mechanical locks. The first is the usual pin that protrudes into the breech face from the center of

the cylinder. Second is the standard protrusion from the front of the barrel lug into the ejector rod. The "triple" locking mechanism is a wonderful piece of the gunmaker's art.

This begins with a hardened piece of steel that is inlaid into the front of the yoke. It is casehardened, which makes it visible, for it is fitted with such precision that if it were blue, it would disappear into the rest of the gun. The hardened piece has a "trough" that guides a round pin, which protrudes from the rear of the barrel lug, into a matching hole in the casehardened lock.

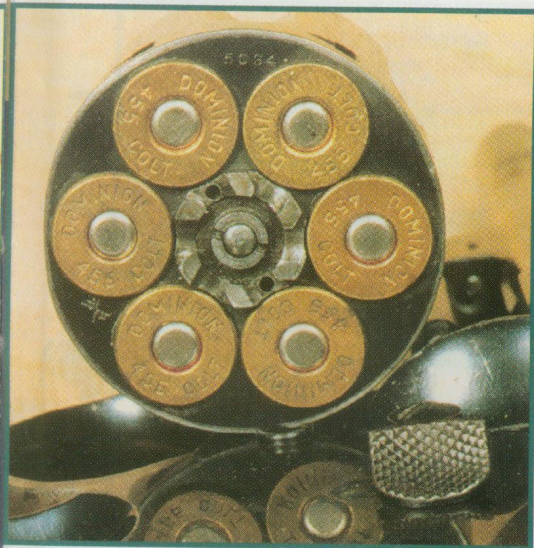
Another magical refinement on this revolver is a spring-loaded detent in the radius portion of the crane that floats into a recess in the frame. The effect is to gently and silently hold the cylinder in open position, instead of allowing it to flop about as do cylinders in almost every other revolver.

With all its sophistication and strength, the entire triple-lock mechanism operates exactly like normal revolvers. Opening the cylinder only requires the normal forward pressure on the thumb piece. Closing asks you to press the cylinder gently home.

The Triple Locks are also of the "five-screw" family. There are the three familiar screws on the side plate, combined with another at the top of the plate and a fifth screw in front of the trigger guard that holds the cylinder bolt in place.

The revolver we see here is not marked for caliber, which is normal for the group of guns made for the British service. The chambers are for the .455 Colt version. That is, they are long enough to accept the .890 inch case length. As we begin to reload, we will take a hard look at the rest of the revolver's critical dimensions.

The Wilkinson-Webley is very different from most revolver designs with which we are familiar. It is a top-break, somewhat similar in design to the very early S&W revolvers. While American makers generally moved to solid frame designs, the



British makers stayed with the hinged-frame style of revolver.

In basic action, two opposing pins engage holes in the rear of the top strap. They, along with dovetail mating surfaces, lock the top strap into the frame. To open the revolver you push in on checkered buttons on either side of the frame. These are on opposite ends of hinged levers that draw the locking pins out of their recesses. When the pins are drawn the barrel is pushed down, ejecting and exposing the charge holes for reloading. A hinge between the barrel/cylinder assembly is located at the lower front of the frame, about where the crane would rotate on the S&W. Upon opening, a cam pushes an ejector rod that operates within the central axle of the cylinder. This ejector system simultaneously ejects all six empties.

If there is an outstanding feature of the Webley-style revolver, it is the magnificently smooth action. It operates on a V mainspring and overall is uncommonly simple. I believe it is safe to say the Webley action may be the only one that makes the magnificent lockwork of the early Smiths feel rough. It is chambered for the early .476 cartridge, but again is not marked.

