The 457122

Also known as the "Gould bullet"

The 457122

If you own a rifle (or handgun) chambered for the .45/70 Government cartridge, you're probably familiar with this bullet.

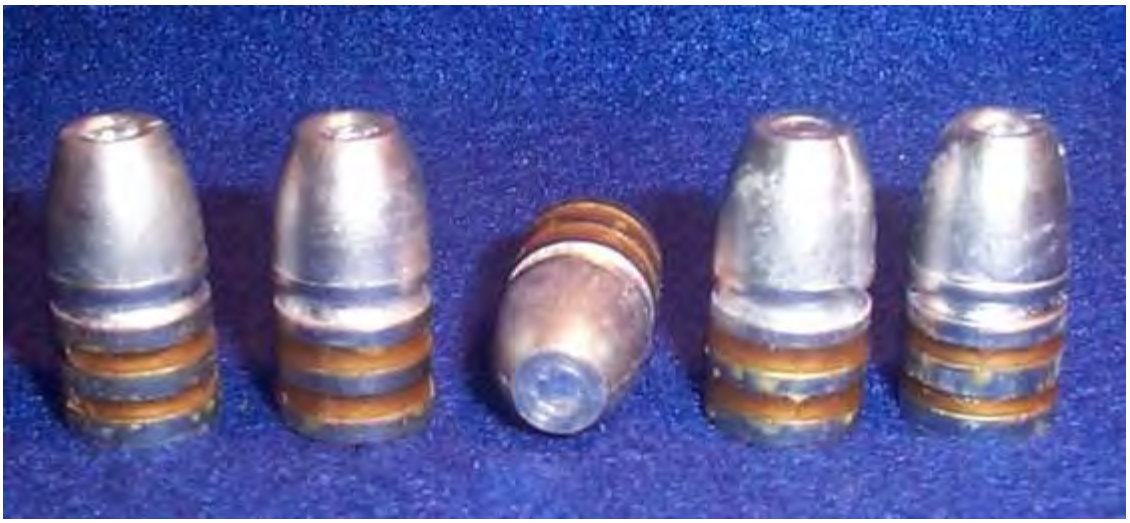
When I acquired a Ruger Number 1 in .45/70, it was one of the first moulds that I bought. If you own a .45/70 and don't have one, go out and invest in one as soon as possible as I have never had anything but good results with mine.

This mould has been around for a while and has the reputation of being a performer. Originally designed for use with the .45/70 and black powder, it was loaded for years to an advertised velocity of 1337 FPS with black powder and earned a fine reputation on large game.

I'm not getting into the hassle of who designed it and when as there's always an argument to that affect. Suffice to say that it exists and works well and that's enough for me.

I've used it in the .45/70 rifle and a Contender, I've used it in both the .458 Winchester Magnum and the .458 X2", and I've used it in the Ruger .45 Colt Blackhawk downsized to .452".

The Bullet



L-R: 457122, 457122 BB, 457122 (solid), 457192 HP, 457192 (solid)

Bullet	Weight
457122 HP	**345.4 grains**
457122 HP BB	**338.3 grains**
457122 solid	**356.7 grains**
457192 solid	**350.8 grains**
457192 HP	**335.5 grains**

This mould comes from Lyman as a plain base factory hollow point. It is the only old style hollow point mould still to be marketed by Lyman. Mine weighs right at 338 grains when sized and lubed. Most of the ones that I have seen tend to run .458+" as cast. I prefer to shoot bullets in the .45/70 at .459" so I have to "beagle" them up a bit and then size to .459".

Currently, I have 3 examples of the 457122 in my mould cabinet. Each one was made during a different period and is slightly different than the other ones. They all shoot well despite these differences.

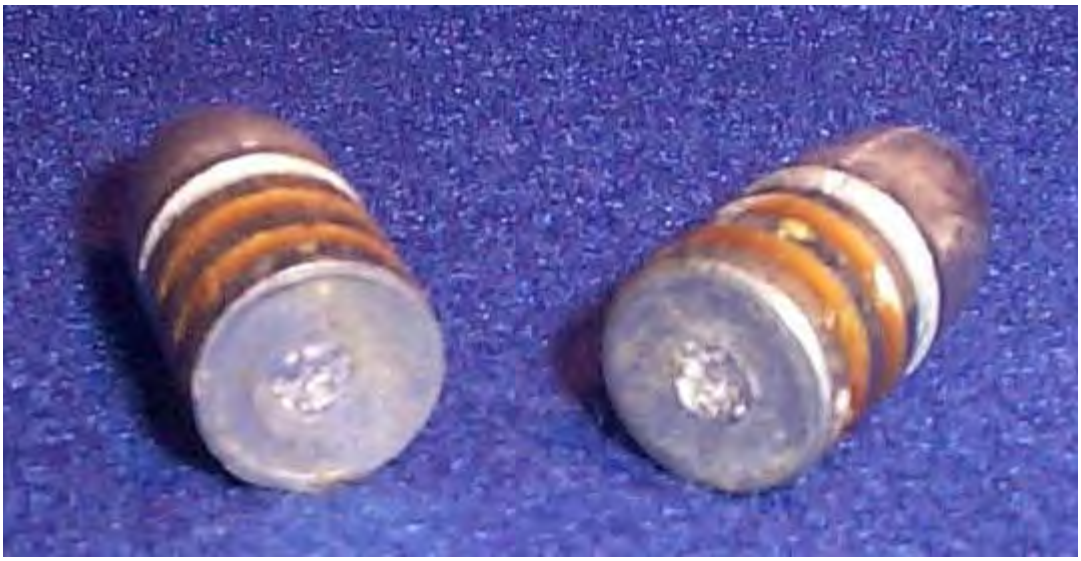
I use the block numbers to differentiate between the moulds on hand.

