

The Gemmer Trapdoor Hawken Building & Hunting with the “Modern Rifle”

By Josh Woods



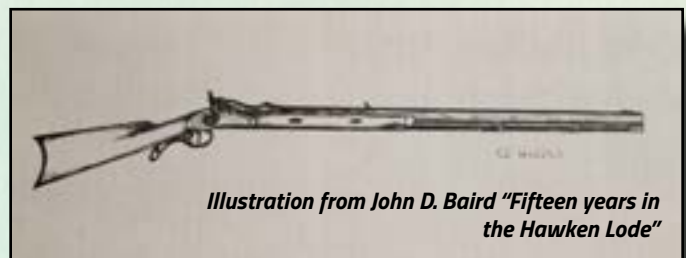
My fascination with the Hawken Rifle started way back in 1979; I was 10 years old when my mom and dad gave me a .45 Caliber TC Hawken Seneca for my birthday. Since then, I have hunted and enjoyed rendezvous and the primitive hunting persona.

My dad built a full stock Hawken back in 1981 using a Bill Large J.J.J. barrel and Birdseye maple stock. I guess that gene passed on. My first Hawken build was a .58 caliber Rocky Mountain Hawken with a Goodoiien barrel. That rifle is crazy accurate and I have shot a bunch of deer with it including a 175” B&C buck in the late season. Not an easy feat.

As for a brief Hawken history, the hay-day of the Hawken Rifle was the 1840’s and 50’s. With sales dropping off in the early 60’s with the advent of Paper and Black powder cartridges. John Phillip (J.P.) Gemmer came on the scene and purchased the Hawken Shop from Sam Hawken after the Civil War. Gemmer produced Hawken Rifles using leftover parts and techniques, knowing all the while that rifle design was in a technology eclipse. Coming on the rifle scene was the Spencer, Sharps, Rolling Block, Erskine Allen Trapdoor Conversion and contract Springfield Trapdoor rifles, making muzzleloading rifles obsolete. Gemmer needed to do something drastic in these changing times and to keep his Gun and Sporting Goods business afloat.

A gunsmith himself, J.P. Gemmer, with uncanny way of frugal adaptation, began using

the above actions coupled with the familiar Hawken Rifle frame, lines, and components to produce modern rifles with a traditional flare. The Gemmer Trapdoor Mountain Rifle was one of these rifles, and the rifle, in my opinion, which best shows Gemmer’s adaptation of modern design.



The more I read and researched the Hawken rifle, the more the yearning for a Gemmer Trapdoor Hawken came into existence. The first actual picture of a Gemmer Trapdoor Hawken that I remember seeing was on Page 83 of John D. Baird’s book “Fifteen Years in the Hawken Lode.” That picture alone was a game changer for me, the direction J.P. Gemmer went with this rifle was superb. It was all Hawken, but with a trapdoor. This direction was not only an outstanding way to incorporate new technology; it was a great business move. Building a modern rifle using parts on hand and familiar techniques provided success with little or no extra machinery or overhead costs.

Very few Original Gemmer Trapdoor rifles are in existence, making them prohibitively expensive, if I wanted one, I had to build it myself. After a year or so of research and parts scrounging, I set out to build my own chambered in 50-70 Government cartridge.

My first stop for build advice was an email to John Bergmann of Longrifles LTD in Granville, Tennessee. John is a leading authority on the Gemmer Trapdoor Hawken Rifles and does beautiful "From Scratch" rifle building. He has built the most striking examples of this rifle, and MANY other PC rifles that I have ever seen with beautiful online pictures available of his work. After several emails and phone calls to John, he had given me pointers on some trouble areas and what to watch out for with the Trapdoor Gemmer build. He also got me get in touch with a man named Bobby Hoyt, the barrel maker.

Bobby was instrumental to my build also, an accomplished and well respected barrel maker and re-liner, Bobby helped me find an action, and agreed to build the barrel. We decided on a 1" octagon, 1-32" Twist for 500 grain bullets, and 29 inches long for a handy, light, and accurate length. The rifling kind of threw me for a loop, but Bobby recommended a 3 groove barrel for the 50-70 as it was original. Going with his recommendations, we did just that.

The action is a Springfield U.S. Model 1868 "Long Nose" 50-70 action. Once you start to research, you start finding out a LOT about the differences in the trapdoor actions! The Long Nose action was the first Armory produced action for the Trapdoor rifles and proprietary to the 50-70 cartridge. Production ran from 1868 to 1870 with 53,000 rifles produced, making the Long Nose action extremely hard to come by.

