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Description and Instructions
FOR THE USE OF
Very Pistol, Mark III
AND
Signal Light, Mark II

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WAR DEPARTMENT,

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The following pamphlet, entitled "Description and Instructions for the Use of Very Pistol, Mark III, and Signal Light, Mark II," is published for the information of all concerned.

(062.1, A. G. O.)

BY ORDER OF THE SECRETARY OF WAR:

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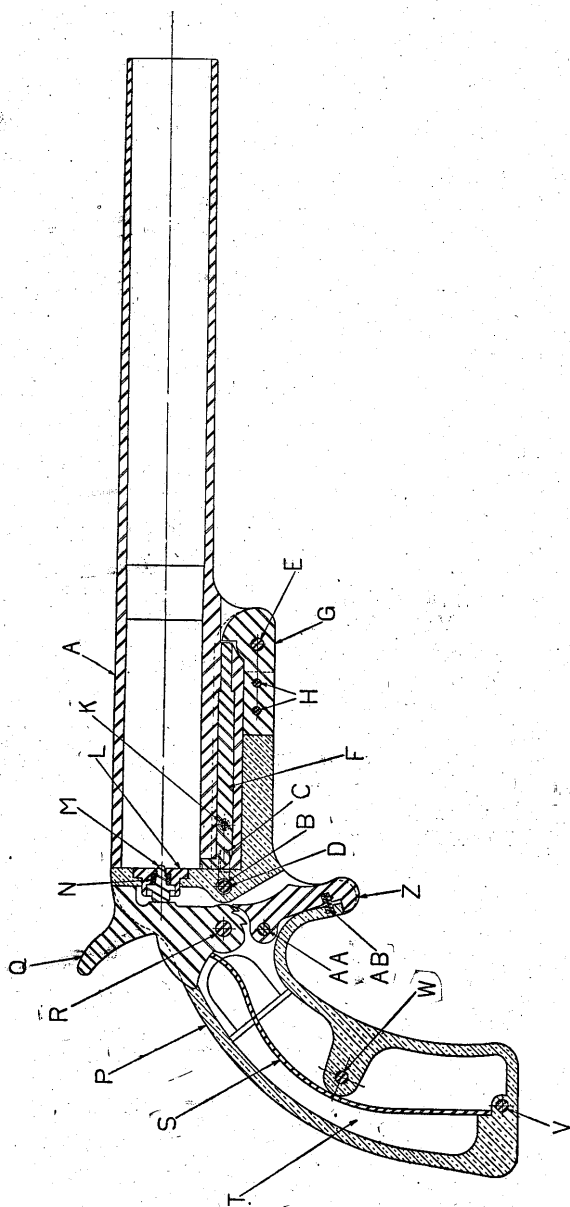


PLATE I.
Assembly Drawing.

PLATE II.
Nomenclature

Symbol	Number	Name	Material	Location and Purpose
A	1	Barrel.....	Forged steel.	Fits through slot in frame (P) and barrel (A), holding them together.
B	1	Barrel catch.....	Alloy steel.....	Fits thru frame (P), holding catch (B) and spring (D) in place.
C	1	Barrel catch nut.....	Steel.....	Fits over catch (B) holding it in place.
D	1	Barrel spring.....	Piano wire.....	Fastens barrel (A), frame (P) and cam (G) together.
E	1	Barrel hinge screw.....	Steel.....	Fits into lug on barrel (A). Ejects cartridge.
F	1	Extractor.....	Spring steel.....	Fastened to frame (P). Operates extractor (F).
G	1	Extractor cam.....	Alloy steel.....	Fastens cam (G) to frame (P).
H	2	Extractor cam pins.....	Brass rod.....	Screws into frame (P). Prevents extractor (F) from turning.
K	1	Extractor retaining screw.....	Steel.....	Screws into frame (P). Contains firing pin (M) and spring (N).
L	1	Face plate.....	Steel.....	Fits into face plate (L). Strikes cap of cartridge.
M	1	Firing pin.....	Spring steel.....	Around pin (M). Returns pin (M) to firing position.
N	1	Firing pin spring.....	Piano wire.....	Supports barrel (A) and other parts of pistol.
P	1	Frame.....	Bronze.....	Fastened to frame (P). Drives firing pin (M).
Q	1	Hammer.....	Alloy steel.....	Fastens hammer (Q) to frame (P).
R	1	Hammer screw.....	Steel.....	Fits into frame (P). Drives hammer (Q).
S	1	Main spring.....	Spring steel.....	Fastened to frame (P). Part of handle.
T	1	Side, left.....	Black walnut.....	Fastens sides (T and U) and frame (P) together.
U	1	Side, right.....	Steel.....	Fastens sides (T and U) to frame (P).
V	1	Side pin.....	Steel.....	Prevents screw (W) from pulling through side (T).
W	1	Side screw.....	Steel.....	Holds screw (W) in place.
X	1	Side screw washer.....	Brass.....	Fastened to frame (P). Releases hammer (Q).
Y	1	Side screw nut.....	Steel.....	Fastens trigger (Z) to frame (P).
Z	1	Trigger.....	Tool steel.....	Fits into trigger (Z) and frame (P), forcing trigger (Z) against hammer (Q).
AA	1	Trigger screw.....	Steel.....	
AB	1	Trigger spring.....	Piano wire.....	

