

Cheap Shooting with Wax Bullets



<http://guns.freaksho.net> – by Jason Hechler

I'd shoot my center fire handguns a lot more if it weren't for the fact that ammo didn't cost so much, and they didn't make so much noise. These are problems in search of a solution. There's always the Class III, wait 60-900 days, give the ATF a specimen, pay \$200 and we might let you have a silencer approach. You won't get out with a silencer for less than \$500, so another solution is needed. I present to you the solution: wax bullets.

They're cheap (only the cost of wax and primers), they're quiet (quiet as a cap gun, quieter than a silenced .22 Long Rifle handgun), they're fairly safe (although their use creates a whole new set of dangers that I'll get to later), and finally, they're just plain fun!

So without further ado, here's my photo tutorial on making and shooting your own wax bullets!

(Please note: there is a section on safety at the bottom of this page. If you read anything here, at least read that.)

Tools and Stuff You'll Need



The tools of the wax trade.

You'll need a gun (obviously), some fired brass for that gun, tools to decap (remove the primer) the brass, a drill to open up the flash hole, wax for the bullets, primers, and a priming tool. I'll address each with more detail as I get to the step where they're needed.

One final note: there is no need to resize, tumble, clean or otherwise prepare the case as one would normally do when reloading. As a matter of fact, I would advise against running this brass through any dies at all. It'll work great just like it is.

Decapping the Brass

This is the first step in reloading your wax bullets. You'll need a hammer, some sort of punch to punch the primer out, and a shell holder. In the picture you'll see that I'm using a Lee Loader decapping setup. If you don't have one of these, worry not: a hammer, a socket that fits your brass and a nail or a small punch will work beautifully.

All you need to do is set the brass in your holder (to keep the case head off the work surface -- the primer

needs somewhere to go when it comes out), put the punch in the flash hole, and give it a good whack with the hammer. BAM, decapped brass.



A close-up of my tools. Improvise as necessary.



A good solid smack with a hammer and the primer comes right out.

Preparing the Brass for Wax

Wax bullets don't use any gun powder to fire. They rely entirely on force from the primer. Unfortunately, primers aren't made to propel bullets -- they're made to ignite powder, which then propels the bullet. For this reason, we'll need to modify the brass so that the primer will be able to propel the wax bullet out of the gun. To do this, we'll drill out the flash hole.

WARNING: This is the first of several new dangers that crop up when loading wax bullets. Be sure that you keep separate from all your other brass any brass that you enlarge the flash hole on. Using a modified case to load real bullets and powder can very easily result in a dangerous situation. I use nickel plated brass from my carry ammo for my wax loads with my XD because I don't reload them. These .45 ACP are regular brass cases that have been marked to keep them separate.



The Winchester case has the enlarged flash hole. Be very careful not to mix enlarged cases with normal cases.

Now, with that warning out of the way, lets enlarge these flash holes. I enlarged these cases using a hand held drill with a .0965" drill bit. Basically, any bit that's just slightly larger than the normal flash hole will work. I'm holding the brass in my hand in this photo -- some of you may find it necessary to use a pair of pliers to keep the brass from spinning. Make sure to hold the brass by the case head to keep it from bending.



Just drill it out -- brass is soft, so it shouldn't take much effort.

Pressing the Wax

Set the brass aside for right now; it's time to make bullets. Here's what you'll need -- a square pan with a flat bottom, some paraffin wax, and a heat source. I've found that wax, no matter how much of it, is no match for 10 minutes in a microwave. After it's liquefied, let it harden. I've found that the closer you can get the case to full (at least with short calibers like .45 ACP and .40 S&W), the better results you'll get. This wax that I'm using is around .39-.40 inches (ten millimeters or so).



Wax in the pan. This part isn't too hard.

The best time to load the cases with wax is while the wax still has a slight bit of play left in it -- if it'll *just* hold a fingerprint, you're good to go. If it's too warm, you'll get inconsistent bullets. If it's too hard, it'll be hard to push the cases into the wax, and you might, if not careful, bend the case mouth. Still, harder is better than softer.



Be careful to press the brass in squarely in order to get a good bullet.

After pressing the cases into the wax, go get something to drink. You'll want to let the wax harden up a bit. For the impatient readers, I'll continue.

There is a technique to removing the brass and leaving the wax in place inside the case. Don't twist the case -- this will just separate the wax on the inside and the outside of the case, and you'll end up with a perfect sized bullet still sitting in the pan and nothing in your case. Instead, *wiggle* the case by the case head, front to back -- you'll hear a slight crack as the wax breaks loose from the bottom of the pan. That's when you know you can pull the brass out of the wax. If you did it right, it'll look like this:



This is what your bullet will look like if done right.

Priming the Brass

NOTE: If you do any reloading, there's a good chance you've got a hand priming tool. If you don't, you should buy one. This is the only thing that I ask you not to improvise on, because accidentally blowing off a primer can cause pain, injury and damage. If you can think of another, *safe* way to prime a case without a priming tool, then proceed at your own discretion. I'll not go into alternative methods of priming here.

