



DAVIDE PEDERSOLI

MUZZLELOADING GUNS OWNER'S MANUAL



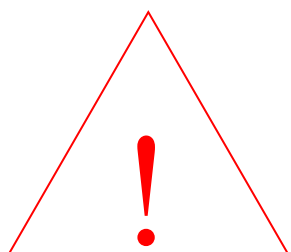
WARNING

READ THIS MANUAL IN ITS ENTIRETY BEFORE USING YOUR FIREARM.

**YOU MUST READ CAREFULLY THIS BOOKLET IN ITS ENTIRETY AND FULLY UNDERSTAND ITS SIGNIFICANCE , BEFORE USING YOUR FIREARMS.
REPLACEMENT BOOKLETS ARE AVAILABLE AT NO CHARGE FROM OUR FACTORY.**

IF AFTER READING THIS BOOKLET, YOU STILL HAVE QUESTIONS CONCERNING THE SAFE USE OF YOUR FIREARM , WRITE TO:

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WARNING: Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to the State of California to cause birth defects, reproductive harm, and other serious physical injury. Have adequate

**ventilation at all times.
Wash hands thoroughly after exposure.**

INDEX

General Hints for the use of firearms

GENERAL HINTS	5
DISCLAIMER OF LIABILITY.....	5
PROOF HOUSE TEST	5
PRECAUTIONS.....	5
FIRING	6
STORAGE	7

General technical instructions

DOUBLE & SINGLE SET TRIGGER ADJUSTMENT – SAFETY	8
DOUBLE SET TRIGGER	8
SINGLE SET TRIGGER	8
WARNING	9
SIGHTING ADJUSTMENT	10

Important cautions for muzzle loading shooting 11

LOADING AND SHOOTING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

Percussion firearms	13
FLINTLOCK FIREARMS	18

CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

HOW TO REMOVE THE BARREL FROM STOCK	20
CLEANING	21
HOW TO REMOVE THE BREECH PLUG FROM BARREL	21

LOADING AND SHOOTING INSTRUCTIONS FOR SIDE BY SIDE MUZZLE LOADING SMOOTH BORE SHOTGUNS

ASSEMBLING	22
LOADING	22
LOADING MISTAKE.....	25
CLEANING.....	26
DOUBLE BARREL SHOTGUN WITH INTERCHANGEABLE CHOKE TUBES – C.T. MESUREMENT	26

Loading and shooting instructions for side by side muzzle loading rifled barrel guns Kodiak & Safari express

ASSEMBLING.....	27
LOADING.....	27
LOADING MISTAKE.....	29
CLEANING	30
SIGHTING.....	30

LOADING AND SHOOTING INSTRUCTIONS

FOR BRISTLEN A MORGES® RIFLE	31
FOR GIBBS .40 and .45 CALIBERS	31
FOR MORTIMER WHITWORTH & TRYON CREEDMOOR RIFLES	32
FOR TRYON MATCH RIFLE	32

FOR WAADTLÄNDER RIFLE	32
FOR 1857 WÜRTEMBERGISCHEM RIFLE	33
FOR ZIMMER & SALOON 4,5 mm CALIBER	33
LOADING AND SHOOTING INSTRUCTIONS FOR REVOLVERS	34
DISASSEMBLING AND ASSEMBLING INSTRUCTIONS FOR CARLETON UNDERHAMMER	36
INSTRUCTIONS FOR ASSEMBLING THE RIFLE KIT	37
INSTRUCTIONS FOR ASSEMBLING THE PISTOL KIT	39
FIGURES AND EXPLODED VIEW	
1857 WÜRTEMBERGISCHEM REAR SIGHT	41
MUZZLE LOADING RIFLE	42
KIT MUZZLE LOADING RIFLE	44
MUZZLE LOADING PISTOL	48
KIT MUZZLE LOADING PISTOL	50
CARLETON UNDERHAMMER	52

GENERAL HINTS FOR THE USE OF FIREARMS

BEFORE USING ANY FIREARM, MUZZLELOADING OR CARTRIDGE GUNS, WE ASK YOU TO READ CAREFULLY THIS BOOKLET, AND TO GET THOROUGHLY FAMILIAR WITH THE OPERATION OF THE SPECIFIC GUN.

GENERAL HINTS

A firearm is a sport and law enforcement tool capable of injuring and killing. It is a precision instrument designed to function reliably with proper care and knowledgeable use. If you do not have full knowledge of the power and function of firearms, we recommend that you seek proper training. Careless and improper handling of guns could result in unintended discharge causing injury, death or property damage. Safety must be the first and constant consideration when handling a firearm and ammunition. Various safety features have been incorporated into each firearm but relying on mechanical features alone is, at most, only half safe. Mechanical safety devices are not failsafe, but more importantly the safe use of any mechanical instrument is dependent upon intelligent use.

Accidents do not “just happen” but occur as the result of human behavior, thoughtless acts jeopardize the wellbeing of the user and those around him or her.

Insure the safe use of firearms by following these guidelines.

NOTE: SAFETY DEVICES ON GUNS ARE EXTRAS AND ARE NOT SUBSTITUTE FOR PROPER AND SAFE HANDLING PRACTICES.

DISCLAIMER OF LIABILITY

Davide Pedersoli Co. shall not be responsible for product malfunction or for physical injury, death, or property damage from the gun’s intentional or accidental discharge, its criminal or negligent use, improper or careless handling, unauthorized modifications or alterations, corrosion or other failure to maintain, use of defective, improper, hand-loaded or reloaded ammunition, or other than original, good condition, high quality, commercially manufactured ammunition, from its use for purposes or subjection to treatment for which it was not designed. Davide Pedersoli Co. will not honor claims made by second or subsequent owner of the firearm.

While this firearm was tested, carefully inspected, and packaged before it left the factory, Davide Pedersoli Co. cannot thereafter control product handling. Please be sure to examine this firearm carefully when purchase to ensure it is unloaded and undamaged. Your gun dealer will assist you in making this examination and answer any further questions in this regard.

PROOF HOUSE TEST

According to the Italian Law ruling production and sale of arms, all muzzle loading and breech loading firearms must be submitted to forced firing tests at the National Proof House in Gardone Val Trompia, Brescia (C.I.P. rules).

Proper marks stating the tests are stamped both on the barrels and on the frame.

PRECAUTIONS

- ◆ Before shooting, learn this gun’s mechanical and handling characteristics, and read and be thoroughly familiar with these safety instructions. If you do not fully understand any of the instructions in this manual, consult a competent firearms instructor through your local gun club or you can contact Davide Pedersoli Co. directly.
- ◆ Always point the gun in a safe direction, and handle it as though it were loaded. This is especially important when loading and unloading the gun, and when handing it to someone

else. Never take someone's word it is unloaded, but always check it yourself with your fingers off the trigger and the gun pointed in a safe direction.

- ◆ If your firearm is shipped disassembled, read instructions and totally understand proper assembly before proceeding.
- ◆ Place your finger inside the trigger guard only when you are ready to fire.
- ◆ Do not make any modifications or adjustments to your firearm, which will affect the safe and normal function of the gun.
- ◆ When purchasing accessories such as leather or when adding accessories such as grips or sights, be sure they are compatible with the firearm and do not interfere with safe operation.
- ◆ While at a shooting range, always carry the gun unloaded and open until preparing to shoot. Keep it pointing towards the backstop when loading, shooting and unloading.
- ◆ If you must carry a loaded gun, always carry it with the muzzle pointing in a safe direction and with the safety in the "safe" position. But remember that no mechanical safety is failsafe. Never carry firearms with an exposed hammer with the hammer cocked. In auto loading or hand repeating guns, do not chamber a round.
- ◆ Do not use your firearm for purposes other than those for which it was designed.
- ◆ Do not allow a firearm to be used by untrained individuals.
- ◆ When transporting your firearm in any vehicle, be sure it is unloaded and that the action is open.
- ◆ Never leave a gun, especially a loaded gun, unattended as someone, especially a child, could accidentally shoot it causing injury, death or property damage.

FIRING

- ◆ Whenever firing any type of firearm, wear safety glasses to protect your eyes from sparks, lead fragments, black powder residues, pieces of caps or flints, pellet rebound etc., and ear protection for the loud report.
- ◆ In selecting a place to shoot, be sure the area has a safe backstop, is free from obstructions and water surfaces which cause ricochets, and is protected so that persons or animals cannot accidentally walk into the shooting field. Making sure there is a proper backstop, which will stop and contain bullets. A bullet can travel through or past your target for several kilometers. If you have any doubt, **DO NOT SHOOT**.
- ◆ When firing on a target range, follow the range officer's commands to load, fire, and cease-fire and unload.
- ◆ Before anyone is allowed to move forward the firing position on a range, be sure all actions of firearms are open and unloaded, without cartridges or ammunition of any kind, as well as igniting caps, and that they are safely positioned.
- ◆ Never use alcoholic beverages or other drugs before or during shooting.
- ◆ If your firearms fail to function properly, do not try to fire it and do not force an action that is jammed.
- ◆ Beware of obstructions in the barrel. If, when firing, a weak or peculiar report is heard, cease firing, open the action, if possible, and unload the gun and inspect the barrel for an obstruction or for damage. Do not fire a gun with an obstructed or damaged barrel.
- ◆ If you are carrying a loaded gun in the field, never follow a companion.
- ◆ Never cross obstacles such as fences or streams with a loaded gun.
- ◆ Never run with a loaded gun.

- ◆ Do not smoke while handling, loading or shooting any ammunition, especially black powder. Keep black powder in a closed container at all times, closing again the container after each and every use.
- ◆ Never shoot the gun near an animal, as the animal could be startled and cause an accident.
- ◆ Never engage in “horseplay” while holding your gun.
- ◆ Make sure slide lock safety is applied while gun is cocked and ready to fire. Otherwise, the gun could accidentally discharge, causing injury, death, or property damage.
- ◆ Place the hammer rearward only when you are ready to shoot.
- ◆ Never place or permit the hammer to remain in the half-cock notch, as this is not a safe carrying position. You might end up accidentally perching the hammer on the lip of the half cock notch, which is extremely dangerous given the hammer in this condition could fall forward and discharge the gun, causing injury, death, or property damage.
- ◆ Always be aware of other people around you. Keep spectators or others to your rear. Keep hands and face clear and keep others clear of the ejection port as ejected spent cartridges can cause injury. To prevent burns or injury from the slide moving forward, make sure your hand and fingers do not touch or obstruct the ejection port.

STORAGE

- ◆ Make sure your gun is not loaded before cleaning, storing or traveling and the magazine is removed with slide-latched open before laying it down, and/or handing it to another person.
- ◆ Store your unloaded firearm and ammunitions separately and in places inaccessible to unauthorized persons and/or children.
- ◆ Do not encase your firearm in anything which will attract or hold moisture.
- ◆ The internal mechanism should be oiled after use and periodically during storage, with an acid-free lubricating oil, while the external mechanism plus frame and barrel should be coated with anti rust oil.
- ◆ Before using your gun, be sure to clean it and to check it for signs of wear or defects.
- ◆ If your firearm is to be used or stored in a cold climate, be sure to use oil, which will not freeze, at low temperatures.
- ◆ After use, the stock and wood parts must be cleaned with a soft woolen cloth and film covered with linen oil for wood.

GENERAL TECHNICAL INSTRUCTIONS

DOUBLE & SINGLE SET TRIGGER ADJUSTMENT - SAFETY

Your gun can be provided with set trigger as:

- ♦ **double triggers:** the rear trigger is the set trigger while the front one is the firing trigger.
- ♦ **single set trigger** (also called French set trigger): move the trigger forwards in order to set the trigger pull, just a light touch on the trigger will then be needed to fire.

Under certain circumstances, an activated set trigger may release the cocked hammer due to the shock of the mechanism.

Properly adjusted, set triggers will not release the cooked hammer unexpectedly and the instructions below should be read carefully und trigger adjustments made correctly.

BEFORE MAKING ANY ADJUSTMENTS MAKE CERTAIN THE GUN IS UNLOADED.

See figures at page 6 of this booklet.

DOUBLE SET TRIGGER

The rear adjusting screw (# 1) controls the tension on the main spring (# 2) by raising or lowering the main spring. Turn the screw (# 1) inwards until the hammer will stay cocked without having the rear trigger “set” (*clicked*).

If the screw (# 1) has been set inwards too far, the hammer will not fall when the front trigger is pulled strongly.

If the screw (# 1) is not set inwards enough, the hammer will fail to remain at full cock position unless the rear trigger is “set” (clicked) first. Therefore, if the hammer will not remain in full cock, the screw must be turned inwards further until the hammer will remain in full cock without first “setting” the rear trigger.

NOTE: when making adjustments on screw (# 1) always move the screw in $\frac{1}{4}$ to $\frac{1}{2}$ turn increments and recheck your results before making more adjustments.

The front trigger will release the hammer even if the rear trigger has not been “set”.

With the rear trigger **NOT** set, the pressure required to release the hammer will be much more that when the rear trigger has been “set” (clicked).

The front trigger adjustment screw (# 3) changes the amount of movement or travel, which the front trigger, will have before the hammer is released.

Turning the adjustment screw (# 3) inwards will reduce the front trigger movement required to release the hammer. Turning the screw outwards will increase the required front trigger movement.

If this screw (# 3) is turned inwards too far, it will not “hold” the setting against the rear trigger sear notch (# 4).

Proper adjustment should produce a very small trigger movement with light pressure required. Such a setting helps a good shooter to obtain better accuracy.

We recommend to periodically verifying the screws that may loosen due to the shot vibrations.

