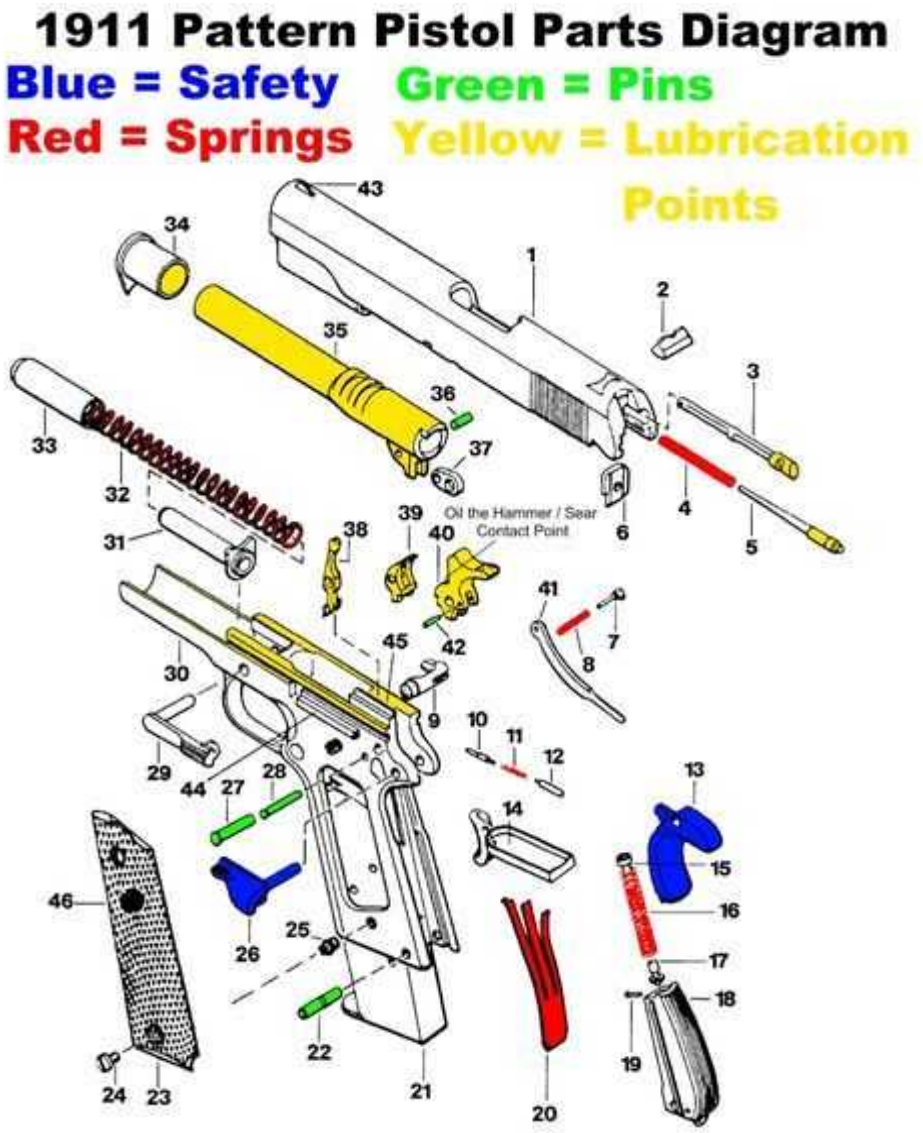
REFERENCES FOR **Blue Steel** and **Walnut Grips**



1 Slide
2 Rear Sight
3 Extractor
4 Firing Pin Spring
5 Firing Pin
6 Firing Pin Stop Plate
7 Magazine Catch Lock
8 Magazine Catch Spring
9 Magazine Catch
10 Slide Stop Plunger
11 Plunger Spring
12 Safety Catch Plunger
13 Grip Safety
14 Trigger
15 Mainspring Cap
16 Mainspring
17 Mainspring Housing Pin Retainer
18 Mainspring Housing
19 Mainspring Cap Pin
20 Sear Spring
21 Magazine
22 Mainspring Housing Pin
23 Hand Grip with Medallion
24 Grip Screw
25 Stock Screw Bushing
26 Safety Catch
27 Hammer Pin
28 Sear and Disconnector Pin
29 Slide Stop
30 Frame (Receiver)
31 Recoil Spring Guide
32 Recoil Spring
33 Plug
34 Barrel Bushing
35 Barrel
36 Barrel Link Pin
37 Barrel Link
38 Disconnector
39 Sear
40 Hammer
41 Hammer Strut
42 Hammer Strut Pin
43 Front Sight
44 Plunger Tube
45 Ejector
46 Medallion

M-1911 Operation Description

https://www.m1911.org/1911desc.htm

Colt's Model 1911 (and all its clones) is an autoloading pistol, firing from a closed breech. Like all pistols, its operation is based on the action of the gases produced when a cartridge is fired. These gases are used to cycle the slide of the pistol, whose recycling action will eject the spend cartridge case, cock the hammer and reload the next cartridge, in the pistol's chamber, for firing.

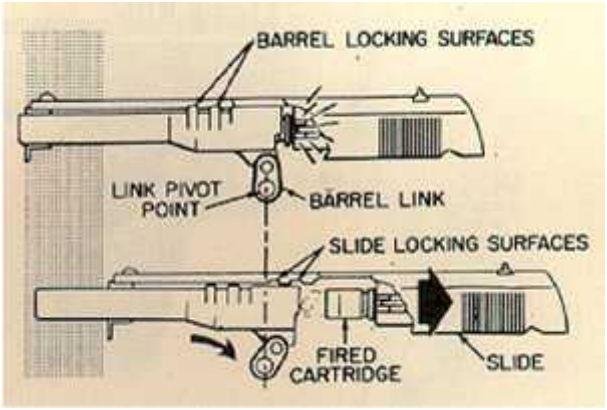
In the following paragraphs, I 'll try to describe the way the pistol works, in simple words. If you are new to the M-1911 pistol, I would suggest that you download and print a copy of the pistol's drawing so that you can identify each part described.

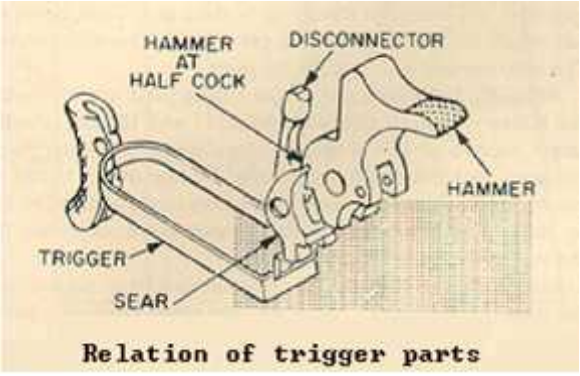
As with all the pistols I know, Model 1911 uses a magazine to hold the rounds. M-1911 mags hold 7 or 8 rounds, although there are pistols based on M-1911 design, that are of higher capacity (usually 12-14 rounds). These pistols follow the same basic principles of operation as the standard M-1911.

The operation of almost all modern pistols, is based on one of the most ingenious inventions of the firearms industry. Try for a moment to figure out, what the pistols from Colt, Sig Sauer, Glock, Smith & Wesson, CZ-75, Astra, Llama, Tokarev, Walther, Ruger etc, have in common. There is one single thing that most modern pistols share. And this is...(well? what do you expect to select this link? Remember to come back though!).**

This ingenious mechanism is the basis on which all modern pistols operate. Let's describe that function in details. Initially, a full magazine is inserted in the gun. Let's also assume for the moment, that there is already a round in the chamber. As the shooter fires the gun, the expanding gazes produced by the burning powder, inside the cartridge, start pushing the bullet down the barrel. At the same time, those same gazes, start pushing the cartridge case and hence, the locked slide and barrel to the rear. These three items, are for the time being, locked together.

