## **THUNDER & LIGHTNING:**

### COLT M1877 DOUBLE ACTION REVOLVERS, THE LIGHTNING, THUNDERER AND RAINMAKER

By Marc Gorelick and Tim Prince



Top - Colt Model 1877 "Thunderer" .41 caliber, serial number 106123 with 4 ½" barrel. Bottom - Colt Model 1877 "Lightning" .38 caliber, serial number 65725 "Sheriffs Model" 3 ½" barrel. Photos Tim Prince, College Hill Arsenal

In 1877 Colt released their first entry into the double action revolver market. While they had a commanding lead over their competition when it came to single action handguns with their "Model P", better known as the US Model 1873 Single Action Army, they had fallen behind some of the competition in their failure to manufacture a double action revolver. Samuel Colt had considered and experimented with double action revolvers as early as the 1840s, but decided not to pursue the idea. In the meantime, Remington had been in the double action cartridge revolver market for over a decade by 1877 and had manufactured double

action percussion revolvers prior to that. Starr had manufactured a double action revolver as early as 1858. Smith & Wesson, which was Colt's major competition in the handgun market at that time had yet to introduce a double action handgun and would not do so until 1880.

Numerous European firearms manufacturers had been making double action revolvers for years, many of which had been adopted by various militaries. These included the Adams (introduced 1851), Beaumont-Adams (introduced in England in 1855), Nagant, Lefaucheux-Francotte, Chamelot-Delvigne, Galand, Tranter (introduced in 1853) and Webley (which had been imported into the United States since the Confederacy had imported Webley Wedge Frame revolvers during the Civil War). However, despite Samuel Colt's entrepreneurial spirit, the company that he established was basically conservative, never moving too quickly with innovations until they were proven money-makers. The powers that be at Colt saw that Webley "self-cockers" were being imported into the US, and that they might eat at Colt's dominant market share. They may also have considered that the popularity of the double action mechanism in Great Britain might help Colt develop additional inroads in that market, especially after receiving encouragement from their London Agent, Baron Frederick von Oppen.



Colt Model 1877 "Thunderer" .41 caliber, serial number 106123 produced in 1897. Blued barrel and cylinder and color case hardened frame. Mother of Pearl grips, 4 ½" barrel and rod ejector. Photo Tim Prince. College Hill Arsenal.

The Model 1877 was not the modern double action, swing out cylinder handgun that comes to mind when one thinks of double action revolvers today. Instead, the 1877 was essentially a scaled down Single Action Army with a fixed six-shot fluted cylinder retained by a conventional arbor pin that was still loaded and unloaded through a gate in the right side of the frame, and which introduced a compact and somewhat elegant "bird's head" grip that was both comfortable and made the guns easier to conceal in a pocket. The bird's head grip had a shoulder on the top to allow for the double action mechanism. The primary differences from the larger Single Action Army were the double action mechanism, the placement of the locking notches for the cylinder on the rear face of the cylinder like the New Line series of handguns and the lower power cartridges the guns were chambered for. Colt no doubt felt that the Model 1877's resemblance to the tried and true Model 1873 single action was an attempt to capitalize on the popularity of the 1873 – it would reassure potential buyers and help sales.





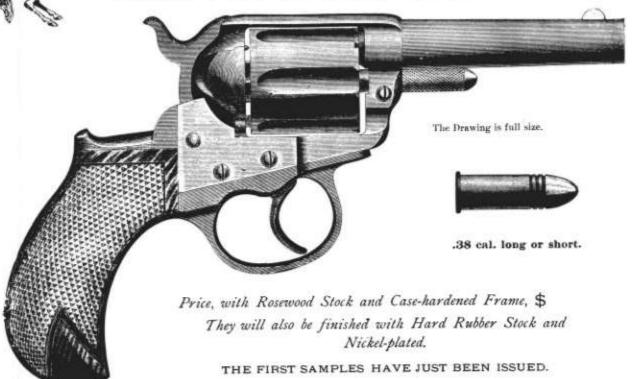
Above - Colt Model 1877 "Thunderer" .41 caliber, serial number 106123 produced in 1897. Blued barrel and cylinder and color case hardened frame. Mother of Pearl grips, 4 ½" barrel and rod ejector. To the left is a Colt Model 1873 Single Action Army Artillery Model. Note that the Model 1877 retains much of the style and design features of the Model 1873. Photos Tom Prince, College Hill Arsenal.