For some set triggers there is a side screw (# 5) to make sure that the screw (# 1) doesn't loosen. This however does not happen too often and only to guns that have very strong recoil.

SINGLE SET TRIGGER

A small adjustment screw (# 1) is located right behind the trigger blade (# 2). Turning this screw inward will reduce the pressure required to release the trigger and turning the screw downward will increase the required trigger release pressure.

Pressing the trigger blade forward does the actual setting of the trigger.

The screw (# 1) has a slot head to allow a small screwdriver to be used and there is also a small-drilled hole, which allows a pin or small nail to be used to turn the screw.

Note that gun equipped with the single set trigger can also be fired without first setting the trigger. With a cocked hammer simply pull back on the trigger and the hammer will be released. Of course the amount of pressure required will be greater than when the trigger has been "set".

WARNING

If the set trigger has been adjusted for a short and light release, it may be possible that a strong shock or a strong vibration may cause an unexpected hammer fall.

This situation can be extremely dangerous, as shot may occur. Therefore after you make an adjustment, please make the following safety tests:

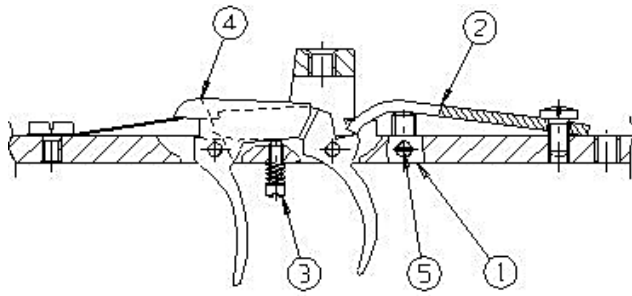
◆ **with a muzzle loading gun:**

- 1a) Make certain the gun is **UNLOADED**, unprimed or uncapped and no powder charge in the chamber.
- 2a) Full cock the hammer.
- 3a) Press the trigger blade forward, or set the rear trigger by pressing it back until you hear a click sound indicating the action has been "set".
- 4a) Holding the gun pointing upwards, knock the butt sharply, several times, against a wood surface protecting the stock in a proper way. Repeat this shock test while holding the gun in other positions.
- 5a) The hammer must not be accidentally released. If the hammer does release you must increase the release pressure slightly and repeat these shock tests until the hammer never releases when the gun is shock tested in several positions.

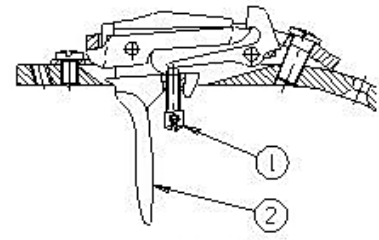
◆ **with a breech loading gun:**

- 1β) Make certain the gun is **UNLOADED**, without any cartridge into the chamber.
- 2β) Place the hammer in the safe half-cock position and insert a **FIRE**d cartridge case, so the firing pin will have something to strike against. (For the Rolling Block model it will be necessary to cock the hammer to enable the breechblock opening).
- 3β) Full cock the hammer, then set the trigger properly.
- 4β) Lower the breech lever (Sharps) fully and slam it closed at least 10 times. Use more force than normally would be used, or holding the gun pointing upwards, knock the butt sharply, several times, against a wood surface protecting the stock in the proper way. Repeat this shock test while holding the gun in other positions.
- 5β) The hammer must not be released by this strong shocking. If the hammer remains in full cocked position, your trigger setting is normal and safe.
- 6β) If the hammer does release during this shock test, you must change the adjustment of the front, rear or both triggers in order to obtain proper safety.

CAUTION: If you allow others to shoot your pistol or rifle, we suggest letting them try the set triggers before allowing live ammunition to be fired. The very light trigger pressure is a big surprise to many shooters who have not had previous experience with the single or double set trigger system. The hammer does not have to be cocked to allow this trigger practice. Just set the trigger and allow the new shooter to experience the light pressure required.



DOUBLE SET TRIGGER



**SINGLE SET TRIGGER
CALLED FRENCH STYLE**

SIGHTING ADJUSTMENT

Your gun can be equipped with a non-adjustable rear sight, or with an adjustable rear sight. In the first case, sighting adjustments should be made with the front sight, which is drift adjustable for windage. With a brass drift, the front sight can be moved left or right, depending on which direction your rifle happens to be shooting. Move the front sight in the direction you are shooting: if you are shooting to the left, move your front sight left; if it shoots right, move the front sight right. For short range elevation adjustments, it may be necessary to file the front sight blade down a little.

For the models provided with adjustable rear sight, its regulation can be done in combination with the front sight.

The elevation adjustment will be obtained moving the sliding aiming notch to the opposite shooting position. If the gun shoots low, you have to adjust the sliding aiming notch towards the high and vice-versa.

The windage adjustment will be on the opposite side where the mistake is.

IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING

- 1) **USE BLACK POWDER** (or **PYRODEX**, if allowed in your Country) **ONLY** to load your muzzle loading firearm.

WARNING: The use of smokeless powder, or a mixture of smokeless and Black Powder (duplex loads) or the wrong type or granulation of Black Powder (or Pyrodex, if allowed in your Country) or overloading may cause serious injury and/or death to the shooter or bystanders and damage to property.

The reason for using a low yield powder such as Black Powder (or Pyrodex, if allowed in your Country) is quite basic and it is related to firearm design. When used as a propellant, Black Powder (or Pyrodex, if allowed in your Country) generates a relatively low breech pressure. Muzzleloading firearms, even those with modern steel barrels, are not designed to withstand the high pressures produced by a Smokeless Powder charge.

People who become interested in muzzleloading tend to research and to seek out some of the early journals which describe loading implements, components and powders of yesterday. Reading these old books can be pleasurable. Never assume, however, that obsolete printed material has a safe application in today's world.

All our guns have been regularly proof tested to the NATIONAL PROOF HOUSE in Gardone V.T. with a forced test firing, as the mark stamped on each gun or pistol testifies. Still stamped on the barrel they all carry the words "**BLACK POWDER ONLY**".

Never use smokeless powder of any type or in any quantity in a muzzleloading firearm, and never mix powders.

Black powder producers in the world use different grains identification methods, following the metric system of each Country.

Our company suggests the following comparing chart for guns type with the purpose to correlate the various types of black powder produced in different countries following the adopted classification.

	SUISSE BLACK POWDER	FRENCH BLACK POWDER VECTAN	GERMAN BLACK POWDER PO-WEX	U.S.A. BLACK POWDER
Big caliber guns/small scale cannons	4	PNF1	Fg	1f or fg
.45 caliber and larger caliber rifles	3	PNF1	FFg	2f or ffg
Revolvers, pistols and rifles up to .45 caliber	2	PNF2	FFFg	3f or fffg
Pistols up to .31 caliber / flintlock gun pans	1	PNF4	FFFFg	4f or ffff

Black powder **SHOULD NEVER BE STORED IN A PLASTIC CONTAINER**, which could build a static electricity charge. In case, make sure they are made of anti-static material. Keep the container away from heat sources.

Davide Pedersoli Co. declines any responsibility for the use of different from original propellant or that is not of commercial production high quality and for the use of maximum loads different from those recommended in this manual.

Unreasonably heavy charges of Black Powder (or Pyrodex, if allowed in your Country) can be dangerous. Heavier loading showed marked increases in pressure and substantially more recoil for only minor gains in velocity.

- 2) Percussion caps and black powder should be stored in separate locations.
- 3) Caps are sensitive to static electricity, heat, flame and percussion.
DO NOT USE GLASS CONTAINERS TO STORE THEM, but leave them in their original containers.
- 4) **NEVER SMOKE** while loading, shooting or handling black powder.

- 5) Make sure that spectators are completely behind you when firing.
- 6) Never let the hammer on a percussion firearm fall without a cap on nipple or it will damage the nipple. On a flintlock arm, never let the hammer fall on the frizzen without a flint in the hammer.
- 7) **BLACK POWDER LEAVES HEAVY RESIDUES**, after firing a prompt and through bore and all metal parts cleaning is an absolute necessity to black powder shooters.
- 8) Use only non-synthetic cloth patching.
- 9) **PROTECT YOUR EYES** from sparks, lead fragments, pieces of caps or flints, by wearing shatterproof shooting glasses.
- 10) It is advisable to protect your ears by using ear-plugs or muff, when firing your muzzleloader.
- 11) Never fire at water, flat or hard surfaces.
- 12) Always check your barrel for obstructions prior to loading or firing. Water, mud, snow or any other materials could obstruct the barrel and cause it to be blown apart.
- 13) **TREAT A MISFIRE FOR FAILURE WITH EXTREME CARE.** Keep the gun pointed to a safe direction and wait for at least one full minute before repriming; there is always the chance a spark could be smoldering in the powder and the gun could fire at any moment.
- 14) Make sure your gun is in firing condition before you pull the trigger.
- 15) **NEVER POUR POWDER INTO THE BORE DIRECTLY FROM A POWDER FLASK OR CONTAINER** a sudden powder ignition from a lingering spark could cause the entire flask to explode. Instead use an individual charge from a powder measure when loading your muzzleloading gun (item USA 199).
- 16) **NEVER ATTEMPT TO SHOOT OUT A BALL WHICH IS NOT FIRMLY SEATED AGAINST THE POWDER CHARGE.** Any air space between the projectile and/or wad and powder could cause serious damages to the firearms and injury to the shooter.
 If powder fouling or other circumstances should cause the projectile to become lodged in the bore, partially down the barrel, the ball must be removed with a screw tip style bullet-puller (item USA 545) of the proper caliber.
 Some black powder solvents can be poured to soften any fouling which could be holding the ball. **UNDER NO CIRCUMSTANCES SHOULD THE INDIVIDUAL ATTEMPT TO REMOVE THE PERCUSSION DRUM OR BREECH PLUG FROM THE FIREARM.**
- 17) Before you start loading, make always sure that the gun is not already loaded. For the purpose we suggest you to insert the ramrod into the empty barrel and mark a line on it at the muzzle height (picture #1). This line will be your reference for the empty barrel. Make another line marking after you loaded first the powder and so one for the wad (if used) and one for the ball (picture #2). The three reference lines (four if you use a wad) will give you an immediate vision of possible future loading mistakes.



Picture #1



picture #2

- 18) Never bring a loaded firearm into a house, or car, or truck...
- 19) Never drink alcoholic beverages before or while shooting.
- 20) Consult a competent firearm instructor to clarify any instructions that you might not understand or contact us directly.
- 21) If you sell, trade or give this weapon to another person, make sure to give him this booklet or at least inform him that a copy is available at no charge from Davide Pedersoli Co.
- 22) Be a safe shooter.

LOADING AND SHOOTING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

On all the arms provided with set triggers you could regulate the release hardness, by acting on the screw situated behind the front trigger.

To adjust the set trigger, see section "GENERAL TECHNICAL INSTRUCTIONS" in this booklet.

PERCUSSION FIREARMS

- 1a) Place the hammer at half cock position.(picture #3)



picture #3

- 2a) The bore area should receive a good cleaning just before the gun is loaded, so clean all oil and grease from inside the barrel, by running fresh patches down the barrel until they come out clean and dry.

- 3a) With gun pointed in a safe direction, place the cap on the nipple, set the hammer in a full position and fire. This operation will dry out the base of the bore and the nipple and should be repeated two or three times. (pictures #4 and #5)



picture #4



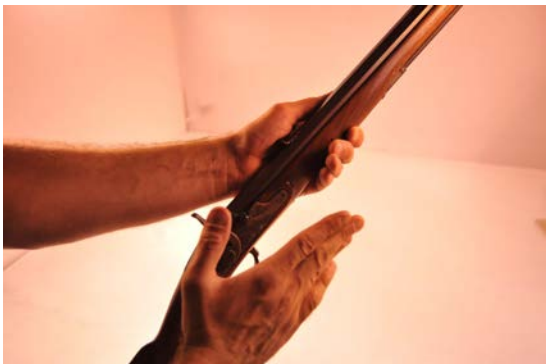
picture #5

- 4a) With the muzzle pointed in upright position well away from your face and body and the hammer on rest position (down) measure and pour the powder down the barrel (see *point 15 of section "IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING" in this booklet*), following the doses indicated in this manual chart. (picture #6)



picture #6

- 5a) To be sure the powder is positioned correctly on the barrel's bottom. Slap the side of the barrel in front of the lock. (picture #7)



picture #7

- 6a) Lay a well greased patch over the bore (picture #8) and press round ball into the bore (picture #9);



picture #8



picture #9

to facilitate this operation we suggest the use of a bullet starter (art. USA 510), that will help the introducing of the ball for the first 15 cm (6") (picture #10), then you can continue with the ramrod.



Picture #10

- 7a) With ramrod seat the ball down firmly against the powder, but without crushing it. **MAKE SURE THE BALL IS FIRMLY SEATED AGAINST POWDER SO THAT NO AIR SPACE EXISTS BETWEEN THE BALL AND POWDER-CHARGE.** With your firearm UNLOADED insert the ramrod into the muzzle and make a mark at muzzle level. This is your "Empty" or "Unloaded" line. (picture #11). Insert the rod again after loading your rifle and make another mark at muzzle level. This is your "Loaded" line. (picture #12) Check with this line when you put the wad (if used) and again for the ball. The three reference lines (four if the wad is used) will give you the vision of possible loading mistakes.



