

# Remington Conversions

by Paul Berg

The transition period from muzzle loading to breech loading guns is an exciting one to study. During this period man's inventiveness was at a high pitch so numerous variations resulted. These variations deserve special attention by the serious gun collector.

We know that Major Ferguson used his ingenuity during our Revolutionary War period to seek a breech loading solution to the flint lock rifle. He was sufficiently successful to have England produce a small number of these arms of his design. Then in 1812 Forsythe found a chemical source of ignition which established a completely new path to breech loading.

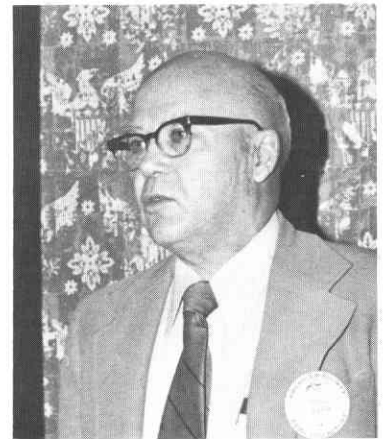
The rim fire cartridge came on the scene when Smith and Wesson made their contribution in the 1850s of a cartridge that was a complete package. Muzzle loading was destined to be pushed into complete obsolescence. Yet, there was still some 20 years of experimentation before basic patterns of cartridge design were to emerge. Also the masses, geared in their thinking to loose ammunition were not quick to place their faith in this new concept that often misfired.

The muzzle loaded guns were not to be immediately discarded when cartridges became available as they represented proven, useful firearms and these revolvers were soon to appear in modified forms that accepted the cartridge. Colt tried in 1868 to modify their revolver for the Thuer cartridge and then when the cylinder could be bored through, in 1861 produced the Richards conversion and in 1872 the Mason conversion. These were modifications of their open frame.

This brings us to the start of my story, how Remington was able to modify their closed frame revolver into a form of breech loading that was to be so successful that it was offered by them up to 1885.

An early attempt to modify the Remington New Model Army appeared in 1868. In February of that year Remington and Smith & Wesson entered into a contract for Remington to alter this arm to incorporate a five shot 46 calibre rim fire cartridge cylinder. The cylinder was marked April 3, 1855 to respect the Rollin White patent date for boring the cylinder completely through. The contract included a six shot 44 calibre percussion cylinder. The modification was to meet Smith & Wesson's inspection. The work proceeded and the arms were delivered between September 1868 and April 1869. Out of a total of 4,624 produced 50 did not pass inspection.

The distribution of the ones meeting inspection



was as follows:

Retained as a model	1
Wexell & Degress	1
M. W. Robinson	31
J. W. Storrs, Smith & Wesson	
New York Agent	400
B. K. Kittredge & Co., Cincinnati, Ohio	4,141

An example of this revolver bearing the modification number 3,415 is shown in Fig. 1. In Fig. 2 the patent date on the cylinder is shown more clearly. The modification to the frame was made as shown in Fig. 3, the back of the frame being milled out and a "U" shaped recoil plate attached with a screw. The side of the frame was grooved so a cartridge could be inserted into the cylinder. The percussion cylinder was made so the ratchet projected to reach the pawl as shown in Fig. 4. The conversion serial number shows clearly in this view. The cartridge cylinder bearing no serial number is shown in Fig. 5. In order that the hammer could strike the rim of the cartridge a cut was milled in the back of the cylinder at each bore and between the bores a recess was made where the hammer could rest off the cartridge, similar to the percussion cylinder.

In Fig. 6 the conversion serial number appears on the bottom of the barrel immediately ahead of the rammer latch. This number was also placed on the frame under the left grip.

In Fig. 7 is shown three known variations of the modified New Model Army. The center revolver is the same as that just described. The top and bottom are center fired specimens, the top having an ejector attached and the bottom showing a frame without the groove for cartridge entrance to cylinder.