The sights on both revolvers are fixed, but from my point of view, the Wilkinson's sights are vastly superior to the S&W. Sights on the latter are the most basic U notch in the frame combined with the "half-dime" front sight. While one can actually do very credible shooting with these sights, they present a myriad of rounded surfaces to catch light and

defy repetitive precision. The Wilkinson front sight is a $\frac{1}{16}$ inch wide, flat-faced post made of whitish-gold colored metal. Both the front face and top are serrated. The rear sight is a V notch in the frame, combined with an inverted platinum triangle inset below the notch. While the V notch rear is not perfect, it is large and easy to see. When combined with the flat-post front and the platinum triangle, it does offer fine precision.

Both revolvers have lanyard rings, and while the Triple Lock has the beautiful commercial blue finish, it was made as a military piece. The Wilkinson comes from an era when British officers provided their own armament, and it can be described as a very high quality commercial revolver. While more than a century has faded it considerably, the original finish would have been magnificent charcoal blue. The grips are fine English walnut, complete with a sterling silver crest plate featuring the initial *J* and a five-pointed crown. This tells us the gun was carried by a person with, I believe, royal background.

When we begin to measure what I would call "shooting" dimensions, the revolvers become quite different. The Smith is more or less conventional and by my definition pretty

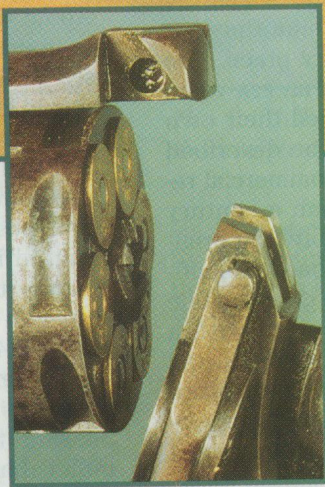
Below, the fine, old Triple Lock was extremely accurate by any standards as Ross's offhand groups demonstrate. Note the contrast with the large group fired by Mr. Webley in the 1800s (inset). Good ammunition makes a tremendous difference.



Loading data is not as obscure as you might imagine.

much perfect. As I said the chambers are cut to accept the .890 inch case length. Its cylinder throats measure .457 inch with a .447-inch bore and .456-inch grooves. We will apply these numbers when we make ammunition. Suffice to say the revolver gets smaller as we move forward, and that will allow one to shoot.

About the only thing the Wilkinson has in common with the cartridges it uses is headspace. Otherwise everything is kind of odd. Begin with very long chambers, ones that will accept the full length of a .45 Colt case. Keep in mind, however, that it was never possible to chamber .45 Colt ammunition, because the rims are entirely too thick to allow the revolver to close. The throats in this one are .459 inch, but the bore is a big .455 inch with .470-inch grooves. From this we see it is not going to be possible to unleash a conventional bullet that will even come close to filling the barrel.



The Webley revolver features a typical British V mainspring and a magnificent double-action pull.

To begin reloading we will start with the easy one. I obtained cases of all three lengths from Buffalo Arms (99 Raven Ridge, Sandpoint ID 83864). These are perfectly converted from .45 Colt Winchester brass. These, as supplied by Buffalo with the rims thinned and cut to .890 inch, fit perfectly in the Triple Lock. I also turned and trimmed some more brass for myself. There is more about this in my column, but the cases were cut with 2 horsepower at about 2,500 rpm. It took an extraordinary trimmer to handle the task. With cases in hand it was a delight to learn that reloading dies for the .455 are a stock item from Redding. They arrived in a week, fit exactly and worked perfectly.

Loading data is not as obscure as you might imagine. My *Lyman Reloading Manual* from 1964 has loads for four different bullets, ranging from 190 grains to 260 grains. An earlier version lists, as does this one, data for “.455 Colt & Webley.” While the later book does not differentiate, the 1960 edition says to “reduce maximum charge 1.0 grain for the shorter Webley case.” Also, the lowest starting charges for the .45 ACP will give good reference for the rounds. Two currently available powders are listed, Bullseye and Unique.