By the time the bullet has exited the muzzle of the barrel (which means that the pressure inside the barrel has diminished), this last one has reached the end of its rearward travel. Due to the barrel link, which pulls the barrel down, the barrel disengages from the slide. The breech starts opening up. The slide continues to travel backwards, pulling the spend cartridge case with it, which finally ejects from the gun, when it strikes the ejector. The slide, during its rearward movement, recocks the hammer, preparing the gun for the next firing sequence.





During the rearward travel of the slide, the disconnector is also pushed down, preventing the hammer from coming forward again together with the slide, when this last one starts its forward movement again, under the force of the recoil spring. If the disconnector is not pushed downwards, preventing the hammer from following up, a burst would occur, and the pistol would fire in a fully automatic mode. As the slide is coming forward, it strips a new round from the magazine and pushes it forward to the opening of the barrel's chamber. Soon after the cartridge is fully inserted in the chamber, the slide starts pushing the barrel forward.

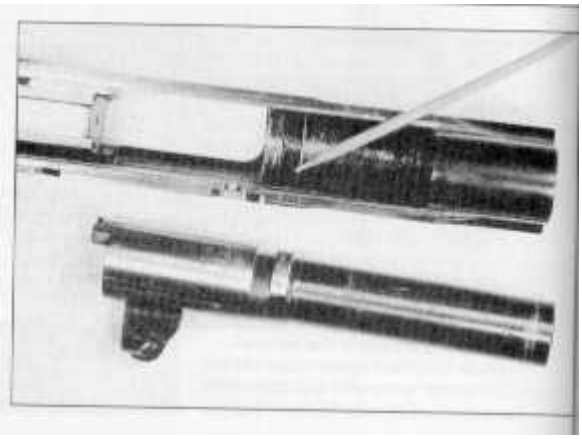
Well, this is the Tilting Barrel. **

Since before 1900, J. Browning was trying to create a mechanism, that would allow the breech of the gun to remain closed, during the moments when the pressure from the expanding gazes produced by the burning powder would be high (that is until the bullet exits from the muzzle of the barrel), but would allow the breech to open up, after the pressure drops, in order to feed a new round in the chamber.

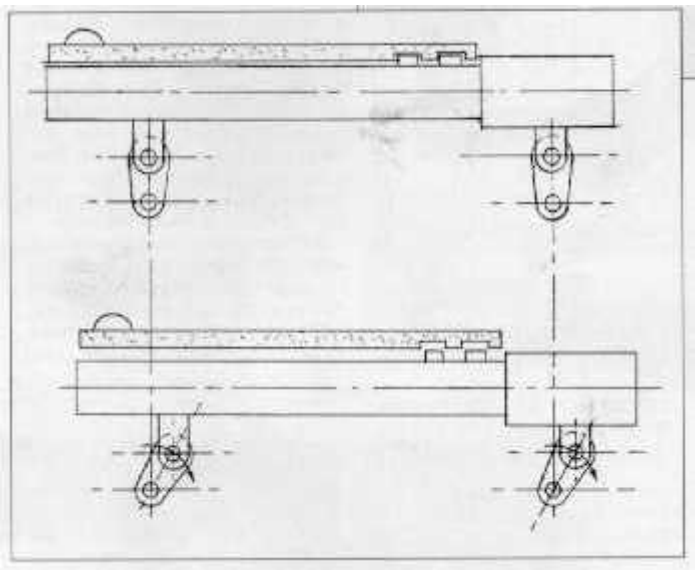
Browning initially thought of the tilting barrel. In simple words, the solution Browning improvised did three tasks :

1. The breech bolt of the gun, was transformed into a "slide" that encompassed the barrel.

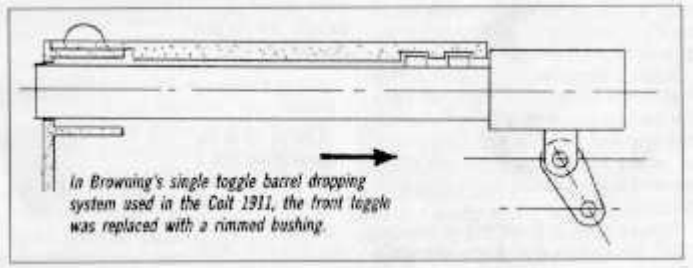
2. The pistol's barrel was locked to the slide, by means of matching ribs cut in the barrel and the slide, as shown below.



3. Two toggle links, allowed the barrel to drop free of the locking ribs, as the barrel and the slide moved rearwards, opening in this way the breech.

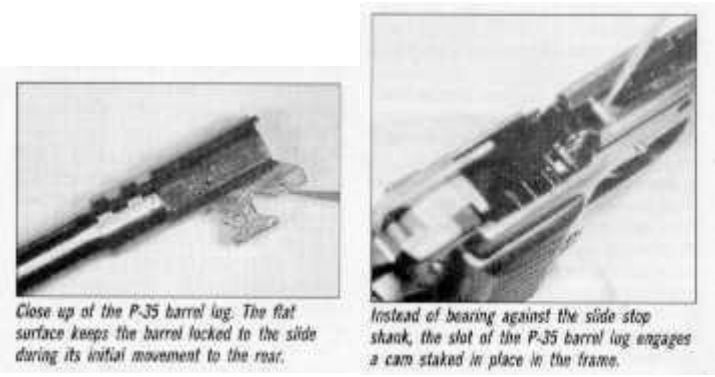


This two-link system was first used in the Colt Model 1900 pistol. It was improved later on, by eliminating the front link, and replacing it with the Barrel Bushing, in the front of the slide. That is the design that M-1911 still uses today, even though Browning still impoved on it, when he designed the Browning Hi-Power P-35, where even the bushing was eliminated, in favor of an angled opening in the front of the slide, thru which the barrel passes.



In Browning's single toggle barrel dropping system used in the Colt 1911, the front toggle was replaced with a rimmed bushing.

This ingenious design of Browning, used the simple barrel link, which was attached to the slide stop shaft, to tilt the barrel up and down. Later, again when designing the Fabrique National Hi-Power P-35, Browning improved on the tilting mechanism, by eliminating the barrel link and replacing it with a kidney-shaped opening, machined at the bottom of the rear part of the barrel, as shown below.



Close up of the P-35 barrel lug. The flat surface keeps the barrel locked to the slide during its initial movement to the rear.

Instead of bearing against the slide stop shank, the slot of the P-35 barrel lug engages a cam staked in place in the frame.

Also, more modern engineers, dispensed the locking ribs on top of the barrel, and replaced them with a simple recess in the front, upper part of the chamber (such a system is used in contemporary Glocks and Sig Sauers).

Now that you understood this simple basic principle, you should go back(click your right mouse button and select "Back in Frame") and read how it works during the firing cycle of the gun.

https://www.m1911.org/full_technic.htm

The next three pages show the functional checks in the Army Manual pages 14, 15, and 17.

therefore, for further appropriate action.

(10) Report to the responsible officer any carelessness, negligence, unauthorized modification, or tampering. This report should be accompanied by recommendations for correcting the unsatisfactory condition.

b. Specific. The specific groups and assemblies to be inspected for serviceability are listed in TB ORD 587 and also are applicable to preembarkation inspection.

c. *Safety* Tests. Perform the following safety tests as indicated in (1) through (4) below.