The Model 1877 was developed by William Mason, Colt Factory Superintendent who had previously worked for Remington and in 1882 left Colt to work for Winchester. Mason had participated in the development of the Model 1873 Single Action Army and was responsible for a number of important patents in double action design. He was described as a brilliant engineer, "of singular fertility in invention and almost unerring in mechanical judgement" with about 125 patents granted to him during his life, most having to do with firearms.

The gun was introduced to the public on January 6, 1877. The initial production calibers for the revolvers were first the .38 Colt in January and the .41 Colt around August, with both cartridges available in "long" and "short" variants, and with .32 Colt added to the product line in 1888. This last caliber was dropped circa 1900, with only an estimated 214 – 247 of the .32 caliber guns being produced during that time frame. The guns are known today by their nicknames which were introduced by one of Colt's largest distributors, Benjamin Kittredge of Cincinnati, Ohio. In period advertising, Kittredge referred to the .38 caliber variant as the "Lightning" and the .41 caliber version as the "Thunderer." The .32 caliber version received the moniker "Rainmaker" and is the rarest of the Model 1877s. Kittredge said that he named the .38 caliber pistol "Lightning" because it could "shoot six thunderbolts in two seconds." Apparently, Colt rarely if ever used the terms Lightning and Thunderer and usually called the revolvers "New, Double Action, Self Cocking, Central Fire, Six Shot Revolver" in its advertising. When .38 caliber Lightnings were shipped to England, their caliber was designated .380. It appears that, Colt never shipped the .41 caliber Thunderer to London.

## COLT'S

New, Double Action, Self Cocking, Central Fire, Six Shot Revolver.



This pistol has the double hand or pawl, which makes the revolution more free, and adds to the endurance of the arm. It is the only self-cocking pistol which has this advantage. It exceeds in accuracy and penetration any pistol of its class. The materials and workmanship cannot be surpassed, and its manipulation is easier than that of any other self-cocking pistol.

The pistol should be carried with the hammer resting in the safety-notch.

TERMS CASH.

ALL COMMUNICATIONS MUST BE ADDRESSED TO

Colt's Patent Fire-Arms Manufacturing Company,

JANUARY, 1877.

Colt advertisement, dated January 1877, announcing the introduction of Colt's new double action, self-cocking, center fire revolver in .38 caliber. Note that there is no mention of the name "Lightning." Public Domain.



Like most Colt handguns of the period there were two standard finishes, blued barrels and cylinders with color casehardened frames, and full nickel finish. In both cases the screws and small parts were typically fire blued and the hammers were polished bright on the sides with the top and spur fire blued as well. (See photo on left showing blued screws and hammer of nickel plated Colt Lightning.) The Model 1877 was introduced with one-piece checkered Brazilian rosewood grips. Early production guns had checkered two-piece rosewood grips. These rosewood grips, including the checkering, were hand-made which was slow and expensive, especially in a mass production era. After a search for grips that were cheaper and easier to produce, Colt introduced one piece hard rubber grips around serial number revolver 700 in May 1877 and used them through serial number 3500. In August 1877 Colt introduced two piece hard rubber checkered grips around gun serial number 2300

and by about 1880 two piece checkered hard rubber grips were standard. The two piece grips were easier to fit and assemble. Colt did not make the rubber grips itself but purchased them from rubber manufacturing companies.

Like any Colt handgun of the period, special order finishes and grips were available at extra cost, with ivory and mother of pearl being the most popular grip upgrades and finish upgrades being limited only by the buyer's imagination and budget. Engraving as well as grip carvings were also available upgrades. Although many engraved specimens were done at the factory in the shop of Cuno A. Helfricht who became Colt Master Engraver in 1871, quite a few were decorated by freelance master engravers like Louis D. Nimschke. According to a May 1877 Kittredge advertisement, the Lightning was initially sold to the public for \$18. Ivory grips were \$4.50 extra and pearl grips \$6.50 extra. By September 1877 Kittredge's prices for Lightnings and Thunderers were still \$18, but ivory grips were now \$3.00 extra and nickel finishes were .60 cents extra.