Research and study of pictures and articles continued as Hawken parts started coming in. I had ordered primarily from Track of the Wolf. I went with the Kit Carlson M4 Fancy maple stock, and iron mounting set. One big thing



that John told me about the build was the hammer needed for the build. John told me that to make things work right, I needed to use and modify a Blickensdorfer Schuetzen hammer for the Hawken lock.

The Blickensdorfer has a different throw, unlike the Bridger and other Hawken hammers. Although they look the same at a glance, they are in fact not. The Blickensdorfer had to be bent into alignment with the firing pin, and lengthened to be able to strike it during that stage of alignment. The Blickensdorfer hammer was backordered and took considerable time to come in.

The Barreled action came in from Bobby and was exactly as we talked about. Bobby had welded a Hawken tang to the action, omitting the Trapdoor tang as it was not need-

ed. The barreled action inlaid perfectly in the stock took considerable time to ensure lock, hammer, and firing pin alignment. After the barrel, action, and lock was fit and aligned, the rest of the build was all Hawken.



For the metal finish, I decided to do the antique finish. I didn't go overboard on prepping the metal. I wanted nicks, hammer forging marks, scratches and file mark metal gouges here and there. I placed all metal in non-diluted white vinegar for 12 hours or so, with the barrel plugged of course. After the rinse, the metal had a French grey appearance that looked great and set the foundation for the metal finish. Homer Dangers browning solution was next. Once it had a good brown to it, I boiled the metal in water, as soon as it came out; I carded everything off with #0000 steel wool leaving the blue/brown finish in non-wear areas. After that, browning solution was applied and carded until I was satisfied with the look. All wear areas were hit hard to completely wear off browning. I used 600 grit wet/dry sandpaper to shine up all of the high-wear areas. This method gave me the patina of a 150 year old rifle.

Various LMF wood stains were applied to the fully prepped wood careful to not have a fully pristine stock. Keeping in mind all of the wear areas where finish needed to be thinned giving the look of being carried and hunted with. After I had the stock where I wanted it I finished the stock with LMF sealer and stock finish creating that low gloss, well-worn and highly used, but taken care of appearance.

Final assembly is always a stressful time for me. I want everything to be perfect and be sealed for use in the field. All metal was bedded carefully to the stock to completely seal non exposed wood from moisture. The triggers and lock were tuned and functioned perfectly; I installed the period correct Hawken adjustable rear sight and German silver front sight. After the Trapdoor hinged breech block and extractor were installed, the Gemmer that I once envisioned came to existence. I turned away from the completed rifle, and just sat down to look at it.

Being a Black Powder Cartridge Rifle (BPCR) guy, I had everything on hand to start load development. The groove diameter of the barrel was .512 and verified by slugging a 62 caliber ball through the barrel. The bullet mold that seemed to give the best results was the Lee 2-cavity 515-500. It threw good "as cast" bullets and carried plenty of SPG lube.

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Casting 30-1 lead/tin, my bullets were weighing in at 520 grains at an 825 degree pour.

I loaded up a batch of test loads ranging from 65 to 70 grains of Olde Eynsford 2F, CCI BR2 primers and using a .030 Walters Wad. It didn't take long to see that 68 grain powder charge was going to be the clear winner, shooting 1" to 1 1/2" at 50 yards

consistently. After final sight in and sight filing, I was ready to do some serious shooting.

The 50-70 cartridge is a historically proven game killer. It has to do with the weight of the bullet and velocity which are a perfect match for shock effect with little wasted energy. For example, the Taylor Knockout Formula states that a 45-70, shooting a 405 grain bullet at 1325 fps has a TKO of 35. The 50-70 on the other hand shooting a 525 grain bullet at 1400 fps has a TKO of 55 which is a considerable increase in killing power, surpassing even the 45-110 shooting a 525 grain bullet with a TKO of 46 at the same velocity.

With shooting the 50-70, I was happy to learn that once sighted in dead on at 50 yards, the Hawken adjustable rear sight was perfectly set up according to the notches on the sight. All the way down was dead on at 50, First sight step was dead on at 100, second was 150, third was 175, and fourth step, favoring the front sight a tad tall, 200. Each taller graduation of the sight was giving me an extra 25 yards past 100 which was easier to remember when hunting. Open sight shots at a deer's vitals past 200 yards, in my case, just aren't doable anymore. Even then, the conditions would have to be absolutely perfect for me to do so.

