

The .30 Blake (rimless) Cartridge, and John Henry Blake's Rifles and Cartridges - by Pete deCoux, with the help of Messrs. W. H. Woodin, Frank Hackley, E. L. Scranton, Dan Shuey, Steve Summers, and William H. Dickey.

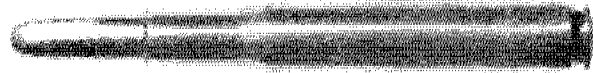
In trying to answer a query posted on the IAA's forum pages on the internet site about the so-called .30 Blake cartridge which is U.M.C.Co.'s variation of the .30 "headless" or "cannelured" shell, this information was gathered, and we thought it might generate some membership feedback.

The .30 "cannelured" cartridge was developed or experimented with by Winchester, U.M.C.Co., and the U.S. Government at Frankford Arsenal. The U.M.C. variation headstamped "U.M.C. .30 U.S.A.", is the one called the Blake, and is the most often found .30 cannellured or headless. Both the W.R.A.Co and the U.M.C. variations were manufactured by basically removing the rim and cutting an extractor groove in the .30-40 Krag-Jorgensen 1892-type cartridge (possibly, and probably with some other minor interior, and exterior changes), and both show typical Krag headstamps. Several variations to the bevel of the rim exist in the different W.R.A.Co. "generations". (See Dan Shuey's excellent book *W.R.A.Co.*, Vol. 1). And variations also exist in the U.M.C. shell.

Evidently some headless or cannellured ammunition was manufactured for the 1892 Magazine Board Trials by Frankford Arsenal (see the classic by Hackley, Woodin, and Scranton, *History of Modern US Military Small Arms Ammunition Revised* Vol. 1, page 71), "for the use of inventors who submitted weapons chambered for a rimless cartridge", as an unheadstamped, sectioned example does exist, and it is illustrated on the same page. And we note on page 122 in Vol. 4 of *The Pitman Notes on U.S. Martial Small Arms and Ammunition 1776 - 1933* a cannellured .30 Cal. titled "1892 Exp 2" next to two bullets which have the same bullet shape as illustrated in Hackley, who notes the original order was extended so that two 230-gr. bullets were called for, a "copper-jacketed cannellured", and a "German-silver-jacketed smooth bullet" (6,000 rounds of each). We should also note Hackley does not know whether this order was ever completed.

Why the Blake association, and name only to the U.M.C.Co. variation, seems to be a mystery as none of Blake's catalogs (we have access to four, the 1893/5, 1897, 1898 and 1903/10) show or describe a rimless .30 caliber cartridge, with the exception of the 1899 catalog. (See paragraph 1 below)

In the 1893/5 catalog he states in the 1893 (and the 1899, see Sharpe) portion titled *Principal Advantages Of The Blake Rifle* "The flanged base of shell is completely surrounded by the cup shaped end of bolt at the firing position etc., etc." And quoted in the 1893 Introduction portion of the 1893/5 catalog



.30 Blake (from Pete deCoux collection)

Blake submitted a rifle to the "recent Board on Magazine Arms, which reported May 20th, 1893, in favor of a foreign arm, the Krag-Jorgensen", however nothing is noted about the ammunition for which this Blake rifle was chambered, but only the "No. 38 Blake No. 1" rifle is illustrated in this catalog, and it used shells with a flanged base as stated above.

There were two rifles submitted by Blake for the 1892 Board of Officers Tests, No. 38 and No. 47. According to the official report about No. 47, "This gun is the same as the Blake No. 1 (No. 38 in list of guns before this board), which developing some defects on its first trial was withdrawn by the inventor for correction". The "No. 38 Blake No. 1" drawing as shown in the 1892 report was also used by Blake to illustrate his 1893/5 catalog.

