

W. W. MARSTON AND HIS GUNS

by L. D. Eberhart

Gentlemen, today I would like to speak about a man and his invention; and the products which were the fruits of his labor. A man, who like Oliver Winchester, Ethan Allen and Dr. Richard Gatling did not start his career as a gun inventor and manufacturer. A man about whom there is little written, probably because there is no real host of information recorded as was the case with so many of the American gun makers of that period. I am referring to William Walker Marston. To my knowledge there are no pictures, no childhood history or family background. This leaves only patent office records, newspaper ads, census reports and the New York City directories.

These records begin, showing Marston operating at 197 Allen Street in New York City. This address is also listed for Stanhope W. Marston who was named as a gun and pistol maker in the New York City directories of 1844-45. It is only theory on my part, but it seems that after several years in the same building with a gunsmith, William Marston probably became interested in firearms himself.

It is rumored that Stanhope W. Marston, Frank W. Marston and Robert W. Marston were all brothers. Several aspects of this rumor have some basis for truth. The fact that Stanhope and William operated under the same roof at the same time and that Robert was also listed as a gunsmith in New York City at 211 Fulton Street, leads one to concur. It has also been said that the middle initial "W", which all of these men had, stood for Walker, which was surely William's middle name. However, Stanhope Marston's nationality was made very clear, when, on January 1, 1851 he stated that he was a "native of England DBA a gunsmith in New York City." As for the other Marstons, Robert and Frank, no proof exists, either way. My main concern, however, was to clear up the misnomer that Stanhope was William's brother.

William Walker Marston's first patent application (Figure 1) claimed an improvement on some of the already existing printing presses of the day, especially the Napier Cylinder Press. The letter of application claimed that a new way of construction would slow down certain parts of the press and thereby save them from excessive wear. At the same time, by enlarging certain other parts, the press would be capable of printing more copies faster! He submitted the model and papers on November 29, 1845 along with \$20.00 (Figure 2), as called for under the act of Congress dated July 4, 1836 and entitled "An Act to promote the progress of the useful arts". There is no evidence of a patent office letter of refusal to Marston, but they surely must have denied his first application. Proof of this



is in Marston's letter of resubmittance and a copy of the receipt for this in the amount of \$10.00, dated March 25, 1846. Marston's letter of March 24, 1846 indicates that the commissioner thought his description was not complete. In this same letter, Marston states that he was sorry for the delay in furnishing the additional information wanted by the patent office. His reason, and a good one, was that the post office had been very slow in returning the package.

So, gentlemen you see the post office hasn't gotten the way it is overnight; they have been practising for over one hundred years to deliver packages in the manner to which we are all accustomed.

A direct quote from this letter, showing his concern, reads, "I pray the Commissioner will not prolong his examination of the new descriptions submitted." His wait was a short one, for on September 12, 1846 he was granted his very first patent. It was number 4756.

Let us begin the study of Marston the Gunmaker and begin that study with the Marston pepperboxes. The first pepperboxes made by Marston were not of his design. These were the models produced from 1849 until late 1855 and made under the patent of Thomas W. Harvey (Figure 3).

Mr. Harvey was a little known inventor in New York City at the time his patent was being processed. This patent, #6539, was issued on June 19, 1849 and one of Marston's first partners, Frederick Goodell, somehow persuaded Harvey to assign the patent to him. He then allowed the pepperboxes to be manufactured under the early company names of Sprague & Marston as well as Marston & Knox. Pepperboxes marked: "1849 patented" use Harvey's system which was referred to as a "rotating tumbler lock".

The gun (Figure 4) being shown is an example of the early type. Note the marking on the side of the hammer and the name "Sprague & Marston New York" on the barrel rib. The next barrel rib down

is marked "Cast Steel, Warranted". This is serial #K66 in .31 Caliber. The six shot set of barrels measure 3½" from muzzle to the nipples and rotate clockwise as they are viewed by the holder.

Figure 5 is serial #3441 and is marked on the barrel rib: "W. W. Marston & Knox New York". On the left side of the hammer it is marked: "New York 1854" while the hammer top bears the marking: "W. W. Marston". This piece has the same barrel arrangement and measurements as the Sprague & Marston previously seen, however the barrels rotate counter clockwise.

The top of the hammer on Figure 6 is marked "The Washington Arms Co.". The barrel rib is only marked "Cast Steel". It has 2½" barrels that are also in .31 Caliber. The serial number is 6472. The barrels rotate counter clockwise. This was also made by Marston.

Figure 7 is an example of the fluted barrel model made by Marston but was not marked with his name and was also marked differently from the others. The company name: "The Union Arms Co." appears on top of the hammer. Also notice that the markings shown on the others do not exist here. These included the patent dates, cast steel, etc. This one is serial number 61 and is 6 shot in .31 Caliber.

All of the pieces which you have just seen are loosely scroll engraved over the shields, frames and back straps and the grips are of walnut. Unusually fancy pepperboxes by any of the Marston companies are extremely rare.

There are several other 6 barrel pepperboxes which have not been pictured that should be mentioned. First is the .31 Caliber model marked: "W. W. Marston Phenix Armory". This type will have the fluted barrels like the piece marked "Union Arms", another type is a somewhat smaller example in .25 Caliber with a completely round cluster of 6 barrels and marked: "Patent 1849" and "W. W. Marston" or "Sprague & Marston New York".

Many of the Marston & Knox pepperboxes are marked: "W. W. Marston, New York 1854" on their hammers. I have no record of an 1854 patent so this is probably the production date.

Lemuel W. Serrell, Marston's patent attorney, submitted Marston's own patent application for a revolving firearm on August 6, 1855 (Figure 8). His three claims in this application were a three stroke trigger double cam action, which could be used on rotating barrels or chambers. The face plate was constructed with notches and projections and worked in conjunction with a sear. This would give perfect alignment of the barrel with the hammer, and after two trigger pulls would leave the gun ready to perform the third and final function. As all of these movements occurred on the first two pulls of the trigger, the gun was then left cocked, the barrels locked in place, and the trigger ready to be pulled, as on a double set trigger action.

It is easy to see why this was not a production gun. It must have been a mechanical monster. Despite Marston's claim that this mechanism

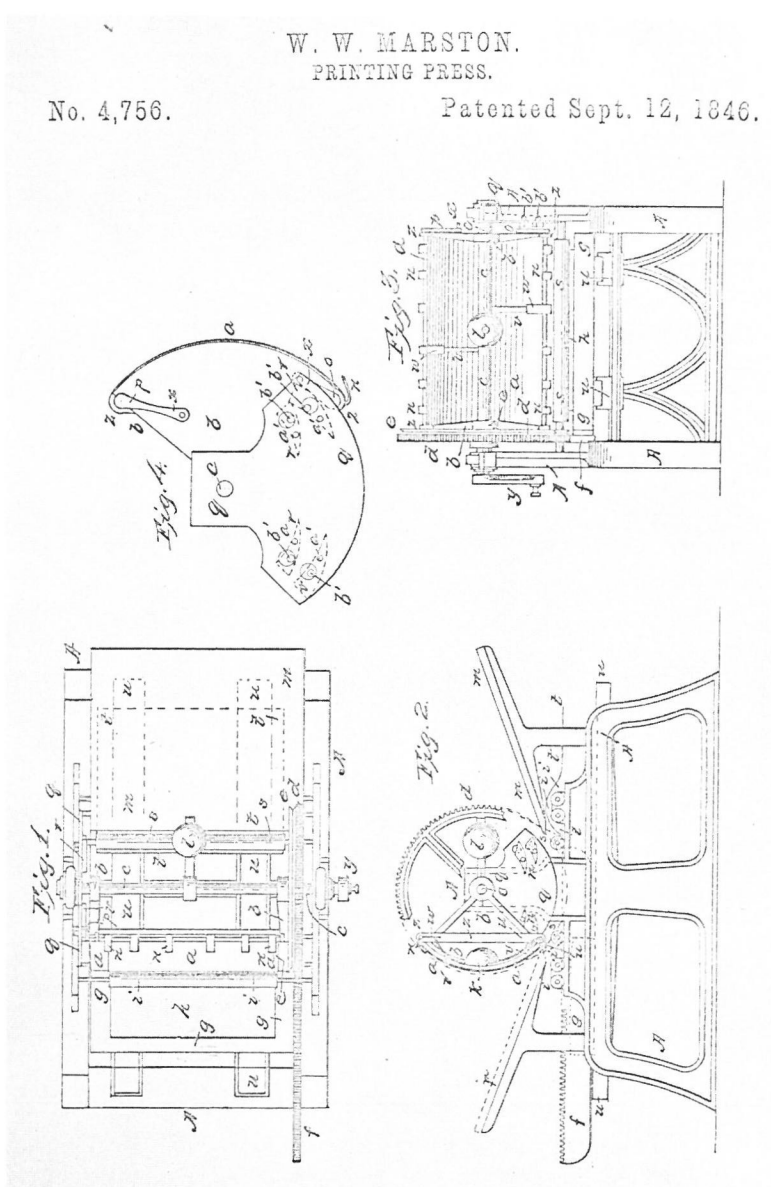


Figure 1. Printing press patent application

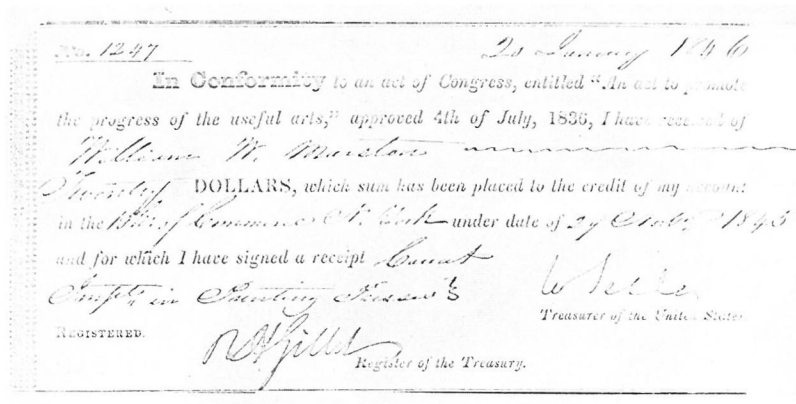


Figure 2. Receipt for printing press improvement patent application

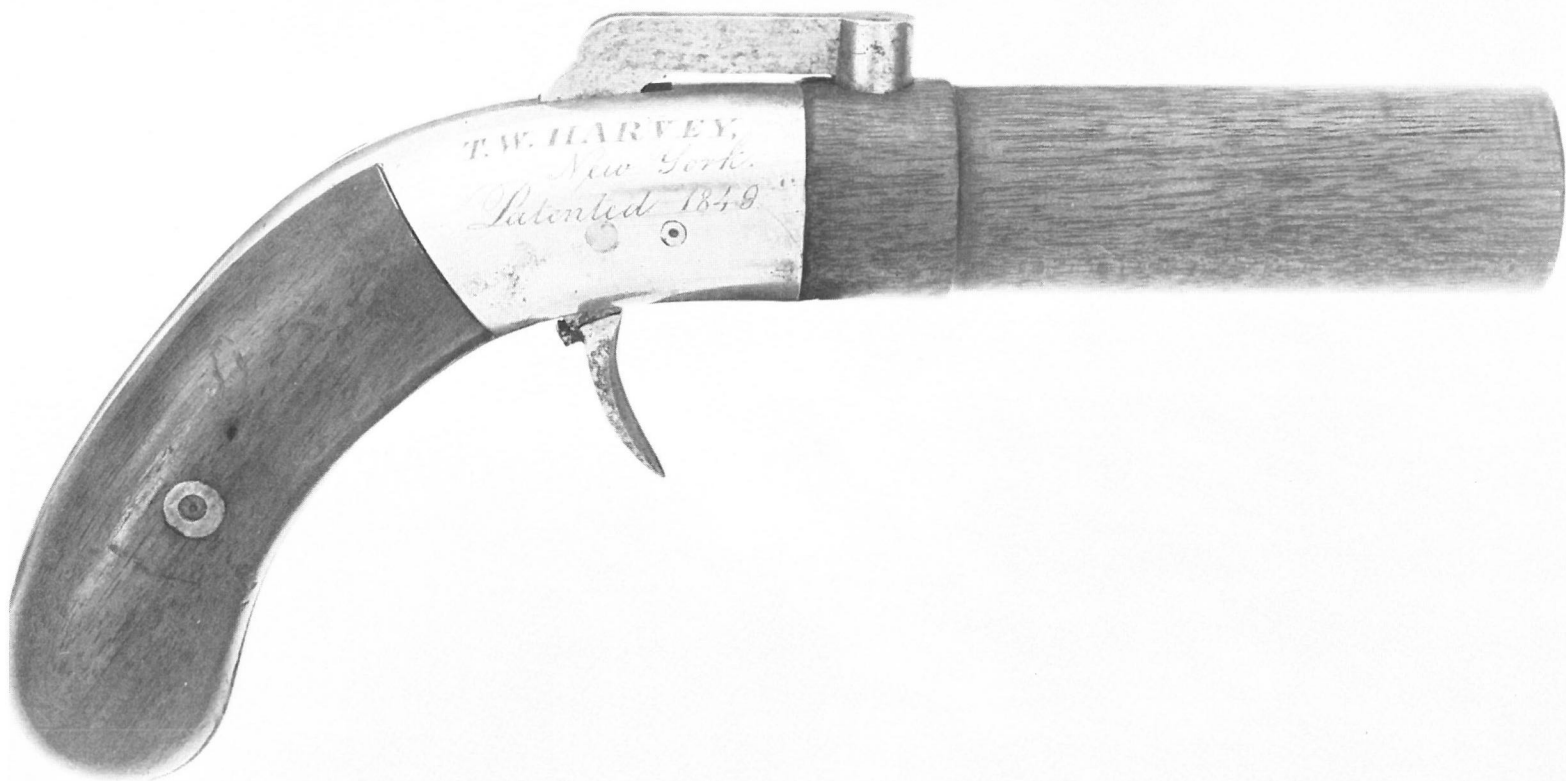


Figure 3. Patent model of T. W. Harvey Pepperbox. Sam Smith Collection



Figure 4. Sprague & Marston Serial K66. S. M. Diefenthal Collection



Figure 5. Marston & Knox, Serial 3441. S. M. Diefenthal Collection



Figure 6. The Washington Arms Company, Serial 6472. S. M. Diefenthal Collection



Figure 7. Union Arms Co. model. S. M. Diefenthal Collection

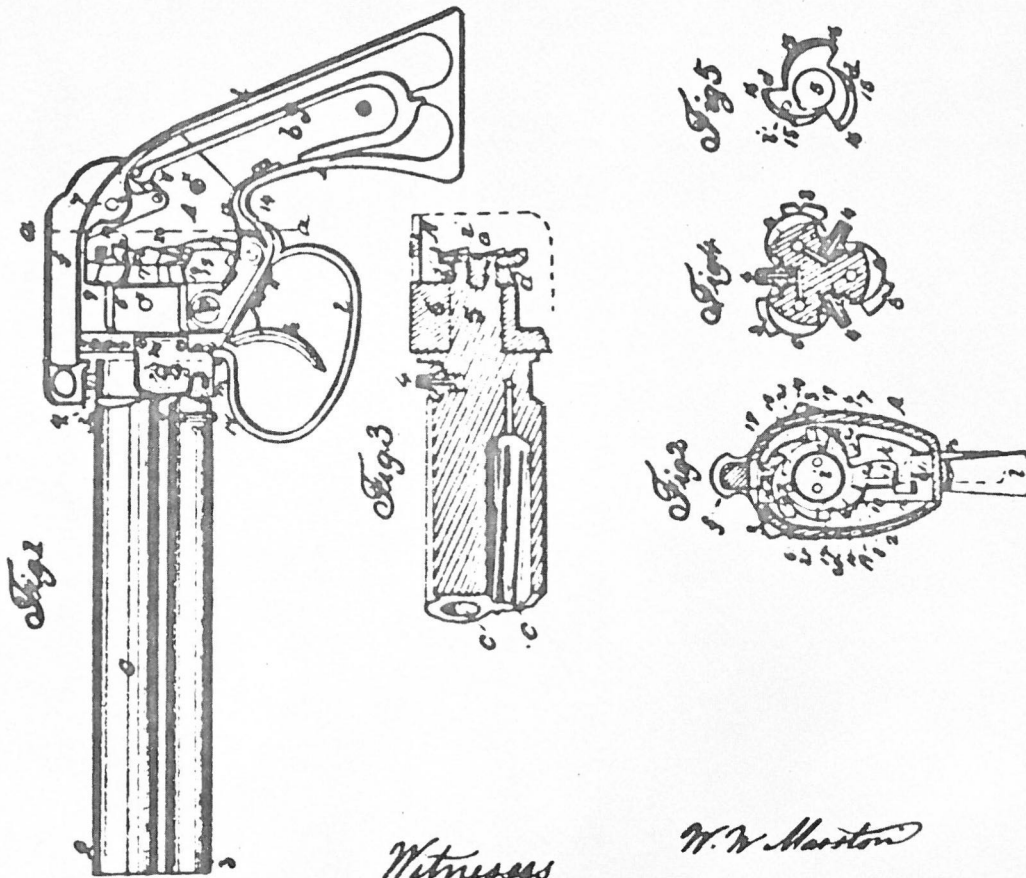
PEPPERBOX FIREARMS

W. W. MARSTON.

Revolver.

No. 12,581.

Patented Sept. 18, 1855.



Witnesses
W. W. Marston
Samuel W. Powell
Thomas G. Lewis

FIG. 51 - W. W. Marston Patent Drawings #13581.

Figure 8. W. W. Marston patent drawings.



Figure 9. Marston "one trigger pull weapon". The Smithsonian Institution

allowed a steady gun as it was discharged, one which could not be had with the normal jerking action of a "one trigger pull weapon", it never got started.

Shown in Figure 9 is the only known completed example of this Triangular Pattern 3 barrel pepperbox model, it is in the Smithsonian collection. The frame is of brass, with iron barrels. The barrels are set in this triangular fashion rather than in the usual circular or vertical manner. It is approximately .40 Caliber, with grips of rosewood.

