



operation and care of the

JONATHAN BROWNING MOUNTAIN RIFLE

VERY IMPORTANT—SAVE THIS BOOKLET These instructions should be carefully noted.

New Gun Owner's Record

(Keep this record for future reference)

Browning Model

Serial Number

Gauge/Caliber

Purchase Price

Purchased From

Date of Purchase

**Please fill out and mail the Market Survey Card
at the back of the booklet.**

We are proud that you have chosen a Browning. In its manufacture, we have endeavored to incorporate the very finest in materials and craftsmanship, and with just reasonable care, this gun should provide you with many years of pleasure and dependable service. If, you have any observations to make regarding its performance or appearance, we hope you will write us immediately.

We would also like to know more about you as a Browning owner and would be grateful if you could take but a moment to complete and return the market survey card found on the inside back cover.

Thank you.

BROWNING



Route # 1, Morgan, Utah 84050

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YOU ARE RESPONSIBLE FOR FIREARMS SAFETY

Please let us remind you that, as a gun owner, you accept a set of responsibilities of the most demanding nature. How seriously you carry out these responsibilities can be the difference between life and death. Mistakes made with guns are final and cannot be paid for with money or regret. **PLEASE READ AND UNDERSTAND THE PROPER HANDLING AND INSTRUCTION PROCEDURES OUTLINED IN THIS BOOKLET BEFORE USING YOUR NEW FIREARM.**

There is no excuse for careless or abusive handling of any firearm. At all times handle your gun with intense respect for its force and power.

Please read and practice the following cautions:

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CAUTION

- 1. ALWAYS KEEP THE MUZZLE OF YOUR RIFLE POINTED IN A SAFE DIRECTION**

even though you are certain the rifle is unloaded. Treat your rifle as though it were loaded and never point your rifle at anything you do not intend to shoot. Be extremely aware of all persons and property within the range of your load.

- 2. THIS RIFLE'S HALF COCK NOTCH IS SIMPLY A HAMMER POSITION THAT KEEPS THE HAMMER OFF THE NIPPLE WHILE HUNTING OR DURING STORAGE.**

With the hammer off the nipple it can be readily determined if a percussion cap is in place and makes it easier to remove and replace a fired cap.

You should never trust the half cock notch to function as a "safety." A strong enough pull on the trigger will still cause the hammer to fall. And the fact that the half cock notch will frequently catch a hammer that slips from your thumb while cocking should not be taken as an assurance it will be caught ALL the time.

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A hammer at half cock can be jarred or inadvertently manipulated into an unsafe position. While no guarantee can be made that it will not at some time fail to prevent the hammer from striking the nipple, half cock is nevertheless the recommended hammer position for handling and storage. The hammer should only be moved to the full cock position when you are ready to shoot.

Safe gun handling does not stop with your rifle's half cock notch. It *starts* there. It is merely an aid to safe gun handling and is no excuse for pointing the muzzle in an unsafe direction. Always treat this rifle as though it were loaded and ready to fire.

- 3. DO NOT CARRY YOUR RIFLE WITH A CAP ON THE NIPPLE.** It is recommended that you place a percussion cap on the nipple only when shooting is imminent.
- 4. ALWAYS REMOVE THE CAP WHEN THE OPPORTUNITY TO SHOOT NO LONGER EXISTS.** Likewise, you should remove the cap when crossing a fence, when arriving in camp or whenever you are in similar circumstances where extra caution is called for.

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5. BEWARE OF BARREL OBSTRUCTIONS

for the safety of both your rifle and yourself. Unlike most firearms, a muzzle loading rifle bore cannot be visually inspected from the chamber end to determine if an obstruction is present. Therefore special precaution should be exercised to determine that the barrel is clear before seating a charge.

Before the first firing of your new rifle, insert the ramrod into the bore and scribe a mark on the brass end where it protrudes from the muzzle **Refer to Figure 1.**

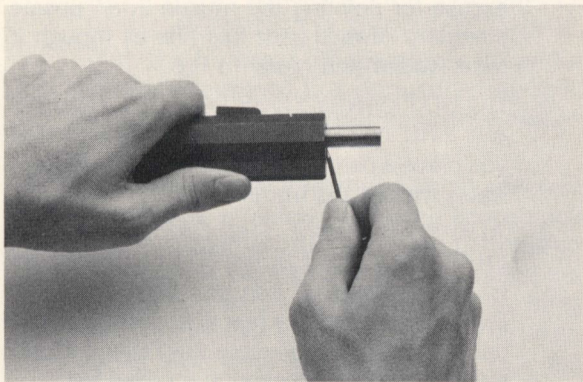


Figure 1

You can now use this mark to determine whether or not there is an obstruction or load in the barrel.

Other obstructions such as mud or snow can usually be removed in the normal cleaning process. At all times guard against dipping the muzzle into mud, snow or water and avoid all possibilities of getting any small objects, such as a twig, into the bore. It takes only a small obstruction to increase pressures dangerously.

6. USE ONLY BLACK POWDER OR REPLICA BLACKPOWDER in your muzzle loading rifle. NEVER USE SMOKELESS POWDERS.

Black powder develops lower pressures than does smokeless powder. In addition to propelling the ball, the high pressure gases developed by smokeless powder may cause irreparable damage and will vent back through the nipple and throw the hammer to a cocked position with possible damage to the lock mechanism. Pieces of the foil cap could also be thrown in your face or towards bystanders.