HANDBOOK ON THE VERY PISTOL, MARK III

DESCRIPTION OF THE PISTOL.

The Very pistol is a device used to project signal lights into the air by means of a cartridge especially designed for the purpose. It throws the light to a height of approximately 200 yards.

The pistol is supplied with an appropriate holster, as well as a pouch in which the shells may be carried.

It consists of the following major parts:

- (a) The barrel.
- (b) The handle.
- (c) The firing mechanism.
- (d) The extractor mechanism.

(a) The Barrel.

The barrel (A) is made of open-hearth steel, is 9.05 inches in length, with an outside diameter of 1 inch at the muzzle end and $1\frac{1}{4}$ inches at the rear end. The bore is .864 of an inch in diameter, and is designed to receive the signal light, Mark II, which has the dimensions of a standard No. 10-gauge shotgun shell. A lug projects from the under side of the barrel for a distance of 2.9 inches from the rear end. It is recessed for the extractor (F), the extractor retaining screw (K) and the barrel hinge screw (E) which fastens the barrel to the frame (P).

(b) The Handle.

The handle consists of a bronze frame (P), two walnut sides (T and U) and the fastening devices.

The frame (P) is an irregularly shaped piece of bronze, to which most of the other parts are attached. One end, which supports the rear of the barrel, is recessed for the extractor cam (G), which is held in place by the hinge screw (E) and the extractor cam pins (H). Three holes are drilled in the frame to receive the screw and pins.

Two lugs project from each side of the middle of the frame. The upper one is recessed for the face plate (L), and forms a seat for the rear end of the barrel. The lower lug is recessed for the trigger (Z) and aids in supporting it. Three holes traverse the frame between the two lugs. One hole, .21 of an inch in diameter, is for the barrel catch (B), barrel catch nut (C) and barrel catch spring (D), which serve to lock the barrel (A) and frame (P) in the proper position for firing. Directly to the rear of this hole is another, .19 of an inch in diameter, designed as a seat for the hammer screw (R), which fastens the hammer (Q) in place. Below these holes is a third, .205 of an inch in diameter, for the trigger screw (AA), which fastens the trigger (Z) to the frame. The lower lug is drilled to a depth of .09 of an inch to provide a seat for the trigger spring (AB). The upper lug is recessed to provide a seat for the face plate (L).

The rear part of the frame is the main part of the handle of the pistol. It is cast hollow, except for a lug projecting inward, through which there is a hole .13 of an inch in diameter, for the side screw (W). Near the rear end of the frame is a hole, $\frac{1}{4}$ of an inch in diameter, for the side pin (V). The material above this hole is cut away slightly to form a shoulder, against which one end of the main spring (S) bears.

The black walnut sides (T and U), one for the right and one for the left side of the frame, are shaped to fit the curve of the frame. They are flat on one side and curved on the other. The flat side of each is drilled near the lower end to a depth of .135 of an inch, to provide a seat for an end of the side pin (V), which aids in fastening the sides to the frame. Near the middle of each side is a .136-inch hole for the side screw (W) which aids in fastening the sides to the frame. The outer curved face of each side is counterbored to a diameter of .365 of an inch, to provide a seat for the side screw nut (Y), or the side screw washer (X). The latter is recessed for the head of the side screw (W).