Colt Model 1877 "Thunderer" caliber serial number 54385. Factory engraved and fit with pearl grips with carved Mexican Eagle motif. Five inch long barrel. Shipped to the firm of Waxell & Degress in Mexico, Mexico in 1885. Original factory nickel finish with gold wash still on cylinder and ejector housing. Floral pattern engraving with a punch dot background. Photo courtesy of Morphy Auctions.

Numerous barrel lengths were available as well. The standard lengths ran from 1 ½" to as long as 10", typically in ½" or sometimes 1" increments. Guns with barrels shorter than 4 ½" were produced without an ejector mechanism (like the model 1873), although some of the guns with longer barrels were special ordered without ejectors as well. Most early .38 caliber Lightnings with 3 ½" barrels did not have ejector rods. Rather those revolvers without ejector rod mechanisms used the knurled cylinder pin as a removable ejector. Some of the rarest barrel lengths are 1 ½", 2" and 6" without the ejector rod and any barrel length

of 7" or longer. The guns were typically marked with a two-line address on the top of the barrel regardless of their length which reads:

#### COLT'S PT.F.A. MFG. Co HARTFORD. CT. U.S.A

Caliber markings were applied to the left side of the barrels of most guns from about 1880 onward. For the first few years these markings were acid etched, but by the latter part of the 1880s or early 1890s the markings were being applied with a roll die. Those guns not marked on the barrel were normally marked with the caliber on the left side triggerguard web. Early guns had a small half-moon German silver front sight. Some later ones had single-action type steel front sight blades. Also, early guns did not have a mainspring tension adjustment screw on the inside strap of the grip.



Top - Colt Model 1877 "Lightning" .38 caliber, serial number 65725. Note the acid etched caliber marking on the left side of the barrel. Below it is a Colt Model 1877 "Thunderer" .41 caliber, serial number 84465. Note the roll marked caliber marking on the left side of the barrel. Also note the three-line patent date stamp and the Rampant Colt stamp. Photos Tim Prince, College Hill Arsenal.

The left side of the frame was marked with a three-date in three-line patent mark and a Rampant Colt in a circle logo. The patent mark reads:

PAT. SEPT. 19, 1871 " 15, 1874 " JAN. 19, 1875

The guns were very successful for Colt, and during their 33-year production run from 1877 to 1909 some 166,849 were manufactured. The Model 1877 also provided the springboard for the launch of the larger framed Model 1878 "Frontier" the following year. Unfortunately, the 1878 was not nearly as successful as the Model 1877 with only about 51,210 being produced during its production run (including 4,600 M1902 "Alaskan" models intended for service in the Philippines), despite being offered in some of the most popular handgun calibers of the period like .44-40, .38-40 and .45 Colt. In fact, Colt stopped producing the Model 1878 in 1907, two years before the company ended production of the Model 1877.



Top of Colt Model 1977 Lightning showing two line Colt address. Photo Tim Prince College Hill Arsenal.

The Model 1877 Lightnings and Thunderers became popular with western lawmen, outlaws, express companies, gamblers and other members of the "sporting" crowd, and by those who felt no need for the large frame stopping power of the .45 and wanted something more easily carried or concealed. It was also popular with eastern police and, according to Colt literature, became the official "constabulary revolver" of the Chicago Police Department in 1892. (No Chicago police record of this has been found.)



Some of the western frontier luminaries known to have owned or carried Colt 1877 revolvers include the infamous "Billy the Kid", who was reported to have carried Thunderers and was supposedly carrying a Lightning the night he was killed by Pat Garrett. John Wesley Hardin was documented to have used both Lightnings and Thunderers but was known to prefer a Thunderer. He had a five inch, engraved, nickel plated, pearl handle .41 Thunderer with an ejector rod and a 2 ½ inch, pearl handle ejectorless .38 Lightning. The Lightning and an Elgin watch had been presented to Hardin in appreciation for his legal efforts on behalf of Jim Miller at Miller's trial for the killing of ex-sheriff George "Bud" Frazer. The Lightning is nickel-plated, with blued hammer, trigger, and screws. It features mother-of-pearl grips, and the back-strap is hand-engraved "J.B.M. TO J.W.H." Hardin was carrying the Lightning the night he was shot and killed by El Paso Constable John Seman, Sr. in the Acme Saloon on August 19, 1895. Selman himself was killed in a shootout with US Marshal George Scarborough on April 6, 1896, during an argument following a card game