In the May 26th, 1893 (mentioned in the 1893/5 catalog, and repeated in others as May 20th) test report Blake also submitted two guns, No. 8 and No. 14. About those the report notes, "No. 8 (Blake No. 1)", "not suited for service" for a number of reasons, and about No. 14 (Blake No. 2) "This was the only arm submitted after the first period assigned in the original order, and before May 1, 1893. The system being identical with the Blake No. 1, it is, for the reasons previously stated, considered unsuited to the military service". The test drawing showing the No. 8 (Blake No. 1) rifle is now somewhat modified, in that he has changed the two locking lugs by tapering their forward edge, however a flanged cartridge is still shown.

At both of the above mentioned trials Blake submitted two rifles. We know at least one used a flanged cartridge as a flanged shell is illustrated in the drawings, which are tied to both trials, and are duplicated in his catalogs. And as the trials report states, both rifles submitted are "In system it is identical" he could not submit two identical rifles so, *perhaps* one was chambered for the cannellured cartridge as made by Frankford Arsenal for the 1892 trials? Other rifles submitted were chambered for a cannellured cartridge, and mention of this is in the trials report, but it is not mentioned for any Blake rifle. And we can find no record of a .30 Cal. rimless mentioned in his catalogs until the 1899 advert. (See paragraph 1 below).

The 1893/5 catalog cover is dated 1893, but also has a page titled "January 1895" which is obviously the start to the back portion of the catalog. It shows a .30-40 Krag calling it the "30 Cal. Army Blake"* listing costs for "Tinned brass shells and primers" in both smokeless and black powders with the nickel-jacket bullet, and components. (We are unaware of a ".30 Blake" tinned case variation). The Blake M-1895 Rifle .30 (AKA .300) U.S. Army Blake is shown with 43 grns. of smokeless powder or 55 grns. black powder {another chart in the 1898 catalog lists smokeless powder in the 55-grn. load} All loads are with a 220-grn. bullet, with lead, full mantle, and half mantle bullets listed. (*Perhaps this nomenclature is where the Blake designation comes from? But again a flanged shell is called for).

In the 1893/5 and in the 1898 catalog he states his rifle was "ready for the market 1893 but ammunition was not available". Perhaps this quote is where the Blake name for this rimless cartridge comes from due to ignorance of the .30 cannellured development by an early cartridge or gun dealer who thought this might be the round for the earlier 1893 rifle? In the 1893/5 catalog the military rifle is shown, "Using the New Army Smokeless Powder Cartridge" and although stating "these cartridges are not available", "not" has been struck out by hand so as to read that they *are* available. So apparently between 1893 and 1895 cartridges or components became available either to Blake or to his public. And we are talking Krag here, are we not?

The 1898 catalog shows the .30-40 Krag cartridge illustrated in a 7-shot rotary "packet" (clip) which is somewhat similar to the Model 1903 Mannlicher-Schoenauer rifle's magazine, and is for his 8-shot (one in the chamber), bolt action rifle, which could be re-cocked without moving the bolt in case of misfire. This rotary "packet" or clip can be fed into the magazine "en bloc", "with one movement", dropped out when empty, and could be recharged many times. The bolt had double extractors, and four locking lugs. The rifles could be either 8-shot, multiple loader, or single shot, single loader using the "cut off", and are to be manufactured in carbine, sporting, and military rifle versions. This "packet" seems to be the cause of a goodly portion of the rifle failures during the trials.

Now we come to some other possible reasons for the Blake association.

- 1) The 1899 Blake catalog as shown in *The Rocky Mountain Bullet* has a page reproduced where Blake advertises "Also make our rifles in 30 Calibre for the **New American Army Rimless Shell Cartridge**, Having a cannellure in base for hook extractor instead of rim. Muzzle velocity 2200 f.s."
- 2) In Phil Sharpe's 1938 edition of *The Rifle In America* he

states "All of these Blake rifles were manufactured in various calibers to handle the .30/40 Krag, the .303 British, the 7 mm. Mauser, and the special experimental Army cartridge in the form of a *rimless Krag* which never appeared on the market to any extent".