#76

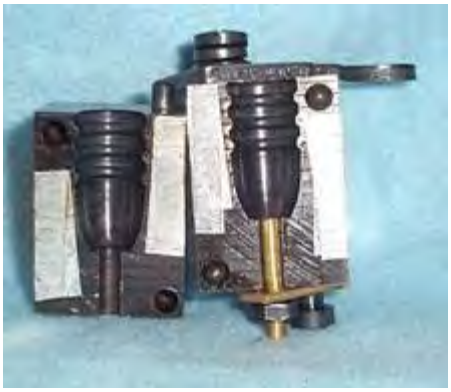
This is a factory hollow point with a factory pin assembly.
It has a .140" diameter pin and makes a cavity .375" deep.
It is one of the earlier Lyman moulds as a small block was used and it overheats very quickly.
This is a new mould and my "spare" so no weight is available, as I haven't cast with it yet.

#212

This is an old Ideal factory hollow point with a homemade pin assembly
It has a .140" diameter pin and casts a bullet with a .450" deep cavity
This is a bevel base mould.
It has a small block and it overheats very quickly which is a fault with the early Lyman/Ideal moulds. Current moulds are cut using big blocks. A homemade plug is with it for making solid bullets as well.



L-R: 457122 Plain Base, 457122 Bevel Base



457122 Equipped with a homemade brass plug
(The white squares are “beagle tape”)

#940 (not pictured)

This is the newest mould. It is a factory hollow point with the factory pin assembly.
It has a .140” diameter pin and makes a cavity .475” deep. This mould has the larger blocks and wears a ¼” thick steel Bob Roller sprue plate. It dissipates heat much better and casts a lot better than do the smaller blocks.

The Clone

You probably noticed that one of the moulds I have has a plug for making “solid” bullets. Apparently this was a desire that was put to Lyman years ago by shooters and they make a solid version of the #457122 and numbered it #457192. It is the same bullet without the hollow point.

This is a “beagled” 459192 HP with a plug.
Hollow point and solid bullets are in front

Other Modifications

Over the years, many experiments have been done with this mould and bullet design.

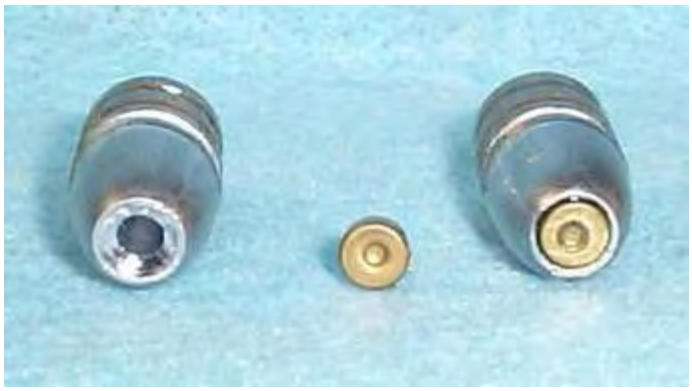
I’ll show a couple of them below:

Enhanced Expansion Bullet

In the 60s, experiments were done using the 457122 as a test bed to allow enhanced expansion and more reliable opening of the hollow point. These experiments utilized fluids and in some cases, wax, in the hollow point cavity. Then, inserting a fired primer in the cavity that has been counter bored to the appropriate depth with a .210” diameter drill in a drill press sealed the hollow point cavity. As a final step, clear lacquer was used to seal the primer/bullet junction. Various liquids were tried. Among these were hydraulic fluid (don’t know how that would taste in deer meat), water, oil and vegetable oil. I used canola oil for the ones that I tested. I’ve tried these bullets and have noted no miraculous results and don’t feel that it’s worth the effort.

A flat top punch is used to seat the primer after the fluid has been added.