The original bullets were almost all hollowbased, 265 grains. There were some “man stopper” bullets (cup

Above, the Webley is a top-break that simultaneously ejects all six chambers. It is locked closed by the pins and levers (left).

point wadcutters), some wadcuttershaped target bullets and even shot cartridges loaded. It seemed to me the 265-grain bullet would be best, especially with the low 600 to 750 fps velocity. This is a good time to point out that these handguns, grand, old vintage revolvers with short cartridges, were never intended to be magnums. None approached the power of the original 40-grain, .45 Colt loading. Nor did they come up to the punch of the .45 ACP. If you want power from a revolver you should certainly look elsewhere. What the .455 gives us is an extremely pleasant, classic firearm, one that is perfect for cans, small game and rocks; and as it proved well in British service, the big chunk of lumbering lead is really bad to stand in front of.

While none of the loading data I found used hollowbased bullets, they usually did specify the “#454...” The 190-grain selection was for a #457, suggesting a precise fit (Lyman moulds). Now, I suppose with soft metal one could ask a .454-inch bullet to bump up and properly fill the throat and barrel, but I have a strange notion about revolver loads.

Why would we ask a poor fit to work if we can use a correct one?

To that end it was easiest to get the 265-grain weight, and a diameter that matched the throats, by using a .45-caliber rifle bullet instead of one designed for handguns. My choice was an NEI mould (#334) made for my .450 Express rifles, with gas-check shank removed. This one comes out of the mould .460 inch, weighing 270 grains with a 1-to-40 (tin-lead) alloy. I made a sizer for my Star lubricator that reduced the bullets to .456 inch. Along with the rest of the bullet's qualities, it was very close to the correct weight, and it looked like the originals.

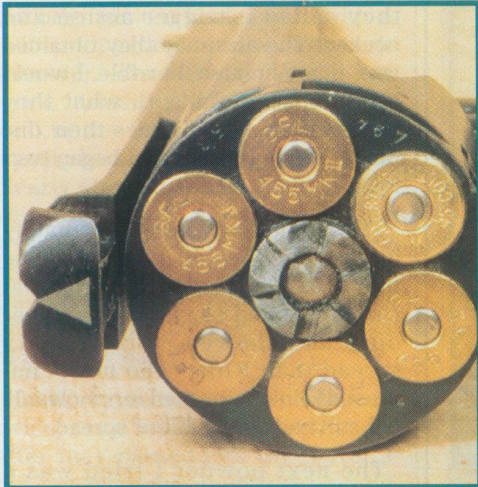
While I was working on this project, I searched my library for any old details that might appear about the guns and ammunition. In one of my favorite books *Modern Sportsman's Gun & Rifle* by Walsh, 1882 (reprinted by Wolfe in 1986), I found

Load Data from 1960 Lyman Manual

bullet (grains)	powder	charge (grains)	velocity (fps)
190 Lyman 457401	Bullseye	3.0	680
		4.0	770
	Unique	5.5	700
		6.5	800
260 Lyman 454424	Bullseye	2.5	585
		4.0	700
	Unique	5.0	610
		6.0	710

Notes: Case length: Colt, .885 inch; Webley, .750 inch. “Reduce maximum charge one grain for shorter Webley case.”

Be Alert - Publisher cannot accept responsibility for errors in published load data.



The rear sight on the Webley is formed as part of the barrel forging, and it is of exceptional quality with the platinum inlay.



The "group" on the right shows the keyholes, while the one on the left demonstrates fine accuracy after drilling the hollow bases in the bullets allowing them to fit the ill dimensions of the .476 revolver.

some interesting shooting details. Mr. H. Webley fired Webley revolvers, and the famous American shot, Ira Paine, fired Colts.

While the shooting of the Colt is not particularly germane, it is interesting to hear how badly Mr. Webley

felt the big 40-grain charge kicked. He felt it ruined his shooting skills. This, like other fun parts of firearms' history, is always fascinating. Imagine if these fellows were to get hold of a modern .45 Colt, heavily loaded with 360-grain bullets. Revolvers and revolver shooting, as well as the men

who shoot them, have come a long way!