- 3) Mr. W. H. Woodin has supplied us with an undated copy of a letter by Lt. Col. Calvin Goddard, from Phil Sharpe's notes, which we quote in full. "I wrote the Remington-U.M.C. Company about the .30 Rimless ctgs. of Krag type, and got no satisfaction from them whatsoever. But I did learn from Sedgley of Phila. that this cartridge was developed as a forerunner of the .30-'03 and .30-'06, and that the first .30-'03 rifles made were chambered for it. He has some of these now, barrels and actions, in the white, never assembled. (new para.) Evidently some of the Blakes, including the one that Boffin showed you, were chambered for this."
- 4) In Herschel Logan's classic book *Cartridges*, 1948, 1st edition, next to the Krag listing he states "A similar cartridge, only rimless was used in one model of the Blake rifle" and "The "rimless Krag" was an experimental army cartridge which never was produced to any extent commercially".
- 5) According to Mr. W. H. Woodin's 1984 ICCA article, Graham Burnside visited with Frank Wheeler (of the McDanel & Wheeler, dealers in collectable cartridges fame, and long time editor for the cartridge section of *The Gun Report*), and saw in his collection a "plain box with a printed label stuck on the side" labeled "20 .30 Cal. Cartridges For Blake Rifle". This box contained what is known as the .30 Blake. In looking through the McDanel & Wheeler catalogs available to us, the .30 Blake listings start in Catalog No. 13, which we deduce to be of early World War II vintage, ".30 Blake (Rimless Krag) UMC, smks 220 gr. FMJ - 1.50". The Blake listing continues in catalogs 14 through 17, where they are now "dirty" (same

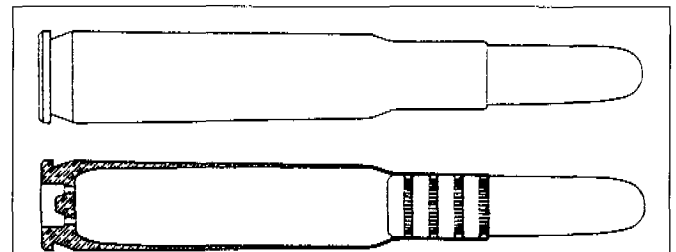


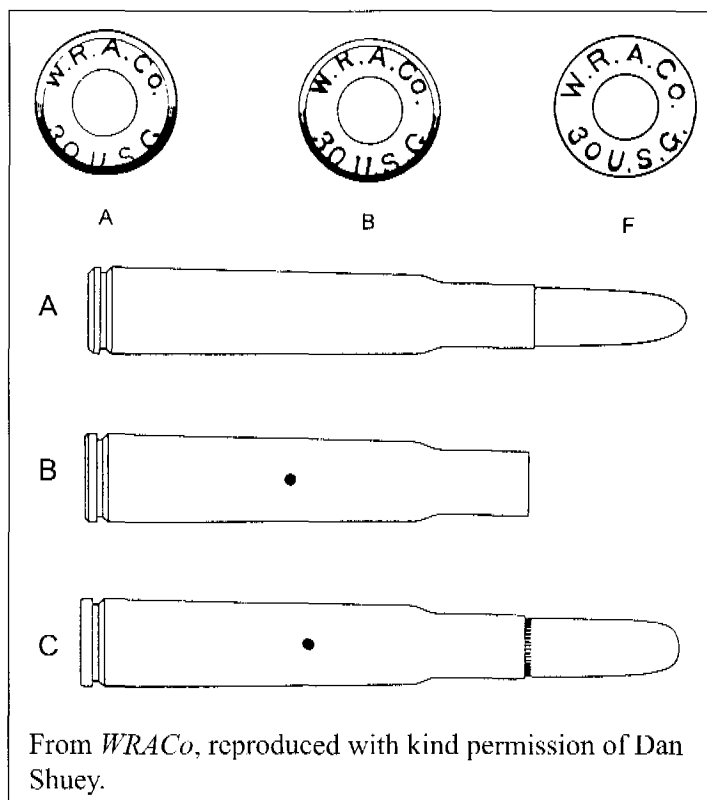
FIG. 89. Cal. .30 experimental ball, "headless shell," 1892 (sectioned specimen, no headstamp).

