

U. S. MILITARY SIGNAL PISTOLS

By Frank N. Russell



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It is understandable that some of you wonder whatever gave me an interest in signal pistols, a field which practically all of us have ignored. Many years ago I bought a collection, to get some fine revolving rifles, martial pistols and Colts. In this were 40 signal pistols which stayed in a box for many years. Finally, I looked them over closely and was rather intrigued. Later on, Bill Shermerluck let me have several percussion U. S. Civil War pieces and I also purchased about 65 from Terry Brown of Ohio. I now have about 150 different makes or variations.

In giving this talk, I realize that it is not the last word. But I hope by giving it, that additional interest and data will come forth. As they are not primarily a weapon, all writers have ignored them. But they are an important part of military warfare. Many battles have been lost because of poor communications, which is the basic use of signal pistols.

Many methods have been used for communication. Pigeons, runners, flags, the Tom Toms of Africa, and smoke signals by our Indians are only a few. Pyrotechnics, or fireworks, were used very early by the Greeks, Romans and more highly developed by the French and English, in the 17th Century. They were used for rockets and grenades, also to frighten raw troops.

Our Manual for Cadets at the West Point Academy, dated 1835, goes into detail on how to make rockets and fire them. Some went into the air for signals, others for incendiary purposes, and others as bombs. Some shot along the ground for the same purposes, but also disrupted troop movements, especially the cavalry horses. Chief ingredients were saltpetre, sulphur and charcoal. But no signal pistols are mentioned in this manual, so evidently they were not made at that time.

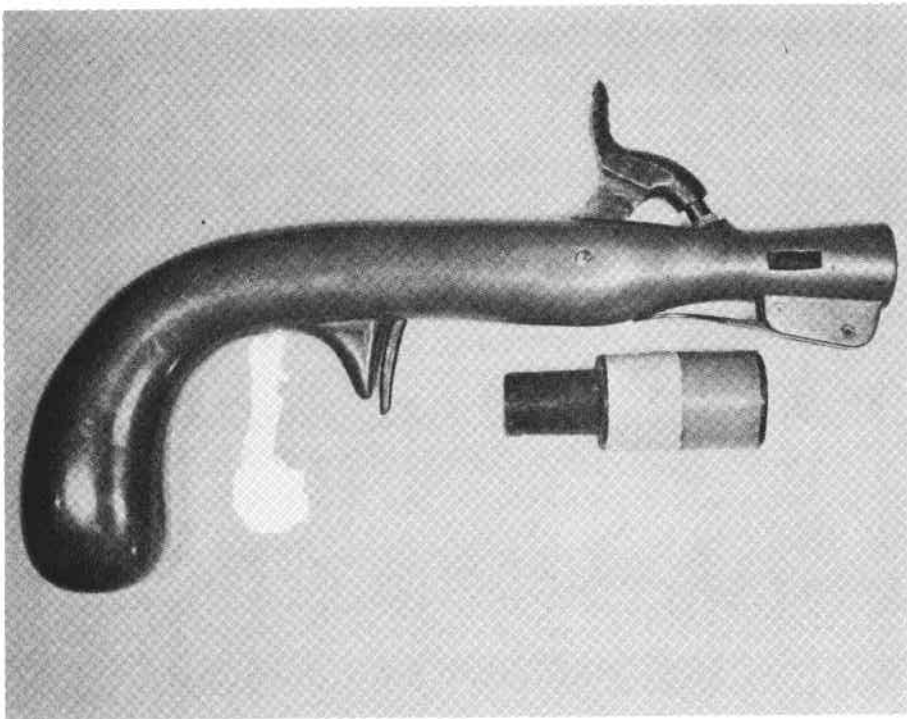
One must remember that in the flintlock and percussion periods, they did not have modern electronics. Although the telegraph had been invented, it required the stringing of wire. This was not very practical in warfare. The telephone came in 1876 and it also required wire. And the wireless did not come until the twentieth century. Communication from ship to shore was practically impossible except for flares.

The first systematic advancement in the use of pyrotechnics came in 1846, when an American, J. Rodgers, came forth with different colored flares. They were made in separate metal containers which were ignited by a slow match. He made it possible to send different messages by the different colors ignited.

