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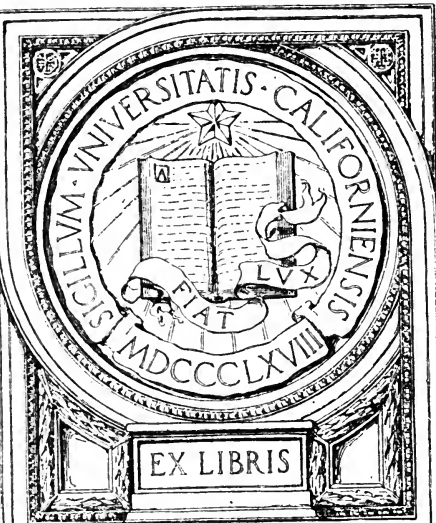
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DIRECTIONS FOR USING, MOUNTING
AND DISMOUNTING

1-PDR. AND 2.95-INCH SUBCALIBER GUNS
IN THE BORE OF SEACOAST GUNS AND MORTARS

(7 PLATES)

AND INSTRUCTIONS FOR USING THE
RELOADING AND RESIZING OUTFIT
FOR DRILL PRIMERS

(2 PLATES)

JANUARY 18, 1904
REVISED JANUARY 10, 1907
REVISED APRIL 14, 1910
REVISED AUGUST 8, 1914



WASHINGTON
GOVERNMENT PRINTING OFFICE

1917

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U. S. Ordnance dept.

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Handwritten musical notation consisting of two lines of notes on a staff.

Handwritten musical notation consisting of a single line of notes on a staff.

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WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ORDNANCE,
Washington, August 8, 1914.

This Manual is published for the information and government of the Regular Army and Organized Militia of the United States.

By order of the Secretary of War:

WILLIAM CROZIER,
Brigadier General, Chief of Ordnance.

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DIRECTIONS

FOR

MOUNTING AND DISMOUNTING 1-POUNDER SUBCALIBER GUNS IN THE BORE OF SEACOAST GUNS.

6-INCH GUNS, MODELS OF 1900 AND 1903, AND 10 AND 12 INCH GUNS, MODEL OF 1900.

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of large gun must be perfectly clean.

Remove blank plugs from mushroom head and put on obturator spindle plate with its two screws, tighten the screw heads up on the plate, using the securing screw wrench for the purpose.

Insert loading tray, where provided, to prevent bruising the adapters on the breech threads.

See that rear adapter wedge is all the way forward, and insert subcaliber gun, with adapters (wedge uppermost), into chamber of large gun, pushing it smartly forward with the handspike to cause the front adapter to seat firmly in slope of chamber.

Supporting subcaliber gun with handspike, slip the bronze shoe under rear adapter.

Having made sure that subcaliber gun is as far forward as it can go, remove handspike. Slip locating gauge over obturator spindle plate, leaving a space between gauge and spindle plate. Close breech gently. If resistance is encountered, the gun is too far to the rear. Open the breech and turn gun right handed. If no resistance is encountered in closing, open breech and note whether gauge has been pushed back against spindle. If it has not been pushed all the way back, turn the gun left handed one turn for each 0.1 inch. Continue to try in this manner until the gauge is pushed just against the spindle plate when closing the gun.

Having adjusted subcaliber gun until the locating gauge is pushed exactly against spindle plate by closing breech, tighten the wedge screw with clamping screw driver, setting the wedge firmly back against rear slope of chamber to prevent subcaliber gun from turning. The gun is then ready for firing.

DIRECTIONS FOR DISMOUNTING.

Insert loading tray, if one is provided.

Ease up wedge screw and run wedge all the way forward, insert handspike, lift on same to support the weight, remove adapter shoe, and pull the subcaliber gun to the rear and out.

This order must always be followed, for if the shoe is removed before the subcaliber gun is loosened, letting down the breech of the subcaliber gun will cause the front adapter to bind in its seat and there will be considerable difficulty in removing the subcaliber gun.

If the subcaliber gun sticks in the bore of the large gun, insert the gun extractor rod into and through the bore of the subcaliber gun until the foot on the front end of the rod can be caught against the muzzle face of the subcaliber gun. Then slip the gun-extractor rod strap over the rear end of the rod until it comes up against the breech face of the larger gun. Apply the nut and screw up on the nut until the subcaliber gun is loosened, after which remove the gun-extractor rod, and proceed to remove the subcaliber gun as if it had not stuck.

1-POUNDER SUBCALIBER GUN FOR 5-INCH GUN, MODEL OF 1900.

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of large gun must be perfectly clean.

Remove blank plugs from mushroom head and put on obturator spindle plate with its two screws; tighten the screw heads upon the plate.

Insert subcaliber gun, with its adapters, into chamber of large gun, being careful to see that the outer circumference of the outer ring of rear adapter is concentric with subcaliber gun, and push it forward with the handspike until the center support is seated firmly in slope of chamber. Also see that the rear face of the rear adapter is in contact with the front face of the breech hoop on the subcaliber gun. This will facilitate the handling of the shoe.

Supporting breech of subcaliber gun with handspike, turn outer ring of rear adapter by pushing on lug provided for that purpose with dismounting pin as far to the left as the stops will permit. The rear adapter at this time is abutting against the set screw in body of subcaliber gun.

Screw gun further forward until shoe can be inserted loosely. This is necessary because shoe is too large to pass between cylindrical part of breech hoop and choke of powder chamber.

Now screw gun back until about $\frac{1}{2}$ inch or 1 inch in rear of proper position. The eccentric and adapter will turn with the gun because not locked by shoe.

Secure subcaliber gun by inserting the shoe beneath the rear adapter.

Screw gun forward to its proper position as indicated by the locating gauge. Nothing prevents this, as set screw is now moving forward and away from adapter.

Having made sure that subcaliber gun is as far forward as it can go, remove handspike. Slip locating gauge over obturator spindle plate, leaving a space between gauge and spindle plate. Close breech gently. If resistance is encountered, the gun is too far to the rear. Open the breech and turn gun right handed. If no resistance is encountered in closing, open breech and note whether gauge has been pushed back against spindle. If it has not been pushed all the

way back, turn the gun left handed, 1 turn for each 0.1 inch. Continue to try in this manner until the gauge is pushed just against the spindle plate when closing the gun.

Having adjusted subcaliber gun until the locating gauge is pushed exactly against spindle plate by closing breech, tighten screw of rear adapter shoe with screw driver, thus tightening the adapter and prevent the gun from moving forward.

The gun is then ready for firing.

DIRECTIONS FOR DISMOUNTING.

Ease up adapter shoe screw, insert handspike, lift on same to support weight, and remove adapter shoe.

Using the dismounting pin, turn outer ring of rear adapter to the right until it stops, then pull gun to the rear and out.

A small set screw is let into the body of the subcaliber gun just forward of the rear adapter. This set screw must be removed when it becomes necessary to remove the rear adapter, but must be replaced when rear adapter is put back on the gun.

The dismounting pin is provided in case of necessity for removing adapters.

If the subcaliber gun sticks in the bore of the large gun, insert the gun extractor rod into and through the bore of the subcaliber gun, until the foot on the front end of the rod can be caught against the muzzle face of the subcaliber gun; then slip the gun extractor-rod strap over the rear end of the rod, until it comes up against the breech face of the larger gun. Apply the nut and screw up on it until the subcaliber gun is loosened, after which remove the gun extractor rod and proceed to remove the subcaliber gun as if it had not stuck.

4-INCH DRIGGS-SCHROEDER AND 4.72-INCH AND 6-INCH ARM-STRONG GUNS.

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of large gun must be perfectly clean.

Insert subcaliber gun, with supports, into bore of large gun, pushing it completely forward with the handspike to cause the flange of rear adapter to seat firmly against the tube of large gun.