In Fig. 8 is shown specimens of the 46 calibre rim fire cartridge. Reading from left to right; Extra short with raised H. Short without head stamp, typical of CTM and USCCo. Short without head stamp, typical of UMC. Short with raised H, typical of WRACo. Short without head stamp, typical of Phoenix and American Metallic. Except, of course, for the extra short which has no explanation, these were all for the Remington New Model Army. The fact that this cartridge was offered by so many different manufacturers is an indication this modification to cartridge was put to use.

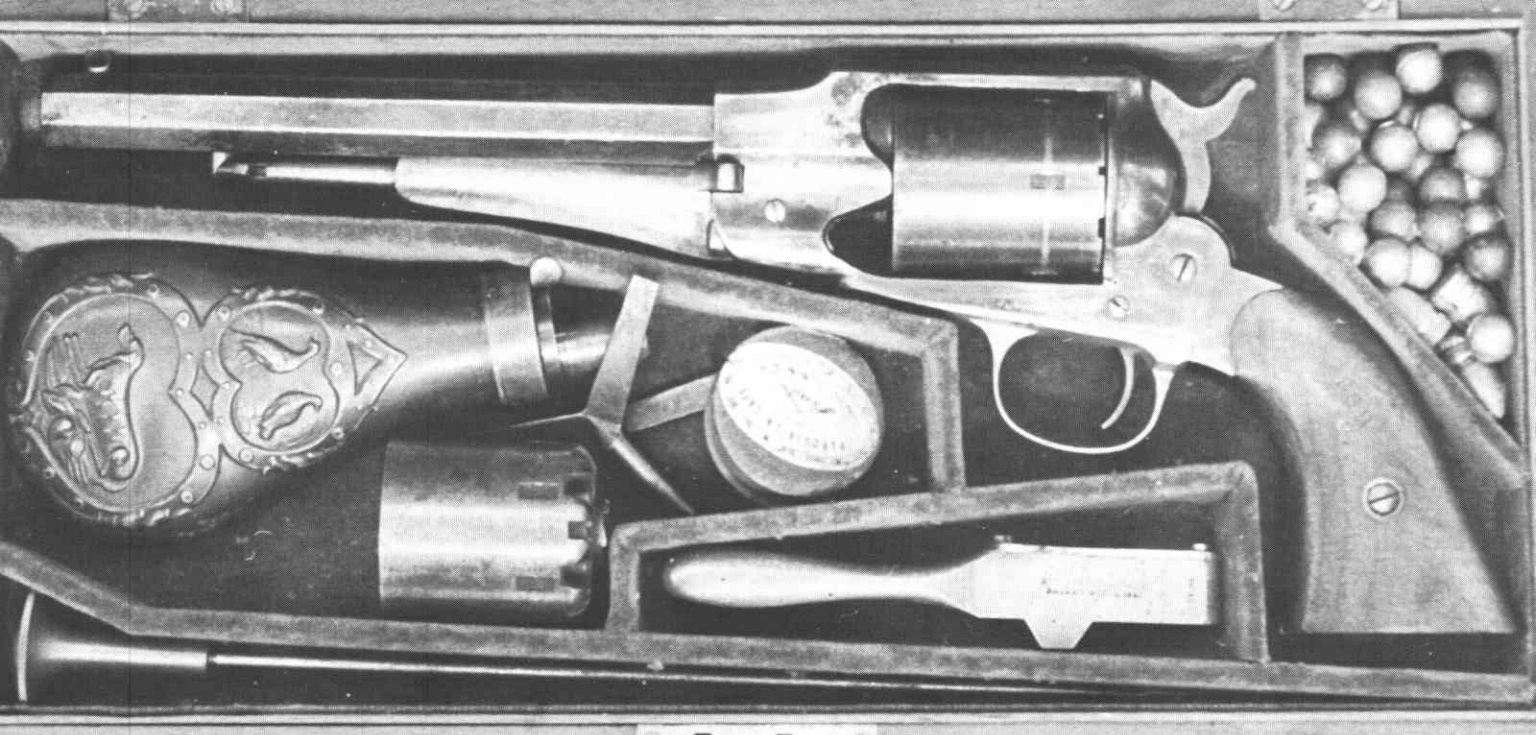


Figure 1  
Remington contract with Smith  
& Wesson for revolver conversion  
to cartridge in 1868