Figure 10 shows a drawing which was not a part of anything W. W. Marston produced. It is the patent of Stanhope W. Marston, who I have previously mentioned. Figure 11 shows the type of guns made under this patent. These pieces were formerly in my collection, the top one being serial #1 and the bottom one is serial #40. There are only five of these little guns known today, the others being serial numbers 18, 5, and 49, leading me to believe that they were made for a very short time. Some have confused them with W. W. Marston's work but there is absolutely no connection. Serial #40 is the only iron framed piece, all the others have frames of brass. They are marked: "S. W. Marston & Cohn" or "J. Cohn & S. W. Marston", reading vertically at the rear of the barrels along with "Cast Steel" and "New York" in 3 lines. The right side of the hammer is marked: "Patented 1851". All are .31 or .36 Caliber, 2 shot weapons, with superposed barrels which must be turned by hand.

And now let us get back to W. W. Marston. In Figure 12 you have the patent drawing for Patent #6514 issued June 5, 1849 for a bar hammer double action very similar to the Allen. This was

Figure 10. S. W. Marston patent drawing.

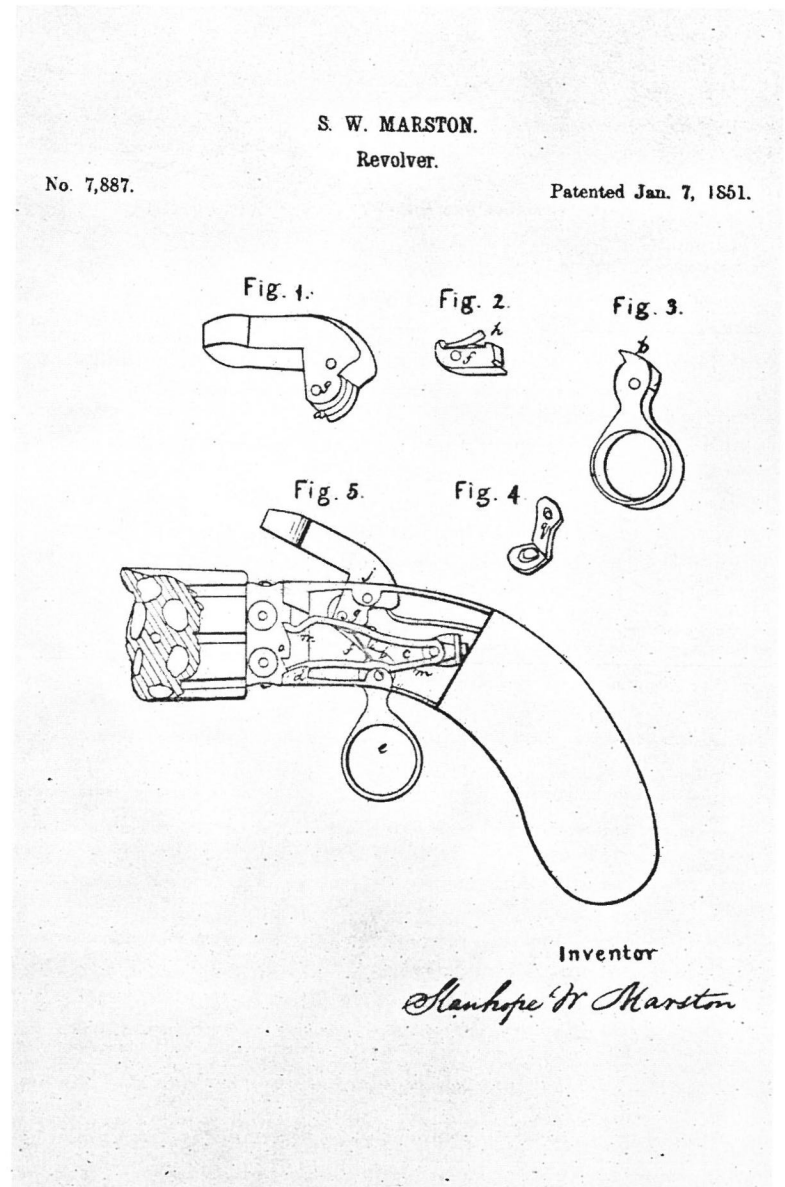




Figure 11. S. W. Marston pistols.
Formerly in author's collection.

granted to W. W. Marston alone although he was in partnership with Zebulon Sprague at the time of issue.

And now to continue with the single shot bar hammer or boot pistol (Figure 13). It is a standard looking piece for the period, which strongly favors the Allen & Thurber pistols of the same size. All of these little Marston made guns are engraved much in the same manner, sparsely on the frame in a loose scroll pattern. Some examples have engraving on the backstrap also and usually in keeping with the same simple pattern. They will all be found to have half round, half octagon barrels that vary in length from about 2½" up to 5". Pistols will be found marked in several different ways, on the side or tops of their hammers. As you can see, this example is marked W. W. Marston on the side of the hammer. It also has "New York" and "1854" in two lines on the top barrel flat over the breech. This one is serial # 3 in .36 Caliber with a 3" barrel which is rifled.

Figure 14 is serial # 14 and is very similar except that it is marked "Marston & Co." on top of the hammer with the right top barrel flat marked "Cast Steel". This one also has a 3" rifled barrel

but is in .31 Caliber.

Figure 15 is marked "The Washington Arms Co." on the top barrel flat. Also in .31 Caliber, this is serial #9. Again this is a Marston product.

Since all of these guns have different markings and all have very low numbers, it is safe to assume that their serial numbers started each time the company changed names. I feel sure that this model was made over a long period of time as these three examples span a period of ten years or more.

All of these bar hammer pistols are double action and the absence of both front and rear sights appears to be standard throughout production. They will be found in both .31 and .36 Caliber, with grips exclusively of walnut. Frames are usually a case hardened color with blued barrel although some are seen with a blued finish overall. All specimens which I have examined have iron frames and trigger guards. The examples used here are approximately 6¼" in length overall.

Figure 16 is an example of Marston & Knox. While we are looking at boot pistols let's cover a larger single shot version which is very uncommon. Without the fancy trigger guard you see on this

W. W. MARSTON.

Pistol-Lock.

No. 6,514

Patented June 5, 1849.

Figure 12. W. W. Marston patent #6514.

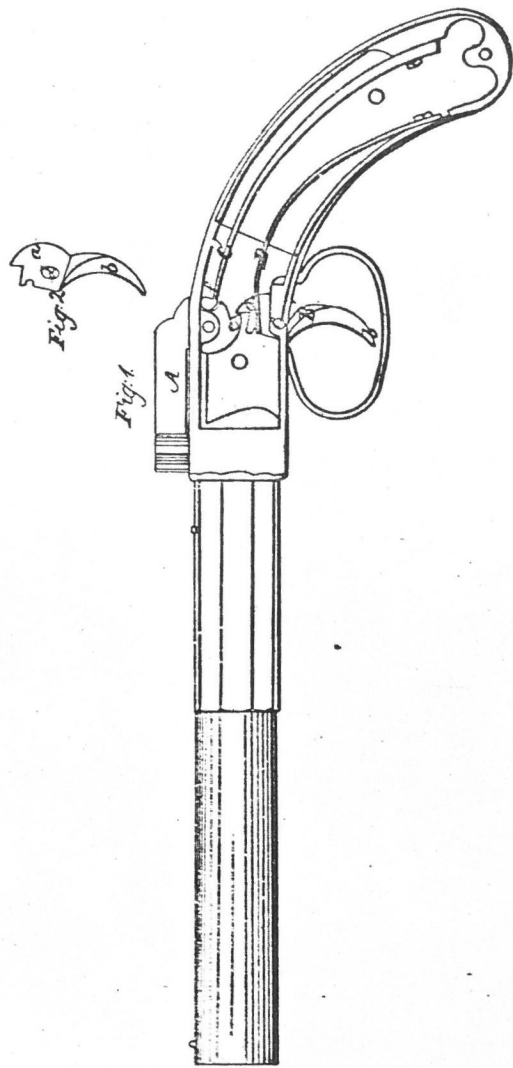


Figure 13. Boot pistol marked W. W. Marston





OPPOSITE PAGE

Figure 14. Serial 14, marked "Marston & Co." H. M. Stewart Collection

Figure 15. Serial 9, marked "Washington Arms Co." S. D. Diefenthal Collection

Figure 16. Serial 611, marked "Marston & Knox". S. D. Diefenthal Collection

BELOW:

Figure 17. Serial 593. Milwaukee Public Museum



example, they so closely resemble the Bacon & Co. single shot, that I, for one, would have to examine one to find if it was a Marston. This piece is serial #611, with a trigger guard of brass, a most unusual feature.

Figure 17 is another of the single shots. Notice how closely it resembles the drawing (Figure 12) in outward appearance with the exception of the hammer. Inside is a different story, however, as the quality workmanship found in the smaller single shots does not exist here. This one is serial #593 with the standard iron trigger guard.

Both pieces are in .36 Caliber, have rifled barrels, V-notch rear sights and pin type front sights. Both have iron frames. Each has a simple enclosed single action and are identically marked, "W. W. Marston & Knox" in a single line on the top barrel flat and "New York 1864" in one line on the right quarter flat. Serial numbers will be found on the bottom barrel flat where the barrel meets the frame. Both examples have a 5½" half round, half octagon barrel and are 9" overall. These were finished exactly as the smaller bar hammer model. Some weapons of this type are marked Sprague & Marston.

I have no information as to how many of these were made but I feel that the number produced was much less than what would be indicated by the serial number range of these two examples.

Next we come to Marston's cartridge patent, #8956, and one of the most frustrating battles any inventor ever fought to win recognition for his work, W. W. Marston and Frederick Goodell applied for their cartridge patent the first time on April 19, 1849. The application itself listed Marston and Goodell as the inventors, but gave Goodell's occupation as a manufacturer. This is also the first document in which Marston refers to himself as a gunsmith. It is not clear whether Mr. Goodell actually operated a factory or if he indeed was employed in the Marston plant.

The Patent Office assigned the project of proving their claim to William Serrell and Son, a firm of patent attorneys and testers, which worked for the U. S. Office of Patents. Their staff included Orison Blunt, the gun maker, who was in business with Wm. J. and Samuel R. Syms in New York City during this same period. Also on the staff were George Syms, the other brother of William and Samuel as well as Lemuel W. Serrell, the son of William Serrell, the above mentioned owner of the legal firm. Lemuel Serrell was to leave that group later to work for Marston directly on the project of securing this patent. It appears that the Serrell organization assigned the actual firing of the weapons to a Mr. Renwick, of 136 Pearl Street in New York City. A letter to the firm dated November

I do not think it important to describe the details of the cartridge is not illustrated by the drawings provided, and it is not intended to be a complete and perfect copy, but only to show the general principle of the invention. It is to be understood that the details of the invention, and the manner of carrying it out, are to be determined by the claims, all other details being, or being capable of being, respectively or collectively achieved in any other manner.

... of by 11.
 the hole in the the
 shown in this fig. 1.
 In case the fig. 2, shell, and
 c. the powder, as before, but instead of the as
 semi-spheroidal bullet, is shot, it is formed from a diameter the
 fit the hole of the gun, and rebated, so as to form a
 short cylinder, parallel with the line of the of a
 actual diameter, to fit accurately into the top of the shell
 b., when filled with powder, which completes the cartridge.
 In each cartridge, a disk of tissue paper is put in, before
 the powder is put in, to prevent the powder from the escape
 of powder by the touch hole.
 The leather breech piece is to be of a proper thickness and firm
 stiffness so that it will not fold over the joint of the ball
 a. it is forced out, but closes the barrel and
 away from the ball shortly after it leaves the
 muzzle thereby not interfering with the ball in its
 movement.
 The new effects produced in cartridges thus
 made and fitted are that
~~when the~~
~~is~~
~~pushed on, by the main cartridge in~~
~~first closes the chamber of the gun before it,~~
~~then~~
~~as each cartridge is exploded, the breech piece, in front,~~
~~literally swallows the barrel of the piece, by taking out, before it,~~
~~the~~
~~it had been attached to; so that after almost any num-~~
~~ber of explosions, the ^{part of the} piece is nearly as clean, as when~~
~~it has been fired only once.*~~
 We do not claim to have invented any of the
 parts described herein, ~~as applied by~~
 but we do claim as new, and of our own invention

Figure 18. Patent application

24, 1849 stated that he had fired 32 cartridges and found the weapon to be clean as claimed, but further stated that the patent claimed too much and should be restricted to the cleaning sole or rear of the cartridge only.

The following is a brief description of the cartridge in question. It consisted of five parts; a conical shaped bullet with a recessed rear portion, a cardboard cylinder which formed the body, the powder, a thick circular piece of leather which formed the rear of the cartridge as well as the gas seal at the face of the breech, and finally, a disc of tissue placed inside at the rear of the cardboard cylinder to keep the powder from escaping through the vent hole in the leather sole.

The patent claimed that the cardboard cylinder left the gun with the bullet and that the leather gas seal, or sole, which was greased around the edge was then pushed into the chamber ahead of the next round. This supposedly cleaned the bore each time the gun was fired, even though it might be fired hundreds of times.

Gentlemen, I'm sure everyone here knows how fouled a black powder rifle or musket becomes after twenty or thirty shots. I was very intrigued by Marston's claims and so, having one cartridge to copy and a rifle and pistol to use, I proceeded to manufacture ten rifle and twenty pistol cartridges. These were fired through both weapons and to my disbelief, both guns were as clean after firing as before. Obviously, Marston's advertising and sales people left much to be desired as this idea should have been developed to a much greater extent than we find record of today.

In the written description, Marston further explains how this type cartridge could be used for shot cartridges as well, by simply placing a cardboard separator between the powder charge and the shot and sealing the end with a cork wad. He also claimed it could be used in any weapon from a handgun to an artillery piece provided that it was loaded from the back of the breech and that the explosion was caused in the line of the axis of the barrel.

For over a year, nothing was done to gain their patent rights and in the summer of 1851, Marston requested another test. The request was granted and in August, 1851, firing trials were held in the southern part of Brooklyn by one James M. Ward, of Orange, New Jersey. He too was a patent tester with offices at 160 Broadway in New York City. Present at this test were James Keene, Stephen Hart, Jacob Rimer and J. C. Groshoug, all of Newark, New Jersey. Also included were Zebulon Sprague, Wm. G. Silleck and Mr. Marston, all of New York City.

One paragraph from the report of the trials states, "Many rounds were fired using different materials for the sole or base of the cartridge. These included wood, paper, India rubber, felt, cork, as well as leather, with the latter performing the claimed function where all others had failed."

Shortly after the tests, on September 9, 1851, James Keene and Stephen Hart reported their satis-

factory findings to the Patent Office. On September 22, 1851, William Serrell returned the drawings and applications to Marston recommending that they should be re-submitted, using the leather sole idea as their only claim. A copy of that letter went to the Patent Office and in October, 1851, an official letter of rejection was forwarded to Marston. The reason for rejection was given as Marston's claim, that he had invented the idea of putting together with glue, a cartridge with a leather sole, when indeed only the leather part was new. Marston must have been ready to give up by that time, but he was soon to receive fast and decisive help.

These proceedings were being financed by a New York attorney, Mr. Anson Taylor, and it was at this point when he became actively involved. His first step was to employ Lemuel W. Serrell who had recently established his own patent attorney office at 289 Broadway. On April 22, 1852, Lemuel Serrell had James Ward, one of the original testers, write a letter to the Patent Office, making it very clear that all parties in attendance at the original trials were well-satisfied with the claim.

On May 5, 1852, Lemuel Serrell himself re-submitted the old drawings, specifications and applications with the corrections written in the margins of the first sheets (Figure 18). This was necessary inasmuch as Frederick Goodell was in France, attempting to obtain European patents, and therefore unable to sign new forms. Mr. Goodell was well received in France and drew large crowds during his demonstrations of the cartridge. The French government, with very little difficulty, granted him patent #8273, dated 1852. It can be located in Volume 27, page 107, plate 21 of the French records.

Finally, on May 18, 1852, the U. S. Patent Office issued patent #8956, (Figure 19) thereby bringing to a happy conclusion this long and arduous struggle.

Under this patent, Marston produced cartridges in calibers .31, .36, .46, .54 and .58 and in .70 Caliber shot cartridges. All were manufactured as the patent drawings depict, although he did make at least one very pointed bullet in .46 Caliber.

I believe Figure 20 to be the patent model as it has a cork rear end rather than the usual leather. There are no known specimens, either pistols or rifles in .46 Caliber. Only one .58 Caliber weapon is known to exist, that being a military musket in the Henry M. Stewart, Jr. collection. Figure 21 is a .36 Caliber rifle cartridge.

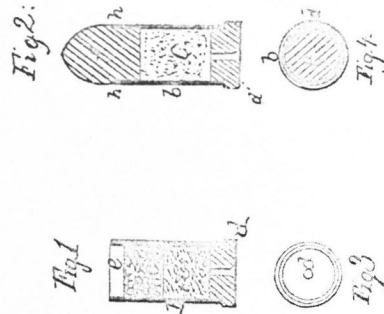
And now let us go back to the model 1850 breech loading pistol and rifles. These are the guns which shoot the cartridges we have just covered. There are no records to indicate when this patent was applied for, but it must have been very closely knitted with the cartridge. The lack of any letters of rejection or of resubmitting, etc. in the patent files leaves the impression that it was a mere formality as compared with the cartridge patent. This patent was granted June 18, 1850 and assigned the number 7443 (Figure 22). The lever action

MARSTON & GOODELL.

Cartridge

No. 8,956.

Patented May 18, 1852.



W. W. Marston

F. Goodell

Witness

W. L. ...

James W. ...