From *History of Modern U.S. Military Small Arms Ammunition*, Volume I Revised, with kind permission of the authors.

price), and while No. 18 has the .30 Light rifle listed (headstamped FA 51), it has no more .30 Blakes listed.

Now I would like to play devil's advocate with the above five paragraphs.

DA-1) About the 1899 catalog, this advertisement is too early for the .30-01 but is of the same time when Winchester was experimenting; however the W.R.A.Co. ".30 headless" is not associated with Blake (see Shuey). And while the U.M.C.Co. production ledger has an entry dated July of 1900 stating "30 Cal. J. H. Brown Made sample lot. Sent on order #38766. shell is headless, otherwise same principal as .30 Govt.". Perhaps the person who entered this meant Blake but wrote Brown? Or on the other hand, perhaps the "Blake" is a Brown? (Our understanding of this ledger is that it was compiled 'after the fact' as an in house project). This entry is dated one year after the 1899 catalog advert. In addition, this is the only period entry or manufacture noted for a U.M.C.Co.-made ".30 headless" shell we are aware of. So, what shell is Blake advertising??? It has also been suggested, and we can not discount the possibility that perhaps Blake obtained a quantity of .30-40 Krag components from U.M.C.Co, and turned down the rims, etc., to fit a Blake gun. However this is hardly a "New American Army Rimless Shell Cartridge". In studying the weights and dimensions provided below, it seems that these five examples would probably not meet U.M.C.Co's standards of quality, and lends cre-



dence to the thought that perhaps Blake (who was a good machinist), or someone else modified U.M.C.Co. components, creating this cartridge.

DA-2) In other writings from the 1938 edition, Phil Sharpe notes "Every Blake catalog was filled with numerous errors, both typographical and in contradictory statements", plus "Every catalog issued by Blake was filled with elaborate promises which may have contributed more or less to the failure of the firm", and "the firm heavily over-advertised with purely fictitious statements-many of them now ludicrous". This is the earliest writing about Blake we are aware of, and it *seems* Mr. Sharpe took Blake's catalogs with a grain of salt, but he did comment quite favorably on the rare (even then) rifle. Also in this edition Mr. Sharpe has quoted from the 1899 catalog so he surely was aware of the advert for the "New American Army Rimless Shell Cartridge" and *perhaps* inferred from this advert that the U.M.C. "*rimless Krag*" variation was for Blake's weapon, while he was quite probably also aware of other period cannellured cartridge development? Or did he know something now lost to us? Did he have a ".30 Blake" in his collection, and if so how did *he* label it? Was he aware of a Blake rifle so chambered? At the time of this edition he states he had only examined one Blake rifle. Apparently Blake went out of the gun business ca. 1910.

DA-3) Here we run into a big problem. Our understanding today is that the .30-01 was the rimless forerunner to the 03 and 06. Now we go to the book by Clark S. Campbell, *The '03 Springfield*, 1957, 1st edition by Fadco Publishing Co., where he states "The rimless type of cartridge case was considered; but it was decided that, for simplification of manufacture of both rifle and ammunition a rimmed case would be used. The case for which the first experimental rifle was chambered was identical to the Krag case except with a sharper shoulder (advanced about .056") and a .125" greater overall length. The bullet was the standard service bullet, which was a round-nosed, 220 gr., cal. .30 bullet with a crimping cannellure and a jacket of cupro-nickel clad steel.". Illustrated in a drawing titled "Rifle Submitted for Test - 1900" is a flanged cartridge which shows a rim undercut. And we should note that no example of this flanged, Springfield 1900 test cartridge is known to exist.

The push for this rimless cartridge development was that the 7 mm Mauser which was used by the Spanish, "were much superior to our own Krags in both rapidity of loading and in ballistics.". Perhaps this new rifle was the one mentioned in Blake's 1899 catalog advert, and looking ahead he assumed a "**New American Army Rimless Shell Cartridge**" was in the works? Following on, Mr.