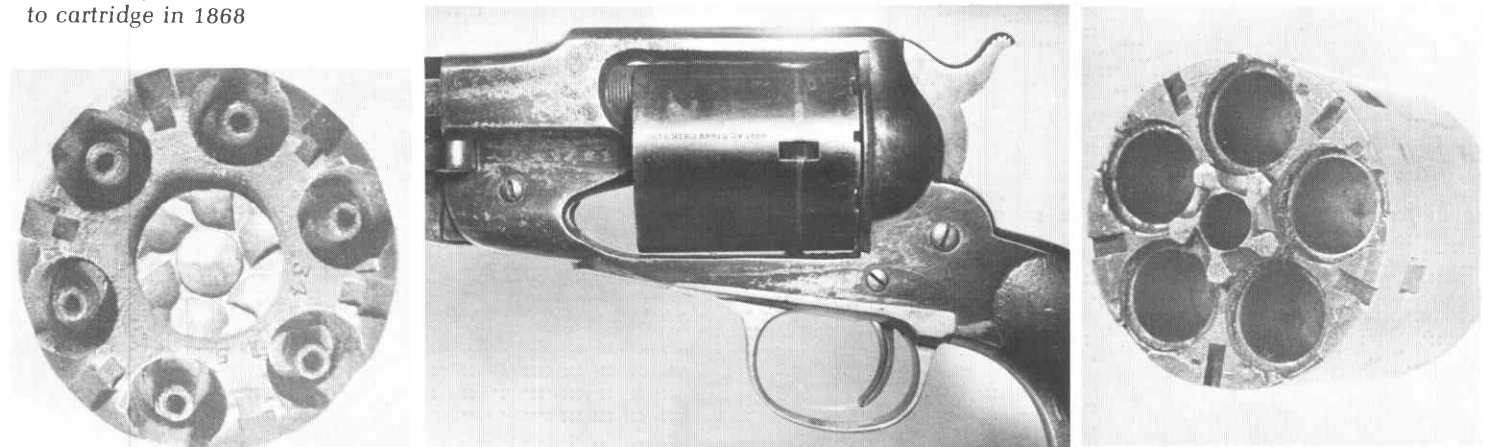


Figure 2-6  
Details of Figure 1

Another form of percussion modification to cartridge is shown in Fig. 9. These are New Model Navys, except for the fourth from the top which is a Beals Navy model. The top four have had the back of the frame milled off flush and a "U" shaped piece attached with a screw. This is better explained in Fig. 10 and 11. In Fig. 11 is shown the entire assembly. The four shown in Fig. 9 have the cartridge ejector added which is better explained in Fig. 12, the rammer having been milled out to retain the ejector handle when not in use. The bottom example in Fig. 9 has a loading gate similar to the 1875 model and here the ejector assembly is made with the ejector sleeve being a part of the cylinder pin and only removed by taking out the pin retaining screw. The top and bottom examples are rim fire as evident by the cut in the rear of the cylinder.

In Fig. 13 is shown four Belt Models, the top three being single action and the bottom double action. This type modification, the most common amongst