John Wesley Hardin. Photo Public Domain

It was reported by witnesses to the famous gun battle at the OK Corral in Tombstone, Arizona that John "Doc" Holliday used a nickel plated .38 caliber Colt Lightning during that fight. Legendary lawman Robert "Bob" Paul is supposed to have owned and used Colt Model 1877s. The artist Frederic Remington also owned a Thunderer that he purchased in March of 1895. Legendary US Deputy Marshal Henry Andrew "Heck" Thomas reportedly carried a Colt Model 1877 Lightning on occasion. The female outlaw Pearl Hart, who on May 30, 1899 committed one of the last recorded stagecoach robberies in the United States, supposedly used a .38 caliber Colt Model 1877 Lightning. One of Belle Starr's favorite guns was reportedly a Colt .38 caliber and an 1877 studio portrait shows her holding what appears to be a Model 1877.





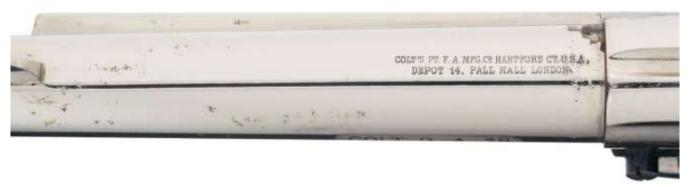
Photo left – Pearl Hart in staged photo circa 1900 with Colt .38 Lightning in her belt. Public Domain.

Photo right – Belle Starr in studio portrait circa 1887 holding what appears to be a Colt 1877. Public Domain.

A substantial number of .38 caliber Model 1877s were shipped to London where they were marked with British proof marks. As Baron von Oppen, Colt's man in England predicted, the double action "self cockers" proved to be popular despite disparaging comments and reviews by parochial British gun manufacturers and writers. Early examples were stamped with the Colt Hartford address and it was not until mid-1878 that Colt's London Pall Mall address started to be used. This address stamp was:

## COLT'S PT. F.A. MFG. Co. HARTFORD CT. U.S.A. DEPOT 14. PALL MALL LONDON''

According to R.L. Wilson in "The Book of Colt Firearms," about 1,500 Model 1877s, mostly in .38 caliber with 4 1/2 and 5 inch barrels, featured the Colt Pall Mall London barrel legend. London proof marks appear on the underside of the barrel and behind each cylinder flute. In England the Model 1877 .38 Colt cartridge was called the .380. It appears that few, if any, of the .41 caliber Thunderers were shipped to London.



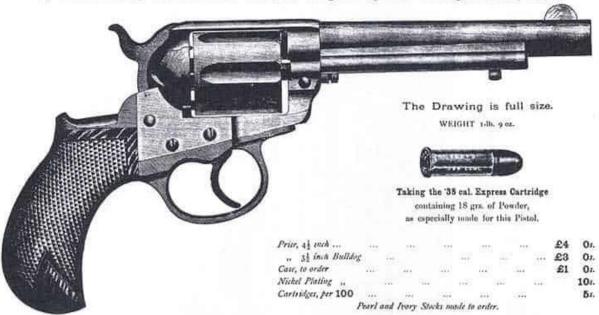
Colt Model 1877 Lightning s/n 6951 with Colt's Pall Mall London address stamped on the top of the barrel. Photo courtesy of Rock Island Auctions.

#### COLT'S

# NEW, DOUBLE ACTION, SELF-COCKING, CENTRAL FIRE, SIX SHOT CONSTABULARY REVOLVER.

380 cal. 41-inch Barrel.

31 inch Barrel, without Side Rod, as adopted by the Chicago Police, 1892.



This Pistol takes the 880 cal. Central fire long or short Cartridge, and surpasses in range and accuracy of fire all Pistols of its kind.