Campbell states "Immediately following the approval of the report (18 Jan. 1901) work was begun to produce the rifles recommended. The cartridge was first redesigned to be rimless-"cannelured". It seems (see Chapt. VIII) that experimental work on the new cartridge in late 1900 and early 1901 had produced progressively larger rimmed cases, so that the "cannelured" case first proposed for the new rifle was not a rimless version of the 1900 case, but was almost exactly like that of the present .30-'06 etc., etc.". In Chapt. VIII, Campbell shows a flanged cartridge with a .540" rim, a .4617" head (Krag head is .454-8") and a 2.355" case, noting the measurements were taken from a chamber cast of the 1900 test rifle. And he notes the .30-01 service cartridge as the next generation rimless cartridge. So what do we make of Lt. Col. Goddard's letter? The Sedgley firm was *somewhat* mistaken in stating that the rimless Krag cartridge was "developed as a forerunner" of the .30-'03 and .30-'06., and we do not know exactly which rimless Krag type is in question; however there are good odds, that this letter concerns the U.M.C. variation. And evidently Blake did chamber (at least) one rifle for a .30 cannelured cartridge. But confusion exists as to exactly which cartridge the Boffin rifle might have been chambered for; the U.M.C. rimless Krag, or perhaps even the .30-01 Govt.? And the other question which arises is what unassembled barrels and actions did Sedgley have: Blake's, .30-01's, or *perhaps* even some 1892 Trials?

DA-4) "The Colonel", Mr. Logan's book is after the .30 Blake appeared on the collector market, so perhaps he got his

information from either Frank Wheeler, Phil Sharpe or the 1899 Blake catalog? Unfortunately we'll never know. DA-5) Last, Mr. Woodin's article. Mr. Burnside's look at the box was in the past, at the time he talked to Mr. Woodin, and he was not too specific about details. Due to the fact that this cartridge was listed by McDanel & Wheeler for such a long period of time (perhaps 10 years?), we wonder if there was a larger supply available than the 20 in the box, and as it is a somewhat common cartridge found in a lot of collections, surely there was more than that one box. Now, has anyone seen another box, or know what happened to it when the Wheeler collection was auctioned? Show and tell time readers!

The other caliber available in Blake's M-1895 rifle was the 6mm (AKA .236) U.S. Navy with 36 grms. of smokeless powder giving a velocity of 2,500 FPS or 55 grms. of *black* powder giving 1,500 FPS velocity (1897 catalog), both with a 135-grn. "full mantle bullet". And illustrated in the 1893/5 catalog is the .236 U.S. Navy Rimmed cartridge (illustrated using a W.R.A.Co. cut while a U.M.C.Co. cut is used for the .30-40 Krag shown on the opposite page). While Phil Sharpe notes a listing in the 1899 catalog for the *rimless* Lee Navy, he also notes the catalog comment "We have so little demand for this rifle that we do not care to furnish it now".

Also listed in the 1898 catalog (we also note a photograph of the *rimless* .236 Lee Navy), is the .400 Blake (AKA .40) with 40 or 45 grms. of smokeless powder and a 330-grn. "metal jacket bullet" or with 75 to 80 grms. of black powder. The 1903/10 catalog quotes a .40 Blake rifle test conducted by DuPont with "W.R.A. shells", using a 300-grn. soft-point bullet

Different "Blakes"	Powder Weight	Rim Thickness	Total Weight	Bullet Weight
#1	31.6 ^^	0.056"	421.5	220 grms
#2	29.5 ^^	0.059"	412.9	220 grms
#3	bullet not pulled	0.054"	425.0	-
#4	bullet not pulled	0.056"	418.3	-
#5	bullet not pulled	0.068"	419.3	-

^^ gray, large square flake powder.

