NCO Extractors are Not Pretty

No ***extractor*** is pretty; in fact in the 1911 design the ***extractor*** itself is flawed in the design but it is what it is and we have to deal with it.

We have a combination of things going on with the *extractor* relative to the feeding of a cartridge into the barrel chamber. First the breach face is tilted forward on a 1911 pistol, the barrel too is tilted down not straight, we have a magazine follower with a cartridge on it pointing up and somehow in a split of a second the cartridge rim is supposed to come flush with the breach face (at a reverse angle) pointing the nose down in the process and come up **behind the extractor** in line with the chamber and the Slide close…..Now THAT is a tough way to feed a round from a magazine. But it happens….most of the time.

First let's look at the two extractors above. The one on the left is an **NCO**; on the right is a popular extractor bought from **Brownell's**. (A nice place to shop for parts by the way) Okay, do you SEE anything different??? The extractor on the left is a **Combat NCO™**. Notice it has radius sides and in fact smaller in taper; it has a narrower end where it locks into the angular recess of the cartridge; it has some polished angles on the feed ramp of it and in short it far different from the one on the right is it not? Sure it is and there are a host of reasons why.

We all have experienced "stove pipe" feeding problems. One reason could be the bullet shape. Another might be the follower and I will write about that later, and then the blame falls to the *Extractor* and in many case they would be right and a good place for the doctor to look. So let's focus on the *Extractor* and see if we can come to an understanding about it that will help you with your old gun and why an ***NCO Extractor*** might have a better solution in gun functioning.

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As I said we will deal with the ***magazine*** later and will start this discussion with an increasing problem of ammunition.

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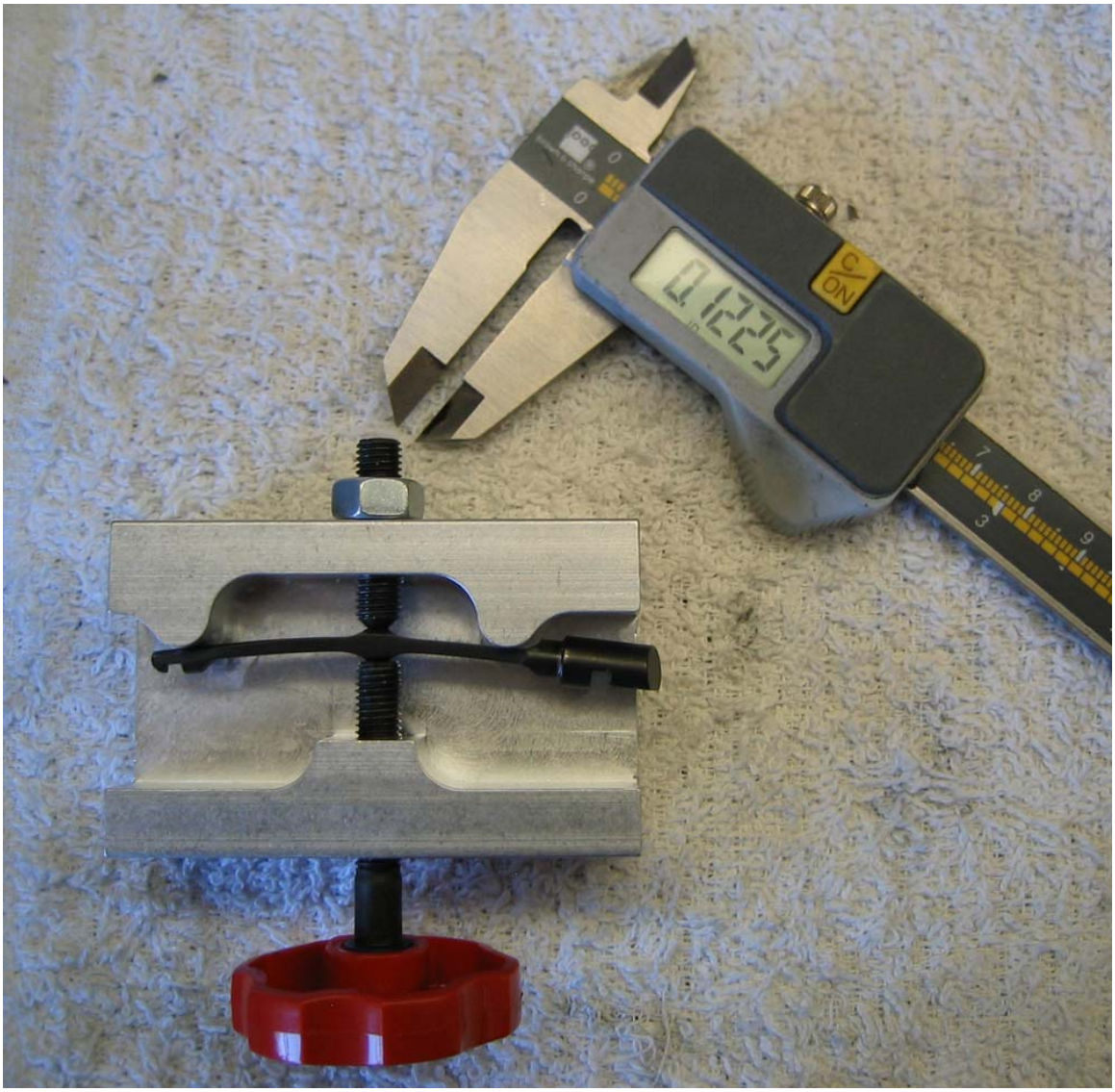
What we are dealing with today is trash ammo. It is out of diameter, has rims too wide, an extractor catch angle too short, a rim too thick, bad powder and just a problem for the pistol to digest without more help.