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NOTE: Although details are not noted in this instruction booklet replica black powder (such as Pyrodex) which generates the same overall pressure levels as black powder, can be used safely in this rifle. Browning cannot assume any responsibilities for damage or injuries that occur from propellents or powder charges that generate excessive pressure levels. Accordingly, the user should use extreme caution when using any propellant other than black powder. **UNDER NO CIRCUMSTANCES SHOULD SMOKELESS POWDER BE USED.**

- 7. USE ONLY RECOMMENDED POWDER CHARGES.** The barrel and lock of this rifle have been made with safety margins over the pressures developed by the recommended powder charges. Browning assumes no responsibility for incidents which occur through the use of larger than recommended powder charges or through the use of smokeless powder, or through a combination of smokeless and black powder.
- 8. NEVER POUR BLACK POWDER DIRECTLY FROM A CAN OR POWDER HORN INTO THE BARREL.** If a glowing ember should

remain from the previous firing, the addition of powder to the barrel could cause fire to flash back into the can or powder horn. This could cause a serious explosion. Always pour from the can or powder horn into a measure and from the measure into the barrel. Also, **VISUALLY INSPECT THE BORE FOR A GLOWING EMBER FROM THE PREVIOUS SHOT** before pouring the powder charge into the bore. If in doubt, run a clean, dry patch down the bore.

- 9. ALWAYS HAVE THE MUZZLE DIRECTED AWAY FROM YOUR FACE OR BODY** when pouring powder from a measure or when seating a ball.
- 10. ALWAYS BE CERTAIN THAT EACH CHARGE IS FULLY SEATED.** We recommend that you make two reference marks on your ramrod. First determine how far the ramrod enters the barrel when the barrel is unloaded and place an "unloaded barrel" reference mark on your ramrod. **(Refer to Caution 5 and Figure 1.)** Then during your first shooting session establish the distance the ramrod enters the barrel

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after a fully, properly seated charge is present in the barrel. Place a "loaded barrel" reference mark on your ramrod.

These two marks will enable you to determine whether your barrel is unloaded or loaded and, if loaded, whether the charge is fully seated or whether an obstruction is in the barrel.

You should be aware however, that as successive shots are taken without swabbing out the barrel, normal residue buildup will prevent subsequent loads from seating as deeply in the barrel as the first. Therefore, the reference mark will tend to gradually creep away from the muzzle as more shots are fired.

As long as these increases are gradual, it only means the barrel needs cleaning. It's a sharp increase in the distance of the mark above the muzzle that would warn you that more effort is needed to fully seat the ball against the powder.

NOTE: An unseated charge could allow an excessive air space between the ball and powder. This will act as an obstruction, and firing could result in a bulged or burst barrel or personal injury.

- 11. ALWAYS BE CERTAIN THAT THE PATCHED BALL IS TIGHT IN THE BARREL AND CANNOT MOVE FORWARD WHEN THE RIFLE IS CARRIED WITH THE MUZZLE DOWN.** If the ball can move forward or if it is not fully seated against the powder, an excessive air gap can exist between the ball and the powder. This would have the same effect as an obstruction in the bore of the barrel. Firing the rifle could result in a bulged or burst barrel or personal injury.
- 12. EXERCISE EXTREME CAUTION WHEN USING PATCHING MATERIAL OTHER THAN CLOTH.** Patches made out of plastic or other non-fabric material may lack cloth's ability to completely encircle the ball and insure complete contact between the ball and the barrel. In the event either patch or ball does not make a proper seal with the barrel, even a slight jolt as might occur during normal handling can cause the ball to move for-

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ward while the patch remains on the powder. The resulting air space between powder and ball will cause the dislodged ball to act as an obstruction, and firing could result in a bulged or burst barrel.

Do not use polyester or synthetic patches because the extreme heat during ignition will melt the fabric. The residue this leaves in a barrel is extremely difficult to remove.

- 13. IF YOUR RIFLE FAILS TO FIRE DUE TO A MALFUNCTION OF PERCUSSION CAP OR POWDER** keep the muzzle pointed in a safe direction and hold this position for a minimum of 30 seconds. If a second cap fails to ignite the charge, remove the nipple, clear any obstruction that may be clogging the vent. If this fails to solve the problem, pour a small amount of dry powder from a powder measure into the barrel through the nipple port, replace the nipple, place a cap on the nipple and again try to fire the rifle. As a last resort, a special ball puller available from black powder gunsmiths and retail outlets can be used to remove the ball from the barrel so the rifle can be given a thorough cleaning.

- 14. EXERCISE EXTREME CAUTION WHEN USING THE SET TRIGGER.** Once the set trigger is set it takes only a very light touch to fire the rifle. To unset the trigger, hold the hammer firmly, remove the cap, pull the set trigger back to the normal position and allow the hammer to ease forward to the half cock position.
- 15. NEVER LEAVE YOUR RIFLE LEANING AGAINST A CAR, OR IN ANY OTHER UNSTABLE POSITION.**
- 16. BE SURE OF YOUR BACKSTOP.** Know the range of your rifle and be certain there is no chance of damage or accident. Never shoot at water or hard objects as the ball can ricochet in an unpredictable direction with possible injury to persons or property.
- 17. BE SURE OF YOUR TARGET.** Be sure no persons, livestock, buildings or other objects are behind or near your target. Be absolutely sure of your target particularly during low light periods.
- 18. BE SURE YOUR RIFLE DOES NOT INADVERTENTLY CONTAIN A CHARGE OF POWDER AND BALL WHEN NOT IN USE.**

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Your ramrod will seat all the way to the reference mark described in Caution 5 when the rifle is clean and empty. Your rifle and load components should also be stored separately—beyond the reach of children. Take all safeguards to insure your gun does not become available to untrained, inexperienced, or unwelcome hands.