Figure 19. Patent 8956, Marston & Goodell

Item	Caliber	Description	Price
X681	54 Marston	Patent model of the Marston and Goodell patent #8956, May 18, 1852, for a percussion cartridge. Lead bullet measures .542, plain, cardboard case marked in ink: Marston & Goodell 30 Apr 1849, excellent condition	44.00
X682	"	Same as above, except case has no leather base, case marked: W. W. Marston & F. Goodell, N. York 1849, excellent	85.00
X683	46 Marston	Also a part of the Marston patents but a smaller caliber with a sharp pointed lead bullet, Base is cork and plain paper case is marked: W. W. Marston & F. Goodell, N. York 1849, excellent condition	55.00
			100.00

Figure 20. Kelly and Malloy Cartridge Collectors Catalogue

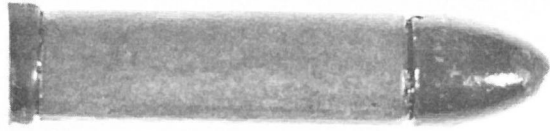


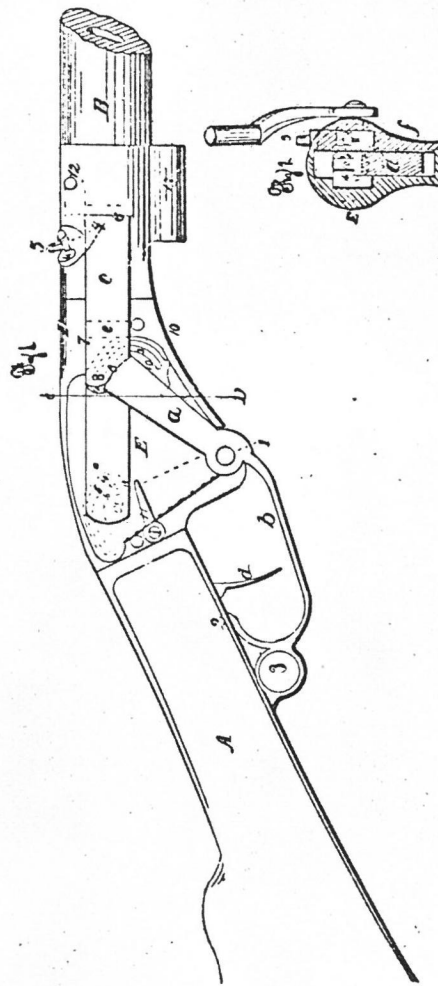
Figure 21. .36 caliber rifle cartridge.
Author's collection

Figure 22. Marston 1850 patent for
breach loading firearms.

W. W. MARSTON.
Breach-Loading Fire-Arm

No. 7,443.

Patented June 18, 1850.



Y. F. Jones

W. W. Marston

W. S. Lyell

Samuel H. Smith

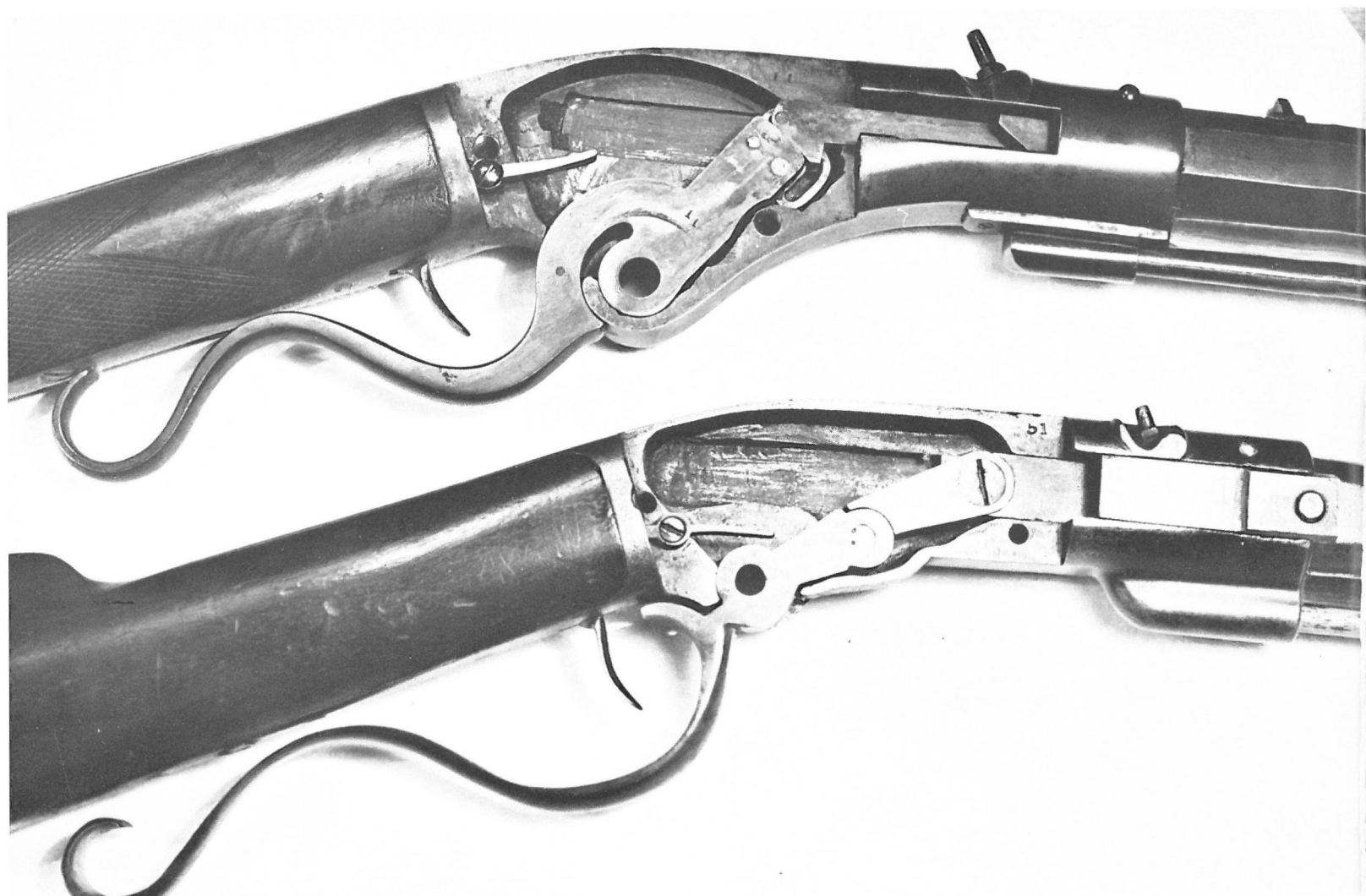
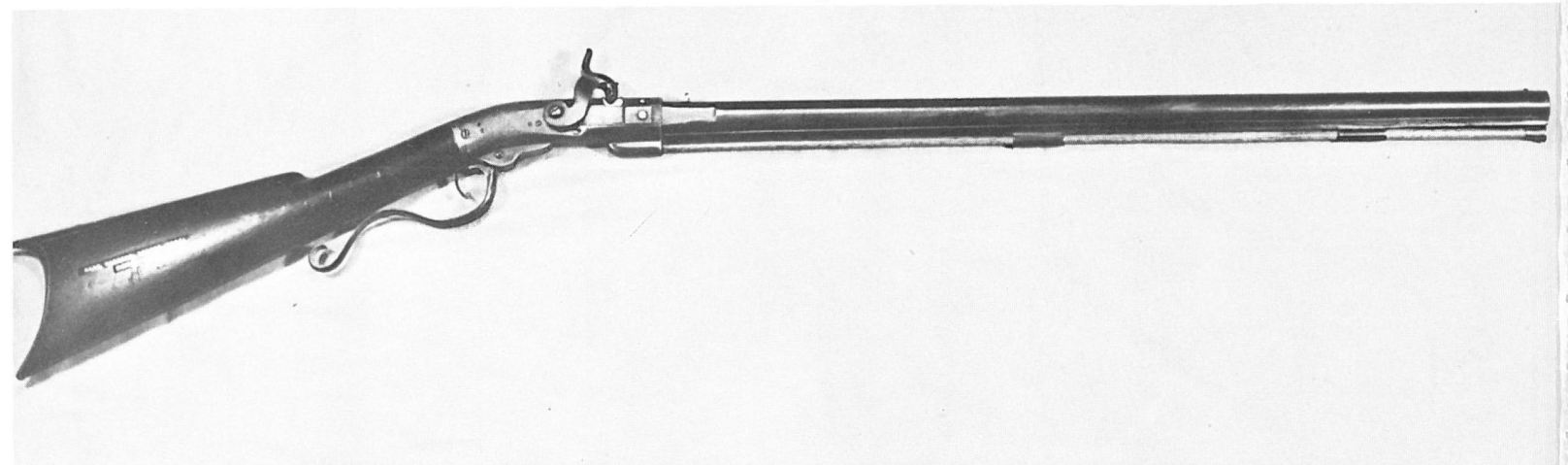


Figure 23. First (bottom) and Second (top) models, Serial 51 and 11. H. M. Stewart Collection

Figure 24. First model, Serial 51, full length.



pulled the breech block back to expose the chamber for loading. When closed, the breech block fitted snugly against the leather sole, creating the gas seal. When closed, a vent hole was routed from the percussion nipple down through the block, eventually reaching the face of the block where it made contact with the leather vented sole of the cartridge! The explosion of the cap traveled down through this vented tract and on through the end of the cartridge, causing the powder to ignite!

A study of about ten examples of the rifle reveals that there were two models. The first model here (Figures 23 and 24) shown on the bottom has a breech block which consists of a three link toggle system. The second model has only a two piece system. The other main difference is the first model's mortise type dust cover which closes over the normally exposed breech block. No such cover was fitted to the second model. Figure 24 is the only first model known to me and is serial #51. Serial numbers were

Figure 25. Double set triggers. H. M. Stewart Collection.



started over again when the gun was patented and production on the second model had begun.

It is obvious from this patent drawing and with both models seen here exposed, that the patent model was similar to serial #11, which I consider to be the later gun.

Most rifles and all of the shotguns will have single triggers, however double set triggers were available and appear on about 25% of the known examples (Figure 25). For the most part, the stocks are of very select birdseye maple, are fitted with cheek pieces and usually checkered at the wrist. Both the shotguns and at least one of the large size rifles have stocks of American walnut, as does the only known military musket.

Two of the shotguns which I have examined, both marked Sprague & Marston, very much resemble the large size .54 Cal. rifles with round barrels, except that they have approximately .70 Cal. bores and a part octagon barrel. Also, stocks are heavier and thicker and the butt plates are straight. See Figure 26.

Almost without exception, all rifles and shotguns were engraved at least on the frame, in an open

scroll pattern. Several have shields or various wild-life scenes in different places about the frame. I believe that most of the engraving was done by the Nimschke shop, in his style.

Probably the finest rifle known is shown in Figures 27 and 28. It is, by far, the most decorative piece I have ever seen, although it was not engraved by Nimschke. The work is listed in R. L. Wilson's Nimschke book of patterns on page 11, but marked with an "X", indicating that it was done by another engraver. It is more the style of Gustolph Young, and indeed it probably is his work, although there is no proof. Figure 28 is the left side of the frame showing a woodland scene with a buck and a doe in the foreground and a fawn in the background. Figure 29 is the right side showing rampant spotted mastiff, surrounded by scroll work and flowers.

In addition to the deluxe engraving, it has two gold barrel bands at the breech, just as you might expect to find on a better grade of Philadelphia derringier. This piece also has several other features which make it unique. The maker's name and address "W. W. Marston Patented 1850 New York" is engraved in script on top of the frame, instead of



Figure 26. Shotgun, Serial 4. H. M. Stewart Collection

Figure 27. Rifle engraved with deer scene. Also see Figure 28. H. M. Stewart Collection

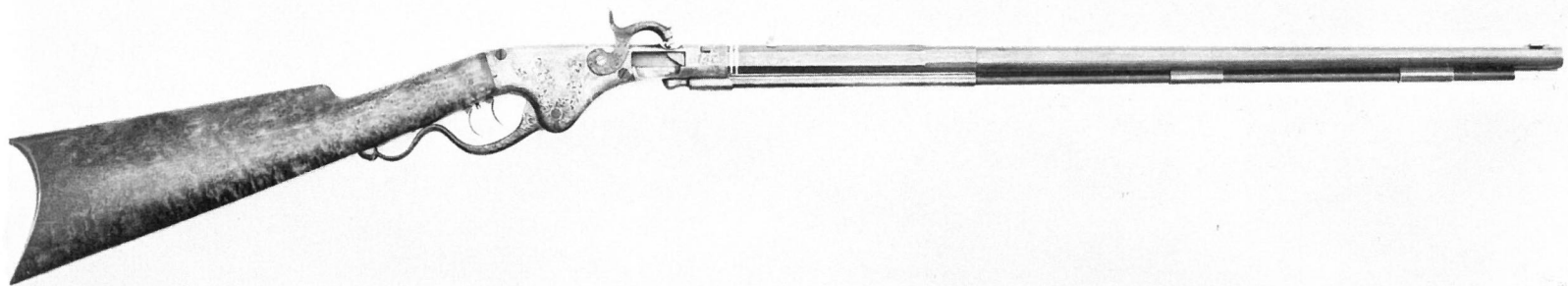




Figure 28 and 29. Close up of engraving on Figure 27 rifle.



being stamped on the left side of the frame in the usual manner. The barrel varies from standard in that it is part octagon and part round while the ram rod is of rosewood instead of ash, as was normally used. In Figure 30, you can see the three sizes of rifles and the musket.

1853 was probably the best manufacturing year for the rifles and also, the only year in which I can find record of any kind of specific advertising. The ad in Figure 31 came out on January 8, 1853, listing their price range at from \$25.00 to \$100.00 as well as the location of their showroom at 205 Broadway. This ad appeared in the "Scientific American", a periodical of that time. Marston also had a European sales representative in Paris, a Mr. Molton. Once again there are no records available on European rifles, if any. None of the rifles which I have examined have foreign proof marks of any type which would indicate foreign sales.

Rifles and shotguns will usually have browned barrels and case hardened colors on all other parts. The exception to this is the one known example of a military musket which is all blue. The ramrod pipes on earlier rifles will be affixed by screws, while on later examples, they were soldered. Both front and rear sights are dove-tailed into the barrel and are of the open, Kentucky type.

The pistols (Figures 32, 33, and 34) have identical actions, their only difference being that they fire a shorter cartridge. They will be found in .36 Cal. only. The barrels will measure in length from approximately 4" to 8". Most, about 90%, will have an octagon portion at the breech approximately 2½" long and the remainder of the barrel, no matter the length, will be round.

Most pistols will have iron frames that are case hardened with blued barrels, however about 20% will have frames of brass. The brass frame models were, for the most part, silver plated over the brass and had blued barrels. All hammers and levers were case hardened. While we are speaking of the brass framed pistols, each time you find a gun like this, the barrel will be marked "Cast Steel" on the top barrel flat next to where it joins the frame. This marking is not found on iron frame examples. I suppose it was placed on brass frame models so that the prospective buyer would realize the gun was made of quality material instead of just common iron.

There is one rule which holds true on Model 1850 pistols or rifles, that is, examples that are not engraved are truly uncommon.

The two pistols being shown in Figures 35 and 36 illustrate the two types of casings. Both boxes are of mahogany with linings of a rust-brown color. Please note that the lower gun is not engraved, and from the number of cartridges there, this must represent about half of the world's supply of .36 Cal. pistol cartridges.

Since I have never recorded a serial number on any rifle or shotgun above one hundred, I will have to assume that less than three hundred long

arms were manufactured. There is an excellent chance that each size of rifle and shotgun had its own serial range, but even if this were true, the production figures would not increase much. The fact that less than twenty-five known examples exist today helps to substantiate my theory.

The production of pistols, on the other hand, indicates a much higher production. Their serial numbers run consecutively and number over one thousand in total production. Even though that many were made, they are still among the rarest of the American made single shot pistols today. Their survival rate has been not much better. No doubt being a so-called secondary martial piece helped to reduce the number remaining. I would place the number surviving at less than one hundred.

Now we come to the Marston Revolver production and the trade names which were used. It is believed that Marston was among the first gun makers to use trade names rather than his own. It was earlier illustrated during the production of the single shot bar hammer pistols and also throughout the entire line of pepperboxes.

The Patent Office files do not reveal any papers requesting patents by Marston on any type of revolver. I therefore presume that his revolvers were pure copies of another gun, namely, the Whitney Arms Company revolver. Almost without exception, the Whitneys were better made and better looking.

The Colt-type loading lever was the only major difference which the Marston revolver exhibited during the first 11,000 pieces produced. After about serial #11,000, the loading lever became a Whitney type also. Only slight differences in the grip shape and in the trigger guards distinguish them from the Whitney.

Figures 38 through 47 show the evolution of the "Marston", "The Union Arms Co.", and the "Western Arms Co." In Figure 37, you can see here the strong resemblance between the Marston and Whitney guns. Note the slight difference in the trigger guard, loading lever and loading lever locking pin through the frame. The Marston revolver is the first type and is marked "W.W. Marston Phenix Armory New York City" on the top barrel flat. It is serial #550 in .31 Caliber with a 5 shot round cylinder and a 3½" octagon barrel. The trigger guard is of iron.

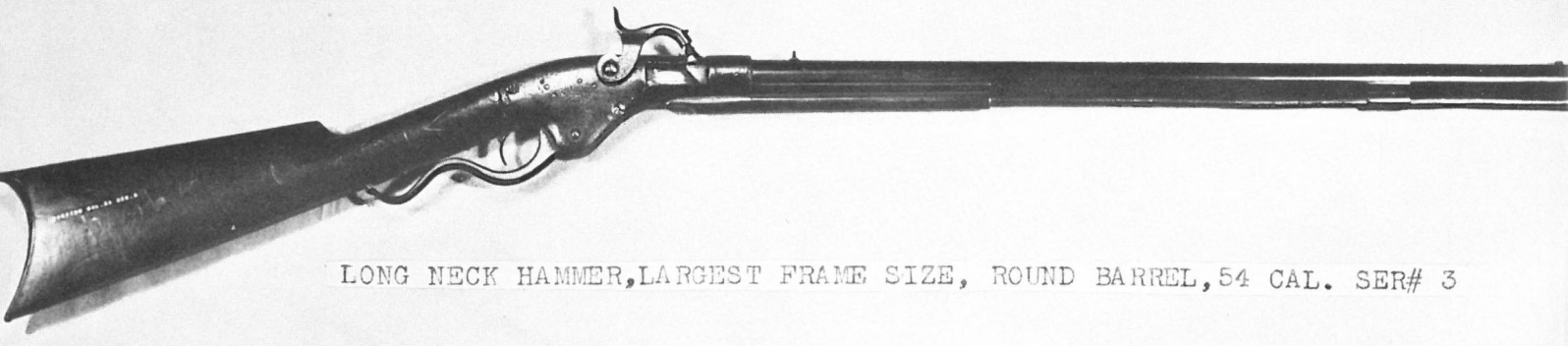
Figure 38 is marked with a two line address on the top barrel flat: "The Union Arms Co." It has a five shot cylinder, round, in .31 Caliber and a 4½" octagon barrel. Note that the grips are a square fit against the frame and that it is fitted with the Colt type two piece loading lever and rammer. The cylinder pin is secured by a screw through the frame on the center line of that pin. This is serial #1097 with a trigger guard of brass.