But the real advancement was by another American, Benjamin Franklin Coston. He actually, as far as I can find out, invented the signal pistol. He died before his invention was completed, but his widow, Martha, carried on. She was granted a patent through help from our Military, for his invention on April 5, 1869. It provided ignition of her Coston Lights by percussion. They were not projected high up into the atmosphere, but gave a bright light of whatever color was chosen, out at the muzzle of the pistol. She toured Europe and sold her rights to the Governments of France, Italy, Denmark, and the Netherlands. The only pistol I have seen which most probably was her model, is a rod type with wood handle, made rather simply.

Now, we come to the first U. S. Martial Army percussion pistol. (Fig. 1) It is marked "U. S. Army Pistol" and all are dated 1861. Therefore they should be designated as the 1861 model. Except for a few small parts, the entire pistol, including the grips, is brass. It has a spur trigger and an iron lever underneath its front end. This lever raises and lowers inside the barrel, an iron piece that has teeth. It penetrates the round wood end of the flare to hold it firmly for ignition. The entire left side of this model 1861 comes off the entire right side of the pistol. They are 9" long. Two bolts go into, but not through the right side. Also, the two bolts that hold the iron lever under the fore part of the pistol must be removed. Markings are on a flat part underneath the pistol.

These 1861 pistols are all stamped A.J.M. which are the initials of then Major Albert J. Myer, who was Chief Signal Officer in Washington. But Major Myer did not do the actual inspecting. Letters in the Archives dated 1861 to 1st Lieut. Samuel Cushing from Major Myer, go into detail on how Lieut. Cushing should inspect them. This he did and other letters from Cushing to Myer, tell of Marston pistols he rejected. One therefore wonders if this type of inspection was a practice of those times, on U. S. MARTIALS ALSO.



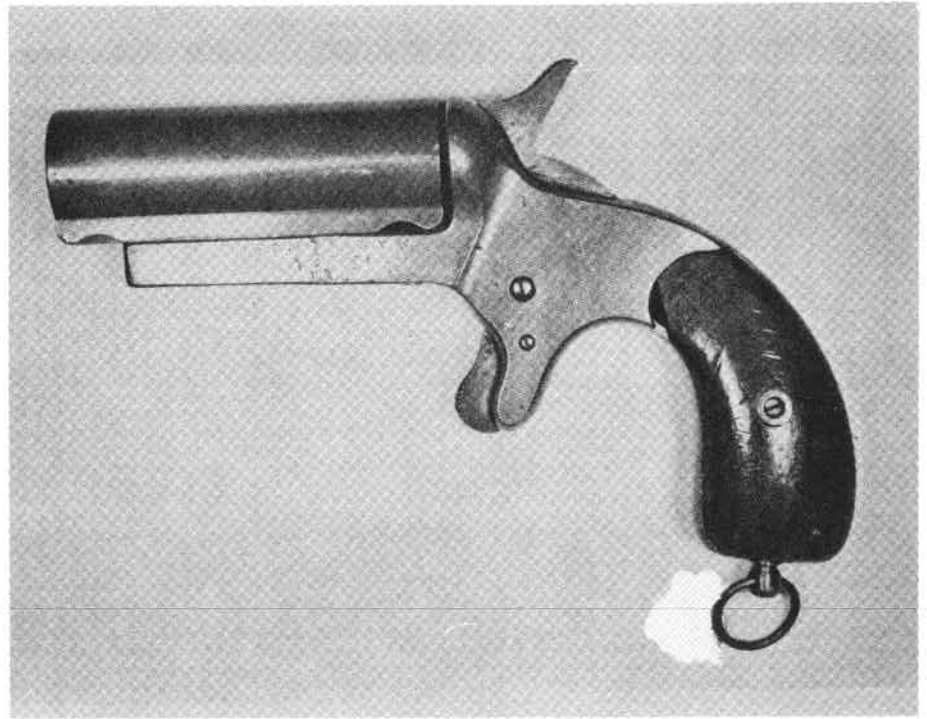
#1 U.S. ARMY SIGNAL PISTOL, 1861 MODEL SERIAL #82, WITH COSTON LIGHT (FLARE)