Picture #11



picture #12

- 8a) With the gun pointed to a safe direction and the hammer set at half cock position, place a percussion cap on the nipple. **NOW THE GUN IS LOADED.** (picture #13)



picture #13

- 9a) Place the hammer on the full cock position; **THE GUN IS NOW READY TO FIRE.** (PICTURE #14)



PICTURE #14

- 10a) After firing slide the ramrod into the empty bore and **wait for one full minute before loading the next powder charge**; this will allow any remaining sparks in the barrel to burn out.
- 11a) In case of a misfire make sure you keep the gun pointed in a safe direction and just wait for at least one minute before re priming. There is always the chance a spark is smoldering in the powder and the gun could fire at any moment. If still a misfire using new cap, place a small charge of fresh black powder in the nipple using a nipple charger (art. USA 080), place the cap and fire. (picture #15)



picture #15

If after some attempts the gun still should not fire, **UNLOAD IT** using the proper caliber bullet puller (item USA 545). **MAKE SURE YOU HAVE REMOVED ANY CAP ON THE NIPPLE AND THE HAMMER IS IN A SAFETY POSITION.**

Using a small eye dropper or medicine dropper filled with water, forcefully inject the water into the breech plug. Water will cause the black powder to become inactive. (picture #16)



picture #16

After you have done this 3-5 times, wait at least 30 minutes for the black powder, to become completely saturated with water.

Further screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling. (picture #17) You can now remove the powder.



Picture #17

FLINTLOCK FIREARMS

- 1b) Percussion muzzleloader loading instructions also apply to flintlock but no percussion caps are needed to fire. (See points 1a, 2a, 4a, 5a, 6a, 7a).
- 2b) Insert the flint in the hammer between two pieces of thin lead and tighten the hammer screw to hold the flint firmly in place. (pictures #18 and #19)



picture #18



picture #19

- 3b) Point the gun in a safe direction, prime the pan with a small amount of fine black powder using a "pan primer" (item USA 085) (picture #20), and pull the frizzen down to cover powder in flash pan (picture #21). **NOW THE GUN IS LOADED.**



Picture #20



picture #21

- 4b) Set the hammer in full cock position (picture #22). **NOW THE GUN IS READY TO FIRE.**



Picture #22

- 5b) When the trigger is pulled, the hammer will move forward and down across the face of the frizzen. The flint edge, striking the frizzen, will produce sparks. The sparks, upon reigniting the priming, will cause flashes that travelling through the touch hole will ignite the main charge. (picture #23)

ATTENTION: both flint and frizzen must be completely dry.



Picture #23

- 6b) After firing slide the ramrod into the empty bore and **wait for one full minute before loading the next powder charge**; this will allow any remaining sparks in the barrel to burn out.
- 7b) If a misfire or a failure to fire should occur, keep the muzzle-loader pointed in a safe direction and wait for at least one minute, then reprime and use a nipple pick to force a small amount of the priming powder charge into the touch hole and then fire again. If after some attempts the gun does not fire, **UNLOAD IT**, using the proper caliber bullet puller (item USA 545). **MAKE SURE THE HAMMER IS IN A SAFETY POSITION.** Using a small eye dropper or medicine dropper filled with water, forcefully inject the water into the breech plug (picture #24)



picture #24

. Water will cause the black powder to become inactive. After you have done this 3-5 times, wait at least 30 minutes for the black powder, to become completely saturated with water. Further screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling (picture #25) You can now remove the powder.



Picture #25

CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

HOW TO REMOVE THE BARREL FROM STOCK

Our line of muzzleloader is divided in two groups of weapons: the first ones which barrel ends with a breech plug into the stock. The second ones with a hook breech tang and plug.

- 1c) For the guns of the first group to remove the barrel from the stock, once removed the ramrod, you have to unscrew the tang screw and then take the pins and/or the wedge off. (pictures #26 and #27)

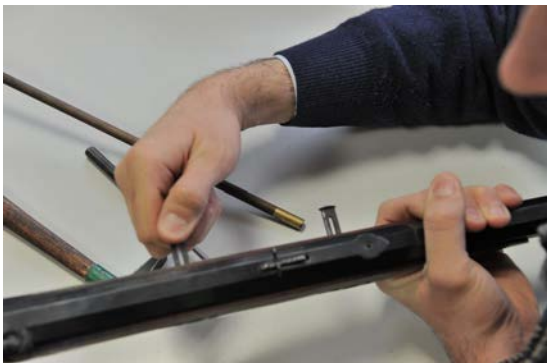


picture #26



picture #27

- 2c) For the guns of the second group, the barrel is fixed to the stock with wedges. Once removed the ramrod, retract the wedge or wedges, handle the barrel at the muzzle and rotate towards the height, the lug will disengage from its seat. (pictures #28 and #29)



picture #28



picture #29

CLEANING

Black powder leaves a lot of fouling in the barrel and it is highly corrosive. After the day's shooting, an accurate cleaning is recommended.

- 1δ) **Percussion rifles or pistols:** remove the nipple.
Flintlock rifles or pistols: remove the vent.
The work can be easier leaving the breech plug barrel into hot water for some minutes.
- 2δ) Scrub bore with hot soapy water or in hot water with specific detergent (item USA 487) and wipe all powder fouling from all other metallic parts too.
- 3δ) Flush the barrel with the hottest clean water available to remove soap.
- 4δ) Dry barrel and all metallic parts rapidly with fresh patches while they are still hot.
- 5δ) Oil the barrel lightly as soon as it cools inside and out. Apply a coat of oil to all metallic parts too.
- 6δ) Replace the nipple (on percussion models), or vent (on flintlock models).

HOW TO REMOVE THE BREECH PLUG FROM BARREL

- 1ε) **Percussion rifles or pistols with drum:** remove the nipple and the drum. Before removing the drum, mark a small position line for the drum and the barrel, such to mount it in the same position. When reassembling the drum and the nipple do not apply an excessive strength, or you may break the parts. Make sure that the male thread perfectly matches with the one of the hole.
Percussion rifles or pistols without drum: remove the nipple.
Flintlock rifles or pistols: remove the vent.
- 2ε) **For all firearms indicated at point 1ε:** before proceeding to the removing of breech plug, make sure to have done a "reference mark" between barrel and breech plug, for the right position.
- 3ε) With the barrel held in a bench vice (protected grip), unscrew the breech plug, by using an appropriate wrench.

LOADING AND SHOOTING INSTRUCTIONS FOR SIDE BY SIDE MUZZLE LOADING SMOOTH BORE SHOTGUNS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

ASSEMBLING

- 1f) Do not force barrel into stock.
- 2f) Hook the barrel breech plug into the tang make sure the barrel fits properly to the tang. Gently lower the barrel into the barrel channel in the stock. **DO NOT FORCE** the barrel.
- 3f) The barrel must fit into the stock perfectly, with a minimal amount of tension in order to hold the wedges in.
- 4f) Gently insert the wedges **RIGHT TO LEFT**.
(picture #30)



picture #30

LOADING

- 5f) With the gun pointing in a safe direction place caps on the nipples, set the hammers in full position and fire. This operation should be repeated two or three times in order to dry out the base of bores and the nipples. Now you can start loading. (picture #31)



picture #31

- 6f) With the hammers placed at a rest position (down) pour down the righthand barrel the pre-weighed powder charge (see *loading tables in this booklet*). (Picture #32)
ALWAYS MAKE SURE OF THE BARREL YOU START WITH.



Picture #32

Slap the side of the barrel in front of the lock, this will allow a small quantity of powder to go into the nipple. (picture #33)



picture #33

- 7f) Place on the muzzle an over powder cork wad (item USA 093) and a wad (item USA 087) and with the ramrod, carefully press it to a firm seat on top of the powder load. Some shooters use instead of the wad a felt wad (item USA 094) and an additional over powder cork (item USA 093). It is advisable to mark your ramrod at the muzzle in order to have a reference (see *point 17 of section "IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING" in this booklet*). (Pictures #34 and #35)



picture #34



picture #35

- 8f) Measure and pour the required weight and size of shot down the barrel (see *loading tables in this booklet*), by using a shot-bag (item DP 560) and the over shot wad (item USA 086). (picture #36) THERE IS NO NEED TO PRESS TOO MUCH. Now mark again your ramrod at the muzzle. This will insure that all future shots are at the right depth.



(picture #36)

- 9f) Start now loading the left side barrel.
- 10f) With one hammer placed on half cock position and the other on a rest position (down), (**NEVER PLACE BOTH HAMMERS AT HALF COCK POSITION AT THE SAME TIME**), place the first cap; **PLACE JUST ONE CAP AT A TIME**, you can place the second one only after having fired the first barrel.
CAUTION: NEVER RELOAD A FIRED BARREL WITHOUT REMOVING CAP FROM THE OTHER.
- 11f) It is possible for the recoil of the first shot to jar the second load from the powder charge so, after having fired the first barrel, wait for at least one minute, then check the position of the loading charge of the second barrel with the reference marks done on your ramrod. If it is not at the right depth, press it down until the reference mark will be at the muzzle of the barrel.
CAUTION: BE SURE THERE IS NO CAP ON THE NIPPLE.

LOADING MISTAKE

- 12f) If you have accidentally reloaded the same barrel (you will notice this after having checked the reference marks on your ramrod), **UNLOAD THE GUN COMPLETELY**, by using a patch-puller (item USA 555), **MAKE SURE YOU HAVE NOT ANY CAP ON THE NIPPLE.** Using a small eye dropper or medicine dropper filled with water, forcefully inject the water into the breech plug. Water will cause the black powder to become inactive. After you have done this 3-5 times, wait at least 30 minutes for the black powder, to become completely saturated with water. (picture #37)



picture #37

Further screw the patch-puller to the ramrod, insert it into the barrel reaching the over shot wad and pull it out. Repeat the same thing for the felt wad. You can now remove the powder. (picture #38)



picture #38

CLEANING

13f) Our shotguns have chromed barrel bores, however the same procedures seen at point 2c and at "CLEANING" of section "CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS" in this booklet, are to be followed.

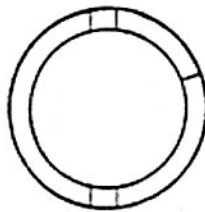
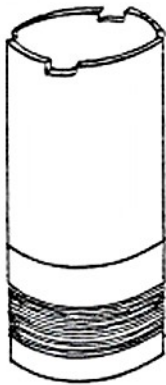
ATTENTION: the breech plug **CANNOT BE REMOVED.**

DOUBLE BARREL SHOTGUN WITH INTERCHANGEABLE CHOKE TUBES

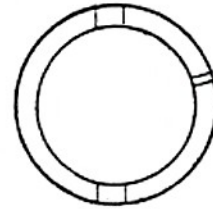
Your side by side shotgun can be equipped with interchangeable chokes of various sizes.

- ♦ Never change choke tubes on a loaded firearm.
- ♦ Make sure choke tube is properly tightened before shooting. It is wise to check tube periodically when hunting or shooting for an extended period of time.
- ♦ We do not recommend chokes tighter than improved-cylinder for steel shot.

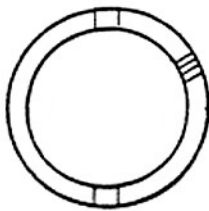
Choke tubes measurements



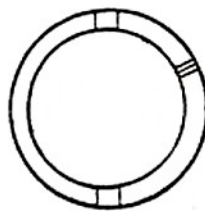
Extra-full: 1 line



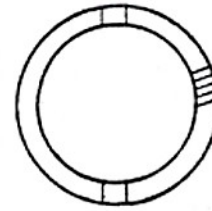
Improved Modified: 2 lines



Improved cylinder: 4 lines



Modified: 3 lines



Cylinder: 5 lines

Size (mm)		<u>Chokes</u>		Pedersoli code		<u>CHOKE denominations</u>
10 ga.	12 ga.	Variation In 0,10 mm	Lines on mouth of the tube	10 ga.	12 ga.	
18,65	17,47	9 ÷ 10	1 line	USA 125	USA 120	Extra - Full
18,90	17,67	7 ÷ 8	2 lines	USA 122	USA 117	Improved - Modified
19,20	17,87	4 ÷ 6	3 lines	USA 123	USA 118	Modified
19,40	18,17	2 ÷ 3	4 lines	USA 126	USA 121	Improved - Cylinder
19,60	18,37	0 ÷ 1	5 lines	USA 124	USA 119	Cylinder

LOADING AND SHOOTING INSTRUCTIONS FOR SIDE BY SIDE MUZZLE LOADING RIFLED BARREL GUNS KODIAK & SAFARI EXPRESS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section "*IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING*" in this booklet.

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

ASSEMBLING

- 1g) Do not force barrel into stock.
- 2g) Hook the barrel breech plug into the tang make sure the barrel fits properly into the tang. Gently lower the barrel into the barrel channel in the stock. **DO NOT FORCE** the barrel.
- 3g) The barrel must fit into the stock perfectly, with a minimal amount of tension in order to hold the wedges in.
- 4g) Gently insert the wedges **RIGHT TO LEFT**.
(picture #39)



picture #39

LOADING

- 5g) With the gun pointed in a safe direction place caps on the nipples, set the hammers in full position and fire.
This operation should be repeated two or three times in order to dry out the base of bores and the nipples. (picture #40) Now you can start loading.