- 19. FOR EYE AND EAR PROTECTION** we recommend that you always wear shooting glasses and hearing protection when shooting.
- 20.** Repeated dry firing will flare the nipple to the point that the percussion caps will no longer fit. If dry firing is necessary a small disc of leather or other soft material can be placed in the hammer recess to protect the nipple. **THIS CUSHION MUST BE REMOVED PRIOR TO ACTUALLY FIRING THE RIFLE.**
- 21. BE DEFENSIVE. BE ON GUARD AGAINST UNSAFE GUN HANDLING** around you and others. Don't be timid when it comes to gun safety. If you observe other shooters violating the above safety precautions, politely suggest safer handling practices.

- 22. EDUCATE AND SUPERVISE.** Stress firearms safety to all members of your family, especially to children and non-shooters. Closely supervise new comers to the shooting sports. Encourage enrollment in hunting-shooting safety courses.

**BROWNING®
JONATHAN BROWNING
MOUNTAIN RIFLE
CAL. 45, 50, AND 54
PERCUSSION RIFLE**

NOMENCLATURE

In conventional gun terminology the position and movement of gun parts are described as they occur with the gun horizontal and in normal firing position; i.e., the muzzle is forward or front: butt stock is rearward or back: trigger is down or underneath: sights are up or on top. (Figure 2).

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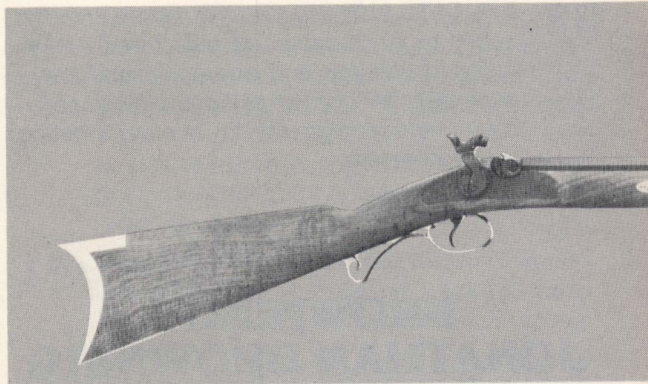


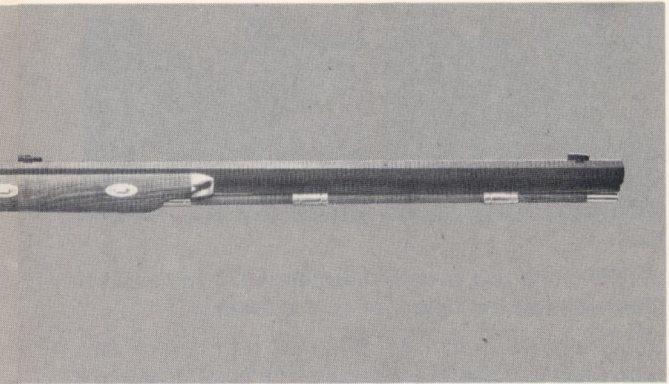
Figure 2

SERIAL NUMBER

The serial number of your Jonathan Browning Mountain Rifle is located on the right side of the barrel just forward of the breech plug.

ASSEMBLY

When you unpack your Jonathan Browning Mountain Rifle you will find the barrel detached from the stock and a small plastic bag containing two stock wedges, an extra nipple, and a cleaning jag.



To assemble your rifle, first clean the anti-rust compound from the barrel. Use any quality gun oil such as Browning Ultra Fine Gun Oil or Browning Liquid Gunsmith.

Remove the ramrod from the barrel thimbles. Place the hammer in the half cock position. Hook the breech end of the barrel into the tang (**Figure 3**) and lower the barrel into the stock channel. Once you have determined that the slots in the lugs on the bottom of barrel are in alignment with the slots in the forearm wedge plates insert the two barrel wedges found in the plastic bag. These wedges can be inserted from either side although a right handed

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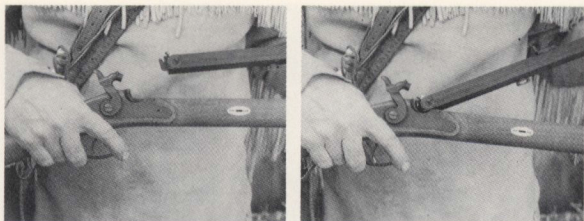


Figure 3

shooter may find it more comfortable if the wedge heads are on the right side of the forearm.

Replace the ramrod through the two thimbles on the barrel and into the forward end of the stock forearm.

LOADING

1. Before loading wipe the bore with a clean, **dry** patch to be sure it is free of any oil and that no obstruction is present. The presence of oil in the barrel or chamber may dampen the powder charge and cause the rifle to misfire or hang fire.

2. Because the hammer of the Jonathan Browning Mountain Rifle is smooth we recommend using the middle part of the thumb above the joint when cocking the hammer (**Figure 4**). To place the hammer in the half cock position, start with the hammer down, resting on the nipple. With your finger off the trigger, move the hammer rearward in a cocking motion until an audible click is heard. To place the hammer in the full cock position continue cocking the hammer until a second audible click is heard. The hammer is now fully cocked in its most rearward position and is ready to fire.

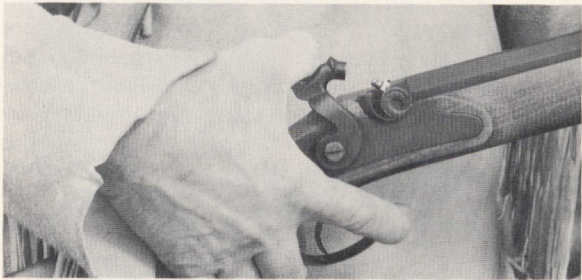


Figure 4

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3. Fire several caps to clear any oil from the nipple and breech plug hole. This will insure good ignition.
4. With the hammer in the half cocked position set the rifle butt on the ground with the muzzle directed away from your body or face (Figure 5).