(1) *Safety* test *(fig. 11)*. With the pistol unloaded, **cock** the hammer and press the safety upward into the safe (locked) position. Grasp the grip so the grip safety is depressed and squeeze the trigger tightly three or four times. **If the** hammer falls, the safety must be replaced.

(2) *Grip safety test (fig. 12).* With the pistol unloaded, cock the hammer and without depressing the grip safety point the pistol downward and squeeze the trigger three or four times. **If** the hammer falls because the grip safety is depressed by its own weight, the grip safety may be corrected by **replacing** sear spring.

(3) *Half-cock position test (fig. 13 and 14).* With the pistol unloaded, draw **back** the **hammer** until the sear engages the half-cock position notch. Then squeeze the trigger. If the hammer falls, the hammer or sear must be replaced or repaired. Draw the **hammer** back nearly to full cock position. do not squeeze trigger, **and then let** thumb slip off **hammer.** The hammer ***should fall only to the half-cock notch.*** Replace hammer when it falls **past** the half-cock position.

(4) *Disconnector test.*

(a) With the pistol unloaded, cock the hammer. Push the slide group **1/4-inch** to the rear (fig. 15) and hold in that position while **squeezing** trigger. Let slide group go

Figure 11. Safety test.

Figure 12. Grip safety test.

Figure 13. Half-cock **position** *test (1 of 2).*

Figure 14. Half-cock position test (2 of 2).

forward, maintainingpressure on trigger. If the hammer falls, the disconnector is worn and must be replaced.

(b) Pull the slide group rearward until slide stop is engaged (fig. 15). Squeeze trigger and release slide group simultaneously. The hammer should not fall. If it does, replace the disconnector.

(c) Release the pressure on the trigger and then squeeze it. The hammer should then fall (fig. 15). If it does not fall, check the sear spring for weakness. Also check for a faulty disconnector which would prevent hammer from falling. The disconnector should prevent the release of the hammer unless the slide group is in forwardposition, safely interlocked. This also prevents the firing of more than one shot at each squeeze of trigger.

16. Ordnance Shop Inspections

a. ***Initial Inspection.*** Inspection procedures outlined in paragraphs 14 and 15 apply also to initial shop inspection. If materiel received in shops is not tagged to indicate the nature of the repair, steps should be taken to determine the cause of unserviceability and the estimate of parts required.

b. Troubleshooting. Table 3 lists malfunctions, probable causes, andcorrective actions. For troubleshooting within the scope of operator and organizational maintenance, refer to pertinent operator's and organizational maintenance manuals, covering materiel contained herein.

Table 3. Troubleshooting

Malfunction	Probable cause	Corrective Action
FAILURE TO FEED. The top cartridge in the magazine is not properly positioned.	Dirty or dented magazine	Clean magazine if dirty. Replace magazine if dented. (para. 25, fig. 16).
	Weak or broken magazine spring.	Replace magazine. (para. 25, fig. 16).
	Worn or broken magazine catch.	Replace magazine catch. (para. 370, fig. 30).
	Improper assembly, magazine spring backwards.	Assemble spring correctly. (para. 27).
	Bent magazine follower	Replace magazine. (para. 25, fig. 16).
FAILURE TO CHAMBER.	Obstruction or dirty chamber.	Clean chamber. (para. 19*b*).
	Weak recoil spring	Replace recoil spring. (para. 32 *f*, fig. 18).
FAILURE TO LOCK. The barrel locking ribs do not interlock with the locking recesses in the slide.	Lack of lubrication of operating parts.	Apply oil to parts, lightly. (para. 23*b*).
	Burred or dirty barrel locking ribs or locking recesses.	*Stone* rough edges, clean barrel locking ribs. (para. 32*a*).
	Weak recoil spring	Replace recoil spring. (para. 32*f*, fig. 18).
	Broken barrel link	Replace link. (para. 32*d*, fig. 19).
FAILURE TO FIRE. The hammer falls but the primer of the cartridge is not ignited.	Broken firing pin	Replace firing pin. (para. 32*e*, fig. 20).
	Bent or broken hammer strut.	Replace strut. (para. 37*e*, fig. 27).

POSITIONING SLIDE GROUP TO DETERMINE IF DISCONNECTOR IS WORN.

SLIDE GROUP IN REARWARD POSITION, PREPARING TO RELEASE SLIDE STOP.

SLIDE GROUP IN FORWARD POSITION PRIOR TO TESTING HAMMER.

ORD F7630

Figure 16. Disconnector test.

Safety Checks for the 1911

By their nature, *all* firearms have the potential to be unsafe if *not* working properly. Here are a few easy tests by which to check the 1911. Before trying any of these, make sure the pistol is *unloaded*.

1. With the magazine removed, lock the slide back using the slide stop lever. Let the slide slam shut on an empty chamber three times in a row. The hammer should remain fully cocked. If it drops, the sear spring might be weak, but more probably the sear/hammer hook engagement is *not* correct. If the hammer did fall, it *should* have been caught in the half-cock position. The hammer should have been prevented from striking the firing pin. Letting the slide slam shut on an empty chamber is *not* good for the gun, but necessary for the safety check. Three times shouldn't hurt it, but I wouldn't repeat it in significant numbers.

2. With the hammer cocked, engage the thumb safety. Press the trigger firmly. Disengage the thumb safety. The hammer should *not* move at all. If it does, the safety/sear engagement is *not* correct, and the sear is being moved slightly even with the thumb safety applied.

3. Push the thumb safety down and "off safe" on your cocked (and EMPTY) 1911. Alter your grip so that the grip safety is *not* depressed. In other words, the grip safety is "on". Press the trigger. The hammer should *not* fall. The grip safety blocks movement of the trigger bow; if the hammer falls, there is no engagement between it and the bow.

4. Cock the hammer on your 1911. Pull the slide rearward approximately a quarter of an inch and hold it there. Press the trigger. The hammer should *not* fall. If it does, the disconnector is *not* being depressed far enough. This could allow the gun to fire when not in complete lock up.

If a 1911 passes all of these tests, it *probably* means that it is in safe working order. In addition, I suggest occasionally checking all parts of the pistol for wear or possible cracks or breakage. I do it each time I clean the pistol. It also doesn't hurt to "check" the gun's "primary safety" by remembering:

1. All guns are *always* loaded unless you've personally checked them yourself and it has *not* left your control.
2. Keep your finger *off* the trigger until ready to fire.
3. Do *not* let your muzzle cross anything or anyone you're not willing to see destroyed.
4. Be *sure* of your target…and what's beyond.

If your 1911 seems unsafe in *any* form or fashion, have it checked ASAP by a competent gunsmith.

The Shooter's Guide to the 1911 Pattern Pistol by Stephen A. Camp (2004)

Function Checking an M-1911

https://www.m1911.org/technic25.htm

The following steps are necessary when evaluating any M1911-type pistol that you plan on purchasing, in order to verify that the pistol is in safe working condition. Even if you have no plans to ever shoot the pistol, by verifying the working condition of the gun you will get an idea as to its true condition, and also feel assured that you are buying a real working firearm and not just an expensive paperweight. If the pistol fails these safety checks and you plan on purchasing it anyway, you MUST either have it repaired by a competent pistolsmith or else make sure that live ammunition is never fired in the pistol. Either find a tasteful way to mark it as being "not safe to fire", or else disable the firing mechanism completely.