Picture #40

- 6g) With the hammers placed at a rest position (down), pour down the righthand barrel the pre-weighed powder charge. (see *loading tables in this booklet*). **ALWAYS MAKE SURE OF THE BARREL YOU START WITH.** (picture #41)



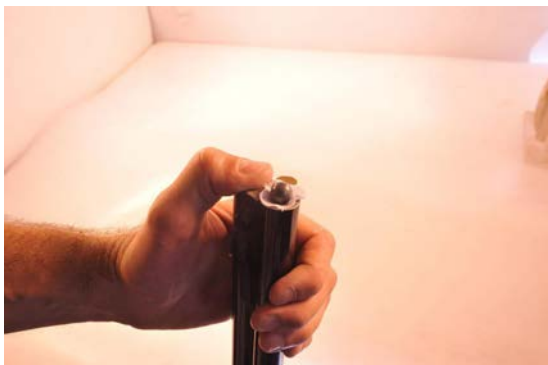
picture #41

Slap the side of the barrel in front of the lock, this will allow a small quantity of powder to go into the nipple. (picture #42)



picture #42

- 7g) Center a lubricated cloth patch over the muzzle and place the round ball over it (see *points 6a, 7a of section "LOADING AND SHOOTING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS" of this booklet*)(picture #43). To facilitate this operation we suggest the use of a *bullet starter* (art. USA 510), that will help the introducing of the ball for the first 15 cm (6") (picture #44), then you can continue with the *ramrod*.



Picture #43



picture #44

8g) With one hammer placed on half cock position and the other on a rest position (down), **NEVER PLACE BOTH HAMMERS AT HALF COCK POSITION AT THE SAME TIME**, place the first cap; **PLACE JUST ONE CAP AT A TIME**, you can place the second one only after having fired the first barrel.

CAUTION: NEVER RELOAD A FIRED BARREL WITHOUT REMOVING CAPS FROM THE OTHER.

9g) Start now loading the left side barrel.

10g) It is possible for the recoil of the first shot to jar the second load from the powder charge so, after having fired the first barrel, wait for at least one minute, then check the position of the loading charge of the second barrel with the reference marks done on your ramrod. If it is not at the right depth, press it down until the reference mark is at the muzzle of the barrel.

CAUTION: BE SURE THERE IS NO CAP ON THE NIPPLE.

LOADING MISTAKE

11g) If you have accidentally reloaded the same barrel (you will notice this after having checked the reference marks on your ramrod), **UNLOAD THE GUN COMPLETELY**, using the proper caliber bullet puller. **MAKE SURE YOU HAVE REMOVED ANY CAP ON THE NIPPLE.**

Using a small eye dropper or medicine dropper filled with water, forcefully inject the water into the breech plug. Water will cause the black powder to become inactive. (picture #45)



picture #45

After you have done this 3-5 times, wait at least 30 minutes for the black powder, to become completely saturated with water. Further screw the bullet puller to the ramrod, insert it into the barrel to catch the bullet; rotating the ramrod will ease the bullet pulling. (picture #46) You can now remove the powder.



Picture #46

CLEANING

- 12g) See point 2c and “CLEANING” of section “*CLEANING INSTRUCTIONS FOR SINGLE SHOT MUZZLE LOADING GUNS*” in this booklet.

ATTENTION: the breech plug **CANNOT BE REMOVED.**

SIGHTING

- 13g) Your Kodiak & Safari Express rifles have been regulated to group at 50 meters within a diameter of about 15 centimeters, using the suggested loads in the chart.
The rear sight is adjustable in elevation and windage. The blade front sight is interchangeable.

For sighting adjustment, see section “GENERAL TECHNICAL INSTRUCTIONS” in this booklet.

LOADING AND SHOOTING INSTRUCTIONS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.



Picture #47

FOR BRISTLEN A MORGES® RIFLE

- 1) The Minié bullet .447 (item USA 523) you can make with our bullet mould block (item USA 304-447) must be sized into the proper sizing device USA 515-445 (11,30 mm or 11,28 mm / .445 or .444) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

FOR GIBBS RIFLE .40 and .45 calibers

.40 CALIBER

- 1) The Minié bullet .400/316 grs. (item USA 523), you can make with our bullet mould block (item USA 304-400), sized through the sizing device USA 515-400 (10,16 mm or 10,14 mm / .400 or .399) and greased with soft grease (item USA 488).
or
The long bullet .400/310 grs. (items USA 526), you can make with our bullet mould block (item USA 318-400), sized through the sizing device USA 514-400 (10,16 mm or 10,14 mm / .400 or .399) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round

.45 CALIBER

- 1) The long bullet .451/535 grs. (item USA 526), you can make with our bullet mould block (item USA 308-451), sized through the sizing device USA 514-450 (11,43 mm or 10,41 mm / .450 or .449) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round

FOR MORTIMER WHITWORTH & TRYON CREEDMOOR RIFLES

- 1) The long bullet .451/485 grs (item USA 521) you can make with our bullet mould block (item USA 318-451) and the Minié bullet .450 (item USA 523) you can make with our bullet mould block (item USA 309-450) must be sized into the proper sizing device USA 514-450 (11,43 mm or 11,41 mm / .450 or .449) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

FOR TRYON MATCH RIFLE

- 1) The Minié bullet .450 (item USA 523) you can make with our bullet mould block (item USA 309-450) must be sized into the proper sizing device USA 515-450 (11,43 mm or 11,41 mm / .450 or .449) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

FOR WAADTLÄNDER RIFLE

- 1) The maxi bullet .454/250 grs. (item USA 522) you can make with our bullet mould block (item USA 308-454), must be greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item. USA 346).
- 3) It is recommended to put inside the barrel a carton wad 1 mm thick between the bullet and black powder, or a felt wad sized to the gun's caliber (item USA 097).
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

LOADING AND SHOOTING INSTRUCTIONS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section "*IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING*" in this booklet.

FOR 1857 WÜRTEMBERGISCHEM RIFLE

- 1) The Minié bullet .547 (item USA 523), you can make with our bullet mould block (item USA 302-547), must be sized into the proper sizing device USA 515-547 (13,90 mm or 13,88 mm / .547 or .546) and greased with soft grease (item USA 488). (picture #47)
- 2) Pour the proper black powder charge into the barrel using a brass long funnel (item USA 346).
- 3) The bullet has to be placed directly on the black powder.
- 4) Slightly tap the bullet, avoiding compressing powder charge too much.
- 5) It is necessary to clean the barrel after each round.

REAR SIGHT ADJUSTMENT

See exploded view at page 2a of this booklet.

To adjust the rear sight in elevation, please follow these instructions to avoid damaging or destroying the small teeth on the lower part of item n.7. The small teeth get inserted into the adjusting grooves, as evidenced on the left side of the part. # 2.

- α) Unscrew the screw (part. # 1), turning to left.
- β) Move up or down the rear side blade, according to your necessity.
- χ) Fix the screw (part. # 1), turning to right.

Use the item # 8, which is in an aluminum control accessory, as reference to the rear sight, leaning it on the corresponding step.

FOR ZIMMER & SALOON PISTOLS 4,5 mm caliber

THIS GUN IS TO USE ONLY MUSKET CAPS FOUR WINGS (RWS 1081 TYPE) TO SHOOT THE PELLET. WE STRONGLY RECOMMEND NOT TO USE ANY KIND OF BLACK POWDER, NOR ANY SMOKELESS POWDER.

- 1) With the hammer placed at a rest position (down) insert into the barrel a lead pellet of the proper caliber size.
- 2) With the pistol pointed to a safe direction place the hammer at half cock position and place the percussion musket cap on the nipple firmly.
- 3) When ready to shoot, set the hammer in a full cock position.

NOW THE PISTOL IS READY TO SHOOT.

WARNING

It is suggested to wear safety glasses and gloves to be protected by possible caps chips.

BE AWARE: the gun can be quite dangerous if shot without observing the necessary safety rules, or inside closed areas, where the pellet may rebound striking, causing serious accidents.

LOADING AND SHOOTING INSTRUCTIONS FOR REVOLVERS

Before proceeding, please make sure to **CAREFULLY** read the warning seen in the section *"IMPORTANT CAUTIONS FOR MUZZLE LOADING SHOOTING"* in this booklet.

- 1) Keep the revolver's barrel upward, hammer in the safety position (1st. cock) to rotate the cylinder for loading. (picture #48) Prepare the black powder charge, as suggested in the corresponding chart, using a powder measure (item USA 192). Pour the load into one chamber. (picture #49)



picture #48



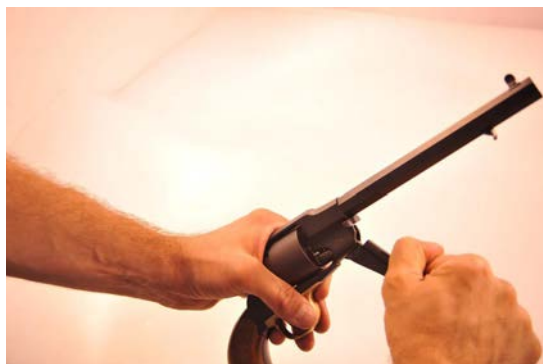
picture #49

- 2) Always with the barrel upward, insert an over powder felt wad of the proper caliber size (item USA 094), then seat the round ball on top of it at the chamber mouth. (picture #50)



picture #50

- 3) Rotate the cylinder to place the loaded chamber under the loading lever and push it until the ball is well seated on the felt wad. The ball must seat slightly under the cylinder chamber rim. Use the same procedure for all the chambers. (picture #51)



picture #51

- 4) Put some grease (item USA 488) on each ball and seal all the chambers. This may prevent possible flash back, as well as the simultaneous ignition of the other loads. The grease also helps the cleaning. (picture #52)



picture #52

- 5) After having sealed with the grease all the chambers, keep the muzzle lowered and the revolver pointed to a safe position, put the caps onto each nipple; if necessary squeeze them slightly to ensure their snug fit on the nipples. This will avoid to loose the other caps at the first shot. (picture #53)



picture #53

DISASSEMBLING AND ASSEMBLING INSTRUCTIONS FOR CARLETON UNDERHAMMER PISTOL

WARNING: BEFORE PROCEEDING ALWAYS MAKE SURE THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION.

See exploded view at page 52 of this booklet.

DISASSEMBLING

- ◆ Disassemble the grip from the frame and barrel group by unscrewing the two side screws (#21) and the upper one (part. # 22).
- ◆ Detach the main spring (# 6) by squeezing it where it contacts the hammer (part. # 3)
- ◆ Disassemble the plate unscrewing the screws (part. # 19 and # 20) paying attention not to loose the sear spring (part. # 5).
- ◆ Remove the hammer (part. # 3), the sear (part. # 4) and the trigger pin (part. # 16) using a slender alignment punch, then remove the trigger (part. # 14).
- ◆ Remove the hammer mainspring (part. # 6) by disassembling the mainspring stud (part. # 7) and unscrewing the stud screw (part. # 25).

ASSEMBLING

- 4) Assemble the trigger (part. # 14) by pulling the adjusting screw (part. # 15) while it is still inserted in the frame, paying attention that the trigger can rotate freely.
- 5) Put in the sear spring (part. # 5) while keeping it in position with a slender alignment punch inserted from the left side of the gun during the time necessary to assemble all inside parts until you insert the plate screw (part. # 20). The shorter sear spring side has to be placed in the inside of the upper part of the frame, while the lower bent side has to lock in the trigger front. Fit the trigger (part. # 14) inserting the trigger pin (part. # 16). First tighten the shorter plate screws (part. # 19), then the long screw (part. # 20) paying attention to the alignment punch, which has to be removed slowly, while you are tightening the long screw.
- 6) Assemble the main spring (part. # 6) in the frame back side with the main spring stud (part. # 7) and lock it manually to its seat in the hammer.

Assemble the grip to the frame and barrel group tightening the proper screws (part. # 21 and # 22).

INSTRUCTIONS FOR ASSEMBLING THE RIFLE KIT

THESE INSTRUCTIONS SHEETS ARE ONLY A GENERAL GUIDE. PLEASE CHECK THE CORRECT PART NUMBER OF YOUR GUN ON SPECIFIC SPARE PARTS LIST.

Our compliments on your choice! A scrupulous selection of the materials and the accurate working techniques make your new gun a product, which is synonymous of prestige and quality.

The kit that you are going to finish has been pre-assembled; all the metal parts have fit to the stock and you have only to polish and finish them.

If it is not so, you may proceed paying attention to our instructions.

Reminding that the most feared enemy of the “do it yourself” is hurried work, we wish you good luck ... enjoy it.

These brief notes want to be an explicative guide to enable you to finish work a kit of any kind of our models.

Following you will find some examples featuring various building solutions.

See figures and exploded view at pages 3a, 4a, 5a, 6a, 7a, 8a of this booklet.

- 1) (See fig.1) - Start by installing the barrel into the barrel channel of the pre-carved stock. Carefully remove any excess wood beneath and around the barrel tang. File the tang down until it is flush with the stock wrist. File from metal to wood, not the reverse. This prevents chipping or splintering of the wood.
- 2) **INSTALLATION OF TRIGGER** (See fig. 4) - With barrel installed in stock (use a clamp or heavy rubber band to keep barrel from falling out), install tang screw (11) through tang and stock. This will line up trigger plate. (part. # 23) As with the tang, install trigger plate flush with stock surface. Next install trigger (part. # 24), using trigger pin (part. # 25), to trigger plate. Install into stock, removing the wood as necessary to allow the trigger to move freely. If kit has set triggers (fig. 12), follow the same procedure as with the trigger, fitting one piece at a time. The trigger assembly is held to the stock by the tang screw and a small wood screw at the rear of the trigger plate.
- 3) **INSTALLATION OF LOCK AND SIDE PLATE** (See figs. 2, 6, 9) - Disassemble lock. Stock is pre-inletted for the lock. The location of the lock is determined by the hammer (part. # 40) to the nipple (part. # 14) / fig. 9, and the sear (part. # 38) to the trigger (part. # 24) / fig. 2. Install lock plate into recess removing only what wood is necessary to make lock surface flush with stock. (In the case of a flintlock, the plate must be fitted tight against and in contact with the barrel flat). Using fig. 6, install lock mounting screws (part. # 10) through side plate (part. # 9), through pre-drilled holes in stock and screw them into the pre-tapped holes in the lock plate. Install side plate (part. # 9) into stock. As with trigger assembly, install lock parts to lock plate and fit to stock one part at a time. Remove wood necessary to allow full and free movement of parts.
- 4) **FOR FLINTLOCK** (See fig. 9a) - Install touch hole liner (part. # 16A) into the pre-threaded hole in the side of the barrel. The liner should be flush with the surface of the barrel flat.
FOR PERCUSSION (See fig. 9) - Install the drum (part. # 16) into the pre-threaded hole in the side of the barrel. The drum should fit so that nipple (part. # 14) will align with hammer nose (part. # 40a). If it does not, file the drum shoulder a little at a time to obtain the proper fit. Go SLOWLY SO AS NOT TO STRIP THE THREADS WHEN TIGHTENING THE DRUM TO THE BARREL.