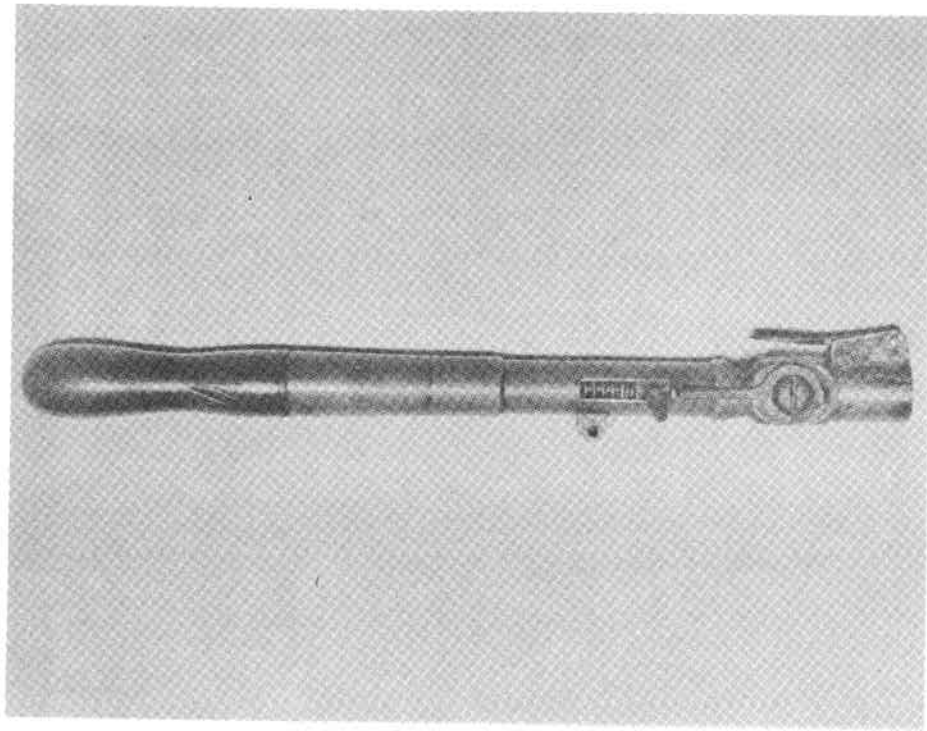
#2 U.S. ARMY SIGNAL PISTOL, 1862 MODEL SERIAL #671. WITH COSTON LIGHT (FLARE)



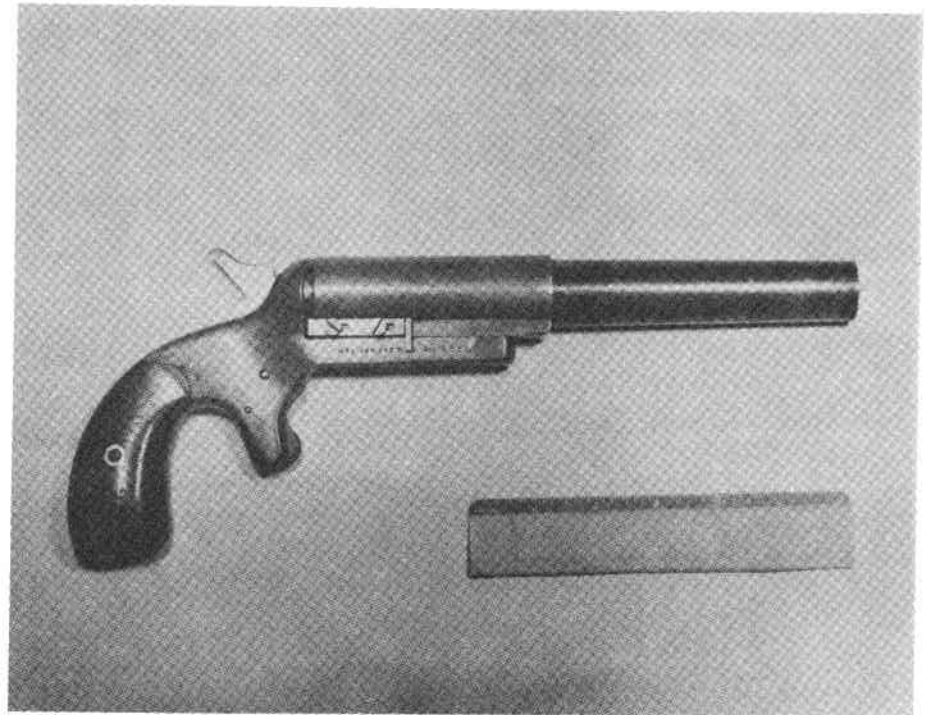
#3 U.S. NAVY SIGNAL PISTOL, MODEL 1861 DATED 1864, SERIAL #22