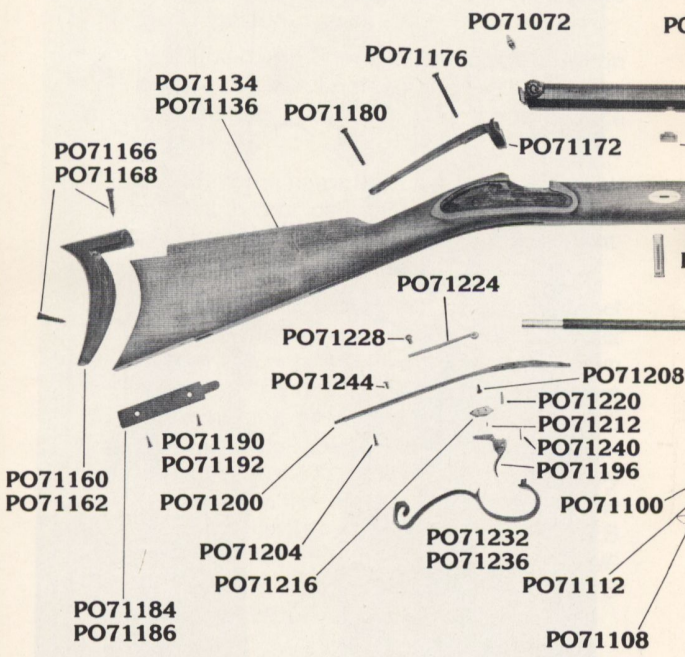
NOTE: If the hammer is not in the half cock position before loading the barrel, there is the possibility of not getting proper charge seating due to an "air-lock."

5. Fill a powder measure that has been pre-set to the desired charge with a proper powder from a can or powder horn and pour it down the barrel. It's very easy to pack the measure one time and fill it lightly the next. You will achieve the best accuracy by filling the powder measure the same way each time, and by being certain that all of the powder enters the muzzle. **UNDER NO CIRCUMSTANCES POUR POWDER DIRECTLY FROM POWDER HORN OR CAN INTO BORE. ALWAYS USE A POWDER MEASURE.** (Figure 6)



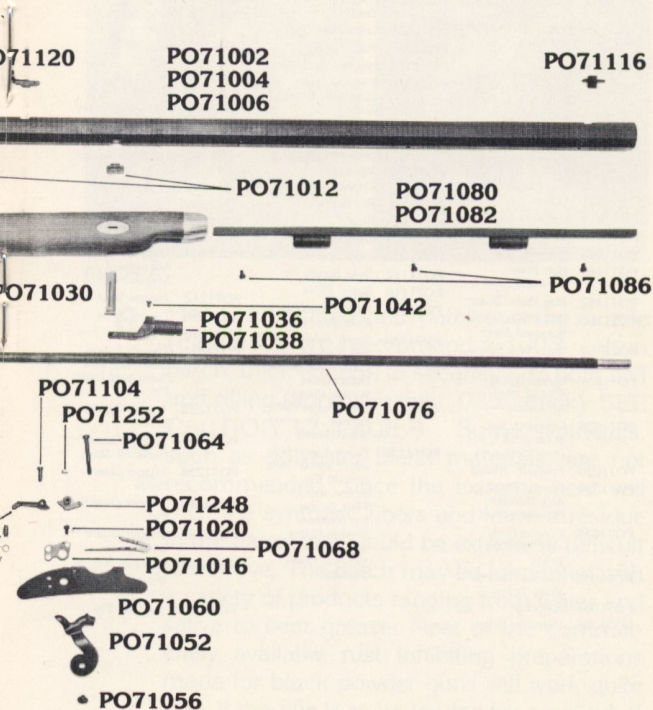
Figure 5

EB



JONATHAN BROWNING MOUNTAIN RIFLE

Schematic is provided for parts identification only and should not be used as a guide to assemble guns.



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- PO71002 Barrel with Breech Plug, Breech Housing, and Clean Out Screw. 45 Cal.
- PO71004 Barrel with Breech Plug, Breech Housing, and Clean Out Screw. 50 Cal.
- PO71006 Barrel with Breech Plug, Breech Housing, and Clean Out Screw. 54 Cal.
- PO71012 Barrel Lug
- PO71016 Bridle
- PO71020 Bridle Screw
- PO71160 Butt Plate, Browned Steel
- PO71162 Butt Plate, Brass
- PO71166 Butt Plate Screw, Browned Steel
- PO71168 Butt Plate Screw, Brass
- PO71024 Cleaning Jag, 45 Cal. (An Accessory)
- PO71026 Cleaning Jag, 50 and 54 Cal. (An Accessory)
- PO71030 Forearm Wedge
- PO71036 Forend Body and Thimble, Browned Steel
- PO71038 Forend Body and Thimble, Brass
- PO71042 Forend Thimble Body Screw
- PO71052 Hammer
- PO71056 Hammer Screw
- PO71060 Lock Plate with Bolster
- PO71064 Lock Plate Screw
- PO71068 Main Spring
- PO71072 Nipple
- PO71076 Ramrod, complete with Brass Ends
- PO71080 Rib with Thimbles, Browned Steel
- PO71082 Rib with Thimbles, Brass
- PO71086 Rib Screw
- PO7110 Sear
- PO71104 Sear Screw
- PO71108 Sear Spring
- PO71112 Sear Spring Pin
- PO71116 Sight, Front
- PO71120 Sight Assembly Complete, Rear
- PO71134 Stock Assembly with Forend Tip, Lock Plate Screw Escutcheon, Wedge Plates and Wedge Plate Screws, Browned Steel Models
- PO71136 Stock Assembly with Forend Tip, Forend Tip Screw, Lock Plate Screw Escutcheon, Wedge Plates and Wedge Plate Screws, Brass Models
- PO71172 Tang
- PO71176 Tang Screw, Front
- PO71180 Tang Screw, Rear
- PO71184 Toe Plate, Browned Steel
- PO71186 Toe Plate, Brass
- PO71190 Toe Plate Screw, Browned Steel
- PO71192 Toe Plate Screw, Brass
- PO71196 Trigger
- PO71200 Trigger Plate
- PO71204 Trigger Plate Screw
- PO71208 Trigger Pull Adjustment Screw
- PO71212 Trigger Strut Pin
- PO71216 Trigger Strut
- PO71220 Trigger Pin
- PO71224 Trigger Spring Assembly with Roller and Roller Pin
- PO71228 Trigger Spring Screw
- PO71232 Trigger Guard, Browned Steel
- PO71236 Trigger Guard, Brass
- PO71240 Trigger Guard, Pin
- PO71244 Trigger Guard Screw
- PO71248 Tumbler Assembly with Roller and Roller Pin
- PO71252 Tumbler Fly