- 5) **COMPLETE THE LOCATION OF THE BARREL TO THE STOCK** (See fig. 5) - With barrel in stock, fit nose cap (part. # 8) into position. Remove only wood as necessary to have a tight fit. Carefully measure and drill hole for pin (part. # 18). Finish nose cap and stock flush to each other (Fig. 5a). Remaining barrel pins can now be installed. To find locations for pins (part. # 18) and to secure barrel to stock:
 - measure from barrel muzzle to the center of each barrel lug (these are already attached to the bottom of the barrel);
 - use the top of the barrel to locate the depth for drilling stock through the barrel lugs. Get measurement from barrel, then re-install barrel into stock. Clamp barrel and stock together. Mark spot to drill on stock and DRILL STOCK AND BARREL TOGETHER.
- 6) **INSTALLATION OF THIMBLES** (See fig. 7) - Install and drill as with barrel pins.
- 7) **INSTALLATION OF CAP BOX OR PATCH BOX** (See fig. 11) - Install into pre-contoured recess on butt stock. Remove only enough wood to make the metal flush with the wood surface. Install wood screws. Finish flush with stock.
- 8) **INSTALLATION OF SIGHTS** (See fig. 8) - Front sight (part. # 13) and rear sight. (part. # 12) Clean up dove tail slots and dove tail on sights. Cut in sights using a three cornered jeweler's file removing only enough metal to make a tight fit of the sights into the dovetails.
- 9) **INSTALLATION OF THE RAMROD TIPS** (See fig. 10) - Parts # 3 and # 30. Install as shown. Clamp in place and drill. Use a countersink drill to enlarge the mouth of the holes you have drilled. This will allow you to peen the ends of the pins to make a tight fit. Finish flush with ramrod diameter.
- 10) **INSTALLATION OF TRIGGER GUARD** - To find location, install front screw through pre-drilled hole in trigger guard and screw into pre-threaded hole in trigger plate (see fig. 2, d). This will locate the correct position. Install wood screw through pre-drilled hole in rear of trigger guard (part. # 5) and into stock.
- 11) **WOOD FINISHING** - Remove trigger guard (part. # 5), trigger (part. # 24), lock (part. # 39) and thimbles (part. # 22). Thimble (part. # 21) should be left installed as it will be flush with the finished stock. Use a smooth file to bring the stock and metal parts down to each other. These file marks must be removed by using consecutively finer and finer grades of sandpaper. Care should be taken around the lock recess. DO NOT REMOVE TOO MUCH WOOD HERE. By sanding in this manner, it will assure that metal and wood surfaces are flush. The metal parts can now be taken off the stock. Stain can be applied. Additional coats of stain can be added to darken the stock to the desired shade. LET EACH COAT DRY BETWEEN APPLICATIONS. This may raise the grain of the wood making it feel rough to the touch. If this occurs, rub with 4/0 steel wool dipped in a little stain. LET DRY. The sealer can now be applied. Follow the manufacturer's directions. LET DRY COMPLETELY BETWEEN APPLICATIONS. The brass parts can be polished with emery paper and polished or buffed. Finishing of steel parts, barrel and screws. Barrel flats which can be seen should be draw filed and polished with consecutively finer and finer emery paper. Follow same procedure with heads of steel screws. For cold bluing or rust, follow manufacturer's instructions. For best blue or rust finish, wash all surfaces with a degreaser after polishing and DO NOT HANDLE AGAIN WITH BARE HANDS UNTIL PROCESS IS COMPLETED.

Re-assemble rifle. **KIT IS NOW COMPLETE.**

If you chose another kit gun of our models, some of the features may be different from those listed in these assembling instructions.

Even if there is a different shaped patch box (drawing 11) a trigger guard with set trigger (drawing 12), a forged drum into the barrel, instead of a screwed one (drawing 13) a different barrel to stock fitting (drawing 14) or other variations, these will not prevent you from finishing the kit gun.

INSTRUCTION FOR ASSEMBLING THE PISTOL KIT

THESE INSTRUCTIONS SHEETS ARE ONLY A GENERAL GUIDE. PLEASE CHECK THE CORRECT PART NUMBER OF YOUR GUN ON SPECIFIC SPARE PARTS LIST.

See figures and exploded view at pages 9a, 10a, 11a, 12a of this booklet.

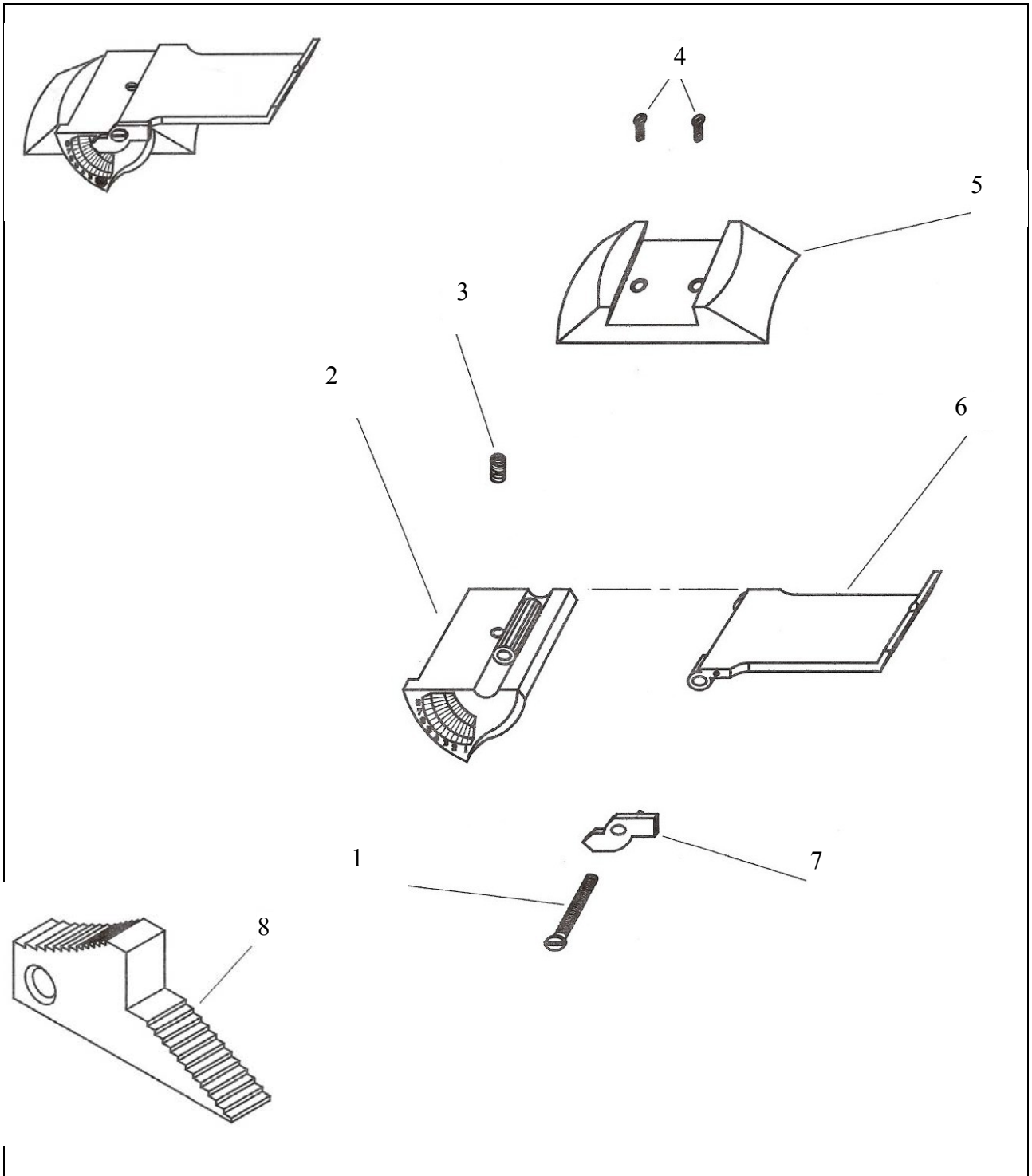
- 1) (See fig. 1) - Start by installing the barrel into the barrel channel of the pre-carved stock. Carefully remove any excess wood beneath and around the barrel tang. File the tang down until it is flush with stock wrist. File from metal to wood, not the reverse. This prevents chipping or splintering of the wood.
- 2) **INSTALLATION OF TRIGGER** (See fig. 4) - With barrel installed in stock (use a clamp or heavy rubber band to keep barrel from falling out), install tang screw (part. # 3) through tang and stock. This will line up trigger plate. As before, with the tang, install trigger plate (part. # 13) flush with stock. Next install trigger (part. # 14) using trigger pin (part. # 12) to trigger plate. Install the assembly into stock removing wood as necessary to allow the trigger to move freely. If the kit has set triggers, follow the same procedure as with the first trigger fitting one piece at a time. The trigger assembly is held to the stock by the tang screw (part. # 3) and a small wood screw at the rear of the trigger plate.
- 3) **INSTALLATION OF LOCK AND SIDE PLATES** (See figs. 2, 6, 9) - Disassemble lock. The stock is pre-inletted for the lock. The location of the lock is determined by the hammer (part. # 36A) to the nipple (part. # 40) / fig. 9, and the sear (part. # 27) to the trigger (part. # 14) / fig. 2. Install lock plate into recess removing only what wood is necessary to install into stock. (In case of a flintlock, plate must fit tight against the barrel). Install lock mounting screw (part. # 1) through pre-drilled holes in stock (fig. 6). Screw into pre-tapped holes in lock plate. Install side plate (part. # 2) into the stock flush with wood surface. As with trigger assembly, install lock parts to lock plate and fit to lock recess one part at a time. Remove wood as necessary to allow full free movement of all internal parts.
- 4) **FOR FLINTLOCK:** install touch hole liner (part. # 7) into pre-threaded hole in side of barrel (see fig. 9a). Liner should be flush with barrel flat.
FOR PERCUSSION: install drum (part. # 7A) into pre-threaded hole in side of barrel (fig. 9). Drum should fit so that nipple (part. # 40) will align with hammer nose (part. # 36A). If not, file drum shoulder a little at a time to adjust the fit. Go slowly so as not to strip the threads when tightening.
- 5) **COMPLETE THE LOCATION OF BARREL TO STOCK** (See fig. 5) - With barrel in stock, fit nose cap (part. # 9) into position. Remove only wood as necessary to have a tight fit. Finish nose cap and stock flush to each other.
Barrel pins can now be installed (fig. 7). To find location for pin (part. # 11) to hold barrel to stock:
Measure from barrel muzzle to center of each barrel lug (the lugs are already attached to the bottom of the barrel).
Use the top of the barrel to locate the depth for drilling through stock and barrel lug. Get measurement from barrel, then re-install barrel into stock and clamp barrel and stock together. Mark spot to drill on stock and **DRILL STOCK AND BARREL TOGETHER.**
- 6) **INSTALLATION OF THIMBLES** (See fig. 7) - Install and drill holes in same manner as with barrel pins.
- 7) **INSTALLATION OF SIGHTS** (See fig. 8) - Front sight (part. # 5), and rear sight (part. # 6). Clean up dovetail slots and check fit of sights to dovetail. Use a three-cornered jeweler's file to remove what metal necessary to make a tight fit.