Figure 39 is serial #1882 and very much like the previous example except for the grips being rounded where they join the frame. It has a 7½" barrel which is marked with the same two line

FOUR DIFFERANT MARSTON RIFLES AND THE ONLY KNOWN EXAMPLE OF A MUSKET



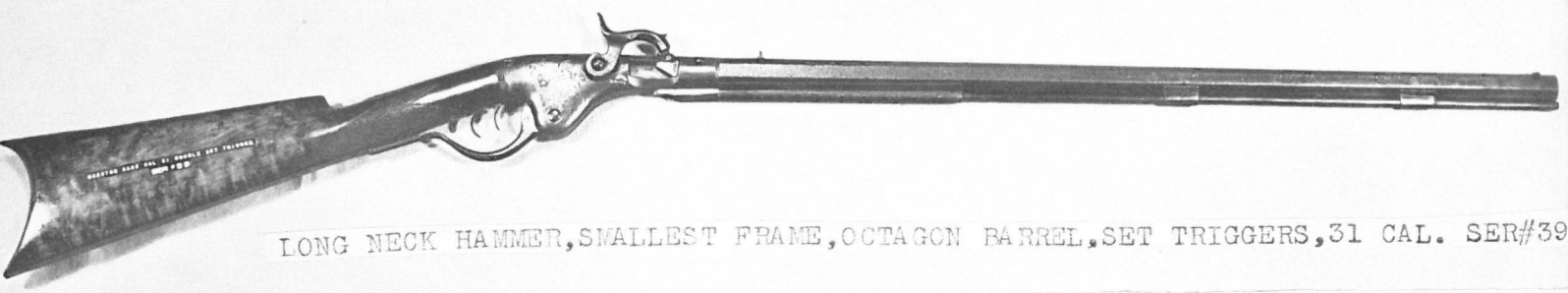
SHORT NECK HAMMER,LARGEST FRAME SIZE,ROUND BARREL,54 CAL. SER#14



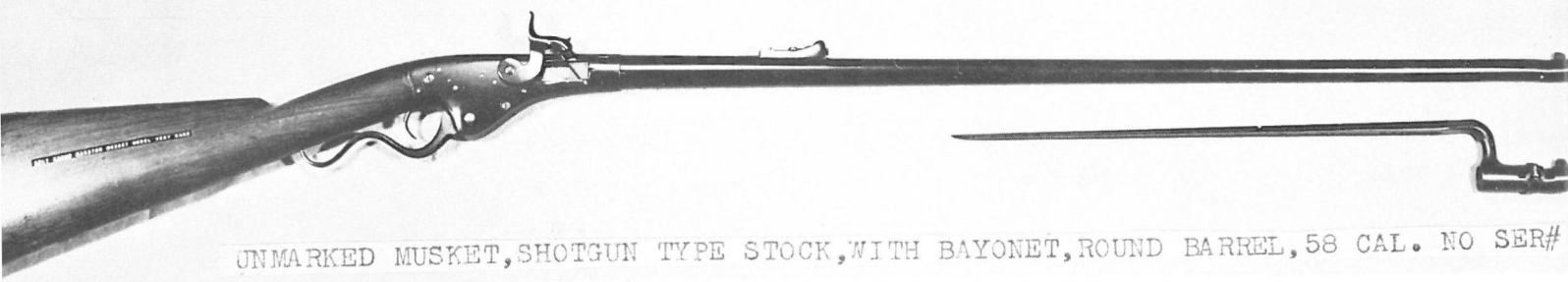
LONG NECK HAMMER,LARGEST FRAME SIZE, ROUND BARREL,54 CAL. SER# 3



SHORT NECK HAMMER,MIDDLE SIZE FRAME,OCTAGON BARREL,36 CAL. SER# 11

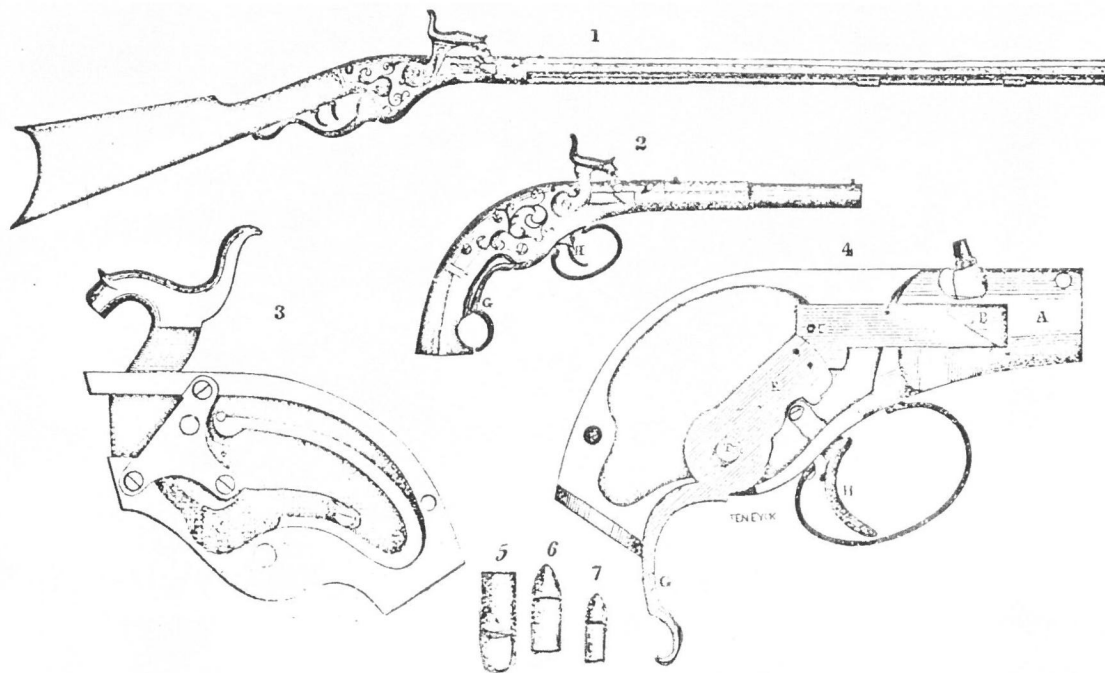


LONG NECK HAMMER,SMALLEST FRAME,OCTAGON BARREL,SET TRIGGERS,31 CAL. SER#39



UNMARKED MUSKET,SHOTGUN TYPE STOCK,WITH BAYONET,ROUND BARREL,58 CAL. NO SER#

Figure 30. Three rifles and a musket. The top rifle belongs to Sam E. Smith, the rest to H. M. Stewart.



BREECH-LOADING FIRE-ARMS AND PATENT CARTRIDGE.

MARSTON'S IMPROVED RIFLE AND CARTRIDGE. 301

MARSTON'S BREECH-LOADING FIRE-ARMS AND PATENT CARTRIDGE.

The annexed engravings present views of improvements in breech-loading fire-arms, invented by William W. Marston, of this city, and for which a patent was granted on the 8th of January, 1851; also the cartridge for such fire-arms; invented by Marston & Goodell, patented on the 18th of last May, 1852. Figure 1 is a side view of Marston's breech-loading rifle; figure 2 is a like view of a breech-loading pistol; figure 3 is an inside view of an improved gun-lock; figure 4 is an interior view, showing the patent breech; figure 5 is a side view of the shell of a patent cartridge, and figures 6 and 7 are upright views of two cartridges of different sizes. The same letters refer to like parts. This is a most superior and convenient breech-loading fire-arm. A, figure 4, is the butt of the barrel, which is let into and secured in the stock; B is the breech-bolt. It is both ramrod and breech at the same time, and in this consists one of its excellences. This breech is now pushed close to the butt of the barrel, and closes up the orifice of the bore. To load the rifle, apply the hand to the lever, G, and push it forward towards the trigger, H, and the breech, which is a sliding bolt, will be drawn back into the end of the dark recess exhibited, and expose the chamber for the reception of the cartridge. The cartridge, figure 6, is simply laid in this chamber, (which is then open before, as it is now behind the breech-bolt in figure 4,) and the said breech-bolt is made to force the cartridge into the bore of the barrel, by drawing back the lever, G, into the position shown in all the figures. The rifle or pistol is then loaded, and with a cap on the nipple, is ready to be discharged. This is certainly a very simple mode of loading a rifle or pistol, and can be done nearly in a second of time. The manner in which the breech-bolt is operated and maintained snugly in its place exhibits great ingenuity. The inside of the loading lever, G, is a small arm, E, which forms part of the lever, (which works upon the fulcrum or axis, F,) and on its extremity is a cam groove; a pin, C, in the back end of the breech-bolt, B, passes through this groove. When the said breech-bolt is pressed close up to the ball in the barrel bore, the end of it at C is in the same position and combination of arrangement as the keystone of an arch, to receive the backward force of the discharge, in the same manner as pressing upon the apex of the arch. The combination is an ingenious mechanical arrangement. A small round part, in front of B, fits behind the cartridge and enters the bore of the barrel snugly, so that it is impossible for any leakage of flame or powder to take

place. A small hole is drilled through the centre of the breech-bolt, which communicates with the priming hole of the cap nipple to ignite the powder in the barrel. This sliding breech-bolt along with the loading lever is a very strong arrangement; no charge of powder can move it in the least. The loading is always uniform, without trouble or variation in the result.

CARTRIDGES.—The cartridge is composed of the shell, 5, in which the conical bullet shown in figure 6 is placed and cemented, and the rest filled with powder. The butt of the cartridge is a disc of leather with a small hole in its centre, to let the flash of the priming cap pass through the priming hole into the powder. The edges of the leather disc are greased, and the disc of one cartridge is driven out by the bullet of the next cartridge, as the said part of each cartridge is left behind. Every succeeding cartridge, therefore, by driving out the previous leather, cleans out the barrel, so that rifles using such cartridges never require to be swabbed out. The barrel will remain bright inside after firing a thousand shots.

LOCK.—The lock is of the common kind, but as applied to this rifle, it affords the means of strengthening the small three-legged brace plate screwed over the tumbler, which operates the hammer. M L are the springs abutting on the tumbler into the notches, K, of which the trigger-latch, I, catches. The two sides of this lock are raised flanges, and thus it differs from the common lock, inasmuch as the springs, &c., are contained in it as in a box; the common lock is let into the stock; this one is merely screwed to the stock. The cartridges are an excellent invention, and the principle of thus loading at the breech is the most simple and best yet presented to us.

Rifles, pistols, and shot-guns are now manufactured on a large scale, under the eye of the inventor, a practical gunsmith, in the factory on the corner of Washington and Jane streets, this city. No less than ninety hands are employed, and rifles from \$25 to \$100 are constructed. This rifle will, no doubt, arrest the attention of Mr. J. Chapman, author of the *American Rifle*. The question of good fire-arms has been an exciting one for some time, and at the present moment, this rifle of Mr. Marston is creating quite a stir in the capital of France, where Mr. Molton has been astonishing the Parisians with its excellent qualities in rapidity of loading, length of reach, and accuracy of aim. We have no doubt but the breech-loading fire-arm will yet supplant the muzzle-loading kind entirely. Why should the ball be rammed down from the top of the barrel to the bottom, to be driven back the old road again? Not one scientific argument can be adduced in its favor, but plenty against it.

These rifles can be seen at the store of Mr. Marston, No. 205 Broadway, this city.

Figure 31. Scientific American advertisement, 8 January, 1853.



Figure 32. Pistol, formerly in W. Locke Collection

Figure 33. Serial # 1, 6 inch barrel, brass frame. Formerly in the W. Locke Collection.





Figure 34. 8 inch barrel, brass frame,
Serial 65. Formerly in W. Locke
Collection.

address and the frame is engraved in an open scroll pattern.

Figure 40 is serial #3032, engraved in the same fashion as the last piece. The barrel is 3¼" with the same two line address and this one is fitted with an iron trigger guard.

At this point we find that around serial #6,000, some of the cylinders become half fluted, as the example shown in Figure 41. This is serial #6840 in .36 Caliber with a 5 shot cylinder. It has the same two line Union Arms Co. address on the 6¼" barrel and the trigger guard is of brass. The top of the frame is notched so as to be used as the rear sight. The cylinder pin bolt is still on center but extends only half way through the frame.

Figure 42 is serial #6210 and it is identical to the last gun except that it has markings which did not become standard until around the 8,000 serial number range. It is marked in one line: "The Union Arms Co." on top of the barrel.

Figure 43 is serial #10452 with the same one line Union Arms Co. address. About serial #10,000, several changes took place. Marston began making guns in .36 Caliber with 6 shot cylinders. This example is in that configuration. At this time, the cylinder pin bolt was again moved, this time to an off center position just above the pin. Once again, it goes completely through the frame. Also at this point, round barrels came into being, dropping the previously used octagon ones. This piece has a 5¾" barrel and a trigger guard of brass.

Figure 44 is Serial #10945. It is exactly like the previously shown gun except that it has a 4¾" round barrel marked: "Western Arms Co. New York" in one line.

Figure 45 is serial #11741, from this point on, all revolvers will have the Whitney type loading lever. This one has the one line Union Arms Co. address on a 4½" round barrel with the Whitney type loading lever. Otherwise, it is identical to the last revolver. Figure 46 is another example exactly like the previous one except with a 5¼" barrel. It is Serial #12435. Some later examples will be found marked: "Western Arms Co. Chicago Ill." in two lines. Revolvers marked with the Chicago address were also made in New York. Production ended with about 13,000 revolvers having been made. This number was far greater than any other type gun which Marston produced.

At the beginning of the Civil War, Marston tried on numerous occasions to secure Government contracts for the manufacture of his own products for the military. One such example was the musket which we covered earlier in this talk. All of these efforts failed, however he did make several military contract pieces which were not his own inventions. Figure 47 is a Coston Signal, or Flare Pistol made by Marston early in the War. This piece is Serial #82 and is considered to be a first type. Signal and Flare pistol collectors refer to it as the 1861 model because most examples are marked with that date. It is about nine inches in overall length, unloaded. The entire piece is made of brass except for the springs and moving parts such as the hammer, trigger and flare holding mechanism.

Examples that are marked will read "U.S. Army Signal Pistol A.J.M. 1861" in two lines just forward of the trigger on the bottom of the frame. The initials A.J.M. which appear on the pistol were the initials of Major A.J. Myer, who was chief signal

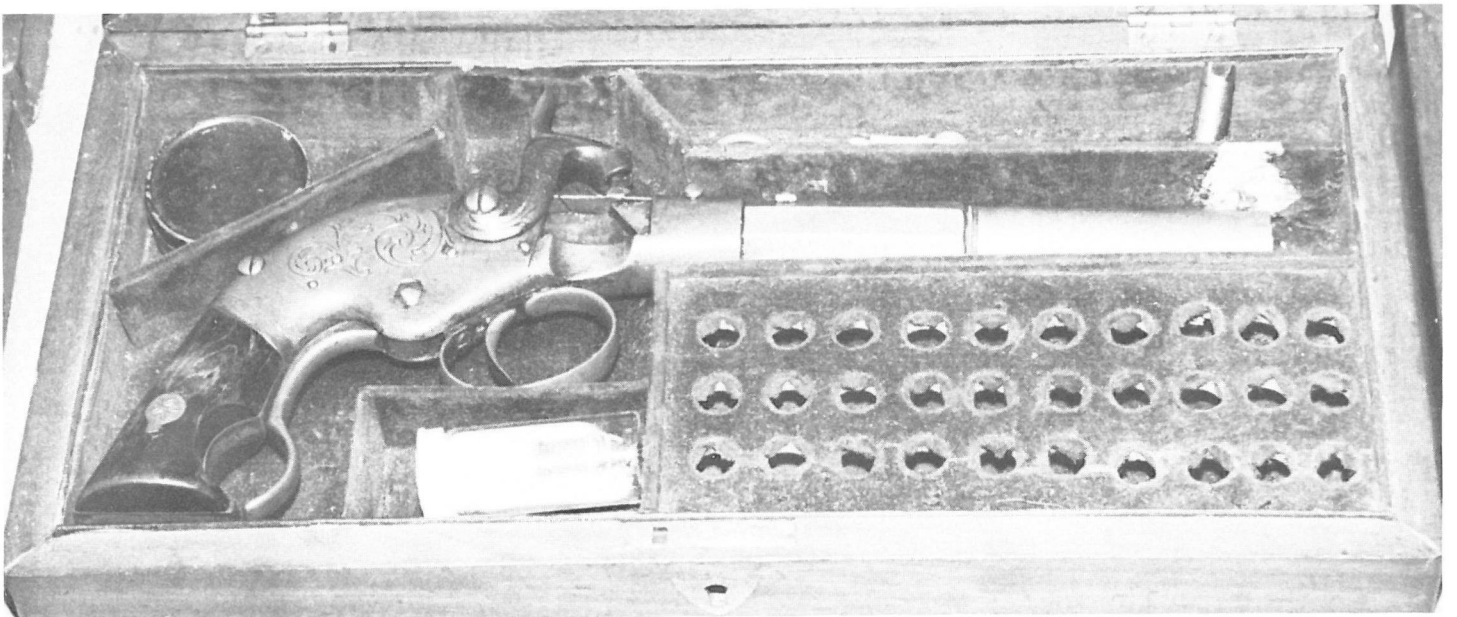


Figure 35. Cased pistol. Formerly owned by A. M. Chernoff

Figure 36. Cased pistol. Formerly part of the H. M. Stewart Collection.