It should also be understood that merely passing these safety checks does NOT guarantee that the pistol in question is safe to fire. Due to other factors such as improper headspace, metallurgical flaws, etc. it is still necessary to have a pistolsmith check the firearm over before firing live ammunition in it. These safety checks are merely for your use at the time of sale, in order to do a quick verification that there is nothing seriously wrong with the pistol. Once again, have a pistolsmith check over ANY used gun you buy before taking it to the range!

SAFETY WARNING: Performing these checks involves actuating the pistol's firing mechanism. DO NOT attempt any of these checks if you are not completely familiar with the operation of a 1911-type handgun. These checks are also only applicable to U.S. military-issue M1911/M1911A1 pistols, NOT any other types or models of firearms even if they may appear similar in appearance or operation. DO NOT ATTEMPT THESE CHECKS UNTIL AFTER YOU HAVE MADE ABSOLUTELY CERTAIN THAT THE GUN IS UNLOADED. IF YOU ARE NOT SURE HOW PROPERLY UNLOAD THIS TYPE OF PISTOL YOU MUST FIRST SEEK THE ADVICE OF A QUALIFIED INDIVIDUAL. THE AUTHOR OF THIS WEBSITE HAS NO CONTROL OVER YOUR USE OF COMMON SENSE AND KNOWLEDGE OF FIREARMS, AND AS A RESULT NO LIABILITY IS EXPRESSED NOR IMPLIED. Safety involving the following procedures is SOLELY the responsibility of, and can be controlled only by the person actually handling the firearm.

SAFETY FIRST : DO NOT attempt any of the following safety checks until you have made ABSOLUTELY certain that the gun is unloaded! Point the gun is a safe direction, then:

1. FIRST completely remove the magazine.

2. Lock the slide back, engaging the slide stop.

3. LOOK into the chamber to ensure that no live round is present. Feel into the chamber with the tip of your little finger if you have to.

Even after verifying that you are holding an unloaded gun, always keep the pistol pointed in a safe direction while performing the following tests.

	BASIC TEST: Slide forward, hammer cocked, thumb safety off, holding pistol normally with firing hand. Pull trigger-hammer should fall.
	FUNCTIONING TEST: Still holding gun in the firing hand, leave trigger pressed and pull slide back.
	Release slide, keeping trigger pressed. Hammer should now be fully cocked. Release trigger, then pull it again. Hammer should fall.

HALF-COCK TEST: Using thumb, pull hammer back until the first audible click. Hammer should be at half-cock notch. Grip gun normally, attempt to pull trigger. Hammer should NOT fall for any reason, unless the gun is a Series 80 commercial. These guns have a re-designed half-cock notch that engages near the at-rest position, thus the hammer cannot fall hard enough to strike the firing pin with force.

MILITARY GUNS WILL ALWAYS USE THE OLDER HALF-COCK NOTCH, WHICH SHOULD NEVER ALLOW THE HAMMER TO FALL.

SEAR ENGAGEMENT TEST: Lock the slide back, grip gun normally, then release the slide stop, allowing slide to slam home with force. The hammer should NOT fall for any reason. If it does then the hammer/sear engagement is too weak. Repeat test once again to be sure.

Note: The gun's current owner may not appreciate seeing the slide being slammed home on an empty chamber in this fashion, even though it is a critical safety check. Tell the owner what you intend to do beforehand and why, and limit it to one or two attempts.

THUMB SAFETY CHECK: Holding gun normally with firing hand, slide forward, hammer cocked, thumb safety ON. Attempt to pull trigger. The hammer should not fall, nor should you feel any perceptible movement of internal parts. If you squeezed the trigger and it didn't come to a quick, hard stop (i.e. the trigger felt mushy) then there may have been some sear movement.

Release trigger, disengage thumb safety. Hammer still should not fall. If it does the thumb safety and/or sear is faulty.

	GRIP SAFETY TEST: Hammer cocked, slide forward, thumb safety OFF. Hold the gun so as to not depress the grip safety. Attempt to pull trigger. Hammer should not fall. If it does the grip safety is worn or has been deactivated.
	DISCONNECTOR TEST: Slide forward, hammer back, thumb safety OFF. Grip gun normally with firing hand, while pulling slide back 1/4" with support hand. Pull trigger. Hammer should not fall. Repeat test by pulling slide all the way back, then releasing it slowly, pulling trigger every 1/2" of slide movement. The hammer should NOT fall until the slide has returned to the full forward position. If it does then the disconnector is worn. DO NOT fire the pistol until it is repaired, or else it may possibly go into firing uncontrollable bursts or go completely "full-auto".

http://sightm1911.com/lib/tech/inertial_discharge.htm

Inertial Discharge of the M1911 Pistol

By John De Armond

Others said:

#>> Ever dropped a 1911A1 on the muzzle? #>
#> Good point, bad example. M1911A1 is one of the safest pistols wrt accidental
#> discharge, with three distinct safety mechanisms.
#None of which does the least bit of good when you drop one muzzle first.
#The floating firing pin can slam forward with enough force to fire the
#gun when dropped on concrete, or other hard surface, muzzle first. The
#new Series 80 with the firing pin block brings the 1911 style into the

#late twentieth century by preventing this problem. Most other modern
#pistols don't suffer from this defect.

I've heard this bad rap against the 1911A1 (henceforth referred to as Colt) many times both in this group and in the magazines. That dropping a Colt on its muzzle being capable of igniting a primer goes contrary to my intuition. I finally decided to test this theory. I have done two tests. The first tries to scale the problem. The second involves actually dropping a gun.

Test #1 is to determine how much force is required to compress the firing pin spring sufficiently for the business end to protrude from the bolt face. Once this value is determined, the firing pin can be weighed and the number of Gs required to exert this force can be computed.

The test firearm is a box-stock Series 70 Colt Gold Cup. It was freshly cleaned and all oil film that could be wiped off was. The test setup is simple. I clamped the slide in a vice with the rear pointing up. A small drift was placed against the firing pin and Orhaus lab weights were stacked on the firing pin until the spring was compressed sufficiently that the firing pin barely protruded from the bolt face. Then the drift was weighed on an Orhaus triple beam balance and the weight was added to the lab weights weight. Finally the firing pin was weighed on the same balance. Results:

Firing pin weight: 4.4 grams

Total weight required: 506 grams

Computed G force: 506/4.4 = 115 G

Note that this is the minimum force needed to make the firing pin barely protrude. This does not account for the force required to actually fire the primer. I tried to get a rough idea of what this force is by putting a primer that had been inserted in a case, placed the casing in a barrel and slide assembly minus the firing pin spring and then placed weight on the firing pin sufficient to cause the first dent in the primer. The primer was a Winchester large magnum pistol primer. I ran out of weights at 4 kg. No dent. That would be equivalent to about 1000 G of force. If anyone has factory specs on the required primer force, I'd love to have them.

Keep in mind, that these static tests do NOT account for the pretty significant aerodynamic counterforce involved with a firing pin propelled at sufficient velocity to fire the primer. Once the firing pin protrudes into the bolt hole, the pin and bolt forms a fairly tight cylinder with air trapped inside. This damps the pin and absorbs some portion of the force.

Based on these results, I got brave and proceeded on to the next test. An old slide, bushing, barrel and the Gold Cup firing pin and spring were assembled. A case with a live primer was chambered and the whole assembly was duct taped to make sure the barrel stayed in battery. Then the whole assembly was dropped muzzle first down various lengths of pipe onto my asphalt driveway. The pipe guided the assembly and made sure the muzzle remained pointed straight down.

The longest pipe I could find was 15 feet long. Several drops from this altitude failed to fire the primer. The primer was marked but not enough to call it a dent. I did one more drop with the firing pin spring removed. The primer was dented pretty severely but it did NOT detonate. I suspect that with several drops, one or more might fire the primer. I got bored and my slide was getting boogered up so I stopped with the one drop.