- 8) **INSTALLATION OF TRIGGER GUARD** - To find proper location, install front screw (part. # 16) through pre-drilled hole in trigger guard and screw into pre-tapped hole in trigger plate. This will properly locate it. Install wood screw (part. # 17) through pre-drilled hole in rear of trigger guard (part. # 15) and into stock.
- 9) **WOOD FINISHING** - Remove trigger guard (part. # 15), trigger (part. # 14), lock (part. # 29A) and thimble (part. # 39).
Thimble (part. # 38) should be left installed as it will be flush with the finished stock. Use a smooth file to bring stock and metal parts down to each other. These file marks must be removed by using consecutively finer and finer grades of sandpaper. Care should be taken around the lock recess. **DO NOT SAND TOO MUCH WOOD OFF.** By doing the sanding in this manner, it will assure that metal and wood surfaces are flush.
The metal parts can now be taken off the stock. Stain can be applied. Additional coats of stain can be applied to darken the stock to the desired shade. **LET STAIN DRY BETWEEN APPLICATIONS.** This may raise the grain of the wood making it feel rough. If grain is raised, rub with 4/0 steel wool dipped in a little stain. **LET DRY.**
The sealer can now be applied. Follow the manufacturer's instructions. **LET DRY COMPLETELY BETWEEN APPLICATIONS.**
The brass parts can be polished with emery paper and polished or buffed.
Finishing of steel parts-barrel and screws. Barrel flats which can be seen should be draw filed and polished with consecutively finer and finer emery paper. Follow same procedure with heads of screws. For cold bluing or rust, follow manufacturer's instructions.
For best blue or rust finish, after polishing, wash all surfaces with a degreaser and **DON'T HANDLE WITH BARE HANDS UNTIL PROCESS IS COMPLETE.**

Re-assemble pistol. **KIT IS NOW COMPLETE.**

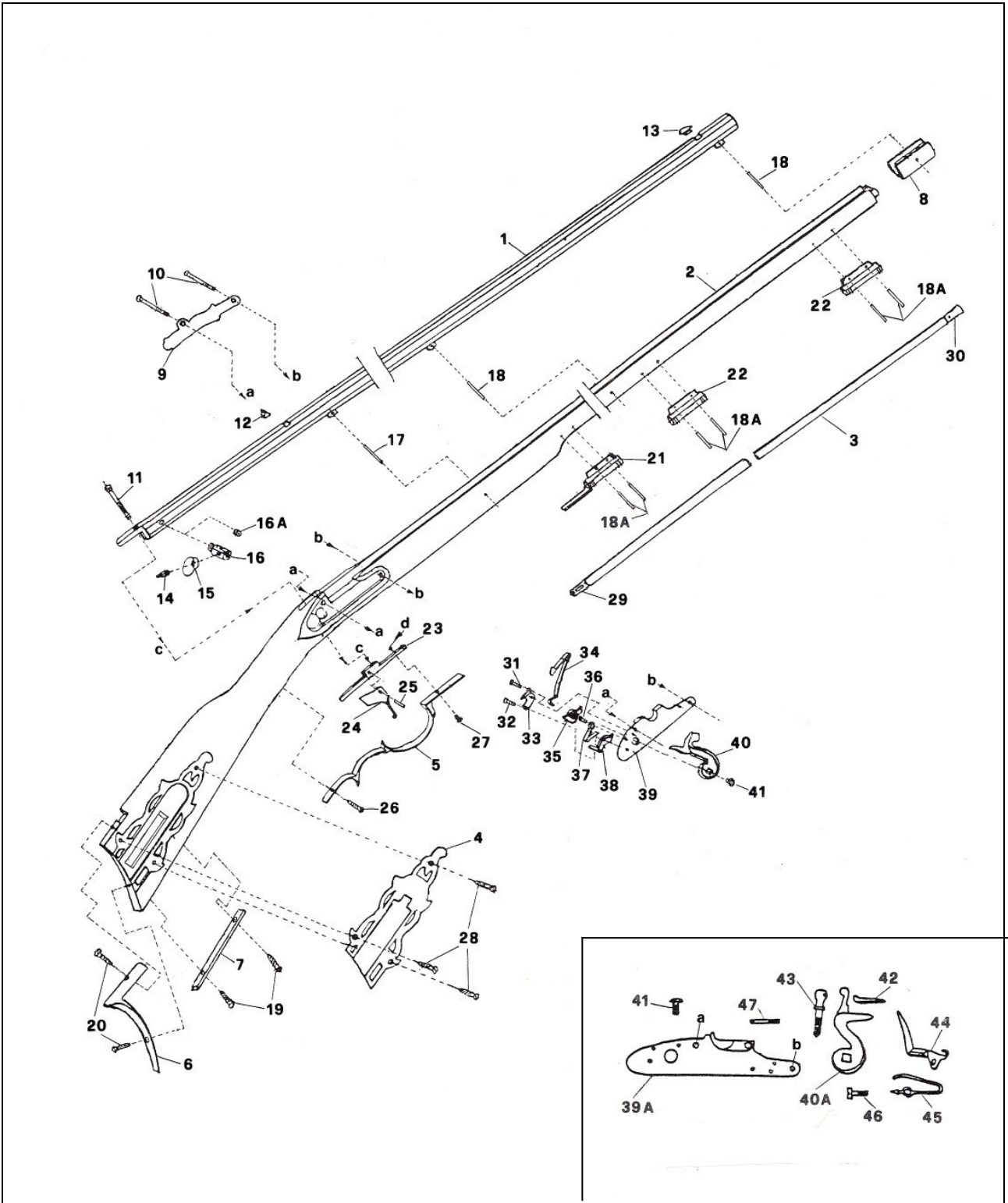
Following these instructions and the exploded view drawing, you will be able to custom finish your kit and have **YOUR NEW MUZZLE LOADING GUN!**

1857 Württembergischen rear sight



2a

Muzzle Loading Rifle



3a

42

No.	NOMENCLATURA	LIST	LISTE
1	Canna	Barrel	Canon
2	Calcio	Stock	Monture
3	Bacchetta	Ramrod with tips	Baguette complète
4	Tabacchiera	Patch-box	Patch-box
5	Guardamano	Trigger guard	Pontet
6	Calciolo	Butt plate	Plaque de couche
7	Piastrina calciolo	Toe plate	Platine de plaque de couche
8	Fascetta canna	Forend cap	Bande du canon
9	Fregio	Side plate	Contre-platine
10	Vite fregio/cartella	Lock plate screw	Vis de platine
11	Vite codetta/sottoguardia	Breech plug screw	Vis de queue de culasse
12	Tacca di mira	Rear sight	Cran de mire
13	Mirino	Front sight	Guidon
14	Luminello	Nipple	Cheminée
15	Parafiamma	Fire screen	Pare-feu
16	Portaluminello	Drum	Porte-cheminée
16A	Focone	Vent screw	Lumière
17	Copiglia posteriore fissaggio canna	Rear barrel pin	Goupille postérieure fixation canon
18	Copiglia ant. e inter. fissaggio canna	Middle and front barrel pin	Goupille interm. et ant. fixation canon
18A	Copiglia fissaggio ghiera	Thimble pin	Goupille pour busette
19	Vite piastrina calciolo	Toe plate screw	Vis platine de plaque
20	Vite calciolo	Butt plate screw	Vis de plaque de couche
21	Ghiera posteriore	Rear thimble	Busette postérieure
22	Ghiera intermedia e anteriore	Middle and front thimble	Busette intermédiaire et antérieure
23	Sottoguardia	Trigger plate	Sous-garde
24	Grilletto	Trigger	Détente
25	Copiglia grilletto	Trigger pin	Goupille de détente
26	Vite posteriore guardamano	Rear trigger guard screw	Vis postérieur du pontet
27	Vite anteriore guardamano	Front trigger guard screw	Vis antérieure du pontet
28	Vite tabacchiera	Patch-box screw	Vis de patch-box
29	Puntale posteriore bacchetta	Rear ramrod tip	Embout postérieur baguette
30	Puntale anteriore bacchetta	Front ramrod tip	Refouloir
31	Vite braghetta	Bridle screw	Vis de bride
32	Vite leva scatto	Sear screw	Vis de gâchette
33	Braghetta	Bridle	Bride
34	Molla cane	Mainspring	Grand ressort
35	Noce con tirantino	Tumbler	Noix
36	Vite molla leva scatto	Sear spring screw	Vis du ressort de gâchette
37	Molla leva scatto	Sear spring	Ressort de gâchette
38	Leva scatto	Sear	Gâchette
39	Cartella a percussione	Percussion lock plate	Platine à percussion
39A	Cartella a pietra focaia	Flintlock plate	Platine à silex
40	Cane a percussione	Percussion hammer	Chien à percussion
40A	Cane a pietra focaia	Flintlock hammer	Chien à silex
41	Vite cane	Hammer screw	Vis du chien
42	Premipietra	Top jaw	Mâchoire supérieure
43	Vite premipietra	Top jaw screw	Vis des mâchoires
44	Martellina o chiusino	Frizzen	Batterie
45	Molla martellina	Frizzen spring	Ressort de batterie
46	Vite molla martellina	Frizzen spring screw	Vis du ressort de batterie
47	Vite martellina	Frizzen screw	Vis de batterie