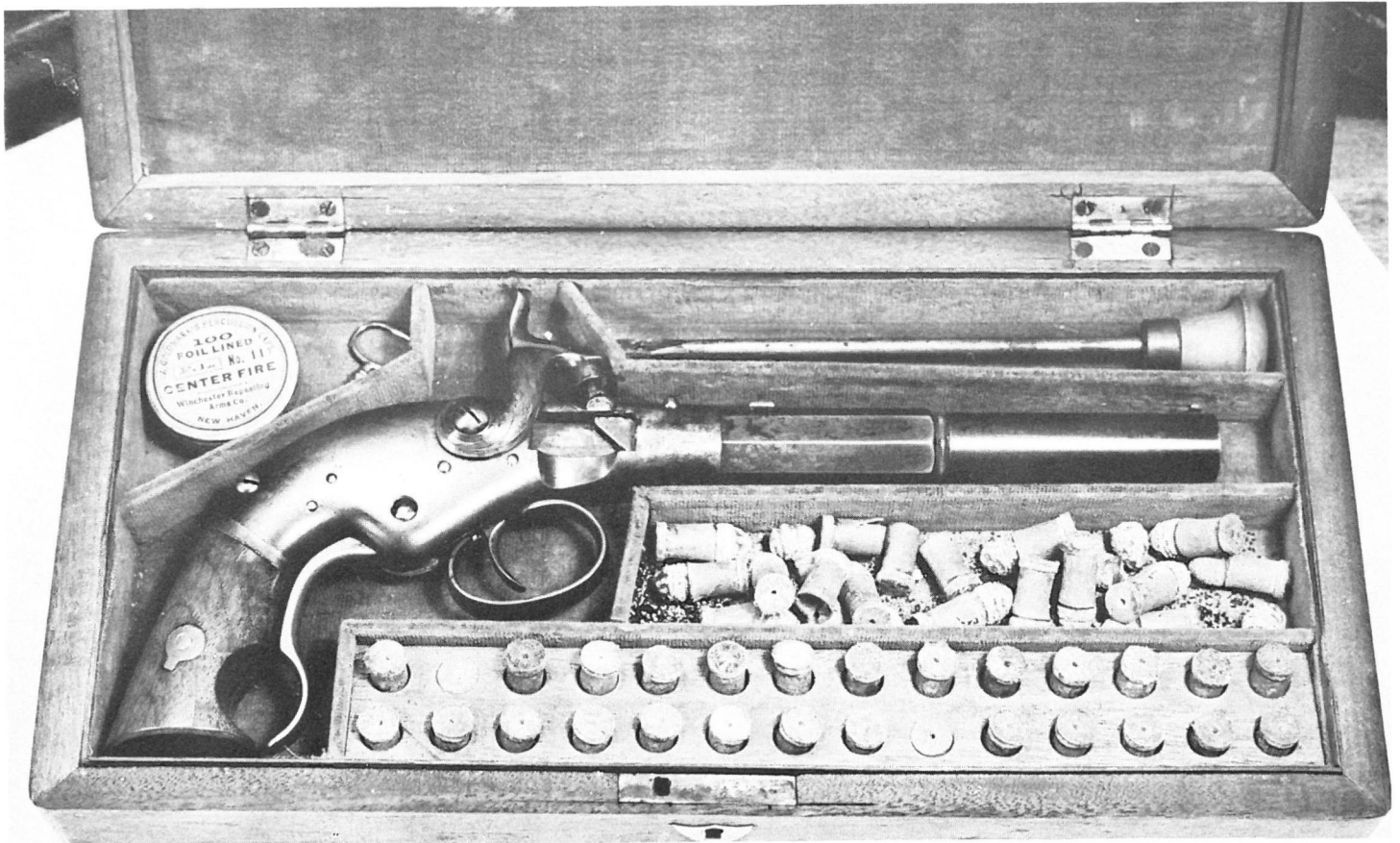


Figure 37. Marston Phenix Armory Revolver and Whitney Revolver. H. M. Stewart Collection

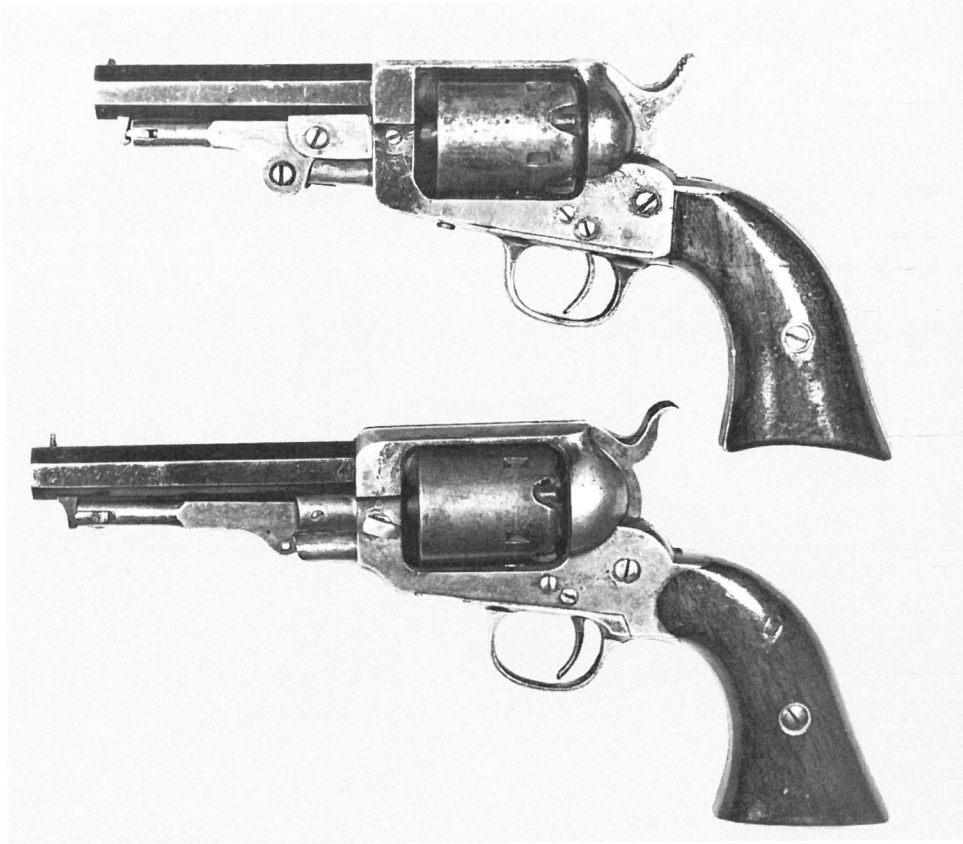


Figure 39. Union Arms Co. H. M. Stewart Collection

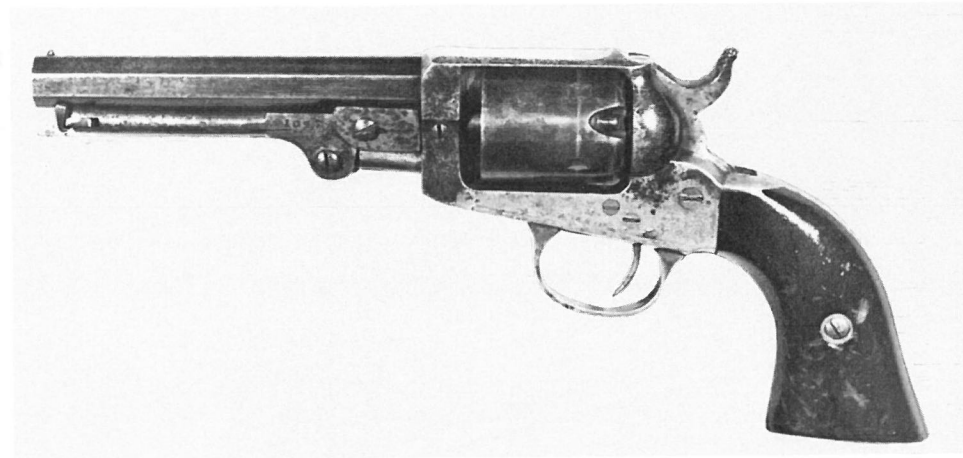


Figure 38. Union Arms Co. H. M. Stewart Collection

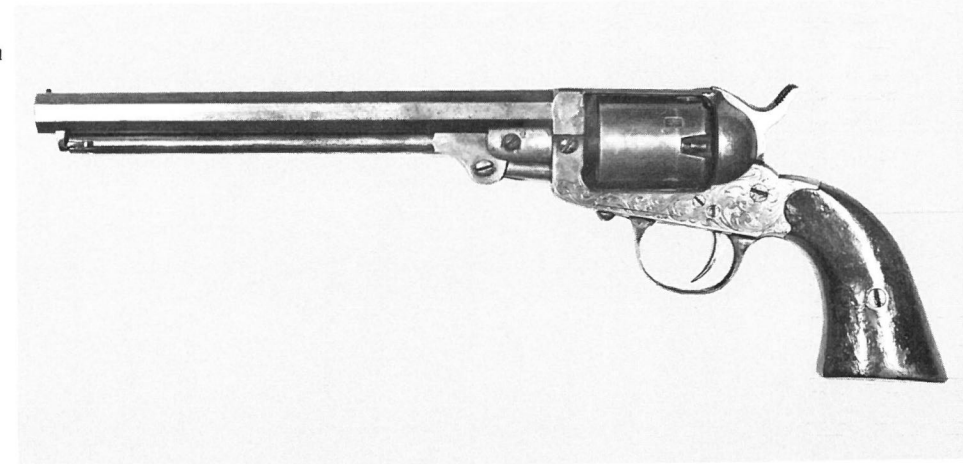


Figure 40. Union Arms Co.
H. M. Stewart Collection



Figure 41. Union Arms Co.
H. M. Stewart Collection

Figure 42. Union Arms Co., one line address.
H. M. Stewart Collection





Figure 43. Union Arms Co., one line address. H. M. Stewart Collection

officer at that time. Government records show that two purchases of the first model were made. 404 were purchased on December 6, 1861 at the price of \$5.50 each with an additional 100 ordered on December 20, 1861. Even though these records indicate that at least more than five hundred were manufactured, the highest serial number recorded by my good friend Frank Russell is #234. Mr. Russell is far more knowledgeable in Flare pistols than I.

Figure 48 is the second or 1862 Model and is also made of brass except for springs and other moving parts, etc. The grips are walnut and the length is approximately seven inches overall, unloaded. Production figures for this model were probably higher, as Mr. Russell's serial numbers go to 1031. Because of the complete lack of any known examples with serial numbers lower than those in the first model range, I feel that the serial numbers ran continuously from the first through the last of production. 1862 Models are marked in two lines also reading "U.S. Army Signal Pistol 1862 A.J.M."

Both models were made to use the flare cartridge with which you see them pictured. These flares were called "Coston Lights", so named after their inventor, Benjamin Franklin Coston. Mr. Coston is the probable inventor of the first signal pistols.

Figure 49 is a page from an Army Manual and shows the 1862 type of pistol, its correct uses and the accoutrements for it.

The other item made by Marston for the military was the Gibbs Carbine, shown in figure 51. The inventor of this carbine was Lucius H. Gibbs, of Oberlin, Ohio, who assigned the patent to Wm. F. Brooks. Brooks used the company name of Gibbs Arms Co., New York, N.Y. but the guns were produced by W. W. Marston at the Phoenix Armory. Just over one thousand of these carbines

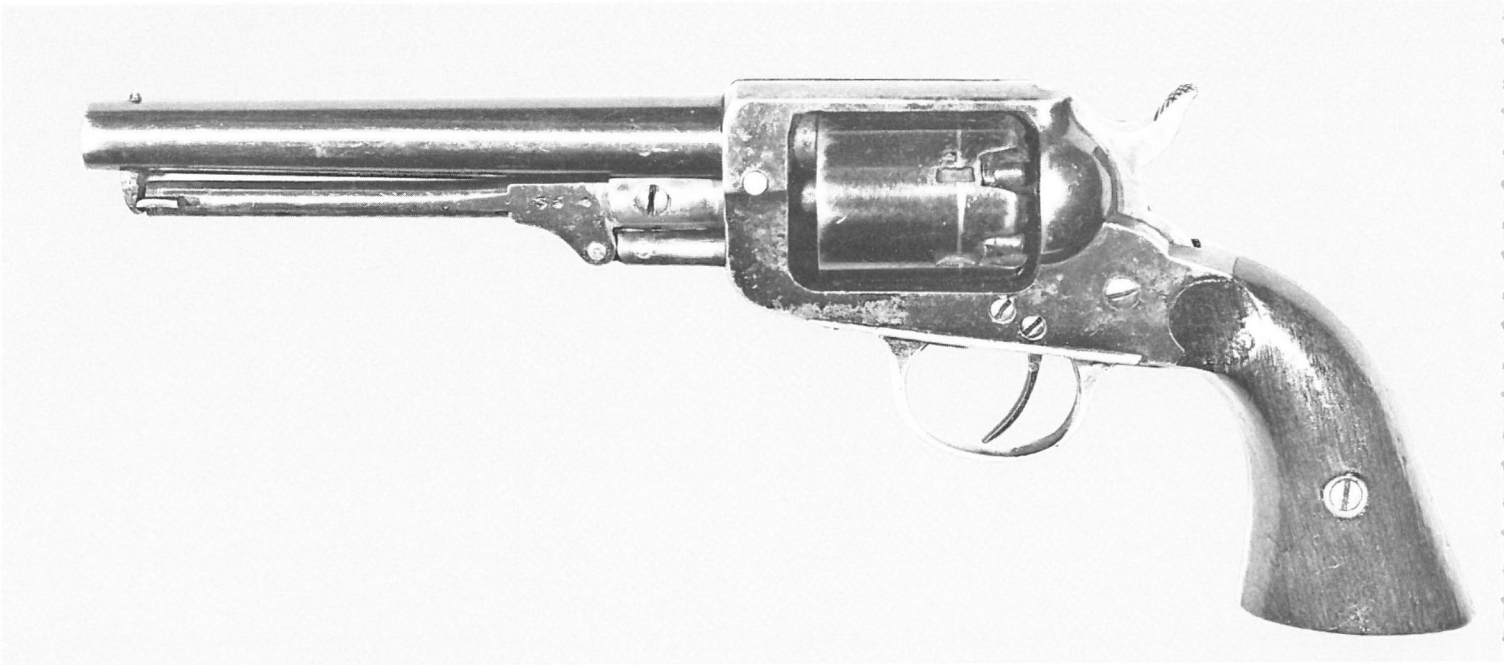
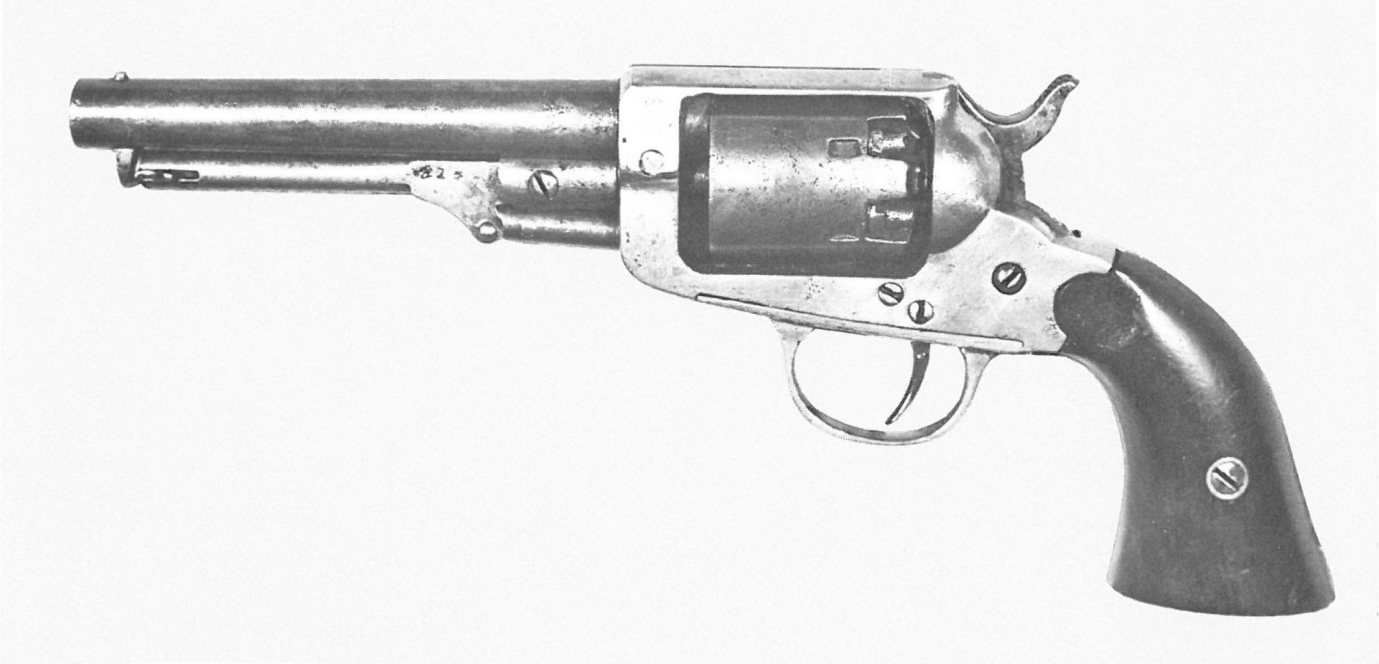
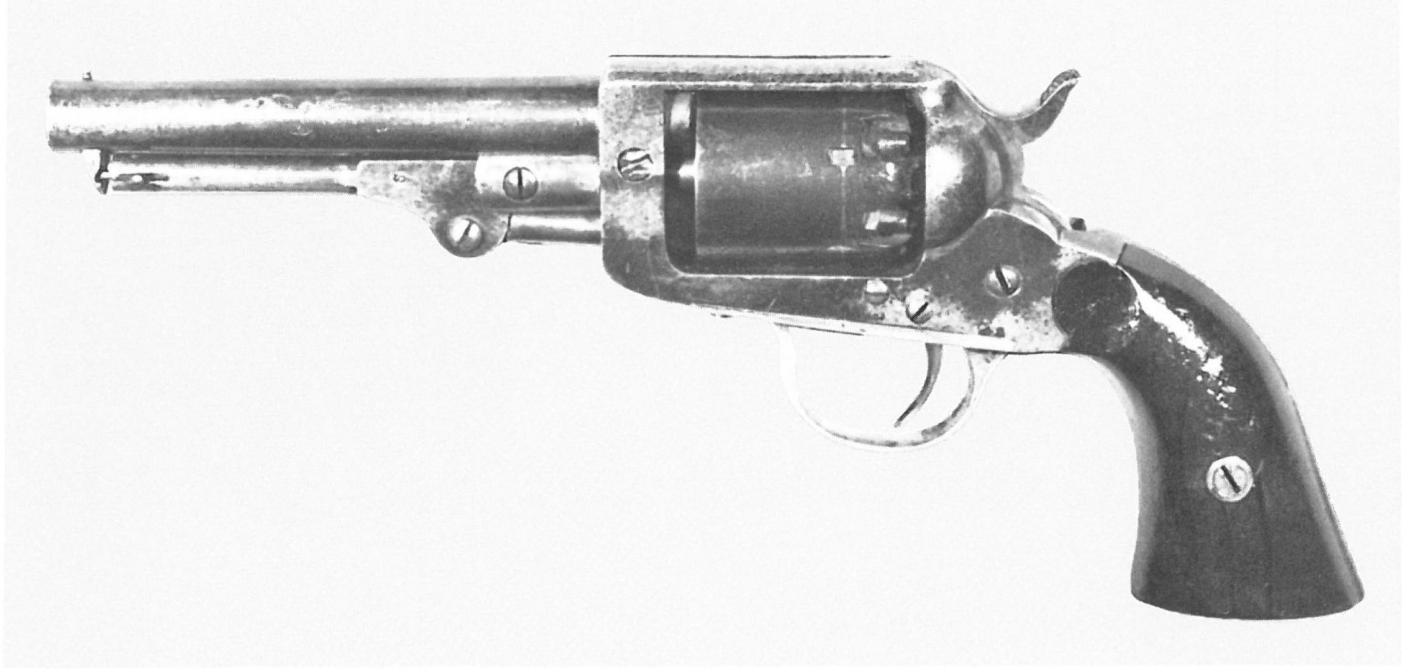
were manufactured early in 1863 before operations were ceased when the plant was damaged by fire during the draft riot on July 13, 1863. The government paid an average price of \$24.00 each for these weapons.