Based on these tests, I feel confident in saying that there just ain't no way dropping a Colt on its muzzle is going to inertially discharge the thing. I could believe that dropping a tinkered-with or hot-rodded gun could cause the sear to break, dropping the hammer and firing the gun. I would believe that people who cause ADs would claim that dropping the gun caused it 'cuz they were embarrassed. But I would have major doubts that dropping a gun even with the firing pin spring removed would do anything.

Methinks the Colt has gotten a very bad rap and that the firing pin blocking gimmick placed on Series 80 and subsequent Colts is just that – a lawyer gimmick. Looks to me like the original Colt designers did their homework.

— John De Armond,

The Conditions of Readiness http://sightm1911.com/Care/1911_conditions.htm

The legendary guru of the combat 1911, Jeff Cooper, came up with the "Condition" system to define the state of readiness of the 1911-pattern pistol. They are:

- Condition 0 – A round is in the chamber, hammer is cocked, and the safety is off.
- Condition 1 – Also known as "cocked and locked," means a round is in the chamber, the hammer is cocked, and the manual thumb safety on the side of the frame is applied.
- Condition 2 – A round is in the chamber and the hammer is down.
- Condition 3 – The chamber is empty and hammer is down with a charged magazine in the gun.
- Condition 4 – The chamber is empty, hammer is down and no magazine is in the gun.

The mode of readiness preferred by the experts is Condition One. Generally speaking, Condition One offers the best balance of readiness and safety. Its biggest drawback is that it looks scary to people who don't understand the operation and safety features of the pistol.

Condition Two is problematic for several reasons, and is the source of more negligent discharges than the other conditions. When you rack the slide to chamber a round in the 1911, the hammer is cocked and the manual safety is off. There is no way to avoid this with the 1911 design. In order to lower the hammer, the trigger must be pulled and the hammer lowered slowly with the thumb onto the firing pin, the end of which is only a few millimeters away from the primer of a live round. Should the thumb slip, the hammer would drop and fire the gun. Not only would a round be launched in circumstances which would be at best embarrassing and possibly tragic, but also the thumb would be behind the slide as it cycled, resulting in serious injury to the hand. A second problem with this condition is that the true 1911A1 does not have a firing pin block and an impact on the hammer which is resting on the firing pin could conceivably cause the gun to go off, although actual instances of this are virtually nonexistent. Finally, in order to fire the gun, the hammer must be manually cocked, again with the thumb. In an emergency situation, this adds another opportunity for something to go wrong and slows the acquisition of the sight picture.

Condition Three adds a degree of "insurance" against an accidental discharge since there is no round in the chamber. To bring the gun into action from the holster, the pistol must be drawn and the slide racked as the pistol is brought to bear on the target. This draw is usually called "the Israeli draw" since it was taught by Israeli security and defense forces. Some of the real expert trainers can do an Israeli draw faster than most of us can do a simple draw, but for most of us, the Israeli draw adds a degree of complexity, an extra step, and an opening for mistakes in the process of getting the front sight onto the target.

Using the "half-cock" as a safety

The half-cock notch on the M1911 is really intended as a "fail-safe" and is not recommended as a safety. However, it has been used as a mode of carry. From Dale Ireland comes this interesting piece of service history from WWII:

When the hammer is pulled back just a few millimeters it "half cocks" and pulling the trigger will not fire the gun [on genuine mil-spec G.I. pistols]. I imagine this is an unsafe and not a recommended safety position. The reason I bring it up however is that it was a commonly used position especially by left-handers in WWII. My father carried his 1911 (not A1) to Enewitok, Leyte, first wave at Luzon, the battle inside Intramuros, and until he was finally shot near Ipo dam. He tells me that he regularly used the half cocked safety position especially at night and patrolling because bringing the weapon to the full cocked position from the half cocked created much less noise and he was left handed so he couldn't use the thumb safety effectively. He said using the half cocked position was all about noise reduction for lefties while maintaining a small amount of safety that could quickly be released.

Again, the half-cock is intended as a fail-safe in the event that the sear hooks were to fail, and it is not recommended as a mode of carry. It should also be noted that on guns with "Series 80" type hammers, the hammer will fall from half-cock when the trigger is pulled. This would include guns from Springfield Armory and modern production Colts. But, if you happen to be a south paw and find yourself in the jungle with a G.I. M1911A1 and surrounded by enemy troops, the half-cock might be an option.

For more detailed discussion of the safety and internal functions of the M1911, see "Is Cocked and Locked Dangerous?"

Is “Cocked and Locked” Dangerous?

http://sightm1911.com/lib/tech/cockedandlocked.htm

Cocked and Locked 1911

By Syd

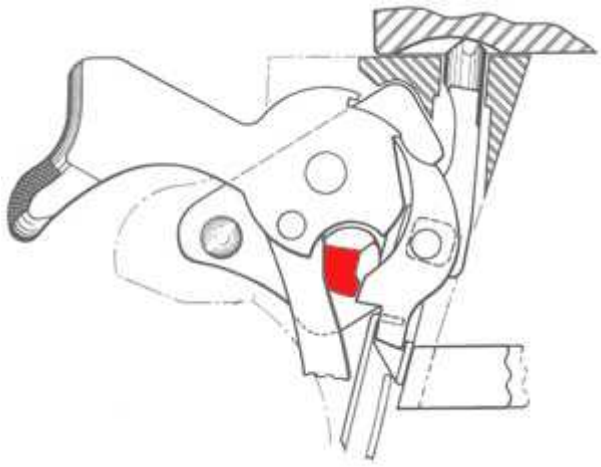
Q: The one and only problem I’ve ever had with the classic 1911 is having to carry “cocked & locked.” In your opinion, are the double action only models offered by Para-Ordnance the way to go when safety is concerned?

There are really two parts to your question so I’ll deal with them separately.

First, yes the P-O LDA is an excellent option when the cocked and locked 1911 is a problem. Charles Riggs wrote a nice article for me on the LDA which addresses this:

http://www.sightm1911.com/lib/review/para-ord-745.htm

Second, I believe that the concern about the safety of the “cocked and locked” (condition 1) pistol is more a matter of perceptions than reality. It looks scary. When you’re new to the 1911, it feels scary. I started out with wheel guns and it took me some time to get used to cocked and locked. But, given the huge number of M1911 pistols which are out there in service, you would think that we would hear more about accidental discharges if this were a problem. The fact is that we don’t because they don’t go off by themselves. I have only heard one story from one police officer who claimed one went off in his holster when it bumped against a banister as he descended a set of stairs, but when I pushed him for details, he refused to say anything more. He wouldn’t tell me the kind of holster, if the gun had been modified, its state of repair or any other circumstances. This led me to believe that he was either blowing smoke or there was something about the gun he didn’t want to tell me.



Safety On 1911

What do we mean by “cocked and locked”? The M1911 pistol is loaded by inserting a charged magazine and racking the slide. This action chambers a cartridge and cocks the hammer of the pistol. The thumb safety is then pushed up toward the sight. This “locks” the pistol. The safety is on and the slide will not move. Inside the gun, a piece of the safety rotates (red area in diagram) and blocks the base of the sear which prevents the sear from releasing the hammer. If the sear hook on the hammer were to break, the sear would be captured by the half-cock notch preventing an accidental discharge. The stud that locks the sear will also not allow the hammer to fall if the safety is engaged.