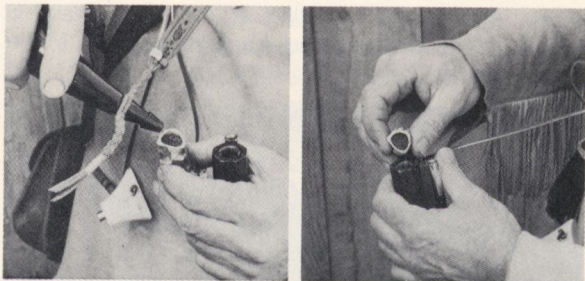


Figure 6

6. Place a lubricated cloth patch over the muzzle (Figure 7). We recommend a 100% cotton patch, thick enough to securely grip both ball and rifling (approximately .025" thick). **SEE CAUTION 12, PAGE 9** Some synthetics, such as polyester blend materials, are not recommended, since the extreme heat will melt the synthetic fibers and leave a residue in the barrel that would be extremely difficult to remove. The patch may be lubricated with a variety of products ranging from water and saliva to bear grease. Most of the commercially available rust inhibiting preparations made for black powder guns will work quite well. If the rifle is to be loaded for a period of

time, water or saliva is not recommended because it may cause a slight rust ring in the barrel.



Figure 7

- 7.** Place a ball of the proper size in the center of the patch with the sprue mark pointing straight up or straight down (**Figure 8**). The sprue mark is the small flattened surface on the ball.



Figure 8

8. Using the stubby end of a ball starter apply enough pressure to start the ball into the barrel to a point where it is flush with the muzzle (Figure 9). A properly patched ball will require a fair amount of pressure and will usually "snap" into the barrel. If a pre-cut patch was not used, the excess patch material should now cut off flush with the muzzle (Figure 10).



Figure 9



Figure 10

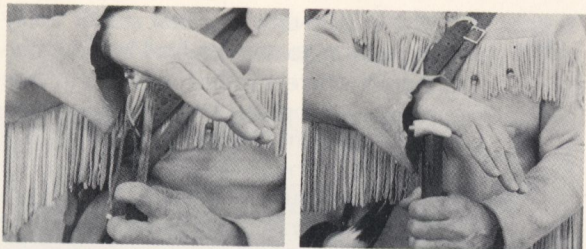


Figure 11

9. Push the ball approximately six inches down the barrel with your ball starter. (Figure 11).

The ramrod may now be used to seat the ball against the powder charge. Insert the end of the ramrod with the concave brass fitting into the bore and seat the ball.



Figure 12

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NOTE: Care should be taken not to grasp the ramrod too high above the muzzle (**Figure 12**). If the rod should bow and break, the very least that could happen is that it would put an end to a day of shooting. Taking several short strokes is a much safer method.

It is important that the ball is fully seated and there is no air space. After the ball is loaded, it is wise to mark the ramrod at the muzzle. This will provide a reference mark to insure that succeeding loads are fully and properly seated. (**Refer to Caution 10 on page 7 .**) If you do not fully seat the charge it can act as an obstruction, and if the rifle is fired in this condition it may cause extensive damage. If the ball becomes lodged part way down the barrel, the ball must be removed by using a special ball puller. (A ball puller is available from most gunsmiths and retail outlets specializing in black powder shooting.) **UNDER NO CIRCUMSTANCES SHOULD THE UNSEATED, LODGED BALL BE REMOVED BY FIRING THE RIFLE.**

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- 10. BE SURE TO REMOVE THE RAMROD BEFORE SHOOTING!**
- 11.** When you get ready to shoot the rifle, place a number 11 size percussion cap on the nipple.
- 12.** After each shot, move the hammer to the half cocked position and remove the cap, or spent cap parts before reloading.

TRIGGER OPERATION

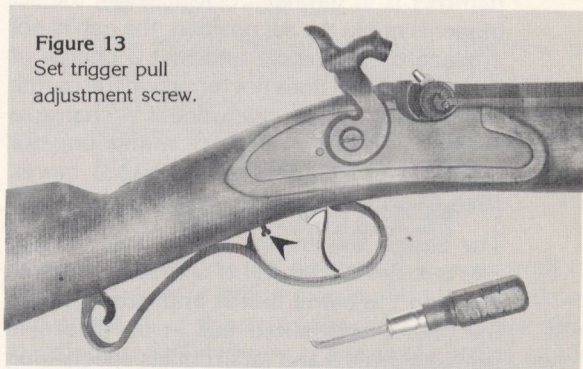
The Browning single set trigger design gives you two triggers in one. You have the choice of a standard trigger or a sensitive set trigger. For the standard trigger simply cock the hammer and squeeze the trigger. The trigger pull on the standard trigger lets off crisply at between 4 and 5 pounds.