The barrel and handle are fastened together by the steel hinge screw (E), and are held in the proper position for firing by the barrel catch (B). The barrel catch (B) is an L-shaped piece of alloy steel. The longer arm is $\frac{3}{4}$ of an inch in diameter and the shorter $\frac{1}{2}$ of an inch in diameter. The former passes through the frame and screws into the barrel catch nut (C) after the barrel catch spring (D) is slipped over it. The latter is shaped to fit into the slot in the frame (P) and the groove in the barrel (A), locking the latter in position for firing. The spring (D) holds the catch in place.

(c) The Firing Mechanism.

The firing mechanism consists of the trigger (Z), the trigger spring (AB), the hammer (Q), the main spring (S), the face plate (L), the firing pin (M), and the firing pin spring (N).

The trigger (Z) is made of tool steel, and is irregular in shape. Its upper end is pointed to fit into the grooves in the hammer (Q). Below the point is a hole, .128 inch in diameter, for the trigger screw (AA), which fastens the trigger to the frame (P). The lower front surface is knurled to provide a grip for the finger. The lower rear surface is drilled to a depth of .1 of an inch, to provide a seat for the trigger spring (AB), which holds the point against the hammer (Q). The trigger spring (AB) is made of piano wire, .026 of an inch in diameter; the outside diameter of the spring is .17 of an inch.

The hammer (Q) is an irregularly shaped piece of alloy steel, $\frac{1}{2}$ of an inch wide. Two lugs project from the upper edge. The rear one is knurled, and serves to pull back the hammer; the front one strikes the firing pin (M), driving it forward. The upper end of the main spring (S) bears against a projection of the hammer below the rear lug mentioned above. The lower end of the hammer is circular in shape, with a radius of .27 of an inch. The lower edge of this circular portion is cut away, leaving two grooves, which catch the point of the trigger in the

position of half-cock and full-cock. The center of the circular portion is drilled out to a diameter of .19 of an inch for the hammer screw (R), which fastens the hammer to the frame.

The main spring (S) is a tapered piece of spring steel, 3.97 inches long. Its lower end bears against the shoulder on the frame (P) and its upper end against the rear projection on the hammer (Q).

The face plate (L) is a steel cylinder, .615 of an inch in diameter and .295 of an inch wide, which screws into the recess provided for it in the frame. Its rear end is threaded to screw into the frame. It is recessed for the firing pin (M) and firing pin spring (N).

The firing pin (M) is a spring steel cylinder, whose largest diameter is .319 of an inch and .045 of an inch wide. This is turned down to a diameter of .21 of an inch for a distance of .069 of an inch, and, with the larger section as a collar, acts as a bearing surface for the firing pin spring (N). The end is beveled at a 45 degree angle, to form an anvil for the hammer. On the opposite end, for a distance of .15 of an inch, the diameter is reduced to .09 and turned to a round point, to pass through the hole in the face plate (L) and strike the primer of the cartridge. A shoulder, .124 of an inch in diameter and .17 of an inch long, with a rounded shoulder running into the portion of largest diameter, is designed to move in the bearing formed by the recess in the face plate (L).

(d) The Extractor Mechanism.

The extractor mechanism consists of the extractor (F), the extractor cam (G), and fastening devices.

The extractor (F), a spring steel cylinder, 2.54 inches long, fits into a recess in the lug on the barrel (A). A lug projecting from its rear end to a distance of .175 of an inch catches under the rim of the cartridge. The extractor is grooved along one side to provide for the extractor retaining screw (K), which prevents it from turning.

The extractor cam (G) is an alloy steel bar, 1.4 inches long, $\frac{1}{8}$ of an inch thick, and .35 of an inch wide, except at the front end, which bears against the front end of the extractor (F). Below this shoulder is a .19-inch hole for the barrel hinge screw (E), which fastens the barrel (A), cam (G), and frame (P) together. Two .13-inch holes are drilled for the extractor cam pins (H), which fasten the cam to the frame.