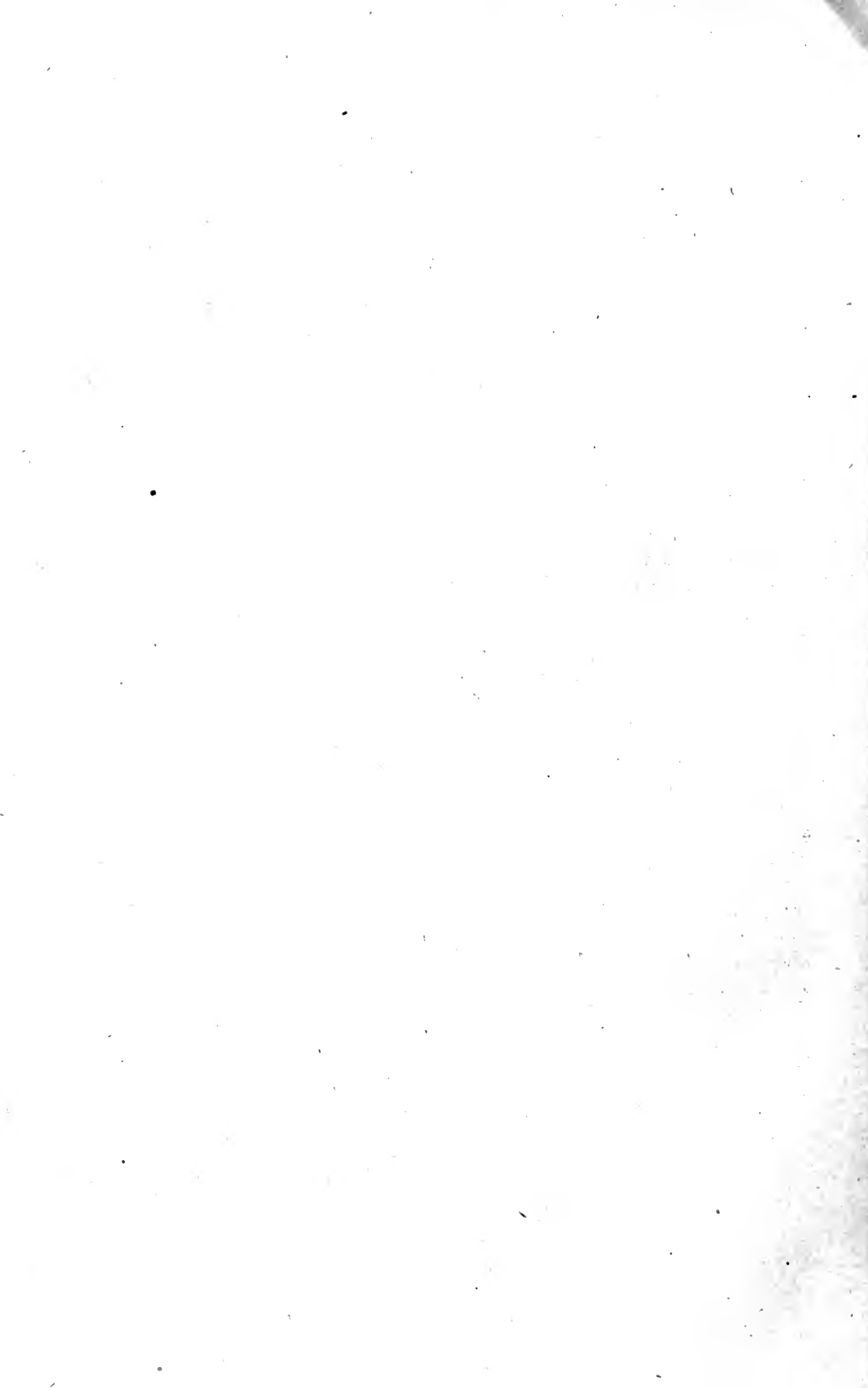
Tighten expanding screw in rear adapter to clamp the adapter sleeve against wall of chamber, using the clamping screw driver. The gun is then ready for firing.

DIRECTIONS FOR DISMOUNTING.

Ease up expanding screw, insert handspike, lift on same to support the weight, and pull the subcaliber gun to the rear and out.

The dismounting pin is provided in case of any necessity for removing front adapter or supports.

If the subcaliber gun sticks in the bore of the large gun, insert the gun-extractor rod into and through the bore of the subcaliber gun until the foot on the front end of the rod can be caught against the muzzle face of the subcaliber gun. Then slip the gun-extractor rod strap over the rear end of the rod until it comes up against the breech face of the larger gun. Apply the nut and screw up on the nut until the subcaliber gun is loosened, after which remove the gun-extractor rod and proceed to remove the subcaliber gun as if it had not stuck.



5 AND 6 INCH GUNS, MODEL OF 1897, AND 6-INCH GUNS, MODELS OF 1905, 1908, 1908 Mi, AND 1908 Mii.

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of large gun must be perfectly clean.

Put on obturator spindle plate with its two screws, using the screw-driver for the purpose, and tighten the screw heads upon the plate.

Insert subcaliber gun, with adapters, into chamber of large gun, pushing it smartly forward with the handspike to cause the front adapted to seat firmly in slope of chamber.

Having made sure that subcaliber gun is as far forward as it can go, remove handspike. Slip locating gauge over obturator spindle plate, leaving a space between gauge and spindle plate. Close breech gently. If resistance is encountered, the gun is too far to the rear. Open the breech and turn gun right handed. If no resistance is encountered in closing, open breech and note whether gauge has been pushed back against spindle. If it has not been pushed all the way back, turn the gun left handed one turn for each 0.1 inch.

Continue to try in this manner until the gauge is pushed just against the spindle plate when closing the gun.

Having adjusted subcaliber gun until the locating gauge is pushed exactly against spindle plate by closing breech, tighten expanding or clamp screw with clamping screw driver. After this tighten the thread clamp screw to prevent the gun from turning. The gun is then ready for firing.

DIRECTIONS FOR DISMOUNTING.

Ease up expanding or clamp screw, insert handspike, lift on same to support the weight, and pull the subcaliber gun to the rear and out.

The dismantling pin is provided in case of any necessity for removing front adapter or muzzle support.

If the subcaliber gun sticks in the bore of the large gun, insert the gun-extractor rod into and through the bore of the subcaliber gun until the foot on the front end of the rod can be caught against the muzzle face of the subcaliber gun; then slip the gun-extractor rod strap over the rear end of the rod until it comes up against the breech face of the larger gun. Apply the nut and screw up on the nut until the subcaliber gun is loosened, after which remove the gun-extractor rod and proceed to remove the subcaliber gun as if it had not stuck.

**8-INCH GUNS, MODEL OF 1888, 10 AND 12 INCH GUNS, MODELS OF
1888 AND 1895, AND 14-INCH GUNS, ALL MODELS.**

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of large gun must be perfectly clean.

Remove blank pressure plugs from mushroom head and put on obturator spindle plate with its two screws, using the tit wrench. Tighten the screw heads upon the plate.

Insert the loading tray, if one is provided, to prevent bruising the adapters on the breech threads.

Insert subcaliber gun, with adapters, into the chamber of large gun, pushing it smartly forward with the handspike, to cause the front adapter to seat firmly in slope of chamber, which it is tapered to fit.

Tighten clamp-wedge screws in rear adapter to cause clamp wedge to expand the adapter against walls of chamber, using the clamping wrench.

Having made sure that subcaliber gun is as far forward as it can go, remove handspike. Slip locating gauge over obturator spindle plate, leaving a space between gauge and spindle plate. Close breech gently. If resistance is encountered, the gun is too far to the rear. Open the breech and turn gun right handed. If no resistance is encountered in closing, open breech and note whether gauge has been pushed back against spindle. If it has not been pushed all the way back, turn the gun left handed one turn for each 0.1 inch. Continue to try in this manner until the gauge is pushed just against the spindle plate when closing the gun.

Having adjusted subcaliber gun until the locating gauge is pushed exactly against the spindle plate by closing breech, tighten the thread clamp screw with the clamping wrench to prevent gun from turning. The gun is then ready for firing.

DIRECTIONS FOR DISMOUNTING.

Insert loading tray, if one is provided.

Ease up both clamp screws, insert handspike, lift on same to support the weight, and pull the subcaliber gun to the rear and out.

If the subcaliber gun sticks in the bore of the large gun, insert the gun extractor rod into and through the bore of the subcaliber gun until the foot on the front end of the rod can be caught against the muzzle face of the subcaliber gun; then slip the gun-extractor rod strap over the rear end of the rod until it comes up against the breech face of the larger gun. Apply the nut and screw up on the nut until the subcaliber gun is loosened, after which remove the gun-extractor rod and proceed to remove the subcaliber gun as if it had not stuck.

GENERAL DIRECTIONS FOR USE, CARE, AND HANDLING OF ALL 1-POUNDER
SUBCALIBER GUNS.

Insert cartridge, close the breech, and fire as with regular ammunition, removing the empty cartridge case after each round with the hand extractor.

If the case sticks and can not be removed with the limit of extraction given by the hand extractor, use the clip extractor, which is provided for such an emergency. A light rope may be passed through the eye of this extractor, and force exerted by a lever against the face of the breech, if necessary.

It is best to try locating gauge after one or two rounds, to be sure the gun has not moved forward, and this should be repeated frequently.

Any fouling of vent in mushroom must be removed with vent cleaner.

Care should be taken, in assembling and dismounting, and at all times, to prevent the turned surfaces of adapters from coming in contact with any hard substance. If a burr should appear, it must be smoothly filed down before assembling.

Particular care must be taken, in loading, not to drive the point of the shell against the edge of the chamber of subcaliber gun.

The clamp screws and adapter hubs should always be kept well oiled. An oil can is provided for this purpose.

After firing, the gun should be washed out and the bore lubricated with light slushing oil.

During firing, when necessary, the gun should be washed out and cleaned with oil.

The chamber and bore of small gun should be lightly oiled when put away. The cleaning sponge is removable from its rod, and should be thoroughly cleaned and dried after use.

Two forms of locating gauges have been provided, one of which is fitted in the chamber of the 1-pounder subcaliber gun and the other is fitted to the edge of the spindle plate on the front face of the obturator.

STATEMENT AS TO INTERCHANGEABILITY OF 1-POUNDER SUBCALIBER GUNS.