We have here on my bench what we call a "Bad Ammo" test using a Bad Magazine and Bad Ammo to see if it will function in the NCO. We make an ***"NCO Extractor"*** that is intended to eat garbage: Reloads that have nicks, out of round, to thick, to thin, and just junk. So when **"ours fail to feed",** you need to pack it up and look somewhere else for a solution as we have been there already and fixed the Extractor problem at this location.

So we make SURE that the case rim area is the proper depth, (most are not) we make sure that there is a greater angle on the head area to grab a case that maybe is "Out of Spec," that that $16.00 a box ammo you buy will cycle it behind the Extractor and will extract the spent case when fired. Kind of a trick that.

To begin we have to make or modify an Extractor and make it a NCO by doing these things. Then we need to direct our attention to the feeding of the case.
The case as I said is forced behind the extractor at the wrong angle, it may be too fat in width and it needs some help getting to where it will feed so we give it a ramp to start out with. But then the case rim begins to feel pressure of being forced in between the extractor itself and the opposite wall of the breach face. If the case is out of spec it is too loose and too big it just stove pipes as it stops feeding either from being too tight or * from lack of spring tension below the cartridge to help push it in. (Generally a last round affair as no spring is left to do the job) So the **NCO** must consider both a good round and a bad round being presented at random.



Extractor Spring tension is usually 1 ½ to 1 ¾ pounds. It is inspected using a tool set.

The ***Extractor*** is set into an Extractor jig and set to **NCO tension** for bad ammo according to **Karl**. It is removed as a regulated **Combat NCO Extractor.** From there it goes to a digital weight scale to check to see if it is within due bounds using a pull gauge.

Combat NCO Extractor being weight tested using a pull gauge.

A gauge of a specific width is inserted into, in this case, a CQBP. The gauge is removed under tension and examined to see if it is within a range specified by **Karl** for bad ammo.

Then the weight is read off our digital gauge to confirm what weight we set by the Extractor Jig. If not within the range specified it is returned to the Extractor Jig for correction and adjustment and returned again to the gun for testing again.

Combat NCO Pull Gauge is read from a digital scale.

Once the digital scale reads the weight number specified the gun is finally assembled for test. If the gun fails to feed properly where do you think we look next; at the Extractor or do the words ***Combat NCO Extractor*** mean enough to look elsewhere? (Smile) Exactly.

An Extractor, even an NCO Extractor hates a bad magazine!! But bad ammo we have just about fixed.

So stick around, I will get you tuned in on the 1911 A2 Combat NCO and how our quest for a perfect 1911 gun continues. Comes next the magazine, and the design to fix it; drain holes, a new spring and a follower that feeds most anything; by design.

Karl Lippard, firearm designer