Different "Calibers"	Rim	Head	Neck	Bullet	Case Length	O/A Length
.30 Blake (#4) *	.458"	.454"	.331"	.306"	2.318"	3.083"
"U.M.C. .30 U.S.A." Krag *	.534"	.454"	.332"	.306"	2.315"	3.082"
Unheadstamped Krag **	.540"	.458"	.332"	.306"	2.297"	3.104"
FA 1892 Trials ***	.460"	.458"	.334"	.309"	2.317"	3.110"

* Collection

** Collection with tinned case and primer, copper-jacketed bullet, and "U.S. Cal 30 Wettern Powder Apr 4 1893" written on side

*** From the E.L. Scranton drawing found on page 71, HWS Vol1 (Revised)

charged with both 50 and 52 grms. of powder. Also noted was that this test rifle was proofed with 60 grns. of DuPont 30 Cal. powder, and that "the pockets at the base of shells was not reinforced for smokeless powder". The .40-72 shell is used as the basis for the .40 Blake cartridge, although a .405 W.C.F. shell with a cut-down rim has also been associated with this caliber.

The 1903/10 copy of the No. 5-titled catalog has a price list dated 1910 in the front, and a rubber stamp a few pages on, "Copyright 1903 by John Henry Blake". This catalog has a single photograph of the .303 British, the .400 Blake (a FLANGED cartridge), the .276 Mauser (rimless) cartridge, the .30 American Army cartridge (rimmed, 220-grm. bullet) and their respective bullets plus the note: "Krag shell is flanged. New shell has canvalure."(sic) This shell is the .30-03 U.S. Govt.

OK, so Blake chambered a rifle, or *perhaps* even several for a .30 cannellured shell at one time or another. We still can not make a U.M.C.Co. factory connection, although Mr. Sharpe *may* have known of such. And Graham Burnside saw in the past, a box labeled for the .30 Blake. So perhaps Blake did modify them, and put them up in plain "labeled" boxes? And this would also be something U.M.C.Co. *might* also do for a very limited run. (But again, a timely contract is unknown to us). The only documented connection we can find is (to our mind), the very weak link to a single box, which when recalled from the past, Mr. Burnside could not remember details about the label itself, only what it said.

You say you *still* don't know *for sure*, where, why or how the .30 Blake designation came about, or even *if* it is for a Blake rifle? Join the crowd! And in conclusion, there is evidently some connection between Blake, and a rimless Krag-type cartridge, but at this time we can not complete the circle, until someone comes up with either a box, or Mr. Boffin's Blake rifle, will we have conclusive proof.

A time summary.

The Winchester Headless was ca. 1895 to 1899 (see Shuey page 154). The U.M.C.Co., .30 Cal J. H. Brown entry is dated July of 1900 (U.M.C.Co. Production Ledger). In the cannellured Cal. .30 U. S. cartridge development; first was the 1892 Trials, while at the same time, a special order of 1000 cases made for M. H. Durst, (which basically differed from the Trials cartridge in extractor groove shape). In 1893 a note on the Drawing FC-249, *indicates* a rimless case with a Boxer-type primer pocket was made. Then the .30-01 (see Hackley, Chapters 7, and 8).

More about Blake Rifles in the July 1990 article by Konrad F. Schreier, Jr. on page 28 of *The Gun Report*, in the Jan.-Feb. 1991 article by Howard Hoovestol, on page 1 of *The Rocky Mountain Bullet*, by Mr. W. H. Woodin, in Issue 320 of the *International Cartridge Collector* on page 25, and on pages 106 to 112, in the 1938, 1st edition of Phil Sharpe's *The Rifle In America*.

Seminar at SLICS '04

This year at the St. Louis International Cartridge Show (SLICS) there will be an evening of seminar talks. The seminar will start following the close of the show (8pm) on Thursday, April 8th.

Six speakers over a period of approximately 2 hours will speak on a variety of topics.

Stay tuned for a list of speakers and topics.

The seminar is being organized by the Research Committee of the IAA with the support of SLICS. We look forward to seeing you there.

If you have any questions about the seminar or the Research Committee, please contact :

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