1-pounder subcaliber guns adapted for—	When fitted with the proper adapters can also be used in—
4-inch Driggs-Schroeder gun.	6-inch, 1905.
4.72-inch Armstrong gun.	8, 10, 12, and 14 inch guns, all models.
5-inch gun, model of 1897.	6-inch, 1905.
5-inch gun, model of 1900.	8, 10, 12, and 14 inch guns, all models.
6-inch guns, models of 1897 and 1908.	6-inch, 1905.
6-inch guns, models of 1900 and 1903.	8, 10, 12, and 14 inch guns, all models.
6-inch guns, model of 1905.	10, 12, and 14 inch guns, all models.
8, 10, 12, and 14 inch guns, all models.	6-inch, 1905.
	8, 10, 12, and 14 inch guns, all models.
	6-inch, 1900 and 1903.
	8, 10, 12, and 14 inch guns, all models.
	6-inch models of 1900, 1903, and 1905.

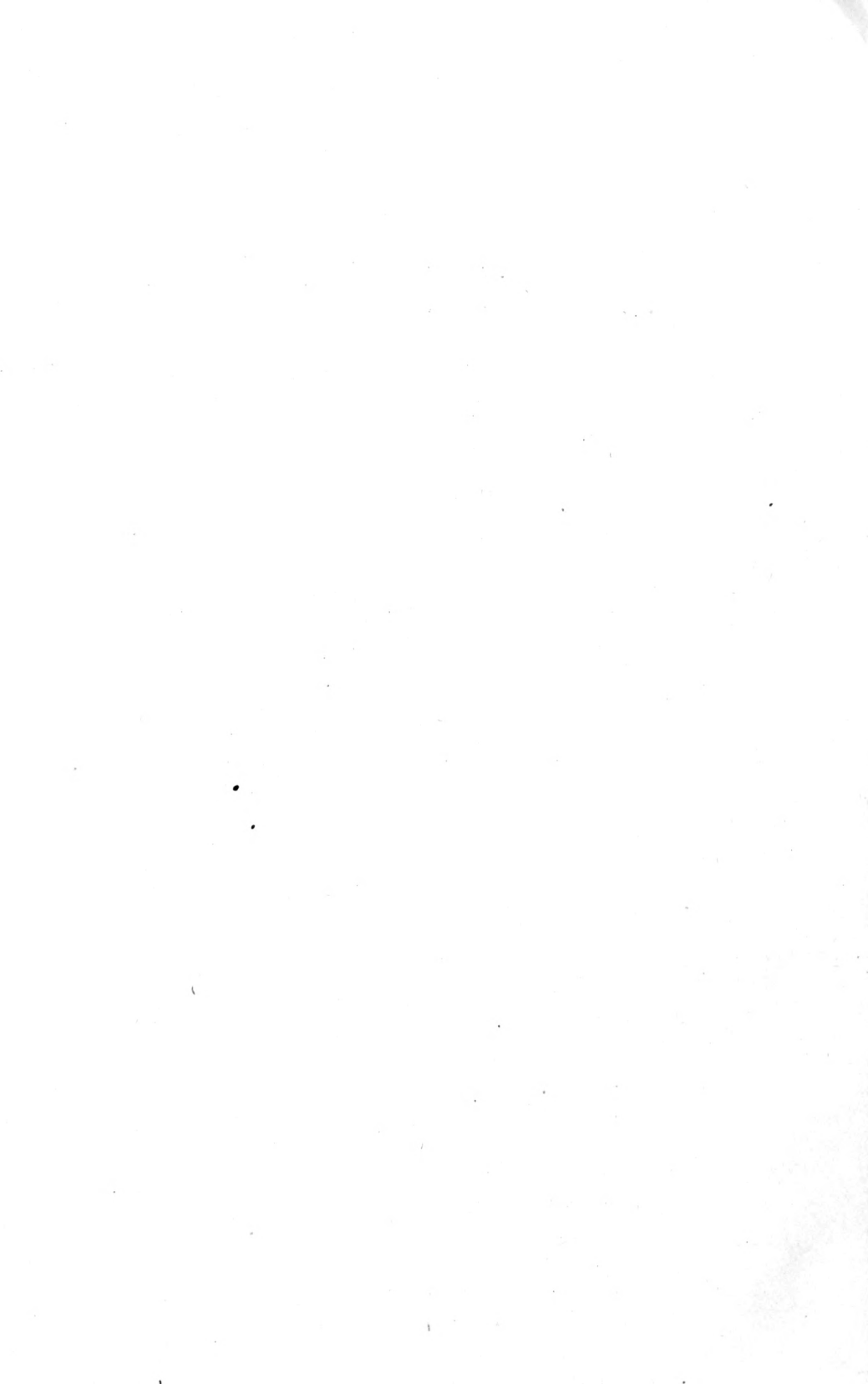
CHESTS FOR 1-POUNDER SUBCALIBER GUNS AND ADAPTERS.

Two models of storage chests are now being manufactured. These are storage chest "B," which contains the 1-pounder subcaliber gun, together with certain tools which are common to various seacoast guns, and storage chest "C," which contains those articles which are different for every model and caliber of seacoast gun, such as adapters and certain tools.

Two types of storage chest "B" are made. One of these is for tools and subcaliber guns for 4-inch Driggs-Schroeder, 4.72-inch Armstrong, or 6-inch Armstrong guns. The other is for tools and subcaliber guns for all other seacoast guns.

AMMUNITION.

The ammunition issued for these guns consists of a steel shell with blank point fuze plug, weight $7,500 \pm 150$ grains, fixed to a cartridge case, the total weight of a complete round being about 1.585 pounds. The use of the point percussion fuze, designed for 1-pounder ammunition, has been discontinued. The ammunition is issued packed in wooden boxes, 50 rounds to the box. The primer used in the base of the cartridge case is either an igniting primer or a percussion primer, depending upon the gun in which the subcaliber gun is used. Subcaliber guns mounted in 4-inch Driggs-Schroeder and 4.72 and 6 inch Armstrong guns require percussion-primed ammunition. All other guns require igniting-primed ammunition.



DIRECTIONS

FOR

USING, MOUNTING, AND DISMOUNTING 2.95-INCH SUBCALIBER GUNS IN THE BORE OF 12-INCH MORTARS, ALL MODELS.

DIRECTIONS FOR ASSEMBLING.

Chamber and bore of subcaliber gun and of mortar must be perfectly clean.

Remove blank pressure plugs from mushroom head and put on obturator spindle plate with its two screws, using the securing-screw wrench. Tighten the screw heads upon the plate.

Insert the loading tray to prevent bruising the adapters on the breech threads.

Insert subcaliber gun, with adapters, into the chamber of the mortar, pushing it smartly forward with the handspike to cause the front adapter to seat firmly in slope of chamber, which it is tapered to fit.

Tighten clamp-wedge screw in rear adapter to cause the adapter clamp wedge to expand the adapter against walls of chamber, using the clamping wrench.

Having made sure that subcaliber gun is as far forward as it can go, remove handspike. Slip locating gauge over obturator spindle plate, leaving a space between gauge and spindle plate. Close breech gently. If resistance is encountered, the gun is too far to the rear. Open the breech and turn gun right-handed. If no resistance is encountered in closing, open breech and note whether gauge has been pushed back against spindle. If it has not been pushed all the way back, turn the gun left-handed one turn for each 0.1 inch.

Continue to try in this manner until the gauge is pushed just against the spindle plate when closing the gun.

Having adjusted subcaliber gun until the locating gauge is pushed exactly against spindle plate by closing breech, tighten the thread clamp screw with clamping wrench to prevent the subcaliber gun from turning. The gun is then ready for firing.

DIRECTIONS FOR USE.

Insert cartridge, close the breech, and fire as with regular ammunition, removing the empty cartridge case after each round with the hand extractor.

If the case sticks when the limit of extraction given by the hand extractor is reached, use the clip extractor which is provided for such emergency. A light rope may be passed through the eye of this extractor and force exerted by a lever against the face of the breech, if necessary.

It is best to try locating gauge after one or two rounds, to be sure gun has not moved forward.

Any fouling of vent in mushroom must be removed with vent cleaner.

DIRECTIONS FOR DISMOUNTING.

Insert loading tray, if one is provided.

Ease up both clamp screws, insert handspike, lift on same to support the weight, and pull the subcaliber gun to the rear and out; if not easily withdrawn, use gun extractor.

CARE AND HANDLING.

Care should be taken in assembling and dismounting, and at all times, to prevent the turned surfaces of adapters from coming in contact with any hard substance. If a burr should appear it must be smoothly filed down before assembling.

Particular care must be taken in loading not to drive the point of the shell against the edge of the chamber of the subcaliber gun.

The clamp screws and adapter hubs should always be kept well oiled. An oil can is provided for this purpose.

After firing, the bore of the subcaliber gun should be thoroughly sponged with warm soapsuds and be perfectly dry before the gun is returned to its chest. The chamber and bore of the gun should be lightly oiled when put away. The cleaning sponge is removable from its rod, and should be thoroughly cleaned and dried after use.