Figure 7  
Early conversion types  
with serial under barrel



Figure 8  
Specimens of the 46  
caliber RF cartridge

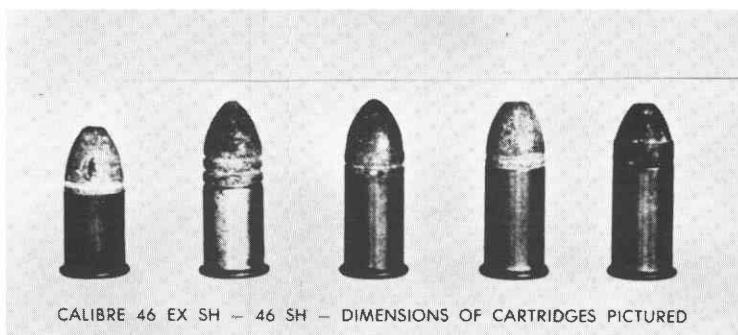


Figure 9  
New Model Navy  
variations





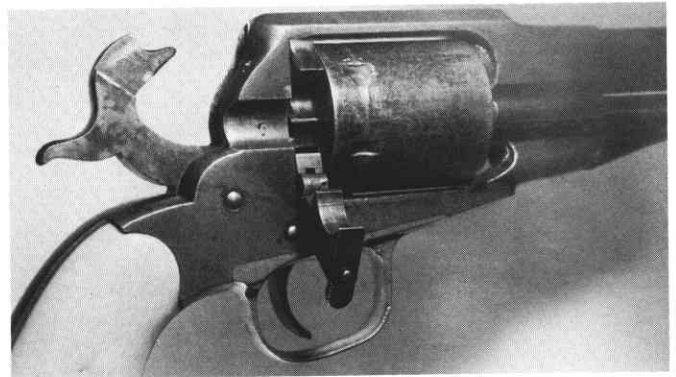
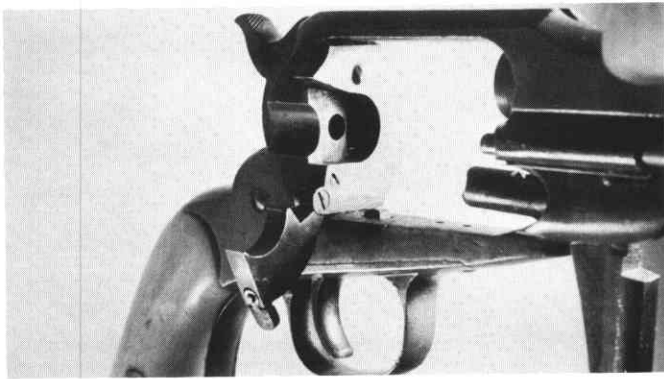
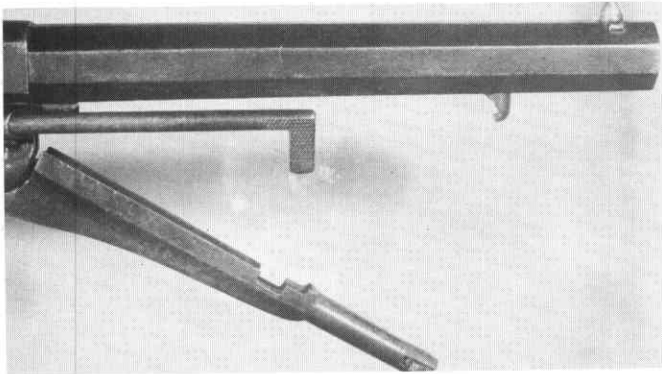


Figure 10, 11, 12  
Conversions to a New  
Model Navy Revolver



the Remingtons, was made by adding a plate to the back of the cartridge cylinder. This plate provided a face to mill in the ratchet and a recoil piece that retained the cartridge firmly in the recessed cylinder. In Fig. 14 is shown disassembled the double action Pocket Model with this modification. This revolver is commonly called the one with the mushroom percussion cylinder. Here the separate cylinder plate is grooved to receive the cylinder stop which previously had projected into the path of the mushroomed section.

A double action Belt Model is shown in Fig. 15 which was cased with both cylinders and where provisions were made for both loose ammunition and cartridges. A very few examples of this type casing exists.

In addition to the models described the Pocket Model with the spur trigger shown in Fig. 16 was modified with the plate back cartridge cylinder.

Two men with Remington, Fordyce Beals and Joseph Rider, are given credit for developing the modifications that converted the revolvers from percussion to cartridge. Some credit for the removable cylinder plate must go to Rupertus who mentioned the concept in a patent but made no claim for the idea.

Most of the modified Remingtons bear a second serial number which may be under the barrel immediately ahead of the rammer, on the inside of the trigger guard and on the left side of the frame under the grip. The modification to the cylinder by adding a plate bears a number that will not match the conversion number on the frame. This indicates there must have been a separate production phase to the cylinder modification from the rest of the revolver. Specimens have been noted where the modification number was placed immediately ahead of the original serial number.