This gun is marked on top of the receiver-bolster in three lines: "L. H. Gibbs, Pat'd Jan'y 5, 1856". The tang of the butt plate is marked "U.S."

Another such transaction, which was only an alteration of the Hall Carbines, was performed by Marston. This involved rifling of the barrels only. He performed this task on 4,000 of the 5,000 Carbines that equipped Gen. John C. Fremont's troops. This transaction took place in August and September of 1860. Marston was paid 75¢ each for this service.

During the Civil War almost every gun maker, inventor and machinist tried his best to improve or at least change some type of firearm or ammunition. Wm. W. Marston didn't intend to be left out. He had experienced great difficulty, as had many other ammunition makers, with getting the fulminating material distributed evenly in the base of a closed cartridge case. This was a problem with both the teat fire cases as well as the regular rim-fires. After some study, he filed application on September 9, 1863 for a patent on a new type of center fire cartridge case (Figure 51).

This case was supposedly stronger because of its double thickness in the rear of the casing and would help prevent blow back. It would also be easier to load because of a separately loaded cap or flanged nipple, which fit down inside the case and protruded out the rear of the base, much like a teat fire except that it was made in two pieces. After the flanged primer was inserted and crimped, the powder and projectile followed to complete the round.



OPPOSITE PAGE

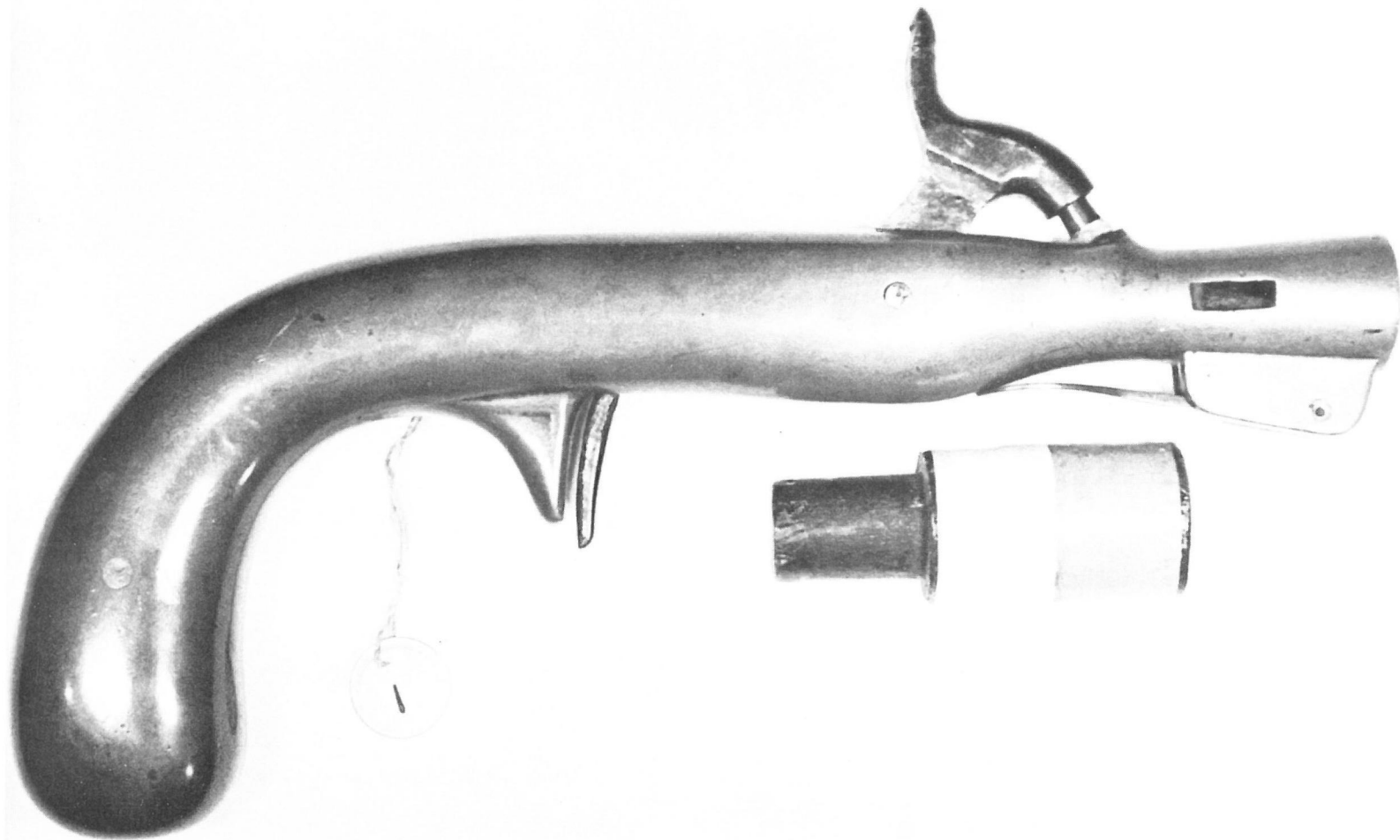
Figure 44. Western Arms, one line address. H. M. Stewart Collection

Figure 45. Union Arms Co., one line address. H. M. Stewart Collection

Figure 46. Union Arms Co., one line address. H. M. Stewart Collection

BELOW

Figure 47. First model Flare gun.



This was one of the very first center fire cartridges made and worked much like our modern-day primers. The idea was basically sound and patent number 40490 was granted on November 3, 1863. Although many inventors won immortality during this period, Marston's cartridge never caught on. I know of no firearm which ever came into being because of this cartridge innovation. Nor have I ever seen one of these cartridges.

And now we come to my favorite weapon, the three barrel Derringer. As we have seen, Marston made pepperboxes and boot pistols when they were popular during the 1840's and '50's. Near the end of that decade, with the Henry Derringer percussion model at its peak of popularity, our enterprising Mr. Marston made plans to capitalize on that market also. To accomplish this, he came up with what I, and several others, consider to be the forerunner of the first cartridge derringer in small

caliber. I should like to inject here that Daniel Moore is credited with having produced the first large bore cartridge derringer in 1859. We shall cover this .22 Caliber model shortly, but first, we will look at the patent and design of the rarer percussion forerunner.

The patent shown in Figure 52 was submitted as an improvement in repeating firearms on May 6, 1857. This venture would prove to be Marston's second most successful, being surpassed only by his large production of revolvers. The principle of this improvement was the rising plunger type action, or as it is better known, the rising firing pin. The plunger, or striker, starts the firing action with the lower of the three superposed barrels, these barrels being attached to the frame in line with the plunger. This plunger then ascends to the next percussion nipple each time the hammer is cocked for the next shot . . . or as fast as the holder could

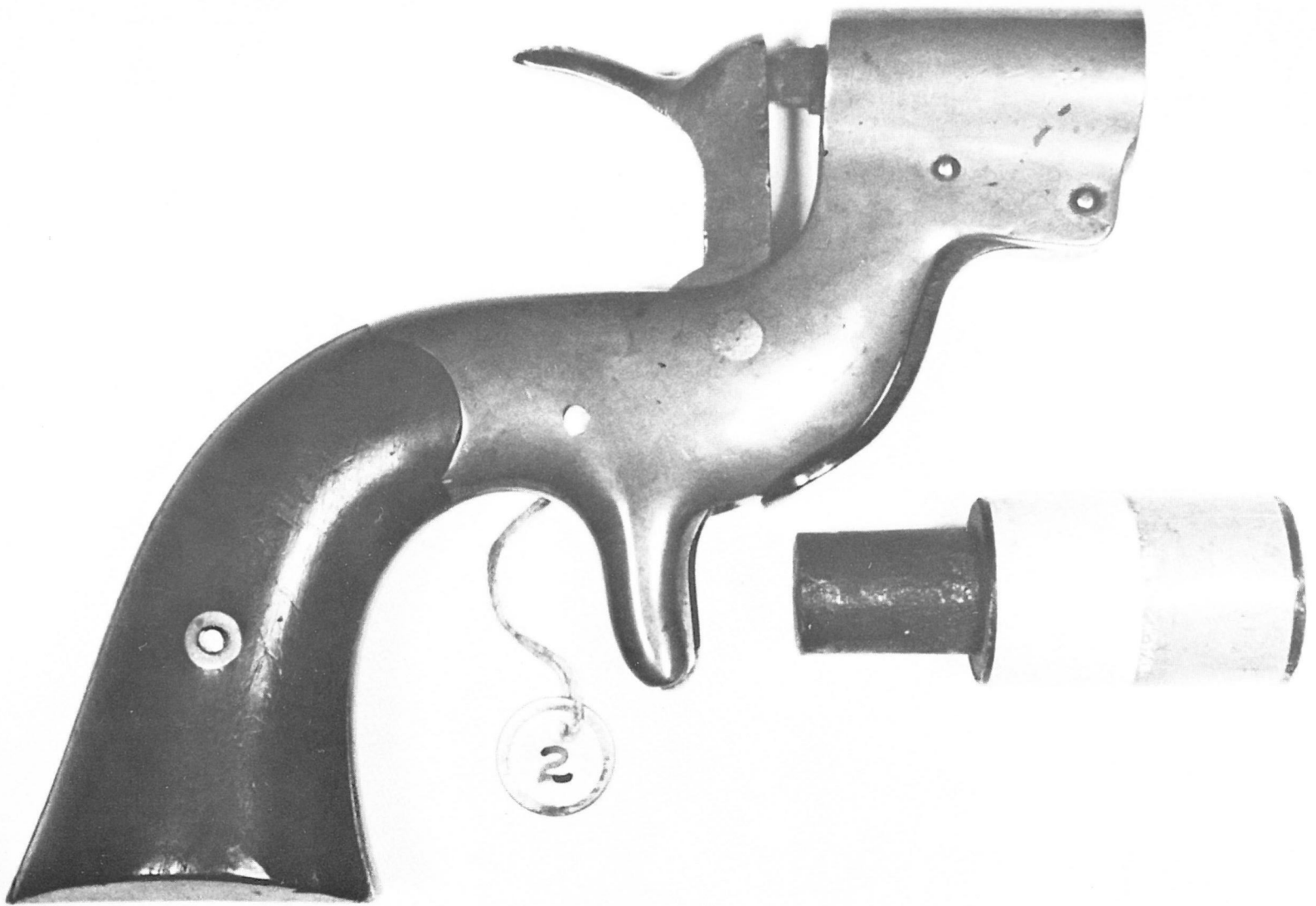


Figure 48. Second model Flare pistol. Frank Russell Collection

work the single action mechanism. This would give the shooter three consecutive shots from a small, flat weapon which was easily concealed on his person.

This invention was evidently well received by the Patent Office, as patent number 17386 was granted on May 26, 1857, barely three weeks after it was submitted!

Though the patent was issued in near record time, for some strange reason, Marston did not immediately start production. There are only five known examples of this percussion model in existence today, so I feel quite safe in saying that it never reached full production. All of the existing examples have serial numbers below ten, which helps to substantiate this theory. There is, however, on page 89 of the Nimschke engraving book a cut, labeled a "Webley revolver frame", which is in reality, a double action percussion Marston frame. Dates on three other cuts from this page indicate that this gun was engraved in 1862. Why one of these pieces was made at that late date remains an unsolved mystery. As none of the known examples are engraved in this pattern, there is a

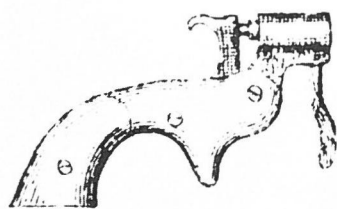
very fine piece out there somewhere, just waiting to be discovered.

From the following pictures you will be able to see notable changes in appearance and mechanics. I have been fortunate enough to examine the first four percussion models produced and have placed them in this order of manufacture.

Figure 53 is the patent model itself and of course, has no serial number. Note the small disengaging button behind the trigger guard, as shown in the patent drawing. This button allowed the user to reset the striking plunger to the lower position by pressing inward.

Figures 54 and 55 (top) is the inventor's personal weapon which is almost identical and also has the disengaging button. You will note that both the patent model and Marston's personal piece have hammer spurs because they were single action, as was the patent. However, as serial #1 and 2 were in double action, you will note the complete absence of any type of hammer spur. Also note the incut type rear of the slimmer frame, which could be classified as a second model, technically speaking. On serial #1, Figure 56, an attempt was made

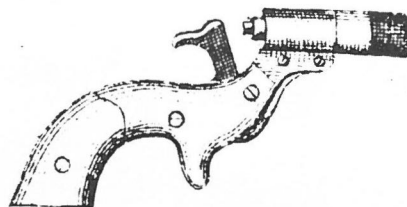
PLATE XXIII.



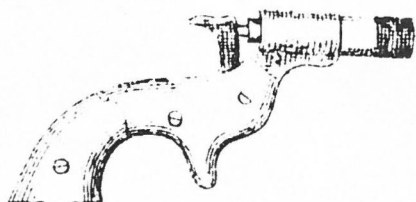
Signal Pistol.



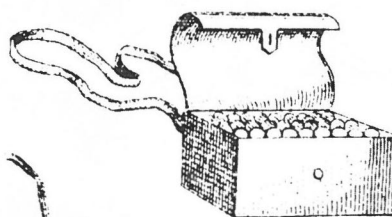
Signal Lights.
Composition fires.



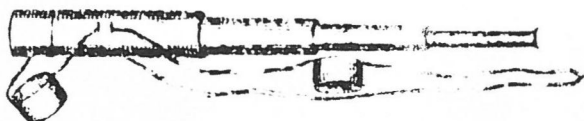
Signal Pistol Charged
with composition Light.



Signal Pistol Fired



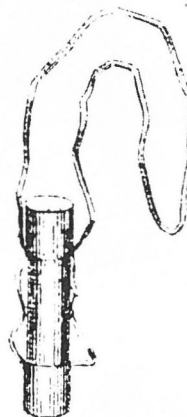
Belt box open showing
Signal Lights Contained.



Telescope uncapped & opened for use



Strap & case for
Telescope closed and
Binocular Glass. capped for transportation.



Wand for practice.



Instruction in Signaling;
practice with wands.

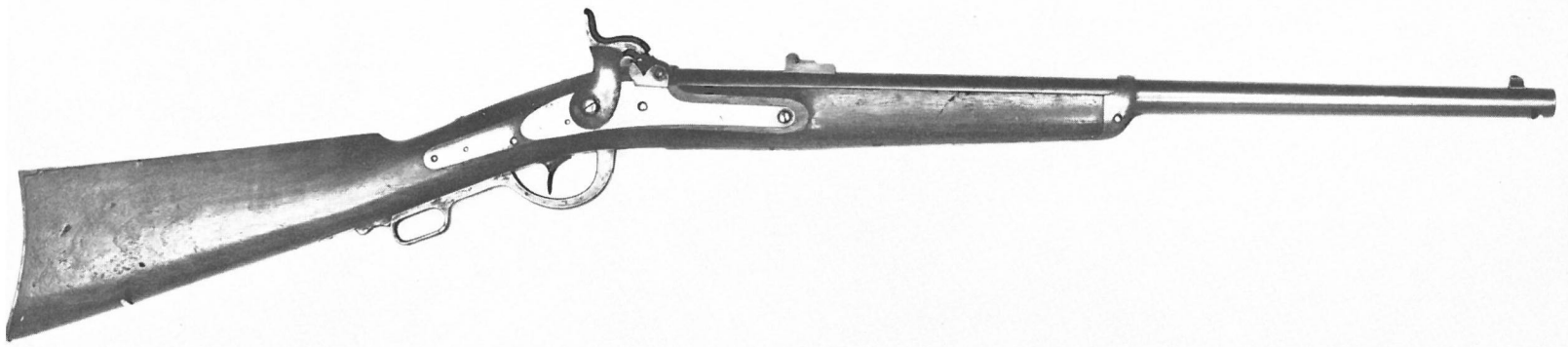
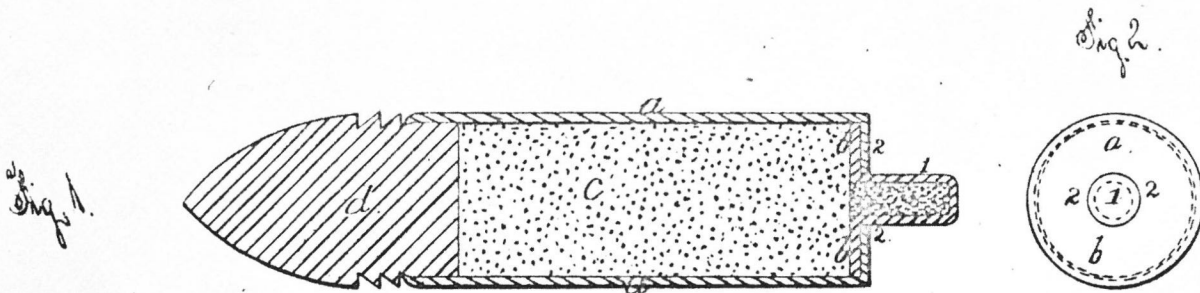


Figure 50. Gibbs Carbine. Milwaukee Public Museum

*W. W. Marston,
Cartridge.*

No. 40,490.