Kit Muzzle Loading Rifle

Fig. 1

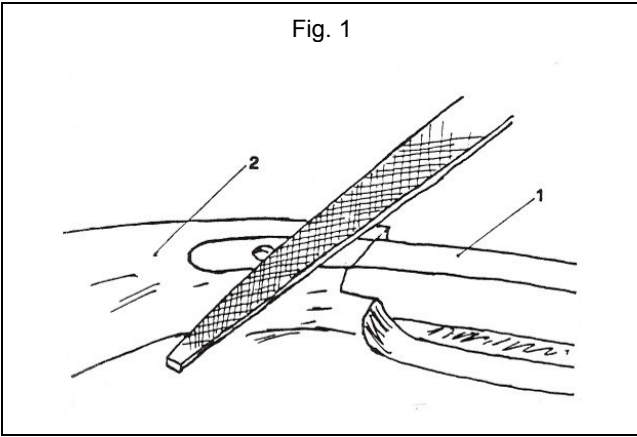


Fig. 2

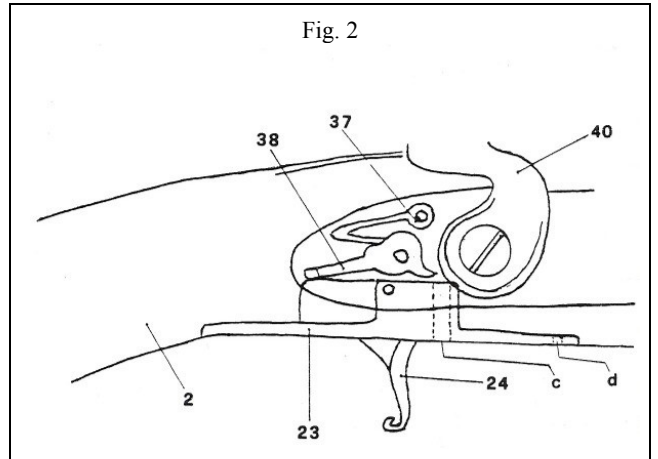


Fig. 3

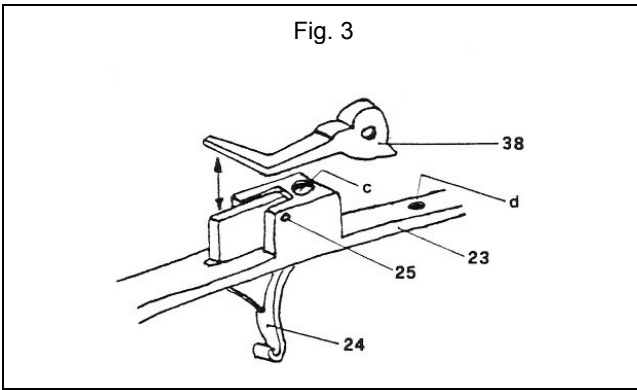


Fig. 4

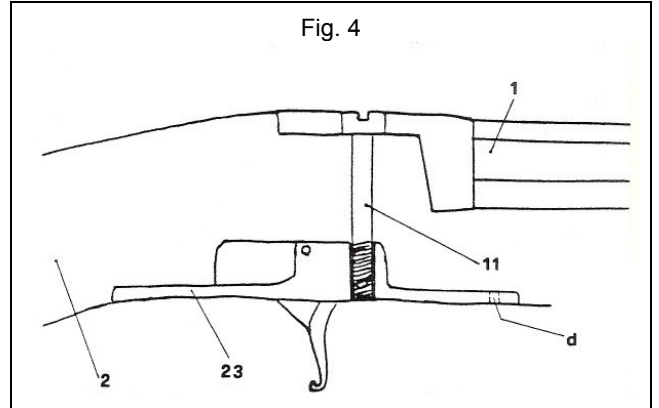


Fig. 5

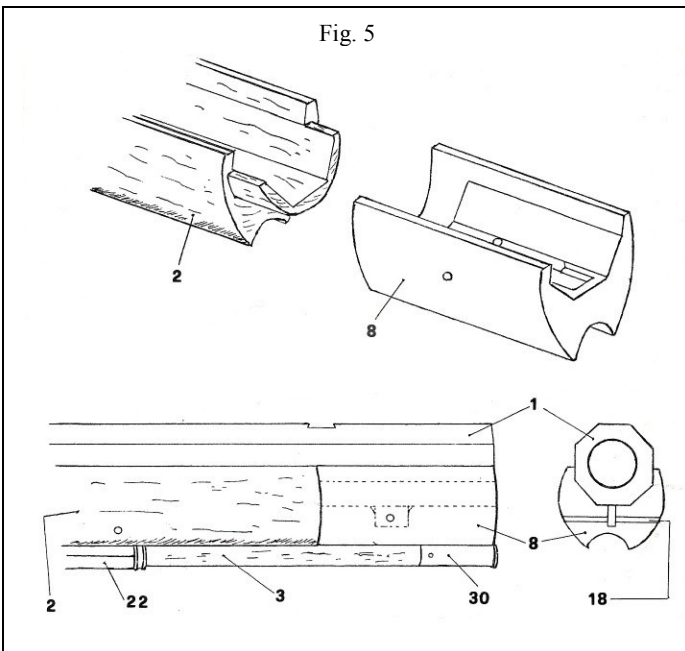
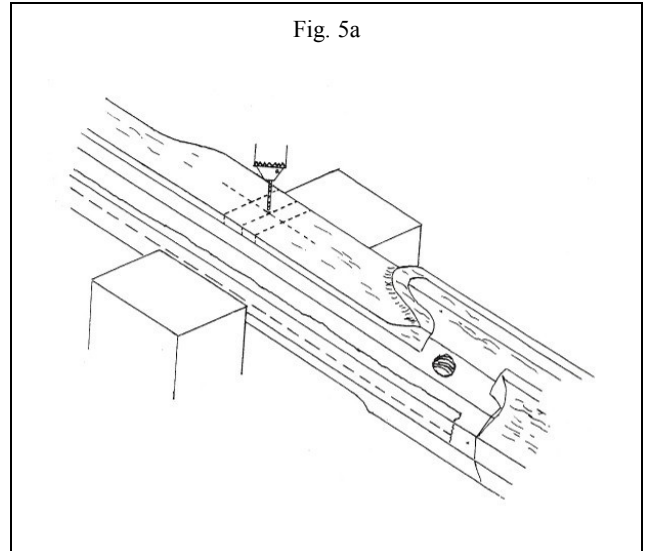
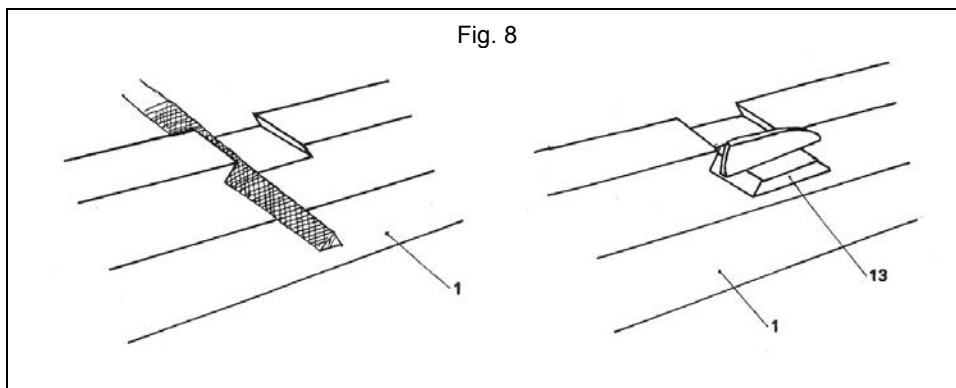
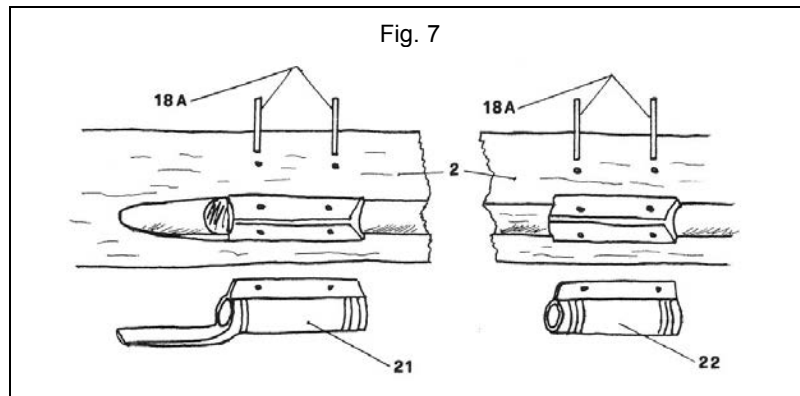
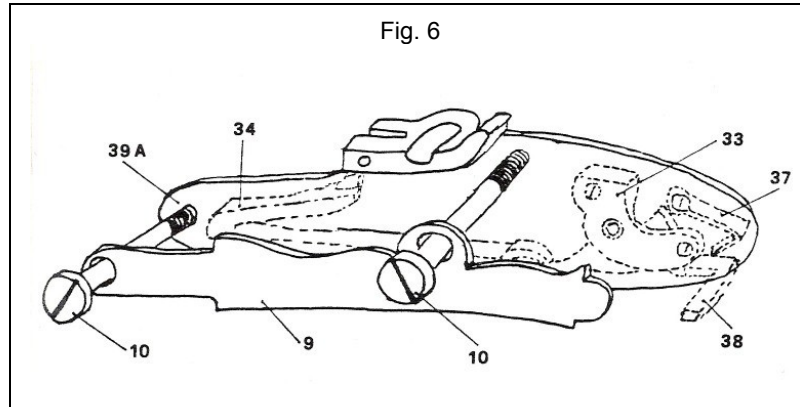


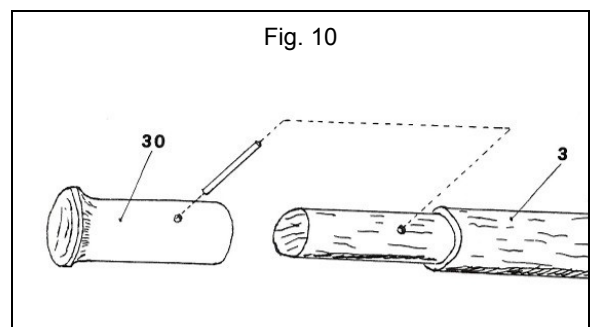
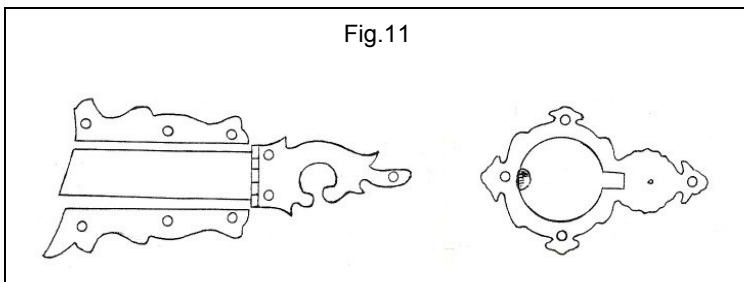
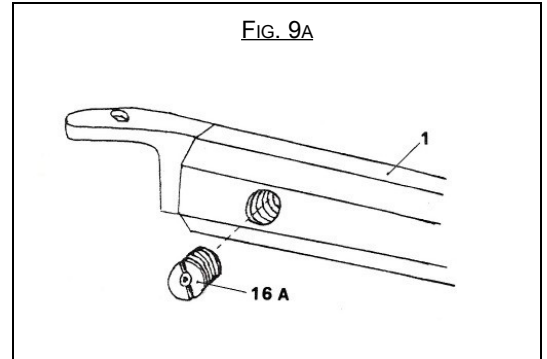
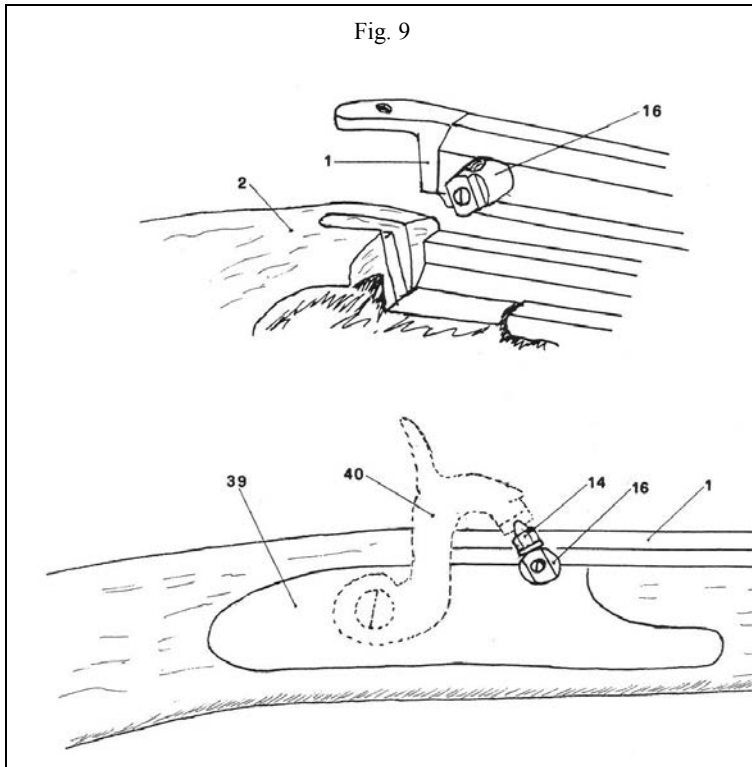
Fig. 5a



Kit Muzzle Loading Rifle



Kit Muzzle Loading Rifle



Kit Muzzle Loading Rifle

Fig. 12

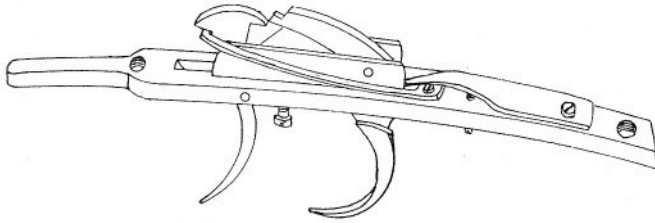


Fig. 13

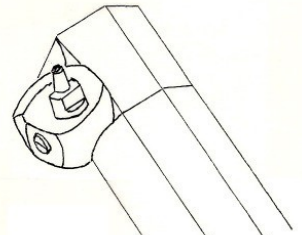
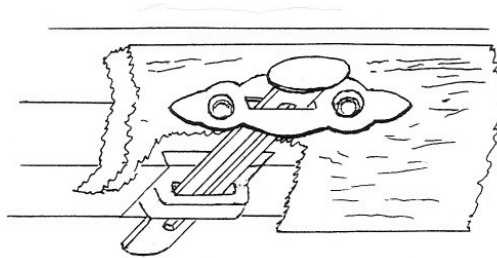


Fig. 14



No.	NOMENCLATURA	LIST	LISTE
1	Vite fregio/cartella	Lock plate screw	Vis de platine
2	Fregio	Side plate	Contre-platine
3	Vite codetta/sottoguardia	Breech plug screw	Vis de queue de culasse
4	Canna	Barrel	Canon
5	Mirino	Front sight	Guidon
6	Tacca di mira	Rear sight	Cran de mire
7	Focone	Vent screw	Lumière
7A	Portalumino	Drum	Porte-cheminée
8	Calcio	Stock	Monture
9	Fascetta canna	Forend cap	Bande du canon
10	Vite fascetta canna	Forend cap screw	Vis de bande du canon
11	Copiglia fissaggio ghiera	Thimble pin	Goupille pour busette
12	Copiglia grilletto	Trigger pin	Goupille de détente
13	Sottoguardia	Trigger plate	Sous-garde
14	Grilletto	Trigger	Détente
15	Guardamano	Trigger guard	Pontet
16	Vite anteriore guardamano	Front trigger guard screw	Vis antérieure du pontet
17	Vite posteriore guardamano	Rear trigger guard screw	Vis postérieur du pontet
18	Puntale posteriore bacchetta	Rear ramrod tip	Embout postérieur baguette
19	Bacchetta	Ramrod with tips	Baguette complète
20	Puntale anteriore bacchetta	Front ramrod tip	Refouloir
21	Vite molla leva scatto	Sear spring screw	Vis du ressort de gâchette
22	Vite leva scatto	Sear screw	Vis de gâchette
23	Molla leva scatto	Sear spring	Ressort de gâchette
24	Molla cane	Mainspring	Grand ressort
25	Vite braghetta	Bridle screw	Vis de bride
26	Braghetta	Bridle	Bride
27	Leva scatto	Sear	Gâchette
28	Noce con tirantino	Tumbler	Noix
29	Cartella a pietra focaia	Flintlock plate	Platine à silex
29A	Cartella a percussione	Percussion lock plate	Platine à percussion
30	Molla martellina	Frizzen spring	Ressort de batterie
31	Vite molla martellina	Frizzen spring screw	Vis du ressort de batterie
32	Martellina o chiusino	Frizzen	Batterie
33	Vite martellina	Frizzen screw	Vis de batterie
34	Vite premipietra	Top jaw screw	Vis des mâchoires
35	Premipietra	Top jaw	Mâchoire supérieure
36	Cane a pietra focaia	Flintlock hammer	Chien à silex
36A	Cane a percussione	Percussion hammer	Chien à percussion
37	Vite cane	Hammer screw	Vis du chien
38	Ghiera posteriore	Rear thimble	Busette postérieure
39	Ghiera anteriore	Front thimble	Busette antérieure
40	Luminello	Nipple	Cheminée