If the shooting situation calls for a carefully planned shot, you'll appreciate the set trigger. Although the set trigger can be set with hammer in half cock or cocked position, we recommend setting the trigger while the hammer is in the half cock position. To set the trigger push the trigger forward, and the trigger is sensitized to provide a light letoff. You can adjust the set trigger pull from two ounces to two pounds

by means of an adjusting screw behind the trigger inside the trigger guard (**Figure 13**). You will need an off-set screwdriver.

Figure 13

Set trigger pull
adjustment screw.



To lighten the set trigger pull, turn the adjusting screw clockwise. To increase the set trigger pull, turn the adjusting screw counterclockwise.

NOTE: CAUTION—Extreme caution should be exercised, when using a set trigger. Once the set trigger is set it only takes a very light touch to fire the rifle. **If you wish to unset the trigger**, hold the hammer firmly, remove the cap, pull the set trigger back to the normal position and allow the hammer to ease forward to the half cock position.

DISASSEMBLY

1. To disassemble your rifle, make sure the hammer is in the half cock position, the set trigger is not in the set position, the cap is not in place on the nipple and that a charge of powder and ball does not remain in the barrel. The easiest way to determine if a charge is present is to place reference marks on your ramrod for a loaded and unloaded barrel. (See Caution Number 5 and Figure 1.)

The easiest way to unload a muzzle loading rifle is to fire it. This will of course necessitate cleaning the barrel. If it is impractical to fire the rifle, a specialized ball puller (available from gunsmiths and retail outlets specializing in black powder shooting) can be used to unload the barrel. Extreme caution should be exercised when removing a ball with a ball puller device. Be sure the cap is removed, hammer is in half cock position and the muzzle of the rifle is pointing in a safe direction.

2. Remove the ramrod from the thimbles on the underside of the barrel. Press on the small ends of the barrel wedges so that the large ends may be grasped with the thumb and index finger, and withdraw them from the fore-

stock. As these wedges may be fairly snug, you may want to start them with a small wooden dowel or other object that will not mar the finish of your rifle.

The muzzle end of the barrel may now be lifted up and the hooked breech disengaged from the tang. It may be necessary to tap the underside of the muzzle to break the barrel loose from the stock barrel channel.

MISSING POWDER

Sooner or later you will discover that you forgot to put the powder in before you pushed the ball down the barrel. Most shooters have done this at one time or another. Simply remove the nipple with a nipple wrench and pour a small amount of powder from a powder measure into the barrel through the nipple port. Replace the nipple. Seat the ball on the light charge. Place a cap on the nipple and fire the ball out of the barrel. The gun should be pointed in a safe direction when clearing the barrel. If you cannot fully seat the ball, **DO NOT** fire the rifle to clear the barrel as the resulting pressures could damage the barrel. A special ball puller is required to remove a lodged load from the rifle. (A ball pulling device is available from most gunsmiths or retail outlets specializing in black powder shooting.)

CARRYING POSITION

The recommended carrying position is with the hammer in the half cock position AT ALL TIMES. In this position, a normal pull on the trigger will not cause the hammer to fall. However, you should not rely on the half cock position to function as a "safety" or to catch the hammer if it should slip from your thumb while cocking.

RECOMMENDED LOADS

There are no hard and fast rules for loads for the Jonathan Browning Mountain Rifle because of the variable of projectile weight, patch thickness and material, lubricant, propellant granulation, etc. The shooter should experiment with the loads in the following table until the most accurate load is developed.

	45 Cal.	50 Cal.	54 Cal.
Round, lead ball diameter	.438-.445	.490-.496	.528-.535
Ball Weight (approx.) . . .	127-133 gr.	175-180 gr.	220 gr.
Powder charge range (FFg or FFFg Black Powder) . . .	70-90 gr.	90-120 gr.	100-150 gr.

Approx. Muzzle

Velocity in

F.P.S. 1970-2215 1800-2010 1600-2010

The Jonathan Browning Mountain Rifle is designed specifically for the use of patched round balls. Although the rifle will fire mini or maxi balls, the deep cut rifling will not provide optimum accuracy for these projectiles.

READING PATCH SIGNS

Just after the ball clears the muzzle it separates from the patch. Fired patches can be found approximately 10 yards in front of the muzzle. Examination of a retrieved patch can tell you if your patch and lubricant are doing a proper job. An efficient patch will show light and dark areas in the shape of a star burst (**Figure 14**). The blackened areas will be those that were exposed to hot gases as well as those portions that rode on the lands of the rifling. The light areas are the tucks and folds that indicate the gas was contained behind the ball.

Any overall blackening or burned out areas indicate that the patch is not sealing the bore or that it is of insufficient weight for the charge being used (Figure 15).

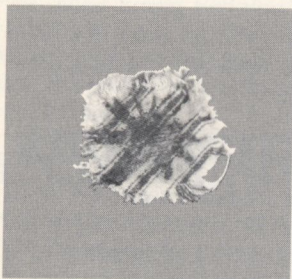


Figure 14

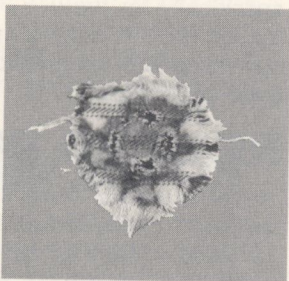


Figure 15

In addition to easing loading, lubricant should also prevent the patch material from burning. If you are not achieving acceptable results, try several different patches, lubricants and powder charges and stick with the system that proves to be most satisfactory.