NOTE.—The Lock Frame of all Coll's Revolvers is made of the best provincible wrought iron, Cass-markeners, not of east iron, or of inferior iron simply black or Nickel-washed, as are the Lock Frames of charp and unreliable arms.

#### N.3. - The Prize Medal of 1878 has been awarded to these Pistols for excellence of workmanship & construction.

Advertisement in Colt 1896 London catalogue for the Model 1877 in .380 caliber. Note that Colt does not call it the "Lightning" but refers to it as the "New, Double Action, Self-Cocking, Central-Fire, Six Shot, Constabulary Pistol."

Note also the Colt claim that the 3 ½" variant was adopted by the Chicago Police. Public Domain.

Reportedly 9,285 Model 1877s were shipped to major tobacco companies like Continental Tobacco and Floradora between 1900 and 1906. Apparently the companies were offering the Colts as prizes to valued customers. Tobacco was often sold in twists and tobacco companies placed a colorful tin tag on the twist. In order to encourage brand loyalty, in a forerunner of the member point system used today by airlines, hotel chains and credit card companies, the companies sent out premium catalogs with a wide range of

merchandise that could be had by sending in the correct amount of tags. For 1,800 tags, one could get a genuine Colt Lightning revolver!

Like all Colt products of the mid-to-late 19<sup>th</sup> century, European-made copies of the Model 1877 quickly appeared on the market. While many of the earlier production percussion guns that were produced in places like Liège, Belgium and Innsbruck, Austria were manufactured under a licensing agreement with Colt, many more were not. The legally produced guns were often marked with the French term "Brevete," meaning "patent", referring to Colt's patented design, and that the gun was being produced under an agreement with Colt. Very quickly the "brevete" marking started to appear on unlicensed copies of Colt handguns as well. During the cartridge revolver period, it was the Spanish gunmaking industry that seemed to produce the most "brevete" Colts in Europe. Although they primarily made copies of the famed Single Action Army, they also made some copies of the double action Model 1877. Some of these Model 1877 copies were in European calibers and a few included "improvements." Engraved examples were also not uncommon.



Engraved "Brevete" copy of a Colt Model 1877 double action revolver made by Orbea Hermanos of Eibar, Spain. The gun is about .40 caliber (10mm) with a 4 ½" round barrel. Orbea Hermanos introduced several "upgrades" including a rebounding hammer and lanyard ring. The nickel plated revolver is heavily decorated with near full coverage foliate Arabesque scroll engraving on the frame, recoil shield, loading gate, topstrap and triggerguard. Photo by Tim Prince, College Hill Arsenal.

Despite its popularity, the Model 1877 gained a bad reputation as being prone to breaking and being difficult to fix. This first Colt production double action was a mechanically intricate affair; the lockworks were considered complicated when compared to the simple and robust Model 1873 single action. Yet, it was a popular gun with customers who appreciated the Model 1877's smaller size, lighter weight and higher rate of fire. And according to many reports, most competent gunsmiths seemed to have no trouble repairing it.

Both the Model 1877 .38 caliber Lightning and the .41 caliber Thunderer came in what was called the "Sheriff's Model." This model was one of the shorter barreled, ejectorless guns. The revolvers described here have a 3 1/2" barrel without an ejector mechanism but with the long, checkered cylinder arbor pin that was typical of the ejectorless guns. This allowed the arbor pin to double as an ersatz ejector rod when removed from the frame. These ejectorless guns were also referred to as "Storekeeper" models, as the shorter, ejectorless barrel was easier to carry concealed or in a discrete manner.



Top – Colt Model 1877 "Lightning" .38 caliber, serial number 65725 "Sheriffs Model" 3 ½" barrel. Bottom - Colt Model 1877 "Thunderer" .41 caliber, serial number 84465 "Sheriffs Model" 3 ½" barrel. Except for the calibers and a few markings they are identical. Photos by Tim Prince, College Hill Arsenal.