In Fig. 17 and Fig. 18 is shown a different modification to the New Model Army by Dardick Corp., Hamden, Conn. The triangular cartridge shown in Fig. 19 called a tround was made in 20 mm and 30 mm. The cylinder as can be noted in Fig. 18 was



Figure 13  
Belt Model conversions  
with back plate additions

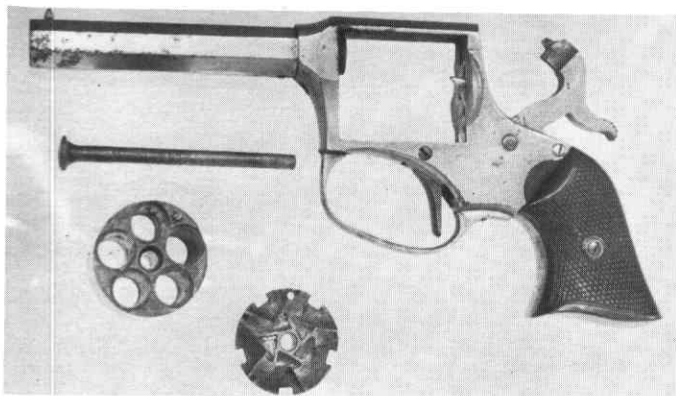


Figure 14  
Pocket Model

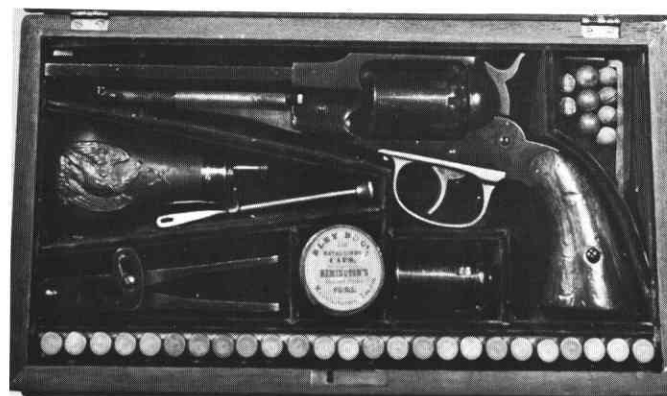


Figure 15  
Belt Model with  
both cylinders

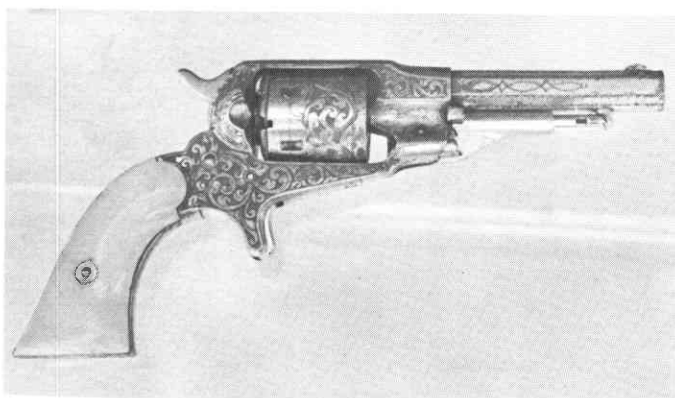


Figure 16  
Pocket Model



Figure 17  
Dardick conversions

Figure 18  
Modern Dardick conversion with Dardick pistol

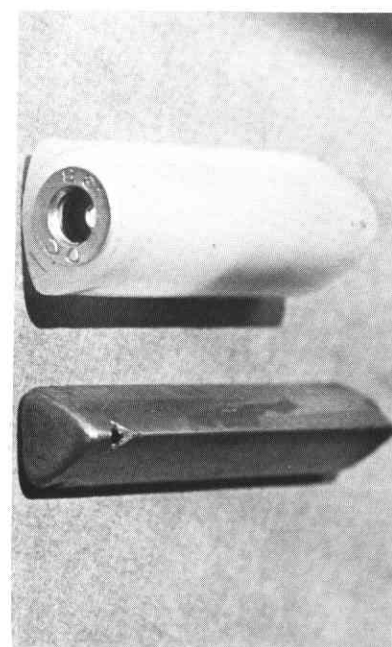


Figure 19  
Dardick 20mm and  
30mm cartridges

Vest Pocket Pistol.  
Using Metallic Cartridge No. 22.  
Price, \$1.25; Silver Plated, \$5.75.