Two types of 2.95-inch subcaliber gun are in service. The first type is intended for the 12-inch mortar, model of 1886. This can also be used in the 12-inch mortar, model of 1886-90Mr, 1890, 1890Mr, and 1908, when fitted with the proper adapters.

The second type, which is the only one now being made, is intended for use in the 12-inch mortar, model 1886-90Mr, 1890, 1890Mr, and 1908. Special adapters are made to fit this to the 12-inch mortar, model of 1912, and to the 12-inch mortar, model of 1886.

INSTRUCTIONS

FOR

USING THE RESIZING AND RELOADING OUTFIT FOR DRILL PRIMERS IN ASSEMBLING, DISASSEMBLING, CLEANING, RESIZING, AND RELOADING THE DRILL PRIMER.

(Two plates.)

IMPORTANT NOTE.

The post ordnance officer of each coast artillery post should have supervision of the disassembling, cleaning, resizing, assembling, and reloading of drill primers, and should issue them to the companies as required. He should thoroughly familiarize himself with the contents of this pamphlet and see that the men assigned to the work of reloading do it exactly as prescribed within. He should impress upon these men the importance of following the instructions. The failure to do so has given much difficulty in the past.

The resizing and reloading outfit for drill primer consists of the following parts:

- 1 chest.
- 3 assembling tools.
- 3 disassembling tools.
- 27 disassembling tool pins.
- 3 reamers.
- 3 funnels.
- 3 chargers.
- 1 push pin.
- 1 resizing die.
- 1 bushing.
- 1 maximum gauge for length of wire under button.
- 2 cleaning taps for button wire.
- 1 instruction pamphlet.
- 1 small primer-inserting press.

With the exception of the small primer-inserting press, the outfit is shown on Plate II.

THE DRILL PRIMER.

Plate I.

The drill primer is used for friction firing in seacoast guns, 5 to 12 inch, inclusive, for firing salutes, night practice, subcaliber firings,

etc., to avoid the expense of using the service combination electric and friction primer for such purposes.

The components of the drill primer (Plate I) are issued in bulk upon requisition. The components are:

The body.

The button wire.

The serrated wire with friction pellet.

The end-closing cup.

The charge (25 grains of loose rifle powder).

A complete description of this primer will be found in Ordnance Pamphlet Form No. 1881.

TO ASSEMBLE AND LOAD THE PRIMERS.

The primers will be assembled not more than a few days before they are to be fired. To assemble the primer insert the serrated wire with friction pellet in its seat in the body, care being taken that the seat in the body for the friction pellet is clean and free from obstruction. With the left hand insert the assembling tool, slotted end foremost, and turn, without pressure, until the assembling tool slips over the serrated wire. With the thumb and first finger of the right hand screw a button wire on the threaded rear end of the serrated wire. The maximum gauge for length of wire under button should be used to determine the required distance from the button to the body of the drill primer.

Do not screw the button wire on too hard. If found tight, unscrew the button wire and clean the threads with the cleaning tap for button wire. If the forward end of the serrated wire should be twisted off by too hard turning, the body, serrated wire, and button wire are all worthless and must be thrown away, because the primer can not be disassembled.

Pliers must not be used in assembling. Their use should not be necessary in this operation and may result in deformation of the threaded parts, disintegration of the friction pellet, or twisting off of the serrated wire.

Still holding the primer in the left hand, place the funnel on the mouth, and with the charger fill the primer with 25 grains of loose rifle powder. With the right hand holding the assembling tool, moisten the unslotted end, insert it in the end-closing cup, and force the end-closing cup into the mouth of the body. The primer is then ready for firing. Should assembled primers be returned without being fired, they will be kept free from moisture until used.

TO DISASSEMBLE AND CLEAN THE PRIMERS.

Immediately after the firing for the day has ceased, the fired drill primers should be turned over to the post ordnance officer, who

will take steps to have them disassembled and cleaned at once. After disassembling the serrated wire and button wire with the aid of the assembling tool and forcing out the serrated wire with the disassembling tool the bodies and button wires will be plunged into a hot solution of soda for about fifteen minutes, when the residue can be wiped off. The reamer will then be used to clean residue, from the seats in the body for the friction pellet and obturating cone on the serrated wire. Too much importance can not be attached to the necessity of removing all traces of the powder residue, as the residue from black powder quickly attacks the metal of the primer. Do not postpone disassembling the primer and cleaning the bodies and button wires until a later day, as it is only by prompt and thorough cleaning that the bodies can be kept in a serviceable condition.

TO RESIZE THE BODY.

Place the bushing in its seat in the primer-inserting press. After inserting the body in the resizing die, place the resizing die (with the base of the body upward) in its seat in the bushing. Turn the lever of the press so as to force the body fully home in the resizing die. Remove the resizing die and insert the spindle of the push pin in the mouth of body as far as it will enter. Again place the resizing die in its seat in the bushing, with the head of the push pin upward, and by turning the lever of the press force the body out of the resizing die. The body is then in condition for assembling and reloading.

DIRECTIONS FOR PULLING THE DRILL PRIMER.

These primers are adjusted in manufacture to require a pull of about 25 pounds to start the wire to the rear, and about 40 to 45 pounds to pull the teeth on the serrated wire through the compressed friction pellet and explode it.

The lanyard should be pulled from a position as near the rear of the gun as possible, since pulling it from the side will cause a variable part of the pull to be absorbed by friction in the firing leaf. A strong, steady pull from one man, with as short a lanyard as possible, should be used. When a long lanyard is used, the slack causes the force to be applied to the primer slowly, and this increases the chances for a misfire. The quicker the pull, the better for firing the primer, but when a man attempts to pull by a jerk he uses his arms only, losing the assistance of his body, and the strength of his pull will be less. If a primer can not be discharged by one man, it should be rejected and another used. By using more than one man on the lanyard, there would be danger of injuring the firing mechanism.

The primer is so constructed that when a primer is pulled and fails to fire, the primer wire is free, and if pushed forward may cause the friction composition to ignite. Such a primer should at once be disassembled by first taking out the brass closing cup and powder and then removing the serrated wire.

WAR DEPARTMENT,

OFFICE OF THE CHIEF OF ORDNANCE,

Washington, August 8, 1914.

January 18, 1904.

Revised January 10, 1907.

Revised April 14, 1910.

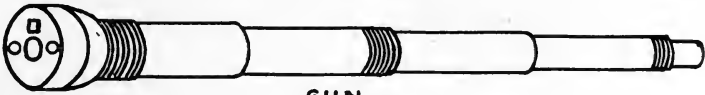
Revised August 8, 1914.

FORM No. 1986.

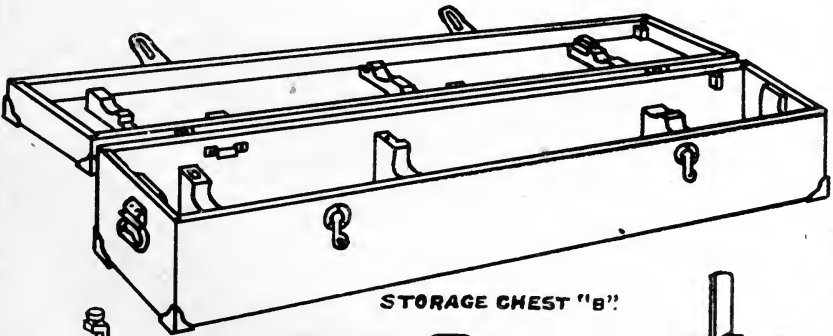
Ed. June 5-17-2,000.

PLATE I.

1 Pdr. SUBCALIBER GUN
FOR ALL SEACOAST GUNS
EXCEPT 4"D-S, AND 4.72" AND 6" ARMSTRONG GUNS.



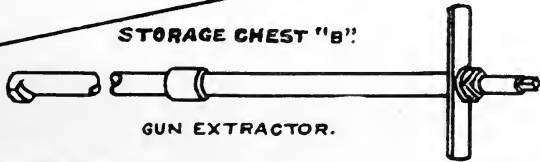
GUN.



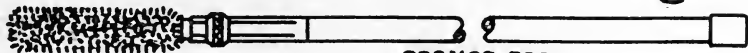
STORAGE CHEST "B"



LOCATING GAUGE.



GUN EXTRACTOR.

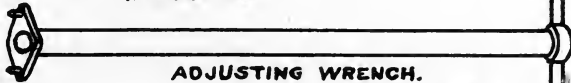


CLEANING SPONGE.

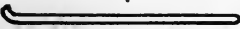
SPONGE ROD.



HANDSPIKE.



ADJUSTING WRENCH.



HAND EXTRACTOR.



VENT CLEANER.



CLIP EXTRACTOR.



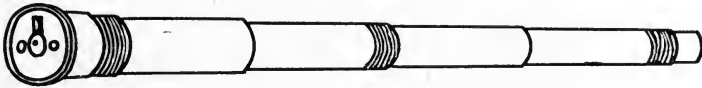
OIL CAN.