The Model 1877 revolvers pictured above are in excellent condition. The nickel plated .38 Lightning with



3 ½" barrel described here has serial number 65725 and was produced in 1888. The nickel plated .41 Thunderer with 3 ½" barrel has serial number **84465** and was produced in 1891. The blued and case hardened .41 Thunderer with 4 ½" barrel has serial number 106123 and was produced in 1897. The serial numbers are found on the bottom of the triggerguard and the bottom of the frame (see photo to left), the bottom of the bird's head grip, and the last three digits of the serial number is on the rear face of the cylinder. The loading gate of both guns have assembly numbers which are unrelated to the serial number and is an assembly number only, just as it is on a Single Action Army. These numbers never match the serial number. Both 3 ½" barrel "Sheriff's Model" revolvers have a full nickel finish with blued screws and small parts and the standard Colt checkered hard rubber grips with the Rampant Colt logo at the frame junction. The blued 4 ½" barrel Thunderer has mother of pearl grips. All of the markings on all the guns remain clear and crisp.

Photo above by Tim Prince, College Hill Arsenal.

The usual three-date in three-line patent marking is on the lower front left of the frame. The patent marking is followed by the Rampant Colt logo in a circle on the nickel and blued .41 Thunderers but not on the earlier .38 Lightning. The left side of the barrel of the Lightning is acid etched in a single line: **COLT D.A. 38.** The left side of the barrel of both Thunderers are roll marked in a single line: **COLT D.A. 41** 



Colt Model 1877 "Thunderer" .41 caliber, serial number 106123 produced in 1897. Blued barrel and cylinder and color case hardened frame. Mother of Pearl grips, 4 ½" barrel and rod ejector. Note the Colt address on top of the barrel, the roll marked caliber on the side of the barrel, and on the frame the three line Colt patent mark and rampant colt. Photo by Tim Prince, College Hill Arsenal.

The .38 caliber, nickel plated Colt Model 1877 Lightning (s/n 32765), described and pictured below is in superb condition. Manufactured in 1881 it has a 3 1/2 inch barrel and rubber grips. The gun has an etched panel on the left side of the barrel and a 2-line address on top of the barrel. Patent dates are on the left side of the frame. It has matching serial numbers on the frame, trigger guard, and the back strap. The serial number's last three digits are on the rear of the cylinder. The screws, trigger, center pin, and the rear of the hammer are nitre blue. This gun retains virtually all of the factory-applied nickel finish and the bore is bright and shiny with sharp lands and grooves.



Colt Model 1877 "Lightning" Sheriff's Model .38 caliber, serial number 32765 produced in 1881. 3 ½ inch barrel. Photo courtesy of Morphy Auctions.



Left side of Colt Model 1877 "Lightning" Sheriff's Model .38 caliber, serial number 32765. 3 ½ inch barrel. Note the patent dates on the left side of the frame. Photos courtesy of Morphy Auctions.



Colt Model 1877 "Lightning" Sheriff's Model .38 caliber, serial number 32765. Top and bottom views. Matching serial numbers on the frame, trigger guard, and the back strap. Photos courtesy of Morphy Auctions.

As stated, the Colt Model 1877 "Rainmaker" in .32 caliber Colt is incredibly rare today and seldom seen. Out of a total production run of 166,849 Model 1877 revolvers, it is estimated that no more than 250 Model 1877 in .32 caliber were made. They came in the usual finishes and with various length barrels, however, according to one source, no .32 caliber Model 1877's are known with barrels longer than six inches. Like the Lightning and Thunderer, longer barrel Rainmakers were made with the regular ejector housing and shorter barreled "Sheriff's Model" revolvers used the knurled cylinder pin as a removable ejector. They have the same dimensions as the .38 caliber Lightning, only the caliber is smaller.



Colt Model 1877 "Rainmaker" Sheriff's Model, .32 Long Colt, s/n 75894. 3 ½ inch barrel with blued and case hardened finish. Hard rubber grips, manufactured in 1890. Photo courtesy of Rock Island Auctions.