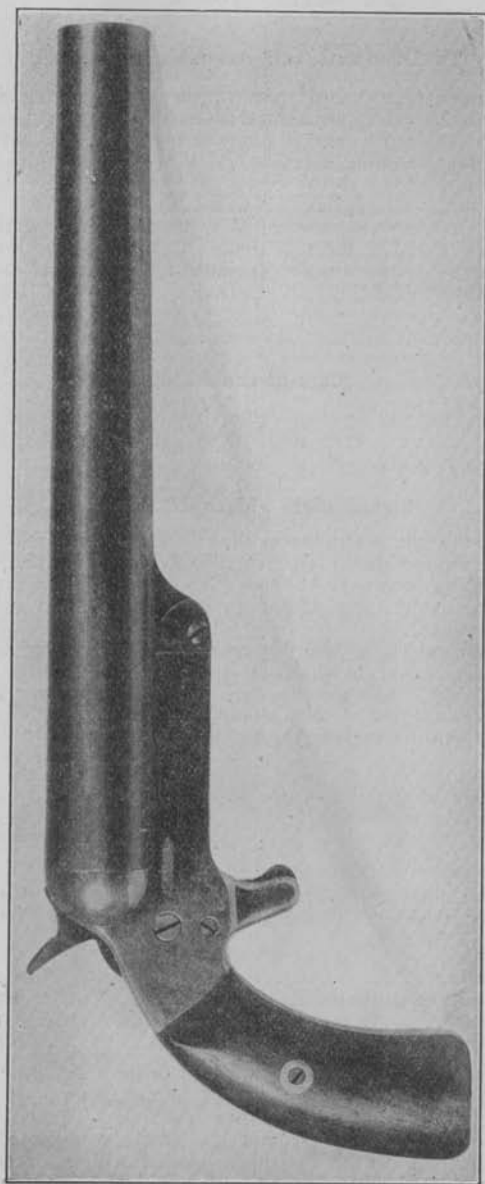
Operation of the Pistol.

Press in the barrel catch nut (C) with the thumb and break open the barrel. Insert the cartridge and return the barrel to its original position.

Cautions.

Be sure that the barrel and frame are locked together by the barrel catch. Hold the pistol at arm's length and directly away from the face when firing.

PLATE III.
Photograph of the Pistol.



To Dismount and Assemble the Pistol.

To dismount the pistol, remove the parts in the following order: The barrel catch nut (C), barrel catch spring (D) and barrel catch (B), the barrel hinge screw (E), the barrel (A), the extractor retaining screw (K), the extractor (F), the extractor cam pins (H), the extractor cam (G), the face plate (L), the firing pin spring (N), the firing pin (M), the side screw nut (Y), the side screw (W), the side screw washer (X), the sides (T and U), the side pin (V), the trigger screw (AA), the trigger (Z), the trigger spring (AB), the hammer screw (R), the hammer (Q), and the main spring (S), leaving the frame (P).

To assemble, follow the reverse of the above order.

Care of the Pistol.

The pistol should be kept clean, free from rust, and properly oiled. Oil should not be used in excess, as this will cause the parts to work stiffly.

Signal Light—Mark II (Very).

The signal light is similar in shape to a standard No. 10-gauge shotgun cartridge shell. The signal consists of a case, felt wads, match priming, composition paper band, copper wire, propelling charge of powder, and a star to give the desired color (red, green, or white).

The cartridge is a No. 10-gauge shotgun, center-fire, paper shell with a brass head. The propelling charge is ordinary musket powder. The star is $\frac{3}{4}$ of an inch in diameter and about $1\frac{1}{4}$ inches long, and weighs about 220 grains. The composition of the star is different for the various colors, and is as follows:

Red—

Chlorate of potash.....	16 parts.
Carbonate of strontia.....	4 parts.
Shellac, orange	2 parts.

Green—

Barium chlorate.....	9 parts.
Shellac, powdered orange.....	1 part.

White—

Saltpeter.....	16 parts.
Sulphide of antimony.....	4 parts.
Sulphur.....	4 parts.
Meal powder.....	1 part.

The case is loaded in the following order: A 20 or 30 grain charge of musket powder is placed in the bottom of the case, then a felt wad, star, and another felt wad. The edges of the cartridge are crimped over and the whole waterproofed. The wad in the end of the cartridge, loaded with a green star, is plain; corrugated when loaded with a red star, and has a small point projecting from its center when loaded with a white star.

PLATE IV.
Sectional View of Signal Light, Mark II.