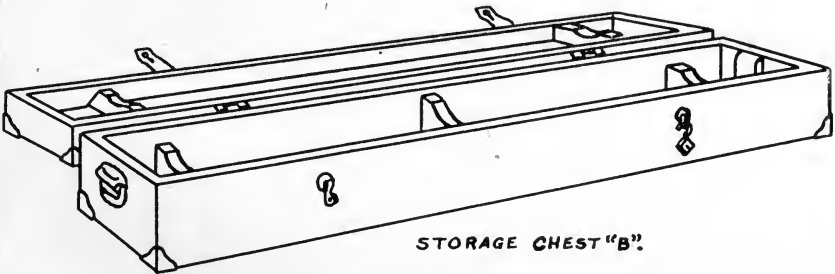
PLATE II.

1 PDR. SUB CALIBER GUN.

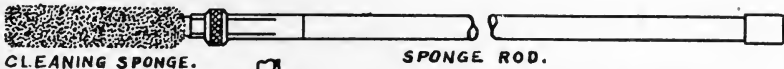
ADAPTED TO 4" D-S, AND 4.72 AND 6" ARMSTRONG GUNS.



GUN.

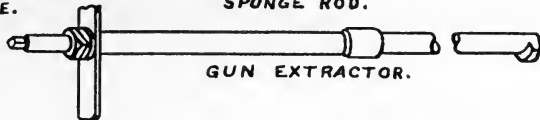


STORAGE CHEST "B".

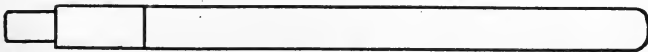


CLEANING SPONGE.

SPONGE ROD.



GUN EXTRACTOR.



HANDSPIKE.



CLIP EXTRACTOR.



HAND EXTRACTOR.



OIL CAN.

36-16-24

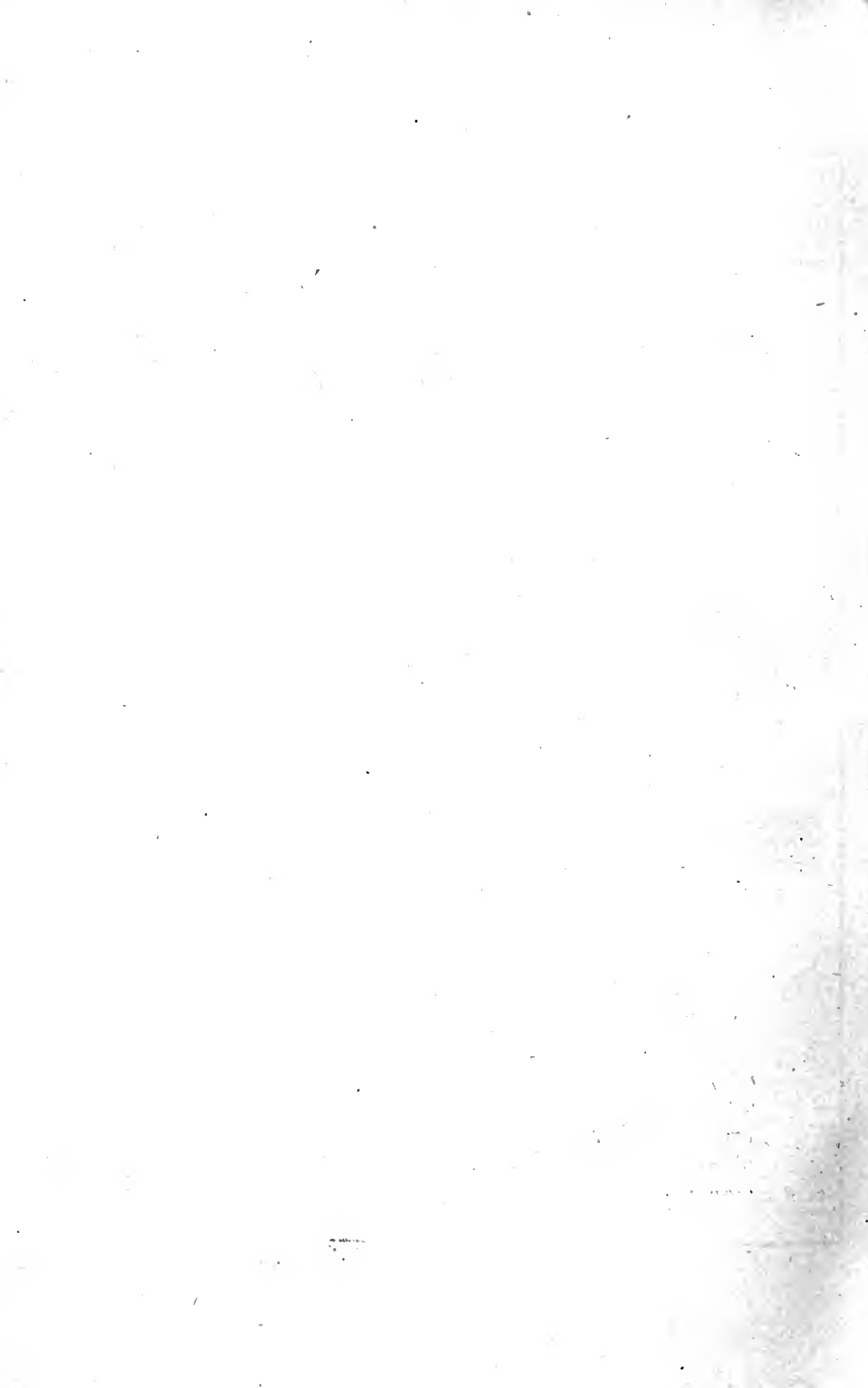
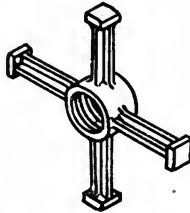


PLATE III.

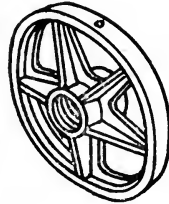
ADAPTERS, STORAGE CHEST "C" AND TOOLS
FOR 8, 10 AND 12-IN. GUNS, MODELS OF 1888 & 1895,
AND 14-IN. GUNS ALL MODELS.



REAR ADAPTER.



CENTER SUPPORT.



FRONT ADAPTER.



ADAPTER CHECK PLATE.



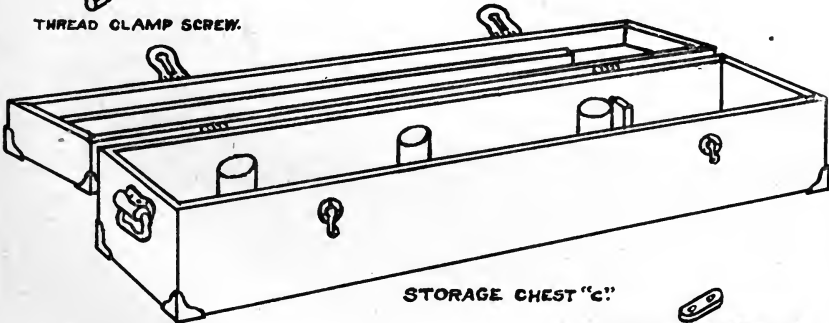
ADAPTER CLAMP WEDGE.



CLAMP WEDGE SCREW.



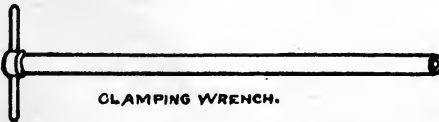
THREAD CLAMP SCREW.



STORAGE CHEST "C"



OBTURATOR SPINDLE PLATE.



CLAMPING WRENCH.



SECURING SCREW.



SECURING SCREW WRENCH.



FRONT ADAPTER.
10-IN. 1888 & 1895.



FRONT ADAPTER.
8-IN. 1888.



PRIMER FLAME BAFFLE.

22
13

PLATE IV.

ADAPTERS, STORAGE CHEST "C" AND TOOLS
FOR 10 AND 12-IN. GUNS, MODEL OF 1900.



REAR ADAPTER.



ADAPTER CLAMP WEDGE.



STOP PLATE.



FRONT ADAPTER.



REAR ADAPTER SHOE.



ADAPTER CHECK PLATE.



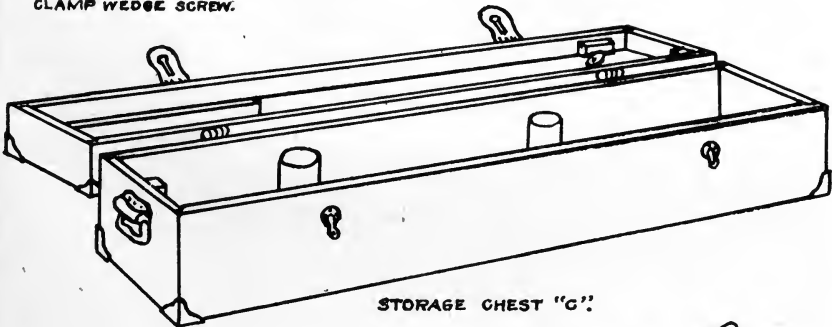
PRIMER FLAME BAFFLE.



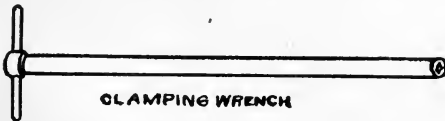
CLAMP WEDGE SCREW.