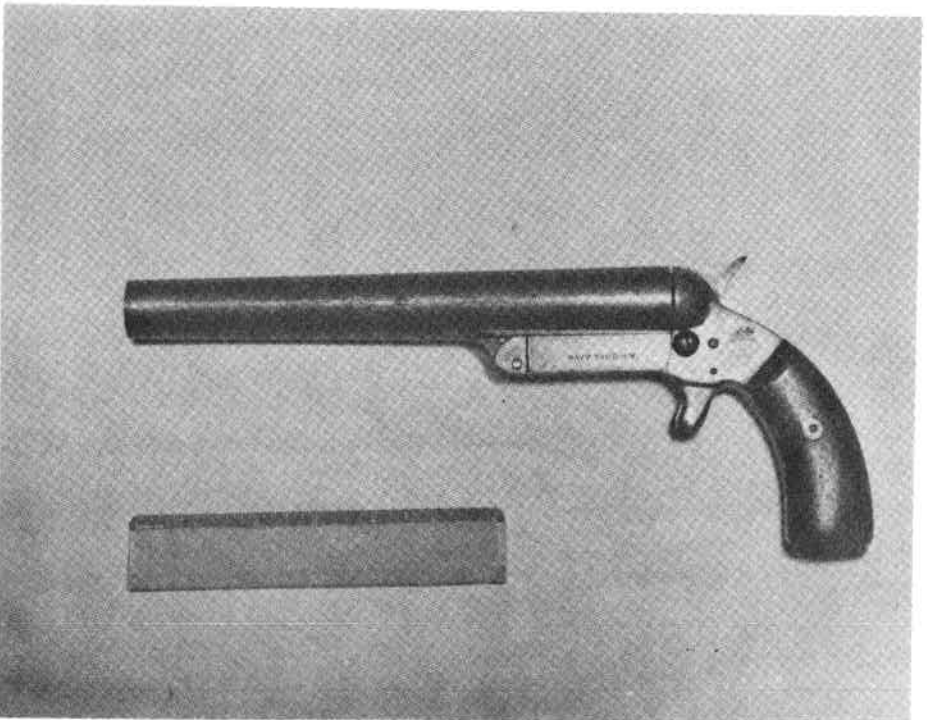
#4 U.S. NAVY SIGNAL PISTOL, MODEL 1862, NO SERIAL



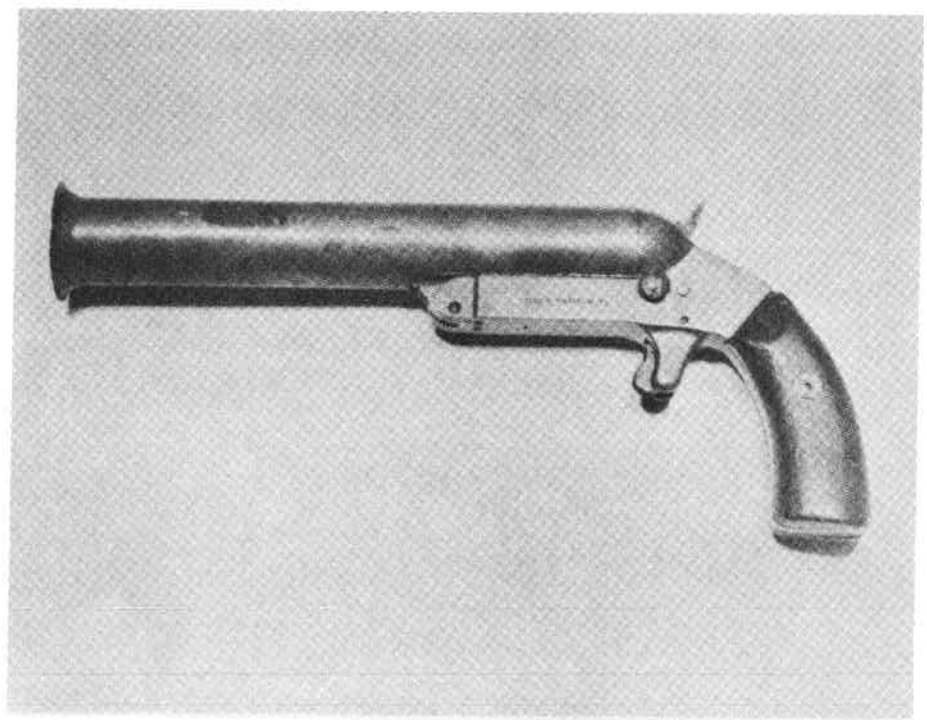
#5 POSSIBLE MARTIAL PERCUSSION EXPERIMENTAL



#6 U.S. NAVY SIGNAL PISTOL OF 10 GAUGE, 1894 MODEL



#7 MARK II U.S. NAVY SIGNAL PISTOL OF 10 GAUGE, SERIAL #665



#8 U.S. NAVY OF UNKNOWN MODEL, 10 GAUGE, SERIAL #22

The Army shows that Wm. Marston of New York delivered 404 signal pistols on Dec. 6, 1861, at \$5.50 each. Also, another 100 were delivered Dec. 20, 1861 at \$5.62 each. These must be what I call the 1861 model. Some have serials and others do not.