Kit Muzzle Loading Pistol

Fig. 1

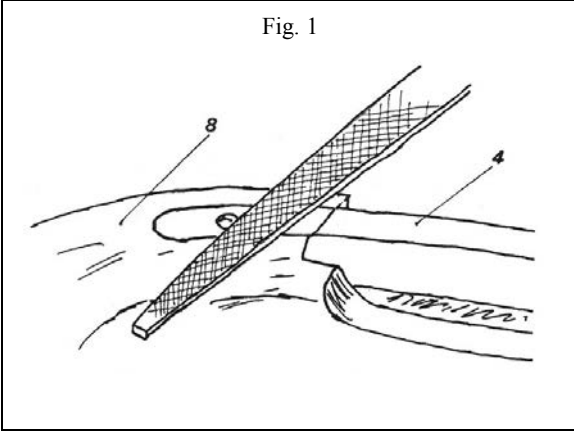


Fig. 2

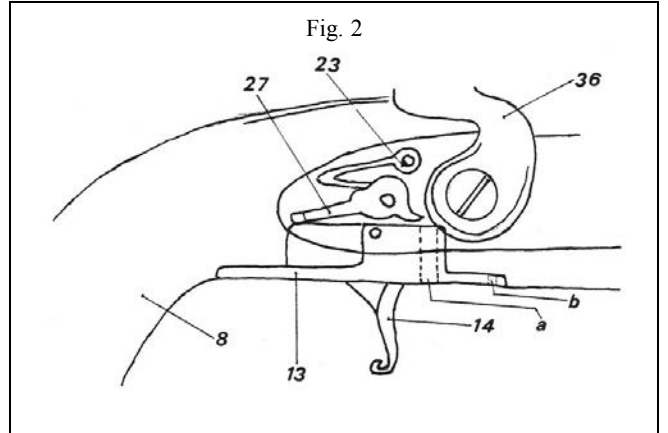


Fig. 3

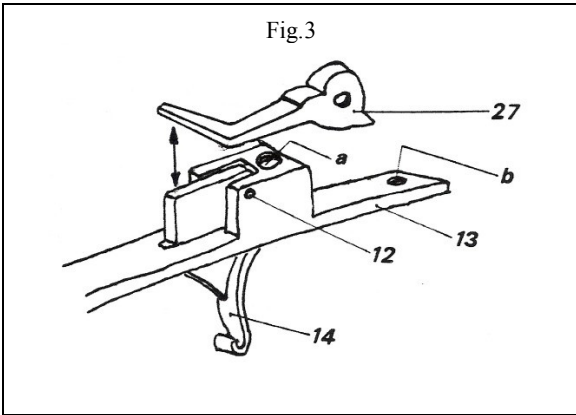


Fig. 4

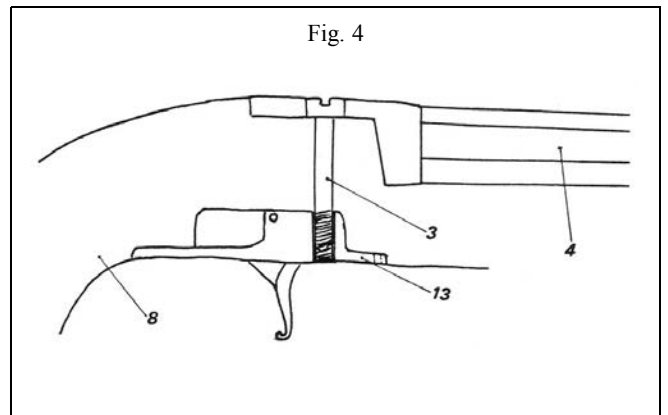


Fig. 5

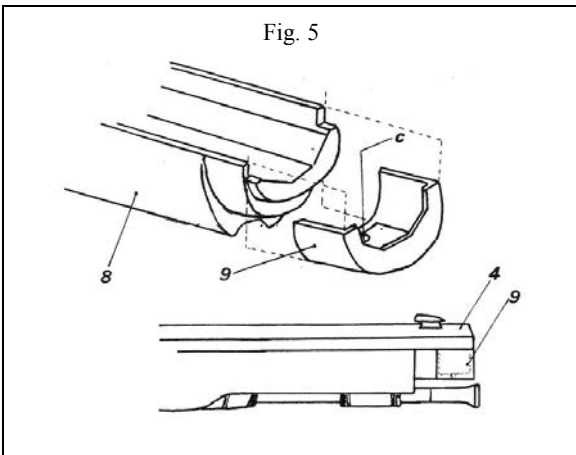
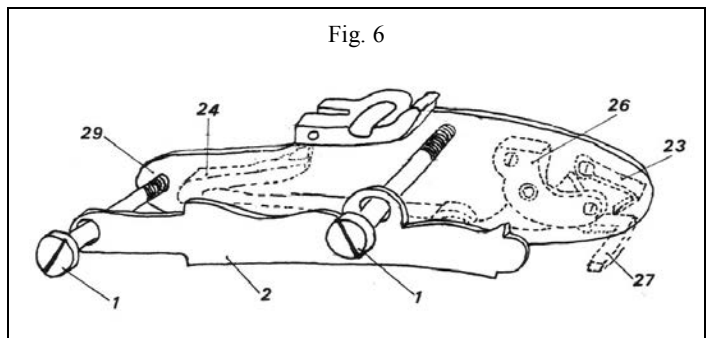
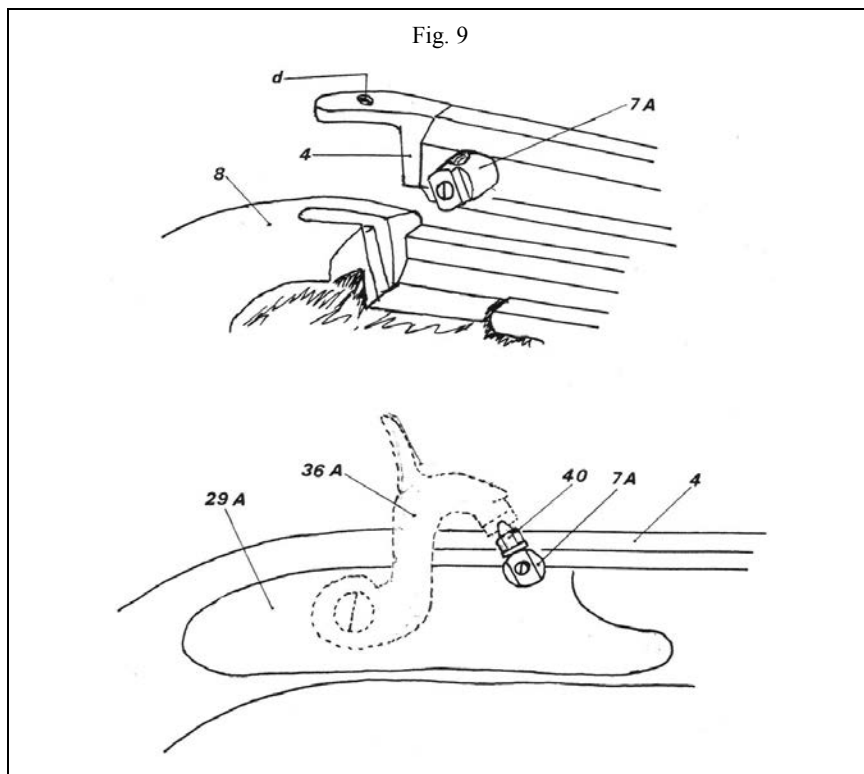
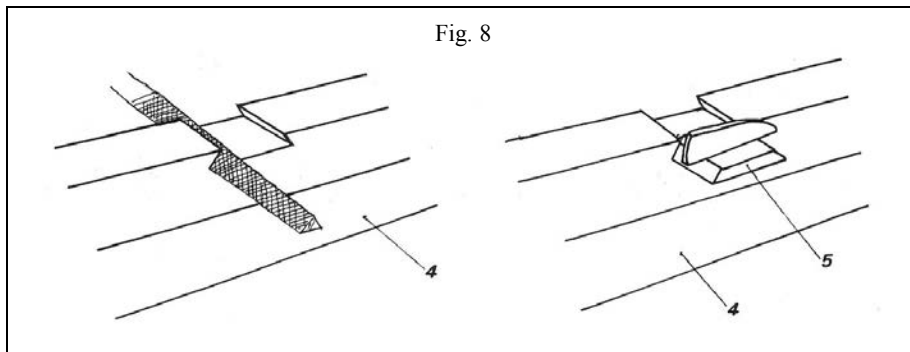
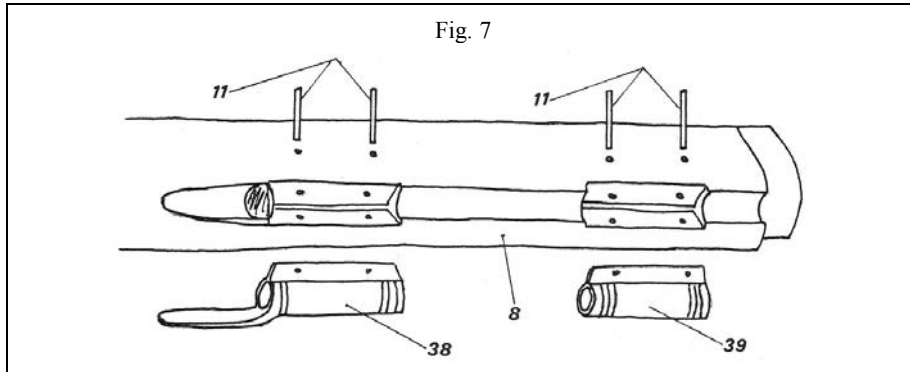


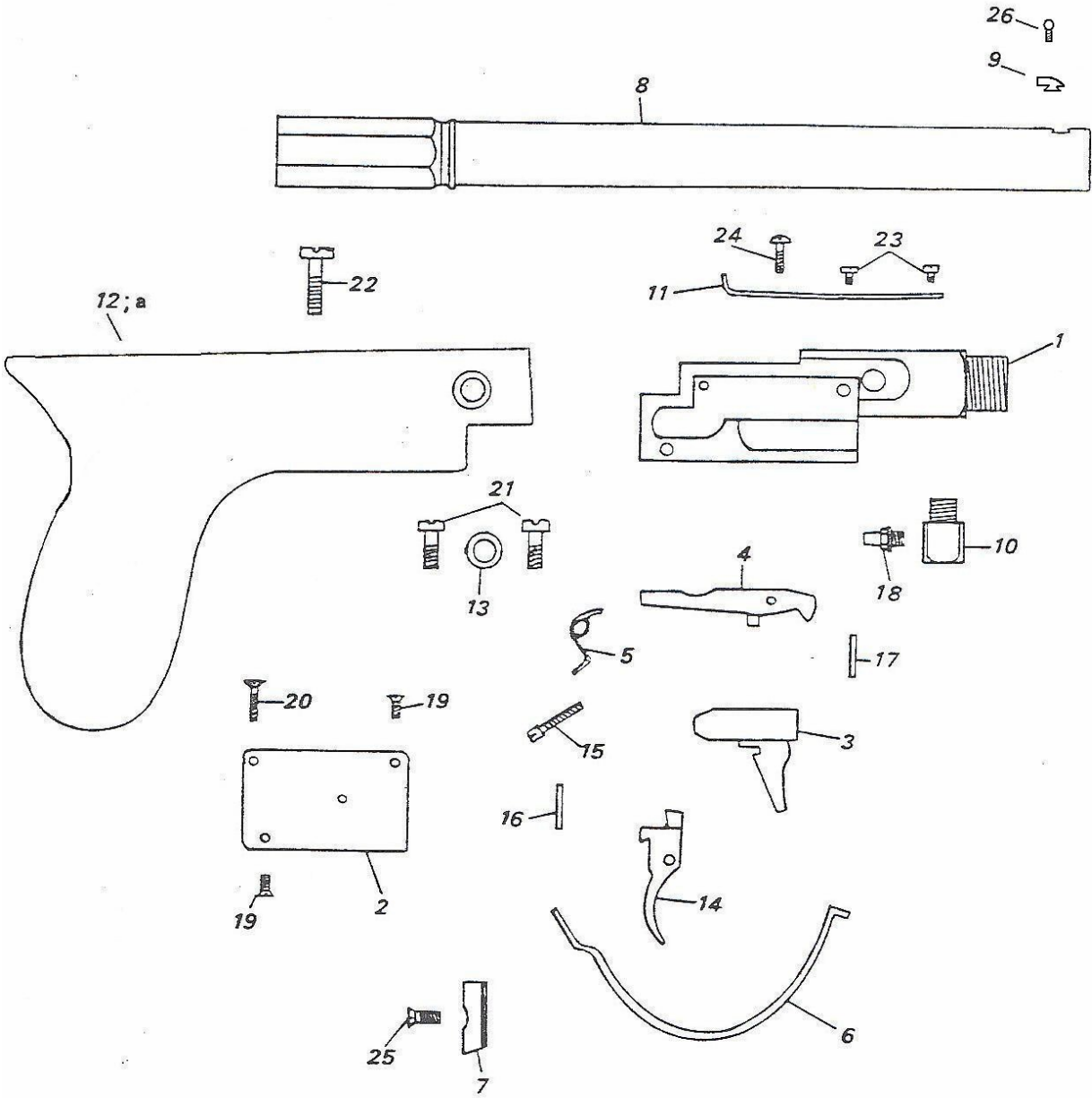
Fig. 6



Kit Muzzle Loading Pistol



'Carleton' Underhammer Custom



Nomenclatura / List / Liste

No. Italiano	English	Français
1 Bascula	Frame	Carcasse
2 Cartella	Frame lid	Platine
3 Cane	Hammer	Chien
4 Leva scatto	Sear	Gâchette
5 Molla recupero leva	Sear spring	Ressort de gâchette
6 Molla cane	Mainspring	Ressort du chien
7 Zocchetto molla cane	Mainspring stud	Plaque ressort du chien
8 Canna	Barrel	Canon
9 Mirino a perla	Pearl sight	Guidon à perle
10 Porta luminello	Drum	Porte-cheminée
11 Tacca di mira	Rear sight	Cran de mire
12 Calcio grezzo	Stock not finished	Poignée semi-ouvré
12a Calcio finito	Stock finished	Poignée ouvragé
13 Rondella laterale	Stock washer	Rondelle latérale
14 Grilletto	Trigger	Détente
15 Vite regolazione scatto	Sear adjusting screw	Vis de réglage détente
16 Copiglia grilletto	Trigger pin	Goupille détente
17 Copiglia leva scatto	Sear pin	Goupille de gâchette
18 Luminello	Nipple	Cheminée
19 Vite corta cartella	Short frame lid screw	Vis courte de platine
20 Vite lunga cartella	Long frame lid screw	Vis longue de platine
21 Vite laterale calcio	Side stock screw	Vis latérale de poignée
22 Vite superiore calcio	Upper stock screw	Vis supérieure de poignée
23 Vite fissaggio tacca di mira	Rear sight screw	Vis de blocage cran de mire
24 Vite regolazione tacca di mira	Rear sight adjusting screw	Vis de réglage cran de mire
25 Vite zocchetto molla cane	Mainspring stud screw	Vis de plaque ressort du chien
26 Perla per mirino	Sight's pearl	Perle pour le guidon