But what about the cocked and locked pistol taking a hard hit on the hammer? Could it go off then? Listen to this report from Terry Erwin:

“About ten years ago, I was working as an armed-plain clothed-security officer. During a struggle with an arrested subject the Combat Commander I was carrying cocked and locked, holstered in a Bianchi “Pancake” on my strong side hip, struck the center door jam of a set of double doors. The center door jam was knocked loose, and two belt loops were torn off of my jeans. The hammer was bent inward and the safety would not move. A gunsmith had to press out the safety, hammer pin, and sear pin. The edge of the sear had cracked off, and a piece of one hammer hook also cracked off. The gun did not discharge upon that impact. I have carried several Colt’s, including that repaired Commander for most of my adult life, and have never once worried about the weapon (myself or someone else is a different story, but not the gun).”

The 1911 is a single action semi-automatic pistol so it has to be cocked in order to fire. People deal with this in one of three ways: cocked and locked (condition 1), or they chamber a round and carefully lower the hammer (condition 2) so they have to thumb cock the gun to fire it, or they carry it with an empty chamber and rack the slide when they bring it into action (condition 3). I would advise either condition 1 or 3 for home defense, but not condition 2. I don’t advise condition 2 under any circumstances. (For more discussion on the conditions see “The Conditions of Readiness”) If you are only using the gun for home defense, there is nothing wrong with leaving it in condition 3 with a loaded magazine but with an empty chamber – as long as you have the presence of mind to load the weapon under stress. (Don’t give me a “duh” on that one because weird things happen to one’s mind when someone is trying to get into your house at 3 AM).

When the gun is cocked and locked, the sear is blocked from releasing the hammer. Further, unless a firing grip is on the pistol, thumb safety swept off, and the trigger is pulled, the gun will not go off. For my money, this is much safer than a Glock or some of the other new pistol designs which have no external safety. The Glock, by the way, is also pre-cocked which is why it can have a much lighter trigger than a real double action gun. It could be said that the Glock is “cocked and unlocked” which is called “condition zero” with the M1911. Anecdotally, we hear of many more “accidental discharges” with Glocks than with M1911 pattern guns. The 1911 has two manual safeties. It may look scary, but it is really much safer than many current designs.

If an M1911 has been butchered internally, all bets are off, and I have seen a couple like that. But if the gun is in good repair, it is safe and will not go off unless the thumb safety is swept off, a firing grip is on the handle, and the trigger is pulled. If you buy a used M1911 pattern pistol, be sure to have it checked out by a competent gunsmith just to insure that the gun has not been modified or made dangerous by a tinkerer and that it is in good working order.

A sideline: of the pistols I have carried, the M1911 is the only one I carry with the safeties engaged. I carry S&W and Beretta DA/SA guns with the safety off. Glocks and wheel guns don't have a safety at all (and no, I don't consider the trigger flange on the Glock a real manual safety). In this respect, the cocked and locked M1911 is the safest pistol. It is unique in the fact that it has not one but two manual safeties which have to be acted upon to make the gun fire.

Now, to argue the other direction for just a second, do I feel safer with a true DA/SA with a firing pin block and a manual safety like a S&W or Beretta? Yes, in an absolute sense, I do when I'm in the world of theoretical possibilities, but again, I think this is more a matter of feeling than reality. Some weird combination of events could conspire to take the safety off, push down the grip safety and pull the trigger all at the same time, but I can't visualize what that circumstance would be. Nevertheless, when I'm backpacking and I know the gun may have to ride in my backpack and flop around in a tent with me, I will often carry a S&W DA/SA just because some of these strange possibilities come to mind. For the purposes for which a gun is needed, I feel safer with the M1911 because I know I'm going to shoot it better and faster than these other options.

I have seen "accidental discharges" with M1911's, but without exception they have been instances in which the finger was on the trigger or the fire control group had been modified by an incompetent. I have yet to document a single case in which an M1911 simply experienced a catastrophic failure and went off while cocked and locked. And I do hunt for such stories because this is a concern for a lot of people.

Another interesting "safety feature" of the M1911 was first observed by Massad Ayoob. In the event that a bad guy might get your gun away from you, confusion about the controls of the cocked and locked M1911 could cause him enough hesitation to give you a chance to either get the gun back or flee. The current generation of thugs have cut their teeth on double action semi-autos and revolvers and many do not know how the M1911 operates. Ayoob tested this with people who were unfamiliar with pistols by giving them unloaded pistols of various designs and measuring how long it took them to figure out the controls and make the hammer drop. The M1911 proved to be considerably slower to fire than double action guns in the hands of those who are unfamiliar with the gun.

Q: Is the cocked and locked M1911 a problem for people who are new to firearms and want to keep one for home defense?

In my opinion, cocked and locked does not present either a safety or handling problem. In fact, I would be inclined to argue the other way, that it is very intuitive and simple, and very quickly brought into action. 90 years of successful service tends to bear this out. All you have to do is to sweep the thumb safety down with your thumb and the gun is ready to fire. It is a natural motion and people learn it quickly.

Other issues come into play when you're considering keeping an 1911 loaded for home defense, such as if you have small children in the home and how much access your friends have to your home, but there is nothing inherently dangerous with having a cocked an locked gun at the ready. If you have really small children who are too young to train on firearms safety, then condition 3 – empty chamber – is definitely the way to go because the child will not know to rack the slide to load it and they will lack the strength in their hands and arms to do it. If you are a very social person who has a lot of parties and people running through your house all the time, then you really should wear it, concealed of course, so that the pistol is under your immediate control and you don't have to worry about someone finding it and doing something stupid. If that's not possible, lock it up or find a smarter circle of friends who won't go through your stuff when you're not looking.

Finally, the real cure for cocked and locked anxiety is to get "un-new" to the gun. Shoot it, get used to it, learn it so that you don't have to think about it. Familiarity will dispel that anxiety. Get some training if at all possible. Pistols really require some training and practice to use effectively. A good training session with a qualified professional trainer

will help to separate the fact from the fantasy about what you can actually do with your pistol when the chips are down.
I feel that the 1911 is the fastest, best shooting pistol which has ever been built, but that doesn't mean that there aren't some other good designs out there. You should be comfortable with your gun, and if you just can't get over that fear about the cocked hammer, find another gun that feels good to you. I love the 1911 because of the way it shoots, but I had some nervousness with them when I was new to them. Practice and familiarity made it go away.

"Due to misplaced concerns about safety and liability, the police have shunned the Condition One (Cocked and Locked) SA auto, mostly in favor of DA autos that aren't any easier to use than a DA revolver. Claims that the SA auto is unsafe or requires special training are hogwash, something that too many people accept without challenge. And if you don't believe it, come see me at any CTASAA course and I'll prove it to you." – Chuck Taylor