This reminds me of a conversation I had with a great friend of mine, Mr. Bill Bagwell. Ol Bill has hunted and been on many a successful Black Powder Cartridge hunts all over the United States and Africa. I asked Bill one day how he sights in his BPCR hunting rifles. This is what he told me.

"Josh my boy, here's how to do it...set you up a target at 40 to 75 yards where you can get a PERFECT sight picture. Once you can bust an egg at 50 yards, you know you can put one behind the ear of every animal that walks on the face of the earth. And 50 yards and closer is where all the killins dun."

I have always followed his advice on load development and sighting in and he has never failed me. I am very lucky to have a walk through novelty range on my property with steel targets ranging from 15 yards to well over 300. I took the Gemmer Trapdoor on my Woods Walk and had a great time spanking that steel with the 50-70 on multiple excursions.

One thing that I REALLY like about the Gemmer design is the RAMROD! You can swab the barrel any time you want and don't have to pack around an extra ramrod to clean your BPCR barrel. Cleanup is a breeze, running 3 or 4 spit patches down the barrel, a couple dry, and then a light patch of Hoppes #9.

After weeks of practice I sat the Gemmer aside and worked on other rifle projects anxiously waiting for November deer season. In the meanwhile, I would take it out shooting from time to time and prepping it for deer season. I installed a muzzleloader sling, which I really like, and put whiteout on the rear face of the front sight for the dim woods. The Trapdoor Gemmer, ready to hunt, weighs in at 11 pounds on the nose.

Hunting with the Gemmer Hawken was very enjoyable. It was just like hunting with any old Hawken rifle, except you didn't have to unload it and recharge it on a regular basis like you do with loose powder. I hunted with it for a few days and felt very confident and passed a real nice 8 pointer at 40 yards waiting for a big buck. One morning the forecast was for high winds and high temperatures. About the worse deer hunting conditions you could come up with. I decided to hunt behind the barn and still-hunt. It was breaking daylight as I slipped up to an oak thicket and saw 2 nice does milling around eating acorns. Just by chance, I had two doe tags in my pocket. The 25 MPH wind hid my approach as I eased up behind a brush pile. I laid down behind a log and picked the closest doe, she was right at an estimated 65 yards. I cocked the hammer, set the rear trigger and put the blade front sight right behind her shoulder. At the shot, she dropped instantly. I opened the trapdoor, caught the spent case and put in a fresh 50-70 cartridge. The other doe was trotting around and ended up coming closer to me than the other doe. She stopped looking down through the woods at 40 yards. With a dead solid rest and her looking the other way, it was a pretty



simple shot. She dropped too. The 50-70 Government cartridge was living up to its reputation of lightning fast kills.

In January, my sons and I headed to The 4 Amigos Ranch in Eagle Pass Texas for a Wild Hog and Axis deer hunt. I was very interested in shooting a big old hog or two with my Gemmer and to hunt with it a little more. At our first setup, my youngest son and I were hunting from an elevated tower blind watching various Sendaros. After about an hour, a group of 12 pigs came in at about 80 yards. Since they were on my side, I got the first shot. About then, a bigger boar stepped out into the Sendero at 76 yards. I cocked the hammer, set the trigger and put my front sight tight against his front shoulder. At the shot, he dropped instantly. I pulled the ramrod and cleaned my barrel as we watched for more hogs and hunted the rest of the evening.

The next day, we were hunting mid-day and had a herd 6 of Axis deer come in. I was the only one interested in taking an Axis, so I was up for the shot. The herd came into about 45 yards. I picked out the biggest doe with the best hide and touched one off as she was slightly quartering. The Gemmer once again did not fail to perform.

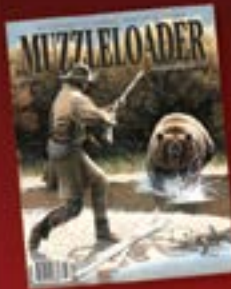
After hunting with the Gemmer Trapdoor Hawken for the last 3 months, I have come to the conclusion that the rifle itself is a pleasure to hunt with. It is quick handling, easy to maintain and keep the barrel clean and defouled to maintain top accuracy. The weight is that of a Hawken rifle of the same design. It's easy to load and unload and works well in the heat of the moment, and the 50-70 Government cartridge lives up to its reputation of lightning fast kills and great accuracy. I absolutely love hunting with it and its performance. Great job J.P! MB



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