The Coston Lights used by the Army were purchased mainly at 12¢ each from G. A. Lilliendahl, No. 62 John St., New York City. Each has a hollow round wood part one inch long and 11/16" in diameter. As the front end of these pistols are tapered, both inside and outside, I do not think we should use a caliber rating for their classification. It seems as though the diameter of the Coston Light used in them would be a better term, so I am going to call the 1861 Army 11/16" bore. The balance of the Coston Light is also wood, being 1-13/16" long and 1-1/16" in diameter, all of which is filled with pyrotechnic material. Both ends are sealed by paper. Inside the center of the so called barrell of the pistol, pointing forward, is a 1/2" long sharp pointed iron projection. When the flare is loaded into the pistol, this point pierces the end of the paper, so the contents are easily inflammable from the percussion cap. On the top and both sides of this barrel are slots in the brass, about 1/2" long and 1/4" wide, which I assume are vents. The flares were either solid red, green, or white single colors, or a combination that shot as many as three colors out of the same flare. The colors in the flare were the color of the outside paper covering on the side and end.

Each of the 12 different colored flares had a number from 0 through 9. Also one for letter "P" and another for letter "A." First a "P" flare was fired, meaning "Prepare" to receive. It had three colors white, red, white. Then the one to receive the message would fire an "A" flare, meaning "Answering," or ready to receive the message. It was red, white, red, all again in one flare. All were stamped in the wood with the numeral they represented, for instance the all white was number one, and the green and white combination was stamped numeral 8. By using 2 colored flares of different numbers, 16 different messages could be sent by this code. By using 3 colored flares of different numbers, 64 different messages could be sent. Depending on weather and the location used, these were supposed to be seen for 6 to 10 miles, which I doubt.

The next U. S. Army signal pistol would be the 1862 model. (Fig. 2) It is only six inches long, has wood grips, and the muzzle end is made like the 1861 except that there are no vent holes. It is brass, has a spur trigger, also is percussion, and has the same lever and toothed jaw to hold the flare in the pistol. It is the same caliber as the 1861. The highest serial I have found is 671. They are marked on the butt "U. S. Army Signal Pistol, A.J.M. - 1862." A side plate is held by two studs. According to letters written, these pistols were inspected by Samuel Cushing, now a Captain, although they also have initials A.J.M.

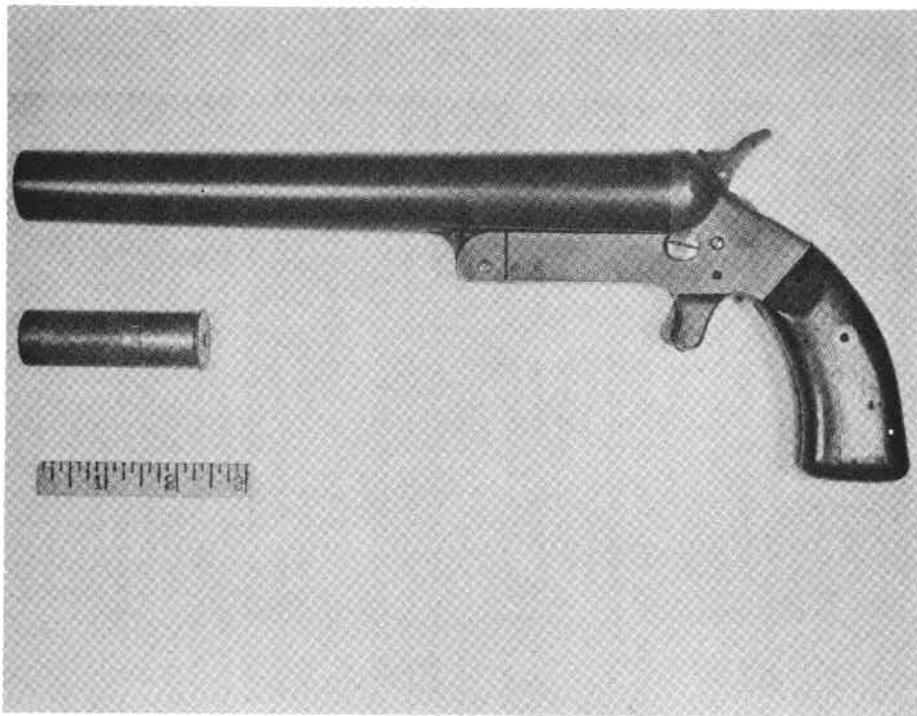
On February 12, 1862, Myer ordered 1000 signal pistols from Marston. In March of 1862 letters read "A better signal pistol was promised before long." Marston delivered 248 pistols on May 7, 1862, which we must assume would be this new 1862 model. I never have found this model dated earlier or later than 1862.