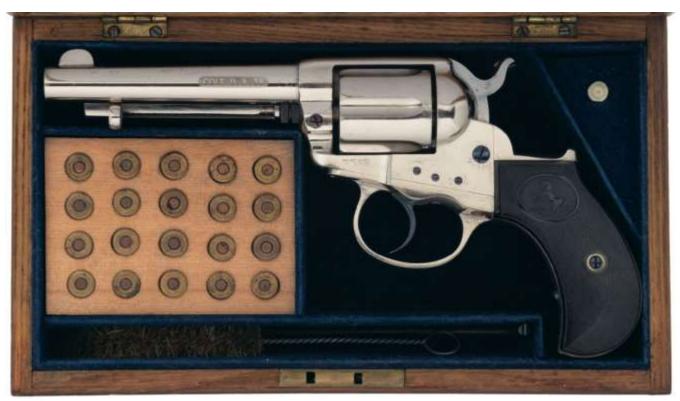


Colt Model 1877 "Rainmaker" Sheriff's Model, .32 Long Colt, s/n 75894. Marked with "COLT D.A. 32" on the left side of the barrel. Photo courtesy of Rock Island Auction.

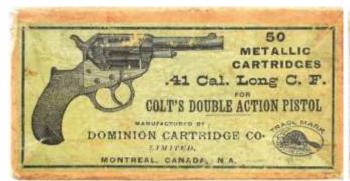
Original Colt cardboard boxes or cartons that Model 1877 revolvers were shipped in are also highly collectible in their own right. The earliest had a pink label glued to the inside of the carton lid referencing the Colt reloading tool. These tools were reworked percussion molds that were modified to .38 or .41 conical and had a capping arm attached to one leg of the mold. Later picture boxes have a bright yellow label advertising Ideal molds. The earliest boxes had the gun information in the top external picture label. These labels pictured the rampant Colt, the cartridge, the revolver, and listed the caliber and barrel length. With later picture boxes, the top picture was made more generic and an end label was added with the specific gun information.



Early original box for Colt Model 1877 "Lightning" Sheriff's Model .38 caliber, serial number 32765. Photo courtesy of Morphy Auctions.



Colt M1877 revolvers sold in London often came in wooden cases or boxes. The case was usually lined and included the gun, a cleaning rod, screw driver and a block or space for ammunition. The Colt Pall Mall London label or the dealer's label would be on the inside of the lid. Photo courtesy of Rock Island Auctions.