Patented. Nov. 3. 1863.



*Witnesses,
Samuel W. Lowell
Chas. H. Smith*

W. W. Marston

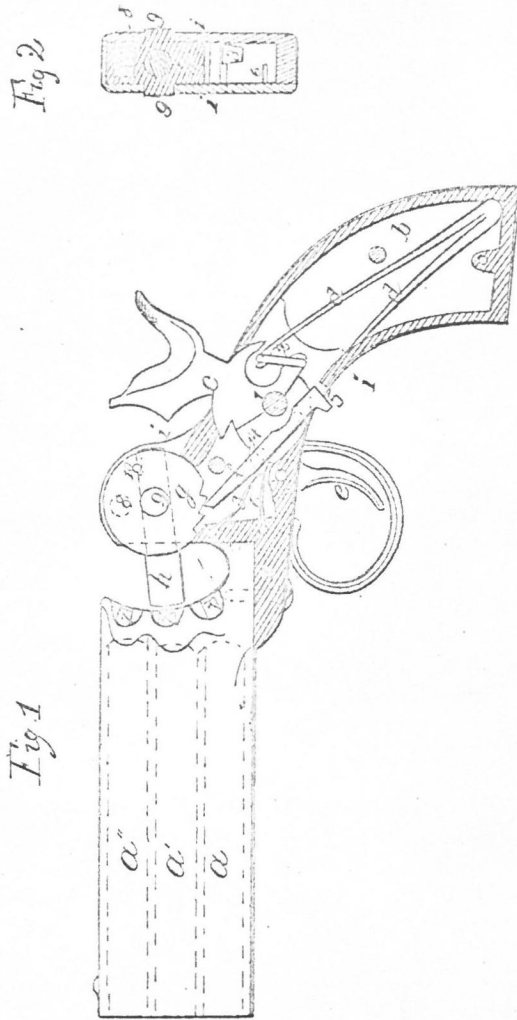
Figure 51. Marston cartridge patent

W. W. MARSTON.

Revolver.

No. 17,386.

Patented May 26, 1857.



W. W. Marston

Lawrence H. Serrell

Thomas I. Harold

Figure 52. Marston rising plunger patent



Figure 53. Patent model

to improve the plunger release by adapting the button to a lever. This idea must have survived for only a short while as serial #2 (Figure 57), as you can see, had neither the button nor the lever. Instead, its plunger can be moved freely up or down at any time the gun is at half cock. This is accomplished by pulling the trigger half way back, thereby making the hammer disengage from the plunger so that it can be moved.

Percussion models all have barrels approximately 4" long. Marston's personal gun is marked with a three line semi-circular address in a shell design on the right side of the frame: W. W. Marstons/Patent/1857. All others are marked with a one line address in the top barrel flute on the right side: Wm. W. Marston New York Pat. May 26, 1857.

Marston's piece is fitted with ivory grips while the patent model has grips of rosewood. All others have walnut grips.

My opinion as to why the percussion model never went into full production is that it was superseded by the birth in the latter part of 1858 of the .22 Caliber cartridge model, or dagger pistol. These compact, combination weapons would appear at first glance to have been highly desirable but a production figure of less than 1400 over a period of approximately seven years would tend to indicate otherwise. They were replaced by the improved model of 1864.

The .22 dagger pistol operated very much like the percussion model except that the plunger striker was converted to a firing pin and the barrels were hinged to the frame and swung downward for loading. After loading, the barrels were placed

upright and secured with a turnable latch on top of the frame which was notched to act as the rear sight.

A new feature was added to this model which made it unique. This was the combination firing pin reset and outside firing indicator. With the firing pin turned all the way to the bottom to begin a complete upward cycle, the indicator points to zero and each time the gun is cocked, it indicates the next number above. In this manner the user can tell at a glance which barrel is to be fired and how many shots remain. From this model forward, all Marston derringers have this desirable feature.

Figure 58 is a transition model, between the .22 Caliber and the .32 Caliber model of 1864. It is about ten per cent larger overall than the .22 but somewhat smaller than the standard .32 and has no blade. The larger type hammer found on the .32 is used. The absence of a cartridge retractor makes it appear to be the .22 Caliber model but the top frame screw on the right side is found only on the .32 Caliber gun. In caliber it is unlike either, measuring .26 Caliber at the bore and making it truly unique in this respect also.

It is extremely unusual to find the .22 Caliber model without a blade and to my knowledge there are less than ten known. (Figures 59 and 60). Three basic blade designs will be found on pieces with blades. In Figure 61, from top to bottom, the rarest blade is the extreme double spear point, then the rounded double spear point and finally, the common type single edged, clipped point. The blade is kept in place by a spring which also served as a thumb piece to slide the blade forward and lock it into place. When locked in place in the two



Figure 54. Marston's personal gun

Figure 55. Marston's personal gun, reverse side, and serial #2.



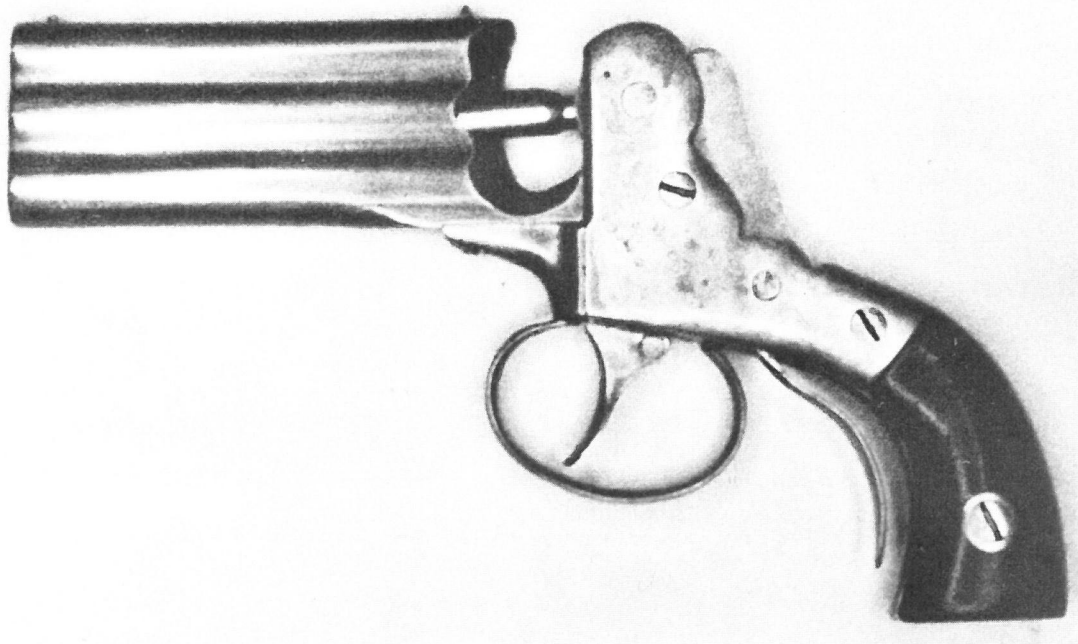


Figure 56. Serial # 1



Figure 57. Serial # 2, reverse side.
Author's collection

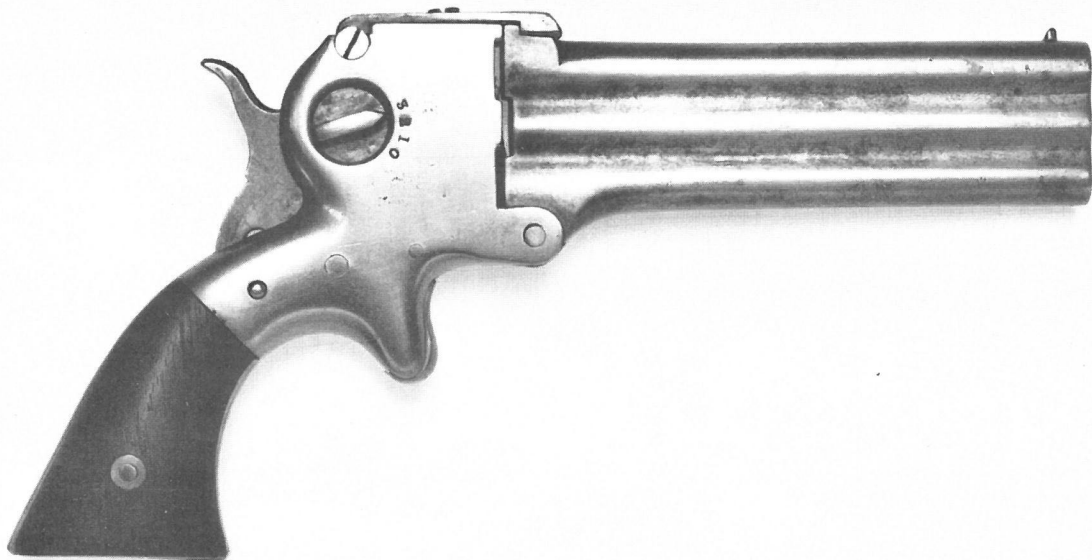


Figure 58. .26 caliber. Milwaukee
Public Museum

forward locking slots, it is ready for action.

All of the .22 Caliber dagger pistols are engraved in some way, either on the frame or the gun overall. They will be found with several different types of markings as shown on page 39. The majority will have grips of walnut but occasionally ivory or pearl was used, usually on very fancy

specimens. Frames were usually silver plated and the barrels blued. In my collection is a specimen with a frame of solid sterling silver and grips of burl walnut, yet it is a standard model with no special engraving or presentation inscription. This piece illustrates that in Marstons, anything may turn up.

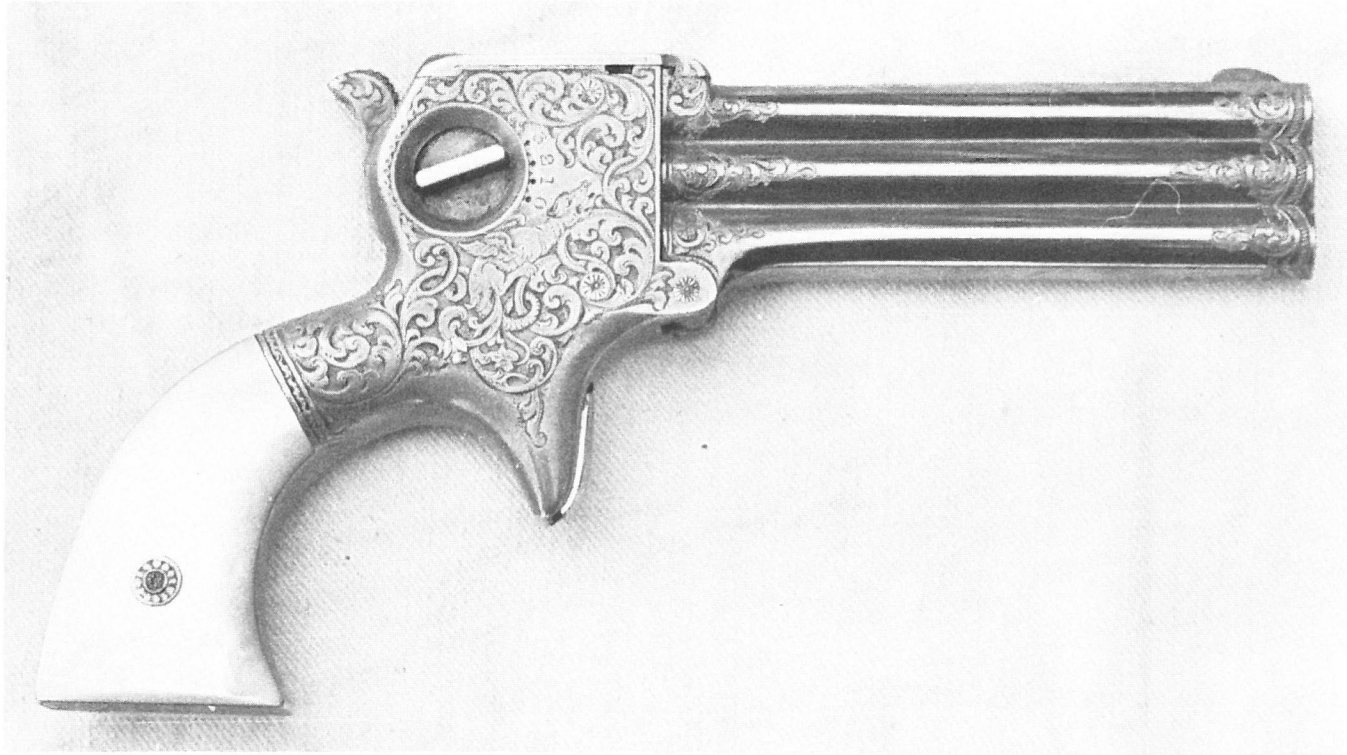
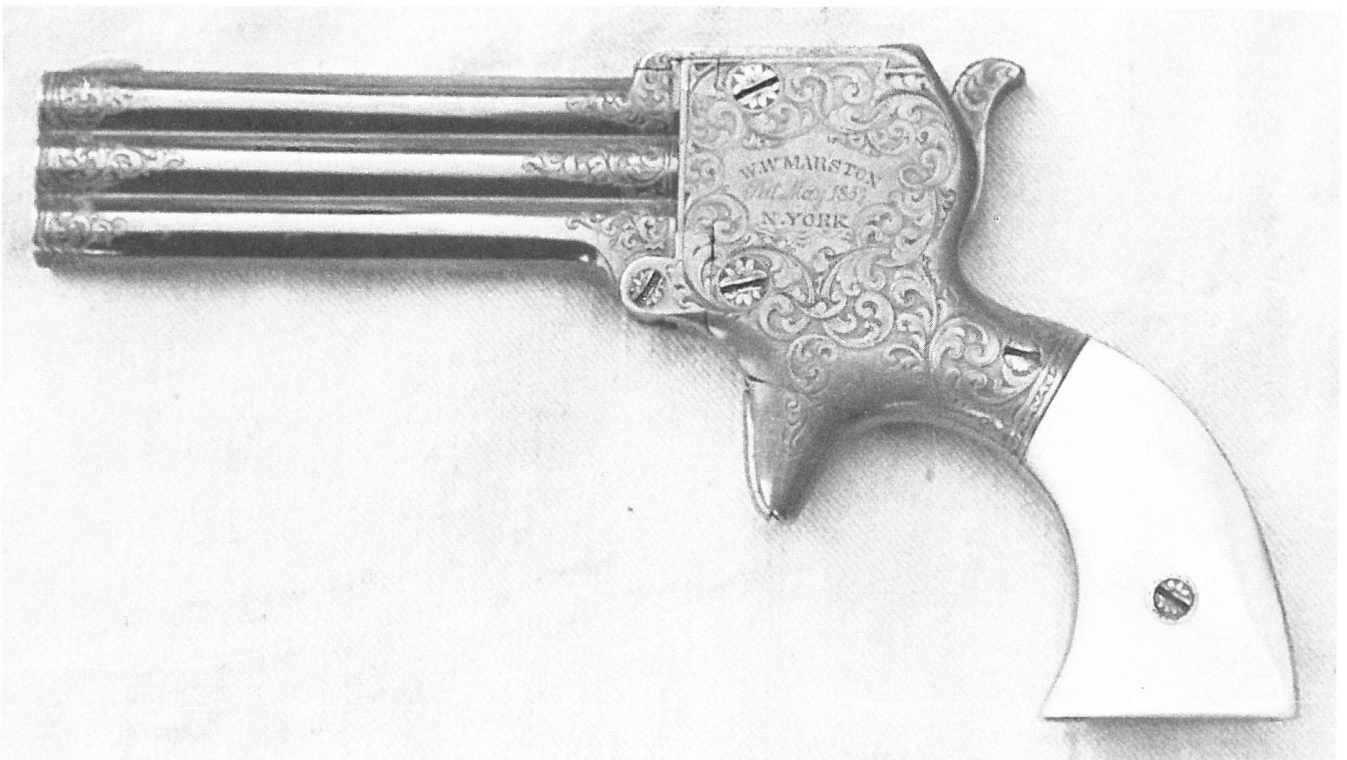


Figure 59 and 60. Marston's personal gun, caliber 22. Bruce L. Cohen Collection.



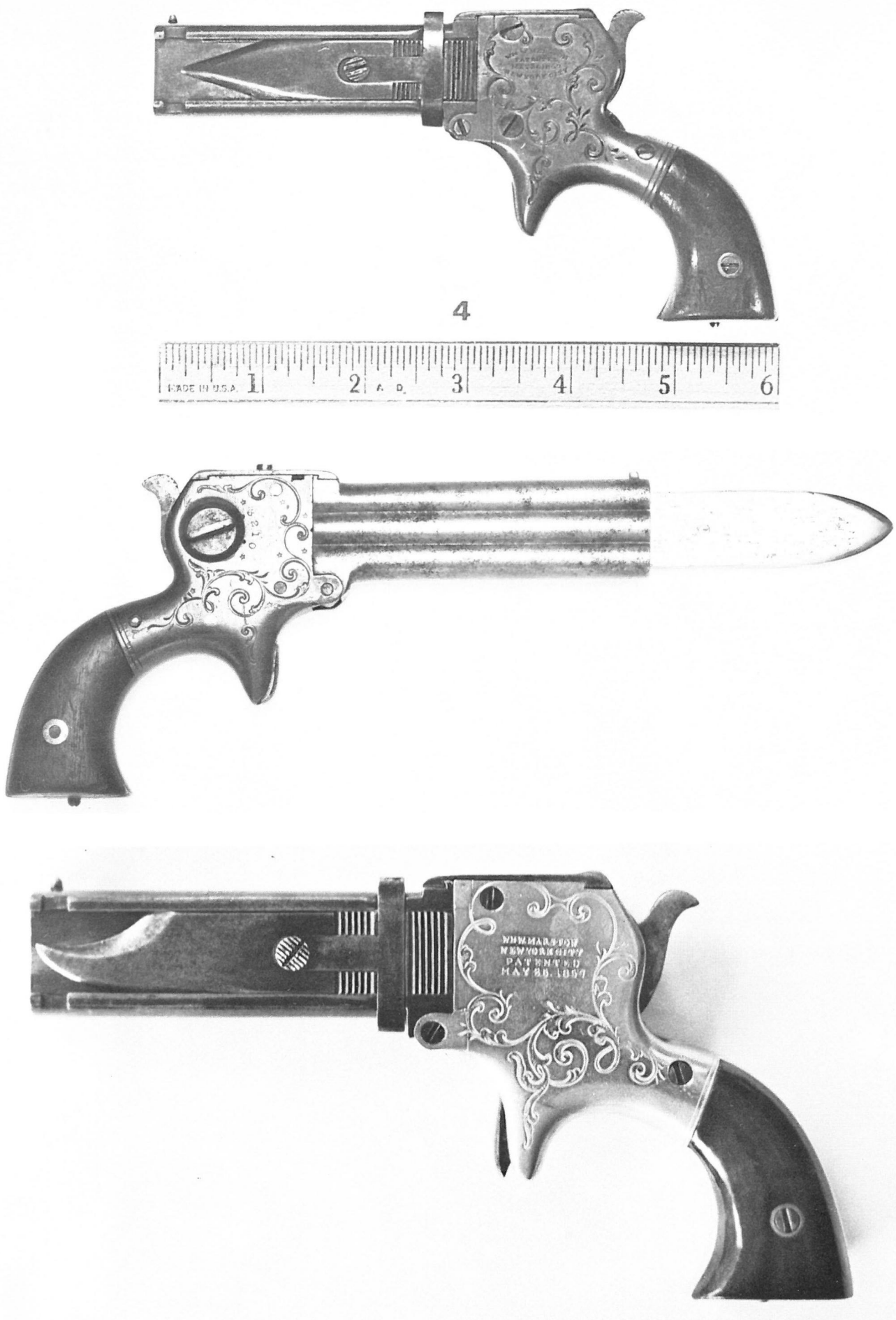


Figure 61. Marston knife pistols. Top, # 985, D. Amesbury Collection. Middle, serial 949, T. A. Smith Collection. Lower, # 492, author's collection.