A letter of May 19, 1862, from Capt. Cushing to Marston, refers to 600 pistols shipped and 582 accepted. The 18 had "weak springs, some would not snap a cap and some would not remain cocked." Another letter in May, 1862 from Cushing to Signal Officer Wilson, states that "none of the old style pistols are to be issued." Another letter in November, 1862, refers to having pistols altered by Marston "free of charge so that the firing tube is even with the bottom of the barrel." So the 1862 Army signal pistol was definitely made by Marston, at least in 1862.

So far there has been no reference to Navy signal pistols. But the first Navy piece I have found is an all brass piece, resembling the 1861 Army. As the earliest dating I have seen is 1861, it seems as tho this Navy should be called the 1861 Navy model. (Fig. 3) It is also 9" long, percussion, has a spur trigger, with minor working parts of iron. It also has the same flare locking lever and the vents at the muzzle. But the bore is 1/16" smaller, or only 10/16". My Army flares will not go into this pistol. Also on this pistol, the forward 2-3/8" of the left side is an integral part of the pistol and does not come off with the side plate, as it does on the 1861 Army model. The side plate is held on by two studs that go through the right side. One of these studs goes thru the hammer, making it rather difficult to assemble. On this Navy, the flat underneath part of the 1861 Army where it is marked, is built out more and is round. I have found no Army markings on this model. It is so different that it should have its own model name, instead of a variation of the 1861 Army.

They are dated from 1861 into the early 70s. Serial #4 is dated 1863 and marked with the first letter of "United States Ordinance Yard Washington," and initials W.M., Serial 22, is dated 1864, again with U.S.O.Y.W. and initials W.N.J. Serial 34 also 1864 but with letter O for ordinance changed to N for Navy and initials W. N. J. Another with letter "H," instead of a serial, dated 1869, also with U.S.N.Y.W. and initials F.M.R. Another dated 1870 with letter "A," but the U.S.N.Y.W. is preceded by the marking "Ord. Dept." I assume the Dept. is "Depot," but it could be "Department." Altho I have been unable to get verification, one can assume these 1863 Navy pistols were made by the Ordinance Depot at Washington.

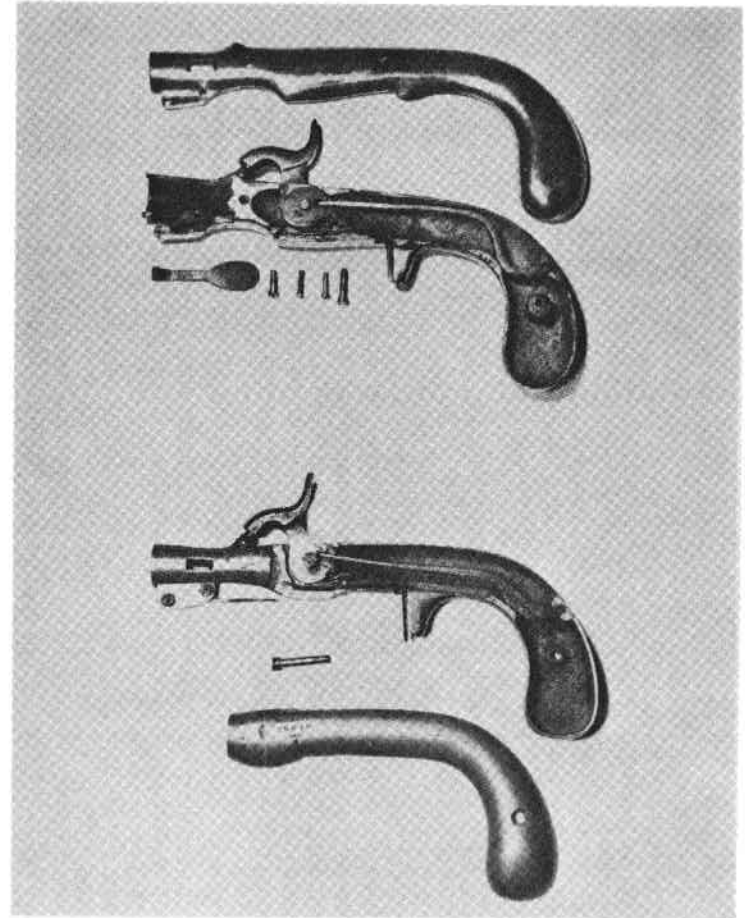
Evidence that the Army and Navy calibers were different, is in a letter in 1863 to the maker of the Coston Lights, Lilliendahl. It "orders 60 sets made of the Naval size but fitted to be fired from the Army signal pistol." I have never been able to locate a specimen of the smaller size Naval Light.