THEORY OF OPERATION COLT .45 ACP GOVERNMENT MODEL PISTOL

1. Each time a cartridge is fired, the parts of the pistol function in a given order. The cycle of functioning is divided into eight steps. It should be kept in mind that more than one step may occur at the same time. Assume for the purposes of this discussion that a loaded magazine is in the weapon and a live cartridge is in the chamber. The hammer is fully cocked, the safety lock is off, the grip safety is depressed, the trigger is squeezed and the round is ignited. The cycle of functioning begins.
1. Feeding As the slide moves to the rear due to the force of recoil, the underside of it clears the top of the magazine. The magazine follower, under pressure from the magazine spring, forces the top round up against the lips of the magazine. This places the top round in position to be picked up by the face of the slide during its forward movement.
2. Chambering – At the termination of the rearward movement of the slide, the expanding recoil spring forces the slide forward. The lower portion of the face of the slide passes between the lips of the magazine, strips the top cartridge from the magazine and pushes it to the bullet ramp and up into the chamber. During this movement, the base of the cartridge slides up the face of the slide. At this time, the extractor enters the extracting groove in the head of the cartridge. Chambering is complete when the cartridge is fully seated in the chamber and the face of the slide is against the rear extension of the barrel.
3. Locking – After chambering is completed, the slide continues forward and pushes the barrel forward. As the slide continues to exert force against the rear of the barrel, the barrel pivots up and forward of the barrel link. At this time, the locking ribs on the barrel enter the locking recesses in the underside of the slide. The forward movement of the recoiling parts terminates when the barrel lugs strikes the slide stop pin.
4. Firing – When the grip safety is depressed and the trigger is squeezed, the trigger bar presses against the disconnector which in turn transmits this movement to the sear. The sear rotates on the sear pin and disengages from the full cock notch of the hammer. The expanding mainspring pushes the hammer strut up, rotating the hammer to rotate forward on the hammer pin and strike the firing pin. The inertia firing pin travels forward, compressing the firing pin spring. The firing pin moves through the firing pin well in the face of the slide and strikes the cartridge's primer. The primer ignites the propellant and the expanding gases force the bullet through the barrel. The firing pin spring expands and withdraws the firing pin from the face of the slide.

5. Unlocking – As the gases expand, equal pressure is exerted in all directions. These gases force the bullet down the barrel and force the slide to the rear. As the slide moves to the rear, it carries the barrel with it. The barrel link pivots about the slide stop pin, which is attached to the stationary receiver, and draws the barrel downward as well as to the rear. As the barrel is pivoted downward, the barrel locking ribs are disengaged from the locking recesses in the slide and unlocking is completed.
6. Extracting – The slide continues its rearward movement and the extractor, engaged in the extracting groove of the cartridge, withdraws the cartridge case from the chamber. Extracting is completed as the cartridge clears the chamber.
7. Ejecting – As the slide continues to move to the rear, the cartridge case, which is held against the face of the slide by the extractor, strikes the ejector on the receiver, pivots on the extractor and is ejected from the pistol through the ejection port.
8. Cocking – Cocking begins as the slide starts rearward in recoil. The firing pin stop pushes the hammer rearward and the hammer strut is pushed down against the mainspring cap, compressing the mainspring. Rearward movement of the slide terminates as the lower projection of the slide strikes the recoil spring guide. The expanding recoil spring causes the slide to begin its forward movement. As the slide moves forward, the hammer follows the slide for a short distance; then the sear, which is bearing against the hammer through the action of the sear spring, enters the full cock notch of the hammer and holds it in the cocked position. When the slide is fully forward and the trigger is released, the disconnector positions in its recesses in the bottom of the slide and cocking is completed.
Source for the above information: Guidebook for Marines – 14th edition

DISCONNECTOR, SEAR, SEAR SPRING AND SAFETY LOCK OPERATION

http://sightm1911.com/lib/tech/theory_op.htm

DISCONNECTOR

1. The disconnector sits forward of the sear. There is a paddle on the bottom of the disconnector. When the slide is in battery (at its most forward position), the top of the disconnector rides up to fit in a 0.4 inch long slot in the bottom of the slide. The “rest” or “up” position of the disconnector causes the top of the disconnector to be exposed about 0.06 inches above the frame.
2. The paddle area of the disconnector is pressed by the disconnector spring prong against the back of the trigger bow.
3. When the slide is in battery with a live round in the chamber, the hammer cocked, the safety lock off, the grip safety depressed and the trigger pulled, the rear lateral bar of the trigger bow presses against the front side of the disconnector’s paddles. The disconnector begins to pivot around the sear pin. As the rear side of the disconnector’s paddles move aft, they contact the forward side of the sear’s feet. The sear’s feet move rearward as the sear begins to pivot, along with the disconnector, around the sear pin. As the sear’s feet are pushed rearward, the sear’s beveled nose moves forward. The beveled nose is engaged in the hammer’s notches. When the sear has been rotated enough to cause the sear’s beveled nose to withdraw from the hammer’s full cock notches, the hammer, under mainspring pressure directed up the hammer strut, moves rapidly forward. The hammer strikes the firing pin, which in turn strikes the primer, and the cartridge is fired.
4. When the slide is drawn rearward, whether manually or by the force of the recoil, the top of the disconnector is pressed downward. The paddles at the bottom of the disconnector, which normally rest just in front of the bottom feet of the sear, move downward as the top of the disconnector is depressed by the slide and the disconnector’s paddles clear the feet of the sear, When the disconnector’s paddles clear the sear’s feet, pulling the trigger will not move the sear at all.

SEAR

1. The purpose of the sear is to hold the hammer back by having the sear's beveled nose inserted into either the half cock or full cock notches of the hammer. When the sear is in the half cock notch of the Series 70 and earlier pistols (with the safety lock off and the grip safety depressed), pulling the trigger will not cause the sear to move out of the half cock notches and permit the hammer to fall. In the Series 80 pistols, pulling the trigger with the hammer at the half cock position will permit the hammer to safely fall to the "rest" position.
2. When the sear is in the full cock notches of the hammer (with the safety lock off and the grip safety depressed), pulling the trigger causes the sear's nose to move out of the full cock notches and permit the hammer to fall against the firing pin.

SEAR SPRING

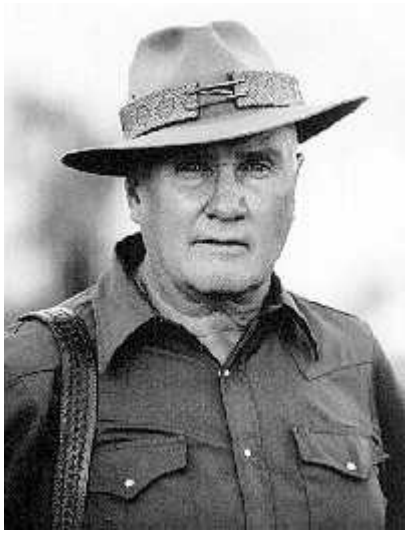
1. The sear spring is a three pronged spring which fits into a slot in the mainspring housing area at the rear of the frame. The left spring prong is the actual sear spring, the center prong is the disconnector spring and the right prong is the grip safety spring. There is a 90ø bend at two places in the spring. The bottom end of the spring has a 90ø bend in it to permit it to slip into the slot in the rear of the frame. This acts to anchor the spring unit. The other 90ø bend is on the sear spring prong and is provided to permit the spring prong to ride on the minimum possible surface area of the sear's left foot.
2. The sear spring prong presses forward against the rear of the left sear foot, which causes the sear's beveled nose to push rearward with force. This engages the sear firmly in the hammer's notches.
3. The disconnector spring prong presses forward against the rear center of the disconnector's paddle area. This moves the paddles forward and positions the disconnector's paddle area about 0.2 inches forward of the rear of the sear's feet. The front of the disconnector paddle area presses forward against the rear of the lateral bar on the trigger bow and forces the trigger to move to its most forward position. Thus, the disconnector spring prong acts as a trigger return spring as well as serving to rotate the paddles of the disconnector forward of the sear's feet.
4. The grip safety spring prong is arched rearward. The tip of the grip safety spring prong rides below a bar on the right forward side of the grip safety. The grip safety pivots about the safety lock pin. The bar on the right forward side of the grip safety has a cutout in it, creating a protruding tip.
5. When the pistol is at rest with no forward pressure being applied against the rear of the grip safety, the rearward acting pressure of the grip safety spring prong pushes against the forward side of the grip safety. This causes the top of the grip safety to pivot forward. As it pivots forward, and the rear section of the grip safety pivots rearward, the tip of the bar on the right forward side side of the grip safety lowers against the right side of the rear of the lateral bar on the trigger bow. Because the tip is aligned behind the trigger bow, the trigger cannot be pulled.
6. When the grip safety is being normally depressed by the web of the shooting hand, the lower section of the grip safety pivots forward (the top section pivots rearward) and the tip of the bar on the right forward side of the grip safety moves above the lateral bar on the trigger bow. Since there is now no restraint against the trigger bow, the trigger may be pulled rearward to fire the weapon.
7. As soon as the forward acting pressure from the web of the shooting hand is released, the grip safety pushes rearward against the grip safety body and again causes the pivoting action of the grip safety to position the tip of the bar against the rear of the trigger bow.