The theory behind these experiments was that upon impact, the weaker nose would expand hydraulically under pressure as the trapped fluid had no place to go except to the weakest point which was the sides. More rapid expansion resulted. I’ve tried some of these and it works but they are a lot of trouble to make.



Left: 457122 counter-bored with .210" drill for enhanced expansion mod
Center: Fired large pistol primer
Right: 457122 filled with canola oil and sealed with a fired large pistol primer

The Taboo Subject

Often this question arises on the various cast bullet sites. My only comment is "yes, you can". Notice that I said "you". This paragraph will be vague for obvious reasons.

Warning: These projectiles are construed as "destructive devices".

If you do experiment with this type of device, it is to be used only single loaded and not through a magazine.

A drop hazard exists so handle and transport the rounds carefully.

Bullet should be loaded in the cartridge prior to completing the round and Elmer's glue is used to hold the blank in the cast bullet.

A ricochet or "bounce back" hazard may also exist when using this type projectile.

Left: .22 black powders blank
Center: Dab of Bullseye
Right" 457122 counter-bored halfway through bullet with a .225" diameter drill

That's all I'll say about that subject.

Drilling Hollow Points Using a Drill Press

Occasionally, you'll want to drill a hollow point or open it for some reason. This can be done with a drill press only from my experiences. Lead does not drill well from my experiences but a few bullets can be done if you need them.

You'll need some way to hold the bullet. The best method I have found uses Channel-Lok pliers (aka water pump pliers) with the jaws padded with tape.

Water pump pliers with padded jaws

Plugging a Hollow Point Mould

Many of you will probably desire to shoot a "solid" bullet for practice and plinking (yes, I plink with a .45/70). Plugs are fairly easy to rig for any hollow point bullet.

The brass plug assembly pictured above is probably the handiest. It's a captive pin and doesn't have to be inserted and removed each time. Just cast as in a normal manner.

Plug pin

If you have common hand tools a cut off pin assembly such as the one above can be fabricated at home with materials from your local hardware and Walmart. That's where these came from.

If You Don't Like the 457122

If you don't like the 457122, there are other options in this design available. Paul Mathews has stated in his articles on the .45/70 that a 350 grain bullet is about the optimum weight for hunting with the .45/70. The 457122 is pretty close to the ideal weight.

If you want a lighter weight bullet, Lyman has the 457191 (mine is 298.5 grains) that is a solid, plain based version of the 457122.

Then, if you want to go heavier and still maintain the same design there's the 457193 (mine is 419 grains in the solid version and 390 grains in the HP version), which is also a solid, plain based version of the 457122.

A competent machinist can modify either of these moulds for a hollow point version.

Alloy

As I previously mentioned, this bullet was designed to open on deer and bear sized game at black powder velocities.

As a result, I tend to cast mine soft. I use wheel weight alloy and cut it with a bar of pure lead per pot. A bit of tin is added until they drop from the mould completely filled out.

With this alloy, I have recovered some pretty spectacular classic mushrooms.

457122 recovered at 100 yards
From .45/70 at 1400 FPS

How much more expansion could you want?

Sabots

Yes, these bullets can be used in sabots for muzzleloaders. Occasionally, I'll drain the pot and add a bunch of pure lead and cast a couple of hundred for a friend in Vermont to use in sabots. These are then sized in a .450" sizing die and shipped off to him (minus any lube) for use in the ML.

One doe hit several years ago with one darn near lost her head. He said the recovered bullet looked like a wad of lead bubble gum.

Pistol Use

Those of who are disciples of Elmer Keith know that he used the Lyman 457191 in the .45 Colt Single Action until he unhinged a top strap on a SA Colt with one and a little too much black powder.

I was loading some 335 grain .45 Colt bullets several years ago and wondered what would happen if I downsized the 457122 to .452". I did and it worked out well.

Specifications for this load:

.45 Colt case
Ruger Blackhawk .45 Colt
457122 sized to .4525" and weighing 338 grains
17.0 grains of Lil Gun
Winchester Large Pistol Primer
1.739 Overall Length
Velocity: 1,000 FPS
Accurate for plinking at 100 yards

Note – This was a starting load from Hodgdon's site for a 335 grain bullet but packs plenty of weight and velocity for my use.

In Conclusion

As you can probably derive from my ramblings, I like the 457122 bullet design. It's probably the best bullet for hunting and general use in the .45/70. The RCBS 45-405-FN bullet is very close behind it in my estimation if you want and can live with gas checks.

With the proper alloy and the mould "beagled" to allow a .459" diameter bullet, I don't think you'll find a better .45 bullet for rifles than the 457122.

It has served our forefathers well in the past and it will continue serving our kids well into the future…as long as the .45/70 Government cartridge exists.

John Goins/akabeagle