#9 U.S. ARMY REMINGTON MODEL MARK III OF 10 GAUGE



#11 1882 TYPE DATED 1883, PROBABLY ARMY



#10 SIDE PLATES OFF OF 1861 ARMY (ABOVE)
AND 1861 NAVY BELOW

There should be a Mark I model, but I have not located a piece so marked. But I do have one that is marked on top of the barrel Mark II. (Fig. 7) It is a new, complete model from those previously mentioned. It is basically the same as the later Mark III Remington and surely was used for the pattern of the Remington. On each of them the frame is brass, the steel barrel is 9" long, the caliber is 10 gauge, the grips wood, the trigger spur, and a release barrel button for both of them, is on the left side. The differences are very minor. They are not dated but the left side of the frame on all I have seen, are marked "Navy Yard. N.Y." This is the earliest model I have found with New York markings. Most probably they were made at the New York Navy Yard. The highest serial I have located is 665. None of them have a date of any year and I do not know when they were made.

I do have this same pistol, serial #28, with the Navy Yard, N.Y. marking, (Fig. 8) but the entire barrel is covered professionally by a thin sheet of brass. It is flared at the muzzle. Of course, the markings on top of the barrel are not visible and one wonders if this is the Mark I. It must be a Navy model, being brass covered.

It does not appear that there were as many as 1000 produced, of any model I have mentioned, probably some less than 100. Of course, this does not apply to the Mark III Remington used in World War I, as about 25,000 of them were delivered to the Army in 1915 and thereafter.

From this period there have been dozens of makes and models. There are too many to even start commenting about. Today many are made of aluminum and plastics, compared to brass and even stainless steel of earlier models.

Our Treasury Dept. requires us to register any signal pistol which shoots a 10 gauge or smaller shot gun shell even if the shell would blow the pistol to pieces. They are classed as sawed off shotguns. This even applies to the small tubular type used in survival kits.

The U. S. Army still uses signal pistols and even has an attachment to go on rifles to shoot flares. Calibers used today by most nations are 25 and 37 mm.

Besides communication, signal pistols had many uses. A pilot can destroy his plane in enemy territory by shooting a flare into the fumes of his gas tank. On land or at sea a distress signal can be given. Planes have flares mounted in their wings to light up the terrain to land, even in airfields kept dark at night for security reasons. Others are mounted in a plane and fired by remote cable control. Others aircraft to aircraft to ground, ground to aircraft, or back and forth to vessels at sea.