Now it's time to prime the brass (the last step in loading wax bullets). You can't prime the brass before loading the wax because air pressure created by the wax inside the casing will cause the primer to pop back out. Simply prime the brass according to the instructions provided with your priming tool. This is a quick and easy step.



One more prod from me to just buy the priming tool.

Time to go Shooting!

As one would probably imagine, revolvers are a bit easier to use with wax bullets -- simply load the cylinder up, and start blasting. Semi-auto users will have to live with a single shot pistol, as a primer doesn't have near enough force to cycle the gun.

Another thing to note about semi-autos is that most won't feed an empty case or wad cutters (which these wax bullets have the same profile as) from a magazine. This requires the loading of each round individually, by hand. DO NOT simply drop the case into the chamber and let the slide fly home -- this can, and probably will result in damage to your extractor.

If you are shooting a 1911 or any other gun with removable extractor, that's great! That's what I did with the Kimber I used in this tutorial. Just drop the round in the chamber, and with the extractor now removed from the gun, just let the slide down. With guns such as the Springfield XD, loading a wax cartridge is a bit trickier, as the extractor is an annoyance to remove. Here's a short tutorial on how to load up the XD:



Remove the guts from a magazine. Put the floor plate back on the magazine, and insert into the gun. You won't need the spring or follower.



Set the cartridge behind the extractor, just sitting on top of the ejector.



Using your *middle finger* (it'll wear out your trigger finger if you use it), pull the slide back, and using your other hand, help slowly let the slide down, and press against the case head -- it'll stop when it hits the magazine feed lips.



Another picture of the same maneuver. Service and Tactical XD users may have problems doing this.



Slowly let the slide down, and the cartridge should chamber nicely. It helps to keep the gun pointed straight up. I promise, all this isn't as hard as it sounds.

Now, lets get back to shooting. For this test, I was standing ~10-15 feet from the targets, which were 5 aluminum cans.



Me loading up the Kimber, about to show some cans what's for.

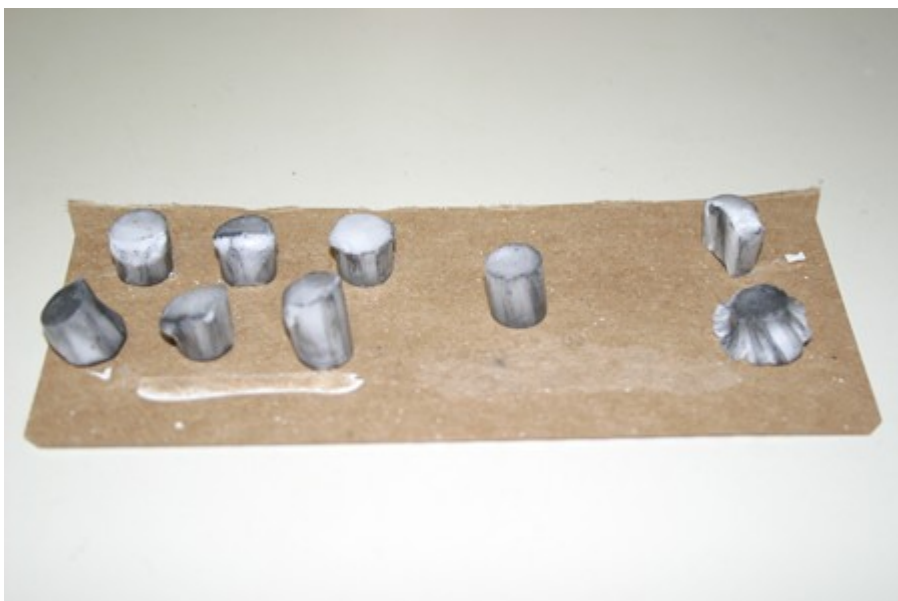
And now, for your viewing pleasure, here's a movie of me shooting up some cans with my very own, just loaded .45 ACP wax bullets!

Download video: [Wax vs. Cans](#) (32 seconds, 9.68 MB, AVI)

I'll be honest -- that was my ninth attempt at hitting all five with five shots. After I managed to do it, and my camera person went back inside, I was able to repeat the feat twice in a row. No pressure, no problem. I'll try to get a bloop video edited up when I can.

The Results

Here are some pictures of recovered wax bullets. If you shoot them at a flat piece of metal, or into a box, you can easily recover and reuse the wax to shoot again. You can only reuse the wax so many times before the contaminates and gunk from the primer make the wax too coarse and nasty to stick together anymore.



These are recovered .45 bullets from this test. The ones on the left hit cans, the ones on the right hit the deck railing. The one in the middle I fired straight up into the air just to see what it looked like when it didn't hit anything.



Some random bullets I recovered from the past couple of weeks. Some .45, some .40, some .357.