THREAD CLAMP SCREW.



STORAGE CHEST "C".



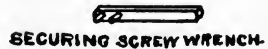
CLAMPING WRENCH



OBTURATOR SPINDLE PLATE.



SECURING SCREW.




SECURING SCREW WRENCH.



PLATE V.

ADAPTERS, STORAGE CHEST "C" AND TOOLS
FOR 5-IN. GUNS, MODELS OF 1897 & 1900,
AND 6-IN. GUNS, ALL MODELS.



EXPANDING SCREW.



FRONT ADAPTER.



MUZZLE SUPPORT.



MUZZLE SUPPORT
SET SCREW.



WEDGE SCREW
FOR 6" GUNS.



REAR ADAPTER
WEDGE.
FOR 6" GUNS.



REAR ADAPTER.



REAR ADAPTER
SHOE.



CENTER
SUPPORT.
FOR 5" GUNS.



FRONT
ADAPTER.



ADAPTER SHOE
WEDGE SCREW,
5"-1900.



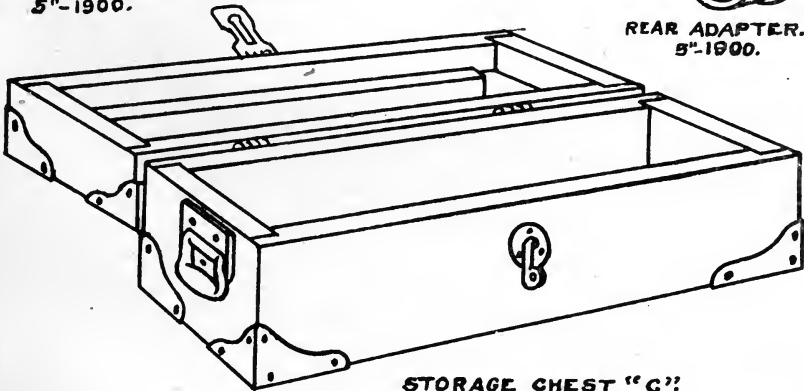
ADAPTER SHOE
WEDGE.
5"-1900.



ADAPTER SHOE.
5"-1900.



REAR ADAPTER.
5"-1900.




SECURING SCREW.



OBTURATOR
SPINDLE PLATE.



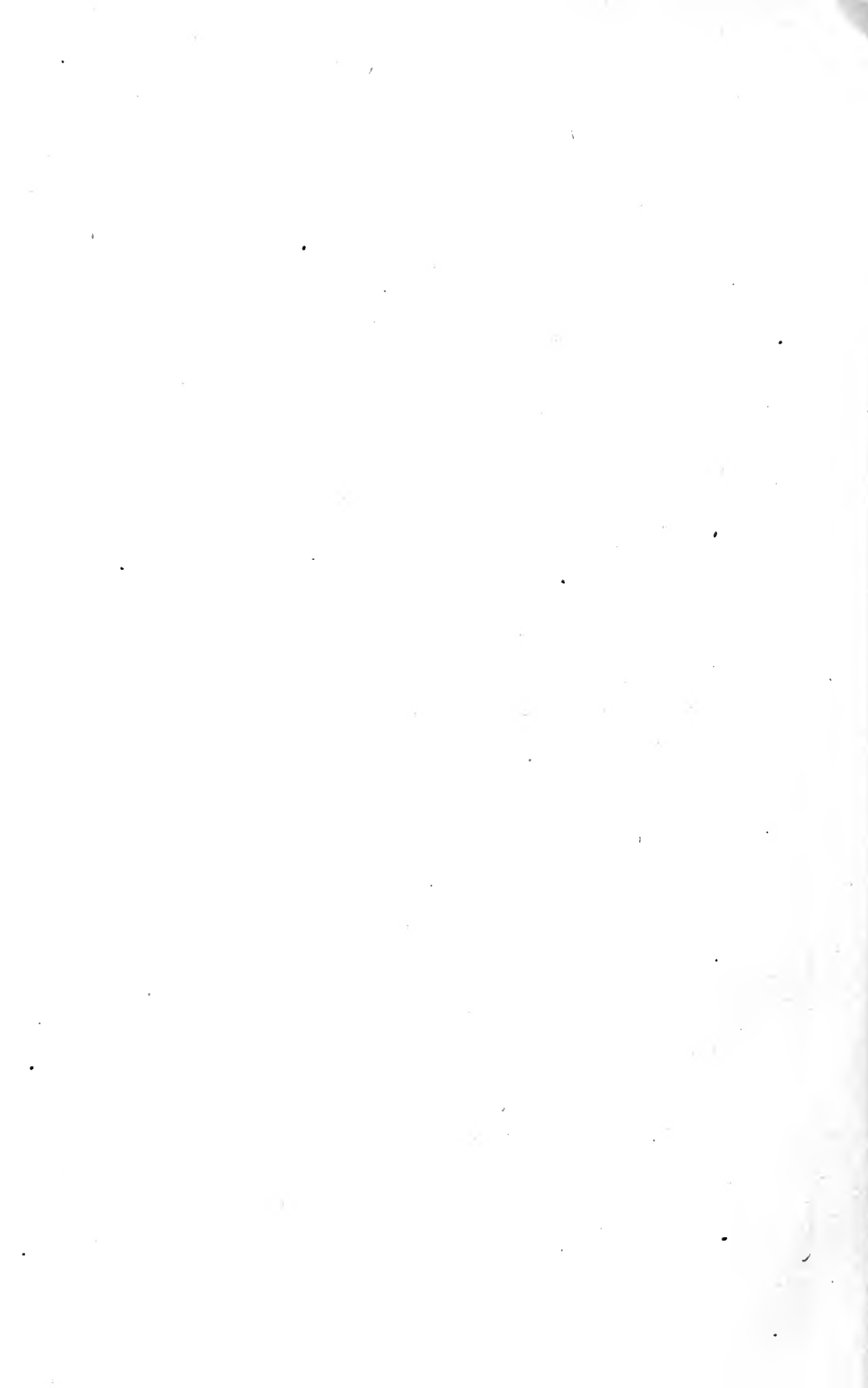
PRIMER FLAME BAFFLE.



DISMOUNTING PIN.



CLAMPING SCREW DRIVER.



**ADAPTERS, STORAGE CHEST "C" AND TOOLS
FOR 4-IN. DRIGGS-SCHROEDER, 4.72 AND 6-IN.
ARMSTRONG GUNS.**



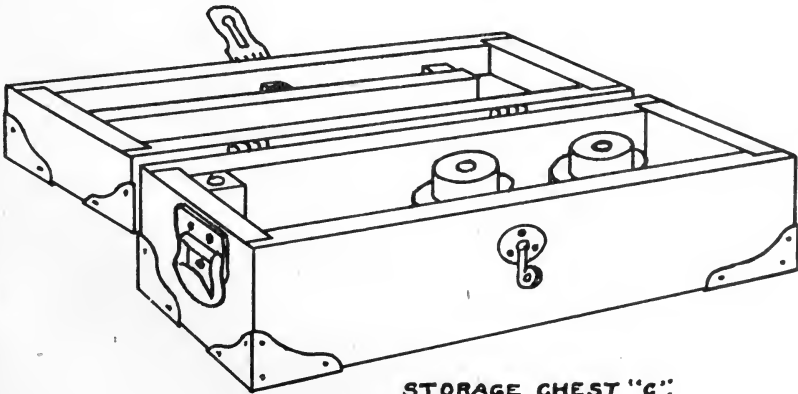
CENTER SUPPORT.



EXPANDING SCREW.



MUZZLE SUPPORT.



STORAGE CHEST "C".



DISMOUNTING PIN.