CLEANING YOUR BLACK POWDER RIFLE

Black powder residue has the property of being hygroscopic. This means it absorbs moisture from the air abnormally fast. And because of this, it can cause the metal of your gun to rust in only a few short hours with serious damage (pitting) following a short time later. As you would expect, careful cleaning of your Jonathan Browning Mountain Rifle is very important.

Your Jonathan Browning Mountain Rifle requires cleaning at two different times:

- 1.** **After several shots**, the residue will build up to the point that it is affecting accuracy and making it harder to seat successive loads. A superficial cleaning is necessary to remove this built-up fouling.

Saturate a patch with water or a commercially available black powder solvent and place it over the cleaning jag that has been threaded into the end of the ramrod. Run this patch the full length of the bore several times, and follow it with several dry patches to

absorb moisture. It may also be necessary to fire a cap on the nipple to clear the nipple of any accumulated cleaning solution.

- 2. At the end of a day's hunting** or a session on the range the rifle should be given a thorough cleaning.

Remove the barrel from the stock as previously described under "Disassembly." (See page No. 28) Next, remove the nipple from the breech plug using a suitable nipple wrench.

Although there are several commercial solvents on the market, hot soapy water is traditional, and many shooters consider it the best way to clean a muzzle loader.

Place the barrel breech down in a pail of hot soapy water. With a patch placed over the cleaning jag on the end of the ramrod rapidly pump the jag and patch the full length of the barrel. Hot water will be drawn in and out of the nipple hole as you continue the up and down motion. When you are satisfied you have washed all of the residue from the barrel, flush the barrel with the hottest clean water available. This will not only remove the soap but also heats the steel to aid in the

drying process. A series of clean, dry patches should be run through the barrel to remove moisture.

Clean the nipple in the same hot soapy water using a wire of the proper size to open the hole in the nipple.

After all parts are dry they should be oiled both inside and out. Any residue on the lock, stock or other exterior surfaces of the rifle should be removed with an oily cloth.

Replace the nipple and reassemble the barrel as previously outlined under "Assembly."

REMOVING A STUCK PATCH

For one reason or another, you're bound to get a patch stuck in the barrel. While it is a perplexing problem, you can solve it yourself with any of a number of commercially available "worms" or patch retrievers. Thread the "worm" onto the end of your ramrod and insert it into the barrel. As you proceed down the barrel give the ramrod a clockwise turn. Once the patch has been snagged, withdraw the rod and continue cleaning your rifle.

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SPECIAL INSTRUCTIONS FOR CARE OF A BROWNE D FINISH

The major metal components of this rifle are finished with the authentic browning process in contrast to conventional blueing. This browning is a traditional finish that was popular during the mid 19th century. We have chosen this finish for the sake of authenticity.

The browned finish, however, requires a little extra attention to guard against rust, especially in damp, humid climates. We therefore recommend that a light film of Browning Ultra Fine Gun Oil or its equivalent be kept on all browned parts **at all times**; never wipe these parts completely dry.

Examine this rifle more frequently than you would a blued gun, and never store this rifle in the shipping carton, in a rifle case or in similar constrictive quarters.

With just this reasonable care you will easily preserve the nostalgic value of this rifle, and it will return you all the years of shooting pleasure you expect from a fine quality sporting arm.

SERVICE OR REPAIR

If your black powder rifle should require service or repairs **WE SUGGEST YOU FIRST CONTACT A LOCAL RECOMMENDED BROWNING SERVICE CENTER.** Your Browning sporting goods dealer can tell you the address of the Service Center nearest you or you may call or write our Consumer Information Department in Morgan, Utah:

Browning Morgan, Utah 84050
Route #2 Ph: (801) 876-2711

Otherwise you may return your rifle to our own repair facility for servicing. The address is:

Browning Service Department
Route 4, Box 624-B, Tenbrook Road
Arnold, Missouri 63010
Ph: (314) 287-6800

CANADIAN CUSTOMERS—Please call or write:

Browning Canada Sports Ltd/Ltée
5350 Ferrier Street
Montreal, Quebec H4P 1L9
Ph: (518) 298-8130

When returning your rifle for servicing, please **be sure it is unloaded** and packaged securely to prevent damage. Send a letter to our Service Department clearly describing the trouble experienced and the repairs desired, and enclose a copy of the letter with the rifle to facilitate handling.

OTHER BROWNING PRODUCTS

GUN CARE PRODUCTS—Gun Oil cleans, lubricates, and protects metal and bluing. It's designed to function in extreme temperatures. Available in pouring spout or aerosol can. Liquid Gunsmith is a swift penetrating, hard scrubbing bore and metal cleaner that lubricates as it cleans. Comes in aerosol cans.



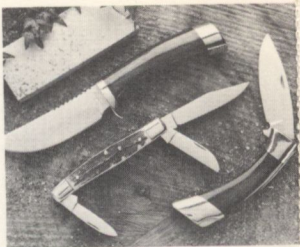
BROWNING SPORTING ARMS—World famous for handcrafted quality and dependability. Browning Sporting Arms include a complete line of shotguns, high power rifles, 22 caliber rifles and pistols in high power and small bore calibers.



BROWNING SPORTSMAN'S CLOTHING—Hunting and shooting clothing tailored for comfort, utility and style. Also hats, shooting gloves, and leather belts.