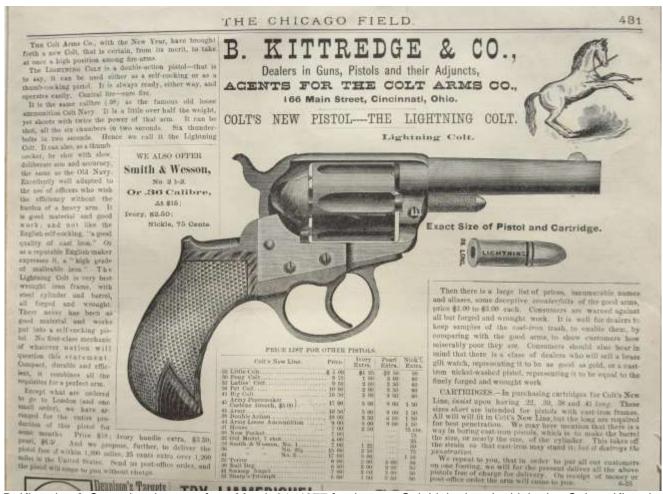




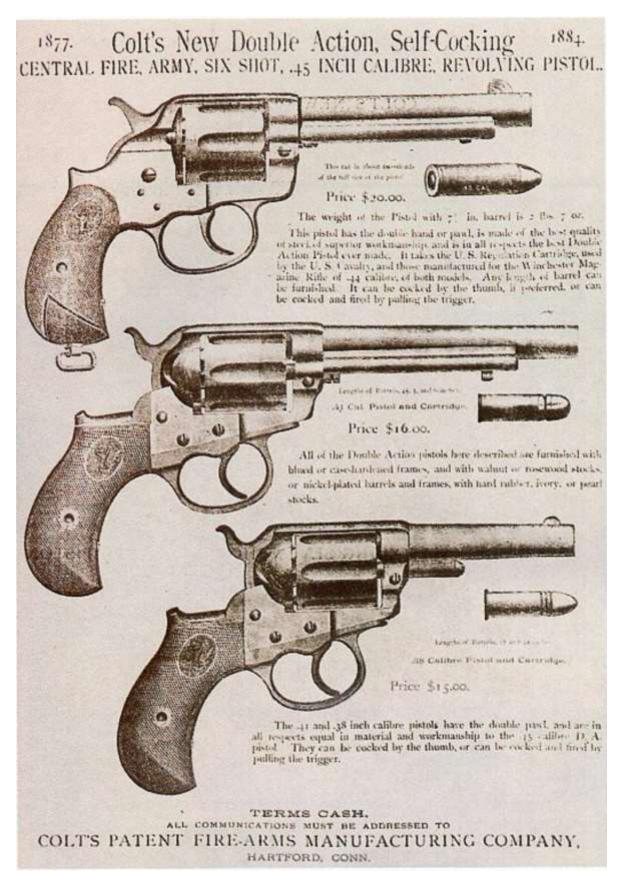
Box labels for ammunition for the Model 1877 "Thunderer" and "Lightning." On left is a box of .41 caliber Long Colt made by the Dominion Cartridge Company of Montreal, Canada. On the right is a box of .38 caliber Long Colt made by the Winchester Repeating Arms Co. of New Haven, Connecticut.

Photos courtesy of Morphy Auctions.

The Colt Model 1877 Lightnings, Thunderers and Rainmakers represented a transitional product from the old single action Peacemaker to the future double action. In design it resembled the tried and true popular Model 1873. Colt even retained the separate triggerguard and butt strap of the earlier revolver which had to be attached to the frame with screws. Colt, always slow to innovate, did not introduce the one piece design with a triggerguard and butt integral with the frame until the Model 1878. Yet Colt's first production "self-cocker" started a long tradition of Colt double action revolvers that continues to this day.



B. Kittredge & Co., advertisement from March 31, 1877 for the new Colt Lightning, (or Lightning Colt as Kittredge called it) self-cocker, .38 caliber. "It can be shot, all the six chambers in two seconds." Price \$18. Ivory handle is \$3.50 extra and pearl handle is \$6.50 extra. Free delivery within 1,200 miles. Public Domain.



From a Colt 1884 four-page price list/brochure. From top to bottom - Colt Model 1878, Colt Model 1877 "Thunderer," Colt Model 1877 "Lightning." Note the prices - \$16 for a "Thunderer" and \$15 for a "Lightning." Public Domain.

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#### A NOTE ABOUT WILLIAM MASON



William Mason (born January 30, 1837, died July 17, 1913) has been called "one of the most significant designers of the nineteenth century." He was an extremely talented engineer, inventor and pattern maker who worked for Remington Arms, Colt's Patent Fire Arms Manufacturing Company, and Winchester Repeating Arms Company. A prolific inventor, 125 patents were issued to him for firearms, ammunition, firearms manufacturing machinery, steam pumps and power looms.

He started his firearms career at Remington where he received patents for a swing out cylinder and a star ejector mechanism. In 1866 he went to work for Colt as Factory Superintendent. Mason and Charles Richards, Colt's Superintendent of Engineering,

developed designs to convert percussion revolvers into rear-loading metallic cartridge revolvers. Those converted revolvers are identified as the "Richards-Mason conversion." Mason then worked on Colt's first metallic cartridge revolvers in 1871, including the .41 caliber House Pistol and the Model 1871-72 "Open Top" revolver. He helped develop the Model 1873 Single Action Army revolver and developed the Model 1877 double action Lightning and Thunderer. Two of the three patent dates on the Model 1877 belong to Mason patents. He also helped design and develop the Colt's "New Line" revolvers, Model 1878 Frontier double action revolver, Model 1883 shotgun, and the Model 1889 revolver, which was the first double action revolver manufactured with a swing-out cylinder.

Mason left Colt and went to work for Winchester in 1882 where he was named Master Mechanic in 1885. While at Winchester he refined and made working prototypes of many of John Moses Browning's designs. One of his design improvements was the Winchester Model 1886 rifle.

Mason was described as a "modest, kindly man, little known outside his immediate associates, but of singular fertility in invention and almost unerring in mechanical judgement." He had a special gift in improving and modifying an original design so it could be successfully manufactured.