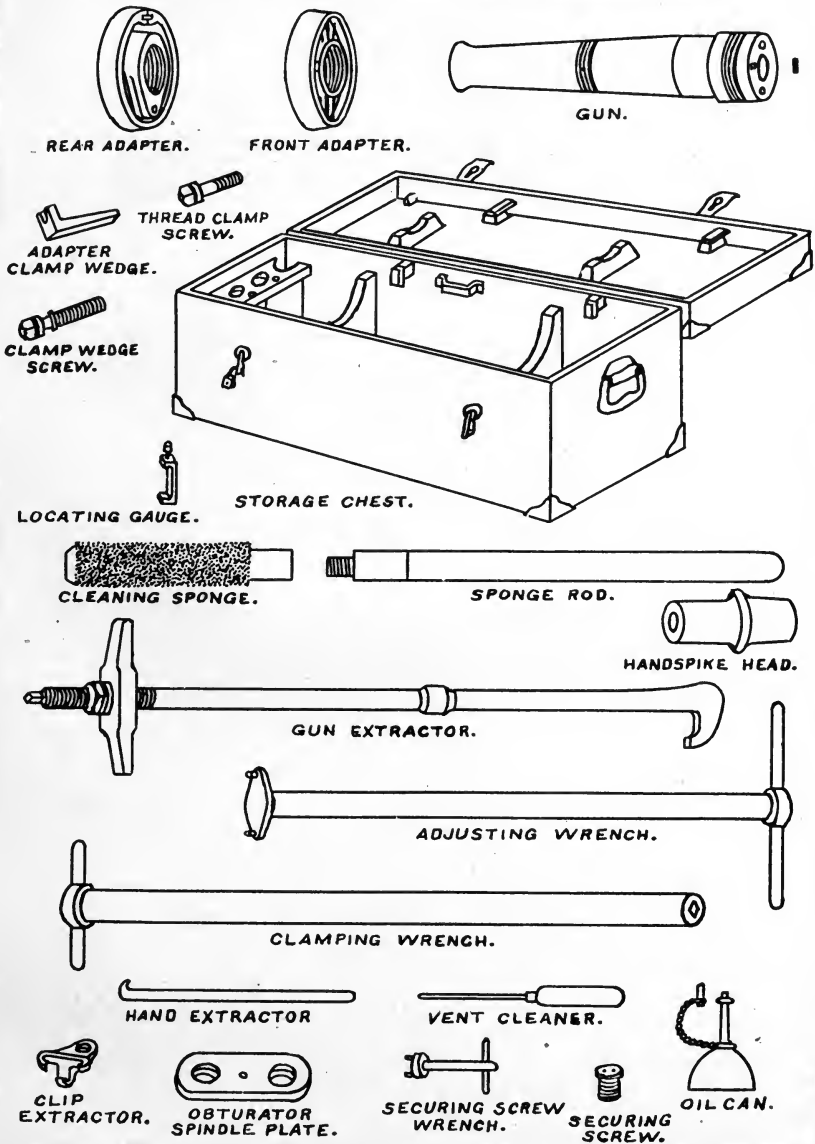


CLAMPING SCREW DRIVER.

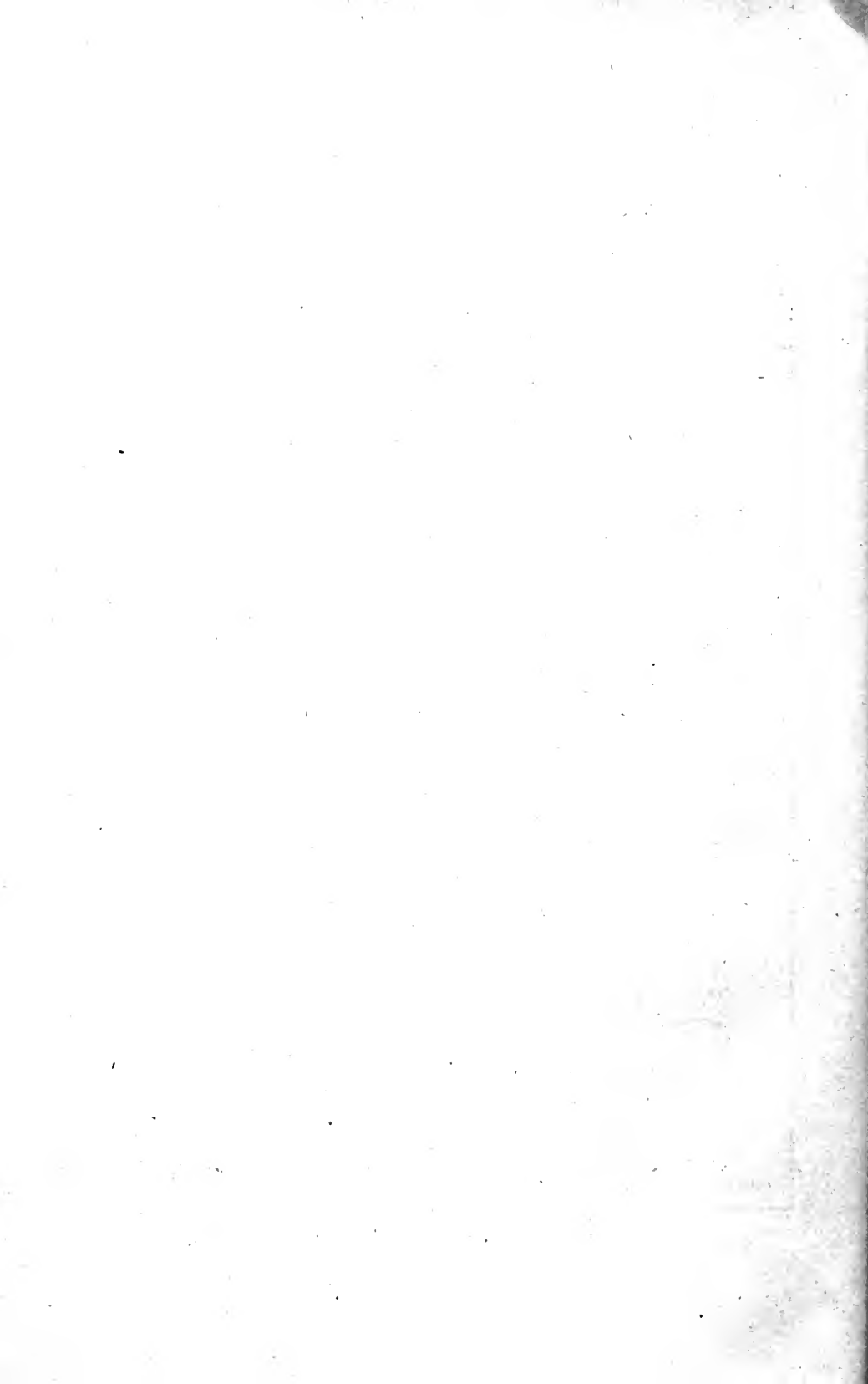


PLATE VII.

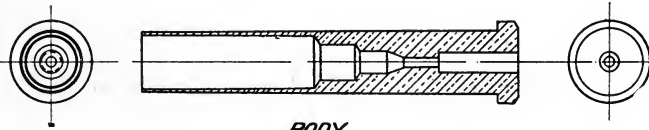
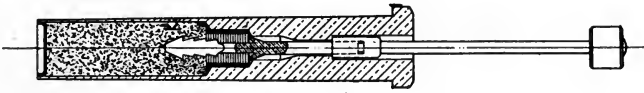
2.95 IN. SUBCALIBER GUN.
ADAPTED TO 12 IN. MORTARS, MODELS OF 1886,
1886-'90M, 1890, 1890M, 1908 AND 1912.



36-16-22



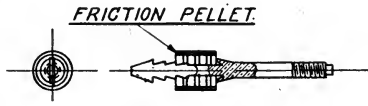
DRILL PRIMER.



BODY



END CLOSING CUP



FRICTION PELLETT.

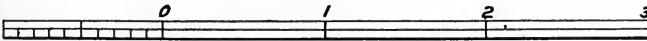


SERRATED WIRE



BUTTON.