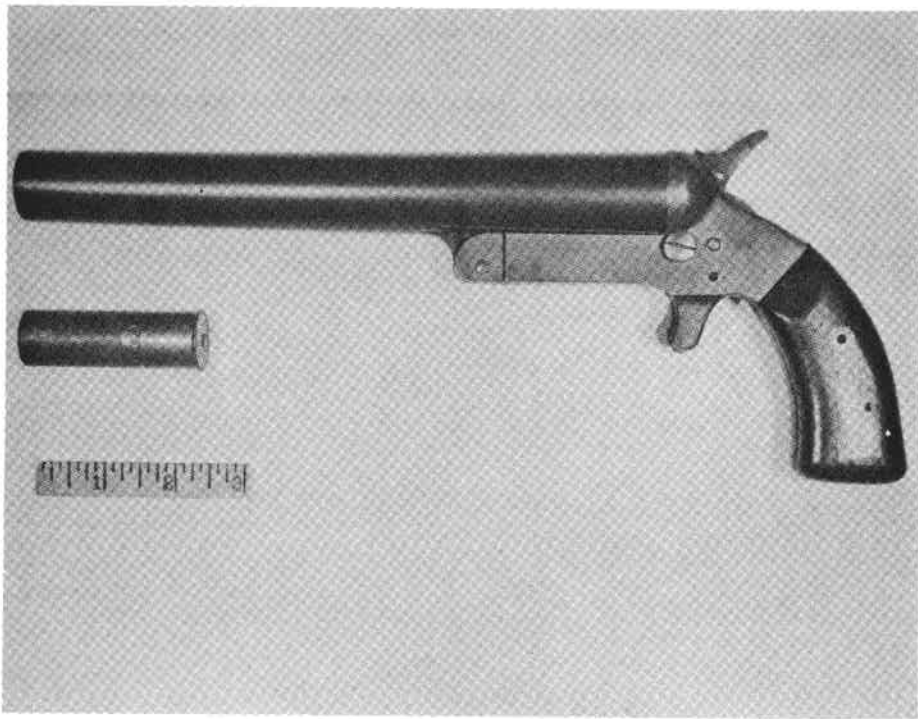
Flares have been developed which have a parachute to hold the signal in the air for a longer period of time.

There are many special flares, mountings and types, which have special uses on submarines, naval vessels, torpedo boats, booby traps, photography, sea drifting lights, distress, etc.

The flares used are another complete field and story. But they are dangerous to have around as they will feed a fire. The few I have are kept in a metal container.

It would be unfair to my good friend, C.P.O. Vagn Christensen of Copenhagen, if I did not give him credit for his research on signal pistols. We each have about the same size collection. I visited him a few years ago and now we exchange data about once a month.

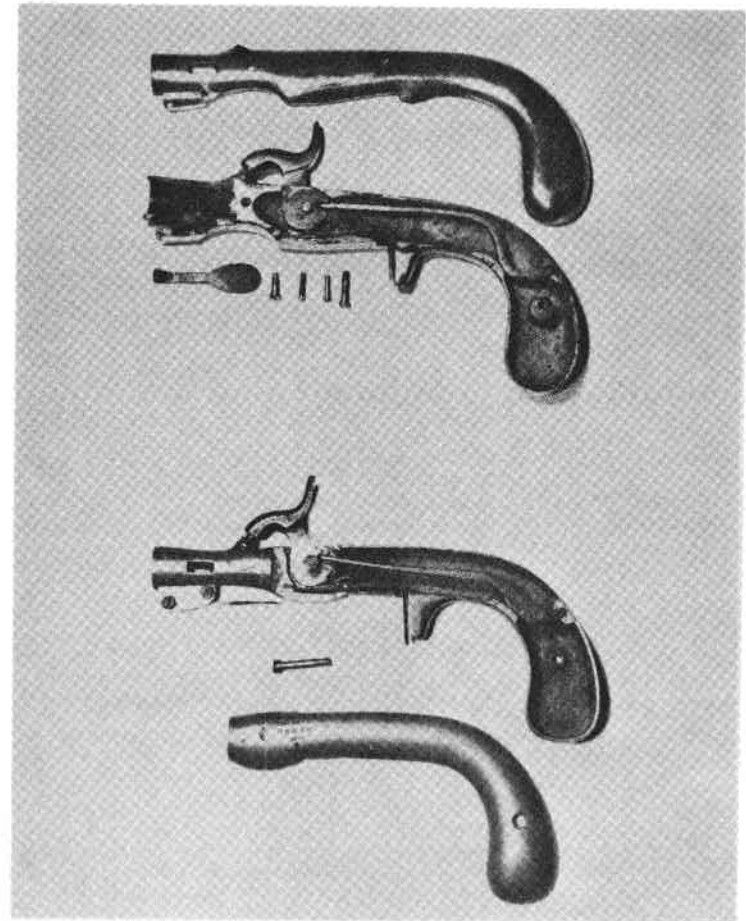
In closing, I ask your help to correct this paper and add to it. If you have signal pistols earlier than the World War I pieces, I would appreciate knowing about them including their markings. Any manuals or government reports in that period will be very welcome. I assure you, they will be returned promptly and safely. There is still much to be learned about signal pistols, so your help will be greatly appreciated.



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