Repeating Pistol.  
Using Metallic Cartridge No. 22.  
3 1/2 inch Barrel. Price, \$8.50;  
Silver Plated Frame, \$9.50; Full  
Plated, \$9.55.

Repeating Pistol.  
Using Metallic Cartridge No. 22.  
2 1/2 inch Barrel. Price, \$8.50;  
Silver Plated Frame, \$9.25;  
Full Plated, \$10.

SINGLE-BARREL.  
Breech-Loading Pistol.  
Using Metallic Cartridge No. 41. 2 1/2 inch Barrel; weight, 7 oz.; Per  
Pat. Bus. \$7; Plated Frame, \$8.

Single Barrel Pistol.  
New Patterns.

With Swinging Breech, using Cartridge Size No. 41. Price,  
\$8.75; Silver Plated Frame, \$13.50.

DOUBLE ACTION-  
Self-Cocking Revolver.  
POCKET SIZE

2 inch Barrel; carrying 100 Round Balls to the  
pound. Ev. \$8.75. Price, \$7.00; Silver  
Plated Frame, \$7.75.

REVOLVING BREECH RIFLE.

8 1/2 shot; 24, 26, and 28 inch steel barrel; caliber, 20.100 inch; carries  
44 elongated or 70 round balls to the pound. Also, 44.100 inch bore, car-  
ries 39 elongated or 48 round balls to the pound. Weight, 6 lbs. Price,  
\$25, \$26, \$27; with plated mountings, adjustable sights, and extra finished  
stock, extra, \$5.

ARMY AND NAVY REVOLVER.

Six Chamber Cylinder. Army Size, 8 inch Barrel; Caliber, 44.100ths of an inch; carrying 33 Elongated, or 48 Round Balls to the  
pound. Price, \$12.50; Silver Plated Frame, \$14.50.  
Navy Size, 7 1/2 inch Barrel; Caliber, 36.100ths of an inch; carrying 50 Elongated, or 86 Round Balls to the pound. Price, \$11.50;  
Silver Plated Frame, \$13.25.

SINGLE SHOT, BREECH-LOADING  
ARMY AND NAVY PISTOL.

New Model. Pattern adapted for the U. S. Navy. Caliber, one size of one, 50.100ths of an inch, using Metallic Cartridge 8 inch  
Barrel. Weight, 2 lbs. Price, \$12.

BELT REVOLVER.

Double Action, or Self-Cocking. Also Single Action, same size.

Six Chamber Cylinder 4 inch Barrel; Caliber, 36.100ths of an inch; Carrying 50 Elongated, or 86 Round Balls to the  
pound. Price, Double Action, \$11; Silver Plated Frame, \$12.50. Single Action, \$11; Silver Plated Frame, \$12.50.  
With cylinder using metallic cartridge, \$11.50.

POLICE REVOLVER.

Five Chamber Cylinder; Caliber, 26.100ths of an inch; carrying 50 Elongated,  
or 86 Round Balls to the pound. Belt Size, 4 1/2 inch Barrel; price, \$9.50;  
silver-plated frame, \$10.75. Pocket or Belt Size, 5 1/2 inch Barrel; price, \$9.25;  
plated frame, \$10.50. Pocket size, 4 1/2 inch Barrel, price, \$9; silver-plated  
frame, \$10.25. With cylinder using metallic cartridge, \$10, \$10.50, and \$11.

NEW POCKET REVOLVER.

Five Chamber Cylinder; 3 1/2 and 4 1/2 inch Barrels. Caliber, 31.100  
inch; carry 92 elongated or 140 round balls to the pound. Price,  
2 1/2 inch, \$8.25; silver-plated frame, \$9.25. 4 1/2 inch, \$8.50; silver-  
plated frame, \$9.50. With cylinder using metallic cartridge, \$9.50,  
\$10.50.

BREECH-LOADING RIFLE. Beal's Pat.