BUTTON WIRE



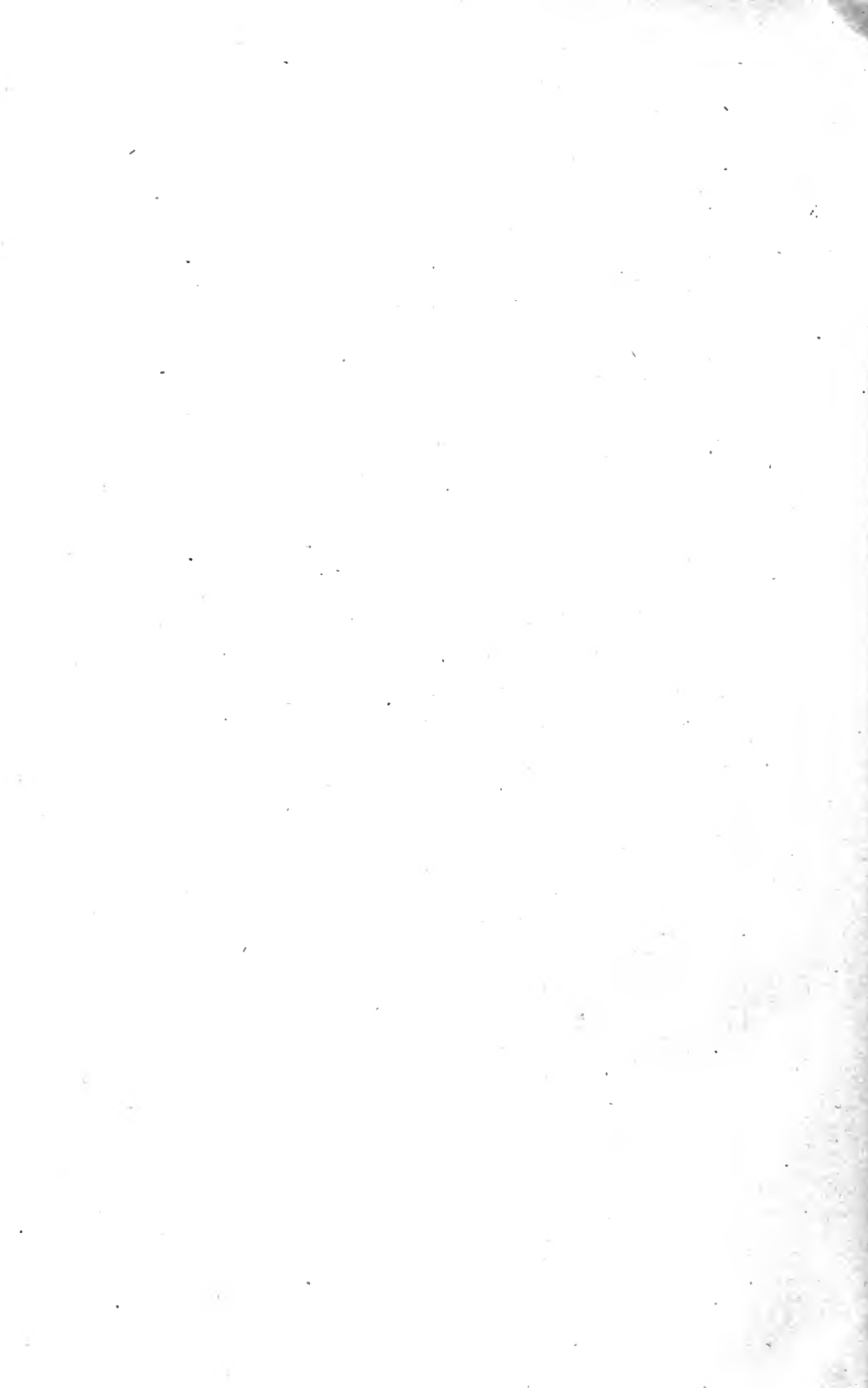
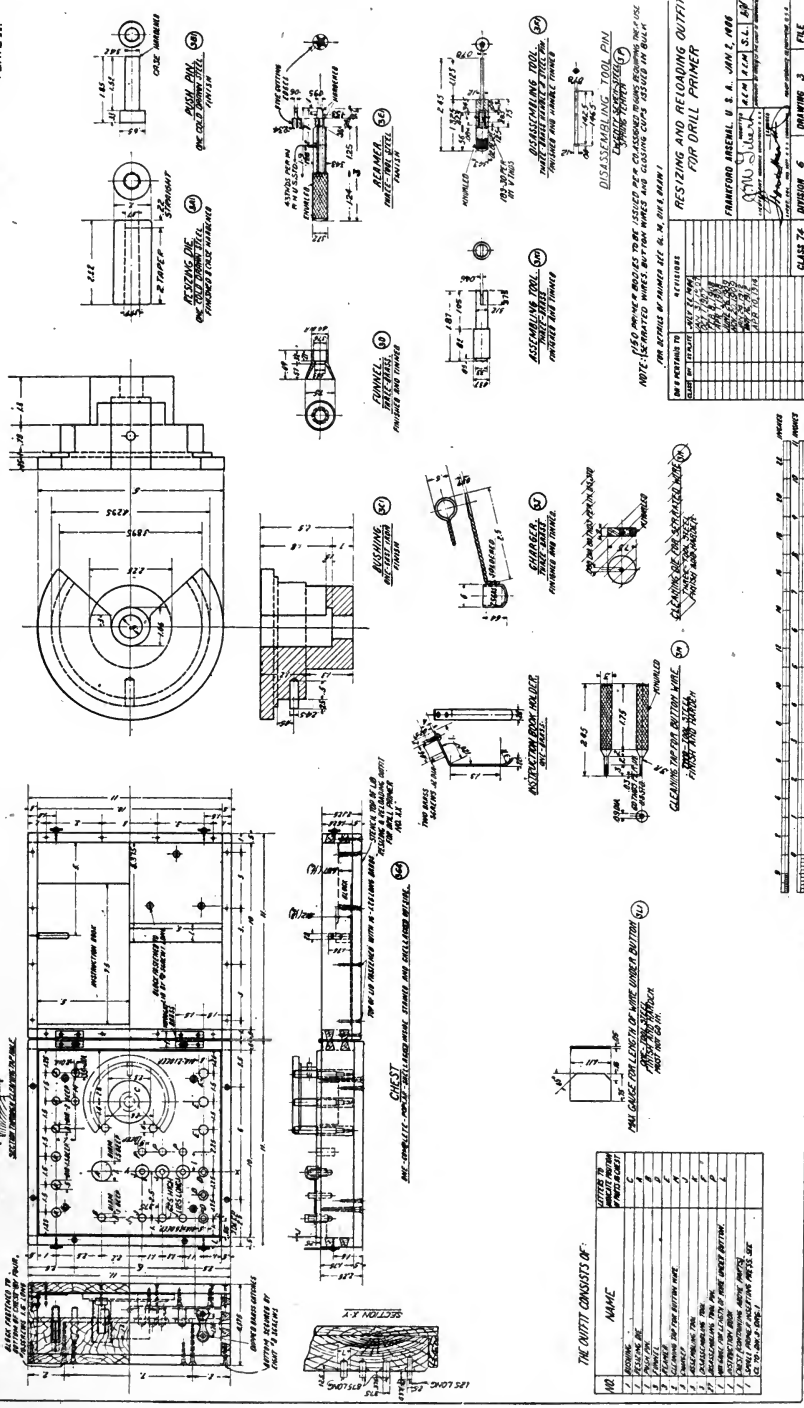


PLATE II.



1022
 1022
 1022

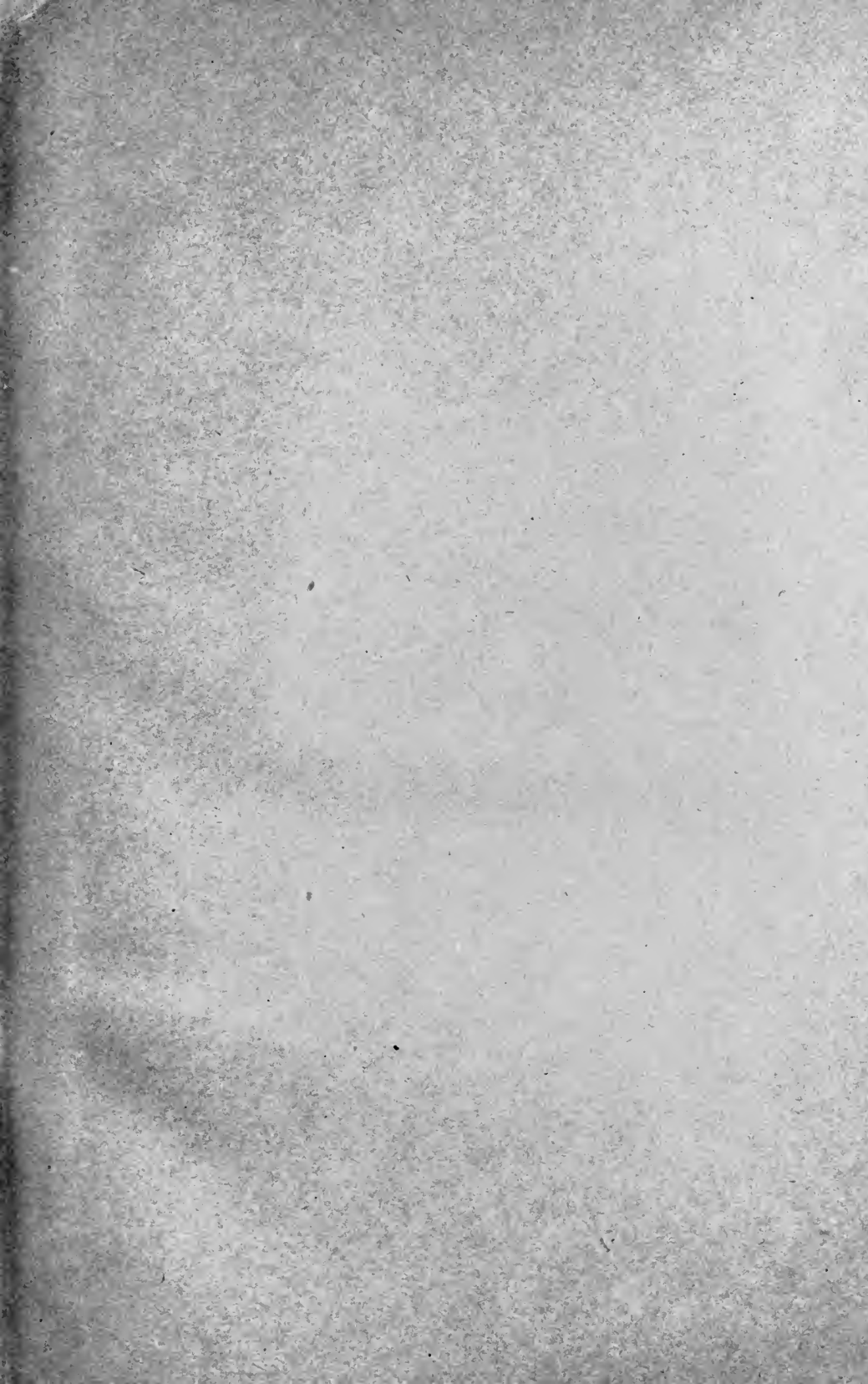
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