Both men shot their revolvers at 12 and 25 yards, what then must have been considered "working" range for a handgun. The Webley was fired both single and double action, or as

they called it trigger action and cocked. The accuracy they obtained was, in my opinion, horrible. I would be pretty content with what they achieved at several times their distance. With that in mind I began testing.

The Triple Lock was immediately in love with the bullets, perhaps the first ones ever fired in it that fit. Old Unique worked okay but was rather dirty and showed more velocity spread than I like. The new, "improved" Unique burned more cleanly but still had quite a bit of spread.

The next powder I tried was a home run. Hodgdon's TITEGROUP not only burned perfectly clean but also with fine uniformity. I could not resist trying the same tests as performed in the Walsh book. The first five shots, from 12 yards fired single action, made one hole. The shooter began to look at the group and let the sixth round open things to about .5 inch. Quite a contrast to the 3- to 4-inch patterns the best shots of the old days produced. Clearly the men must have been better shots than that, only their ammunition was faulty. Of course, they were delighted with the work.

At the time, revolvers were designed to stop two-legged varmints at close range. When the guns cycled perfectly and made groups smaller than the intended targets, they had proven themselves thoroughly capable. At 25 yards this grandfather of revolvers would hold about 1½ inches.

I am sure they had not dreamed of what I did next, to shoot a 6-inch group at 100 yards. The load was 3.9 grains of TITEGROUP, and the 270-grain bullet was lubed with SPG. Velocity was 662 fps with 18 fps extreme spread. This combination was not only extremely accurate, but also hit exactly to the sights at 25 yards. To call it perfect would be the best description.

Now to the Wilkinson .476. As mentioned earlier the throat/groove dimensions were wrong. Also the very long chamber left a lot of unsupported room in front of the case mouth, before the bullet reached the forcing cone. I did not expect great accuracy, but I was not prepared for many shots to miss the paper at 25 yards, especially with a bullet mould made to duplicate the dimensions of

the originals – a heeled one, with a .450-inch shank and a .470-inch shoulder. When this bullet did not work, I tried the NEI that worked so well in the S&W. The results were equally bad, except the pointy bullet clearly showed it had keyholed. In spite of the soft alloy, the bullets were not expanding after they passed through the throat. Could there be a cure? There was in fact only one hope: to accept the concept of a hollow base.

To work, the bullets had to expand twice, once on ignition, then again after they passed into the barrel. I did not have a hollowbased mould (one is available from NEI), so the cure was to attack existing bullets with my trusty lathe. Beyond availability, a hollow base bored into the bullets should actually be better than a cast one. Why? To cast a hollow base, the plug must be quite tapered, leaving the skirt thin at the bullet base and thickening quickly. To me this seems to guarantee non-uniform expansion and only reliable expansion at the very back of the bullet.

My plan was to bore the hollow base with a ¼-inch ball end mill. By drilling .300 inch deep, the mill created a perfectly centered, rounded hollow base with uniform side walls through the entire bearing surface. Now I really hate to admit they work, but there it was: 4.1 grains of TITEGROUP duplicated the black-powder velocity (629 fps) while making more or less one-hole groups. Like the originals, the bullets were dipped in lube and the hollow bases were filled with the same. If the gun was anything but a grand classic, I would immediately open the throats to match the bore. But, in the case of this fine original revolver, we will happily go to the hassle of using hollowbased bullets. Maybe I will even buy an NEI mould to fit.

At the end of the day, we see friendly, accurate cartridges that are surely obsolete. Today, if we wanted this quiet kind of performance, a .45 ACP or .45 Auto-Rim would be far more practical. There are, however, a reasonably large number of the vintage revolvers out there. Most are bargains because no one cares about the odd cartridges. What they lack in power, they make up for in finesse. Rest assured, nothing being made today can come close. ●