By 1864 there were a number of the larger caliber cartridge derringers available, therefore Mauston brought out a larger copy of the three barrel model in .32 Caliber. These were marked in the same manner as the standard markings on the dagger pistol.

In Figure 62, one extra line was added to the address, which read, "Improved 1864". Because of the small interest shown for the dagger, it was left off this model and no .32 Caliber examples are known to have blades. A three pronged spring extractor was also added to the right side which operated as the gun was opened for reloading.

From examples I have seen, indications are that about the first fifty of the 1864 models were

engraved. This may have been done for distribution to different New York City dealers, etc. Figure 63 is an advertisement from a New York newspaper. No records are known, however, so that this is pure conjecture on my part. The 1864 models have the same barrel indicators on the right side of the frame and it operated in the same counter-clockwise manner.

Figure 64 was produced some eight years to a serial number range of about 3300. The most common barrel length is 4" although you will find a few examples with a 3" barrel below the serial number 2400. Above this number 3" models were made almost exclusively to the end of production.

#1 THIS MARKING APPEARS ON W.W.MARSTONS PERSONAL GUN,NOTE,THE CENTER LINE IS ENGRAVED IN SCRIPT.

W.W. MARSTON
Pat May 1857
N. YORK

#2 EARLIEST STANDARD TYPE, MARKED ALL IN CAPITOL LETTERS, IN FOUR STRAIGHT LINES. THIS EXAMPLE IS SHOWN ON PAGE 12 OF THE NIMSCHKE BOOK.

★ ★ ★
(W.W. Marston)
NEW YORK CITY
PATENTED
May 26 1857
★ ★ ★

#3 MOST COMMON TYPE, MARKED ALL IN CAPITOL LETTERS, IN FOUR LINES, NOTE, THE TOP AND BOTTOM LINE SIMI CIRCLE THE TWO CENTER LINES.

★
W.W. MARSTON
PATENTED
MAY 26, 1857
NEW YORK CITY
★

#4 UNCOMMON STANDARD TYPE, USED ONLY ABOUT 10% OF THE TIME. FOUR STRAIGHT LINES, ALL IN CAPITOL LETTERS.

W.W. MARSTON
NEW YORK CITY
PATENTED
MAY 26 1857

MARKINGS LIKE TYPES #2, #3, AND #4 MAY APPEAR, WITH OR WITHOUT STARS, AND IN VERING AMOUNTS!



Figure 62. Short barrel model, serial 2585, C. M. Grimes Collection

Most of the Marston derringers that are engraved were done by Nimschke or in his style and under his supervision, with at least five examples shown in his personal scrap book.

Marston ended his inventing career as he began it with a patent on an item not related to the firearms field. Figure 65 is for a book holder or book support, which would clamp onto a table, etc. and make a sort of portable stand.

It was simple in design with just a series of clamps and springs and small platform to support the book. It was to be constructed of iron and wood. There are no known examples of this and so nothing else can be shown.

Following is the listing of residence and business addresses taken from patent papers, New York City directories, etc.:

The first recording of the Marston family address appears in 1849 and shows them then residing at 178 E. 19th Street, New York City. They remained there until the mid-fifties when they moved up the street to 324 East 19th and were

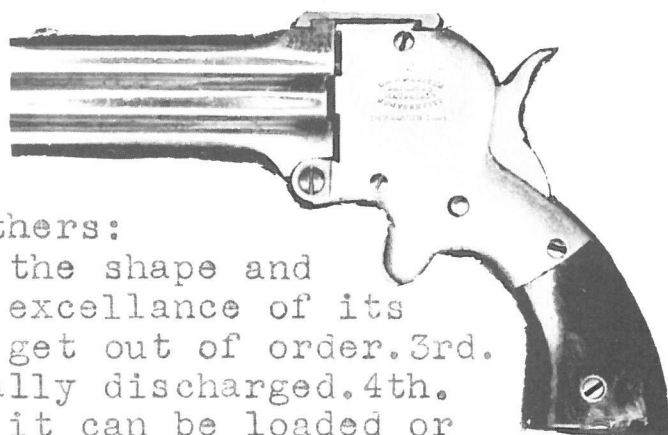
living there at the time of his death.

During 1844 and '45 he was listed as a machinist located at 197 Allen Street, N.Y.C. While at this address he obtained his first patent for his printing press and possibly worked with Stanhope W. Marston.

From 1845 to 1850 he is listed as a machinist at 134 W. 13th Street, N.Y.C. but was working with Zebulon Sprague in the manufacture of pepperboxes, single shot boot and pocket pistols under the June 5, 1849 patents from 1847 to 1850.

From 1850 to 1853 Marston was listed as a gun maker with Zebulon Sprague, with a factory located at 781 Washington Street at the corner of Jane Street. Items manufactured here were pepperboxes, single shot pistols, single shot sporting rifles, single shot shotguns, bar hammer boot pistols, and ammo for the single shot rifles and pistols. About 1851 he began making single shot boot and belt pistols, as well as pepperboxes, with one Robert Knox, and pieces will be found marked either W. W. Marston & Knox or Marston & Knox,

Marstons Patent Repeater



This three barreled pistol has the following advantages over all others: 1st. It is exceedingly portable, from the shape and light weight. 2nd. The simplicity and excellance of its construction renders it not able to get out of order. 3rd. It cannot in any manner be accidentally discharged. 4th. The facility of loading is such, that it can be loaded or unloaded in the dark, as it is unnecessary to detach any part for that purpose. 5th. It is more effective, the ball receiving the full force of the charge, there being no less of power by gas escaping between the joints, as in all clyinder pistols. 6th. It has a retr-actor attached, which withdraws the shell of the exploded cartridge. For sale by the trade generally.

Wm. W. Marston
Manufacturer of Firearms
Union Steam Works, cor. 22d st. and 2d ave, N.Y.

Figure 63. Copy of an advertisement from a New York newspaper.

New York.

In 1853 to 1855 he is listed as a gun maker with Robert Knox at the 781 Washington Street manufactory.

From 1853 to 1856 a sales location is listed as "Marston Fire Arms Mfg. Co.", 205 Broadway, NYC.

During 1856 and '57 he is again listed as a gun maker with Robert Knox at 315 East 22nd Street at Second Avenue, NYC. Mr. Knox passed away in 1856 and from that time, Marston was on his own. The largest portion of Marston Arms were manufactured at this location. These included three types of single shot pistols – the boot, the belt and the secondary martial lever action breech-loader; single shot rifles, single shot shotguns, three-barrel percussion derringers, various pepperboxes, flare pistols of two types, three-barrel knife pistols, the 1864 improved model three-barrel derringer, several types of revolvers, ammo for the single shot sporting rifles and martial pistols as well as book stands, made under his last patent.

From 1857 to 1863 he is listed as a gun maker at the same address, 315 East 22nd Street. It is reported that this plant was damaged by fire on

July 15, 1863 during the draft riots and closed. I strongly feel, however, that operations were resumed at this location as no other business address is recorded and it is fact that after the fire, several revolvers were produced and some three thousand of the 1864 improved three-barrel derringers were made somewhere!

In the early 1860's, when his operation was at its peak, Marston employed over one hundred workers. Monthly production during this period was something over five hundred guns and the plant was equipped with many steam driven machines in addition to the usual hand operated equipment.

From the war's end, operation slowed to almost nothing and indeed stopped at Marston's death on September 21, 1872. Marston died in New York City where he had worked. On December 5, 1873, when the estate was probated, its net value was assessed at less than \$2,000.00. He was survived by his wife Joanna and seven children. Children of legal age were: Wm. W. Jr., Edwin S., Mary F., and minors: James R., Hattie V., John B., and Harry.

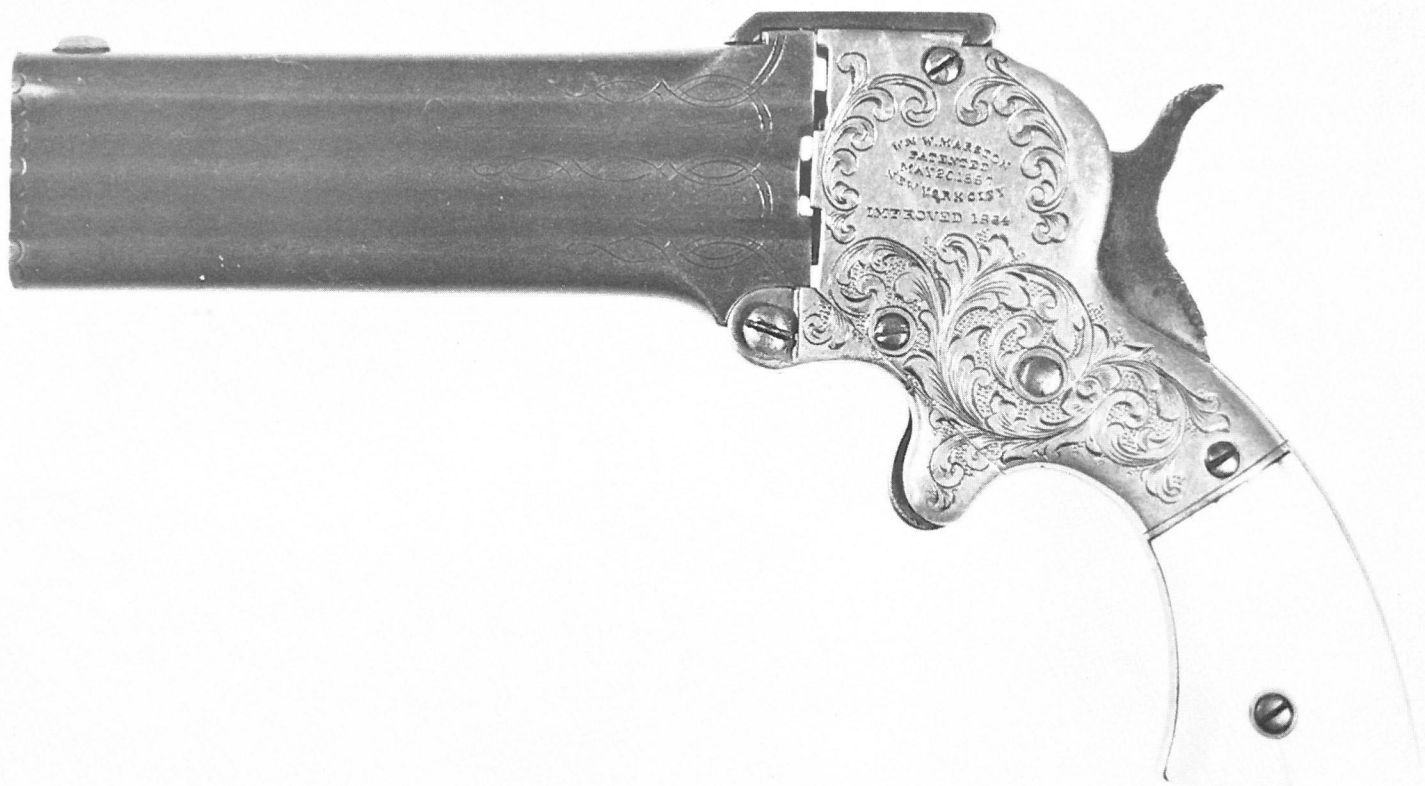


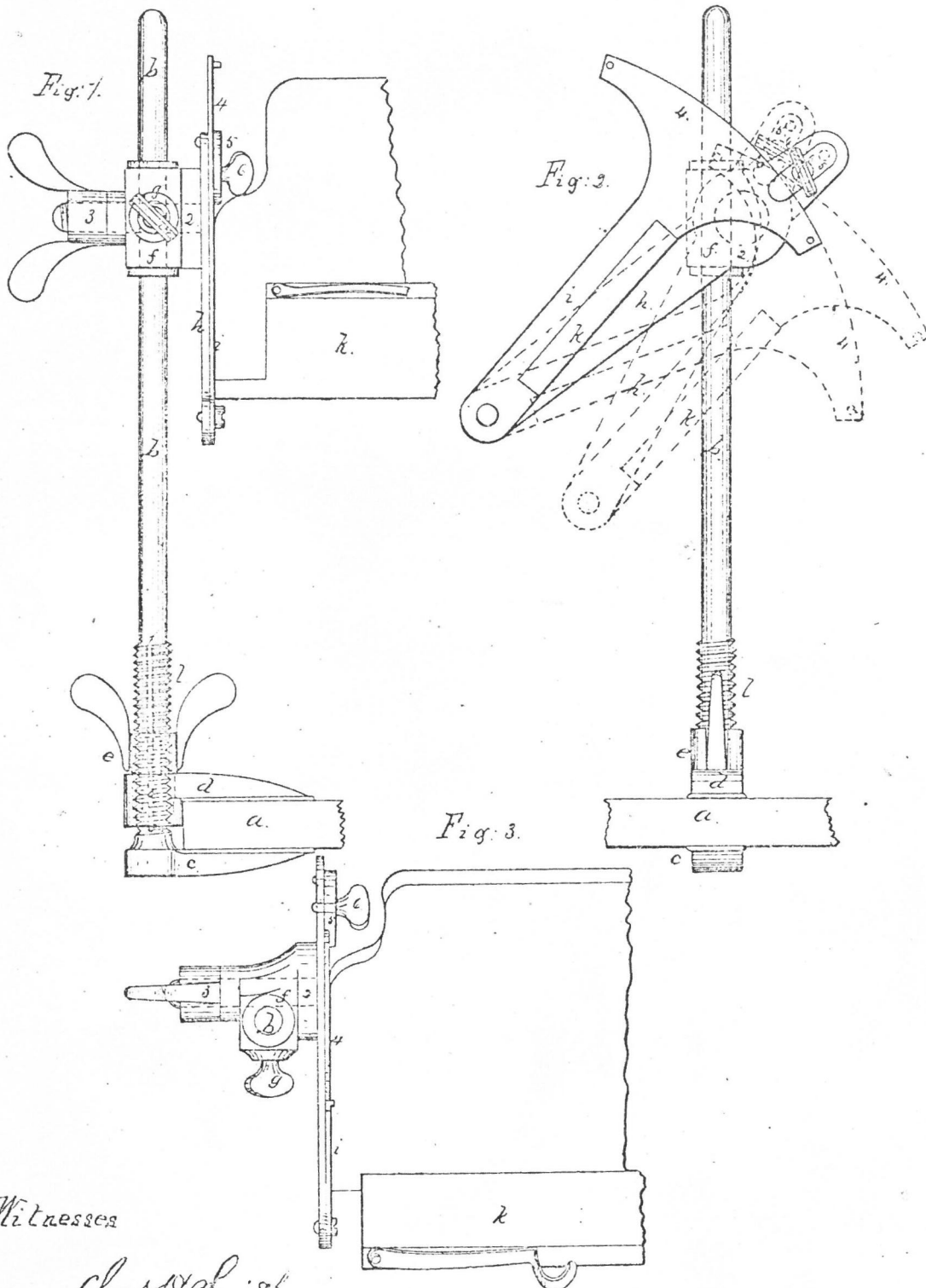
Figure 64. Long barrel model, serial 412. Author's collection

Credits given for help on the information of photographs, not listed in any order of importance.
 General Services Administration, Washington, D.C.
 H. Michael Madaus and the Milwaukee Public Museum
 James D. Walker, The National Archives
 Roy G. Jinks, Green, New York
 Harry Mann (now deceased), Las Vegas, Nevada
 Henry M. Stewart, Jr., Wynnewood, Pa.
 Samuel E. Smith, Markesan, Wisc.
 Donald Amesbury, Tucson, Arizona
 Kenneth L. Cope, Milwaukee, Wisc.
 Thomas A. Smith, Rockford, Ill.
 Arnold M. Chernoff, Deerfield, Ill.
 Robert B. Berryman, East Point, Ga.
 Frank Russell, Fort Lauderdale, Fla.
 John Lounsbury, Rockford, Ill.
 Stan Diefenthal, New Orleans, La.
 Charles Grimes, Englewood, Colo.
 Phillip Gowdy, Atlanta, Ga.
 Wm. L. Berry, Jr., Miami, Fla.
 Wm. C. Baker, III, Knoxville, Tenn.
 Bruce L. Cohen, South Orange, N.J.
 Tom Ward, Avondale Estates, Ga.
 Smithsonian Institute, Washington, D.C.
 Kurt Stein, Springfield, Pa.
 Frank Sellers, Denver, Colo.

W. W. Marston.

Book Support.

No. 49,639. Patented Aug. 29, 1865.



Witnesses

Chas. Smith
Jas. E. Scrull, Jr.

Inventor
W. W. Marston

Figure 65. Marston book stand patent.