One Shot. 24, 26 and 28 inch Barrel; using Metallic Cartridge No. 32 &  
35; weight 4 1/2 lbs. Price, 24 inch, \$25.00—26 inch, \$24.00—28 inch, \$25.  
With plated mountings, \$2 extra.

RIFLE CANE 2 Sizes, using Met. Cts. No. 22, 32. Price \$10.

REMINGTON'S SPORTING RIFLE - Breech-Loading

Using Metallic Cartridge No. 28 and 46. Caliber, 20.100 and  
44.100 of an inch; weight, from 9 to 14 lbs. Price, 20 inch steel bar-  
rel, \$30.00—22 inch, \$28.00—24 inch, \$40.00

In these days of House breaking and Robbery, every Dwelling, Store, Office and Bank should have one of the Remington Fire Arms.

Figure 20  
Remington broadside

actually two pieces, one a sleeve attached to the frame that does not move and the second inner piece shaped to receive the tround, revolves from a back recoil plate. The second pistol shown in Fig. 18 was called Model 1500 and was specifically made by Dardick for this cartridge.  
In order to understand the timing and method of approach by Remington to the market with their

modification to handle cartridges, some knowledge can be obtained from broadsides and catalogs.  
An early broadside distributed by Remington shown in Fig. 20, includes illustrations of revolvers with percussion cylinders as well as some cartridge guns. Under the percussion illustrations prices were given for the added cartridge cylinder as follows:









conversions are discussed is whether the company was long on percussion revolvers and was anxious to dispose of them by modifying them for cartridge. This could be true. By the middle 1870s Remington was offering cartridge revolvers so they obviously were not making percussion revolvers any longer. But it would be reasonable to conclude that there was a firm demand for guns that were interchangeable and with parts on hand they continued to supply the conversions even though this was in competition with their new cartridge models.

A second question is whether percussion revolvers were returned to Remington for modification to cartridge. This could be true. Remington was known to fulfill unusual requests. In most cases the Remington models which used the back plate on the cylinder it was only necessary to order this cylinder and have a gunsmith alter the hammer. The exceptions were the police and pocket models which required frame modifications to take the conversion cylinder.

A third question is whether the cartridge cylinder was a percussion cylinder with the back turned off in a lathe. After examining a number of percussion cylinders the conclusion is, there is not enough space between the cylinder stop and the nipple recess to make this modification. I believe Remington made the cartridge cylinder from new stock.

The title of this discourse is 'Remington Conversions'. The word 'conversion' is the popular term but it is interesting to contemplate what would be the proper word to describe the Remington modifications. According to Webster's Dictionary the word 'conversion' is used to indicate an irreversible modification. The conversion from flint lock to percussion was an irreversible one. Colt's

conversion from percussion to cartridge was not directed toward being reversible. In Remington's case the modification was primarily in the cylinder and they really produced a 'convertible' rather than a 'conversion'.

To carry the choice of word further, in the case of the 1875 Model there is an extremely close resemblance to the New Model Army, see Fig. 31. The lines of the two models are very similar and the operating parts are identical. The modification to the New Model Army for cartridge was then actually a 'transition' to the 1875 Model.

Remington had a successful firearm in the New Model Army but made no improvements when they went to the 1875 Model. This turned out to be a mistake as the U.S. Army trials showed that Colt's copy of the Remington closed frame had made their firearm superior. Remington's future was not to be in cartridge revolvers but in the rolling block rifle.

In conclusion we can see from the records that Remington made a very worthwhile contribution to the transition from muzzle loading to breechloading pistols. They were the only company who continued to offer a 'convertible' revolver through the entire transition period. Their progressiveness is evident by their very early 1868 modification to the New Model Army while the Rollin White patent was still in effect.

As collector pieces all conversions are rarer than the original percussion models and since the number of Remington percussion revolvers were not numerous when compared to other makes this places their conversion in the scarce classification. The fact that the conversions appear with beautiful engraving and with ivory or pearl grips indicates they were prized by their original owners and they are certainly prized by the collectors in this condition.

Figure 31  
New Model Army and 1875 Model