SAFETY LOCK

The safety lock is located on the left side of the frame. Its purpose, when engaged, is to prevent the sear from moving when the trigger is pulled and the hammer is in the full cock position. On the inside portion of the safety lock is a stud which will move to the shoulder area of the sear (that portion of the sear directly above the feet) when the safety lock is moved upward to the engaged position. The safety lock cannot be engaged unless the hammer is in the full cock position.

This article was compiled by Richard M. Bash of Combat Arms,
2869 Grove Way, Castro Valley, California 94546-6709, telephone (415) 538-6544.

Favorite Quotes from Jeff Cooper


Col. Jeff Cooper

“We are steadily asked about the age at which to teach young people to shoot. The answer to this obviously depends upon the particular individual; not only his physical maturity but his desire. Apart from these considerations, however, I think it important to understand that it is the duty of the father to teach the son to shoot. Before the young man leaves home, there are certain things he should know and certain skills he should acquire, apart from any state-sponsored activity. Certainly the youngster should be taught to swim, strongly and safely, at distance. And young people of either sex should be taught to drive a motor vehicle, and if at all possible, how to fly a light airplane. I believe a youngster should be taught the rudiments of hand-to-hand combat, unarmed, together with basic survival skills. The list is long, but it is a parent’s duty to make sure that the child does not go forth into the world helpless in the face of its perils. Shooting, of course, is our business, and shooting should not be left up to the state.”

“It is interesting to hear certain kinds of people insist that the citizen cannot fight the government. This would have been news to the men of Lexington and Concord, as well as the Mujahedeen in Afghanistan. The citizen most certainly can fight the government, and usually wins when he tries. Organized national armies are useful primarily for fighting against other organized national armies. When they try to fight against the people, they find themselves at a very serious disadvantage. If you will just look around at the state of the world today, you will see that the guerillero has the upper hand. Irregulars usually defeat regulars, providing they have the will. Such fighting is horrible to contemplate, but will continue to dominate brute strength.”

“It has never been clear to me why increased magazine capacity in a defensive pistol is particularly choice. The bigger the magazine the bigger the gun, and the bigger the gun the harder it is to get hold of for people with small hands. And what, pray, does one need all those rounds for? How many lethal antagonists do you think you are going to be able to handle? Once when Bruce Nelson was asked by a suspect if the thirteen-round magazine in the P35 was not a big advantage, Bruce’s answer was, “Well, yes, if you plan to miss a lot.” The highest score I know of at this time achieved by one man against a group of armed adversaries was recorded in (of all places) the Ivory Coast! There, some years ago, a graduate student of mine laid out five goblins, with four dead and one totaled for the hospital. Of course there is the episode of Alvin York and his eight, but there is some dispute about that tale. (If you read it over very carefully you will see what I mean.) Be that as it may, I see no real need for a double column magazine. It is all the rage, of course, and like dual air bags, it is a popular current sales gimmick.”

“One cannot legislate the maniacs off the street… these maniacs can only be shut down by an armed citizenry. Indeed bad things can happen in nations where the citizenry is armed, but not as bad as those which seem to be threatening our disarmed citizenry in this country at this time.”

“Owning a handgun doesn’t make you armed any more than owning a guitar makes you a musician.”

“Remember the first rule of gunfighting… ‘have a gun.’”

“The police cannot protect the citizen at this stage of our development, and they cannot even protect themselves in many cases. It is up to the private citizen to protect himself and his family, and this is not only acceptable, but mandatory.”

“The will to survive is not as important as the will to prevail… the answer to criminal aggression is retaliation.”

“Safety is something that happens between your ears, not something you hold in your hands.”

“All the people constitute the militia — according to the Founding Fathers. Therefore every able-bodied man has a duty under the Constitution to become part of the “well-regulated” militia, specifically to understand and perform well with the individual weapon currently issued to the regular establishment. . . . Thus one who has not qualified himself with the M-16 may not be considered to be a responsible citizen.”

On Federal Law Enforcement Officials:

“Already a couple of the faithful have sent in checks for a foundation memorial to the innocents who perished at the hands of the ninja at Waco. … I have been criticized by referring to our federal masked men as “ninja” … Let us reflect upon the fact that a man who covers his face shows reason to be ashamed of what he is doing. A man who takes it upon himself to shed blood while concealing his identity is a revolting perversion of the warrior ethic. It has long been my conviction that a masked man with a gun is a target. I see no reason to change that view.”

“One bleeding-heart type asked me in a recent interview if I did not agree that ‘violence begets violence.’ I told him that it is my earnest endeavor to see that it does. I would like very much to ensure—and in some cases I have—that any man who offers violence to his fellow citizen begets a whole lot more in return than he can enjoy.”

– Cooper vs. Terrorism

“The purpose of the pistol is to stop a fight that somebody else has started, almost always at very short range.”

“Bushido is all very well in its way, but it is no match for a 30-06.”

“A free man must not be told how to think, either by the government or by social activists. He may certainly be shown the right way, but he must not accept being forced into it.”

“The conclusions seem inescapable that in certain circles a tendency has arisen to fear people who fear government. Government, as the Father of Our Country put it so well, is a dangerous servant and a fearful master. People who understand history, especially the history of government, do well to fear it. For a people to express openly their fear of those of us who are afraid of tyranny is alarming. Fear of the state is in no sense subversive. It is, to the contrary, the healthiest political philosophy for a free people.” – Jeff Cooper’s Commentaries, vol. 4, no. 16, December, 1996

“Hoplophobia is a mental disturbance characterized by irrational aversion to weapons, as opposed to justified apprehension about those who may wield them.” – To Ride, Shoot Straight, and Speak the Truth

“The media insist that crime is the major concern of the American public today. In this connection they generally push the point that a disarmed society would be a crime-free society. They will not accept the truth that if you take all the guns off the street you still will have a crime problem, whereas if you take the criminals off the street you cannot have a gun problem.”

“In the larger sense, however, the personal ownership of firearms is only secondarily a matter of defense against the criminal. Note the following from Thomas Jefferson:

The strongest reason for the people to keep and bear arms is, as a last resort, to protect themselves against the tyranny of government. That is why our masters in Washington are so anxious to disarm us. They are not afraid of criminals. They are afraid of a populace which cannot be subdued by tyrants.” – Jeff Cooper’s Commentaries, Vol. 2, No. 5, May 1994 “The 1911 pistol remains the service pistol of choice in the eyes of those who understand the problem. Back when we audited the FBI academy in 1947, I was told that I ought not to use my pistol in their training program because it was not fair. Maybe the first thing one should demand of his sidearm is that it be unfair.” — Col. Jeff Cooper, GUNS & AMMO, January 2002

The Complete Archive of Cooper’s Commentaries Fr. Frog’s Jeff Cooper Pages

http://sightm1911.com/lib/rkba/Cooper_Quotes.htm