Hopefully I've provided for you a viable alternative to shooting actual lead/powder ammunition. If you live in a neighborhood, you could easily shoot these all day long, and no one would ever know the difference. No ear plugs needed, a plywood backstop, and \$0.01 a shot? Sounds like a good deal to me!

Tips and Tricks

There is a lot of experimenting left to do with these wax loads, and a lot of small "things" that you can do to maximize performance. Here's the absolute, number one tip that I can give you:

CONSISTENCY IS CRITICAL!!!

The reason it took me 9 attempts to hit all 5 cans in a row was that my bullets were inconsistent. I could see them curving after about 10 feet. If you want to get *great* accuracy and precision at all, you'll take care to be consistent. Here are some tips to get the most out of your loads:

- When pressing the case into the wax, try to stay square to the surface of the wax. The bottom of my pan curves as it gets closer to the edge, which creates inconsistent bullets. Avoid that if possible.
- All primers are different -- the first few of this batch were loaded with CCI Large Pistol Primers. The last part of the batch was done with Winchester Large Pistol "Standard or Magnum" primers. I could easily see that they shot differently.
- Longer cases, such as .357 Magnum, require "Magnum" pistol primers. With standard primers in a .357 Magnum, the performance is only adequate. With magnum primers, the performance was excellent, easily on par with the short cased .45 ACP and .40 S&W.
- After 4 or 5 loadings, the cases will get a buildup of very, very nasty wax in them. This needs to be cleaned out. Scraping and tumbling is ineffective. The cases must be boiled. Simply get some water boiling, drop the cases in, stir them up a bit, and let them sit as the water cools. Don't remove the cases until the water has cooled and the wax that has floated to the surface has hardened enough to be removed -- if you remove the cases before the wax on the water's surface hardens, you'll end up with a thin coat of wax over the entire surface of the brass. Ask me how I know...
- While you could shoot these inside (there are plastic bullets manufactured for the same purpose as the wax ones that are marketed as "able to be shot inside"), I'd recommend it only with plenty of ventilation -- primer smoke contains harmful fumes and particles, one of which is lead. Sure, it smells good (like a cap gun), but you don't want to breath in a whole lot of it.
- Rifles and wax bullets don't mix (as of yet). I've experimented with an FR-8 (a Spanish Mauser with a short, 16" barrel in 7.62 NATO), and after only 20 feet, the bullet had dropped over 3 feet. Not very exciting. I'm going to continue to experiment with various rifles though, and will provide a separate tutorial if I'm ever successful.

Stay tuned here for more tips and tricks as I discover them. If you come across a good idea, [send it to me](#).

Very Important Safety Information

Repeat after me: this is a real firearm.

Just because you're shooting wax plugs powered by a primer doesn't make the gun any less dangerous when used improperly. Just because the wax bullet only flies a hundred feet or so doesn't mean you don't have to pay attention to what's behind your backstop. Just because it's a wax bullet doesn't mean you can point the gun wherever you want.

One could very, *very* easily simply drop a live, real cartridge into the gun, and all it would take is one stupid accident and someone could end up hurt or dead. I don't need that, and neither do you. Please **BE CAREFUL** and **BE VIGILANT**.

Also, it'd be easy to accidentally throw your wax brass back in with the rest of your brass. I don't know what would happen if you loaded a powder/bullet into a modified wax case. I don't want to find out. I don't want you to find out either. Nothing at all my happen. Or your gun could blow up in your hand. Again, please **BE CAREFUL** and **BE VIGILANT**.

The origins of the wax bullet are in trick shooting and cowboy shows for people doing quick draws -- better to have a bruise on your foot than a hole in it if you accidentally pull the trigger too soon. That said, please resist the urge to shoot your friend with a wax bullet, or to have your friend shoot you with a wax bullet. It doesn't hurt too badly (yes, this is my confession) -- less than a paintball, but unless you are **EXTREMELY CAREFUL**, someone could end up seriously hurt or dead.

Check, double check, check again -- have someone else check too, if you insist on seeing if it hurts. I do not advocate you doing this at all, but since I already have, I figured I'd might as well insist that you be very, very careful.

Finally, remember to put your gun back together when you're done, and at least run a brush down your bore. There won't be huge amounts of wax in the barrel (not enough to be dangerous), but there will be some and primers are very, very dirty. And don't forget to put your real ammo and an assembled magazine in your gun when you put it back on duty. After my first day of shooting wax bullets, I simply put my XD in my holster and put stuff away. When I finished putting things away, I forgot to put my XD back in "ready-mode", and went the rest of the day with an unloaded gun with a magazine with no spring or follower in it stuck in my holster. Basically, I had a \$450 rock. Similarly, an extractor-less 1911 won't do you much good after the first round.

Remember: **GUNS ARE NOT TOYS! THEY ARE TOOLS WHICH, WHEN USED IMPROPERLY, CAN RESULT IN SERIOUS INJURY OR DEATH. THEY SHOULD BE TREATED AS SUCH.**

That said, have fun, and stay safe!

- Jason