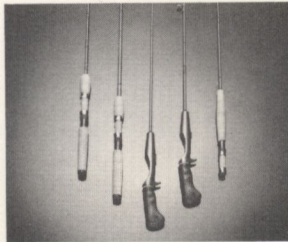
SPORTSMAN'S KNIVES—Knives to dress big game, clean fish, and handle any camp chore. Fixed blade, folding hunters, pocket knives and a fillet knife with a fine cork handle to keep it afloat. All Browning knives are crafted from specially heat treated, high carbon, stainless steel.



GUN CASES—Protect your new Browning in a choice of 3 flexible cases. They come with vinyl or canvas exteriors, soft interiors that won't scratch, and full length zippers for easy uncasing. Fitted luggage cases are available for all Browning shotguns and rifles. They're a must if your guns are subjected to a lot of abuse. They have a solid plywood frame with a Naugahyde® exterior and a nylon fleece interior.

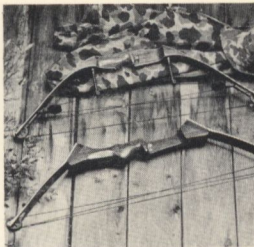


BROWNING FISHING TACKLE—You'll catch more fish whether you choose Browning Boron, Hi-Density Graphite, or Silaflex II Fiberglass. There's a rod to handle everything from ultralight freshwater to deep sea action. Browning is also the sole U.S. distributor of the famous line of Mitchell fishing reels.



BROWNING ARCHERY EQUIPMENT —

Browning compound bows give you select hardwood handle risers, limbs of hard rock maple and fiberglass laminations and eccentric cams mounted in limb notches rather than on bulky metal hangers for a faster, harder-hitting arrow. In addition to high performance hunting models, there are special light draw weight models for junior and lady archers.



BROWNING BOOTS—Browning Boots are known for their comfort and long wear. They're built from the finest leathers, with features like Vibram soles. Goodyear storm welts, Norwegian reverse welts, full glove leather linings and soft cushion insoles.



BROWNING GOLF EQUIPMENT—Whether you shoot double bogey or par, Browning's line of low profile clubs, distinctive bags, and tireless Bag Boy Golf Carts will make your game more enjoyable.



 **BROWNING**

BROWNING MARKET SURVEY CARD

Model _____

Your Name _____

Address _____

City and State _____ Zip _____

Dealer Purchased From _____

City In Which Purchased _____

Serial Number _____ Caliber _____ Grade _____

Price _____ Date Purchased _____

Your Age _____

YOUR REASONS FOR SELECTING A BROWNING

(Check one or more)

- I have used Browning Guns before
- Recommended by another Browning owner
- Recommended by my Browning dealer
- Saw an Advertisement
- Saw Browning printed literature
- Read magazine article

How many Browning Sporting Arms do you now own? _____

Suggestions for improvement: _____

WHAT MAGAZINES DO YOU READ REGULARLY?

(List in order of preference)

1. _____
2. _____
3. _____
4. _____

How many Browning Sporting Arms do you now own? _____

WHAT DO YOU INTEND TO USE YOUR NEW MOUNTAIN RIFLE FOR?

- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Display |
| <input type="checkbox"/> Competition | <input type="checkbox"/> Collecting |
| <input type="checkbox"/> Plinking | <input type="checkbox"/> Other _____ |

**HOW MANY OF THE BELOW TYPES OF
BLACK POWDER FIREARMS
DO YOU OWN?**

(Insert quantity in blocks.)

- | | |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> Handgun | <input type="checkbox"/> Shotgun |
| <input type="checkbox"/> Rifle | <input type="checkbox"/> Cannon |

WHAT TYPE OF ACTION DO YOU PREFER?

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Percussion | <input type="checkbox"/> Flintlock |
|-------------------------------------|------------------------------------|

WHAT CALIBERS DO YOU PREFER?

- | | |
|-----------------------------|--------------------------------------|
| <input type="checkbox"/> 36 | <input type="checkbox"/> 58 |
| <input type="checkbox"/> 45 | <input type="checkbox"/> 62 |
| <input type="checkbox"/> 50 | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> 54 | |

**PLEASE RATE THE FOLLOWING FEATURES IN
ORDER OF IMPORTANCE. INSERT NUMBER 1
IN BOX OF MOST IMPORTANT, NUMBER 2 IN
BOX OF SECOND MOST IMPORTANT AND SO
ON.**

- Period authenticity
- Adjustable rear sight
- Set trigger
- Adjustable trigger pull
- Optimum barrel length (specify) _____
- Optimum weight (specify) _____
- Other (specify) _____

**TO ENABLE US TO DETERMINE HOW ACTIVELY
YOU PARTICIPATE IN OTHER SHOOTING
SPORTS, PLEASE CHECK THE APPROPRIATE
BOXES BELOW.**

- I hunt upland birds more than 4 times a year.
- I hunt rabbits or squirrel more than 4 times a year.
- I hunt waterfowl more than 6 times a year.
- I hunt big game more than 2 times a year.
- I shoot skeet more than 6 times a year.
- I shoot trap more than 6 times a year.

- I shoot more than 4 "bullseye" matches a year.
- I shoot high powered rifle silhouette more than 6 times a year.
- I shoot rimfire rifle silhouette more than 6 times a year.
- I shoot handgun silhouette more than 6 times a year.
- Other (please specify) _____

Do you belong to the NRA? _____

Do you belong to the National Muzzle Loading Rifle Association? _____

Do you belong to the National Association of Primitive Riflemen? _____

Did you receive this gun as a gift? _____

PLACE
STAMP
HERE



BROWNING[®]

Route 1

Morgan, Utah 84050